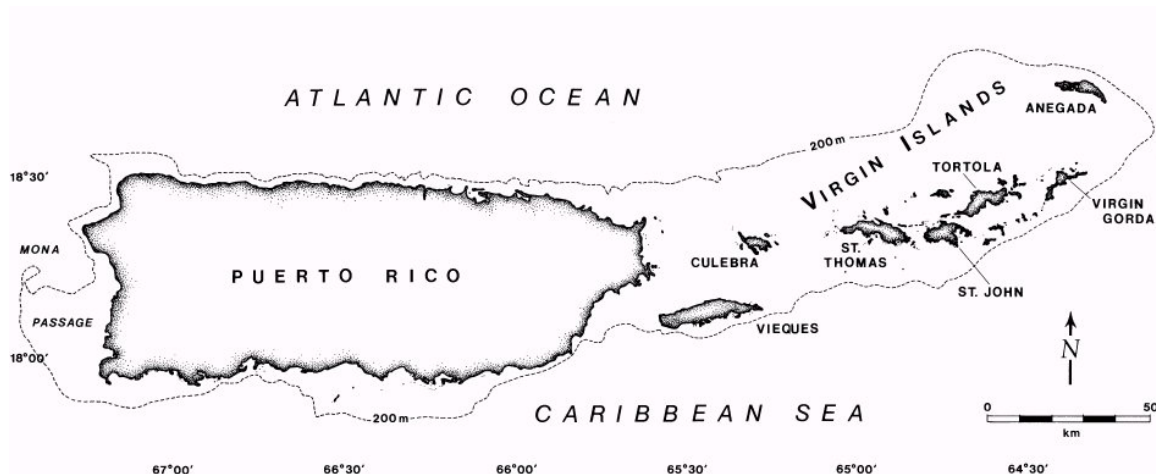


**Annotated Checklist of Shallow-water Marine Fishes
from the Puerto Rico Plateau
including Puerto Rico, Culebra, Vieques, St. Thomas, St. John,
Tortola, Virgin Gorda, and Anegada**



George D. Dennis III
george_dennis@usgs.gov

Florida Caribbean Science Center
USGS-BRD
7920 NW 71st Str.
Gainesville, Florida 32653

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INTRODUCTION

This checklist is a compilation of records of marine fishes from the Puerto Rican Plateau. The Puerto Rican Plateau is a shallow-water geological platform comprising the easternmost part of the Greater Antilles in the Caribbean (Fig. 1). The emergent portion of the plateau is composed of Puerto Rico, Culebra, Vieques, St. Thomas, St. John, Tortola, Virgin Gorda, Anegada, and assorted smaller islands. Excluded from this list are the islands of the Mona Passage, Mona, Monito, and Desecheo; these islands are under the political auspices of Puerto Rico, but are separated from the plateau by at least 700 m water depth and may have an unique ichthyofauna. These islands will be treated in a separate publication. Also omitted from the list are records from St. Croix (U.S. Virgin Islands) that is separated from the plateau by a 1700 m water depth and may be a separate biogeographical entity.

To further limit the scope of this list I have restricted the area of coverage to shallow-water fishes less than 200 m deep, that would be found on the continental shelf or within 12 nmi (22.2 km) of shore (i.e., associated with land). Due to the narrow nature of the shelf along the north and south coasts, some truly oceanic species are included in the list.

I have reviewed ecological, as well as, systematic literature for records from the study area, but have excluded general fisheries papers when the fish are not specifically identified by scientific name. Where only limited data are available for a species from the literature, additional information from museum collections are used to supplement the records.

The species list provides information on: presently accepted scientific name, author(s) reporting the species, published scientific name, number of individuals collected (in parentheses), size range in standard length (SL), fork length (FL), or total length (TL) (in parentheses following the colon), method of capture or more generally collected or

observed (obs.), comments, location collected, date of collection, if pertinent, present location of specimens (in brackets), and finally common names in English and Spanish. Museum collections are abbreviated according to Leviton et al. (1985). English common names follow Robins et al. (1991) and Spanish common names are from Erdman (1983). I followed the nomenclature of Robins et al. (1991), in general, but where I diverge I provide an explanation in the endnotes. As much of the ichthyology literature is difficult to obtain by island investigators I have provided considerable annotation on nomenclature, especially on taxa that have been misidentified in the past.

All Puerto Rican locations are noted without direct reference to Puerto Rico, where as all other locations are listed by major island locality. Locations reported herein are shown in Figures 2-5.

The objectives of this checklist are 1) to bring together the diffuse literature on the marine fishes for the area, 2) update scientific names and provide current synonymies for the species, and 3) provide a documented list of species of the region to be used for biogeographical comparisons and simplify identification on new specimens.

The species list is in phylogenetic order in the Adobe Acrobat file. You will need Acrobat Reader <[link to Adobe Acrobat web page](#)> to read this file. There is an index by family on the left side where you can click to go directly to the family of interest. Also, the whole document can be searched for specific text via the Tools – Find menu or Ctrl-F key.

I have provided this list as a web document to make the information more readily accessible to students of marine fishes in the Caribbean and to receive further input from colleagues on the format and content of the list. I welcome any comments, corrections, questions, or suggestions. Please contact me via email at george_dennis@usgs.gov.

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History of Ichthyology in Puerto Rico

The first fishers of the region were no doubt the indigenous natives, the Taino Indians. The natives lived along the coast and were intimately familiar with the local marine fauna with the remains of *Harengula*, Belonidae, *Gobiomorus*, *Haemulon* spp. and Balistidae common at indian sites in Puerto Rico (De France, 1988). Over 60 taxa of marine fishes have been found at prehistoric sites throughout the Caribbean (Wing & Reitz, 1982). European explorers came on the scene when Columbus reached the southern shore of Virgin Gorda the evening of 16 November 1493. He did not land at that time as he had just encountered the fierce Carib Indians at Salt River, St. Croix. Instead, he sent light-draught vessels through the islands to explore while the main fleet hove-to offshore. The fleet made its way west along the southern edge of the Plateau anchoring and landing at Boquerón on 22 November, 1493 (Morison, 1942). While no fish were specifically described from the Plateau, Columbus mentions the hunting of turtles and manatees with the fish hound (*Echeneis naucrates?*) (Morison, 1942, 131-132) and harpooning giant rays (Morison, 1942, 327). Oviedo (1526) reviews the earliest fish and fisheries from the region referred to by common names that leave some doubt as to species identifications. It was not until drawings by John White is their adequate information to confirm the identification of species from the region. White visited Puerto Rico in 1584 and 1585 while on expeditions with Sir Richard Grenville and Sir Frances Drake and produced ten marine fishes color drawings (Hulton, 1984). While none of the drawings were the basis of present day descriptions they can be directly associated with present day names. Linnaeus (1758), the father of modern systematics, described fishes from Jamaica and the Bahamas based on White's drawings, but none were based on specimens from this area. The first records of fish from the region in a scientific account are found in the volumes of Cuvier and Valenciennes.

Cuvier and Valenciennes

Cuvier, the father of modern comparative anatomy, received specimens from French island possessions and expeditions from around the world (Bauchot et al., 1990). Auguste Plée (Pley) was one voyager-naturalist that sailed to the Antilles in 1820 and visited St. Thomas and Puerto Rico sending fish specimens back to France (Pietsch 1995). In the 22 volumes of "Histoire Naturelle des Poissons" Cuvier and Valenciennes (1828) reported on 48 taxa from the area, 33 from Puerto Rico and 21 from St. Thomas. Of these 27 were type specimens and nine remain as good species (Table 1).

Poey

Dr. Juan Gundlach of Cuba visited the Puerto Rico in 1873 and 1875-76 where he collected a range of fauna (Gundlach, 1881) (see Evermann and Marsh, 1900 for further details). The fish collection was studied by the eminent Cuban ichthyologist Felipe Poey (1881). There were 105 taxa reported of which 95 were new and ten previously reported by Cuvier and Valenciennes. Two new species, *Monosira stahli* and *Antennarius inops*, were described but both have since been synonymized.

Table 1. Type species reported from the Puerto Rican Plateau by Cuvier and Valenciennes.

<u>Present Name</u>	<u>Original Name</u>	<u>Location</u>
<i>Haemulon album</i>	<i>Haemulon album</i>	St. Thomas
<i>Eugerres plumieri</i>	<i>Gerres plumieri</i>	Puerto Rico
<i>Eugerres brasilianus</i>	<i>Gerres brasilianus</i>	Puerto Rico
<i>Megalops atlanticus</i>	<i>Megalops atlanticus</i>	Puerto Rico
<i>Microspathodon chrysurus</i>	<i>Glyphisodon chrysurus</i>	St. Thomas
<i>Mugil liza</i>	<i>Mugil liza</i>	Puerto Rico
<i>Scarus coelestinus</i>	<i>Scarus coelestinus</i>	St. Thomas
<i>Scarus guacamaia</i>	<i>Scarus guacamaia</i>	St. Thomas
<i>Scorpaena grandicornis</i>	<i>Scorpaena grandicornis</i>	Puerto Rico

Stahl

Dr. Augustin Stahl, an active medical doctor in Bayamon, was the first resident of Puerto Rico who made zoological collections and reported on them in the literature. Stahl (1883) reported on ninety fish taxa with seven new records from Puerto Rico in his collection.

Evermann and Marsh

Following the Spanish-American war Puerto Rico came under the control of the United States. A fisheries survey was quickly scheduled and the U.S. Fish Commission steamer FISH HAWK was dispatched in 1898 with Dr. Barton W. Evermann as naturalist in charge. The itinerary of the visit is summarized below from Evermann and Marsh (1899).

The work of Evermann and his assistant M.C. Marsh resulted in two publications. The first entitled "Descriptions of New Genera and Species of Fishes from Porto Rico" with a publication date of 19 December 1899 included 20 new taxa of which eight are still recognized (Table 3).

In addition to the fish collected on the FISH HAWK expedition Evermann and Marsh report on 37 species collected by George Gray during the winter of 1899-1900 in San Juan. This complete report on the fishes of Puerto Rico was first issued as document 451 of the U.S. Fish Commission on 15 December 1900¹. The report was so well received that Congress ordered a special edition of 7,500 copies be printed. The report contains 49 color plates and 115 black and white drawing were produced but unfortunately were destroyed by fire before being able to be included in the text. Two hundred and sixty-three species are reported with 52% (132) being new to the region. Thirteen new species were described of which seven are still recognized (Table 4).

Table 2. FISH HAWK expedition itinerary in Puerto Rico during 1899.

<u>Sampling Dates</u>	<u>Locations Visited</u>
2-17 January	around San Juan

18	January	Aguadilla	
19-24	January	around Mayagüez	
25	January	Ensenada del Boquerón	
26-27	January	Puerto Real	
28-29	January	Bahía Guanica	
30	January - 2 February	Ponce	
3-4	February	Arroyo	
5	February		St. Thomas
6	February	St. Thomas to Vieques	
7	February	Isabel Segunda, Vieques	
8	February	Vieques to Culebra	
9-12	February	Culebra	
13-15	February	Hucares	
16-18	February	Fajardo	
19	February		St. Thomas
<u>20-22</u>	<u>February</u>	<u>San Juan</u>	

Table 3. New species described in Evermann and Marsh (1899).

Current Name

Original Name

Location

Gear

<i>Bollmannia boqueronensis</i>	<i>Bollmania boqueronensis</i>	off Puerto Real	dredge
<i>Coralliozetus cardonae</i>	<i>Coralliozetus cardonae</i>	Isla Cardona, Ponce	hand?
<i>Enneanectes jordani</i>	<i>Gillias jordani</i>	Isla Cardona, Ponce	hand?
<i>Microgobius meeki</i>	<i>Microgobius meeki</i>	off Culebra	tangle dredge
<i>Paraclinus cingulatus</i>	<i>Auchenistius cingulatus</i>	Ponce, Puerto Real	hand?
<i>Serranus baldwini</i>	<i>Prionodes baldwini</i>	off Culebra	tangle dredge
<i>Starksia culebrae</i>	<i>Malacoctenus culebrae</i>	off Culebra	hand?
<u><i>Stathmonotus stahli</i></u>	<u><i>Auchenistius stahli</i></u>	<u>Ponce, Puerto Real</u>	<u>hand?</u>

Table 4. New species described in Evermann and Marsh (1900).

<u>Current Name</u>	<u>Original Name</u>	<u>Location</u>	<u>Gear</u>
<i>Ichthyapus ophioneus</i>	<i>Sphagebranchus ophioneus</i>	Mayagüez	dredge

<i>Anchoa lyolepis</i>	<i>Stolephorus lyolepis</i>	Culebra	?
<i>Neomerinthe beanorum</i>	<i>Pontinus beanorum</i>	San Juan	beam trawl
<i>Scorpaena albifimbria</i>	<i>Scorpaena albifimbria</i>	Culebra	tangle dredge
<i>Scorpaena bergii</i>	<i>Scorpaena bergii</i>	Mayagüez, Culebra	seine
<i>Emblemaria pandionis</i>	<i>Emblemaria pandionis</i>	Vieques	tangle dredge
<u><i>Citharichthys arenaceus</i></u>	<u><i>Citharichthys arenaceus</i></u>	<u>Mayagüez, Aguadilla, San</u>	<u>Juan ?</u>

Specimens from the FISH HAWK expedition were deposited in the U.S. National Museum (USNM) and Stanford University collection (now in the California Academy of Science (CAS-SU) collection) and are still accessible. Duplicate specimens were deposited in the Academy of Natural Science Philadelphia (ANSP) in 1901 (Fowler, 1901).

Nichols

J.T. Nichols visited Puerto Rico from 8 July to 5 August 1914 as part of a biological survey of the island sponsored by the New York Academy of Sciences and the Puerto Rico government. Most of the field work was near San Juan with excursions to Ponce, Guanica, and the mouth of Río Loiza. He reports on three marine species in a short note (Nichols, 1915a) and seventeen other species in a more detailed paper (Nichols, 1915b). Two new species were described but have since been synonymized. These materials were deposited at the American Museum of Natural History where they can still be found. The fishes of Puerto Rico were reviewed in two volumes of the New York Academy of Sciences “Scientific Survey of Porto Rico and the Virgin Islands” including the above records and a summary of previous work (Nichols, 1929, 1930). Also included in this work were records from St. Croix though little was added to the previous work of Cope (1871).

Silvester

Charles F. Silvester visited Guanica in May and June 1915 under the auspices of the Carnegie Institution of Washington collecting over 100 taxa (Silvester, 1916). Seven new taxa were named but only two survive today, *Phaeoptyx conklini* and *Ophioblennius atlanticus macclurei*. The records of the 1916 paper were reiterated in a 1918 publication with plates of new species, additional information, and some name changes. Three new taxa were listed in 1918 including one new species [description that](#) has since fallen into synonymy. These were deposited at the Princeton University Zoological Museum.

Erdman

Donald S. Erdman first visited Puerto Rico from December 1944 to May 1946 and jumped right into fish studies with a paper on mackerel (Erdman, 1949). He visited the ichthyological collection at the University of Puerto Rico, Mayagüez that was started around 1934 and had been added to by a succession of professors and students including investigators of exploratory fishery surveys. He examined the fish collection at the Fishery

Research Laboratory near the college and continued their study as visiting professor in ichthyology through 1954. As fishery biologist for the Department of Agriculture and Commerce, he revised the list of Puerto Rico fishes with a summary of 108 new records (Erdman, 1956). He communicated regularly with ichthyologists of the time thus maintained an up-to-date nomenclature. He sent specimens to several museums, primary the Field Museum of Natural History in Chicago and authored more than 20 papers on Puerto Rico fishes through 1986 when he was senior author of a summary of commercially important marine fishes and their life history (Erdman et al., 1986). This information included herein evolved from a preliminary species list first put together by Erdman. He was the first formerly trained ichthyologist on site and his many years of study are evident in the broad range of topics covered in his publications.

Randall

John E. (Jack) Randall came to the area in 1958 as part of a survey of the marine park in St. John by the Institute of Marine Science, University of Miami (Kumpf and Randall, 1961). From November 1958 through June 1961 Jack, Herman Kumpf, and Helen (his wife) and a range of students and professors from University of Miami and elsewhere made over 250 collections around St. John (Appendix A). In addition, he contributed to the Botany Bay (St. Thomas) Survey conducted in 1964-1965 under the direction of the American Littoral Society (Clark et al., 1966). These collections were used in many systematic studies of the time and Randall's extensive survey of reef fish food habits (Randall, 1967). These collections include 627 lots deposited in the University of Miami fish collection (UMML) now housed at the Florida Museum of Natural History (UF). He continued his work at the University of Puerto Rico marine field station in La Parguera from 1961 through 1965. In his book "Caribbean Reef Fishes" (1968a) he includes 177 photographs of fishes from St. John, 72 from Puerto Rico, and three from St. Thomas. In the second edition (1983) an additional six species are figured from Puerto Rico. His relatively short stay in the area resulted in 39 publications and description of ten new species (Table 5). A further three species were described by other scientist based on the materials collected by Randall.

Table 5. New species collected by Randall.

Current Name	Original Name	Location	Reference
<u>Described by Randall</u>			
<i>Apogon phenax</i>	<i>Apogon phenax</i>	Mayagüez; St. John	Böhlke & Randall, 1968
<i>Apogon pillionatus</i>	<i>Apogon pillionatus</i>	La Parguera	Böhlke & Randall, 1968
<i>Chaenopsis limbaughi</i>	<i>Chaenopsis limbaughi</i>	Culebra, Mayagüez, St. John	Robins & Randall, 1965
<i>Ctenogobius saepepallens</i>	<i>Gobionellus saepepallens</i>	Culebra, St. John	

Gilbert & Randall, 1968

<i>Hyperochilus springeri</i>	<i>Hyperochilus springeri</i>	Cabo Rojo,
Mayagüez,		
	St. John, Guana Isl.	Randall, 1966a
<i>Liopropoma carmabi</i>	<i>Chorististium carmabi</i>	La Parguera Randall, 1963b
<i>Lipogramma trilineata</i>	<i>Lipogramma trilineata</i>	La Parguera Randall, 1963b
<i>Phaeoptyx xenus</i>	<i>Apogon xenus</i>	La Parguera, St. Thomas,
	St. John	Böhlke & Randall, 1968
<i>Ptereleotris helenae</i>	<i>Ioglossus helenae</i>	Mayagüez; St. Thomas,
		St. John Randall, 1968b
<i>Symphurus arawak</i>	<i>Symphurus arawak</i>	St. John Robins & Randall,
1965		

Described by other workers

<i>Elacatinus randalli</i>	<i>Gobiosoma randalli</i>	La Parguera	Böhlke & Robins.
1968			
<i>Gordiichthys randalli</i>	<i>Gordiichthys randalli</i>	Aguadilla	McCosker & Böhlke,
1984			
<u><i>Rypticus randalli</i></u>	<u><i>Rypticus randalli</i></u>	<u>Mayagüez</u>	<u>Courtenay, 1967</u>

Nuclear Center

Starting in 1971 the Puerto Rico Nuclear Center of the University of Puerto Rico was under contract to the Water Resources Authority to conduct nuclear plant site selection surveys and environmental research at nine coastal sites: Bahía Tortuguero (Yoshioka, 1975a), Punta Manati (Yoshioka, 1975d), Punta Higuero (Martin and Patus, 1974; Yoshioka, 1975e), Cabo Rojo (Yoshioka, 1975b), Punta Verraco (Yoshioka, 1975f), Bahía Guayanilla (Wood et al., 1975), Bahía Jobos (Martin and Patus, 1973; 1975), Cabo Mala Pascua (Yoshioka, 1975c), and Punta Las Tunas (Kimmel, 1975). These studies were initiated by F. Douglas Martin and James W. Patus, who left the area in 1975 and Joseph J. Kimmel took over their studies. Fish accounts in the reports by Yoshioka are attributable to Kimmel. These studies resulted in considerable collections in habitats previously not well sampled, such as, rocky shores and mangroves and there were 22 new records reported (Table 6). Some of the collections were deposited in museums (USNM, UMMZ, SIO) but for the most part they appear to have been lost when the Nuclear center changed to the Center for Energy and Environmental Research (CEER). CEER continued fish work for a short while through an intensive study of Laguna Joyuda on the west coast (García, 1981; García and Williams, 1985; Stoner, 1986).

Table 6. New records from studies of the Puerto Rico Nuclear Center.

<u>Taxa</u>	<u>Location</u>	<u>Reference</u>
<i>Acanthemblemaria aspera</i>	Bahía Jobos	Martin & Patus, 1973
<i>Albula nemptera</i>	Bahía Yabucoa	Martin & Patus, 1984
<i>Apogon evermanni</i>	Cabo Rojo	Martin & Patus, 1984
<i>Astrapogon punctulatus</i>	Bahía Jobos	Martin & Patus, 1973

<i>Barbulifer maculiferus</i>	Punta Las Tunas	Kimmel, 1975
<i>Bathygobius mystacium</i>	Bahía Jobos	Martin & Patus, 1973
<i>Dactyloscopus crossotus</i>	Punta Higuero	Martin & Patus, 1974
<i>Elacatinus dilepis</i>	Bahía Jobos	Martin & Patus, 1973
<i>Elacatinus prochilos</i>	?	Martin & Patus, 1984
<i>Eucinostomus jonesii</i>	Bahía Guayanilla, Bahía Jobos	Martin & Patus, 1973
<i>Halichoeres caudalis</i>	Punta Monserrate, Luquillo	Martin & Patus, 1984
<i>Hippocampus reidi</i>	Punta las Tunas	Kimmel, 1975
<i>Hyperoglyphe perciformis</i>	Bahía Jobos	Martin & Patus, 1973
<i>Melanorhinus microps</i>	Bahía Tortuguero	Yoshioka, 1975a
<i>Paraclinus grandicomis</i>	Punta las Tunas	Kimmel, 1975
<i>Scorpaenodes tredecimspinosus</i>	Bahía Jobos	Martin & Patus, 1984
<i>Starksia slutieri</i>	Bahía Jobos	Martin & Patus, 1984
<i>Stathmonotus hemphilli</i>	Bahía Tortuguero	Yoshioka, 1975a
<i>Stellifer stellifer</i>	Bahía Jobos	Martin & Patus, 1973
<i>Strongylura marina</i>	Bahía Guayanilla, Bahía Jobos	Martin & Patus, 1973
<i>Syngnathus pelagicus</i>	Bahía Jobos	Martin & Patus, 1975
<u><i>Synodus saurus</i></u>	<u>Punta las Tunas</u>	<u>Kimmel, 1975</u>

Martin and Patus' work was summarized in "An annotated key to the teleost fishes of Puerto Rico" (1984). Unfortunately this work was not distributed in any number thus is hard to find.

La Parguera Marine Laboratory, University of Puerto Rico

Much of the fish work in Puerto Rico has revolved around the marine laboratory at La Parguera. Founded in 1956 a succession of ichthyology professors, including Randall, John Ramsey, William Eger, Patrick Colin, and Dannie Hensley and their students have collected in the area. The main Puerto Rican marine fish collection (UPRM) is housed at the La Parguera marine laboratory where there is still substantial uncataloged material. A full range of habitats occur in the La Parguera area such that almost any fish reported from Puerto Rico can be found there.

Other Expeditions to the Region

Bayer (1969) reviews the marine expeditions to the Caribbean. Several deep sea expeditions have visited the region primarily as coaling and supply stops. A few shallow-water fish collections were made such as when the HASSLER visited St. Thomas during the cruise of 1871-72. These specimens are housed in the Harvard Museum of Comparative Zoology (MCZ).

The Smithsonian-Bredin Expedition visited the region from 14 April - 17 April 1956 and 25 March - 14 April 1958 surveying the relatively unknown area of the British Virgin Islands (Schmitt, 1956; 1959). Table 7 lists the collections made on the Plateau that included fishes. A faunal summary from this work has not been made but specimens have

been reported in systematic publications. Specimens collected during the expedition are housed in the USNM.

Table 7. Stations with fish specimens from the Smithsonian-Bredin Expedition in 1958.

Station No.	Island	Locality	Gear	Date	
2-58	St. John			25 March	
4a-58	Tortola				26
				March	
5-58	Tortola	Road Harbour, Burt Pt., flats with <i>Porites</i>		27 March	
8a-58	Guana Isl.	White Bay		27 March	
10-58	Virgin Gorda	Prickly Pear Isl. E of Vixen Pt.		28 March	
		grassbed with coral			
11-58	Virgin Gorda	Virgin Gorda Sound		28 March	
13-58	Virgin Gorda	Virgin Gorda Sound		28 March	
20-58	Peter Isl.				29
				March	
25-58	Tortola	Soper's Hole		1 April	
34-58	Tortola			5 April	
36-58	Virgin Gorda			6 April	
36b-58	Virgin Gorda	Prickly Pear Isl. E of Vixen Pt.	bottom light	6 April	
37-58	Virgin Gorda	Colquhoun reef		7 April	
		entrance to North Sound			
41-58	Virgin Gorda	reef, Eustatia Isl.			7
				<u>April</u>	

The U.S. exploratory fishing vessel OREGON visited the Plateau on several occasions. The most important in regard to shallow-water fishes was the 1959 cruise when 25 trawl collections less than 200 m were made (Bullis and Thompson, 1965; see appendix B for list of stations). In 1965, several longline stations were occupied off Puerto Rico supplying new records of diskfishes (Echeneidae) for the area (Dennis et al., in prep.). Cruises by the OREGON and its replacement OREGON II have deployed a wide variety of gear around the Plateau but the emphasis has been in deeper waters. Specimens from these collections can be found at the FMNH, USNM, and UF.

The Tektite underwater habitat was used in two programs at Lameshur Bay, St. John. Tektite I was a single 60-day mission from 15 February to 15 April 1969 (Clifton et al., 1970). The Tektite II program completed ten missions between April and November 1970 (Miller et al., 1972). Seven papers (Bright, 1972; Clifton and Hunter, 1972; Collette and Talbot, 1972; Earle, 1972; Hartline et al., 1972; Mahnken, 1972; Smith and Tyler, 1972) with information on reef fishes were published as part of a special volume of the Natural History Museum, Los Angeles County Science Bulletin (Collette and Earle, 1972).

A second undersea habitat "La Chalupa" was deployed off Puerto Real, Puerto Rico from November 1972 until August 1973 as part of the Puerto Rico International Undersea Laboratory (PRINUL). Olsen and Sheen (1975) summarize the accomplishments of the

program and four fish papers resulted from the work (Barlow, 1975a, 1975b; Parrish and Zimmerman, 1977; Parrish, 1982).

The Virgin Islands are the least explored region of the Plateau though their have been important collections made at Anegada in 1976 by Dunne and Brown (1979). Seven rotenone stations were occupied and specimens from these are deposited in the BMNH. They identified 185 taxa during their study.

St. John was designated an International Biosphere Reserve in June 1976. A detailed study of the marine environment ensued with three reports on fishes (Boulon, 1985a, 1985b, 1987). There have been few published reports on fishes of St. Thomas except for the studies of Hixon and Beets on artificial reefs in Perseverance Bay (Beets, 1989; Beets & Hixon, 1994; Hixon and Beets, 1989; 1993). Of all the major islands, the least known are Tortola and Virgin Gorda. No faunal lists have been published though there are a considerable number of specimens in museum collections.

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ANNOTATED LIST OF SPECIES FROM THE PUERTO RICO PLATEAU

RHINCODONTIDAE¹*Ginglymostoma cirratum* (Bonnaterre, 1788)

- Poey (1881: 349), as *Ginglymostoma fulvum*, Puerto Rico.
Stahl (1883: 81), as *G. fulvum*, Puerto Rico.
Randall (1963c), shark bites, St. Thomas; Puerto Rico.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 9), Fig. 1, (1: 160 cm TL), St. John.
Rivera-Lopez (1970), (127: 45-256 cm TL), common, La Parguera.
Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), central bay, Bahía Jobos.
Sawyer et al. (1975), leech parasites, La Parguera.
Erdman (1976), juveniles.
Dunne & Brown (1979), obs., Anegada.
Sawyer & Kinard (1980), leech parasites, Puerto Rico.
Williams (1982), leech parasites, Puerto Rico.
Kimmel (1985b), obs., La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Burger et al. (1992b), mercury levels, Puerto Rico.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Acosta (1997), visual, gill net, trammel net, (5), mangroves; (13), inner reef, (19), outer reef, La Parguera.

nurse shark, gata.

Rhincodon typus Smith, 1828¹

- Erdman (1961a), as *Rhineodon typus*, Puerto Rico.

whale shark, tiburón ballena.

LAMNIDAE

Isurus oxyrinchus Rafinesque, 1810

- Erdman (1956: 322), as *Isurus oxyrinchus*; (1: 422 kg), San Juan, Jan 1955.
Bane (1964a), (1), longline, N of Puerto Rico.
Bird (1967), sport fishing, Puerto Rico.
Erdman et al. (1986), (7: 44-181 kg), off Puerto Rico.

mako shark, tiburón carite.

¹ICZN Opinion 1278 conserved the name Rhincodontidae and *Rhincodon* (Eschmeyer, 1990).

CARCHARHINIDAE*Carcharhinus acronotus* (Poey, 1860)

Engelhardt (1912), as *Carcharias sancti-thomae*², St. Thomas.

Erdman (1956: 321), (1: 101.6 cm TL male), La Parguera, June 1954.

Rivera-Lopez (1970), (3: 66-76 cm TL) La Parguera.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Garrick (1982), (1: ~83 cm TL female), La Parguera [USNM 179038]; (1: 100 cm TL female), Tres Hermanos, [UPRM uncat.].

blacknose shark.

Carcharhinus falciformis (Müller & Henle (ex Bibron) 1839)

Evermann & Marsh (1900: 62), (2: 99-224 cm TL), off El Morro, San Juan.

Bane (1964a), (2), longline, night, off San Juan.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Rivera-Lopez (1970), (15: 41-160 cm TL), trolling, offshore, La Parguera.

Erdman et al. (1986), (1: 270 cm TL, 113 kg), trolling, La Parguera.

silky shark, cazón de playa.

Carcharhinus galapagensis (Snodgrass & Heller, 1905)³

Backus (1957), as *C. obscurus*, San Juan.

Randall (1963d), (1: 292 cm TL male), St. Thomas, 20 Apr 1963 (first Atlantic record for this species) [UPRM 1140, jaws only].

Galapagos shark.

Carcharhinus isodon (Müller & Henle (ex Valenciennes), 1839)

Erdman (1956), as *Aprionodon isodon*, (1: 61 cm TL), west coast, Puerto Rico [UPRM 899].

finetooth shark.

Carcharhinus leucas (Müller & Henle (ex Valenciennes), 1839)

Müller & Henle (1839: 42), as *Carcharias (Prionodon) leucas*, one type locality, Puerto Rico.

Garrick (1982), (1: 160 cm TL male mounted skin, syntype), Puerto Rico [MNHN A9650].

bull shark.

²Garrick (1982: 188) could not place this species with confidence from the written description, but it best fit *acronotus* or *porosus*.

³Garrick (1982: 131) believes that Backus' record was most likely *galapagensis* and found Randall's specimen to vary from eastern Pacific specimens; further specimens are needed for confirmation.

Carcharhinus limbatus (Müller & Henle (ex Valenciennes), 1839)

- Poey (1881: 348), as *Platypodon* ?, Puerto Rico.
Stahl (1883: 81), as *Platypodon maculipinnis*, Puerto Rico.
Evermann & Marsh (1900: 62), as *C. limbatus*, after Poey and Stahl.
Nichols (1929: 183), (1), San Juan.
Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
Randall (1963c), as *C. maculipinnis*, obs., Puerto Rico.
Randall (1968a), Fig. 6, (1: 178 cm TL female), St. John.
Dunne & Brown (1979), obs., Anegada.
Garrick (1982), (1: 460 mm TL female embryo), St. John [USNM 196542].
Erdman (pers comm.), as *Carcharhinus maculipinnis*, (2), gill net, La Pela, Culebra, June 1960.

black-tipped shark, caconeta.

Carcharhinus longimanus (Poey, 1861)

- Rivera-Lopez (1970), (2: 142-173 cm TL), trolling, offshore, La Parguera, May 1965.
Erdman (1976), reproduction, Puerto Rico.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
UPRM collection, (1: embryo from 177 lbs. female), off Puerto Rico [UPRM 2574].

whitetip shark, tiburón galano..

Carcharhinus perezii (Poey, 1876)

- Erdman (1956: 322), as *Carcharhinus obscurus*, “commonly caught trolling at La Parguera, 22 to 418 kg.”
Randall (1963c), as *C. springeri*, “most often caught shark after nurse shark in Puerto Rico and Virgin Islands.”
Randall (1967), as *C. springeri*, food habits.
Randall (1968a: 12), as *C. springeri*, (1: 198 cm TL, female), Fig. 5, St. John.
Dunne & Brown (1979), as *C. springeri*, obs., Anegada.
Garrick (1982), (1: ~200 cm TL, female), Lesser Lameshur Bay, St. John [USNM 196003, jaws, fins, & photograph];
(2: 26-29 cm TL male embryos from above female), Lesser Lameshur Bay, St. John [USNM 196004].

reef shark.

Galeocerdo cuvier (Peron & Lesueur in Lesueur, 1822)

- Nichols (1915b: 141), as *Galeocerdo tigrinus*, tooth, San Juan.
Erdman & Maytag (1957), (1), longline, off San Juan.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Rivera-Lopez (1970), as *G. cuvieri*, common, (149: 107-393 cm TL), La Parguera.
Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Williams (1982), leech parasites, Puerto Rico.
Burger et al. (1992c), mercury levels, Puerto Rico.

tiger shark, tigre, cabrón.

Negaprion brevirostris (Poey, 1868)

- Randall (1967), food habits.
Randall (1968a: 11), Fig. 3, (1: 64 cm TL), St. John.
Rivera-Lopez (1970), (9: 152-221 cm TL), set lines, mid-shelf, La Parguera.
Austin (1971a), (1: 1016 mm TL), Isla Cueva, La Parguera.
Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Dunne & Brown (1979), obs., Anegada.
 Williams (1982), leech parasites, Puerto Rico.
 Burger et al. (1992c), mercury levels, Puerto Rico.

lemon shark, tintorera, cazón, caconeta, limón.

Prionace glauca (Linnaeus, 1758)

Erdman (1961a), Puerto Rico.
 Erdman et al. (1986), (1: 230 cm TL, 56.7 kg female), San Juan; (1: 257 cm TL, 47 kg), San Juan; (1: 43 kg male), San Juan; (1: 269 cm TL, 65 g male), Arecibo.

blue shark, tiburón azul.

Rhizoprionodon porosus (Poey, 1861)

Erdman (1956: 322), as *Scoliodon terranova*, “frequently caught in beach seines on west coast.”
 Idyll & Randall (1960), as *Carcharhinus porosus*, hook and line, Caneel Bay, St. John.
 Siddiqi & Cable (1960), as *Scoliodon terrae-novae*, trematodes absent, Puerto Rico.
 Springer (1964), (1: 472 mm TL), Mario reef, La Parguera [USNM 196613]; (1: 851 mm TL), St. John [USNM 179846].
 Randall (1967), food habits.
 Randall (1968a: 12), Fig. 4, (1: 89 cm TL), St. John.
 Rivera-Lopez (1970), as *Scoliodon terrae-novae*, “common around coral reefs”; (5: 28-48 cm TL), La Parguera.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), inner bay, Bahía Jobos.
 Erdman (1976), young.
 Kimmel (1975), (2), algal mat; (1), sandy bottom; Punta Las Tunas.
 Parrish (1982), gill net, sand flat, off Punta Ostiones.
 Burger et al. (1992c), mercury levels, Puerto Rico.

sharpnose shark, tiburoncillo, cazón playón.

SPHYRNIDAE

Sphyrna lewini (Griffith & Smith, in Cuvier et al., 1834)

Poey (1881: 348), as *Cestracion zygaena*, Puerto Rico.
 Stahl (1883: 81), as *Cestracion zygaena*, Puerto Rico.
 Evermann & Marsh (1900: 63), as *Sphyrna zygaena*, new genus.
 Gilbert (1967), Poey's *Cestracion zygaena* synonymized with *S. lewini*.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), central bay, Bahía Jobos.

scalloped hammerhead, martillo, cornuda.

Sphyrna mokarran (Rüppell, 1837)

Gilbert (1967), location record for Puerto Rico on distribution map, but not in list of specimens examined.
 Rivera-Lopez (1970), (13: 152-284 cm TL), set lines, La Parguera.
 Williams (1982), leech parasites, Puerto Rico.
 Erdman et al. (1986), (1: 343 cm TL, 199 kg) off Cayo Enrique, La Parguera.

great hammerhead, martillo, cornuda.

PRISTIDAE

Pristis pectinata Latham, 1794

Poey (1881: 349), as *P. pectinatus*, Puerto Rico.

Stahl (1883: 81), as *P. pectinatus*, Puerto Rico.

Erdman (1963b), none seen, a saw from Joyuda may have been imported.

smalltooth sawfish, pez sierra.

DASYATIDAE

Dasyatis americana Hildebrand & Schroeder, 1928

Evermann & Marsh (1900: 65), as *D. hastata*, (1: 286 mm disc width, female), Hucares.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 16), Fig. 10, (1: 521 mm disc length), St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), ship channel, Bahía Jobos.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Dunne & Brown (1979), obs., Anegada.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Acosta (1997), visual, gill net, trammel net, (13), mangroves; (25), inner reef, (37), outer reef, La Parguera.

southern stingray, raya.

Dasyatis say (Lesueur, 1817)

Poey (1881: 350), as *Trygon sayi?*, Puerto Rico.

Stahl (1883: 81), as *Trygon sayi*, Puerto Rico.

Evermann & Marsh (1900: 65), new genus.

bluntnose ray.

MYLIOBATIDAE

Aetobatis narinari (Eupharsen, 1790)

Poey (1881: 349), Puerto Rico.

Stahl (1883: 81), Puerto Rico.

Evermann & Marsh (1900: 67), (1: male), seine, Culebra.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 18), Fig. 12, (1: 914 mm disc length), St. John.
 Austin (1971a), (1), obs., La Parguera.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, thermal cove, outer reefs, Bahía Guayanilla.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (4), collected, estuary, Río Espiritu Santo.
 Williams (1982), leech parasites, Puerto Rico.
 Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería, Ponce.
 Burger et al. (1992c), mercury levels, Puerto Rico.

spotted eagle ray, chucho, obispo.

MOBULIDAE

Manta birostris (Walbaum, 1792)

Erdman (1961a), Puerto Rico.
 Erdman (1963b), (1: 183 cm disc width), photograph, La Parguera; (1: 254 cm disc width), La Parguera.
 Kumpf (1965), observed, Botany Bay, St. Thomas.

manta ray, manta.

ELOPIDAE

Elops saurus Linnaeus, 1758

Evermann & Marsh (1900: 81), (1: 381 mm TL), Arecibo.
 Mather (1956), sport fishing, Virgin Islands.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1968a: 21), Fig. 14, (1: 330 mm TL), St. John.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Austin (1971a), (2: 22 mm TL), seine, Bahía Guayanilla; (21: 104-189 mm TL), seine, La Parguera; (1: 300 mm TL) Laguna Joyuda.
 Austin & Austin (1971), food habits.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 González-Azar & Vilella (1975), collected, Laguna Piñones.
 Martin & Patus (1975), inner bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), collected, thermal cove, outer reefs, Bahía Guayanilla.
 Erdman (1976), larvae, Puerto Rico.
 Corujo Flores (1980), (3: 218-395 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (19), gill net, Laguna Joyuda.
 Negrón González (1986), collected, Laguna Boquerón.
 Dennis et al. (1991), night lighting, La Parguera.
 Burger et al. (1992c), mercury levels, Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, Ponce.

ladyfish, macabí, piojo, chiro, lisa francesa, malacho.

Megalops atlanticus Valenciennes in Cuvier & Valenciennes, 1847

Cuvier & Valenciennes (1847: 398), type locality, Puerto Rico.

Poey (1881: 343), Puerto Rico.

Stahl (1883: 80), Puerto Rico.

Evermann & Marsh (1900: 80), as *Tarpon atlanticus*, (4: 190-292 mm TL), seine, mangroves, Hucares; (13: 57-83 mm TL), Fajardo.

Mather (1956), sport fishing, St. Thomas.

Idyll & Randall (1959), hook and line, mangrove areas, Lameshur Bay, St. John.

Erdman (1960b), (11: 24-25 mm SL), larvae, Río Añasco mouth [UMML 8952?].

Randall (1962b), (3), fish trap, tagging, Lameshur Bay, St. John.

Randall (1967), food habits.

Randall (1968a: 21), Fig. 15, (1: 366 mm TL), St. John.

Austin (1971a), (9: 151-223 mm TL), seine, La Parguera.

Austin & Austin (1971), food habits.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.

Martin & Patus (1975), ship channel, Bahía Jobos.

Wood et al. (1975), collected, thermal cove, Bahía Guayanilla.

Erdman (1976), larvae.

Dunne & Brown (1979), obs., Anegada.

Negrón González & Cintrón (1979), collected, estuary, Río Manati, Río Cibuco, Río La Plata, Río Loiza, Río Espiritu Santo, Río Mameyes.

Corujo Flores (1980), (9: 285-628 mm SL), gill net, estuary, Río Espiritu Santo.

García (1981), (21), gill net, Laguna Joyuda.

Negrón González (1986), collected, Laguna Boquerón.

Kimmel (1991), baitfish, Puerto Rico.

Burger et al. (1992a), gill net, heavy metals, Humacao, Boqueron.

Burger et al. (1992b), collected, low salinity marsh, Roosevelt Roads; Humacao, Boqueron.

Burger et al. (1992c), mercury levels, Roosevelt Roads; Humacao, Boqueron.

tarpon, tarpón, grand ecaille, sábalo, sábalo real.

ALBULIDAE*Albula nemoptera* (Fowler, 1911)

Martin & Patus (1984), specimen(s), Bahía Yabucoa [ANSP].

Dennis et al. (in prep.), (1: 189 mm SL), seine, Playa de Guayanes, Puerto Yabucoa [ANSP 116688]; (1: 24.1 mm SL), seine, Playa de Guayanes, Puerto Yabucoa [ANSP 118701]; (1: 37.5 mm SL), seine, Playa de Guayanes, Puerto Yabucoa [ANSP 129966].

shafted bonefish.

Albula vulpes (Linnaeus, 1758)

Poey (1881: 342), as *A. conorhynchus*, Puerto Rico.

Stahl (1883: 80), as *A. conorhynchus*, Puerto Rico.

Evermann & Marsh (1900: 82), (3: 305-483 mm TL), San Juan market; Culebra.

Nichols (1929: 200), (1) Punta Palo Seco.

Mather (1956), sport fishing, Virgin Islands.

Idyll & Randall (1959), sport fishing, Leinster Bay; Fish Bay, St. John.

- Erdman (1960a), fishery, Puerto Rico.
 Alexander (1961), (3: 37-47 mm TL), La Parguera.
 Warmke & Erdman (1963), (56: 0.3-4.6 kg), food habits, moonless nights, La Parguera, Culebra.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967a), larvae, abundant, March - May, La Parguera.
 Ramsey (1967), trawl, Bahía Boquerón.
 Randall (1968a: 22), Fig. 16, (1: 495 mm TL), St. John.
 Austin (1971a), (1: 37 mm TL), mud-sand beach, Caño Tiburones, Arecibo Harbor.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), collected, thermal cove, inner bay, Bahía Guayanilla.
 Erdman (1976), spawning, larvae.
 García (1981), (1), gill net, Laguna Joyuda.
 Kimmel (1991), baitfish, Puerto Rico.
 Burger et al. (1992c), mercury levels, Puerto Rico.
 Dennis et al. (1991), night lighting, La Parguera.
 Dennis (1992a), leptocephali, mangroves, La Parguera.
- bonefish, macaco, ratón, conejo.

ANGUILLIDAE

Anguilla rostrata (Lesueur, 1817)

- Poey (1881: 344), as *Muraena anguilla?*, Puerto Rico.
 Stahl (1883: 80), as *Muraena cubana*, Puerto Rico.
 Evermann & Marsh (1900: 68), as *Anguilla chrysypa*, "commonly caught in small rivers", (6: 102-610 mm TL), San Juan market; Río Bayamon; Mayagüez.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Austin (1971a), (2: ~300 mm TL), seine, Caño Tiburones, Arecibo Harbor; (1: 1000+ mm TL), toxic waste fish kill, Bahía Guánica, Feb 1968; (2: 500-771 mm TL), toxic waste fish kill, Río Guanajibo, Mayagüez, Mar 1968.
 Yoshioka (1975a), (3), shoreline, Bahía Tortuguero.
 Erdman (1976), larvae, Puerto Rico.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati, Río Loiza, Río Espiritu Santo.
 Corujo Flores (1980), (35: 42-195 mm TL), gill net, estuary, Río Espiritu Santo.
- American eel, anguila.

MORINGUIDAE

Moringua edwardsi (Jordan & Bollman, 1889)

- Gill & Smith (1900), as *Aphthalmichthys caribbeus*, (1: 270 mm TL type), coral, San Geronimo [USNM 497210].
 Evermann & Marsh (1900: 71), table of measurements on type specimen.
 Silvester (1916: 214), as *Mayerina mayeri*, (1: 120 mm TL type), sand flats, mangroves, Guánica harbor [PUZM 3073].
 Silvester (1918: 19), as *Aphthalmichthys mayeri*, new genus, Pl. 1.
 Erdman (1956: 323), as *Stilbiscus edwardsi*, (1) shore reef, Punta Arenas [FMNH ?].

Randall (1963a), (10: 192-349 mm TL), rotenone, artificial reef, Lesser Lameshur Bay; (31: 120-340 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (30: 149-308 mm TL), rotenone, fringing reef Ram's Head Bay, St. John.

Dammann (1969), (4: 240-307 mm TL), rotenone, Chocolate Hole, St. John.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Kimmel (1975), (1), algal mat, Punta Las Tunas.

Yoshioka (1975d), (63), rotenone, Punta Manati.

Castle & Böhlke (1976), (2: 249-299 mm TL) Puerto Yabucoa [ANSP 115641]; (1: 146 mm TL), La Parguera [ANSP 103422].

Dunne & Brown (1979), (2), rotenone, Anegada.

Smith (1989a), (1: 380 mm TL, La Parguera [ANSP 103421]; (1: 145 mm TL), La Parguera [ANSP 103422]; (2: 244-295 mm TL), Playa de Guyanes, Puerto Yabucoa [ANSP 115641]; (6), Playa de Guyanes, Puerto Yabucoa [ANSP 118627]; (1: 262 mm TL), Playa de Guyanes, Puerto Yabucoa [ANSP 118702]; (20: 65-213 mm TL), La Parguera [ANSP 126343]; (8: 116-285 mm TL), Playa de Guyanes, Puerto Yabucoa [ANSP 129901]; (1: 251 mm TL), S side lagoon, Tortola, Virgin Islands [ANSP 124486].

spaghetti eel.

Neoconger mucronatus Girard, 1858

Smith (1989a), (1: 143 mm TL), dredge, mud, Bahía Guayanilla, [ANSP 139683].

URPM collection (1), La Parguera.

ridged eel.

HETERENCHELYIDAE

Pythonichthys sanguineus Poey, 1868

Böhlke (1956), as *Heterenchelys biaggii*, (3: 271-370 mm TL type specimens), dredge, Mayagüez pier [FMNH 61774, 61775, ANSP 73872].

Erdman (1956: 338), as *Heterenchelys biaggii*, (3), dredged from Mayagüez harbor. (apparently same specimens as above).

Böhlke (1966b), synonymized *H. biaggii* with *P. sanguineus*; Fig. 1, (1: 350 mm TL), dredge, 12 m, off Río Añasco, Bahía Mayagüez [UPRM 1814].

loose-skin eel.

CHLOPSIDAE⁴

Chilorhinus suenonii Lütken, 1852

Evermann & Marsh (1900: 72), (27: 38-112 mm TL), Arroyo; Hucares; Mayagüez; Boquerón; Ponce.

Fowler (1948), (1: 125 mm TL), San Juan.

Kumpf (1965), observed, Botany Bay, St. Thomas.

Cooper (1974), rotenone, (6), *Thalassia* bed; (2), *Syringodium* bed, La Parguera.

Dunne & Brown (1979), (1), rotenone, Anegada.

Martin & Cooper (1981), *Thalassia* and *Syringodium* beds, La Parguera.

⁴Smith (1989b) indicates that Chlopsidae has priority over Xencongridae.

Smith (1989b), (4: 55-108 mm TL), Playa de Guyanes, Puerto Yabucoa [ANSP 115642]; (1: 124 mm TL), San Juan [ANSP 117173]; (1: 109 mm TL), Mayagüez, FISH HAWK [USNM 50203]; (1: 43 mm TL), Ponce, FISH HAWK [USNM 63077]; (1: 109 mm TL), Ponce, FISH HAWK [USNM 126173]; (2: 62-64 mm TL), reef, Cam Bay, Great Camonoe Isl. [ANSP 110412]; (8: 47-80 mm TL), beach, E side, Great Camonoe Isl. [ANSP 117037].

seagrass eel.

Kaupichthys hyoprroides (Strömann, 1896)

Erdman (1956), as *K. atlanticus*, (2), Puerto Rico [FMNH ?].

Erdman (1960a), as *K. atlanticus*, *Albula vulpes* stomach, Puerto Rico.

Randall (1963a), as *K. atlantica*, (1: 158 mm TL), rotenone, artificial reef, Lesser Lameshur Bay; (4: 88-171 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (2: 103-187 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.

Böhlke & Smith (1968), synonymized both *K. atlanticus* and *K. diodontis* with *K. hypoprroides*.

Dammann (1969), (1), rotenone, Chocolate Bay, St. John.

Kimmel (1975), as *K. diodontis*, (2), rock outcrops; (1), sandy bottom, Punta Las Tunas.

Yoshioka (1975a), as *K. diodontis*, (1) Bahía Tortuguero.

Dunne & Brown (1979), (2), rotenone, Anegada.

Martin & Patus (1984), as *Cynoponticus savanna*, (1: 25 cm TL), rotenone, Punta Manati [USNM 219134].

Smith (1989b), (2: 120-157 mm TL), La Parguera [ANSP 124386]; (2: 116-152 mm TL), Lesser Lameshur Bay, St. John [UMML 3745].

false moray.

Kaupichthys nuchalis Böhlke, 1967

Böhlke (1967), paratypes, (1: 99 mm TL), shelf edge, 20 m, La Parguera [UPRM 1112]; (1: 100 mm TL), N of St. Thomas, 77 m, OREGON 2607 [ANSP 106380]; (1: 102 mm TL), fringing reef, 18 m, Greater Lameshur Bay, St. John [UMML 8309].

Kimmel (1975), (1), rock outcrops, Punta Las Tunas.

Smith (1989b), (1: 85 mm TL), off Puerto Rico, OREGON II 24262 [ANSP 140578].

collared eel.

MURAENIDAE

Channomuraena vittata (Richardson, 1845)

Erdman (1956: 323), (1: 610 mm TL), La Parguera.

broadbanded mo ray.

Echidna catenata (Bloch, 1795)

Poey (1881: 345), Puerto Rico.

Stahl (1883: 166), as *Gymnothorax catenatus*, Puerto Rico.

Evermann & Marsh (1900: 79), (3), San Geronimo; (1: 165 mm TL), Arroyo.

Randall (1963a), (2: 160-208 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (4: 143-392 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1967), food habits.

Dammann (1969), (2), rotenone, Chocolate Hole, St. John.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.
 Martin & Patus (1974), (8), rotenone, rock groin, beach, Punta Higuero.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975a), (8), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975c), (12), rotenone, rocky shore, Cabo Mala Pascua.
 Yoshioka (1975d), (2), rotenone, Punta Manati.
 Yoshioka (1975f), (26), rotenone, Punta Verraco.
 Martin & Cooper (1981), *Thalassia* bed, La Parguera.
 Böhlke et al. (1989), (6: 103-184 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115547]; (7: 48-290 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115643]; (9: 53-221 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118629]; (1: 118 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118703]; (4: 146-228 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129899]; (5: 76-216 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129927]; (1: 346 mm TL), La Parguera [ANSP 122922]; (1: 164 mm TL), W end, San Juan Isl., San Juan [USNM 117442]; (1: 165 mm TL), Arroyo, FISH HAWK [USNM 126093]; (1: 183 mm TL), grass reef, Maunabo [USNM 147643]; (5: 182-480 mm TL), rocky shore, Boca de Congrejos, San Juan [USNM 274352]; (1: 272 mm TL), San Juan [USNM 274353]; (1: 166 mm TL), San Juan [USNM 274357]; (1: 335 mm TL), Boca de Congrejos, San Juan [USNM 274360]; (1: 140 mm TL), Boca de Congrejos, San Juan [USNM 274362]; (1: 208 mm TL), rocks, White Bay, Guana Isl. [ANSP 100531]; (1: 158 mm TL), Monkey Pt., Guna Isl. [ANSP 110413]; (1: 230 mm TL), St. Thomas [MCZ 27210].

chain moray, morena.

Enchelycore carychroa Böhlke & Böhlke, 1976

Dammann (1969), as *Enchelycore* sp., (1: 195 mm TL), rotenone, Chocolate Hole, St. John.
 Kimmel (1975), as *Enchelycore* sp., (1), algal mat; (1), rock outcrops; (1), sandy bottom; Punta Las Tunas.
 Böhlke & Böhlke (1976), paratypes, (1: 183 mm TL), Puerto Yabucoa [ANSP 118458]; (4: 57-213 mm TL), 8 m, St. John [UMML 4598]; (2: 114-196 mm TL), 12 m, St. John [UMML 14989]; (4: 12-238 mm TL), 9 m, St. John [LACM 6827-1]; (91: 153 mm TL), 5 m, St. John [LACM 6826-1]; (1: 85 mm TL), 48 m; St. John, OREGON Stat 2618 [ANSP 124811].
 Dunne & Brown (1979), as *Enchelycore* sp., (8), rotenone, Anegada.
 Martin & Patus (1984), (1), Bahía de Jobos [USNM 219139].
 Böhlke et al. (1989), (1: 136 mm TL), Guánica [MNHN 1974-130]; (1: 135 mm TL), Puerto Rico [UPRM 2327]; (3: 177-260 mm TL), Puerto Rico [UPRM 2401].

chestnut moray.

Enchelycore nigricans (Bonnaterre, 1788)

Erdman (1956: 323), (3: largest 584 mm TL) Playa Jaboncillo, Guánica [UPRM 960].
 Randall (1963a), (4: 140-354 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (8: 74-642 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1968a: 37), Fig. 36, (1: 749 mm TL), St. John.
 Dammann (1969), (36: 110-380 mm TL), rotenone, Chocolate Hole, St. John.
 Yoshioka (1975a), (2) rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), (1), rotenone, Punta Manati.
 Böhlke et al. (1989), (3: 175-290 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115548]; (2: 210-225 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 116142]; (2: 199-573 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129935]; (1: 192 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 143069]; (4: 297-645 mm TL), La Parguera [ANSP 122691]; (12: 123-580 mm TL), Puerto Rico [UMML 1333]; (2: 182-196 mm TL), San Juan [USNM 274261]; (1: 83 mm TL), White Bay, Guana Isla. [ANSP 89355]; (1: 244 mm TL), Lesser Lameshur Bay, St. John [UMML 3737].

viper moray.

Gymnothorax conspersus Poey, 1867⁵

Böhlke & Böhlke (1980), Mayagüez [ANSP 138142]; (1: 948 mm TL), fish trap, 180 m, Mayagüez [ANSP 139684]; (1: 650+ mm TL), trawl, 185 m, off Aguadilla, OREGON 2655 [ANSP 115242]; (4: 730-910 mm TL), fish trap, 164-203 m, Punta Palmas Altas [ANSP 138368].

saddled moray.

Gymnothorax funebris Ranzani, 1839

Evermann & Marsh (1900: 77), (1: 105 mm TL), Fajardo.
 Nichols (1929: 196), obs., San Juan market.
 Randall (1963a), (1: 1030 mm TL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Randall (1965c), artificial reef, St. John.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 35), Fig. 33, (1: 842 mm TL), Isla Magueyes, La Parguera [UPRM 1572].
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Cooper (1974), (3), rotenone, *Thalassia* bed, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.
 Kimmel (1975), (4), algal mat; (2), rock outcrops; (2), sandy bottom; Punta Las Tunas.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975a), (1), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975f), (4), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 García (1981), (1), gill net, Laguna Joyuda.
 Martin & Patus (1984), as *E. carychroa*, (1), Cayo de Barca, Bahía Jobos [USNM 219138?].
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Hixon & Beets (1989), obs., Perseverance Bay, St. Thomas.
 Böhlke et al. (1989), (2: 203-242 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115549]; (5: 180-202 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115611]; (3: 133-470 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118630]; (1: 445 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129902]; (1: 507 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129913]; (1: 142 mm TL), Punta Joyuda [FMNH 90713]; (1: 105 mm TL), Farardo, FISH HAWK [USNM 50152]; (1: 304 mm TL), reef edge, Punta Monserrate, Luquillo [USNM 147637]; (1: 108 mm TL), Cayos de Barca, Bahía Jobos [USNM 219138].
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas.
 Burger et al. (1992c), mercury levels, Puerto Rico.

green moray.

⁵Additional deepwater records.

Gymnothorax maderensis (Johnson, 1862)⁵

Böhlke et al. (1989), (1: 770 mm TL), S of St. Thomas [UF 34953]; (1: 642 mm TL), fish trap, 165 m, off Mayagüez [ANSP 136686].

sharktooth moray

Gymnothorax miliaris (Kaup, 1856)

Randall (1963a), as *Muraena miliaris*, (4: 84-385 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (12: 63-312 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), as *M. miliaris*, observed, collected, Botany Bay, St. Thomas.

Randall (1968a: 36), as *M. miliaris*, Fig. 35, (1: 235 mm TL), Crashboat Basin, Aguadilla, [UPRM 2632].

Dammann (1969), as *M. miliaris*, (12: 150-460 mm TL), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), as *M. miliaris*, obs., patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1972), as *M. miliaris*, (1: 325 mm TL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), as *M. miliaris*, Bahía Jobos.

Martin & Patus (1975), as *M. miliaris*, inner bay, central bay, Bahía Jobos.

Yoshioka (1975d), as *M. miliaris*, (1), rotenone, Punta Manati.

Dunne & Brown (1979), as *M. miliaris*, obs., Anegada.

Abrams & Schein (1986), as *M. miliaris*, obs., Coki reef, St. Thomas.

Böhlke et al. (1989), (3: 220-435 mm TL), Lesser Lameshur Bay, St. John [UMML 3738]; (1: 320 mm TL), Greater Lameshur Bay, St. John [UMML 4599]; (1: 353 mm TL), Greater Lameshur Bay, St. John [UMML 5377]; (1: 234 mm TL), coral reef, W side, Lagoon Pt., St. John [USNM 274266].

goldentail moray.

Gymnothorax moringa (Cuvier, 1829)

Stahl (1883: 80), as *G. rostratus*, Puerto Rico.

Evermann & Marsh (1900: 77), (2: 178 mm TL), Culebra; as *L. albimentis* (p. 78) (1: 51 mm TL type), coral bottom, 27 m, Culebra.

Fowler (1912), as *G. moringua*, reported, St. Thomas.

Fowler (1915), as *G. moringua*, reported, St. Thomas.

Fowler (1928), as *L. albimentis* and *L. moringua*, (4), Puerto Rico.

Nichols (1929: 196), obs., San Juan market.

Randall (1963a), (3: 715-850 mm TL), rotenone, artificial reef, Lesser Lameshur Bay; (6: 104-430 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (11: 71-558 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 34), Fig. 32, (1: 247 mm TL), St. John.

Dammann (1969), (13: 237-725 mm TL), rotenone, Chocolate Hole, St. John.

Sutcliffe (1970) examined type specimen and found vertebrae counts matched *G. moringa* rather than *G. vicinus*, thus synonymized *G. albimentis* with *G. moringa*.

Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1972), (1: 750 mm TL), patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Kimmel (1975), (1), algal mat; (9), rock outcrops; Punta Las Tunas.

Martin & Patus (1975), central bay, Bahía Jobos.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

Yoshioka (1975a), obs., collected, Bahía Tortuguero.

Yoshioka (1975c), obs., Cabo Mala Pascua.

Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Dunne & Brown (1979), (2), rotenone, Anegada.

Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.

Dyer et al. (1985), digenetic trematodes, (1), Turrumote reef, La Parguera.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Abrams & Schein (1986), obs., Coki reef, St. Thomas.

Böhlke et al. (1989), (1: 505 mm TL), San Juan [USNM 274341]; (1: 177 mm TL), shore reef, Balneario Aeropuerto, Guánica [FMNH 90715]; (19: 142-653 mm TL), La Parguera [ANSP 122056]; (1: 177 mm TL), grass reef, Maunabo, [USNM 147642]; (1: 50 mm TL), type of *L. albimentis*, Culebritos lighthouse, Culebra, FISH HAWK [USNM 49527]; (1: 190 mm TL), Culebra, FISH HAWK [SU 8277]; (1: 590 mm TL), St. Thomas [ANSP 23357]; (1: 156 mm TL), St. Thomas [USNM 131970]; (1: 614 mm TL), S. of St. John, OREGON 2617 [ANSP 106567]; (4: 119-304 mm TL), SW corner, Scrub Isl. [ANSP 110410]; (1: 108 mm TL), W end of South Beach, Little Camanoe Isl. [ANSP 110411]; (1: 115 mm TL), beach at Vixen Pt., Virgin Gorda [USNM 170182]; (3: 212-550 mm TL), reef, Eustatia Isl., Virgin Gorda [USNM 183442]; (1: 275 mm TL), Virgin Gorda [USNM 183541].

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Hixon & Beets (1989), obs., Perseverance Bay, St. Thomas.

Rooker & Dennis (1991), obs., mangroves, La Parguera.

Boulon (1992), collected, trap, mangroves, St. Thomas.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

spotted moray, chafiro, congres.

Gymnothorax ocellatus Agassiz, 1831

Evermann & Marsh (1899: 352), as *Lycodontis jordani*, (1: 381 mm TL type), Mayagüez.

Evermann & Marsh (1900), Pl. 2, color plate.

Erdman (1961a), Puerto Rico.

Böhlke et al. (1989), (1: 428 mm TL), La Parguera [ANSP 134327]; (1: 510 mm TL), Río Cullebrinas mouth, S of Aguadilla [ANSP 158112]; (1: 400 mm TL), type of *L. jordani*, Mayagüez, FISH HAWK [USNM 49358].

UPRM collection, occasional, mud, trawl, Bahía Mayagüez.

ocellated moray, chafiro.

Gymnothorax polygonius Poey, 1875⁵

Böhlke et al. (1989), (1: 665 mm TL), trawl, 183 m, off Punta Higuero, OREGON 2655 [ANSP 106566]; (1: 692 mm TL), fish trap, 200 m, west coast, Puerto Rico [ANSP 136514]; (3: 630-700 mm TL), fish trap, 200 m, west coast, Puerto Rico [ANSP 136515].

polygon moray.

Gymnothorax vicinus (Castelnau, 1855)

Erdman (1956: 323), "common over grassy bottom at La Parguera"; as *Lycodontis obscuratus*, (1), La Parguera.

Randall (1963a), (4: 593-822 mm TL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 36), Fig. 34, (1: 541 mm TL), St. John.

Dammann (1969), (1), rotenone, Chocolate Bay, St. John.

Eger (1970), (1), fish trap, Bahía Yabucoa.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Cooper (1974), (8), rotenone, *Thalassia* bed, La Parguera.

Martin & Patus (1975), central bay, reef & cays, outfall, Bahía Jobos.

Yoshioka (1975d), (3), rotenone, Punta Manati.

Yoshioka (1975f), (1), rotenone, Punta Verraco.

Martin & Cooper (1981), *Thalassia* beds, La Parguera.

Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Hixon & Beets (1989), obs., Perseverance Bay, St. Thomas.

Böhlke et al. (1989), (1: 114 mm TL), rock, Punta San Diego, Fajardo [USNM 147629]; (1: 567 mm TL), trawl, 49 m, OREGON 5458 [ANSP 110083]; (7: 129-429 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115550]; (2: 275-325 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115612]; (5: 110-217 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115644]; (1: 200 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118543]; (6: 174-577 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118631]; (11: 149-610 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118704]; (48: 43-300 mm TL), Puerto Rico [ANSP 129740]; (7: 200-480 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129906]; (3: 169-292 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129928]; (2: 215-225 mm TL), shore reef, Balneario Aeropuerto, Guánica [FMNH 74725]; (9: 76-286 mm TL), shore reef, Balneario Aeropuerto, Guánica [FMNH 74728]; (1: 270 mm TL), Isla Magueyes, La Parguera [FMNH 74726]; (1: 139 mm TL), Punta Joyuda [FMNH 74718]; (1: 560 mm TL), White Bay, Guana Isl. [ANSP 89353]; (1: 169 mm TL), White Bay, Guana Isl. [ANSP 89354]; (1: 159 mm TL), coral reef, White Bay, Guana Isl. [ANSP 89356]; (2: 207-230 mm TL), Guana Isl. [ANSP 110373]; (1: 54 mm TL), SW corner, Scrub Isl. [ANSP 124575].

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

purplemouth moray.

Monopenchelys acuta (Parr, 1930)⁶

Böhlke & Chaplin (1968: 79), as *Rabula acuta*, Puerto Rico.

Dennis et al. (in prep.), (1: 167 mm TL), rotenone, 20 m, shelf edge, La Parguera [UPRM 1111]; (1: 45 mm TL, leptocephali), off Puerto Rico, PILLSBURY Stat. 1377 [ANSP 156258].

redface moray.

Uropterygius macularis (Lesueur, 1825)⁷

Randall (1963a), as *Uropterygius* sp., (1: 197 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (38: 83-229 mm TL), rotenone, fringing reef, Ram's Head Bay, St. John.

Böhlke (1966a), as *Uropterygius diopus*, paratypes, (1: 192 mm TL), 1-3 m; Bahía de Yegua [UMML 1592]; (1: 224), 2 m, La Parguera [UMML 10322]; (1: 273), Caña Gorda [LACM 6730-17]; (5: 102-167), 1 m, Cabo Rojo [LACM 6828-1]; (3: 96-236 mm TL), Lesser Lameshur Bay, St. John [UMML 3749].

Dunne & Brown (1979), as *Aanrchias yoshiae*, (9), rotenone, Anegada.

Böhlke et al. (1989), (3: 122-202 mm TL), rotenone, patch reef 1, leeward shore, Anegada [BMNH 1976.7.14.14.16]; (6: 174-250 mm TL), rotenone, fringing reef, east end, Anegada [BMNH 1976.14.17.22]; (2: 165-189 mm TL), coral reef, W side Lagoon Pt., St. John [USNM 274344].

marbled moray.

MURAENESOCIDAE

Cynoponticus savanna (Cuvier, 1829)

Poey (1881: 344), as *Muraenesox savanna*, Puerto Rico.

Stahl (1883: 166), as *M. savanna*, Puerto Rico.

Ramsey (1967), as *M. savanna*, trawl, Bahía Mayagüez.

Yoshioka (1975d), as *M. savanna*, (1), rotenone, Punta Manati.

⁶Böhlke & McCosker (1982) moved *acuta* from *Rabula* to *Monopenchelys*.

⁷Böhlke et al. (1989) synonymized *U. diopus* with *U. macularis*.

UPRM collection, (1: 198 mm TL), trawl, Bahía Mayagüez CEER-B. Yoshioka, 19 Feb 88 [UPRM uncat.].

sapphire eel.

CONGRIDAE

Ariosoma balearicum (Delaroche, 1809)⁸

Erdman (1956: 338), as *A. impressa*, (1: 152 mm TL), night light, Isla Magueyes, La Parguera, [USNM].

Smith (1989c), (1: 115 mm TL), above specimen [USNM 114659].

UPRM collection (8: 76-150 mm TL), rotenone, sand with seagrass, Crashboat Basin, Aguadilla [UPRM 2634]; (1: 75 mm TL), El Nacillo reef, La Parguera [UPRM 3347]; (2: 95-106 mm TL), sand, 21 m, Reef Bay, St. John [UPRM 1919].

bandtooth conger.

Conger esculentus Poey, 1861

Stahl (1883: 80), as *Conges* [sic] *esculentus*, Puerto Rico.

Evermann & Marsh (1900: 70), as *Leptocephalus conger*, new genus and species.

Smith (1989c), (1: 700 mm TL), off Mayagüez [ANSP 139682].

UPRM collection (1: 584 mm TL), Corcega [UPRM 756].

Antillean conger.

Conger triporiceps Kanazawa, 1958

Randall (1968a: 28), Fig. 26, (1: 310 mm TL), El Negro reef, Mayagüez [UPRM 1593].

Almodóvar & Pagan (1971), (2: 260-295 mm TL), mangroves, Isla Guayacán, La Parguera.

Dyer et al. (1985), digenetic trematodes, (6), off Río Añasco.

UPRM collection, (1: 100 mm TL), 21 m, shelf edge, La Parguera [UPRM 2980]; (3: 106-333 mm TL), 15 m, Enrique reef, La Parguera [UPRM 2981].

manytooth conger.

Heteroconger longissimus Günther, 1870⁹

Böhlke (1957a), as *Nystactes halis*, (1: 481 mm TL paratype); 9-13 m; Crashboat Basin, Aguadilla [ANSP 75162].

Kumpf (1965), as *Taenioconger halis*, observed, Botany Bay, St. Thomas.

Randall (1967), as *Taenioconger halis*, food habits.

Randall (1968a: 30), as *Nystactichthys halis*, (1: 401 mm TL), Fig. 27, St. John.

Collette & Talbot (1972), as *Nystactichthys halis*, obs., (300+), algal flats, Greater Lameshur Bay, St. John.

Martin & Patus (1984), as *Nystactichthys halis*, photograph, La Parguera.

Kimmel (1985b), as *Heteroconger halis*, obs., La Parguera.

Tyler & Luckhurst (1994), examined, (1), Crashboat Basin, Aguadilla [ANSP 75162].

Dennis (pers. obs.), obs., Coki Beach, St. Thomas.

garden eel.

Uroconger syringinus Ginsburg, 1954

⁸Smith & Kanazawa (1977) synonymized *Ariosoma impressa* with *A. balearicum*.

⁹Saldanha et al. (1986) has synonymized *H. halis* with the eastern Atlantic species *H. longissimus*.

Smith (1989c), (1: 385 mm TL), trawl, 183 m, off Punta Higuero, OREGON 2655 [ANSP 114159].

threadtail conger.

OPHICHTHIDAE

Ahlia egmontis (Jordan, 1884)

Erdman (1956: 323), as *Myrophis egmontis*, (1: 102 mm TL), coral rocks, Guánica [UPRM 802].

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Cooper (1974), (16), rotenone, *Thalassia* bed, La Parguera.

Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.

Smith & Tyler (1975), (1), Greater Lameshur Bay, St. John.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Dunne & Brown (1979), (1), rotenone, Anegada.

Martin & Cooper (1981), *Thalassia* beds, La Parguera.

McCosker et al. (1989), (2: 55-208 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115551]; (1: 110 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118705]; (3: 275-433 mm TL), La Parguera [ANSP 126500]; (1: 305 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129900]; (1: 167 mm TL), Puerto Rico, OREGON II 24234 [ANSP 140581]; (1: 185 mm TL), Puerto Rico [USNM uncat.]; (2: 78-129 mm TL), beach, Cam Bay, Great Camanoe Isl. [ANSP 123861]; (2: 111-139 mm TL), rocks, W end, White Bay, Guana Isl. [ANSP 124253]; (1: 253 mm TL), coral reef, White Bay, Guana Isl. [ANSP 124381]; (3: 101-140 mm TL), White Bay, Guana Isl. [ANSP 124485]; [4: 92-195 mm TL), submarine dock, Charlotte Amalie, St. Thomas [ANSP 126146]; (1: 55 mm TL), St. Thomas [USNM 100460].

key worm eel.

Aplatophis chauliodus Böhlke, 1956

Böhlke (1956), (1: 466 mm TL holotype), dredge, Mayagüez pier [FMNH 61772]; (1: 222 mm TL paratype), Caño Corazones, N of Punta Guanajibo [ANSP 73871].

Erdman (1956: 338), (1) Mayagüez harbor; (1) Caño Corazones (apparently same specimens as described by Böhlke (1956)).

McCosker et al. (1989), (1: 381+ mm TL), beach seine, Playa Mani, Mayagüez [UPRM 3653].

toothy eel.

Aprognathodon platyventris Böhlke, 1967

Böhlke (1967), (1: 118 mm TL paratype), 3 m, Firewood Bay, Culebra [ANSP 106308].

McCosker et al. (1989), (2: 308-328 mm TL), reef, Great Camanoe Isl. [ANSP 106306]; (1: 185 mm TL paratype), Caneel Bay, St. John [UMML 6661]; (1: 381 mm TL), Virgin Islands [UPRM 1117].

striped eel.

Bascanichthys bascanium (Jordan, 1884)

McCosker et al. (1989), (2: 189-199 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118632]; (1: 414 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129903].

sooty eel.

Bascanichthys inopinatus McCosker et al. 1989

McCosker et al. (1989), (1: 658 mm TL holotype), Playa de Guayanes, Punta Yabucoa [ANSP 158885]; (1: 373 mm TL paratype), 22 m, Crashboat Basin, Aguadilla [UF 18131]; (1: 628 mm TL), with holotype, Playa de Guayanes, Punta Yabucoa [ANSP 158886]; (1: 813 mm TL), Playa Humacao [UPRM 3654].

Puerto Rico sand eel.

Callechelys guineensis (Osorio, 1894)¹⁰

McCosker et al. (1989), (1: 601 mm TL, rotenone, 13 m, Crashboat Basin, Aguadilla [CAS 54469].
UPRM collection, (1), speared, sand, Crashboat Basin, Aguadilla [UPRM 3350].

shorttail snake eel.

Caralophia loxochila Böhlke, 1955

McCosker & Böhlke (1984), Puerto Rico.

McCosker et al. (1989), (3: 137-350 mm TL), sand, Crashboat Basin, Aguadilla [ANSP 136519]; (2: 155-456 mm TL), Crashboat Basin, Aguadilla [ANSP 13877]; (2: 328-396 mm TL), Puerto Rico [LACM 6522-7].

UPRM collection, (4: 173-253 mm TL), rotenone, sand, 3 m, Firewood Bay, Culebra [UPRM 2408]; (1: 229 mm TL), rotenone, sand with seagrass, 8 m, Crashboat Basin, Aguadilla [UPRM 2988].

slantlip eel.

Echiophis intertinctus (Richardson, 1848)¹¹

Ginsburg (1951a), as *Mystriophis intertinctus*, (1: 372 mm TL) St. Thomas [USNM 6956].

McCosker et al. (1989), (2: 508-770 mm TL), Puerto Rico [LACM 6522-23].

spotted spoon-nose eel.

Gordiichthys irretitus Jordan & Davis, 1891

McCosker & Böhlke (1984), (1: 391 mm TL), fish trap, 200 m, Mayagüez [ANSP 138154].

McCosker et al. (1989), (1: 391 mm TL), fish trap, 100 m, W of Mayagüez [CAS 54472].

horsehair eel.

Gordiichthys randalli McCosker & Böhlke, 1984

McCosker & Böhlke (1984), (1: 537 mm TL holotype), 7.5 m, Crashboat Basin, Aguadilla [ANSP 151690]; (1: 662 mm TL paratype), 12 m, Crashboat Basin, Aguadilla [ANSP 151689]; (1: 598 mm TL paratype), 10.5 m, Crashboat Basin, Aguadilla [USNM 263572]; (1: 540 mm TL paratype), 12 m, Crashboat Basin, Aguadilla [BPBM 29361].

Randall's horsehair eel.

Ichthyapus ophioneus (Evermann & Marsh, 1900)¹²

Evermann & Marsh (1900: 73), as *Sphagebranchus ophioneus*, (1: 286 mm TL holotype), 7 m, Mayagüez.

Kimmel (1975), as *S. ophioneus*, (1), rock outcrops, Punta Las Tunas.

McCosker et al. (1989), (1: 203 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115553]; (1: 302 mm TL), Crashboat Basin, Aguadilla [ANSP 136521].

¹⁰McCosker et al. (1989), synonymized *C. perryae* with *C. guineensis*.

¹¹McCosker (1977) transferred *intertinctus* to the genus *Echiophis*.

¹²Böhlke & McCosker (1975) transferred *ophioneus* to the genus *Ichthyapus*.

surf eel.

Myrichthys breviceps (Richardson, 1848)¹³

- Kaup (1860: 14), as *Pisoodonophis coronata*, type locality, St. Thomas [ZMH H391].
 Nichols (1915b: 141), as *M. acuminatus*, (1), Bahía Condado, San Juan.
 Randall (1967), as *M. acuminatus*, food habits.
 Randall (1968a: 33), as *M. acuminatus*, Fig. 33, (1: 327 mm TL), *Porites* reef, 1 m, La Parguera [UPRM 2444].
 Martin & Patus (1973), as *M. acuminatus*, Bahía Jobos.
 Martin & Patus (1975), as *M. acuminatus*, reef & cays, outfall, Bahía Jobos.
 Yoshioka (1975c), as *M. acuminatus*, (1), seine, *Thalassia* bed; (1), rotenone, rocky shore, Cabo Mala Pascua.
 McCosker et al. (1989), (2: 139-311 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118633]; (2: 365-600 mm TL), La Parguera [ANSP 126413]; (1: 555 mm TL), off Anegada, OREGON 6732 [ANSP 139839].

sharptail eel.

Myrichthys ocellatus (Lesueur, 1825)¹⁴

- Poey (1881: 345), as *Ophichthys latimaculatus*, Puerto Rico.
 Evermann & Marsh (1900: 74), as *M. oculatus*, (1: ~610 mm TL), Hucares.
 Silvester (1916: 214), as *Myrichthys keckii*, (1: 70 mm TL type), mud flats, near mangroves, Guánica [PUZM 3082].
 Silvester (1918: 20), as *M. kecki*, Pl. 2, Fig. 2.
 Erdman & Maytag (1957), as *M. oculatus*, (1), in barracuda stomach, off San Juan.
 Kumpf (1965), as *M. oculatus*, observed, collected, Botany Bay, St. Thomas.
 Randall (1967), as *M. oculatus*, food habits.
 Randall (1968a: 32), as *M. oculatus*, Fig. 30, (1: 643 mm TL), St. John [UPRM 1224].
 Kimmel (1975), as *M. oculatus*, (1), rock outcrops, Punta Las Tunas.
 Dunne & Brown (1979), as *M. oculatus*, obs., Anegada.
 McCosker et al. (1989), (5: 198-506 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115552]; (1: 234 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 115645]; (1: 326 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118634]; (1: 163 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 118706]; (6: 266-510 mm TL), Playa de Guayanés, Puerto Yabucoa [ANSP 129905]; (3: 243-465 mm TL), Playa de Guayanés, Puerto Yabucoa [CAS 54474]; (13: 190-554 mm TL), grass reef, Punta Joyuda [FMNH 74763]; (1: 605 mm TL), Hucares, FISH HAWK [USNM 126437]; (1: 535 mm TL), Bahía Condado, San Juan [USNM 274242]; (2: 420-565 mm TL), Puerto Rico [USNM 274252]; (3: 136-355 mm TL), beach, Cam Bay, Great Camanoe Isl. [ANSP 124484].

goldspotted eel.

Myrophis anterodorsalis McCosker, Böhlke, & Böhlke, 1989

- McCosker et al. (1989), (1: 143 mm TL), (1: 143 mm TL), rotenone, 1 m, coral reef, Isla Magueyes, La Parguera [UPRM 1228]; (1: 108 mm TL), Enrique reef, La Parguera [UPRM 2585]; (1: 108-124 mm TL), rotenone, 12 m sand with seagrass, Crashboat Basin, Aguadilla [UPRM 2991]; (3: 96-117 mm TL), rotenone, 8 m, sand with seagrass, Crashboat Basin, Aguadilla [UPRM 2992].

worm eel.

¹³McCosker et al. (1989) synonymized *Myrichthys acuminatus* with *M. breviceps*.

¹⁴McCosker et al. (1989) synonymized *Myrichthys oculatus* with *M. ocellatus*.

Myrophis platyrhynchus Breder, 1927

McCosker et al. (1989), (1: 146 mm TL), Crashboat Basin, Aguadilla [ANSP 136523]; (1: 166 mm TL), Virgin Islands, OREGON II 24254 [ANSP 140577]; (2: 98-102 mm TL), Great Camanoe Isl. [CAS 54475].

broadnose worm eel.

Myrophis punctatus Lütken, 1851

Silvester (1916: 214), as *Myrophis longleii*, (1: 12 cm), sand flats, Guánica [PUZM 3083].

Fowler (1917), examined, St. Thomas.

Silvester (1918: 20), as *M. longleii*, Pl. 2, Fig. 1.

Austin (1971a), (2: 113-316 mm TL), toxic waste fish kill, Río Guanajibo, Mayagüez; hypoxia fish kill, Laguna Joyuda.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Cooper (1974), (60), rotenone, *Syringodium* bed, La Parguera.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Martin & Patus (1975), reef & cays, ship channel, outfall, Bahía Jobos.

Kimmel (1975), (1), algal mat, Punta Las Tunas.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Yoshioka (1975d), (1), rotenone, Punta Manati.

Dunne & Brown (1979), (1), rotenone, Anegada.

Martin & Cooper (1981), *Syringodium* beds, La Parguera.

McCosker et al. (1989), (1: 353 mm TL), Boca de Congrejos, San Juan [ANSP 114540]; (1: 121 mm TL), leeward, Laurel reef, La Parguera [ANSP 134326]; (2: 176-177 mm TL), Ojo de Agua spring, near central San Francisco, Guayanilla [USNM 147623]; (8: 88-231 mm TL), mangrove creek, Punta Monserrate, Luquillo [USNM 147630]; (1: 121 mm TL), submarine dock, Charlotte Amalie, St. Thomas [ANSP 124024].

speckled worm eel.

Ophichthus gomesii (Castelnaud, 1855)

Evermann & Marsh (1900: 75), (1: 216 mm TL), Mayagüez.

Ginsburg (1951a), (1), Puerto Rico.

Randall (1968a: 31), Fig. 29, (1: 588 mm specimen), sandy bottom, 15 m, hook and line, La Parguera [UPRM 2396].

McCosker et al. (1989), (1: 630 mm TL), La Parguera [ANSP 134328]; (1: 74 mm TL), muddy bottom, Bahía Guayanilla [ANSP 153324]; (1), La Parguera [MNHN 1974-169]; (1: 210 mm TL), Mayagüez, FISH HAWK [USNM 125507].

shrimp eel.

Ophichthus ophis (Linnaeus, 1758)

Randall (1967), food habits.

Randall (1968a: 31), collected, Puerto Rico.

UPRM collection, (1: 630 mm TL), sandy bottom, 10 m, spear, Crashboat Basin, Aguadilla [UPRM 2233].

spotted snake eel.

PRISTIGASTERIDAE*Chirocentron bleekermanus* (Poey, 1867)

Poey (1881: 343), as *Pellona bleekermanus*, Puerto Rico

Stahl (1883: 79), as *Pellona bleekermanus*, Puerto Rico.

- Nichols (1929: 204), as *Ilisha bleekariana*, new genus.
 Ramsey (1967), common, trawl, Bahía Mayagüez.
 Martin & Patus (1973), (1), muddy bottom, 20 m, Bahía Guayanilla.
 Wood et al. (1975), as *C. taeniatus*, collected, inner bay, Bahía Guayanilla.
 Erdman (1983), as *C. taeniatus*, Puerto Rico.
 Kimmel (1991), as *C. taeniatus*, baitfish, Puerto Rico.

spiny-toothed herring, pelaílla, peje plástico.

CLUPEIDAE

Harengula clupei (Cuvier, 1829)

- Fowler (1928), as *H. macrophthalma*, Puerto Rico.
 Storey (1938), examined, Puerto Rico.
 Siddiqi & Cable (1960), as *H. macrophthalma*, trematodes absent, Puerto Rico.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 23), Fig. 18, (1: 114 mm TL), St. John.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), central bay, ship channel, Bahía Jobos.
 Yoshioka (1975a), (58), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), (44), rotenone, Punta Manati.
 Negrón González & Cintrón (1979), collected, estuary, Río Cibuco, Río Loiza.
 Corujo Flores (1980), (4: 134-152 mm SL), gill net, estuary, Río Espiritu Santo.
 Kimmel (1985b), obs., La Parguera.
 Negrón González (1986), collected, Laguna Grande; Laguna Salinas; Laguna Boquerón; Laguna Joyuda.
 Beets & LaPlace (1991), baitfish, St. Thomas.
 Kimmel (1991), baitfish, Puerto Rico.
 Burger et al. (1992c), mercury levels, Puerto Rico.

false pilchard, cascarúa.

Harengula humeralis (Cuvier, 1829)

- Evermann & Marsh (1900: 85), as *Sardinella macrophthalma*, (9: 64-152 TL mm), San Juan; Fajardo; Culebra; Puerto Real.
 Fowler (1911), as *Sardinella humeralis*, (2), Boqueron; (2), Hucare [ANSP].
 Nichols (1915a), as *Sardinella sardina*, abundant, San Juan.
 Nichols (1915b: 141), as *Sardinella sardina*, “the abundant herring in San Juan Harbor.”
 Nichols (1929: 202), as *Harengula sardina*, (22), San Antonio bridge; Santurce.
 Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 23), Fig. 17, (1: 83 mm SL), Isla Maguëyes [UPRM 1492].
 Almodóvar & Pagan (1971), (38: 50-60 mm SL), rotenone, Isla Guayacan, La Parguera.
 Austin (1971a), (9: 54-87 mm SL), mangroves, La Parguera, Bahía Guánica.
 Cooper (1974), (46), rotenone, *Thalassia* bed, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), sandy bottom, Punta Las Tunas.

Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Riemold (1975), as *Sardinella sardina*, collected, Punta Cangrejos; Coral Bay, St. John.
 Dunne & Brown (1979), obs., Anegada.
 Negrón González & Cintrón (1979), collected, estuary, Río Cibuco, Río Loiza, Río Espiritu Santo.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Boulon (1985a), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (1), Crashboat Basin, Aguadilla.
 Kimmel (1985b), obs., La Parguera.
 Beets & LaPlace (1991), baitfish, St. Thomas.
 Kimmel (1991), baitfish, Puerto Rico.
 Boulon (1992), obs., mangroves, St. Thomas.

redeal sardine, yellow bill, sardina de ley, machuelo.

Harengula jaguana Poey, 1865

Evermann & Marsh (1900: 85), as *Sardinella humeralis*, “very common, captured extensively with cast net”; (89: 76-140 mm TL), San Geronimo; San Juan; Hucares; Culebra; Arroyo; Boquerón; Puerto Real; Mayagüez; Palo Seco.
 Fowler (1928), as *H. pensacolatae*, (5), Puerto Rico.
 Rivas (1950), as *H. pensacolatae caribbaea*, found Evermann & Marsh's specimens Palo Seco and San Juan [USNM 63062, 73833, 76506] to be this species.
 Kimmel (1991), baitfish, Puerto Rico.

scaled sardine, sardina escamúa, cascarúa.

Jenkinsia lamprotaenia (Gosse, 1851)

Evermann & Marsh (1900: 84), (1: 64 mm), Puerto Rico.
 Nichols (1929: 201), synonymized *stolifera* with *lamprotaenia* after Beebe & Tee-Van (1928), but these two forms are good species according to Whitehead (1973).
 Randall (1963a), collected, fringing reef, Greater Lameshur Bay, St. John.
 Randall (1965c), stomach of *H. brasiliensis*, seagrass, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Erdman (1967b), food of brown pelican, La Parguera.
 Randall (1967), food habits.
 Randall (1968a: 24), Fig. 20, (1: 53 mm TL), Majimo reef, Mayagüez [UPRM 1707].
 Dammann (1969), (3: 25-28 mm TL), rotenone, Chocolate Hole, St. John.
 Almodóvar & Pagan (1971), (25: 20-52 mm SL), rotenone, mangroves, Isla Guayacan, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Cooper (1974), (171), rotenone, *Thalassia* bed, La Parguera.
 Martin & Patus (1975), in fish stomachs, Bahía Jobos.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985b), obs. La Parguera.
 Beets & LaPlace (1991), baitfish, St. Thomas.
 Kimmel (1991), baitfish, Puerto Rico.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Coblentz (1995), cast net, Lameshur Bay, St. John.

dwarf herring, blue fry, sweethead fry, mijúa, minjúa.

Jenkinsia parvula Cervigon & Velasquez, 1978

- Evermann & Marsh (1900: 84), as *J. stolifera* [in part], numerous near reefs, Culebra.
 Whitehead (1973: 20), as *Jenkinsia* near *J. stolifera* (in part), (15) [BMNH 1965.7.12.46-107].
 Dennis et al. (in prep), (33: 19.7-42.1 mm SL), seine, Collado, La Parguera [UPRM uncat.]; (16: 24.0-32.0), rotenone, shore, Greater Lameshur Bay, St. John [UF 205280 in part]: (4: 29.0-38.5), Culebra, FISH HAWK, 11 Feb 1899 [ANSP 23612]; (1: 30.5), Culebra, FISH HAWK, 11 Feb 1899 [ANSP 29802].

herring.

Jenkinsia stolifera (Jordan & Gilbert, 1884)¹⁵

- Evermann & Marsh (1900: 84), numerous near reefs, Culebra.
 Fowler (1911), (4), Culebra [ANSP].
 Martin & Patus (1984), more common in less protected areas.

shortband herring.

Opisthonema oglinum (Lesueur, 1818)

- Poey (1881: 343), as *Opisthonemus thrissa*, Puerto Rico.
 Stahl (1883: 80), as *O. thrissa*, Puerto Rico.
 Evermann & Marsh (1900: 86), common, (47: 83-229 mm TL), San Geronimo; San Juan market; Fajardo; Hucares; Isabel Segunda; Guánica; Mayagüez; Palo Seco.
 Fowler (1911), (1), San Juan; (1), Hucares [ANSP].
 Fowler (1928), (1), Puerto Rico.
 Price (1934), trematodes, Fajardo Roads.
 Siddiqi & Cable (1960), trematode parasites, Playa Mani.
 Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Eger (1968), (15), oil spill toxicity, Bahía San Juan.
 Randall (1968a: 24), Fig. 19, (1: 132 mm TL), Isla Magueyes [UPRM 1466].
 Austin (1971a), (1: 1124 mm SL), gill net, Guayanilla; obs., La Parguera.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), sandy bottom, Punta Las Tunas.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (1), gill net, Punta Verraco.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Corujo Flores (1980), (137: 86-224 mm SL), gill net, estuary, Río Espiritu Santo.
 Parrish (1982), gill net, off Punta Ostiones.
 Kimmel (1985b), obs., La Parguera.
 Negrón González (1986), collected, Laguna Mar Negro; Laguna Boquerón.
 Dennis et al. (1991), night lighting, La Parguera.
 Kimmel (1991), baitfish, Puerto Rico.
 Burger et al. (1992c), mercury levels, Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, Levitown; Humacao.

Atlantic thread herring, machuelo, sardina de altura, sardina de lancha, arenque, arenca.

¹⁵This species is not verified from the Antilles; no specimens were found in museum collections. The genus needs further study (see Whitehead, 1973).

Sardinella aurita Valenciennes in Cuvier & Valenciennes, 1847

Poey (1881: 343), as *Sardinia pseudo-hispanica*, Puerto Rico.

Stahl (1883: 80), as *Sardinia pseudo-hispanica*, Puerto Rico.

Evermann & Marsh (1900: 84), as *Clupanodon pseudohispanica*, collected, Culebra.

Nichols (1929: 201), as *Sardinella anchovia*, new genus, new species.

Eger (1968), obs., Bahía San Juan.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), central bay, Bahía Jobos.

Martin & Patus (1984), juveniles, occasional with *Jenkinsia*.

Prince & Gonzalez (1985), fish aggregating device, San Juan.

Erdman et al. (1986), (50: 72-102 mm SL), Ponce.

Spanish sardine, sardina de España.

Sardinella janeiro (Eigenmann & Bray, 1894)

Dennis et al. (in prep), (2: 69-80), trawl, 18 m, off Añasco [UPRM 2154]; (5: 45-74), ? [UPRM 2598]; (1: 73), ? [UPRM 3376].

orangespot sardine, sardina.

ENGRAULIDAE

Anchoa cayorum (Fowler, 1906)

Dennis et al. (in prep), (1), seine, 1 m, Bahía Jobos [UPRM 3554].

key anchovy.

Anchoa colonensis Hildebrand, 1943¹⁶

Evermann & Marsh (1900: 88), as *Stolephorus brownii*, abundant, (33), Fajardo; Hucares; Isabel Segunda; Puerto Real; Mayagüez; Palo Seco.

Fowler (1911), as *Anchovia brownii*, (1), Mayagüez.

Fowler (1928), as *Engraulis epsetus*, many, Puerto Rico.

Nichols (1929: 205), as *Anchovia brownii*, new genus.

Hildebrand (1943), as *Anchoa hepsetus*.

Erdman (1956: 321), as *Anchovia brownii*, spawning, July.

Siddiqi & Cable (1960), as *Anchoviella epsetus*, trematode parasites, Bahía Boquerón.

Ramsey (1967), as *A. hepsetus*, common, trawl, Bahía Mayagüez.

Eger (1970), as *A. hepsetus*, (8), seine, Bahía Yabucoa.

Martin & Patus (1973), as *A. hepsetus*, Bahía Jobos.

Martin & Patus (1975), as *A. hepsetus*, in fish stomachs, Bahía Jobos.

Corujo Flores (1980), as *A. hepsetus*, (5: 89-99 mm SL), gill net, estuary, Río Espiritu Santo.

Stoner (1986), as *A. hepsetus*, (44), trawl, Laguna Joyuda.

Kimmel (1991), as *A. hepsetus*, baitfish, Puerto Rico.

striped anchovy, manjúa, boquiculebra.

¹⁶G. Nelson (pers. comm.) gives full species status to Hildebrand's subspecies *Anchoa colonensis* and identified specimens of *A. hepsetus* from Puerto Rico as *A. colonensis*.

Anchoa cubana (Poey, 1868)

- Poey (1881: 344), as *Engraulis cubanus*, Puerto Rico.
Stahl (1883: 80), as *Engraulis cubanus*, Puerto Rico.
Evermann & Marsh (1900: 88), as *Stolephorus cubanus*, new genus.
Nichols (1929: 204), as *Anchovia cubana*, new genus.
Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), ship channel, Bahía Jobos.
Stoner (1986), (124), trawl, Laguna Joyuda.

Cuban anchovy.

Anchoa lamprotaenia Hildebrand, 1943

- Hildebrand (1943), examined, Puerto Rico.
Hildebrand (1963), examined, Puerto Rico.
Ramsey (1967), trawl, Bahía Mayagüez.
Daly (1970), (2), beach pond, Río Añasco [UMML 1945].
Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
Yoshioka (1975f), (4), gill net, Punta Verraco.
Kimmel (1991), baitfish, Puerto Rico.

bigeye anchovy.

Anchoa longipinna (Beebe & Tee-Van, 1928)¹⁷

- Hildebrand (1943), as *Anchoa filifera*, Puerto Rico.
Ramsey (1967), as *Anchoa filifera*, abundant, trawl, Bahía Mayagüez.
Nelson (1986), examined, Puerto Rico.

anchovy.

Anchoa lyolepis (Evermann & Marsh, 1900)¹⁸

- Evermann & Marsh (1900: 88), as *Stolephorus choerostomus*, common, Fajardo; Hucares; Puerto Real; (p. 89), as *Stolephorus lyolepis*, (1: 37 mm TL holotype); Culebra; (36: 30-37 mm TL paratypes), same locality as holotype [USNM 4952].
Nichols (1929: 205), as *Anchovia choerostoma*, (26), San Antonio bridge; San Juan; Cataño; Punta Palo Seco.
Erdman (1956: 320), as *Anchovia choerostoma*, spawning, March.
Randall (1968a: 25), Fig. 21, (1: 64 mm TL), St. John.
Nelson (1986), examined, Puerto Rico, St. Thomas, St. John, Virgin Gorda.
Stoner (1986), (1), trawl, Laguna Joyuda.
Beets & LaPlace (1991), baitfish, St. Thomas.

dusky anchovy.

¹⁷Nelson (1986) resurrected *Anchoa longipinna* from synonymy with *A. filifera* for the Antillean member of a species complex.

¹⁸Hildebrand (1963) synonymized the *Anchoa choerostomus* of Evermann & Marsh and Nichols with *A. lyolepis*; the true *A. choerostomus* is restricted to Bermuda.

Anchoa parva (Meek & Hildebrand, 1923)

- Ramsey (1967), abundant, trawl, Bahía Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), outfall, Bahía Jobos.
 García (1981), (9), gill net, Laguna Joyuda.
 Stoner (1986), (24), trawl, Laguna Joyuda.

anchovy.

Anchovia clupeioides (Swainson, 1839)

- Evermann & Marsh (1900: 90), as *Stolephorus productus*, (16: 153 mm TL), Ponce; Palo Seco.
 Fowler (1911), (1), Río Seco [ANSP].
 Fowler (1928), as *Engraulis clupeioides*, (5), Puerto Rico.
 Nichols (1929: 206), as *Anchovia producta*, new genus.
 Siddiqi & Cable (1960), as *Anchovia producta*, trematodes absent, Puerto Rico.
 Corujo Flores (1980), (35: 79-170 mm SL), gill net, estuary, Río Espiritu Santo.
 Stoner (1986), as *Anchovia producta*, (13), trawl, Laguna Joyuda.

broadhead anchovy, hechudo.

Anchoviella perfasciata (Poey, 1860)

- Evermann & Marsh (1900: 88), as *Stolephorus perfasciatus*, (15: 70-102 mm TL), Aguadilla.
 Fowler (1911), (3), Aguadilla [ANSP].
 Nichols (1929: 204), as *Anchovia perfasciata*, new genus.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.

flat anchovy.

Cetengraulis edentulus (Cuvier, 1829)

- Evermann & Marsh (1899: 352), as *Stolephorus gilberti*, (1: 114 mm TL type), Palo Seco [USNM 49359]; as *Stolephorus garmani*, (1: 114 mm TL type), Puerto Real [USNM 49360].
 Fowler (1928), as *Engraulis gilberti*, (2), Puerto Rico.
 Erdman (1956: 319), "at times ... extremely abundant in muddy bays (such as Mayagüez and Añasco)."
 Ramsey (1967), trawl, Bahía Mayagüez.
 Eger (1968), as *Cetengraulis*, sp., (2), oil spill toxicity, Bahía San Juan.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Austin (1971a), (4: 48-63 mm SL), Bahía Guayanilla; obs., Laguna Joyuda; Guánica; Río Guanajibo.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 González-Azar & Vilella (1975), collected, Laguna Piñones.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.
 Negrón González & Cintrón (1979), collected, estuary, Río Cibuco, Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), (42: 87-116 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (12), gill net, Laguna Joyuda.
 Negrón et al. (1982), collected, Laguna Punta Arenas.
 Negrón González (1986), collected, Laguna Aguas Prietas; Laguna Pozuelo; Laguna Boquerón.
 Kimmel (1991), baitfish, Puerto Rico.
 Burger et al. (1992c), mercury levels, Puerto Rico.

whalebone anchovy, anchoveta, bocona, coliamarilla.

SYNODONTIDAE

Saurida brasiliensis Norman, 1935

- Bullis & Thompson (1965), trawl, 51 m, NW St. Thomas, OREGON 2626 (corrected).
Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
UPRM collection, (2: 71-80 mm SL), trawl, 18 m, off Río Añasco [UPRM 2154]; (6: 47-73 mm SL), mud bottom, trawl, 18 m, Mayagüez Harbor [UPRM 2598]; (1: 73 mm SL), trawl, off Río Añasco [UPRM 3376].

Brazilian lizardfish.

Saurida normani Longley, 1935

- Bullis & Thompson (1965), trawl, 64 m, N of Jost Van Dyke., OREGON 2623 (corrected).
Martin & Patus (1984), (1), 10 m, ship channel, Bahía Jobos.
Dyer et al. (1985), digenetic trematodes, (1), La Parguera.

shortjaw lizardfish.

Saurida suspicio Breder, 1927

- Anderson et al. (1966), (1: 57 mm SL), near San Juan [USNM 76512]; (1: 74 mm SL), submarine light, Brewer's Bay, St. Thomas [USNM 108441].
Kimmel (1975), (1), sandy bottom, Punta Las Tunas.

lizardfish.

Synodus foetens (Linnaeus, 1758)

- Evermann & Marsh (1900: 92), (2), 137 m, Mayagüez Harbor; (3: 140-356 mm TL), Isabel Segunda; Boquerón; Puerto Real.
Bullis & Thompson (1965), trawl, 33 m, N of Tortola, OREGON 2613 (corrected).
Kumpf (1965), observed, Botany Bay, St. Thomas.
Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
Randall (1967), food habits.
Randall (1968a: 27), Fig. 23, (1: 312 mm TL), St. John.
Dammann (1969), (1), rotenone, Chocolate Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Kimmel (1975), (1), algal mat, Punta Las Tunas.
Martin & Patus (1975), central bay, ship channel, Bahía Jobos.
Dunne & Brown (1979), obs., Anegada.
Dyer et al. (1985), digenetic trematodes, (3), Bahía Mayagüez.

inshore lizardfish, galliwasp, lagarto.

Synodus intermedius (Spix & Agassiz, 1829)

- Evermann & Marsh (1900: 92), "most abundant species of *Synodus*", (5: 178-305 mm TL), Culebra; Boquerón; Puerto Real.
Idyll & Randall (1959), trolling, St. John.
Idyll & Randall (1960), as *S. interruptus*, trolling, Caneel Bay, St. John.
Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 46 m, N of Jost Van Dyke, OREGON 2608; 64 m, N of Jost Van Dyke, OREGON 2623; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 26), Fig. 22, (1: 356 mm TL), El Negro reef, Mayagüez [UPRM 1888].
 Dammann (1969), (1), rotenone, Chocolate Bay, St. John.
 Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Piaastro (1973), "common on reefs", La Parguera.
 Smith & Tyler (1975), obs., patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Dunne & Brown (1979), obs., Anegada.
 Parrish (1982), collected, off Punta Ostiones.
 Dyer et al. (1985), digenetic trematodes, (1), Isla Magueyes, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), (17), obs., El Palo reef, La Parguera.
 Boulon (1992), obs., mangroves, St. John.

sand diver, doncella, guavina.

Synodus poeyi Jordan, 1886

Bullis & Thompson (1965), trawl, 75 m, N of Tortola, OREGON 2616; 44 m, N of Tortola, OREGON 2621; 51 m, NW of St. Thomas, OREGON 2626 (corrected).
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 UPRM collection, (1: 73 mm SL), trawl, 8 m, Bahía Boquerón [UPRM 2727]; (6: 42-112 mm SL), trawl, 18 m, Mayagüez Harbor [UPRM 2599]; (2: 43-119 mm SL), trawl, 18 m, Bahía Mayagüez [UPRM 2960]; (2: 73-87 mm SL), trawl, 18 m, off Río Añasco [UPRM 2157].

Poey's lizardfish.

Synodus saurus (Linnaeus, 1758)

Kimmel (1975), (1), sandy bottom, Punta Las Tunas.
 Martin & Patus (1984), collected, shallow water, Puerto Rico.

bluestriped lizardfish.

Synodus synodus (Linnaeus, 1758)

Gibbs (1959), (1 postlarvae), tuna stomach, off Punta Borinquen [MCZ 40019].
 Randall (1963a), (1: 80 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 64 m, N of Jost Van Dyke, OREGON 2623; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
 Randall (1967), food habits.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), sandy bottom, Punta Las Tunas.
 Yoshioka (1975d), (1), rotenone, Punta Manati.
 Dunne & Brown (1979), (11), rotenone, Anegada.
 UPRM collection, (1: 92 mm SL), north coast, Puerto Rico [UPRM 3528].

red lizardfish.

Trachinocephalus myops (Forster in Bloch & Schneider, 1801)

Evermann & Marsh (1900: 91), (1: 178 mm TL), San Geronimo.

Randall (1968a: 28), Fig. 25, (1: 163 mm TL), Crashboat Basin, Aguadilla [UPRM 2646].

Dunne & Brown (1979), (1), rotenone, Anegada.

snakefish, lagarto.

GOBIESOCIDAE*Acyrtops amplicirrus* Briggs, 1955

Briggs (1955), (1: 17.4 mm TL holotype), St. Thomas; (14: 13.1-17.9 mm TL paratypes), St. Thomas [ZMK 21.9.1916.562-576; SU 18101].

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Martin & Patus (1975), reef & cays, Bahía Jobos.

UMML collection, (3: 8-14 mm SL), push net, seagrass, Coral Bay, St. John [UMML 17291].

clingfish.

Acyrtops beryllinus (Hildebrand & Ginsburg, 1926)

Erdman (1956), (1), rocks, Cabo Rojo Lighthouse [USNM 128806].

Gould (1965), examined, Jobos Harbor; Isla Caribe; Coral Bay, St. John.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

emerald clingfish.

Acyrtus artius Briggs, 1955

Briggs (1955), (1, paratype), St. Thomas [USNM 78158].

Yoshioka (1975c), as *Arcos artius*, (2), rotenone, rocky shore, Cabo Mala Pascua.

Yoshioka (1975d), as *Arcos artius*, (2), rotenone, Punta Manati.

clingfish.

Acyrtus rubiginosus (Poey, 1868)¹⁹

Evermann & Marsh (1900: 305), as *Gobiesox tudes*, (1: 32 mm TL), Culebra.

Erdman (1956), as *Gobiesox nigripinnis*, (1: 18 mm SL), Bahía Salinas, Cabo Rojo [UPRM 930, missing].

Martin & Patus (1973), as *Arcos rubiginosus*, Bahía Jobos.

Fast (1974), as *Arcos rubiginosus*, (1; 20 mm SL), rotenone, 23 m, patch reef, Media Luna reef, La Parguera.

Martin & Patus (1975), as *Arcos rubiginosus*, central bay, reef & cays, Bahía Jobos.

Yoshioka (1975a), as *Arcos rubiginosus*, (43), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975d), as *Arcos rubiginosus*, (2), rotenone, Punta Manati.

Dunne & Brown (1979), (3), rotenone, Anegada.

Martin & Patus (1984), as *G. nudus*, collected, beach rock, north coast, Puerto Rico.

clingfish.

¹⁹Böhlke & Chaplin (1968) moved *rubiginosus* to the genus *Arcos*, but Briggs (pers. comm.) retains it in *Acyrtus*.

Arcos nudus (Linnaeus, 1758)²⁰

Jordan & Evermann (1898b: 2335), as *Gobiesox macrophthalmus*, St. Thomas.

Silvester (1916: 216), as *Gobiesox cerasinus*, "common around coral reefs of Guánica Harbor."

Fowler (1928), as *Gobiesox cerasinus*, (4), Puerto Rico.

Erdman (1956: 337), as *A. macrophthalmus*, (1: 83 mm TL), rocky shore, Punta San Diego, Fajardo.

Randall (1963a), as *A. macrophthalmus*, (21: 16-84 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1968a: 289), as *A. macrophthalmus*, Fig. 319, (1: 86 mm TL), St. John.

Yoshioka (1975a), as *A. macrophthalmus*, (3), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975c), as *A. macrophthalmus*, (1), rotenone, rocky shore, Cabo Mala Pascua.

padded clingfish.

Gobiesox nigripinnis (Peters, 1860)

Dennis et al. (in prep.), (1: 52 mm SL), Punta Quebrada Honda, Yabucoa [UPRM 3074]; (2: 35.5-49.5 mm SL),

rotenone, Sun Oil Refinery jetty, Puerto Yabucoa, PR, J.J. Loos, 25 Jul 73 [ANSP 129917]; (1: 23 mm SL),

rotenone, rocky shore, <1 m, Isla Cueva, La Parguera [UPRM 3729]; (1: 26 mm SL), Cabo Rojo lighthouse

[UPRM 3727]; (2), N of Rincón, PR, Randall & Yount, 20 Dec 64 [ANSP 142954]; (41: 12-37 mm SL), rotenone,

rocky shore, lighthouse, Punta Tuna [UPRM 3518]; (7: 11-37 mm SL), shoreline, <1 m, Greater Lameshur Bay,

St. John [UF 205159]; (2: 44.5-45.0), Guana Island (BVI), 22 Jul 59, DM & AN Barringer [ANSP 94766].

blackfin clingfish.

Gobiesox punctulatus (Poey, 1876)

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Dennis et al. (in prep.), (1: 20.5 mm SL), SSW of Playa de Guayanés, Puerto Yabucoa [ANSP 115604]; (2: 24.5-34.0

mm SL), E of Playa de Guayanés, Puerto Yabucoa [ANSP 115675]; (2), E of Playa de Guayanés, Puerto Yabucoa

[ANSP 118711]; (2: 12 mm SL), rotenone, rocky shore, near lighthouse, Punta Las Tunas [UPRM 3728]; (1: 36.5

mm SL), St. Thomas [USNM 131622]; (24: 7-36 mm SL), rotenone, nearshore, <1 m, Greater Lameshur Bay, St.

John [UF 208169]; (1: 26 mm SL), rotenone, eastern shore, Greater Lameshur Bay, St. John [UF 214911]; (7), Salt

Pond Bay, St. John [ANSP 144492]; (1: 36.5 mm SL), Treasure Pt., Norman's Isl. [USNM 183545].

stippled clingfish.

Rimicola brevis Briggs, 1969

Briggs (1969), (1: 12 mm SL paratype), rotenone, 2 m, Bolongo Bay, St. Thomas [MCZ 44845].

clingfish.

Tomicodon fasciatus (Peters, 1860)

Erdman (1956), (4: 20-24 mm SL), Guanica [UPRM 948]; Punta San Diego, Fajardo [AMNH 16691].

Randall (1963a), (2: 22 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1968a: 288), Fig. 318, (1: 30 mm TL), St. Thomas; (4), Puerto Rico.

Martin & Patus (1973), Bahía Guayanilla.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

Yoshioka (1975a), (30), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975d), (16), rotenone, Punta Manati.

Yoshioka (1975f), (6), rotenone, Punta Verraco.

barred clingfish.

²⁰Fernholm & Wheeler (1983) synonymized *Arcos macrophthalmus* with *A. nudus* after Briggs (pers. comm.).

ANTENNARIIDAE

Antennarius bermudensis Schultz, 1957

Pietsch & Grobecker (1987), (1: 17 mm SL), Cabo Rojo [ANSP 144185].
UPRM collection, (1: 35 mm SL), rotenone, on pilings, Crashboat Basin, Aguadilla, [UPRM 2615].

island frogfish.

Antennarius multiocellatus (Valenciennes in Cuvier & Valenciennes, 1837)

Longley & Hildebrand (1941), (1), St. Thomas [MCZ].
Schultz (1957), (1, dried specimen), St. Thomas.
Randall (1963a), (1: 54 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall (1967), food habits.
Randall (1968a: 292), Fig. 320; (1: 185 mm TL); St. John.
Kimmel (1975), (2), rock outcrops; (2), algal mat; Punta Las Tunas.
Pietsch & Grobecker (1987), (1: 50 mm SL), Caña Gorda Airport [LACM 4542]; (1: 61 mm SL), Balneario
Aeropuerto, Guánica [LACM 4561]; (1: 47.5 mm SL), tidepools, San Geronimo [UMMZ 173087]; (2: 47-58 mm
SL), Condado rocks [UMMZ 172937, 172983]; (1: 76 mm SL), St. Thomas [MNHN 1883-1120]; (1: 66 mm SL),
St. Thomas [ZMUC P922103].

longlure frogfish, martín pescador.

Antennarius ocellatus (Bloch & Schneider, 1801)

Barbour (1942: 30), Puerto Rico.
Schultz (1957), (1), Puerto Rico.
Yoshioka (1975e), collected, rotenone, rocky shoreline, Punta Higuero.

ocellated frogfish.

Antennarius pauciradiatus Schultz, 1957

Randall & Randall (1960: 473), obs., St. John.
Pietsch & Grobecker (1987), (1: 14 mm SL), La Parguera [BPBM 29664].

dwarfed frogfish.

Antennarius striatus (Shaw & Nodder, 1794)

Evermann & Marsh (1900: 335), as *A. scaber*, (1: 76 m TL), seine, coral reef, Mayagüez; as *A. nuttingi*, (2: 44 mm
TL) with above specimen.
Barbour (1942), as *A. nuttingi*, Puerto Rico.
Schultz (1957), as *Phrynelox nuttingi*, (1), Mayagüez [USNM 50199]; (1), Mayagüez [USNM 125927]; as *P.*
scaber, (1), Mayagüez [USNM 126076].
Ramsey (1967), as *A. scaber*, "typical of silty bottom", trawl, Bahía Mayagüez; Bahía Boquerón.
Randall (1967), as *A. scaber*, food habits.
Randall (1968a: 293), as *A. scaber*, Figs. 322 & 323, (2: 66-150 mm TL), trawl, 10 m, mud bottom, off Río Añasco
[UPRM 1599].
Martin & Patus (1984), as *P. scaber*, (1), on piling, 3 m, sandy bottom, Puerto Rico.
Dyer et al. (1985), as *A. scaber*, digenetic trematodes, (2), off Río Añasco.
Pietsch & Grobecker (1987), synonymized *A. scaber* with *A. striatus*, (2: 44-92.5 mm SL), Mayagüez [LACM 4565];
(2: 44-58 mm SL), Puerto Rico [LACM 4545, 6721-20]; (2: 50-77.5 mm SL), Mayagüez Harbor [LACM 6741-23];
(1: 39 mm SL), Río Añasco [LACM 4550]; (2: 26-28 mm SL), Mayagüez [USNM 50199, 125927].

splitlure frogfish, murciélago, pez rana, pez sapo.

Histrio histrio (Linnaeus, 1758)

- Poey (1881: 340), as *Antennarius inops*, type locality, Puerto Rico [USNM 37434]; as *Pterophryne laevigata*.
 Stahl (1883: 79), as *Pterophryne laevigata*; (p. 246), as ?*Antennarius portoricensis*²¹, Puerto Rico.
 Evermann & Marsh (1900: 334), as *Pterophryne gibba*, new genus, new species.
 Nichols (1930: 392), as *Histro gibbus*, new genus.
 Schultz (1957: 104), synonymized *A. inops* with *H. histro*.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
 Pietsch & Grobecker (1987), (2: 11-12.5 mm SL), between Tortola & Peter Island [UMMZ 185418].

sargassumfish, pescador, sapo.

OGCOEPHALIDAE

Halieutichthys aculeatus (Mitchill, 1818)²²

- Evermann & Marsh (1900: 338), (1: 70 mm TL), beam trawl, 137 m, off Mayagüez; p. 339; as *H. smithii* (1: 83 mm TL type), taken with above specimen [USNM 49537].
 FMNH collection, (1, 24.3 mm SL), trawl, N. Tortola, OREGON 2616 [FMNH 64849]; (2: 38.6-42.2 mm SL), trawl, N. Tortola, OREGON 2621 [FMNH 64850]; (1: 52.6 mm SL), trawl, off Punta Higuero, OREGON 2621 [FMNH 64858]

Ogcocephalus nasutus (Cuvier, 1829)²³

- Cuvier & Valenciennes (1837: 440), as *Malthea vespertilio*, Puerto Rico.
 Poey (1881: 341), as *Mathe vespertilio*, Puerto Rico.
 Stahl (1883: 79), as *Malthe vespertilio*, Puerto Rico.
 Evermann & Marsh (1900: 338), as *Ogcocephalus vespertilio*, new genus.
 Saunders (1966a), as *O. vespertilio*, blood parasites, Puerto Rico.
 Saunders (1966b), as *O. vespertilio*, blood characteristics, Puerto Rico.
 Ramsey (1967), as *O. vespertilio*, trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 295), Fig. 324, (1: 259 mm TL), St. John.
 Earle (1972), obs., algal flats, Greater Lameshur Bay, St. John.
 Erdman (1976), as *O. vespertilio*, nuptial color.
 Bradbury (1980: 251), (1), trawl, 51 m, N. of Culebra, OREGON 2626 [FMNH 64842]; (1), trawl, 44 m, Vieques, OREGON 2668 [CAS 23918].

shortnose batfish, diablo, murciélago de mar.

Ogcocephalus parvus Longley & Hildebrand, 1940

- Erdman (1956: 338), (1: 76 mm TL), fish trap, 55 m, off Joyuda [USNM 164504]²⁴.

²¹Pietsch & Grobecker (1987) consider this name *nomen dubium*.

²²Margaret Bradbury (pers. comm.) could not find any substantive differences between *Halieutichthys smithii* Evermann & Marsh, *H. caribbaeus* Garman, and *H. aculeatus* thus all are listed under *H. aculeatus*.

²³Bradbury (1980) found no specimens of *Ogcocephalus vespertilio* north of Brazil and attributes most Caribbean records of the species to *O. nasutus*.

Erdman (1976), spawning season, nuptial colors.

roughback batfish, diablo.

Ogcocephalus pumilus Bradbury, 1980

Bradbury (1980: 272), (20), OREGON 2626, trawl, 51 m, N of Culebra, [FMNH 64843, 64844; MCZ 45087]; (2), OREGON 2627, trawl, 220 m, S of Vieques [FMNH 64841]; (3), OREGON 2668, trawl, 70 m, off Hatillo [MCZ 45085].

dwarf batfish, diablo.

OPHIDIIDAE

Brotula barbata (Schneider in Bloch & Schneider, 1801)

Erdman (1956: 337), (1: 600 mm TL), "deep water off west coast", Puerto Rico [UPRM 889].

Dammann (1969), (1), rotenone, Chocolate Bay, St. John.

bearded brotula, brótula.

Lepophidium brevibarbe (Cuvier, 1829)²⁵

Erdman (1956: 338), as *L. profundorum*, (1: 175 mm TL), deep water, Puerto Rico [UPRM 709]; (2) Puerto Rico [USNM ?].

Ramsey (1967), (1), trawl, Bahía Mayagüez.

Kimmel (1975), as *L. profundorum*, (5), rock outcrops, Punta Las Tunas.

UPRM collection, frequent, muddy bottom, Bahía Mayagüez.

fawn cusk-eel.

Lepophidium pheromystax Robins, 1960

Dennis et al. (in prep), (2), trawl, 70 m, off Arecibo, OREGON 2667 [UF 207042; FMNH 69301]; (2), trawl, 77 m, N of St. Thomas, OREGON 2607 [FMNH 65952].

cusk-eel.

Ophidion holbrookii (Putnam, 1874)

Dennis et al. (in prep), (1: 90 mm TL), rotenone, 2 m, Lesser Lameshur Bay, St. John [UF 209081]; (1), trawl, 49 m, Bahía Mayagüez, OREGON 5458 [UF 221855].

bank cusk-eel.

Ophidion lagochila (Böhlke & Robins, 1959)

Dennis et al. (in prep), (1: 63 mm TL), rotenone, 12 m, El Negro reef, Mayagüez [ANSP 142863].

cusk-eel.

²⁴Bradbury (1980: 276) confirms the identity of Erdman's specimen.

²⁵Robins (1986) reports the common shallow-water *Lepophidium* species without body markings previously referred to as *L. profundorum* (Gill, 1863) is *L. brevibarbe* and *L. profundorum* is a junior synonym of *L. crevinum* (Goode & Bean, 1885).

Ophidion nocomis Robins & Böhlke, 1959

Dennis et al. (in prep), (1: 86 mm SL), rotenone, sandy bottom, 12 m, Crashboat Basin, Aguadilla [UPRM 2691]; (4: 63-77 mm TL), 22 m, Crashboat Basin, Aguadilla [UF 218229]; (1: 69.5), rotenone, 22 m, sand with *Halophila*, Crashboat Basin, Aguadilla [ANSP 142868 same lot as UF 218229].

cusck-eel.

Parophidion schmidti (Woods & Kanazawa, 1951)

Randall (1963a), as *Parophidion* sp., collected, artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1975), (28), algal mat; (4), rock outcrops; (2), sandy bottom; Punta Las Tunas.
Yoshioka (1975e), rotenone, rocky shoreline, Punta Higuero.
Dunne & Brown (1979), (1), rotenone, Anegada.

dusky cusck-eel

Petrotyx sanguineus (Meek & Hildebrand, 1928)

Erdman (1956: 339), (1: 51 mm TL), shore reef, Punta Arenas [UPRM ?].
Dammann (1969), (6: 55-97 mm TL), rotenone, Chocolate Bay, St. John.
UPRM collection, (1: 110 mm TL), rotenone, 12 m, coral cave, El Negro reef, Mayagüez, [UPRM 1612]; (3: 32-96 mm TL), 21 m, La Parguera [UPRM 2268].

redfin brotula.

BYTHITIDAE*Calamopteryx goslinei* Böhlke & Cohen, 1966

Böhlke & Cohen (1966), (1: 44 mm SL paratype), shelf edge, 55 m, La Parguera [ANSP 106702].
Dammann (1969), (3:52-63 mm TL), rotenone, Chocolate Bay, St. John.

brotula.

Grammonus claudesi (Torre y Huerta, 1910)

Cohen (1964), (1: 152 mm SL), as *Oligopus*, rotenone, shelf edge, 20 m, La Parguera [ANSP 142974].
Dammann (1969), (1), as *Oligopus*, rotenone, Chocolate Bay, St. John.

reef-cave brotula.

Ogilbia cayorum Evermann & Kendall, 1898

Erdman (1956: 337), as *Dinematichthys cayorum*, "abundant in coral reef areas near shore"; (1), rotenone, shore reef, Guánica; spawning condition, June.
Randall (1963a), (9: 23-68 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (11: 28-61 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Dammann (1969), (13: 29-90mm TL), rotenone, Chocolate Bay, St. John.
Austin (1971a), collected, La Parguera.

key brotula

Ogilbia sp. A²⁶

- Martin & Patus (1973), as *Ogilbia* sp., Bahía Jobos; Bahía Guayanilla.
 Martin & Patus (1975), as *Ogilbia* sp., central bay, reef & cays, outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975d), as *Ogilbia* sp., (7), rotenone, Punta Manati.
 Yoshioka (1975f), as *Ogilbia* sp., (7), rotenone, Punta Verraco.
 Dunne & Brown (1979), as *Ogilbia* sp., (1), rotenone, Anegada.
 UPRM collection, numerous, reef, La Parguera.

brotula.

Stygnobrotula latebricola Böhlke, 1957

- Dennis et al. (in prep), (2: 92-104 mm TL), hand, 109 m, shelf-edge reef, El Buoy, La Parguera [ANSP 144695].

black widow.

CARAPIDAE*Carapus bermudensis* (Jones, 1874)

- Evermann & Marsh (1900: 319), as *Fierasfer bermudensis*, (2: 102 mm TL), Puerto Real; Mayagüez.
 Jordan et al. (1930), reported, St. Thomas.
 Randall (1968a: 246), Fig. 279, (1: 104 mm TL), Puerto Rico.
 Trott (1970), (5), in *Ludwigothuria mexicana*, La Parguera; (1: 144 mm TL), tenuis larvae, in *Astichopus multifidus*, Crashboat Basin, Aguadilla.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.

pearlfish

HEMIRAMPHIDAE*Chriodorus atherinoides* Goode & Bean, 1882

- Erdman (pers. comm.), (1), dolphin stomach, Puerto Rico, 20 May 1960.

hardhead halfbeak.

Euleptorhamphus velox Poey, 1868

- Erdman (1956: 324), (1), dolphin stomach, La Parguera [UMML 5887]; spawning, May.

flying halfbeak.

Hemiramphus balao Lesueur, 1821

- Erdman (1967b), found in tuna and bird stomachs, off Puerto Rico.
 Randall (1967), food habits.

26 An undescribed species of *Ogilbia* with little pigment and reduced eyes is found in Puerto Rico. In addition other species may exist. Many of the *Ogilbia* sp. records may be *O. cayorum*.

Randall (1968a: 42), Fig. 43, (1: 249 mm TL), rotenone, Firewood Bay, Culebra [UPRM 2433?].
González-Azar & Vilella (1975), collected, Laguna Ceiba.

balao, agujón balajú.

Hemiramphus brasiliensis (Linnaeus, 1758)

Poey (1881: 337), as *Hemirhamphus filamentosus*, Puerto Rico.
Stahl (1883: 166), as *Hemirhamphus filamentosus*, Puerto Rico.
Evermann & Marsh (1900: 102), as *Hemirhamphus brasiliensis*, (16: 229-356 mm TL), San Geronimo; San Antonio bridge; Fajardo; Boquerón; Mayagüez; Aguadilla.
Fowler (1917), examined, St. Thomas.
Fowler (1919), examined, Aguadilla [ANSP].
Erdman (1956), spawning condition, March.
Burkholder et al. (1959), food habits, Puerto Rico.
Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
Randall (1965c), food habits, seagrass, St. John.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 41), Fig. 42, (1: 279 mm TL), rotenone, shore, Punta Guaniquilla [UPRM 1817?].
Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Martin & Patus (1975), inner bay, central bay, Bahía Jobos.
Sawyer et al. (1975), leech parasites, (1), Salinas.
Yoshioka (1975b), (1), shoreline, Punta Ostiones.
Yoshioka (1975f), (12), rotenone, (74), seine, Punta Verraco.
Wallace & Sawyer (1977), parasites, Puerto Rico.
Dunne & Brown (1979), obs., Anegada.
Sawyer & Kinard (1980), leech parasites, Salinas.
Williams (1982), leech parasites, Puerto Rico.
Beets & LaPlace (1991), baitfish, St. Thomas.
Kimmel (1991), baitfish, Puerto Rico.
Friedlander (1992), bait, NE corner Puerto Rico.

ballyhoo, balajú, escribano.

Hyporhamphus unifasciatus (Ranzani, 1842)

Evermann & Marsh (1900: 101), (43: 102-267 mm TL), San Antonio bridge; San Juan market; Hucares; Isabel Segunda; Ponce; Boquerón.
Fowler (1919), examined, Boquerón [ANSP].
Fowler (1928), as *Hemiramphus unifasciatus*, many, Puerto Rico.
Siddiqi & Cable (1960), trematode parasites, Punta Arenas.
Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
Eger (1970), (1), seine, Bahía Yabucoa.
Austin (1971a), collected, La Parguera.
Martin & Patus (1973), rare, night lighting, Bahía Jobos.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Dunne & Brown (1979), obs., Anegada.
Negrón González (1986), collected, Laguna Joyuda; Laguna Aguas Prietas; Laguna Grande; Laguna Salinas; Laguna Boquerón.
Kimmel (1991), baitfish, Puerto Rico.
Boulon (1992), obs., mangroves, St. John.

halfbeak, escribano, pico fósforo.

Oxyporhamphus micropterus (Valenciennes in Cuvier & Valenciennes, 1846)

Bruun (1935), (1: 21 mm SL), 28 km off Cabo Rojo, Mona Passage.

smallwing flyingfish.

EXOCOETIDAE

Cypselurus comatus (Mitchell, 1815)

Evermann & Marsh (1900: 104), as *Cypsilurus bahienis*, (1), flew aboard ship, Mayagüez.

Erdman (1956: 324), (1: 191 mm TL), San Juan.

clearwing flyingfish.

Cypselurus cyanopterus (Valenciennes in Cuvier & Valenciennes, 1846)

Dennis et al. (in prep.), (1: 272 mm SL), off La Parguera [UPRM 1746]; (1: 202 mm SL), off La Parguera [UPRM 3503].

margined flyingfish.

Cypselurus exsiliens (Linnaeus, 1771)

Bruun (1935), as *Cypsilurus exsiliens*, (1: 172 mm SL), N. of St. Thomas.

bandwing flyingfish.

Cypselurus furcatus (Mitchell, 1815)

Erdman (1956: 324), (1), night light, La Parguera.

spotfin flyingfish.

Cypselurus melanurus (Valenciennes in Cuvier & Valenciennes, 1846)

Erdman (1956: 324), as *C. heterurus*, "more common during the winter months"; (1: 279 mm TL), dolphin stomach, La Parguera.

Erdman (1967a), spawning, February, Puerto Rico.

Erdman (1967b), as *C. heterurus*, found in tuna and bird stomachs, off Puerto Rico.

Kimmel (1975), (1), sandy bottom, Punta Las Tunas.

Erdman (1976), spawning.

Atlantic flyingfish, volador.

Exocoetus obtusirostris Günther, 1866

Dennis et al. (in prep.), (1: 28 mm SL), dipped, off La Parguera [UPRM 3711]; (4: 75-100 mm SL), cleared & stained, off San Juan [UF 234156].

oceanic two-wing flyingfish.

Exocoetus volitans (Linnaeus, 1758)

Erdman (1956: 324), as *Halocypselus evolans*, (2: 203 mm TL), flew on board at night, Vieques Passage.

UPRM collection, (1: 53 mm SL), S of Cabo Mala Pascua [UPRM 3712].
UMML collection, (27), dip net, off San Juan [UMML 12226].

tropical two-wing flyingfish.

Hirundichthys affinis (Günther, 1866)

Bruun (1935), collected, St. Thomas.
Breder (1938), (1: 190 mm SL), St. Thomas [USNM 94699].
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
UMML collection, (1), dip net, San Juan, [UMML 12196].

fourwing flyingfish, volador.

Hirundichthys rondeleti (Valenciennes in Cuvier & Valenciennes, 1846)

Erdman (pers. comm.), (1: 350 mm FL), off La Parguera.

blackwing flyingfish.

Hirundichthys speculiger (Valenciennes in Cuvier & Valenciennes, 1846)

Bruun (1935), (2: 125-156 mm SL), off St. Thomas.

mirrorwing flyingfish.

Parexocoetus brachypterus (Richardson, 1846)

Evermann & Marsh (1900: 103), as *P. mesogaster*, (1: 140 mm TL), flew aboard ship, Aguadilla.
Nichols (1929: 215), new species.
Bruun (1935), (1: 47 mm SL), S of Vieques.
Erdman (1956), spawning condition, May; (p. 324) as *Exonautes rufipinnis*, (1: 127 mm TL), Mona Passage.
Erdman (1967b), found in tuna and bird stomachs, off Puerto Rico.
UMML collection, (3), dip net, off San Juan [UMML 12206].

sailfin flyingfish.

Prognichthys occidentalis Parin, 1999²⁷

Dennis et al. (in prep), (1: 33 mm SL), shelf edge, La Parguera [UPRM 3709].

bluntnose flyingfish.

BELONIDAE

Ablennes hians (Valenciennes in Cuvier & Valenciennes, 1846)

Erdman (1956: 324), (1); seine, Playa Playhuella, Aguadilla.
UPRM collection, (1: 525 mm SL), off La Parguera [UPRM 2994].

flat needlefish, tijeras.

²⁷Parin (1999) restricts *Prognichthys gibbifrons* to the eastern Atlantic and named the western Atlantic species *Prognichthys occidentalis*.

Platybelone argalus (Lesueur, 1821)

- Cuvier & Valenciennes (1846: 436), as *Belone cigonella*, type locality, Puerto Rico.
Evermann & Marsh (1900: 99), as *Tylosurus ardeola*, (1: 330 mm TL), Isabel Segunda.
Kumpf (1965), as *Belone platyura*, observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 40), Fig. 41, (1: 343 mm TL), St. Thomas, St. John.
Dammann (1969), as *P. argala*, (2), rotenone, Chocolate Hole, St. John.
Yoshioka (1975d), (14), rotenone, Punta Manati.
Dyer et al. (1985), digenetic trematodes, (3), Isla Cueva, La Parguera.

keeltail needlefish.

Strongylura marina (Walbaum, 1792)²⁸

- Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
Martin & Patus (1975), inner bay, central bay, reef & cays, Bahía Jobos.
Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975d), (3), rotenone, Punta Manati.
Yoshioka (1975f), (2), rotenone, (2), seine, Punta Verraco.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Negrón González (1986), as *Belone marina*, collected, Laguna Joyuda.

Atlantic needlefish.

Strongylura notata (Poey, 1860)

- Silvester (1916: 215), as *Tylosurus notatus*, (1: 26 cm TL), seine, mangroves, Guánica harbor.
Fowler (1928), (1), Puerto Rico.
Collette (1968), examined, Puerto Rico.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Dunne & Brown (1979), obs., Anegada.

redfin needlefish, agujón.

Strongylura timucu (Walbaum, 1792)

- Evermann & Marsh (1900: 99), as *Tylosurus timucu*, “occurring everywhere about the island”; collected, San Juan; Hucares; Palo Seco.
Nichols (1929: 212), as *Tylosurus euryops*, (1), San Juan.
Fowler (1948), as *Strongylura timucu*, (1: 11 mm TL), San Juan.
Randall (1967), food habits.
Randall (1968a: 39), Fig. 38, (1: 318 mm TL), St. John.
Eger (1970), (1), seine, Bahía Yabucoa.
Almodóvar & Pagan (1971), (3), mangroves, Isla Guayacan, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba; Laguna Piñones.
Dunne & Brown (1979), obs., Anegada.
Corujo Flores (1980), (3: 335-350 mm SL), gill net, estuary, Río Espíritu Santo.
García (1981), (5), gill net, Laguna Joyuda.
Rooker & Dennis (1991), obs., mangroves, La Parguera.

timucu.

²⁸According to Randall (1968a) and Collette (1968) *Strongylura marina* is not found in the Antilles. Most records are probably the closely related *S. timucu*.

Tylosurus acus (Lacepède, 1803)

- Evermann & Marsh (1900: 99), as *T. raphidoma* (in part, based on dorsal-fin ray count 24).
Fowler (1919), as *Strongylura raphidoma*, Culebra
Fowler (1928), as *Strongylura acus*, several, Puerto Rico.
Randall (1967), food habits.
Kimmel (1975), (1), sandy bottom, Punta Las Tunas.
Kimmel (1985b), obs., La Parguera.

agujon, agujón.

Tylosurus crocodilus (Peron & Lesueur, 1821)

- Poey (1881: 337), as *Belone crassa*, Puerto Rico.
Stahl (1883: 79), as *Belone crassa*, Puerto Rico.
Evermann & Marsh (1900: 99), as *T. raphidoma* (in part), “most common species of the genus in Puerto Rico”,
San Juan; Isabel Segunda; Culebra; Ensenada del Boquerón; Mayagüez.
Idyll & Randall (1960), (1: 4.8 kg), trolling, St. John.
Randall (1960), (1: 1168 mm TL), La Parguera.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 40), Fig. 40, (1: 579 mm TL), Puerto Rico.
Martin & Patus (1973), as *T. raphidoma*, Bahía Jobos.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Martin & Patus (1975), as *T. raphidoma*, reef & cays, Bahía Jobos.
Erdman (1976), juveniles.
Dunne & Brown (1979), obs., Anegada.
Negrón González (1986), collected, Laguna Aguas Prietas.
Clavijo et al. (1987), collected, mid-water fish attractor, 26 m, SE of St. Thomas.
Burger et al. (1992c), mercury levels, Puerto Rico.
Friedlander et al. (1994), trolling, (1), inshore; (1), shelf edge, St. Thomas.

houndfish, agujón.

APLOCHEILIDAE*Rivulus marmoratus* Poey, 1880

- Erdman (1972), introduced, Puerto Rico.
Martin & Patus (1973), around mangroves, Bahía Jobos.
Martin & Patus (1975), Cayo Puerca, Bahía Jobos.
Erdman et al. (1986), lagoons, east of San Juan; Laguna Las Mareas, Guayama; Arecibo.

ruvulus.

POECILIIDAE²⁹

Poecilia vivipara Bloch & Schneider, 1801

- Evermann & Marsh (1900: 97), collected, Fajardo; Hucares; Arroyo; Ponce.
 Nichols (1915a), abundant, shallow lake, Guánica
 Hubbs (1924: 11), as *Neopoecilia holacanthus*, introduced, Fajardo, Arroyo, Hucares, and Ponce [FMNH 3240].
 Nichols (1929: 210), (20), Río Loiza mouth; (18), Guánica.
 Hildebrand (1935), tide pool, Laguna San Jose, San Juan.
 Myers (1938), probably introduced, Puerto Rico.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Corujo Flores (1980), (7: 11-30 mm SL), dip net, estuary, Río Espiritu Santo.
 Martin & Patus (1984), common in brackish water around red mangroves, Puerto Rico.

one-spot livebearer.

ATHERINIDAE

Atherinomorus stipes (Müller & Troschel in Schomburgk, 1848)

- Evermann & Marsh (1900: 110), as *Atherina laticeps*, (290: 38-76 mm TL) Culebra; Ponce.
 Nichols (1929: 220), as *Atherina stipes*, (2), San Juan.
 LeZotte (1954), parasites, Puerto Rico.
 Erdman (1956: 321), as *Atherina stipes*, spawning, July.
 Siddiqi & Cable (1960), as *Atherina stipes*, trematode parasites, La Parguera; Punta Arenas.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 52), Fig. 55, (1: 74 mm TL), St. John.
 Dammann (1969), (4: 55-65 mm TL), rotenone, Chocolate Bay, St. John.
 Austin (1971a), common, mangroves, La Parguera.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Cooper (1974), (201), rotenone, *Thalassia* bed, La Parguera.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975b), (3), shoreline, Punta Ostiones.
 Yoshioka (1975d), (12), rotenone, Punta Manati.
 Yoshioka (1975f), (6), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.

hardhead silverside, cabezón, cabezote.

²⁹*Gambusia holbrooki* Girard (ex Agassiz), 1859 is apparently an introduced species to freshwaters in Puerto Rico (Hildebrand, 1935), but I could find none from estuarine waters.

Hypoatherina harringtonensis (Goode, 1877)

- Evermann & Marsh (1900: 110), as *Atherina stipes* (after Nichols, 1929), (2: 64 mm TL), Culebra; (p. 111), as *Atherina araea*, (4: 64 mm TL), Culebra.
 Fowler (1928), as *Atherina harringtonensis*, (2), Guanica, Puerto Rico.
 Nichols (1929: 221), as *Atherina araea*, synonymized *A. stipes*, of Evermann & Marsh with *A. araea*.
 Erdman (1956: 321), as *Atherina araea*, spawning condition, July.
 Saunders (1966a), as *Allanetta harringtonensis*, blood parasites, Puerto Rico.
 Randall (1967), as *Allanetta harringtonensis*, food habits.
 Randall (1968a: 52), as *Allanetta harringtonensis*, Fig. 56, (1: 53 mm TL), Puerto Rico.
 Dammann (1969), as *Allanetta harringtonensis*, (24: 49-72 mm TL), rotenone, Chocolate Bay, St. John.
 Smith & Tyler (1975), as *Allanetta harringtonensis*, obs., Greater Lameshur Bay, St. John.
 Erdman (1976), as *A. harringtonensis*, spawning.

reef silverside.

Melanorhinus microps (Poey, 1860)

- Yoshioka (1975a), (6), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), (15), rotenone, Punta Manati.
 Martin & Patus (1984), common between Isabela and Punta Chivato, Bahía Tortuguero [UMMZ].
 Dennis et al. (in prep), (5: 39-53 mm SL), Río Guajataca [UPRM 2298]; (1: 43.2 mm SL), splash pool, Isabela [UMMZ 192629]; (1: 53.5 mm SL), tide pool, Río Guajataca mouth [UMMZ 197710]; (5: 26.3-37.9 mm SL), rocky shore, Laguna Tortuguero mouth [UMMZ 197711]; (1: 40.5), Laguna Tortuguero mouth [UMMZ 198778]; (19: 28.9-45.2), cave, E of Mar Chiquita [UMMZ 198779]; (3: 23.0-36.5 mm SL), E of Boca de Cangrejos, San Juan [USNM 336065]; (5), Río Guajataca, PR, Oct 62 [ANSP 142956].

querimana silverside.

HOLOCENTRIDAE*Corniger spinosus* Agassiz in Spix & Agassiz, 1831

- Dennis et al. (in prep), (1), trap, shelf edge reef, ~200 m, La Parguera [ANSP 144596].

spinycheek soldierfish.

Holocentrus adscensionis (Osbeck, 1765)

- Cuvier & Valenciennes (1829a: 185), as *Holocentrum longipinne*, type localities; Puerto Rico; St. Thomas
 Poey (1881: 322), as *Holocentrum matejuelo*, Puerto Rico.
 Stahl (1883: 76), as *Holocentrum matejuelo*, Puerto Rico.
 Evermann & Marsh (1900: 118), "common about Puerto Rico", collected, San Juan; San Geronimo; Hucares; Isabel Segunda; Arroyo; (1: 70 mm SL), Puerto Real [FMNH 3250]; (2: 170-192 mm SL), Aguadilla [FMNH 3176, 52014].
 Fowler (1917), examined, St. Thomas.
 Fowler (1928), several, Puerto Rico.
 Nichols (1929: 226), obs., San Juan market.
 Woods (1955), (1: 52 mm SL), transformed larvae, Puerto Rico.
 Idyll & Randall (1960), as *H. adscensionis*, hook and line, Caneel Bay, St. John.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo.
 Randall (1962b), (94), fish trap, tagged, Lameshur Bay, St. John.

- Randall (1963a), (59: 57-208 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 101-243 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (1: 209 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 53 m, S of St. John, OREGON 2617; 48 m, SW of St. John, OREGON 2618 (corrected).
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Randall (1967), food habits.
- Randall (1968a: 47), Fig. 48, (1: 267 mm TL), St. John.
- Dammann (1969), (3: 45-260 mm TL), rotenone, Chocolate Hole, St. John.
- Fish & Mowbray (1970: 21), (6), sound production, La Parguera.
- Bright (1972), sound production, St. John.
- Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
- Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
- Woods & Sonoda (1973: 334), (3: 84-106 mm SL), Balneario, Guánica [FMNH 60151]; (2: 85-103 mm SL), La Parguera [FMNH 60152]; (4: 100-137 mm SL), trawl, 79 m, off St. Thomas, OREGON 2607 [FMNH 64684]; (1: 153 mm SL), trawl, 53 m, St. John, OREGON 2617 [FMNH 64686]; (1: 157 mm SL), trawl, 48 m, St. John, OREGON 2618 [FMNH 64689].
- Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.
- Fast (1974), (1: 280 mm SL), artificial reef; obs., patch reef, Media Luna reef, La Parguera.
- Martin & Patus (1975), central bay, reef & cays, outfall, Bahía Jobos.
- Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
- Kimmel (1975), (110), algal mat; (10), rock outcrops; (4), sand; Punta Las Tunas.
- Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.
- Yoshioka (1975b), (2), shoreline, Punta Ostiones.
- Yoshioka (1975d), (6), rotenone, Punta Manati.
- Yoshioka (1975f), (2), gill net, Punta Verraco.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979), obs., Anegada.
- Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
- Martin & Cooper (1981), *Thalassia* beds, La Parguera.
- Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
- Williams & Williams (1981), isopod parasites, La Parguera, Punta Cadena, Corcega, Crashboat Basin, Aguadilla; Europa Bay, Lameshur Bay, St. John; Congo Cay, Buck Island, St. Thomas.
- Kimmel (1985b), obs., La Parguera.
- Nelson & Appeldoorn (1985), obs., submersible, S of St. John; E of Vieques; Grappler Seamount.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- Beets (1989), obs., artificial reef, 26 m, St. Thomas.
- Hixon & Beets (1989), (12), tagged, Perseverance Bay, St. Thomas.
- Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
- Acosta (1992), gill net catch, Puerto Rico.
- Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
- Tyler et al. (1993), (1: 59 mm SL), PR [ANSP 119808]; (1: 71 mm SL), PR [FMNH 5072]; (4: 51-108 mm SL), PR [FMNH 60154]; (1: 60 mm SL), PR [USNM 132530]; (1: 57 mm SL), BVI [USNM 190514]; (2: 55-84 mm SL), BVI [USNM 263108].
- Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

squirrelfish, gallo, candil, candilero.

Holocentrus rufus (Walbaum, 1792)

- Regan (1904), as *Holocentrum osculum*, type locality, St. Thomas.
 Randall (1962b), (125), fish trap, tagged, Lameshur Bay, St. John.
 Randall (1963a), (37: 42-175 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (12: 143-183 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 48), Fig. 49; (1: 246 mm TL), St. John.
 Dammann (1969), (32: 140-220 mm TL), fish trap; (317: 105-235 mm TL), rotenone, Chocolate Hole, St. John.
 Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Risk (1972), (13), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (1: 61 mm SL), patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Woods & Sonoda (1973), (1: 90 mm SL), La Parguera [FMNH 60168]; (3: 40-85 mm SL), Puerto Real, FISH HAWK [FMNH 46208, 52038]; (3: 90-170 mm SL), Isla Ratones, Joyuda [FMNH 60167]; (1: 140 mm SL), St. Thomas [FMNH 46199]; (5: 85-92 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [FMNH 64687].
 Fast (1974), trapped, patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), (5), algal mat; (6), rock outcrops; (1), sand; Punta Las Tunas.
 Martin & Patus (1975), central bay, outfall, Bahía Jobos.
 Yoshioka (1975b), (2), shoreline, Punta Ostiones.
 Parrish & Zimmerman (1977), patch reef, offshore, Punta Ostiones.
 Stevenson (1978), fish trap, Puerto Real.
 Dunne & Brown (1979), (8), rotenone, Anegada.
 Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Parrish (1982), gill net, off Punta Ostiones.
 Dyer et al. (1985), digenetic trematodes, (6), Mario reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques; Grappler Seamount; Guánica.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Bortone et al. (1989), (115), obs., El Palo reef, La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 McGehee (1991), obs., La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Tyler et al. (1993), (1: 55 mm SL), BVI [USNM 316407]; (2: 68-86 mm SL), BVI [USNM 190517]; (3: 78-163 mm SL), BVI [USNM 317256].
 Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
 McGehee (1994), obs., La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

longspine squirrelfish.

Myripristis jacobus Cuvier in Cuvier & Valenciennes, 1829

- Nichols (1915b: 143), (2), Bahía Condado, San Juan.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1962b), (12), fish trap, tagged, Lameshur Bay, St. John.
 Randall (1963a), (370: 42-123 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (57: 51-130 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (20: 44-145 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Randall (1965c), artificial reef, St. John.

- Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 53 m, S of St. John, OREGON 2617; 42 m, S of St. Thomas, OREGON 2619 (corrected).
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Randall (1967), food habits.
- Randall (1968a: 51), Fig. 53, (1: 132 mm TL), St. John.
- Dammann (1969), (2: 140-165 mm TL), fish trap; (26: 70-195 mm TL), rotenone, Chocolate Hole, St. John.
- Fish & Mowbray (1970: 20), sound production, La Parguera.
- Bright (1972), sound production, St. John.
- Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
- Smith & Tyler (1972), (4: 37-39 mm SL), patch reef, Greater Lameshur Bay, St. John.
- Martin & Patus (1973), Bahía Jobos.
- Woods & Sonoda (1973), (2: 61 mm SL), Balneario, Guánica [FMNH 60185]; (2: 46 mm SL), Isla Magueyes, La Parguera [FMNH 60187]; (3: 88-112 mm SL), Isla Ratones, Joyuda [FMNH 60186]; (1: 76 mm SL), Punta Joyuda [FMNH 60188]; (3: 56-126 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [FMNH 64683]; (1: 71 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [FMNH 64688]; (1: 89 mm SL), trawl, 42 m, S of St. Thomas, OREGON 2619 [FMNH 65214].
- Fast (1974), (5: 92-132 mm SL), artificial reef; obs., trapped, patch reef, Media Luna reef, La Parguera.
- Kimmel (1975), (15), rock outcrops; (7), algal mat; Punta Las Tunas.
- Martin & Patus (1975), reef & cays, Bahía Jobos.
- Yoshioka (1975a), (3), rotenone, 10 m, Bahía Tortuguero.
- Yoshioka (1975c), obs., Cabo Mala Pascua.
- Yoshioka (1975f), collected, Punta Verraco.
- Parrish & Zimmerman (1977), Punta Ostiones.
- Dunne & Brown (1979), (3), rotenone, Anegada.
- Ogden & Ebersole (1981), obs., artificial reef, Greater Lameshur Bay, St. John.
- Parrish (1982), gill net, patch reef, off Punta Ostiones.
- Kimmel (1985a), obs., shelf-edge reef, La Parguera.
- Kimmel (1985b), obs., La Parguera.
- Nelson & Appeldoorn (1985), obs., submersible, S of St. John; Grappler Seamount.
- Beets (1989), obs., artificial reef, 26 m, St. Thomas.
- Bortone et al. (1989), (2), obs., El Palo reef, La Parguera.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

blackbar soldierfish, toro, torito, cundeamor.

Neoniphon marianus (Cuvier in Cuvier & Valenciennes, 1829)³⁰

- Erdman (1961a), as *Holocentrus marianus*, Puerto Rico.
- Randall (1963a), as *H. marianus*, (1: 66 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 45 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Kumpf (1965), as *H. marianus*, observed, collected, Botany Bay, St. Thomas.
- Randall (1967), as *H. marianus*, food habits.
- Randall (1968a: 48), as *Flammeo marianus*, Fig. 50, (1: 117 mm TL), St. John.
- Bright (1972), sound production, St. John.
- Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
- Smith & Tyler (1972), (11: 45-64 mm SL), patch reef, Greater Lameshur Bay, St. John.
- Woods & Sonoda (1973: 348), as *F. marianus*, reported, La Parguera.
- Fast (1974), as *F. marianus*, fish trap, patch reef, Media Luna reef, La Parguera.

³⁰Randall & Heemstra (1985) synonymized *Flammeo* with *Neoniphon*.

- Parrish & Zimmerman (1977), as *H. marianus*, off Punta Ostiones.
 Parrish (1982), as *H. marianus*, gill net, patch reef, off Punta Ostiones.
 Dyer et al. (1985), as *F. marianus*, digenetic trematodes, (7), shelf-edge reef, La Parguera.
 Kimmel (1985a), as *H. marianus*, obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), as *H. marianus*, obs., La Parguera.
 Nelson & Appeldoorn (1985), as *F. marianus*, obs., submersible, S of St. John; E of Vieques; Grappler Seamount; Guánica.
 Beets (1989), as *H. marianus*, obs., artificial reef, 26 m, St. Thomas.
 Turingan & Acosta (1994), as *H. marianus*, obs. Corona de Laurel, La Parguera.

longjaw squirrelfish.

Ostichthys trachypoma (Günther, 1859)

- Erdman (1956: 325), (2), Isla Magueyes [UPRM 161]; (1), Cabo Rojo [UPRM 162]; (1), *Coryphaena* stomach [FMNH ?].
 Woods (1961), (1), OREGON 2655, 183 m.
 Randall et al. (1982), (5: 52-83 mm SL), W of Puerto Rico [FMNH 65198].
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John.

bigeye soldierfish.

Plectrypops retrospinis (Guichenot, 1853)

- Erdman (1956: 325), (1: 83 mm TL), Playa Caña Gorda, Guánica [UPRM 160].
 Randall (1963a), (4: 88-107 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 34-54 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Randall (1967), food habits.
 Randall (1968a: 51), Fig. 54, (1: 99 mm TL), St. John.
 Dammann (1969), (5: 71-120 mm TL), rotenone, Chocolate Hole, St. John.
 Kimmel (1975), (2), algal mat, Punta Las Tunas.
 Dunne & Brown (1979), (49), rotenone, Anegada.
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
 UPRM collection, (1: 52 mm SL), shelf edge, 15 m, La Parguera [UPRM 1894].

cardinal soldierfish.

Sargocentron bullisi (Woods, 1955)³¹

- Bullis & Thompson (1965), as *Adioryx bullisi*, trawl, 77 m, N of St. Thomas, OREGON 2607; 33 m, N of Tortola, OREGON 2613; 53 m, S of St. John, OREGON 2617; 48 m, SW of St. John, OREGON 2618; 44 m, SE of Vieques, OREGON 2628 (corrected).
 Wood & Sonoda (1973), as *A. bullisi*, (1: 68 mm SL), trawl, 44 m, SE of Vieques, OREGON 2628 [FMNH 64690]; (7: 72-92 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [FMNH 64685]; (1: 68 mm SL), trawl, 48 m, SW of St. John, OREGON 2618 [FMNH 65206]. (1: 58 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [FMNH 65204]; (1: 78 mm SL), trawl, 33 m, N of Tortola, OREGON 2613 [FMNH 65204].

deepwater squirrelfish.

Sargocentron coruscus (Poey, 1860)³¹

- Erdman (1956: 324), as *Holocentrus coruscus*, "common around Puerto Rico."

³¹Matsuura & Shimizu (1982) synonymized *Adioryx* with *Sargocentron*.

- Randall (1963a), as *H. coruscus*, (4: 58-59 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (18: 28-97 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (5: 54-60 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Kumpf (1965), as *H. coruscus*, observed, collected, Botany Bay, St. Thomas.
- Randall (1967), as *H. coruscus*, food habits.
- Randall (1968a: 50), as *H. coruscus*, Fig. 51, (1: 114 mm TL), St. John.
- Dammann (1969), as *Adioryx coruscus*, (1), fish trap; (14: 41-110 mm TL), rotenone, Chocolate Hole, St. John.
- Bright (1972), as *A. coruscus*, sound production, St. John.
- Collette & Talbot (1972), as *A. coruscus*, obs., patch reef, Greater Lameshur Bay, St. John.
- Smith & Tyler (1972), as *A. coruscus*, (1: 49 mm SL), patch reef, Greater Lameshur Bay, St. John.
- Woods & Sonoda (1973), as *A. coruscus*, (2: 38-44 mm SL), reef with seagrass, Punta Joyuda [FMNH 60163]; (1: 30 mm SL), shoreline reef, Punta Arenas [FMNH 60164].
- Fast (1974), as *H. coruscus*, (2: 98-105 mm SL), artificial reef; obs., patch reef, Media Luna reef, La Parguera.
- Parrish & Zimmerman (1977), as *H. coruscus*, off Punta Ostiones.
- Dunne & Brown (1979), as *A. coruscus*, (7), rotenone, Anegada.
- Ogden & Ebersole (1981), as *A. coruscus*, obs., artificial reef, Lesser Lameshur Bay, St. John.
- Parrish (1982), as *H. coruscus*, gill net, patch reef, off Punta Ostiones.
- Kimmel (1985b), as *H. coruscus*, obs., La Parguera.
- Nelson & Appeldoorn (1985), as *H. coruscus*, obs., submersible, S of St. John.
- Beets (1989), as *H. coruscus*, obs., artificial reef, 26 m, St. Thomas.
- Boulon (1992), as *A. coruscus*, collected, trap, mangroves, St. Thomas; obs., St. John.
- Hixon & Beets (1993), as *H. coruscus*, obs., artificial reef, Perseverance Bay, St. Thomas.

reef squirrelfish.

Sargocentron poco (Woods, 1965)³¹

- Dennis et al. (in prep), (1: 72), 30 m, shelf-edge reef, Salinas de Ensenada [ANSP 139255]; (1: 102), deep sand channels, 27 m, shelf-edge reef, La Parguera [ANSP 144383].

saddle squirrelfish.

Sargocentron vexillarius (Poey, 1860)³¹

- Evermann & Marsh (1900: 119), as *Holocentrus vexillarius*, (2: 51-102 mm TL), Ponce; Guánica.
- Fowler (1948), (1: 55 mm TL), San Juan.
- Randall (1963a), as *H. vexillarius*, (122: 56-116 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (118: 32-118 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Kumpf (1965), as *H. vexillarius*, observed, collected, Botany Bay, St. Thomas.
- Randall (1967), as *H. vexillarius*, food habits.
- Randall (1968a: 50), as *Adioryx vexillarius*, Fig. 52, (1: 99 mm TL), St. John.
- Dammann (1969), as *A. vexillarius*, (18: 70-135 mm TL), rotenone, Chocolate Bay, St. John.
- Martin & Patus (1973), as *A. vexillarius*, Bahía Jobos.
- Woods & Sonoda (1973), as *A. vexillarius*, (10: 30-70 mm SL), shoreline reef, Punta Arenas [FMNH 60183]; (8: 33-59 mm SL), reef with seagrass, Punta Joyuda [FMNH 60182].
- Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.
- Martin & Patus (1974), as *A. vexillarius*, (1), rotenone, rocky shore, lighthouse, Punta Higuero.
- Martin & Patus (1975), as *A. vexillarius*, reef & cays, Bahía Jobos.
- Kimmel (1975), as *A. vexillarius*, (1), algal mat, Punta Las Tunas.
- Yoshioka (1975a), as *A. vexillarius*, (9), rotenone, shoreline, Bahía Tortuguero.
- Yoshioka (1975b), as *A. vexillarius*, (8), shoreline, Punta Ostiones.
- Yoshioka (1975d), as *A. vexillarius*, (46), rotenone, nearshore, Punta Manati.
- Dunne & Brown (1979), as *A. vexillarius*, (1), rotenone, Anegada.
- Martin & Cooper (1981), as *A. vexillarius*, *Thalassia* beds, La Parguera.
- Kimmel (1985b), as *H. vexillarius*, obs., La Parguera.

dusky squirrelfish, gallito.

ANOMALOPIDAE

Kryptophanaron alfredi Silvester & Fowler, 1926

Arneson (1979), photograph, Puerto Rico.

Colin et al. (1979), Fig. 1a, (1: 106 mm SL), fish trap, 200 m, W of Tourmaline reef, Bahía Mayagüez [ANSP 138144]; collected, 27- 40 m, shelf-edge reef, La Parguera.

Dyer et al. (1985), digenetic trematodes, (3), Margarita reef, La Parguera.

Atlantic flashlightfish.

AULOSTOMIDAE

Aulostomus maculatus (Valenciennes, 1837)

Evermann & Marsh (1900: 105), (1), seine, Bahía Boquerón.

Fowler (1928), (2), Puerto Rico.

Fowler (1948), (1: 118 mm TL), San Juan.

Siddiqi & Cable (1960), trematodes absent, Puerto Rico.

Randall (1963a), obs., artificial reef, Lesser Lameshur Bay; (14: 230-420 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (6: 262-442 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 43), Fig. 45, (1: 594 mm TL), St. John.

Dammann (1969), (6: 278-450 mm TL), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Fast (1974), obs., patch reef, Media Luna reef, La Parguera.

Kimmel (1975), (1), sandy bottom; (1), algal mat; Punta Las Tunas.

Martin & Patus (1975), central bay, Bahía Jobos.

Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.

Yoshioka (1975c), Cabo Mala Pascua.

Yoshioka (1975f), collected, Punta Verraco.

Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Dunne & Brown (1979), (1), rotenone, Anegada.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

trumpetfish, corneta.

FISTULARIIDAE*Fistularia tabacaria* Linnaeus, 1758

- Poey (1881: 337), as *Solenostomus serratus*, Puerto Rico.
 Stahl (1883: 79), as *Solenostomus tabacarius*, Puerto Rico.
 Evermann & Marsh (1900: 106), (1), San Geronimo.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 43), Fig. 44, (1: 394 mm TL), St. John.
 Kimmel (1975), (1), rotenone, sandy bottom, Punta Las Tunas.

bluespotted cornetfish, trompetero.

SYNGNATHIDAE³²*Acentronura dendritica* (Barbour, 1905)³³

- Dennis et al. (in prep), (1: 42 mm SL), algal plain, 16 m, S of Media Luna reef, La Parguera [UPRM 3719]; collected, algal plain, S of Laurel reef, La Parguera.

pipehorse.

Anarchopterus tectus (Dawson, 1978)

- Evermann & Marsh (1900: 108), as *Siphostoma jonesi*, (larger specimen only, 88.9 mm TL), dredge, 27 m, between Vieques and Culebra [USNM 127140].
 Dawson (1982a), (1: 78 mm SL), above specimen.
 Martin & Patus (1984), as *Micrognathus tectus*, (1), algal mat, north coast, Puerto Rico.

insular pipefish.

Bryx dunckeri (Metzelaar, 1919)

- Evermann & Marsh (1900: 108), as *Siphostoma jonesi*, (smaller specimen only 70 mm TL), dredge, 27 m, between Vieques and Culebra.
 Randall (1963a), as *Syngnathus dunckeri*, (1: 80 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Austin (1971a), as *Sy. dunckeri*, (14: 51-165 mm SL), seine, Bahía Guayanilla.
 Cooper (1974), as *Sy. dunckeri*, (1), rotenone, *Thalassia* bed, La Parguera.
 Kimmel (1975), as *Sy. dunckeri*, (1), rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), as *Sy. dunckeri*, reef & cays, Bahía Jobos.
 Dunne & Brown (1979), as *Sy. dunckeri*, (2), rotenone, Anegada.
 Martin & Cooper (1981), as *Sy. dunckeri*, *Thalassia* beds, La Parguera.
 Dawson (1982a), (6: 38-50 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 134471]; (2: 48-50 mm SL), Puerto Rico, OREGON 2789 [MCZ 51915]; (2: 56-58 mm SL), Jobos Harbor [UMML 1965]; (1: 71 mm SL), Guaniuilla [UPRM 1382]; (1: 55 mm SL), S of Margarita reef, La Parguera [UPRM 2651]; (1: 52 mm SL), night light, Culebra [UPRM uncat.]; (8: 42-50 mm SL), beach, Cam Bay, Great Camanoe Isl. [ANSP 102025]; (1: 58 mm SL), Anegada [BMNH 1976.7.14.69]; (1: 48 mm SL), S side, Norman's Isl. [FMNH 83225]; (2: 45-47 mm SL) Bolongo Bay, St. Thomas [GCRL 1726].

³²There have been many changes in nomenclature in this family. See Dawson (1992a) and Vari (1992) for a complete list of changes.

³³Dawson (1985) synonymized *Amphelikurus* with *Acentronura*.

pugnose pipefish.

Cosmocampus albirostris (Kaup (ex Heckel), 1856)

Dawson (1982), (1: 72 mm SL), Puerto Rico [UPRM 3267].

whitenose pipefish.

Cosmocampus brachycephalus (Poey, 1868)³⁴

Evermann & Marsh (1900: 108), as *Corythoichthys cayorum*, (1: 102 mm TL female), seine, Cayo Jancudo, Fajardo.

Nichols (1929: 218), as *Hippichthys cayorum*, new genus.

Siddiqi & Cable (1960), as *Hippichthys*, trematodes absent, Puerto Rico.

Cooper (1974), as *Corythoichthys*, rotenone, (9), *Thalassia* bed; (2), *Syringodium* bed, La Parguera.

Martin & Patus (1975), as *Corythoichthys*, reef & cays, outfall, Bahía Jobos.

Dunne & Brown (1979), as *Corythoichthys*, (1), rotenone, Anegada.

Martin & Cooper (1981), as *Corythoichthys*, seagrass, La Parguera.

Dawson (1982a), (1: 60 mm SL), night light, El Nacillo reef, La Parguera [UPRM 3262]; (1: 39 mm SL), night light, La Parguera [UPRM 3264]; (1: 22 mm SL), Puerto Rico [UPRM uncat.]; (1: 56 mm SL), rotenone, <2 m, Salt Pond Bay, St. John [UPRM 3010]; (1: 80 mm SL), beach, Cam Bay, Great Camanoe Isl. [ANSP 102023]; (1: 77 mm SL), reef outside narrow beach, Great Camanoe Isl. [ANSP 102024]; (1: 90 mm SL), SE of creek entrance, Anegada [ANSP 130818]; (3: 23-36 mm SL), Bolongo Bay, St. Thomas [GCRL 1727]; (1: 52 mm SL) Bolongo Bay, St. Thomas [GCRL 1728]; (1: 46 mm SL), Fish Bay, St. John [GCRL 1844].

crested pipefish.

Cosmocampus elucens (Poey, 1868)³⁴

Evermann & Marsh (1900: 108), as *Siphostoma elucens*, (1: 152 mm TL male), San Antonio bridge.

Nichols (1929: 217), as *Syngnathus elucens*, new genus.

Nichols (1937), as *Sy. walcotti*, (1: 143 mm SL type), St. John [AMNH 13685].

Herald (1942), synonymized *Sy. walcotti* with *Sy. elucens*.

Martin & Patus (1975), as *Sy. elucens*, reef & cays, Bahía Jobos.

Dunne & Brown (1979), as *Sy. elucens*, (1), rotenone, Anegada.

Dawson (1982a), (1: 83 mm SL), Isla Magueyes, La Parguera [FMNH 74790]; (1: 148 mm SL), Mayagüez [UF 12052]; (1: 122 mm SL), Puerto Rico [LACM 6771-1]; (1: 85 mm SL), Bahía Jobos harbor [UMML 1964]; (1: 145 mm SL), La Parguera [UPRM 3260]; (1: 115 mm SL), night light, La Parguera [UPRM 3263]; (1: 92 mm SL), night light, Culebra [UPRM 3265]; (1: 156 mm SL), E & M 1900 specimen above [USNM 127137]; (1: 144 mm SL), St. John [AMNH 13685]; (1: 95 mm SL), seagrass, west end, Anegada [BMNH 1976.7.14.68]; (1: 142 mm SL), Virgin Islands [USNM 178047]; (1: 95 mm SL), in *Syringodium*, Virgin Gorda [USNM 217337].

shortfin pipefish.

Cosmocampus profundus (Herald, 1965)³⁴

Dawson (1982a), (1: 100 mm SL), shelf edge, N of St. Thomas.

deepwater pipefish.

Hippocampus erectus Perry, 1810

Evermann & Marsh (1900: 109), as *H. punctulatus*, (1: 76 mm TL), seine, Ponce.

Nichols (1929: 220), as *H. punctulatus*, (1), San Juan.

³⁴Dawson (1979) placed *albirostris*, *brachycephalus*, *elucens*, and *profundus* in the genus *Cosmocampus*.

lined seahorse, caballito de mar.

Hippocampus reidi Ginsburg, 1933

Kimmel (1975), (1), algal mat, Punta Las Tunas.

Vari (1982), (3: 98-143 mm SL), Crashboat Basin, Aguadilla [ANSP 144650]; (1), La Gata reef, La Parguera [ANSP 142993].

longsnout seahorse, caballito.

Micrognathus crinitus (Jenyns, 1842)

Silvester (1916: 215), as *Corythoichthys ensenadae*, (1: 105 mm TL type), coral, Punta Ballena, Guánica [PUZM 3084].

Silvester (1918: 21), as *C. ensenadae*, Pl. 2, Fig. 3., (same specimen as above).

Nichols (1929: 219), as *Hippichthys ensenadae*, new genus.

Fowler (1948), as *M. vittatus*, (1: 100 mm TL), San Juan.

Kimmel (1975), as *M. ensenadae*, (2), algal mat; as *M. crinitus*, (3), algal mat, Punta Tunas.

Dawson (1982a), (1: 66 mm SL), rocks, Condado, San Juan [UMMZ 172898]; (1: 133 mm SL), rocks, Condado, San Juan [UMMZ 172927]; (1: 76 mm SL), Anegada [BMNH 1976.7.14.70].

banded pipefish.

Microphis brachyurus lineatus (Kaup, 1856)

Nichols (1915a: 142), as *Doryrhamphus sierra*, (12: 59-80 mm SL), drift weed, Río Loiza mouth (type locality) [AMNH 4841, 4842].

Fowler (1948), as *Doryichthys lineatus*, (1: 98 mm TL), San Juan; (2: 144-170 mm SL), Isabella.

Erdman (1956: 320), as *Oostethus lineatus*, spawning condition, April.

Corujo Flores (1980), as *O. lineatus*, (114: 14-115 mm SL), dip net, estuary, Río Espiritu Santo.

Dawson (1982a), as *O. lineatus*, (1), Playa de Guayanés, Puerto Yabucoa [ANSP 118689]; (1: 120 mm SL), Puerto Rico [GCRL 14246]; (1: 78 mm SL), rocky tidal pool, Río Guajataca mouth [UPRM 840]; (2: 53-55 mm SL), Río Loiza mouth [UPRM 2901]; (1: 152 mm SL), Puerto Rico [UPRM uncat.]; (1: 135 mm SL), saltwater, Río Canovanillas [USNM 101440]; (1: 112 mm SL), Luquillo [USNM 128827].

opossum pipefish.

Pseudophallus mindii (Meek & Hildebrand, 1923)

Corujo Flores (1980), (2: 94-97 mm SL), dip net, estuary, Río Espiritu Santo.

Dawson (1982a), (1: 97 mm SL), mangrove estuary (15 ppt), Río Espiritu Santo [GCRL 16070].

freshwater pipefish.

Syngnathus caribbaeus Dawson, 1979

Evermann & Marsh (1900: 107), as *Siphostoma mackayi*, (1: 178 mm TL female), Mayagüez; as *Siphostoma floridae*, (3), seine, Ensenada del Boquerón.

Ramsey (1967), trawl, Bahía Mayagüez.

Randall (1968a: 44), as *S. rousseau*, (1: 188 mm TL), Fig. 46, St. John.

Martin & Patus (1975), as *S. rousseau*, central bay, reef & cays, Bahía Jobos.

Wood et al. (1975), as *S. floridae mackayii*, collected, inner bay, Bahía Guayanilla.

Dawson (1982a), (2: 102-121 mm SL), Laguna Joyuda [UPRM 101]; (1: 90 mm SL), seagrass, Cabo Rojo lighthouse [UPRM 2620]; (2: 129-135 mm SL), Puerto Rico [UPRM 3009]; (3: 138-181 mm SL), E & M specimens above, Boquerón [USNM 127136].

Caribbean pipefish.

Syngnathus dawsoni (Herald, 1969)

Herald (1969), as *Micrognathus dawsoni*, (1: 136 mm SL holotype), Fish Bay, St. John [USNM 203148].
 Dawson (1982a), (1: 166 mm SL), Bahía de Yegua [UMML 1762]; (1: 138 mm SL), St. Thomas [USNM 178046]; (1: 152 mm SL), St. Thomas [USNM 178815]; (3: 108-112 mm SL), Cruz Bay, St. John [GCRL 16128]; (2: 104-125 mm SL), Cruz Bay, St. John [UMML 2469]; (4: 115-155 mm SL), Mary's Creek, St. John [AMNH 26294].

Dawson's pipefish.

Syngnathus pelagicus Linnaeus, 1758

Martin & Patus (1975), (1), dipnet, surface, *Sargassum* mat, Bahía Jobos [USNM 219136].
 Dawson (1982a), (1: 78 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 118645]; (1: 131 mm SL), La Parguera [UPRM 3257]; (2: 67-119 mm SL), in pelagic *Sargassum*, La Parguera [UPRM 3259].

Sargassum pipefish.

DACTYLOPTERIDAE*Dactylopterus volitans* (Linnaeus, 1758)

Poey (1881: 323), Puerto Rico.
 Stahl (1883: 78), Puerto Rico.
 Evermann & Marsh (1900: 285), as *Cephalacanthus volitans*, new genus.
 Bullis & Thompson (1965), 33 m, N of Tortola, OREGON 2613 (corrected).
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967b), in tuna and bird stomachs, Puerto Rico.
 Randall (1967), food habits.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.

flying gurnard, gavilan, guaraguao.

SCORPAENIDAE*Neomerinthe beanorum* (Evermann & Marsh, 1900)

Evermann & Marsh (1900: 279), as *Pontinus beanorum*, Fig. 85, (1: 140 mm TL holotype), beam trawl, 166 m, San Juan [USNM 49534].
 Ginsburg (1953b), placed *beanorum* in *Neomerinthe*; (5), examined, Puerto Rico [USNM 117877].
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.

deepwater scorpionfish.

Pontinus castor Poey, 1860

Bullis & Thompson (1965), trawl, 78 m, N of St. Thomas, OREGON 2607 (corrected).
 Eschmeyer (1969), (2: 52-64 mm SL), trawl, 78 m, N of St. Thomas, OREGON 2607 [FMNH 65864].

longsnout scorpionfish.

Scorpaena albifimbria Evermann & Marsh, 1900

Evermann & Marsh (1900: 275), Fig. 82, (1: 44 mm TL holotype), tangle dredge, coral, 27 m, Culebra [USNM 49532].

Ginsburg (1953b), examined holotype.

Eschmeyer (1965), examined holotype; (2: 28-31 mm SL), 30 m, Greater Lameshur Bay, St. John [UMML 8200].

coral scorpionfish.

Scorpaena bergii Evermann & Marsh, 1900

Evermann & Marsh (1900: 276), Fig. 83, (1: 76 mm TL holotype), Mayagüez [USNM 49533]; (1: 51 mm TL paratype), seine, Culebra [USNM 126190].

Nichols (1930: 352), (1), Bahía Condado, San Juan.

Ginsburg (1953b), examined specimen, Puerto Rico.

Eschmeyer (1965), examined holotype and paratype; (1: 21 mm SL), Aeropuerto Guánica [FMNH 72495].

Martin & Patus (1975), reef & cays, Bahía Jobos.

goosehead scorpionfish.

Scorpaena brasiliensis Cuvier in Cuvier & Valenciennes, 1829

Evermann & Marsh (1900: 274), Fig. 81, (1: 70 mm TL), seine, Palo Seco.

Ginsburg (1953b), (2: 32-174 mm SL), St. Thomas [USNM 9325, 38651].

Randall (1967), food habits.

Randall (1968a: 173), Fig. 196, (1: 203 mm TL), St. John [UMML 6053?].

Eschmeyer (1965), (1: 158 mm SL), Greater Lameshur Bay, St. John [UMML 6053].

barbfish.

Scorpaena calcarata Goode & Bean, 1882

Ginsburg (1953b), (1: 68 mm SL), E of St. John, [USNM 47642].

Bullis & Thompson (1965), trawl, 70 m, off Arecibo, OREGON 2667 (corrected).

Eschmeyer (1965), (2: 52-57 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [UMML 7428].

smoothhead scorpionfish.

Scorpaena elachys Eschmeyer, 1965

Eschmeyer (1965), (1: 46 mm SL holotype), tumbler dredge, 92 m, bank off Mayagüez, SILVER BAY 5192 [USNM 198149]; (1: 38 mm SL paratype), same locality as holotype [USNM 198151].

dwarf scorpionfish.

Scorpaena grandicornis Cuvier in Cuvier & Valenciennes, 1829

Cuvier & Valenciennes (1829b: 309), type locality, Puerto Rico [MNHN 6900].

Stahl (1883: 78), Puerto Rico.

Evermann & Marsh (1900: 277), Fig. 84, “most abundant species of the family around Puerto Rico”; collected,

San Juan; San Geronimo; Fajardo; Hucares; Ponce; Guánica; Boquerón; Puerto Real; Mayagüez; Aguadilla.

Nichols (1930: 353), (1), San Juan.

Ginsburg (1953b), Puerto Rico specimens examined [USNM 50181, 63050, 126445].

Eschmeyer (1965), (1: 41 mm SL), mangrove channel, Isla Magueyes, La Parguera [FMNH 72497]; (1: 66 mm SL), Palo Seco [USNM 63050].

Ramsey (1967), trawl, Bahía Mayagüez.

Randall (1967), food habits.

Randall (1968a: 173), Fig. 195, (1: 124 mm TL), St. John.

Austin (1971a), (3: 28-93 mm SL), mangroves, La Parguera; Bahía Guayanilla.

Austin & Austin (1971), food habits.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Stoner (1986), (2), trawl, Laguna Joyuda.

plumed scorpionfish.

Scorpaena inermis Cuvier in Cuvier & Valenciennes, 1829

Ginsburg (1953b), (1), Luis Peña Channel, San Juan [USNM 117878].
Bullis & Thompson (1965), trawl, 75 m, N of Tortola, OREGON 2616 (corrected).
Eschmeyer (1965), (1: 19 mm SL), Great Salt Pond Bay, St. John [UMML 5382]; (1: 32 mm SL), Peter Island [USNM 183597]; (3: 32-33 mm SL), W of Anegada, 73 m, OREGON 2615 [FMNH 66399].
Randall (1967), food habits.
Dunne & Brown (1979), (1), collected, Anegada.
Martin & Patus (1984), (1), 20 m, off Punta Ostiones.
UPRM collection, (1: 47 mm SL), rotenone, 2 m, La Parguera [UPRM 2518]; (8: 30-61 mm SL), sand bottom, 8 m, Crashboat Basin, Aguadilla [UPRM 2611]; (1: 68 mm SL), hand, sand bottom, Crashboat Basin, Aguadilla [UPRM 3678].

mushroom scorpionfish.

Scorpaena plumieri Bloch, 1789

Cuvier & Valenciennes (1829b: 306), as *S. bufo*, type locality, Puerto Rico.
Evermann & Marsh (1900: 277), "second most abundant species in Puerto Rico", collected, San Antonio bridge; Hucaras; Ponce; Guánica; Puerto Real; Mayagüez.
Nichols (1930: 353), obs., Ponce market.
Fowler (1936), reported, Puerto Rico.
Ginsburg (1953b), specimens examined, Puerto Rico [USNM 50149].
Siddiqi & Cable (1960), trematode parasites, Puerto Real.
Randall (1963a), (1: 230 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 32-40 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Eschmeyer (1965), (1: 64 mm SL), Bahía Jobos [UMML 1970]; (1: 26 mm SL), Aeropuerto Balneario, Guánica [FMNH 72496].
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Mayagüez.
Randall (1967), food habits.
Randall (1968a: 172), Fig. 194, (1: 163 mm TL), St. John.
Dammann (1969), (2: 55-115 mm TL), rotenone, Chocolate Hole, St. John.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (1), algal mat, Punta Las Tunas.
Martin & Patus (1975), reef & cays, outfall, Bahía Jobos.
Yoshioka (1975c), (1), seagrass bed, Cabo Mala Pascua.
Yoshioka (1975d), (2), rotenone, nearshore, Punta Manati.
Williams (1982), leech parasites, Puerto Rico.
Dyer et al. (1985), digenetic trematodes, (3), La Parguera; Aguadilla.

spotted scorpionfish.

Scorpaenodes caribbaeus Meek & Hildebrand, 1928

- Randall (1963a), (2: 55-66 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (14: 45-71 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (24: 38-70 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Randall (1967), food habits
- Dammann (1969), (11: 50-75 mm TL), rotenone, Chocolate Hole, St. John.
- Eschmeyer (1969), (2), rotenone, Lesser Lameshur Bay [UMML 3730]; (1), rotenone, Inner Cabritte Point [UMML 4277]; (2), rotenone, Yawzi Point, Greater Lameshur Bay [UMML 4899]; (1), rotenone, Eagle Shoal [UMML 8204]; (1), rotenone, 12 m, Yawzi Point, St. John [UMML 14964].
- Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
- Martin & Patus (1984), as *N. beanorum*, (1), 1-2.5 m, Laguna Tortuguero [USNM 219093]; as *S. tredecimspinosus*, (1: 22 mm SL), reef front, Cayos de Barca, Bahía Jobos [USNM 219140]

reef scorpionfish.

Scorpaenodes tredecimspinosus (Metzelaar, 1919)

- Dennis et al. (in prep), (2: 14.2-20.8 mm SL), 21 m, sand channel, shelf-edge reef, La Parguera [ANSP 144348]; (2: 12.2-12.6 mm SL), 21 m, tilefish mound, moat, Salinas de Ensenada [ANSP 145011].

deepreef scorpionfish.

TRIGLIDAE*Prionotus ophryas* Jordan & Swain, 1885

- Dennis et al. (in prep), (1: 80), dipnet, 8 m, sandy bottom, near pilings, Crashboat Basin, Aguadilla, PR, JER, 12 Jun 65 [ANSP 144673 formerly UPRM 2603]; (1: 101), trawl, 70 m, off Arecibo, OREGON Stat. 2668 (18°31'N 66°47.5'W), 8 Oct 59 [UF 207073].

bandtail searobin.

Prionotus punctatus (Bloch, 1797)

- Cuvier & Valenciennes (1829b: 93), reported, Puerto Rico.
- Poey (1881: 324), Puerto Rico.
- Stahl (1883: 78), Puerto Rico.
- Evermann & Marsh (1900: 283), collected, Hucares; Isabel Segunda; Bahía Mayagüez.
- Ginsburg (1950), (3), examined, Puerto Rico.
- Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
- Martin & Patus (1984), (1), 8 m, Bahía Jobos.
- Dyer et al. (1985), digenetic trematodes, (3), Bahía Mayagüez.

spotted searobin.

Prionotus roseus Jordan & Evermann, 1886

- Ginsburg (1950), unusual specimen, Boquerón [USNM 144563].
- Martin & Patus (1975), ship channel, Bahía Jobos.

rosy searobin.

CENTROPOMIDAE

Centropomus ensiferus Poey, 1860

- Erdman (1956: 330), "the more abundant snook in Puerto Rico ... to about 2 lbs."
Siddiqi & Cable (1960), trematode parasites, Guanajibo.
Ramsey (1967), trawl, Bahía Mayagüez.
Fish & Mowbray (1970: 23), (1), sound production, Mayagüez.
Pagan & Austin (1970), as *C. enciferus*, fish kill, Laguna Joyuda.
Austin (1971a), (19: 24-102 mm SL), Caño Tiburones; Arecibo; (1: 150 mm SL), fish kill, Río Guanajibo.
Austin & Austin (1971), food habits.
González-Azar & Vilella (1975), collected, Laguna Piñones.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Negrón González & Cintrón (1979), river estuaries, Río Manati; Río Cibuco; Río La Plata; Río Loiza; Río Espiritu Santo; Río Mameyes.
Corujo Flores (1980), (30: 97-234 mm SL), gill net, estuary, Río Espiritu Santo.
Negrón González (1986), collected, Laguna Boquerón.
Burger et al. (1992a), gill net, heavy metals, Humacao, Boqueron.
Burger et al. (1992b), collected, low salinity marsh, Roosevelt Roads; Humacao, Boqueron.

swordspine snook, róbalo machuelo, robalete.

Centropomus parallelus Poey, 1860

- Evermann & Marsh (1900: 146), (1), Río Loiza; Río de la Plata, Manati; Río Grande de Arecibo.
Fowler (1928), (3), Puerto Rico.
Erdman (1972), freshwater, at river mouths.
Wood et al. (1975), collected, thermal cove, Bahía Guayanilla.

fat snook, róbalo blanco.

Centropomus pectinatus Poey, 1860

- Silvester (1916: 216), (1: 20 cm TL), Guánica Lake.
Fowler (1928), (1), Puerto Rico.
Erdman (1972), collected, Laguna de Guánica.
Martin & Patus (1975), (2), inner bay, Bahía Jobos.
Corujo Flores (1980), (2: 104-148 mm SL), gill net, estuary, Río Espiritu Santo.
Martin & Patus (1984) (1), Caño Majagual, Mayagüez [USNM 291089]; (1), Puerto de Jobos, Bahía Jobos [USNM 219145].

tarpon snook, róbalo tablado.

Centropomus undecimalis (Bloch, 1792)

- Poey (1881: 321), Puerto Rico.
Stahl (1883: 76), Puerto Rico.
Evermann & Marsh (1900: 146), "common food-fish in Puerto Rico"; San Juan; Arroyo; Ponce; Mayagüez; Palo Seco.
Fowler (1928), (1), Puerto Rico.
Nichols (1929: 246), obs., San Juan market.
Mather (1956), sport fishing, Virgin Islands.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1968a: 89), Fig. 103, (1: 267 mm TL), Puerto Rico.
Pagan & Austin (1970), fish kill, Laguna Joyuda.

- Almodóvar & Pagan (1971), (16: 55-275 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin (1971a), (2: 380-514 mm SL), fish kill, Río Guanajibo; fish kill, Laguna Joyuda; Bahía Mayagüez; La Parguera; Río Añasco.
 Austin & Austin (1971), food habits.
 Erdman (1972), collected, Playa de Tamarindo, Guánica.
 González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.
 Martin & Patus (1975), inner bay, Bahía Jobos.
 Riemold (1975), collected, Mayagüez.
 Wood et al. (1975), collected, thermal cove, Bahía Guayanilla.
 Negrón González & Cintrón (1979), river estuaries, Río Manati; Río Loiza; Río Espiritu Santo.
 Corujo Flores (1980), (28: 24-318 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (35), gill net, Laguna Joyuda.
 Boulon (1985a), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (7), off Río Añasco.
 Negrón González (1986), collected, Laguna Tortuguero, Laguna Boquerón.
 Stoner (1986), (25), trawl, Laguna Joyuda.
 Burger et al. (1992a), gill net, heavy metals, Humacao, Boqueron.
 Burger et al. (1992b), collected, low salinity marsh, Roosevelt Roads; Humacao, Boqueron.
 Bunkley-Williams et al. (1996a), parasites, Carolina, Mayagüez.
- snook, róbalo, róbalo flamasón.

SERRANIDAE³⁵

Alphestes afer (Bloch, 1793)

- Evermann & Marsh (1900: 155), as *A. chloropterus*, (2: 190-241 mm TL), San Juan market; (1: 102 mm TL), Mayagüez [USNM 50202].
 Nichols (1929: 252), as *A. chloropterus*, (1), Ponce market.
 Longley & Hildebrand (1941), (1), examined, E&M specimen [USNM 50202].
 Randall (1963a), (65: 155-203 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a), Fig. 69, (1: 234 mm TL), St. John.
 Fish & Mowbray (1970: 35), sound production, (1), Mayagüez.
 Smith (1971), as *Epinephelus afer*, Puerto Rico; Guánica [FMNH]; Puerto Real [UMMZ 143029]; Punta Congrejos, San Juan [UMMZ 172563]; La Parguera [UMMZ 172528]; Mayagüez [TU 17188, USNM 50202]; Ponce market (Nichols' specimen) [AMNH 4904].
 Martin & Patus (1973), Bahía Guayanilla.
 Kimmel (1975), (6), rock outcrops; (6), algal mat; (1), sandy bottom; Punta Las Tunas.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Boulon (1985a), obs., St. John.
 Dyer et al. (1986), as *E. afer*, trematode parasites, Puerto Rico.
 Beets (1989), as *E. afer*, obs., artificial reef, 26 m, St. Thomas.
 Hixon & Beets (1993), as *E. afer*, obs., artificial reef, Perseverance Bay, St. Thomas.
 Beets & Hixon (1994), as *E. afer*, obs., Perseverance Bay, St. Thomas.

mutton hamlet, guaseta, aceituna.

³⁵I have included *Pseudogramma* and *Rypticus* under Serranidae based on Kendall (1976) and Johnson (1983).

Bullisichthys caribbaeus Rivas, 1971

Dennis et al. (in prep), obs., deep reef, >100 m, Puerto Rico.

pugnose sea bass.

Cephalopholis cruentata (Lacepède, 1802)

Evermann & Marsh (1900: 149), as *Petrometopon cruentatus*, (1: 216 mm TL), Isabel Segunda.

Fowler (1907: 252), as *P. cruentatum*, Vieques, E&M, [ANSP 31728].

Nichols (1929: 247), as *P. cruentatus cruentatus*, (1), Santurce (red color phase); as *P. cruentatus coronatus*, (brown color phase).

Randall (1962b), as *P. cruentatum*, (45), fish trap, tagged, Lameshur Bay, St. John.

Randall (1963a), as *P. cruentatum*, (18: 61-240 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (20: 54-260 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (4: 83-220 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1963g), (1), fish trap, tagged, Lameshur Bay, St. John.

Kumpf (1965), as *P. cruentatum*, observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), as *P. cruentatum*, blood parasites, Puerto Rico.

Saunders (1966b), as *P. cruentatum*, blood characteristics, Puerto Rico.

Randall (1967), as *P. cruentatum*, food habits.

Randall (1968a), as *P. cruentatum*, Fig. 68., (1: 191 mm TL), St. John.

Dammann (1969), as *P. cruentatum*, (2: 265-294 mm TL), fish trap; (2: 165-215 mm TL), rotenone, Chocolate Hole, St. John.

Fish & Mowbray (1970: 26), as *P. cruentatum*, (1), sound production, La Parguera.

Smith (1971), as *Epinephelus cruentatum*, specimen examined, Vieques [ANSP 31728].

Collette & Talbot (1972), as *E. cruentatus*, obs., Greater Lameshur Bay, St. John.

Fast (1974), as *P. cruentatum*, (6: 78-202 mm SL), artificial reef; (1: 134 mm SL), patch reef, Media Luna reef, La Parguera.

Smith & Tyler (1975), as *E. cruentatus*, (2), Greater Lameshur Bay, St. John.

Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Parrish & Zimmerman (1977), as *P. cruentatum*, off Punta Ostiones.

Dunne & Brown (1979), as *P. cruentatum*, obs., Anegada.

Ogden & Ebersole (1981), as *P. cruentatum*, obs., artificial reef, Lesser Lameshur Bay, St. John.

Williams & Williams (1981), isopod parasites, Riddle Bay, St. John.

Boulon (1985a), as *P. cruentatum*, obs., St. John.

Boulon (1985b), as *P. cruentatum*, obs., St. John.

Kimmel (1985a), as *E. cruentatus*, obs., shelf-edge reef, La Parguera.

Kimmel (1985b), as *E. cruentatus*, obs., La Parguera.

Nelson & Appeldoorn (1985), as *E. cruentatus*, obs., submersible, N of St. Thomas; Guánica.

Berrios Diaz et al. (1986), as *E. cruentatus*, obs., Cayo Berbería; Cayo Ratones, Ponce.

Boulon (1987), as *P. cruentatum*, obs., St. John.

Beets (1989), as *E. cruentatus*, obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), as *E. cruentatum*, (21), obs., El Palo, La Parguera.

Acosta (1992), as *E. cruentatus*, gill net catch, Puerto Rico.

Hixon & Beets (1993), as *E. cruentatus*, obs., artificial reef, Perseverance Bay, St. Thomas.

Beets & Hixon (1994), as *E. cruentatus*, obs., Perseverance Bay, St. Thomas.

Turingan & Acosta (1994), as *E. cruentatus*, obs. Corona de Laurel, La Parguera.

graysby, butter socks, mantequilla, cherna enjambre.

Cephalopholis fulva (Linnaeus, 1758)

Cuvier & Valenciennes (1828:381), as *Serranus ouatalibi*, type locality, St. Thomas [MNHN A.7717].

Poey (1881: 319), as *Enneacentrus punctulatus*, Puerto Rico.

- Stahl (1883: 79), as *Enneacentrus punctatus*; (p. 162), as *Enneacentrus punctulatus*, Puerto Rico.
- Jordan & Eigenmann (1890), as *Bodianus fulvus*, St. Thomas [MCZ].
- Evermann & Marsh (1900: 150), as *Bodianus ruber*, (2: 216 mm TL), Arroyo; as *Bodianus punctatus*, (1) Puerto Real; (3) San Geronimo.
- Fowler (1928), as *C. ruber*, (3), Puerto Rico.
- Nichols (1929: 248), as *Cephalopholis fulvus ruber*, red color phase, deep water; (p. 249), as *Cephalopholis fulvus punctatus*, brown or black color phase, shallower waters.
- Erdman (1956), spawning, December.
- Idyll & Randall (1959), fish trap, St. John.
- Idyll & Randall (1960), hook and line; trolling, Caneel Bay, St. John.
- Randall (1962b), (111), fish trap, tagged, Lameshur Bay, St. John.
- Randall (1963a), (4: 157-220 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
- Randall (1963g), (1), fish trap, tagged, Lameshur Bay, St. John.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Randall (1967), food habits.
- Randall (1968a), Fig. 67, (1: 234 mm TL), St. John.
- Dammann (1969), (2: 205 mm TL), fish trap, Chocolate Hole, St. John.
- Fish & Mowbray (1970: 27), sound production,(4), La Parguera; (4), Mayagüez.
- Smith (1971), as *Epinephelus fulvus*, Arroyo FISH HAWK [FMNH 3227]; Puerto Real, FISH HAWK [FMNH 3212]; (1), E of Tropical Medical Research Lab., San Juan [UMMZ 172738]; (1), Tropical Medical Research Lab., San Juan [UMMZ 172743]; Mayagüez [TU 17182].
- Collette & Talbot (1972), as *E. fulvus*, obs., Greater Lameshur Bay, St. John.
- Kimmel (1975), (58), rocky outcrops; (45), algal mat; (4), sandy bottom; Punta Las Tunas.
- Yoshioka (1975a), obs., shoreline; 5 m, Bahía Tortuguero.
- Yoshioka (1975c), obs., Cabo Mala Pascua.
- Yoshioka (1975d), obs., nearshore, Punta Manati.
- Yoshioka (1975e), rotenone, rocky shoreline, Punta Higuero.
- Yoshioka (1975f), collected, Punta Verraco.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979), obs., Anegada.
- Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
- Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
- Williams & Williams (1981), isopod parasites, La Parguera; Lameshur Bay, St. John; Buck Island, St. Thomas.
- Randall (1983: 291), photograph, Pl. 5c, Puerto Rico.
- Kimmel (1985a), as *E. fulvus*, obs., shelf-edge reef, La Parguera.
- Kimmel (1985b), as *E. fulvus*, obs., La Parguera.
- Boulon (1985a), obs., St. John.
- Boulon (1985b), obs., St. John.
- Nelson & Appeldoorn (1985), as *E. fulvus*, obs., submersible, S of St. John; E of Vieques.
- Berrios Diaz et al. (1986), as *E. fulvus*, obs., Cayo Ratones, Ponce.
- Boulon (1987), obs., St. John.
- Colin & Clavijo (1988), as *E. fulva*, spawning, shelf edge, La Parguera.
- Beets (1989), as *E. fulvus*, obs., artificial reef, 26 m, St. Thomas.
- Bortone et al. (1989), as *E. fulvus*, obs., El Palo reef, La Parguera.
- Acosta (1992), as *E. fulvus*, gill net catch, Puerto Rico.
- Hixon & Beets (1993), as *E. fulvus*, obs., artificial reef, Perseverance Bay, St. Thomas.
- Beets & Hixon (1994), as *E. fulvus*, obs., Perseverance Bay, St. Thomas.
- Beets et al. (1994), as *E. fulvus*, commercial landings, St. Thomas; St. John.
- Bunkley-Williams et al. (1996a), parasites, Aquadilla.
- Sadovy (pers. comm.), golden phase, shallow water, Crashboat Basin, Aguadilla.
- UPRM collection, (1: 153 mm SL), golden phase, hook and line, 21 m, shelf-edge reef, La Parguera [UPRM 3686].

coney, butterfish, mantequilla, negrita, fino, cherna cabrilla.

Dermatolepis inermis (Valenciennes in Cuvier & Valenciennes, 1833)

Erdman (1956: 331), (1: 234 mm SL), fish trap, La Parguera [UPRM 824].

Smith (1971), as *Epinephelus inermis*, (1: 290 mm SL), La Parguera [AMNH 28045].

Acosta (1992), as *E. inermis*, gill net catch, Puerto Rico.

marbled grouper, boricua.

Diplectrum bivittatum (Valenciennes in Cuvier & Valenciennes, 1828)³⁶

Evermann & Marsh (1900: 159), as *D. radiale*, (1: 127 mm TL), Mayagüez.

Fowler (1907), examined, Mayagüez (Fish Comm.) [ANSP].

Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 49 m, N of Tortola, OREGON 2611; 33 m; N of Tortola, OREGON 2613; 44 m; SW of St. John, OREGON 2618; 44 m, N of Jost Van Dyke, OREGON 2621; 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).

Ramsey (1967), as *D. radiale*, trawl, Bahía Boquerón; Bahía Mayagüez.

Randall (1968a), as *D. radiale*, Fig. 86, (1: 127 mm TL), Puerto Rico.

Bortone (1977), (1: 109 mm SL), [USNM 128262]; (1: 88 mm SL), OREGON 2618 [UMML 7110]; (1: 49 mm SL), [UMML 7324]; (1: 90 mm SL), [UPRM 238]; (1: 94 mm SL), [UPRM 239]; (1: 42 mm SL), spear, 9 m, sand with seagrass, Salt Pond Bay, St. John [UPRM 1328]; (2: 76-84 mm SL), [UPRM 1329]; (1: 44 mm SL), [UPRM 1330]; (1: 65 mm SL), spear, 9 m, sand, Botany Bay, St. Thomas [UPRM 2055]; (1: 93 mm SL), Puerto Rico [UPRM 2158]; (1: 92 mm SL), rotenone, 12 m, sand, Crashboat Basin, Aguadilla [UPRM 2692]; (5: 67-81), OREGON 2612 [UPRM 2713].

dwarf sand perch, aguavina.

Diplectrum formosum (Linnaeus, 1766)³⁷

Bortone (1977), (1: 62 mm SL), W of Anegada [FSBC 5393].

sand perch.

Epinephelus adscensionis (Osbeck, 1765)

Poey (1881: 319), as *E. punctatus*, Puerto Rico.

Stahl (1883: 76), as *E. punctatus*, Puerto Rico.

Evermann & Marsh (1900: 152), Pl. 11, (1: 254 mm TL), Ponce [USNM 50102]; (1: 381 mm TL), Isabel Segunda.

Fowler (1917), examined, St. Thomas.

Siddiqi & Cable (1960), trematode parasites, Puerto Real.

Randall (1962b), (21), fish trap, tagged, Lameshur Bay, St. John.

Randall (1963a), (10: 145-365 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (7: 190-376 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 58), Fig. 63, (1: 338 mm TL), Puerto Rico.

³⁶Bortone (1977) restricts *D. radiale* to south American continental waters; Puerto Rican records of *D. radiale* referred to *D. bivittatum*.

³⁷This record is suspect, no other fish are reported from this location and specimens with the following catalog numbers and same date were taken off Florida.

Dammann (1969), (1), rotenone, Chocolate Bay, St. John.
 Fish & Mowbray (1970: 28), (3), sound production, La Parguera.
 Smith (1971), (1), Guánica [FMNH 62295].
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John
 Martin & Patus (1973), Bahía Guayanilla.
 Fast (1974), obs., patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 Riemold (1975), collected, David Point, St. Thomas; Cruz Bay, St. John.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975d), (7), rotenone, Punta Manati.
 Yoshioka (1975e), rotenone, rocky shoreline, Punta Higuero.
 Dunne & Brown (1979), obs., Anegada.
 Dyer et al. (1985), digenetic trematodes, (4), Media Luna reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Boulon (1987), obs., St. John.
 Colin et al. (1987), spawning, La Parguera.
 Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.

rock hind, cabra mora.

Epinephelus flavolimbatus Poey, 1865

Brownell & Rainey (1971), (1), 247 m, NW of Anegada.
 Erdman et al. (1986), (1: 8.6 kg), fish trap, 247 m, off Arecibo; (1: 8.4 kg), off Puerto Rico.

yellowedge grouper.

Epinephelus guttatus (Linnaeus, 1758)

Jordan & Eigenmann (1890), as *Epinephelus catus*, St. Thomas [MCZ].
 Evermann & Marsh (1900: 153), Pl. 13 (as *E. maculosus*), San Geronimo; Isabel Segunda; Culebra; Arroyo; Puerto Real; Aguadilla.
 Fowler (1907), as *Serranus maculosus*, St. Thomas.
 Fowler (1915), as *E. maculosus*, St. Thomas.
 Nichols (1929: 251), obs., Ponce market.
 Erdman (1956: 320), spawning, January
 Idyll & Randall (1960), hook and line, Caneel Bay, St. John.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1962b), (82), fish trap, tagged, Lameshur Bay, St. John.
 Randall (1963a), (1: 305 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967a), spawning aggregations, La Parguera.
 Randall (1967), food habits.
 Randall (1968a: 57), Fig. 62, (1: 254 mm TL), St. John.
 Dammann (1969), (1), fish trap, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 30), sound production, (1), La Parguera; (1), Mayagüez.
 Smith (1971), (1), Arroyo, FISH HAWK [FMNH 3226]; (1), Aguadilla, FISH HAWK [USNM 50101]; (3), Puerto Real, FISH HAWK [FMNH 3262, USNM 52051, AMNH 2022]; (1), rocks, Condado, San Juan [UMMZ

- 172975]; (2), ALBATROSS, St. Thomas [USNM 34925, 34954]; (2), St. Thomas [FMNH 2281]; (1), St. Thomas, HASSLER [MCZ 4804]; (1), W of Anegada [UMMZ 176961].
- Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
- Fast (1974), trap, artificial reef; patch reef; Media Luna reef, La Parguera.
- Kimmel (1975), (3), algal mat; (2), rock outcrops; Punta Las Tunas.
- Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
- Yoshioka (1975f), (1), rotenone, Punta Verraco.
- Erdman (1976), spawning aggregations, La Parguera.
- Ebersole (1977), behavioral interaction, St. Thomas; St. John.
- Parrish & Zimmerman (1977), Punta Ostiones.
- Olsen & LaPlace (1978), spawning aggregation, shelf edge, S of St. Thomas.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979), (3), rotenone, Anegada.
- Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
- Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
- Williams & Williams (1981), isopod parasites, Ensenada de Salinas; La Parguera; Lameshur Bay, St. John; Cabritte Horn Point, Buck Island, St. Thomas; Anegada.
- Parrish (1982), fish trap, reef; sand flat, off Punta Ostiones.
- Williams (1982), leech parasites, Puerto Rico.
- Dyer (1983), parasites, Virgin Gorda.
- Kimmel (1985a), obs. shelf-edge reef, La Parguera.
- Kimmel (1985b), obs., La Parguera.
- Boulon (1985a), obs., St. John.
- Boulon (1985b), obs., St. John.
- Dyer et al. (1985), digenetic trematodes, (9), Media Luna reef; Laurel reef; La Parguera.
- Nelson & Appeldoorn (1985), obs., submersible, S of St. John; E of Vieques; Grappler Seamount.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- García-Moliner Basora (1986), reproduction, La Parguera.
- Boulon (1987), obs., St. John.
- Colin et al. (1987), spawning, La Parguera.
- Beets (1989), obs., artificial reef, 26 m, St. Thomas.
- Bortone et al. (1989), obs., El Palo reef, La Parguera.
- Kimmel (1991), baitfish target species, Puerto Rico.
- Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
- Acosta (1992), gill net catch, Puerto Rico.
- Beets & Friedlander (1992), fishery analysis, St. Thomas.
- Boulon (1992), obs., mangroves, St. John.
- Dyer et al. (1992a), parasites, La Parguera.
- Sadovy & Figuerola (1992), fishery analysis, Puerto Rico; St. Thomas.
- Sadovy et al. (1992), life history, Puerto Rico; St. Thomas.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
- Shapiro et al. (1993a), (609: 123-349 mm SL), hook & line, shelf edge, La Parguera.
- Shapiro et al. (1993b), obs., hook & line, shelf edge, La Parguera.
- Beets & Hixon (1994), obs., Perseverance Bay, St. Thomas.
- Sadovy (1994), fishery status, Puerto Rico; Virgin Islands.
- Sadovy & Severin (1994), collected, Puerto Rico.
- Sadovy et al. (1994), collected, Bajo El Cico, Tourmaline, Abrir la Sierra.
- Shapiro et al. (1994a), collected, La Parguera.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
- Bunkley-Williams et al. (1996a), parasites, Aguadilla.

red hind, cabrilla, mero cherna, mero colorado.

Epinephelus itajara (Lichtenstein, 1822)

- Erdman (1956: 330), "young common in Laguna Joyuda."
Randall (1967), food habits.
Randall (1968a: 60), Fig. 66, (1: 165.1 cm TL), St. John.
Fish & Mowbray (1970: 34), sound production, (1), La Parguera.
Martin & Patus (1973), Bahía Jobos.
Dennis et al. (1991), night lighting, La Parguera.

jewfish, mero grande, mero sapo, mero batata.

Epinephelus morio (Valenciennes in Cuvier & Valenciennes, 1828)

- Poey (1881: 319), Puerto Rico.
Stahl (1883: 76), Puerto Rico.
Jordan & Eigenmann (1890), (1), St. Thomas [MCZ].
Evermann & Marsh (1900: 154), (1), Isabel Segunda; (1), Puerto Real.
Erdman (1956: 317), rare, (3), Puerto Rico.
Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
Erdman (1963b), (3), Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 60), Fig. 65, (1: 427 mm SL), St. John.
Smith (1971), (1), Puerto Real, FISH HAWK [FMNH 3208].
Riemold (1975), collected, David Point, St. Thomas.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

red grouper, mero guasa.

Epinephelus mystacinus (Poey, 1852)

- Erdman (1956: 330), occasional, bottom fishing, deep water.
Brownell & Rainey (1971), (48), hook & line, 100-293 m, shelf edge, Virgin Islands.
Smith (1971), (1: 157 mm SL), off Hatillo [UMMZ 176465].
Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
Erdman et al. (1986), (1: 127 cm TL), 238 m, Yabucoa: (29: 1-36 kg), off Puerto Rico.
Acosta (1992), gill net catch, Puerto Rico.

misty grouper, guasa.

Epinephelus niveatus (Valenciennes in Cuvier & Valenciennes, 1828)

- Dennis et al. (in prep), (1: 61), 15 m, rock on muddy bottom, off Río Añasco, PR, PLC, 1975 [ANSP 144999]; (1), photograph, artificial reef site, 18.3 m, La Parguera, PR, R. Wallace; 1976; (1), 2 nmi. NW of Buoy R6 off Mayagüez, PR, STAHL, 1 Dec 77 [AMNH 36922]; (1: 123), quinaldine, 16.5 m, 1.5 nmi south of Laurel reef, La Parguera, PR, JJK, 20 Nov 79 [UPRM 3675].

snowy grouper.

Epinephelus striatus (Bloch, 1792)

- Poey (1881: 319), Puerto Rico.
Stahl (1883: 76), Puerto Rico.
Jordan & Eigenmann (1890: 356), St. Thomas [MCZ].
Evermann & Marsh (1900: 152), Pl. 12, common, San Juan market; collected, San Antonio bridge; Ponce; Ensenada de Boquerón; Puerto Real.
Fowler (1907), as *Serranus striatus*, San Antonio Bridge, Puerto Real [ANSP].
Fowler (1917), examined, St. Thomas.
Fowler (1928), as *Serranus striatus*, Puerto Rico.

- Nichols (1929: 250), obs., San Juan market; Ponce market.
Idyll & Randall (1959), trolling; St. John.
Idyll & Randall (1960), hook and line; Caneel Bay, St. John; (1), trolling; St. John.
Siddiqi & Cable (1960), trematode parasites, Cabo Rojo.
Randall (1962b), (170), fish trap, Lameshur Bay, St. John.
Randall (1963a), (7: 212-360 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 377 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Randall (1963g), (5), fish trap, Lameshur Bay, St. John.
Randall (1965d), food habits, Puerto Rico, Virgin Islands.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Mayagüez.
Randall (1967), food habits.
Randall (1968a: 59), Fig. 64, (1: 404 mm TL), St. John.
Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 29), sound production, (1), La Parguera; (1), Mayagüez.
Smith (1971), (3), Puerto Real, FISH HAWK [FMNH 52012; ANSP 23605, MCZ 28874, AMNH 2094]; (1), San Juan, FISH HAWK [USNM 50106]; (1), Ponce. FISH HAWK [USNM 63068]; (2), market, San Juan [FMNH 3190]; (1), San Antonio bridge, San Juan, FISH HAWK [ANSP 29801]; (1), Isla Magueyes, La Parguera [UMMZ 171776]; (4), St. Thomas, ALBATROSS [USNM 34949, 35116, 35125; (1), St. Thomas [USNM 39852]; (5), St. Thomas, HASSLER [MCZ 3039, 10039, 10062, 10083, 10112].
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Cooper (1974), (5), rotenone, *Syringodium* bed, La Parguera
Fast (1974), (1: 410 mm SL), artificial reef, Media Luna reef, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (1), algal mat; (1), rock outcrops; Punta Las Tunas.
Riemold (1975), collected, Coral Bay, St. John.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Yoshioka (1975a), obs., Bahía Tortuguero.
Yoshioka (1975b), seagrass beds, Punta Ostiones.
Yoshioka (1975f), collected, Punta Verraco.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Parrish & Zimmerman (1977), off Punta Ostiones.
Olsen & LaPlace (1978), spawning and growth, shelf edge S of St. Thomas.
Dunne & Brown (1979), obs., Anegada.
Martin & Cooper (1981), *Syringodium* beds, La Parguera.
Williams (1982), leech parasites, Puerto Rico.
Dyer (1983), parasites, Virgin Gorda.
Boulon (1985a), obs., St. John.
Boulon (1985b), obs., St. John.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, Grappler Seamount; S of St. John.
Berrios Diaz et al. (1986), obs., Cayo Berbería, Ponce.
Boulon (1987), obs., St. John.
Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Beets & Friedlander (1992), fishery analysis, St. Thomas.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Beets & Hixon (1994), obs., Perseverance Bay, St. Thomas.

Sadovy (1994), fishery status, Puerto Rico; Virgin Islands.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Roberts et al. (1995), hatchery reared, Saba Island, St. Thomas.

Nassau grouper, cherna, cherna criolla.

Gonioplectrus hispanus (Cuvier in Cuvier & Valenciennes, 1828)
Dennis et al. (in prep.), (1: 158 mm SL), 183 m, La Parguera [UPRM 2671].

Spanish flag, pabellon.

Hypoplectrus aberrans Poey, 1868³⁸
Randall & Randall (1960), as *Hypoplectrus* sp., mimicry.
Randall (1967), food habits.
Randall (1968a: 73), Fig. 83, (1: 119 mm TL), St. John.
Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1971), obs., Greater Lameshur Bay, St. John.
Thresher (1984: 122), spawning behavior, La Parguera.
Kimmel (1985b), obs., La Parguera.
Domeier (1994), obs., Culebra; Virgin Gorda; reported, St. John.

yellowbelly hamlet.

Hypoplectrus chlorurus (Cuvier in Cuvier & Valenciennes, 1828)
Randall & Randall (1960), mimicry.
Randall (1967), food habits.
Randall (1968a: 73), Fig. 82, (1: 94 mm TL), St. John.
Barlow (1975a), obs., off Punta Ostiones.
Ramirez Mella (1984), reproductive biology, La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., restricted to hard bottom, La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
Bortone et al. (1989), (5), obs., El Palo reef, La Parguera.
McGehee (1991), obs., La Parguera.
Domeier (1994), obs., Culebra; Virgin Gorda; reported, St. John; Tortola; specimens, Puerto Rico; Virgin Islands [UMML].
McGehee (1994), obs., La Parguera.

yellowtail hamlet.

Hypoplectrus gummigutta (Poey, 1852)
Thresher (1984: 122), (1), photograph, 18 m, shelf edge, Salinas (verified by Colin (pers. comm.)).
Hauser (1984), (1), same as above.

golden hamlet

Hypoplectrus guttavarius (Poey, 1852)
Kimmel (1985a), obs., shelf-edge reef, La Parguera.

³⁸While some researchers consider the *Hypoplectrus* species to be color variants of a single species or incipient species (Thresher, 1978; Graves & Rosenblatt, 1980; Fischer, 1980) Domeier (1994) provides evidence for their separation as species.

Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Domeier (1994), reported, St. John; specimen, Virgin Islands [UMML].
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

shy hamlet.

Hypoplectrus indigo (Poey, 1852)

Smith & Tyler (1975), (1), Greater Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), (4), obs., El Palo reef, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

indigo hamlet.

Hypoplectrus nigricans (Poey, 1852)

Jordan & Eigenmann (1890), examined, St. Thomas.
Randall & Randall (1960), mimicry.
Randall (1967), food habits.
Randall (1968a: 72), Fig. 81, (1: 114 mm TL), St. John.
Dammann (1969), (7: 101-135 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Barlow (1975a), obs., off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), obs., Anegada.
Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.
Domeier (1994), obs., Culebra; Virgin Gorda; Tortola; reported, St. John; specimen, Puerto Rico [UMML].

black hamlet.

Hypoplectrus puella (Cuvier in Cuvier & Valenciennes, 1828)

Jordan & Eigenmann (1890), examined, St. Thomas.
Randall (1963a), (3: 63-65 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 56-90 mm SL), rotenone, fringing reef Greater Lameshur Bay, St. John.
Randall (1967), food habits.
Randall (1968a: 72), Fig. 78, (1: 117 mm TL), St. John.
Dammann (1969), (5: 62-93 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., St. John.
Smith & Tyler (1972), (2: 22-35 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Risk (1972), (2), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
Fast (1974), obs., patch reef, Media Luna reef, La Parguera.
Barlow (1975a), obs., off Punta Ostiones.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), obs., Anegada.
Ramirez Mella (1984), reproductive biology, La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., most abundant and widespread hamlet species, La Parguera.
Domeier (1994), obs., Culebra; Virgin Gorda; reported, St. John; specimen, Puerto Rico; Virgin Islands [UMML].
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

barred hamlet.

Hypoplectrus unicolor (Walbaum, 1792)

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1968a: 72), Fig. 79, (1: 127 mm TL), St. John.

Collette & Talbot (1972), obs., St. John.

Fast (1974), (1: 45 mm SL), rotenone, artificial reef; obs., patch reef, Media Luna reef, La Parguera.

Barlow (1975a), obs., off Punta Ostiones.

Dunne & Brown (1979), obs., Anegada.

Ramirez Mella (1984), reproductive biology, La Parguera.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.

Domeier (1994), obs., Culebra; Virgin Gorda; Tortola; reported, St. John; specimens, Puerto Rico; Virgin Islands [UMML].

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

butter hamlet.

Hypoplectrus sp.

Humann (1994: 135), photograph, Culebra.

tan hamlet.

Liopropoma carmabi (Randall, 1963)

Randall (1963b), as *Chorististium carmabi*, Pl. 2b, (1: 39.2 mm SL holotype), rotenone, shelf-edge reef, 55 m, La Parguera [USNM 179001].

candy basslet.

Liopropoma mowbrayi Woods & Kanazawa, 1951

Randall (1963b), as *Chorististium mowbrayi*, (1: 40 mm SL), spear, shelf-edge reef, 55 m, La Parguera [UPRM 1132].

Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.

ridgeback basslet, cave bass.

Liopropoma rubre Poey, 1861

Randall (1963b), as *Chorististium rubre*, Pl. 2a, (4: 38-58 mm SL), rotenone, 15 m, El Negro reef, Mayagüez [UPRM 1136]; (4: 38-57 mm SL), rotenone, shelf-edge reef, 21 m, La Parguera [UPRM 1137]; (1: 42 mm SL), rotenone, shelf-edge reef, 22 m, La Parguera [UPRM 1138]; (1: 63 mm SL), spear, cave, 3 m, Stevens Cay, St. John [UPRM 1134]; (5: 20-54 mm SL), reef, 12 m, Lameshur Bay, St. John [UPRM 1135].

Dammann (1969), as *Chorististium rubre*, (5: 59-75 mm TL), rotenone, Chocolate Hole, St. John.

Dunne & Brown (1979), as *Chorististium rubre*, obs., Anegada.

Kimmel (1985b), obs., La Parguera.

swissguard basslet, peppermint bass.

Mycteroperca acutirostris (Valenciennes in Cuvier & Valenciennes, 1828)

Randall (1962b), (1), as *Mycteroperca rubra*, fish trap, Lameshur Bay, St. John.

Randall (1968a: 68), as *M. rubra*, Fig. 75, (1: 175 mm TL), St. John.

Kimmel (1985b), as *M. rubra*, obs., La Parguera.

Dennis (pers. obs.), (1), obs., Mario reef; (1), obs., Collado reef, La Parguera.

comb grouper.

Mycteroperca bonaci (Poey, 1860)

Evermann & Marsh (1900: 157), "not uncommon", obs., Puerto Real.

Randall (1962b), (1), fish trap, Lameshur Bay, St. John.

Randall (1967), food habits.

Randall (1968a: 64), rare in Puerto Rico and Virgin Islands, Fig. 71, (1: 396 mm TL), Puerto Rico.

Smith (1971), (1), E & M specimen, Puerto Real [USNM 50169].

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Dunne & Brown (1979), obs., Anegada.

Boulon (1985a), obs., St. John.

Boulon (1987), obs., St. John.

black grouper, aguaji.

Mycteroperca interstitialis (Poey, 1860)

Erdman (1956: 330), (2), Puerto Real market [UPRM 825].

Randall (1962b), fish trap, Lameshur Bay, St. John.

Randall (1967), food habits.

Randall (1968a: 66), Fig. 73, (1: 323 mm TL), St. John.

Dyer et al. (1985), digenetic trematodes, (1), Cayo Enrique, La Parguera.

Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.

Humann (1994: 146), photograph, juvenile, Puerto Rico.

Dennis (pers. obs.), obs., (1) bicolored juvenile, (1), bicolored young adult, Turrumote, La Parguera.

yellowmouth grouper.

Mycteroperca tigris (Valenciennes in Cuvier & Valenciennes, 1833)

Randall (1962b), (46), fish trap, Lameshur Bay, St. John.

Randall (1963a), (2: 295-405 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 65), Fig. 72, (1: 356 mm TL), St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Dunne & Brown (1979), obs., Anegada.

Kimmel (1985b), obs., La Parguera.

Nelson & Appeldoorn (1985), obs., submersible, S of St. John.

Boulon (1985a), obs., St. John.

Boulon (1985b), obs., St. John.

Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.

Boulon (1987), obs., St. John.

Sadovy et al. (1994), obs. spawning aggregation, Isla Vieques.

UPRM collection, (1: 38 mm SL), 5 m, El Negro reef, Mayagüez [UPRM 1334].

tiger grouper, guajil, mero pinto.

Mycteroperca venenosa (Linnaeus, 1758)

Günther (1880: 6), as *Serranus apua*, St. Thomas.

Evermann & Marsh (1900: 158), as *M. bowersi*, (1: 546 mm TL type), trap, Culebra [USNM 49530].

Erdman (1956), occasional, Puerto Rico.

Idyll & Randall (1959), (2), trolling; St. John.
 Randall (1962b), (95), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (1: 365 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Randall (1963g), (1), fish trap, Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 64), Fig. 70, (1: 224 mm TL), St. John.
 Dammann (1969), (2: 285-310 mm TL), rotenone, Chocolate Hole, St. John.
 Smith (1971), (2), La Parguera [UMMZ 172530, 173098]; (1), Las Croabas, Fajardo [UMMZ 173097]; (1), St. Thomas, ALBATROSS [USNM 34956]; (1), St. Thomas, HASSLER [MCZ 10151].
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Beets & Friedlander (1992), fishery analysis, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Dennis (pers. obs.), obs., shelf-edge reef, La Parguera.

yellowfin grouper, guajil, mero pinto.

Paranthias furcifer (Valenciennes in Cuvier & Valenciennes, 1828)

Bullis & Thompson (1965), trawl, 64 m, N of Jost Van Dyke, OREGON 2623; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
 Randall (1967), food habits.
 Randall (1968a: 86), Fig. 99, (1: 244 mm TL), St. John.
 Smith (1971), (1), W of Mayagüez [USNM 108409].
 Powell et al. (1972), (3: 58-65 mm SL), trawl, 64 m, N. Jost Van Dyke, OREGON 2623 [FSBC 1553].
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques; Grappler Seamount.

creole-fish, chilla rubia, rabirrubia de lo alto.

Parasphyraenops incisus (Colin, 1978)³⁹

Colin (1978a), as *Serranus incisus*, (1: 24 mm SL), quinaldine, 60 m, shelf-edge reef, La Parguera (lost).

two-stripe bass.

Protonogrammus martinicensis (Guichenot, 1868)

Nelson & Appeldoorn (1985), as *Holanthias martinicensis*, obs., submersible, Puerto Rico.
 Dennis et al. (in prep.), (1: 101 mm SL), 200 m, off Tourmaline reef, Mayagüez [UPRM 3458].

roughtongue bass.

Pseudogramma gregoryi (Breder, 1927)

Randall (1963b), as *P. bermudensis*, (6: 24-40 mm SL), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM 1147].
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
 Yoshioka (1975d), (22), rotenone, nearshore, Punta Manati.

³⁹Johnson & Smith-Vaniz (1987) transferred *Serranus incisus* to the genus *Parasphyraenops*.

Dunne & Brown (1979), (1), rotenone, Anegada.

reef bass.

Rypticus bistrispinus (Mitchell, 1818)

Evermann & Marsh (1900: 163), (19), Culebra.

Schultz & Reid (1939), as *R. arenatus*, Culebra [USNM 50208, FMNH 3261].

Siddiqi & Cable (1960), trematodes absent, Puerto Rico.

Courtenay (1967), (1: 54 mm SL), Eustatia Isl. reef, Gorda Sound, Virgin Gorda [USNM 183601].

Kimmel (1975), (1), rock outcrops; (1), algal mat, Punta Las Tunas.

Yoshioka (1975a), (1), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.

freckled soapfish.

Rypticus randalli Courtenay, 1967

Evermann & Marsh (1900: 163), as *R. coriaceus*, (1: 121 mm TL), Mayagüez [USNM 126136]; (1: 140 mm TL), Hucares [USNM 50188].

Courtenay (1967), (1: 128 mm SL holotype), trawl, 9 m, off Río Añasco [USNM 19717]; (2: 103-121 mm SL), with holotype [UPRM 1167]; (1: 108 mm SL), Hucares [USNM 50188]; (1: 116 mm SL), Mayagüez [USNM 126136]; (2: 98-101 mm SL), Tres Hermanos [UPRM 1208, UMML 13801].

Ramsey (1967), trawl, Bahía Mayagüez.

brown soapfish.

Rypticus saponaceus (Bloch & Schneider (ex Parra), 1801)

Poey (1881: 322), as *Rhypticus saponarius*, Puerto Rico.

Stahl (1883: 76), as *Rhypticus saponarius*, Puerto Rico.

Randall (1963a), (7: 45-202 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (9: 29-169 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Courtenay (1967), (3: 90-116 mm SL), Bahía de Yegua [UF 201753]; (2: 151-189 mm SL), Crashboat Basin, Aguadilla [UPRM 1169]; (2: 28-68 mm SL), Reef Bay, St. John [UF 210046, 205465].

Randall (1967), food habits.

Randall (1968a: 88), Fig. 102, (1: 165 mm TL), St. John.

Dammann (1969), (15: 75-175 mm TL), rotenone, Chocolate Hole, St. John.

Fish & Mowbray (1970: 44), (1), sound production, Mayagüez.

Martin & Patus (1973), Bahía Jobos.

Kimmel (1975), (2), rock outcrops, Punta Las Tunas.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975d), (3), rotenone, nearshore, Punta Manati.

García (1981), (1), gill net, Laguna Joyuda.

Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

greater soapfish, jaboncillo, jabón.

Rypticus subbifrenatus (Gill, 1861)

Gill (1861: 53), as *Rhypticus subbifrenatus*, type locality, St. Thomas.

Schultz & Reid (1939), Smith Bay, St. Thomas [USNM 106516].

Randall (1963a), (3: 69-86 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 67-77 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Courtenay (1967), (1: 120 mm SL), Punta Guaniquilla [UPRM 1155].

Dammann (1969), (8: 72-81 mm TL), rotenone, Chocolate Hole, St. John.

Smith & Tyler (1972), (1: 64 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.

Kimmel (1975), (6), rock outcrops; (9), algal mat, Punta Las Tunas.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975d), (2), rotenone, nearshore, Punta Manati.

spotted soapfish.

Schultzea beta (Hildebrand, 1940)

Robins & Starck (1961), (22: 47-62 m SL), trawl, 64 m, N of Jost Van Dyke, OREGON 2623 [UMML 7743, 7744]; (3: 50-55 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [UMML 7035].

Bullis & Thompson (1965), as *Serranus beta*, trawl, 64 m, N of Jost Van Dyke, OREGON 2622; as *Serranus campechanus*, trawl, 77 m, N of St. Thomas, OREGON 2607; 53 m, S of St. John, OREGON 2617; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).

Powell et al. (1972), (1: 52 mm SL), trawl, N. Tortola, OREGON 2622? [FSBC 1554].

school bass.

Serraniculus pumilio Ginsburg, 1952

Ramsey (1967), trawl, Bahía Boquerón.

Kimmel (1985b), obs., La Parguera.

Dennis et al. (in prep), (3: 26-31 mm SL), quinaldine, 16.2 m, muddy bottom, behind Laurel reef, La Parguera [UPRM 3722]; (1: 38 mm SL), trawl, 8 m, sandy bottom, Bahía Boqueron [UPRM 3717]; (1: 36 mm SL), trawl, 26 m, off Río Añasco [UPRM 3718]; (1: 37 mm SL), trawl, 17 m, off Laguna Joyuda [UPRM 3730].

pygmy sea bass.

Serranus annularis (Günther, 1880)

Robins & Starck (1961), (1: 58 mm SL), trawl, 64 m, SE of St. John, OREGON 2624 [UMML 7311]; (1: 48 mm SL), 46 m, off Ram's Head Bay, St. John [UMML 7794].

Bullis & Thompson (1965), as *Prionodes annularis*, trawl, 48 m, SW of St. John, OREGON 2618 (corrected).

Randall (1968a: 79), Fig. 92, (1: 66 mm TL), St. John.

orangeback bass.

Serranus atrobranchus (Cuvier, in Cuvier & Valenciennes, 1829)

Woods (1961), (1), trawl, 183 m, off Punta Higuero, OREGON 2655.

Robins & Starck (1961), (1: 48 mm SL), trawl, 64 m, N of Jost Van Dyke, OREGON 2622 [FSBC 1552].

Bullis & Thompson (1965), as *Prionodes atrobranchus*, trawl, 75 m, N of Tortola, OREGON 2616; 183 m, off Punta Higuero, OREGON 2655; as *Paracentropistes pomospilus*, trawl, 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).

blackear bass.

Serranus baldwini (Evermann & Marsh, 1899)

Evermann & Marsh (1899: 353), as *Prionodes baldwini*, (1: 51 mm TL holotype), tangle, 27 m, Culebra [USNM 49361]; (34: 14-51 mm TL paratypes), tangle, 28 m, off Culebra.

Evermann & Marsh (1900: 160), Pl. 15.

Robins & Starck (1961), (1: 39 mm SL holotype), Culebra, [USNM 49361]; (3: 19-25 mm SL), off Culebra [USNM 50159], (15: 12-32 mm SL paratypes), off Culebra [USNM 50160]; (4: 29-34 mm SL paratypes), off Culebra [USNM 125564]; (1: 36 mm SL), Great Salt Pond Bay, St. John [UMML 6217]; (1: 41 mm SL), Reef Bay, St. John [UMML 7154]; (1: 30 mm SL), Ram's Head Bay, St. John [UMML 6697].

Randall (1968a: 80), Fig. 91, (1: 48 mm TL), St. John.

Fast (1974), (1: 30 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.

Kimmel (1975), (12), algal mat; (1), rock outcrops, Punta Las Tunas.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.

lantern bass.

Serranus chionaraia Robins & Starck, 1961

Robins & Starck (1961), (1: 36 mm SL paratype), trawl, 64 m, Puerto Rico OREGON 2667 [USNM 191120]; (1: 34 mm SL paratype), 92 m, off Punta Boca Juana, CAROLINE 104 [USNM 108389].

snow bass.

Serranus flaviventris (Cuvier in Cuvier & Valenciennes, 1829)

Evermann & Marsh (1900: 162), (5: 44-70 mm TL), as *Dules dispilurus*, (1), tangle, 13 m, Punta Melones; (3), seine, Mayagüez.

Randall (1968a: 81), Fig. 94, (1: 64 mm TL), Puerto Rico.

Kimmel (1975), obs., 18 m, Punta Las Tunas.

Kimmel (1985b), obs., La Parguera.

two-spot bass.

Serranus luciopercanus Poey, 1852

Randall (1963b), (1: 84 mm SL), rotenone, 55 m, shelf-edge reef, La Parguera [UPRM 1143].

Nelson & Appeldoorn (1985), obs., submersible, Grappler Seamount; S of St. John; Guánica.

bass.

Serranus notospilus Longley, 1935

Robins & Starck (1961), (9: 78-123 mm SL), 183 m, off Punta Higuero, OREGON 2655 [FMNH 65062].

saddle bass.

Serranus phoebe Poey, 1852

Erdman (1956: 331), as *Prionodes phoebe*, (1: 152 mm TL), hook and line, Rincón, [UPRM 258].

Robins & Starck (1961), (3: 96-99 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [USNM 187098].

Bullis & Thompson (1965), as *Prionodes phoebe*, trawl, 77 m, N of St. Thomas, OREGON 2607; 79 m, off San Juan, OREGON 2662 (corrected).

UPRM collection, (2: 141-142 mm SL), trap, 220 m, off Mayagüez [UPRM 3459]; (1: 155 mm SL), trap, 82 m, off Mayagüez [UPRM 3713].

tattler.

Serranus tabacarius (Cuvier in Cuvier & Valenciennes, 1829)

Erdman (1956: 331), as *Prionodes tabacaria*, collected, La Parguera.

Robins & Starck (1961), (1: 39 mm SL), Greater Lameshur Bay, St. John [UMML 4938]; (1: 100 mm SL), Cabritte

Horn Point, St. John [UMML 6823]; (1: 62 mm SL), trawl, N of Jost Van Dyke, OREGON 2623 [UMML 7308].

- Bullis & Thompson (1965), as *Prionodes*, trawl, 77 m, N of St. Thomas, OREGON 2607; 48 m, SW of St. John, OREGON 2618; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
Randall (1967), foods habits.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Fast (1974), (1: 98 mm SL), artificial reef, Media Luna reef, La Parguera.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, Grappler Seamount; Guánica.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Boulon (1992), obs., mangroves, St. Thomas.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

tobaccofish, chilla negra.

Serranus tigrinus (Bloch, 1790)

- Erdman (1956: 331), as *Prionodes tigrinus*, (1: 114 mm TL), Boquerón [UPRM 259].
Robins & Starck (1961), (1: 64 mm SL), 3 m, Congrejos reef, San Juan [UMML 2822]; (1: 58 mm SL), Concordia Bay, St. John [UMML 5060]; (3: 38-50 mm SL), 5 m, Lesser Lameshur Bay, St. John [UMML 3784]; (4: 34-67 mm SL), Greater Lameshur Bay, St. John [UMML 4925].
Randall (1963a), (6: 32-73 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 43 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Dammann (1969), (3: 52-72 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Fast (1974), obs., artificial reef, Media Luna reef, La Parguera.
Kimmel (1975), obs., Punta Las Tunas.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), obs., Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), (2), obs., El Palo reef, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

harlequin bass.

Serranus tortugarum Longley, 1935

- Robins & Starck (1961), (6: 15-22 mm SL), 9 m, Salt Pond Bay, St. John [UMML 7153]; (3: 43-53 mm SL), trawl, 48 m, S of St. John, OREGON 2618 [UMML 7111]; (2: 48-49 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [UMML 7032]; (66: 23-56 mm SL), trawl, 64 m, W of Anegada, OREGON 2623 [UMML 7307, USNM 187103]; (12: 38-56 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [USNM 187102].
Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 48m, SW of St. John, OREGON 2618; 42 m, S of St. Thomas, OREGON 2619; 48 m, N of Tortola, OREGON 2620; 64 m, N of Jost Van Dyke, OREGON 2622; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
Randall (1967), food habits.
Randall (1968a: 80), Fig. 93, (1: 51 mm TL), St. John.
Powell et al. (1972), (14: 43-58 mm SL), trawl, N. Tortola, OREGON 2621 [FSBC 870].
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, S of St. John; E of Vieques; Grappler Seamount; Guánica.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

chalk bass.

GRAMMATIDAE

Gramma linki Starck & Colin, 1978

Starck & Colin (1978), paratypes (1), 55 m, Salinas de Ensenada, Guánica.

Nelson & Appeldoorn (1985), obs., submersible, S of St. John.

yellowlined basslet.

Gramma loreto Poey, 1868

Erdman (1961a), Puerto Rico.

Böhlke & Randall (1963), (31: 21-52 mm SL), 15 m, El Negro reef, Mayagüez [ANSP 95133]; (1: 43 mm SL), 3 m, St. John [UMML 3742]; (1: 33 mm SL), 12 m, St. John [UMML 8491]; (6: 31-47 mm SL), 8 m, St. John [UMML 9425]; (2: 40-50 mm SL), 11 m, St. John [UMML 9424]; (1: 49 mm SL), 21 m, St. John [ANSP 95134]; (11: 20-53 mm SL), 3 m, St. John [ANSP 94736]; (1: 26 mm SL), 2 m, Guana Island [ANSP 94683].

Randall (1963a), (12: 23-52 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (9: 13-53 mm SL), rotenone, fringing reef, Ram's Head Bay.

Kumpf (1965), observed, Botany Bay, St. Thomas.

Randall (1968a: 85), Fig. 100, (1: 64 mm TL), St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Fast (1974), (22: 19-50 mm SL), patch reef, Media Luna reef, La Parguera.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Kimmel (1975), (1), rock outcrops, Punta Las Tunas.

Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.

Dunne & Brown (1979), (2), rotenone, Anegada.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería; Cayo Ratones, Ponce.

Bortone et al. (1989), (4), obs., El Palo reef, La Parguera.

Asoh (1992), reproductive behavior, La Parguera.

Asoh (1996), reproductive behavior, La Parguera.

Asoh & Yoshikawa (1996), behavior, La Parguera.

fairy basslet.

Lipogramma klayi Randall, 1963

Robins & Colin (1979), Fig. 4 (lower), (1: ca. 20 mm SL), Puerto Rico.

Colin (pers. comm.), common, shelf edge drop-off, La Parguera.

bicolor basslet.

Lipogramma regium Robins & Colin, 1979

Robins & Colin (1979), Fig. 4 (upper), (1: 16.5 mm SL holotype), quinaldine, 75 m, shelf-edge reef, La Parguera [ANSP 138115]; (1: 17 mm SL paratype), quinaldine, same locality as holotype [ANSP 134333].

royal basslet.

Lipogramma roseum Gilbert in Robins & Colin, 1979

Dennis et al. (in prep), (1), shelf-edge reef, La Parguera [ANSP 141376].

rosy basslet.

Lipogramma trilineatum Randall, 1963

Randall (1963b), (1: 28 mm SL paratype), rotenone, 22 m, shelf-edge reef, La Parguera [UPRM 1128].

threeline basslet.

PRIACANTHIDAE

Heteropriacanthus cruentatus (Lacepède, 1801)⁴⁰

Poey (1881: 322), as *Priacanthus cepedianus*, Puerto Rico.

Stahl (1883: 76), as *P. cepedianus*, Puerto Rico.

Evermann & Marsh (1900: 167), (1: 203 mm TL), San Juan market.

Siddiqi & Cable (1960), as *Priacanthus cruentatus*, trematodes absent, Puerto Rico.

Randall (1963a), as *P. cruentatus*, (6: 80-190 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 126-147 m SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), as *P. cruentatus*, observed, collected, Botany Bay, St. Thomas.

Randall (1967), as *P. cruentatus*, food habits.

Randall (1968a: 91), as *P. cruentatus*, Fig. 104, (1: 254 mm TL), St. John.

Dammann (1969), as *P. cruentatus*, (15: 81-240 mm TL), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), as *P. cruentatus*, obs., patch reef, Greater Lameshur Bay, St. John.

Kimmel (1975), as *P. cruentatus*, (2), rock outcrops, Punta Las Tunas.

Smith & Tyler (1975), as *P. cruentatus*, obs., Greater Lameshur Bay, St. John.

Dunne & Brown (1979), as *P. cruentatus*, obs., Anegada.

Dyer et al. (1985), as *P. cruentatus*, digenetic trematodes, (6), Laurel reef, La Parguera.

Kimmel (1985a), as *P. cruentatus*, obs., shelf-edge reef, La Parguera.

Kimmel (1985b), as *P. cruentatus*, obs., La Parguera.

Nelson & Appeldoorn (1985), as *P. cruentatus*, obs., submersible, Grappler Seamount.

Starnes (1988), (1), Fajardo [USNM 126442]; (1), Punta Percha [USNM 128834].

Hixon & Beets (1993), as *P. cruentatus*, obs., artificial reef, Perseverance Bay, St. Thomas.

glasseye snapper, bleareye, catalufa, cómico, payaso, toro.

Priacanthus arenatus Cuvier in Cuvier & Valenciennes, 1829

Evermann & Marsh (1900: 166), Pl. 16, (6: 152-305 mm TL), Arroyo; Mayagüez; Aguadilla.

Caldwell (1962a), (2), 53 m, S of St. John, OREGON 2617; (1), Aguadilla [USNM 50138].

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 91), Fig. 105, (1: 269 mm TL), St. John.

Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.

Fast (1974), obs., patch reef, Media Luna reef, La Parguera.

Kimmel (1975), (7), rock outcrops; (1), sandy bottom; (1), algal mat, Punta Las Tunas.

Yoshioka (1975a), obs., 5 m, Bahía Tortuguero.

Olsen et al. (1978), (45), fish trap, 55 m, NE of St. Thomas.

⁴⁰Fitch & Cooke (1984) transferred *cruentatus* from *Priacanthus* to *Heteropriacanthus*.

Dunne & Brown (1979), obs., Anegada.

Nelson & Appeldoorn (1985), obs., submersible, E of Vieques.

Starnes (1988), (1), *Tetrapturus albidus* stomach, off San Juan [AMNH 26282]; (1), Aguadilla, FISH HAWK [CAS 94723].

Acosta (1992), gill net catch, Puerto Rico.

bigeye, bleareyes, catalufa, cómico, payaso, rey, ojo buey, sol.

Pristigenys alta (Gill, 1862)

Caldwell (1962b), as *Pseudopriacanthus altus*, (1: 108 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607.

Bullis & Thompson (1965), as *Pseudopriacanthus altus*, trawl, 77 m, N of St. Thomas, OREGON 2607 (corrected).

Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; E of Vieques.

UPRM collection, (1: 199 mm SL), trap, off Mayagüez [UPRM 3714].

short bigeye.

APOGONIDAE

Apogon affinis (Poey, 1875)

Bullis & Thompson (1965), as *Cheilodipterus*, trawl, 77 m, N of St. Thomas, OREGON 2607; 48 m, SW of St. John, OREGON 2618; 70 m, off Arecibo, OREGON 2667 (corrected).

Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.

bigtooth cardinalfish.

Apogon aurolineatus (Mowbray, 1927)

Bullis & Thompson (1965), trawl, 51 m, NW of St. Thomas, OREGON 2626 (corrected).

Ramsey (1967), trawl, *Halophila* beds, Bahía Boquerón.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

bridle cardinalfish.

Apogon binotatus (Poey, 1867)

Erdman (1956: 330), (3), Punta Arenas [UPRM 216].

Bullis & Thompson (1965), trawl, 42 m, S of St. Thomas, OREGON 2619; 79 m, off San Juan, OREGON 2662 (corrected).

Kumpf (1965), observed, Botany Bay, St. Thomas.

Dammann (1969), (1), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1972), (69: 25-46 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Fast (1974), obs., artificial reef; (3: 26-36 mm SL), patch reef, Media Luna reef, La Parguera.

Smith & Tyler (1975), (22), patch reef, Greater Lameshur Bay, St. John.

Dunne & Brown (1979), (18), rotenone, Anegada.

Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

barred cardinalfish.

Apogon evermanni Jordan & Snyder, 1904⁴¹

Martin & Patus (1984), as *A. anisolepis*, (1), grassbed with coral, 1 m, Cabo Rojo [specimen lost].
Colin (pers. comm.), collected, west coast, Puerto Rico.

oddscale cardinalfish.

Apogon lachneri Böhlke, 1959

Randall (1963a), (1: 32 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Collette & Talbot (1972), (6), patch reef, Greater Lameshur Bay, St. John.
Williams & Williams (1982), (4: 33-36 mm SL), isopod parasites, shelf edge, 37 m, Salinas.
Kimmel (1985b), obs., shelf-edge reef, La Parguera.

whitestar cardinalfish.

Apogon maculatus (Poey, 1860)

Evermann & Marsh (1900: 143), as *A. sellicauda*, (1: 41 mm TL type), coral reef, Culebra [USNM 49529].
Fowler (1928), as *A. sellicauda*, (1), Puerto Rico.
Siddiqi & Cable (1960), trematode parasites, Punta Arenas.
Randall (1963a), (74: 14-62 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (32: 25-57 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Bullis & Thompson (1965), as *A. sellicauda*, trawl, 77 m, N of St. Thomas, OREGON 2607 (corrected).
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 96), Fig. 108, (1: 58 mm TL), Puerto Rico.
Dammann (1969), (24: 53-77 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
Smith & Tyler (1972), (9: 36-51 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), obs., artificial reef; (1: 59 mm SL), patch reef, Media Luna reef, La Parguera.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
Kimmel (1975), (2), rock outcrops, Punta Las Tunas.
Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
Smith & Tyler (1975), (2), patch reef, Greater Lameshur Bay, St. John.
Yoshioka (1975b), (1), shoreline, Punta Ostiones.
Yoshioka (1975d), (20), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), (4), rotenone, Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

flamefish, cardenal

Apogon phenax Böhlke & Randall, 1968

Böhlke & Randall (1968), paratypes, (2: 41-54 mm SL), 15 m, El Negro reef, Mayagüez [UPRM 1120, 1123]; (1: 43 mm SL), 12 m, El Negro reef, Mayagüez [UPRM 1440]; (7: 38-44 mm SL), 12 m, Lameshur Bay, St. John [UPRM 1121].
Dammann (1969), (110: 20-92 mm TL), rotenone, Chocolate Hole, St. John.

⁴¹Randall & Böhlke (1981) synonymized *Apogon anisolepis* with *A. evermanni*.

Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.

mimic cardinalfish.

Apogon pillionatus Böhlke & Randall, 1968

Böhlke & Randall (1968), (2: 35-38 mm SL paratypes), 55 m, shelf-edge reef, La Parguera [ANSP 111760].

broadscale cardinalfish.

Apogon planifrons Longley & Hildebrand, 1940

Woods (1961), trawl, 183 m, Punta Higuero, OREGON 2655.

Böhlke & Randall (1968), (1: 48 mm SL), 2 m, Bahía de Yegua [UMML 1584]; (1: 68 mm SL), Isla Ratones, Joyuda [UPRM 229]; (1: 70 mm SL), El Negro reef, Mayagüez [UPRM 1120]; (1: 76 mm SL), Puerto Rico [UPRM 1435]; (2: 52-70 mm SL), 1 m, Europa Bay, St. John [UMML 5396]; (1: 50 mm SL), 18 m, Lameshur Bay, St. John [UMML 14918]; (9: 30-57 mm SL), 2 m, Guana Island [ANSP 106900]; (1: 43 mm SL), 1 m, Scrub Island [ANSP 106901].

Dammann (1969), (2), rotenone, Chocolate Hole, St. John.

Fast (1974), (3: 31-53 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.

pale cardinalfish

Apogon pseudomaculatus Longley, 1932

Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 79 m; off San Juan, OREGON 2662; 70 m, off Arecibo, OREGON 2667 (corrected).

Dennis et al. (in prep), (1: 62.5), trawl, 79 m, off San Juan, OREGON Stat. 2662 [FMNH 65192]; (1: 74.0), trawl, 70 m, off Arecibo, OREGON Stat. 2667 [FMNH 65193].

twospot cardinalfish

Apogon quadrisquamatus Longley, 1934

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Smith & Tyler (1972), (12: 13-31 mm SL), rotenone, Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Kimmel (1975), (2), rock outcrops, Punta Las Tunas.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Dale (1977), (6), with *Astropyga magnifica*, 17 m, Crashboat Basin, Aguadilla [USNM 207020]; (4), with *Astropyga magnifica*, 15 m, Crashboat Basin, Aguadilla [USNM 207021]; (5), trawl, 26 m, OREGON 5453 [USNM 213603]; (2), trawl, 22 m, off Puerto Real, OREGON 5454 [USNM 213604]; (2), trawl, off Puerto Real, OREGON 5455 [USNM 213605].

Martin & Patus (1984), (1), reef, Cayos de Barca, Bahía Jobos [USNM 219144].

Kimmel (1985b), obs., La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

Gilbert & Tyler (1997), (5: 15-22), Puerto Rico [USNM 207020]; (2: 30-33), OREGON 5455 [USNM 213605].

sawcheek cardinalfish.

Apogon robinsi Böhlke & Randall, 1968

Dammann (1969), (2: 31-32 mm TL), rotenone, Chocolate Hole, St. John.

cardinalfish.

Apogon townsendi (Breder, 1927)

Randall (1963a), (21: 24-37 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.

Bullis & Thompson (1965), trawl, 51 m, N of Jost Van Dyke, OREGON 2610; 53 m, S of St. John, OREGON 2617 (corrected).

Dammann (1969), (1), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), obs., most abundant cardinalfish, Greater Lameshur Bay, St. John.

Smith & Tyler (1972), (118: 24-50 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), (13), patch reef, Greater Lameshur Bay, St. John.

belted cardinalfish.

Astrapogon alutus (Jordan & Gilbert, 1882)

Evermann & Marsh (1900: 144), as *Apogonichthys alutus*, (1: 51 mm TL), seine, Guánica.

Longley & Hildebrand (1941), as *Apogonichthys alutus*, Puerto Rico [USNM].

UPRM collection, (1: 28 mm SL), Isla Magueyes, La Parguera [UPRM 228]; (3: 17-33 mm SL), Mayagüez [UPRM 242]; (2: 27-28 mm SL), rotenone, dock, Isla Magueyes, La Parguera [UPRM 2421].

bronze cardinalfish.

Astrapogon puncticulatus (Poey, 1867)

Kumpf (1965), as *Apogon punctilculatus*, observed, collected, Botany Bay, St. Thomas.

Martin & Patus (1973), Bahía Jobos.

Fast (1974), (1: 36 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.

Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.

blackfin cardinalfish.

Astrapogon stellatus (Cope, 1871)

Silvester (1916: 215), as *Apogonichthys stellatus*, (3: 38-64 mm TL), dead sea urchin test, Guánica harbor [PUZM 3048].

Silvester (1918: 22), as *Apogonichthys stellatus*, additional information on above specimens.

Fowler (1928), as *Apogonichthys stellatus*, (3), Puerto Rico.

Bullis & Thompson (1965), as *Apogon stellatus*, trawl, 48 m, SW of St. John, OREGON 2618 (corrected).

Kumpf (1965), as *Apogon stellatus*, observed, collected, Botany Bay, St. Thomas.

Pagan Font (1967), life history aspects, La Parguera.

Randall (1968a: 95), Fig. 111, (1: 53 mm SL), St. John.

Dunne & Brown (1979), obs., Anegada.

conchfish.

Phaeoptyx conklini (Silvester, 1916)⁴²

Silvester (1916: 215), as *Amia conklini*, (1: 50 mm TL holotype), dynamite, coral reef, Guánica harbor [PUZM 3080]; (1: 40 mm TL paratype), same locality as holotype [PUZM 3128].

Silvester (1918: 21), as *Amia conklini*, Pl. 3, Fig. 1.

Fowler (1948), as *Apogon conklini*, (6: 21-28 mm TL), San Juan.

Siddiqi & Cable (1960), as *Ap. conklinii*, trematodes absent, Puerto Rico.

Randall (1963a), as *Ap. conklini*, (25: 20-38 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (9: 19-36 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), as *Ap. conklini*, observed, collected, Botany Bay, St. Thomas.

Randall (1967), as *Ap. conklini*, food habits.

Randall (1968a: 96), as *Ap. conklini*, Fig. 109, (1: 61 mm SL), Puerto Rico.

Dammann (1969), as *Ap. conklini*, (62: 30-59 mm TL), rotenone, Chocolate Hole, St. John.

⁴²Longley (Longley & Hildebrand, 1941) indicates that the type of *P. conklini* collected in Puerto Rico is lost.

Smith & Tyler (1972), (11: 18-32 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
 Fast (1974), obs., patch reef, Media Luna reef, La Parguera.
 Smith & Tyler (1975), (4), patch reef, Greater Lameshur Bay, St. John.
 Yoshioka (1975b), as *Ap. conkline*, (17), shoreline, Punta Ostiones.
 Dunne & Brown (1979), (13), rotenone, Anegada.
 Kimmel (1985b), obs., La Parguera.

freckled cardinalfish.

Phaeoptyx pigmentaria (Poey, 1860)

Randall (1963a), as *Apogon pigmentarius*, (45: 20-37 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Bullis & Thompson (1965), as *Apogon pigmentarius*, trawl, N of St. Thomas, OREGON 2607; 49 m, N of Tortola, OREGON 2611; 75 m, N of Tortola, OREGON 2616; 53 m, S of St. John, OREGON 2617; 48 m, SW of St. John, OREGON 2618; 70 m, N of Jost Van Dyke, OREGON 2624; 79 m, off San Juan, OREGON 2662 (corrected).
 Randall (1968a: 96), as *Apogon pigmentarius*, Fig. 109, (1: 61 mm SL), Puerto Rico.
 Dammann (1969), as *Ap. pigmentarius*, (17: 35-60 mm TL), rotenone, Chocolate Hole, St. John.
 Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (3: 18-30 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1973), as *Ap. pigmentarius*, Bahía Jobos.
 Fast (1974), (3: 25-44 mm SL), artificial reef; (2: 29-36 mm SL), patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1975), as *Ap. pigmentarius*, central bay, Bahía Jobos.
 Smith & Tyler (1975), (9), Greater Lameshur Bay, St. John.
 Dunne & Brown (1979), (23), rotenone, Anegada.

dusky cardinalfish.

Phaeoptyx xenus (Böhlke & Randall, 1968)

Böhlke & Randall (1968), as *Apogon xenus*, paratypes, (5: 22-41 mm SL), 12 m, Enrique reef, La Parguera [UPRM 2147]; (4: 33-42 mm SL), 15 m, Enrique reef, La Parguera [LACM 6834-1]; (1: 46 mm SL), 24 m, shelf-edge reef, La Parguera [USNM 198161]; (3: 40-46 mm SL), 8 m, Yawzi Point, St. John [UMML 4916, 8490]; (4: 28-46 mm SL), 12 m, Greater Lameshur Bay, St. John [UPRM 1739, LACM 4895]; (1: 35 mm SL), 14 m, Botany Bay, St. Thomas [UPRM 2118].
 Collette & Talbot (1972), (1), patch reef, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (3: 24-36 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
 Smith & Tyler (1975), (5), Greater Lameshur Bay, St. John.
 Dyer et al. (1985), digenetic trematodes, (1), Salinas, Guanica.
 Kimmel (1985b), obs., La Parguera.

sponge cardinalfish.

MALACANTHIDAE

Caulolatilus cyanops Poey, 1866

Poey (1881: 334), Puerto Rico.
 Stahl (1883: 78), Puerto Rico.
 Brownell & Rainey (1971), (10), hook and line, shelf edge, Virgin Islands.
 Dooley (1978), (1: 235 mm SL), hook and line, shelf edge, La Parguera [UPRM 2602]; (1: 293 mm SL), trap, Cabo Rojo [UPRM 3455].

blackline tilefish, domingo, limosnero.

Malacanthus plumieri (Bloch, 1786)

Idyll & Randall (1960), hook and line; Caneel Bay, St. John.

Bullis & Thompson (1965), trawl, N of St. Thomas, OREGON 2607; 49 m, N of Tortola, OREGON 2611; 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).

Randall (1967), food habits.

Randall (1968a: 97), Fig. 112, (1: 528 mm TL), St. John.

Brownell & Rainey (1971), (3), hook and line, shelf edge, Virgin Islands.

Clifton & Hunter (1972), behavioral obs., Greater Lameshur Bay, St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Kimmel (1975), obs., sandy bottom; (2), algal mat, Punta Las Tunas.

Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.

Dunne & Brown (1979), (1), rotenone, Anegada.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques.

Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Kimmel (1991), baitfish, Puerto Rico.

Acosta (1992), gill net catch, Puerto Rico.

sand tilefish, jolocho, jorocho.

RACHYCENTRIDAE

Rachycentron canadum (Linnaeus, 1758)

Erdman (1956: 336), as *R. canadus*, obs., Guánica; La Parguera, summer.

Randall (1967), food habits.

Erdman (1976), off La Parguera.

cobia, bacalao.

ECHENEIDAE

Echeneis naucrates Linnaeus, 1758

Poey (1881: 333), as *Leptecheneis naucrates*, Puerto Rico.

Stahl (1883: 80), as *Leptecheneis naucrates*, Puerto Rico.

Fowler (1928), as *Leptecheneis naucrates*, (2), Puerto Rico.

Idyll & Randall (1959), trolling; St. John.

Randall (1967), food habits.

Randall (1968a: 100), Fig. 115, (1: 320 mm TL), St. John.

Collette & Talbot (1972), obs., St. John.

Martin & Patus (1973), Bahía Jobos.

Fast (1974), obs., artificial reef; obs., patch reef; Media Luna reef, La Parguera.

Kimmel (1975), (1), sandy bottom, Punta Las Tunas.

Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.

Yoshioka (1975a), obs., shoreline, Bahía Tortuguero.

Yoshioka (1975c), obs., Cabo Mala Pascua.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.

sharksucker, pega, pegador.

Echeneis neucratoides Zouiev, 1786

Dennis et al. (in prep), (1), host unknown, Icacos Cay, off northeast corner of Puerto Rico, Johnson-Smithsonian Expedition [USNM 112242].

whitefin sharksucker, pega, pegador.

Phtheirichthys lineatus (Menziés, 1791)

Dennis et al. (in prep), (1: 96 mm SL), on *Carcharhinus longimanus?* (Poey), longline, off northwest corner of Puerto Rico, OREGON 5461 [USNM 202067]; (1: 57 mm SL), on *Xiphias gladius?* Linnaeus, off SW corner of Puerto Rico, OREGON 5462 [USNM 202076].

slender suckerfish.

Remora brachyptera (Lowe, 1839)

Dennis et al. (in prep), (1: 134 mm SL), on *Xiphias gladius*, longline, off SW corner Puerto Rico, OREGON 5462 [USNM 202075].

spearfish remora.

Remora osteochir (Cuvier, 1829)

Erdman (1956: 336), as *Rhombochirus osteochir*, on blue marlin; spawning condition, May.
UMML collection, (1), gill cavity of *Coryphaena*, La Parguera [UMML 1645 missing]; (1), on blue marlin, off Guánica [UMML 2360 missing].
USNM collection, (2: 47-87 mm SL), off Puerto Rico, JK Howard, 20 Oct 58 [USNM 201956 formerly UMML 4322].

remora, pega.

Remora remora (Linnaeus, 1758)

Erdman (1956: 336), (1), on dusky shark, off Mayagüez.
Randall (1967), most common host sharks, food habits.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
Friedlander (1992), trolling, NE corner Puerto Rico.

remora, pega, pegador.

CARANGIDAE

Alectis ciliaris (Bloch, 1788)

Erdman (1956), as *A. crinitus*, (2: 39.6 kg), La Parguera.
Erdman & Maytag (1957), in sailfish stomach, off San Juan.
Idyll & Randall (1960), as *A. crinitus*, (1), trolling, St. John.
Randall (1968a: 112), as *A. crinitus*, Fig. 129, (1: 406 mm TL), St. John.
Collette & Talbot (1972), as *A. crinitus*, (1), obs., Greater Lameshur Bay, St. John.
Erdman (1976), spawning, Puerto Rico.

African pompano, sol, corcobado de pluma, pámpano, pámpano de hebra, sol.

Caranx bartholomaei Cuvier in Cuvier & Valenciennes, 1833

- Evermann & Marsh (1900: 131), (1: 241 mm TL), San Juan market.
 Erdman (1956: 318), (1: 660 mm FL), Rincón; (1: 895 mm FL), Condado, San Juan; young obs., summer, Isla Magueyes, La Parguera.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 108), Fig. 124, (1: 368 mm TL), St. John.
 Fish & Mowbray (1970: 63), (1), sound production, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla.
 Kimmel (1975), obs., Punta Las Tunas.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

yellow jack, guaymen amarillo, cojinuda amarilla, chibí amarillo, jurel amarillo, cojinúa amarilla.

Caranx crysos (Mitchill, 1815)

- Stahl (1883: 77), as *Paratractus chrysos*, Puerto Rico.
 Evermann & Marsh (1900: 132), Pl. 3, (1: 267 mm TL), San Antonio Bridge; (1: 444 mm TL), Isabel Segunda.
 Nichols (1929: 236), (5), San Geronimo, Santurce.
 Ginsburg (1952), examined, Puerto Rico.
 Erdman (1956: 320), spawning condition, May.
 Erdman & Maytag (1957), (1), in blue marlin stomach, off San Juan.
 Mather (1956), sport fishing, Virgin Islands.
 Idyll & Randall (1959), hook and line; beach seine; trolling; St. John.
 Idyll & Randall (1960), as *C. chrysos*, trolling; St. John.
 Erdman (1967b), found in tuna and bird stomachs.
 Randall (1967), as *C. fuscus*, food habits.
 Randall (1968a: 109), as *C. fuscus*, (1: 584 mm TL), Virgin Islands.
 Fish & Mowbray (1970: 65), (4), sound production, La Parguera.
 Martin & Patus (1973), as *C. fuscus*, Bahía Jobos.
 Martin & Patus (1974), obs., shoreline, Punta Higuero.
 González-Azar & Vilella (1975), as *C. fucus*, collected, Laguna Ceiba.
 Martin & Patus (1975), as *C. fuscus*, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Kimmel (1975), (95), sandy bottom; (2), algal mat; (1), rock outcrops, Punta Las Tunas.
 Yoshioka (1975a), obs., Bahía Tortuguero.
 Yoshioka (1975c), obs., Cabo Mala Pascua.
 Yoshioka (1975d), obs., nearshore, Punta Manati.
 Erdman (1976), postlarvae, juveniles, spawning condition.
 Olsen et al. (1978), as *C. fuscus*, (5), fish trap, 55 m, NE of St. Thomas.
 Dunne & Brown (1979), as *C. fuscus*, obs., Anegada.
 Dyer (1983), as *C. fuscus*, parasites, Virgin Gorda.
 Boulon (1985a), as *C. fuscus*, obs., St. John.

Kimmel (1985b), obs., La Parguera.
 Prince & Gonzalez (1985), fish aggregating device, San Juan.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Larson (1987), as *C. fusus*, with scyphomedusa *Drymonema dalmatinum*, La Parguera.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Boulon (1992), collected, trap, mangroves, St. Thomas.

blue runner, hardtail, hardnose, cojinúa, medregal, güira.

Caranx hippos (Linnaeus, 1758)

Evermann & Marsh (1900: 131), young, Palo Seco.
 Nichols (1929: 235), (8), San Juan.
 Erdman (1956: 320), spawning condition, May.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Fish & Mowbray (1970: 64), (1), sound production, Mayagüez.
 Almodóvar & Pagan (1971), (3: 50-70 mm TL), Isla Guayacán, La Parguera.
 Austin & Austin (1971), food habits.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.]
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.
 Corujo Flores (1980), (3: 145-325 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (1), gill net, Laguna Joyuda.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Stoner (1986), (6), trawl, Laguna Joyuda.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Bunkley-Williams et al. (1996a), parasites, Ponce.

crevalle jack, crevalle, jurel.

Caranx latus Agassiz in Spix & Agassiz, 1831

Poey (1881: 331), as *Carangus fallax*, Puerto Rico.
 Stahl (1883: 77), as *Carangus fallax*, Puerto Rico.
 Evermann & Marsh (1900: 132), commonest species of *Caranx* in Puerto Rico, (137: 76-241 mm TL), San Geronimo, San Antonio bridge, Fajardo, Culebra, Isabel Segunda, Mayagüez, Aguadilla, Palo Seco.
 Fowler (1905b), examined, Culebra, Fish Comm. [ANSP]
 Fowler (1917), examined, St. Thomas.
 Fowler (1928), (1), Puerto Rico.
 Nichols (1929: 236), (1), San Juan.
 O'Neill (1938), fish poisoning, Culebra; St. Thomas.
 Ginsburg (1952), examined, Puerto Rico.
 Erdman (1956: 320), spawning condition, July.
 Mather (1956), sport fishing, Virgin Islands.
 Idyll & Randall (1959), hook and line; trolling; St. John.
 Idyll & Randall (1960), (2), trolling, St. John.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.

Randall (1968a: 111), Fig. 127, (1: 335 mm TL), St. John.
Fish & Mowbray (1970: 66), (2), sound production, La Parguera.
Pagan & Austin (1970), fish kill, Laguna Joyuda.
Austin & Austin (1971), food habits.
Brownell & Rainey (1971), (1), hook and line, shelf edge, Virgin Islands.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Fast (1974), obs., patch reef, Media Luna reef, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.
Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.
Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), obs., Anegada.
Negrón González & Cintrón (1979), collected, estuary, Río Cibuco, Río Espiritu Santo, Río Mameyes.
Corujo Flores (1980), (15: 58-163 mm SL), gill net, estuary, Río Espiritu Santo.
García (1981), (31), gill net, Laguna Joyuda.
Parrish (1982), gill net, off Punta Ostiones.
Negrón et al. (1982), collected, Laguna Punta Arenas.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Negrón González (1986), collected, Laguna Pozuela; Laguna Salinas; Laguna Boquerón.
Stoner (1986), (13), trawl, Laguna Joyuda.
Boulon (1987), obs., St. John.
Acosta (1992), gill net catch, Puerto Rico.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Friedlander et al. (1994), trolling, (1), inshore; (14), shelf edge, St. Thomas.
Bunkley-Williams et al. (1996a), parasites, Humacao, La Parguera.

horse-eye jack, jurel ojón, cojobeo, ojo buey.

Caranx lugubris Poey, 1860

Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 111), Fig. 128, (1: 622 mm TL), St. John.
Brownell & Rainey (1971), (3), hook and line, shelf edge, Virgin Islands.
Boulon (1985a), obs., St. John.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; Grappler Seamount; Guánica; W of Cabo Rojo.
Friedlander et al. (1994), trolling, (1), shelf edge, St. Thomas.

black jack, jurel negrón, jurel negro.

Caranx ruber (Bloch, 1793)

Evermann & Marsh (1900: 130), (4: 165-356 mm TL), seine, Culebra; Ponce; Mayagüez.
Nichols (1929: 234), (4), Santurce.
Mather (1956), sport fishing, Virgin Islands.
Idyll & Randall (1959), beach seine; trolling; St. John.
Idyll & Randall (1960), trolling, St. John.
Siddiqi & Cable (1960), trematode parasites, Puerto Real.

- Bullis & Thompson (1965), trawl, 51 m, N of Jost Van Dyke, OREGON 2610; 33 m, N of Tortola, OREGON 2613 (corrected).
- Kumpf (1965), observed, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Randall (1967), food habits.
- Randall (1968a: 108), Fig. 123, (1: 274 mm TL), St. John.
- Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
- Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
- Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
- Fast (1974), obs., artificial reef; obs., patch reef, Media Luna reef, La Parguera.
- Martin & Patus (1974), obs., shoreline, Punta Higuero.
- Kimmel (1975), (9), sandy bottom; (28), algal mat, Punta Las Tunas.
- Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
- Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
- Yoshioka (1975a), obs., shoreline, Bahía Tortuguero.
- Yoshioka (1975b), obs., fringing reef, Punta Ostiones.
- Yoshioka (1975f), collected, Punta Verraco.
- Ebersole (1977), behavioral interaction, St. Thomas; St. John.
- Parrish & Zimmerman (1977), Punta Ostiones.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979), obs., Anegada.
- Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
- Parrish (1982), gill net, off Punta Ostiones.
- Boulon (1985a), obs., St. John.
- Boulon (1985b), obs., St. John.
- Kimmel (1985b), obs., shelf-edge reef, La Parguera.
- Kimmel (1985b), obs., La Parguera.
- Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- Dyer et al. (1986), trematode parasites, Puerto Rico.
- Boulon (1987), obs., St. John.
- Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
- Beets (1989), obs., artificial reef, 26 m, St. Thomas.
- Bortone et al. (1989), (88), obs., El Palo reef, La Parguera.
- Kimmel (1991), baitfish, Puerto Rico.
- Acosta (1992), gill net catch, Puerto Rico.
- Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
- Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
- Friedlander et al. (1994), trolling, (61), inshore; (8), shelf edge, St. Thomas.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
- Bunkley-Williams et al. (1996a), parasites, La Parguera.

bar jack, carang, cojinúa, cojinuda, chibí, guaymen blanco.

Chloroscombrus chrysurus (Linnaeus, 1766)

- Poey (1881: 332), Puerto Rico.
- Stahl (1883: 77), Puerto Rico.
- Evermann & Marsh (1900: 136), collected, Isabel Segunda; Mayagüez.
- Ginsburg (1952), examined, Puerto Rico.
- Siddiqi & Cable (1960), trematode parasites, Playa Manti.
- Bane (1964a), trawl, trolling bait, Mayagüez.

Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Mayagüez.
Eger (1968), oil spill mortality, Bahía San Juan.
Fish & Mowbray (1970: 70), sound production, (1), La Parguera; (2), Mayagüez.
Pagan & Austin (1970), fish kill, Laguna Joyuda.
Austin (1971a), (8: 15-23 mm SL), Río Guanajibo; obs., Isla Magueyes, La Parguera.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
Corujo Flores (1980), (12: 104-156 mm SL), gill net, estuary, Río Espiritu Santo.
Dyer et al. (1985), digenetic trematodes, (5), Bahía Mayagüez.
Kimmel (1985b), obs., La Parguera.
Larson (1987), with scyphomedusa *Drymonema dalmatinum*, La Parguera.
Bunkley-Williams et al. (1996a), parasites, Humacao.

bumper, casabe, bagre.

Decapterus macarellus (Cuvier in Cuvier & Valenciennes, 1833)

Ginsburg (1952), examined, Puerto Rico.
Erdman (1956: 326), (1), beach seine, Playuela, Aguadilla [UMML 2264].
Mather (1956), fishing bait, Puerto Rico.
Randall (1967), food habits.
Berry (1968), Puerto Rico [TABL 101730]; beach seine, Aguadilla [UMML 2264]; Reef Bay, St. John, [UMML 8163].
Randall (1968a: 104), Fig. 120, (1: 178 mm TL), Reef Bay, St. John [UMML 8163].
Kimmel (1975), (7), algal mat; (1), sandy bottom, Punta Las Tunas.
Dyer et al. (1985), digenetic trematodes, (2), Crashboat Basin, Aguadilla.
Dyer et al. (1986), trematode parasites, Puerto Rico.
Stoner (1986), (1), trawl, Laguna Joyuda.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bunkley-Williams et al. (1996a), parasites, Aguadilla.

mackerel scad, robin, caballa azul.

Decapterus punctatus (Cuvier, 1829)

Evermann & Marsh (1900: 129), Pl. 8, (3: 165 mm TL), seine, Aguadilla.
Ginsburg (1952), examined, Puerto Rico.
Randall (1967), food habits.
Berry (1968), (3), E & M specimens above [USNM 126429]; Puerto Rico [TABL 102565]; Virgin Islands [TABL 102968].

round scad, round robin, cigar-fish, caballa amarilla.

Elagatis bipinnulata (Quoy & Gaimard, 1824)

Valenciennes (1862: 1206), as *Irex americanus*, St. Thomas [MNHN A.5537].
Erdman (1956: 327), as *Elegatis bipinnulata*, Puerto Rico.
Randall (1968a: 104), Fig. 119, (1: 419 mm TL), St. John.
Kimmel (1975), obs., Punta Las Tunas.
Erdman (1976), reproduction, Puerto Rico.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

rainbow runner, salmón.

Oligoplites saurus (Schneider in Bloch & Schneider, 1801)

Poey (1881: 332), as *O. occidentalis*, Puerto Rico.

Stahl (1883: 77), as *O. occidentalis*, Puerto Rico.

Evermann & Marsh (1900: 127), Pl. 7, (42: 57-267 mm TL), San Geronimo; Fajardo; Hucars; Ponce; Mayagüez; Palo Seco.

Ginsburg (1952), examined, Puerto Rico.

Siddiqi & Cable (1960), trematode parasites, Guanajibo.

Kumpf (1965), observed, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Erdman (1967a), spawning condition, juveniles, La Parguera.

Randall (1967), food habits.

Fish & Mowbray (1970: 56), (1), sound production, Mayagüez.

Austin & Austin (1971), food habits.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Martin & Patus (1975), inner bay, central bay, reef & cays, Bahía Jobos.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Erdman (1976), spawning condition.

García (1981), (5), gill net, Laguna Joyuda.

Dyer et al. (1985), digenetic trematodes, (2), La Parguera.

Kimmel (1985b), obs., La Parguera.

Negrón González (1986), as *Oligoplites saurus*, Laguna Grande.

Dennis et al. (1991), night lighting, La Parguera.

leatherjacket, cueriduro, zapatero.

Pseudocaranx dentex (Schneider in Bloch & Schneider, 1801)

Erdman (1956: 327), as *Caranx guara*, (1), mutilated specimen, Mona Passage [UPRM 896 missing].

guelly jack.

Selar crumenophthalmus (Bloch, 1793)

Cuvier & Valenciennes (1833: 69), as *Caranx blochii*, St. Thomas [MNHN 940].

Poey (1881: 331), as *Trachurops crumenophthalmus*, Puerto Rico.

Stahl (1883: 77), as *Trachurops plumieri*, Puerto Rico.

Evermann & Marsh (1900: 129), as *Trachurops crumenophthalmus*, (33: 102-229 mm TL), San Geronimo; Culebra; Aguadilla; Palo Seco.

Fowler (1905a), as *Trachurops crumenophthalmus*, St. Thomas.

Ginsburg (1952), examined, Puerto Rico, St. Thomas.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 106), Fig. 122, (1: 165 mm TL), St. John.

Collette & Talbot (1972), obs., St. John.

Dyer et al. (1986), trematode parasites, Puerto Rico.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Kimmel (1991), baitfish, Puerto Rico.

Acosta (1992), gill net catch, Puerto Rico.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

Friedlander et al. (1994), trolling, (13), inshore, St. Thomas.

bigeye scad, chícharo.

Selene setipinnis (Mitchill, 1815)⁴³

Evermann & Marsh (1900: 133), as *Vomer gabonensis*, (32: 64-203 mm TL), San Juan market; Isabel Segunda; Arroyo; Aguadilla; Arecibo; Palo Seco.

Nichols (1918), as *V. setipinnis*, (3: 59-78 mm SL), Puerto Rico.

Ginsburg (1952), as *V. setipinnis*, examined, Puerto Rico.

Siddiqi & Cable (1960), as *V. setipinnis*, trematode parasites, Playa Mani, Mayagüez.

Fish & Mowbray (1970: 68), as *V. setipinnis*, sound production, La Parguera; (1), Mayagüez.

Martin & Patus (1973), as *V. setipinnis*, Bahía Jobos.

Martin & Patus (1975), as *V. setipinnis*, central bay, Bahía Jobos.

Dyer et al. (1985), digenetic trematodes, (39), Bahía Guánica.

moonfish, corcobado.

Selene brownii (Cuvier, 1816)

Evermann & Marsh (1900: 133), as *Vomer gabonensis*, Isabel Segunda [in part].

Fowler (1905b), as *Vomer spixii*, St. Thomas.

Ramsey (1967), as *V. setipinnis*, trawl, Bahía Mayagüez.

Dennis et al. (in prep), (68-91 mm FL), Isabel Segunda, FISH HAWK [ANSP 23560-62]; (168 mm FL), seine, Sun Oil plant site, Bahía Yabucoa, Hixson et al., 20 Jan 82 [ANSP 151580]; (1: 58 mm FL), Bahía Fosforescente, La Parguera, PR, D.D. Trueblood, 25 Mar 83. [UPRM uncat.]; (2: 124-129 mm FL), trawl, 7 m, off Caño Corazones, Bahía Mayagüez, PR, J. Ramsey, 18 Feb 67 [UPRM uncat.]; (2: 147-152 mm FL), trawl, 10 m, north shore, Bahía Mayagüez, PR, J. Ramsey, 23 Sep 66 [UPRM uncat.]; (4: 50-61 mm FL), trawl, 11 m, Bahía Añasco, PR, CEER-B. Yoshioka, 14 Jul 87 [UPRM uncat.]; (1: 46 mm FL), trawl, 2.5 m, Bahía Añasco, PR, CEER-B. Yoshioka, 14 Jul 87 [UPRM uncat.].

full moonfish, corcobado.

Selene vomer (Linnaeus, 1758)

Poey (1881: 332), as *S. argentea*, Puerto Rico.

Stahl (1883: 77), as *S. argentea*, Puerto Rico.

Evermann & Marsh (1900: 135), synonymized *argentea* with *vomer*.

Siddiqi & Cable (1960), trematode parasites, Punta Arenas.

Bane (1964a), trawl, trolling bait, Mayagüez.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Ramsey (1967), trawl, Bahía Mayagüez.

Fish & Mowbray (1970: 69), sound production, Mayagüez.

Austin (1971a), (2: 45-58 mm SL), Río Guanajibo.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Martin & Patus (1975), ship channel, outfall, Bahía Jobos.

Corujo Flores (1980), (2: 69-160 mm SL), gill net, estuary, Río Espíritu Santo.

lookdown, jorobado de pluma.

Seriola dumerili (Risso, 1810)

⁴³I found no specimens that I could attribute to *S. setipinnis*, thus these records may be *S. brownii*.

Erdman (1956: 327), Puerto Rico.
 Idyll & Randall (1960), (3: 12.3-19.1 kg), trolling; (3: 7.5-14.1 kg), hook and line; St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 102), Fig. 117, (1: 1118 mm TL), St. John.
 Brownell & Rainey (1971), (14), frequent, N of Tobago, shelf edge, Virgin Islands.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Kimmel (1975), obs., Punta Las Tunas.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Olsen et al. (1978), (1), fish trap, 55 m, NE of St. Thomas.
 Boulon (1985a), obs., St. John.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
 Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
 Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.

greater amberjack, medregal.

Seriola rivoliana Valenciennes in Cuvier & Valenciennes, 1833

Cuvier & Valenciennes (1833: 210), as *S. falcata*, type locality, Puerto Rico.
 Ginsburg (1952), as *S. falcata*, (1), Brewer's Bay, St. Thomas [USNM 117871].
 Randall (1968a: 103), Fig. 118, (1: 660 mm TL), St. John.
 Brownell & Rainey (1971), (4), shelf edge, Virgin Islands.
 UMML collection, (1), Lameshur Bay, St. John [UMML 8046].

almaco jack, medregal, escolar.

Trachinotus carolinus (Linnaeus, 1766)

Evermann & Marsh (1900: 139), Pl. 10, young, Isabel Segunda; Ponce; Mayagüez; Palo Seco.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), ship channel, outfall, Bahía Jobos.
 Erdman et al. (1986), (1: 1.36 kg), Bahía Jobos.
 Bunkley-Williams et al. (1996a), parasites, Humacao.

Florida pompano, pámpano.

Trachinotus falcatus (Linnaeus, 1758)

Poey (1881: 333), as *Trachynotus ovatus*, Puerto Rico.
 Stahl (1883: 77), as *Tachynotus ovatus*, Puerto Rico.
 Evermann & Marsh (1900: 138), abundant, collected, San Juan market; San Antonio bridge; Hucares; Isabel Segunda; Arroyo; Ponce; Boquerón; Puerto Real; Mayagüez; Palo Seco.
 Nichols (1929: 241), (1 young), Río Loiza mouth.
 Ginsburg (1952), examined, Puerto Rico.
 Erdman (1956: 327), sportfishing, Aguadilla.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Fields (1962), (1: 132 mm SL), Mayagüez [USNM 50126]; (3: 26-43 mm SL), Mayagüez [USNM 73745].
 Randall (1963a), (2), obs., fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 114), Fig. 131, (1: 312 mm TL), Puerto Rico; Fig. 132, (1: 1041 mm TL), St. John.
 Austin (1971a), (7: 32-58 mm SL), Caño Tiburones; Bahía Guayanilla.
 Austin & Austin (1971), as *Trachynotus falcatus*, food habits.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Wood et al. (1975), collected, thermal cove, Bahía Guayanilla.
 Yoshioka (1975d), as *Trachynotus falcatus*, (8), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (3), rotenone, Punta Verraco.

permit, pámpano.

Trachinotus goodei Jordan & Evermann, 1896

Poey (1881: 333), as *Trachynotus glaucus*, Puerto Rico.
 Stahl (1883: 77), as *Tachynotus glaucus*, Puerto Rico.
 Evermann & Marsh (1900: 137), as *T. glaucus*, San Geronimo; Isabel Segunda; Ponce; Mayagüez; Aguadilla.
 Fowler (1917), as *T. glaucus*, examined, St. Thomas.
 Nichols (1929: 240), as *T. glaucus*, obs., San Juan.
 Ginsburg (1952), as *T. glaucus*, examined, Puerto Rico.
 Siddiqi & Cable (1960), as *T. palometa*, trematodes absent, Puerto Rico.
 Fields (1962), as *T. glaucus*, (1: 110 mm SL), Aguadilla [USNM 50100]; (1: 42 mm SL), Mayagüez [USNM 73744].
 Kumpf (1965), as *T. glaucus*, observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 113), Fig. 130, (1: 211 mm TL), St. John.
 Eger (1970), (11), seine, Bahía Yabucoa.
 Fish & Mowbray (1970: 71), as *T. glaucus*, (2), sound production, St. Thomas.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1974), rotenone, shoreline, Punta Higuero.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Yoshioka (1975f), (21), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (2: 198-206 mm SL), gill net, estuary, Río Espiritu Santo.
 Erdman et al. (1986), (1: 305 mm TL), off Punta Guanajibo.
 Acosta (1992), gill net catch, Puerto Rico.

palometa, cobbler, gaff-top pompano.

Uraspis secunda (Poey, 1860)

Erdman (1961a), as *U. heidi*, Puerto Rico.
 Erdman (pers. comm.), (1), sailfish stomach, San Juan.
 UMML collection, as *U. heidi*, (1), *Coryphaena* stomach, off San Juan [UMML 2396].

cottonmouth jack.

CORYPHAENIDAE

Coryphaena equisetis Linnaeus, 1758

Erdman (1956: 327), as *C. equisetis*, sportfishing, San Juan.
 Acosta (1992), gill net catch, Puerto Rico.

pompano dolphin, doradito.

Coryphaena hippurus Linnaeus, 1758

Erdman (1956: 328), abundant, February and March, Puerto Rico.
 Mather (1956), sport fishing, Virgin Islands.
 Erdman & Maytag (1957), (5), longline; (1), in barracuda stomach, off San Juan.
 Idyll & Randall (1959), trolling; St. John.
 Idyll & Randall (1960), trolling; St. John.
 Siddiqi & Cable (1960), trematode parasites, Puerto Real; Mayagüez.
 Bane (1964b), trolling, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Bird (1967), sport fishing, Puerto Rico.
 Erdman (1967a), spawning condition, Puerto Rico.
 Erdman (1976), spawning condition; food habits, Puerto Rico.
 Dyer et al. (1985), digenetic trematodes, (2), La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, Guánica.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Feigenbaum et al. (1989), collected, fish attraction device, NE corner Puerto Rico.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Friedlander (1992), trolling, NE corner Puerto Rico.
 Friedlander et al. (1994), trolling, (1), inshore, St. Thomas.
 Dyer et al. (1997), (13: 94-115 cm FL), hook and line, La Parguera.

dolphin, dorado.

LUTJANIDAE

Apsilus dentatus Guichenot, 1853

Brownell & Rainey (1971), (45), 73-172 m, shelf edge, Virgin Islands.
 Nelson & Appeldoorn (1985) obs., submersible, Puerto Rico.
 Erdman et al. (1986), (2: 61 cm FL), west of Anegada.
 Acosta (1992), gill net catch, Puerto Rico.

black snapper, chop negra, pargo mulato, arnillo.

Etelis oculatus (Valenciennes in Cuvier & Valenciennes, 1828)

Evermann & Marsh (1900: 183), (1: 610 mm TL), Mayagüez.
 Erdman (1956: 317), deep water fishing.
 Brownell & Rainey (1971), (9), shelf edge, Virgin Islands.
 Erdman et al. (1986), (1: 79 cm FL), north coast, Puerto Rico.

queen snapper, cachucho, cartucho.

Lutjanus analis (Cuvier in Cuvier & Valenciennes, 1828)

Poey (1881: 320), Puerto Rico.
 Stahl (1883: 76), Puerto Rico.
 Evermann & Marsh (1900: 176), as *Neomaenis analis*, Pl. 21, abundant, San Juan; Fajardo; Hucares; Culebra; Vieques; Arroyo; Ponce; Ensenada del Boquerón; Puerto Real; Mayagüez.
 Fowler (1928), (1), Puerto Rico.
 Nichols (1929: 265), as *Lutianus analis*, obs., San Juan market.
 Fowler (1930), (1), Culebra.
 Siddiqi & Cable (1960), as *Lutianus analis*, trematode parasites, La Parguera; Punta Arenas.

Randall (1963a), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 124), Fig. 142, (1: 381 mm TL), St. John.
 Fish & Mowbray (1970: 50), sound production, (1), Mayagüez; (1), St. Thomas.
 Brownell & Rainey (1971), (1), shelf edge, Virgin Islands.
 Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), (1: 606 mm SL), artificial reef, Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Kimmel (1975), obs., Punta Las Tunas.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (2), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Dyer (1983), parasites, Virgin Gorda.
 Boulon (1985a), obs., St. John.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985) obs., submersible, N of St. Thomas.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Stoner (1986), (2), trawl, Laguna Joyuda.
 Boulon (1987), obs., St. John.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Kimmel (1991), baitfish target species, Puerto Rico.
 Acosta (1992), gill net catch, Puerto Rico.
 Beets & Friedlander (1992), fishery analysis, St. Thomas.
 Boulon (1992), obs., mangroves, St. John.

mutton snapper, virgin snapper, sama, pargo cebadal, pargo criollo.

Lutjanus apodus (Walbaum, 1792)

Evermann & Marsh (1900: 172), as *Neomaenis apodus*, Pl. 19, abundant, San Juan; Hucares; Vieques; Culebra; Arroyo; Ponce; Ensenada del Boquerón; Puerto Real; Palo Seco.
 Fowler (1928), (1), Puerto Rico.
 Fowler (1930), (2), Puerto Real.
 Nichols (1929: 263), as *Lutianus apodus*, (5), San Juan.
 Siddiqi & Cable (1960), as *Lutianus apodus*, trematode parasites, Punta Arenas; Mayagüez.
 Randall (1962b), (47), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (12: 175-356 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (7: 250-325 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Randall (1963g), (1), fish trap, Lameshur Bay, St. John.
 Bullis & Thompson (1965), trawl, 53 m, S of St. John, OREGON 2617 (corrected).
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 122), Fig. 140, (1: 254 mm TL), St. John.
 Dammann (1969), (2: 220-260 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 49), sound production, La Parguera.

- Almodóvar & Pagan (1971), (5: 59-69 mm SL), Isla Guayacán, La Parguera.
 Austin (1971a), (33: 18-98 mm SL), mangroves, La Parguera; Bahía Guayanilla.
 Austin & Austin (1971), food habits.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Powell et al. (1972), (1: 295 mm SL), trawl, S of St. John, OREGON 2617 [FSBC 1542].
 Martin & Patus (1973), Bahía Jobos.
 Cooper (1974), (12), rotenone, *Syringodium* bed, La Parguera.
 Fast (1974), fish trap, patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1974), (2), rotenone, beach, Punta Higuero.
 Kimmel (1975), (2), algal mat, Punta Las Tunas.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Riemold (1975), collected, Coral Bay, St. John; Puerto Rico.
 Yoshioka (1975a), (2), rotenone, shoreline; obs., 10 m, Bahía Tortuguero.
 Yoshioka (1975d), (9), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (1), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (3: 119-154 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (1), gill net, Laguna Joyuda.
 Martin & Cooper (1981), *Syringodium* seagrass bed, La Parguera.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (3), Media Luna reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Stoner (1986), (2), trawl, Laguna Joyuda.
 Boulon (1987), obs., St. John.
 Bortone et al. (1989), (6), obs., El Palo reef, La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Dennis (1992a), obs., mangroves, La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.
 Acosta (1997), visual, gill net, trammel net, (39), mangroves; (14), inner reef, (10), outer reef, La Parguera.
- schoolmaster, mango snapper, pargo amarillo, pargo rubio, caji.

Lutjanus buccanella (Cuvier in Cuvier & Valenciennes, 1828)

- Cuvier & Valenciennes (1828:455), *Mesoprion buccanella*, (1), St. Thomas [MNHN A7739].
 Erdman (1956: 331), bottom fishing, Puerto Rico.
 Siddiqi & Cable (1960), as *Lutianus*, trematodes absent, Puerto Rico.
 Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 53 m, S of St. John, OREGON 2617; 48 m, SW of St. John, OREGON 2618; 64 m, N of Jost Van Dyke, OREGON 2622; 64 m, N of Jost Van Dyke, OREGON 2623 (corrected).
 Brownell & Rainey (1971), (246), 55-229 m, shelf edge, Virgin Islands.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Powell et al. (1972), (1 291 mm SL), trawl, S of St. John, OREGON 2617 [FSBC 1544]; (1: 120 mm SL), trawl, SW of St. John, OREGON 2618 [FSBC 1545]; (2: 40-51 mm SL), trawl, N of Jost Van Dyke, OREGON 2622 [FSBC 1557]; (2: 36-38 mm SL), trawl, N of Jost Van Dyke, OREGON 2623 [FSBC 1558].
 Fast (1974), (3: 102-108 mm SL), artificial reef, Media Luna reef, La Parguera.
 Sylvester (1974), life history, Virgin Islands.

Erdman (1976), spawning condition.
Boardman & Weiler (1980), life history, Puerto Rico.
Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
Sylvester et al. (1980), life history, Tobago Cay; Frenchcap Cay.
Dyer et al. (1985), digenetic trematodes, (4), Crashboat Basin, Aguadilla.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985) obs., submersible, S of St. John; E of Vieques; Guánica.
Dyer et al. (1986), trematode parasites, Puerto Rico.
Boulon (1992), obs., mangroves, St. Thomas.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Dennis (pers. obs.), obs., juveniles, 17 m, algal bottom, S of Laurel reef, La Parguera; 12 m, Crashboat Basin, Aguadilla.

blackfin snapper, negra, alinegra.

Lutjanus cyanopterus (Cuvier in Cuvier & Valenciennes, 1828)

Cuvier & Valenciennes (1828: 473), as ?*Mesoprion pargus*, Puerto Rico.
Poey (1881: 320), as *Lutjanus pargus*, new genus.
Evermann & Marsh (1900: 169), as *Neomaenis cyanopterus*, new genus and species.
Nichols (1929: 260), as *Lutianus cyanopterus*, new genus.
Erdman (1956: 318), as *L. griseus*, (1: 914 mm TL), La Parguera.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 121), Fig. 138, (1: 902 mm TL), St. John.
Smith & Tyler (1972), patch reef, Greater Lameshur Bay, St. John.
Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
Kimmel (1975). obs., Punta Las Tunas.
Sawyer et al. (1975), leech parasites, (1: 323 mm SL), La Parguera.
Sawyer & Kinard (1980), leech parasites, La Parguera.
Williams (1982), leech parasites, Puerto Rico.
Dyer et al. (1985), digenetic trematodes, (1), La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Chow et al. (1993), biochemical analysis, spear, Coral Bay, St. John [UMML 15923].
Dennis (pers. obs.), (1), shoreline mangroves, La Parguera.

cupera snapper, pargo guacinuco, pargo mulato.

Lutjanus griseus (Linnaeus, 1758)

Evermann & Marsh (1900: 170), as *Neomaenis griseus*, Pl. 17, important food-fish, San Juan market; San Geronimo; Isabel Segunda; Arroyo; Puerto Real.
Fowler (1928), (3), Puerto Rico.
Fowler (1948), (1: 25 mm TL), San Juan.
Nichols (1929: 261), as *Lutianus griseus*, obs., San Juan market; Ponce market.
Siddiqi & Cable (1960), as *L. griseus*, trematode parasites, Punta Arenas.
Randall (1962b), (6), fish trap, Lameshur Bay, St. John.
Randall (1963a), (2: 282-325 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 122), Fig. 139, (1: 396 mm TL), St. John.
Eger (1970), (2), fish trap, Bahía Yabucoa.

Almodóvar & Pagan (1971), (3: 118-227 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin (1971a), (1: 60 mm SL), seine, Bahía Guayanilla.
 Austin & Austin (1971), food habits.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Riemold (1975), collected, David Point, St. Thomas.
 Yoshioka (1975f), (2), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Negrón González & Cintrón (1979), collected, estuary, Río Cibuco, Río Espiritu Santo.
 Corujo Flores (1980), (1: 112 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (19), gill net, Laguna Joyuda.
 Negrón et al. (1982), collected, Laguna Punta Arenas.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (8), Ahogado reef; Isla Magueyes; shelf edge; La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Negrón González (1986), collected, Laguna Boquerón.
 Stoner (1986), (45), trawl, Laguna Joyuda.
 Boulon (1987), obs., St. John.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Dennis (1992a), obs., mangroves, La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Acosta (1997), visual, gill net, trammel net, (61), mangroves; (12), inner reef, (4), outer reef, La Parguera.

gray snapper, mangrove snapper, pargo prieto, pargo de mangle, pargo mulato.

Lutjanus jocu (Schneider in Bloch & Schneider, 1801)

Cuvier & Valenciennes (1828: 467), as *Mesoprion litura*, type locality, St. Thomas.
 Evermann & Marsh (1900: 171), as *Neomaenis jocu*, Pl. 18, San Juan market; Vieques; Palo Seco.
 Nichols (1929: 262), as *Lutianus jocu*, new genus.
 Siddiqi & Cable (1960), as *Lutianus jocu*, trematode parasites, Puerto Real.
 Randall (1962b), (3), fish trap, Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 123), Fig. 141, (1: 394 mm TL), St. John.
 Fish & Mowbray (1970: 48), sound production, La Parguera.
 Almodóvar & Pagan (1971), (6: 61-111 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin & Austin (1971), food habits.
 Brownell & Rainey (1971), (1), 101 m, shelf edge, Virgin Islands.
 Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla Bay; Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (2), rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975f), (1), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (4: 103-263 mm SL), gill net, estuary, Río Espiritu Santo.

Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John; Guánica.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Negrón González (1986), collected, Laguna Pozuela; Laguna Boquerón.
 Boulon (1987), obs., St. John.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Chow et al. (1993), biochemical analysis, Puerto Rico [UMML 1944].

dog snapper, dogtooth snapper, pargo colorado, pargo sama, pargo dientón.

Lutjanus mahogoni (Cuvier in Cuvier & Valenciennes, 1828)

Poey (1881: 321), as *L. ojanco*, Puerto Rico.
 Stahl (1883: 76), as *L. ojanco*, Puerto Rico.
 Evermann & Marsh (1900: 179), as *Neomaenis mahogoni*, (1: 229 mm TL), Ponce.
 Randall (1962b), (19), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (4: 245-295 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 250-304 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Randall (1967), food habits.
 Randall (1968a: 125), Fig. 144, (1: 241 mm TL), St. John.
 Fish & Mowbray (1970: 52), (1), sound production, St. Thomas.
 Martin & Patus (1973), Bahía Jobos.
 Kimmel (1975), (3), rock outcrops; (9), sandy bottom; (2), algal mat, Punta Las Tunas.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Dunne & Brown (1979), obs., Anegada.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985) obs., submersible, Guánica.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Stoner (1986), (2), trawl, Laguna Joyuda.
 Boulon (1987), obs., St. John.
 Bortone et al. (1989), (1), obs., El Palo reef, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.

mahogany snapper, burntail, rayado de yerba, arrayado de yerba, pargo ojón.

Lutjanus purpureus (Poey, 1875)

Evermann & Marsh (1900: 174), as *Neomaenis aya*, Pl. 20, (1: 533 mm TL), Aguadilla.
 Nichols (1929: 263), as *Lutianus aya*, obs., Ponce market.
 Erdman (1956: 317), as *L. aya*, rare, Puerto Rico.
 Siddiqi & Cable (1960), as *L. aya?*, trematode parasites, Cabo Rojo.
 Bullis & Thompson (1965), as *L. blackfordi*, trawl, 77 m, N of St. Thomas, OREGON 2607; 48 m, SW of St. John, OREGON 2618; 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).

Powell et al. (1972), as *L. campechanus*, (3: 39-58 mm SL), trawl, N of Jost Van Dyke, OREGON 2622 [FSBC 1555]; (1: 46 mm SL), trawl, N of Tortola, OREGON 2616 [FSBC 2491]; (2: 100-106 mm SL), trawl, SW of St. John, OREGON 2618 [FSBC 1543].

Nelson & Appeldoorn (1985) obs., submersible, N of St. Thomas.

Caribbean red snapper, pargo colorado, pargo guachinango, chillo escamú.

Lutjanus synagris (Linnaeus, 1758)

Evermann & Marsh (1900: 178), as *Neomaenis synagris*, Pl. 22, abundant, San Juan; Mayagüez market; Ponce market; collected, San Juan; Hucares; Culebra; Isabel Segunda; Arroyo; Ponce; Ensenada del Boquerón; Puerto Real; Mayagüez; (p. 178) as *Neomaenis megalophthalmus*, (1: 292 mm TL type), Puerto Real [USNM 49531].

Fowler (1917), as *Lutianus synagris*, examined, St. Thomas.

Fowler (1928), (2), Puerto Rico.

Fowler (1930), (1), St. Thomas.

Nichols (1929: 266), as *Lutianus synagris*, (1), Ponce market.

Fowler (1930), (1), St. Thomas.

Siddiqi & Cable (1960), as *Lutianus synagris*, trematode parasites, Punta Arenas.

Randall (1962b), (93), fish trap, Lameshur Bay, St. John.

Bullis & Thompson (1965), trawl, 33 m, N of Tortola, OREGON 2613 (corrected).

Anderson (1967), synonymized *megalophthalmus* with *synagris*.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.

Randall (1967), food habits.

Randall (1968a: 125), Fig. 143, (1: 183 mm TL), St. John.

Eger (1970), (2), fish trap, Bahía Yabucoa.

Fish & Mowbray (1970: 51), (2), sound production, La Parguera.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Powell et al. (1972), (1: 53 mm SL), trawl, N. Tortola, OREGON 2611 [FSBC 1546].

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Fast (1974), (2: 208-305 mm SL), artificial reef; obs., patch reef, Media Luna reef, La Parguera.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Kimmel (1975), (22), rock outcrops; (106), sandy bottom; (9), algal mat, Punta Las Tunas.

Martin & Patus (1975), central bay, reef & cays, ship channel, outfall, Bahía Jobos.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Erdman (1976), spawning condition.

Olsen et al. (1978), (203), fish trap, 55 m, NE of St. Thomas.

Dunne & Brown (1979), obs., Anegada.

Dyer (1983), parasites, Virgin Gorda.

Kimmel (1985b), obs., La Parguera.

Berrios Diaz et al. (1986), obs., Cayo Ratones, Ponce.

Negrón González (1986), collected, Laguna Grande; Laguna Boquerón.

Boulon (1987), obs., St. John.

Kimmel (1991), baitfish target species, Puerto Rico.

Acosta & Appeldoorn (1991), fishery data, Puerto Rico.

Rooker & Dennis (1991), obs., mangroves, La Parguera.

Acosta (1992), gill net catch, Puerto Rico.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.

Bunkley-Williams et al. (1996a), parasites, Humacao.

lane snapper, pot snapper, rayado, arrayado, manchego, pargo guanapo.

Lutjanus vivanus (Cuvier in Cuvier & Valenciennes, 1828)

- Poey (1881: 320), as *L. profundus?*, Puerto Rico.
 Stahl (1883: 76), as *L. profundus*, Puerto Rico.
 Evermann & Marsh (1900: 175), as *Neomaenis vivanus*, common at times, (2: 241-351 mm TL), Mayagüez market.
 Nichols (1915a), as *Neomaenis vivanus*, common in market, July, Puerto Rico.
 Nichols (1929: 264), as *Lutianus vivanus*, obs., San Juan market.
 Erdman (1956: 317), deep water fishing.
 Rivas (1966), (1: 270 mm SL neotype), Mayagüez [USNM 164632].
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Brownell & Rainey (1971), (846), 73-320 m, shelf edge, Virgin Islands.
 Powell et al. (1972), (6: 44-99 mm SL), trawl, 64 m, N of Jost Van Dyke, OREGON 2623 [FSBC 1556].
 Sylvester (1974), life history, Virgin Islands.
 Erdman (1976), spawning condition.
 Boardman & Weiler (1980), life history, Puerto Rico.
 Sylvester et al. (1980), life history, Tobago Cay; Frenchcap Cay, Virgin Islands.
 Nelson & Appeldoorn (1985) obs., submersible, N of St. Thomas; S of St. John.
 Escalona de Motta et al. (1986), ciguetera, Puerto Rico.
 Kimmel (1991), baitfish target species, Puerto Rico.
 Acosta (1992), gill net catch, Puerto Rico.

silk snapper, chillo, colorado, pargo de lo alto.

Ocyurus chrysurus (Bloch, 1791)

- Poey (1881: 321), as *Ocyurus*, Puerto Rico.
 Evermann & Marsh (1900: 180), abundant, collected; San Geronimo; San Antonio bridge; Fajardo; Hucare; Culebra; Isabel Segunda; Arroyo; Ponce; Ensenada de Boquerón; Puerto Real; Mayagüez.
 Fowler (1917), examined, St. Thomas.
 Fowler (1928), (2), Puerto Rico.
 Nichols (1929: 267), (1), Santurce.
 Fowler (1930), (6), San Juan.
 Viguera (1940), parasites, Puerto Rico.
 Erdman (1956: 320), spawning condition, March, Puerto Rico.
 Mather (1956), sport fishing, Virgin Islands.
 Idyll & Randall (1959), fish trap; beach seine; trolling; St. John.
 Idyll & Randall (1960), (2), trolling, St. John.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo; Puerto Real; Punta Arenas; Mayagüez.
 Randall (1962b), (343), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (25: 61-185 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (8: 80-186 mm SL), rotenone, fringing reef, Greater Lameshur Bay.
 Randall (1963g), (2), fish trap, Lameshur Bay, St. John.
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967a), spawning condition, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Dammann (1969), (30: 95-233 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 53), (2), sound production, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), (1: 52 mm SL), artificial reef; obs., patch reef, Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (2), sandy bottom; (9), algal mat; obs., rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), inner bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Yoshioka (1975b), fringing reef, Punta Ostiones.
 Yoshioka (1975d), obs., nearshore, Punta Manati.
 Yoshioka (1975f), (6), gill net, Punta Verraco.
 Erdman (1976), spawning condition.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Parrish & Zimmerman (1977), Punta Ostiones.
 Wallace (1977), thermal tolerance, Isla Magueyes, La Parguera.
 Dunne & Brown (1979), obs., Anegada.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (6), Cayo Enrique, La Parguera.
 Kimmel (1985a), obs., shelf edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Stoner (1986), (1), trawl, Laguna Joyuda.
 Boulon (1987), obs., St. John.
 Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
 Manooch & Mason (1987), collected, age & growth, Puerto Rico; Virgin Islands.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), (40), obs., El Palo reef, La Parguera.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Dennis (1991), fishery data, Puerto Rico.
 Kimmel (1991), baitfish target species, Puerto Rico.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

yellowtail snapper, colirrubia, rabirrubia.

Pristipomoides aquilonaris (Goode & Bean, 1896)

Anderson (1966), (1: 194 mm SL), Corcega [UPRM 293]; (1: 34 mm SL), trawl, off Río Añasco [UPRM 2358].
 UPRM collection (1: 138 mm SL), trap, 50 m, off Tourmaline reef, Mayagüez [UPRM uncat.].

wenchman.

Pristipomoides macrophthalmus (Müller & Troschel in Schomburgk, 1848)

Erdman (1956: 331), bottom fishing, La Parguera.
 Anderson (1966), (1: 280 mm SL), hook and line, shelf edge, La Parguera [UPRM 2516].
 Brownell & Rainey (1971), (130), 144-366 m, shelf edge, Virgin Islands.
 Erdman (1976), 165 m, off Mayagüez.

Erdman et al. (1986), (6: 0.9-1.8 kg females), off Puerto Rico.

voraz, muniama de afuera.

Rhomboplites aurorubens (Cuvier in Cuvier & Valenciennes, 1829)

Evermann & Marsh (1900: 181), (1: 152 mm TL), Puerto Rico.

Nichols (1929: 268), (1), Ponce market.

Siddiqi & Cable (1960), trematode parasites, Puerto Real.

Bullis & Thompson (1965), trawl, 75 m, N of Tortola, OREGON 2616 (corrected).

Fish & Mowbray (1970: 56), (1), sound production, Mayagüez.

Brownell & Rainey (1971), (6), 145-210 m, shelf edge, Virgin Islands.

Powell et al. (1972), (2: 26-27 mm SL), trawl, N of Tortola, OREGON 2616 [FSBC 1547].

Kimmel (1975), (212), rock outcrops; (80), sandy bottom; (29), algal mat; Punta Las Tunas.

Erdman (1976), spawning condition.

Olsen et al. (1978), (1115), fish trap, 55 m, NE of St. Thomas.

Boardman & Weiler (1980), life history, Puerto Rico.

Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.

Nelson & Appeldoorn (1985) obs., submersible, Puerto Rico.

Kimmel (1991), baitfish target species, Puerto Rico.

vermillion snapper, besugo, buchúa, buchona, tunaro, rubia, sardo, pargo cunaro.

LOBOTIDAE

Lobotes surinamensis (Bloch, 1790)

Poey (1881: 329), Puerto Rico.

Stahl (1883: 77), Puerto Rico.

Evermann & Marsh (1900: 164), (1: 165 mm TL), seine, Río Bayamon mouth; (1: 203 mm TL), Cataño.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), ship channel, Bahía Jobos.

Prince & Gonzalez (1985), fish aggregating device, San Juan.

Kimmel (1991), baitfish, Puerto Rico.

UPRM collection, (1: 125 mm SL), dipnet, off Guánica [UPRM 1055]; (1: 170 mm SL), dipnet, surface, Lagoon Marina, St. Thomas [UPRM 2527]; (1: 82 mm SL), La Parguera [UPRM 2565]; (1: 102 mm TL), dip net, La Parguera [UPRM 3669].

tripletail, pargo sargo, macurí, chopá, dormilona.

GERREIDAE

Diapterus auratus Ranzani, 1842⁴⁴

Evermann & Marsh (1900: 209), as *Gerres olisthostomus*, (1: 216 mm TL), San Juan market.

Fowler (1928), as *Gerres olisthostomus*, (2), Puerto Rico.

Nichols (1929: 286), as *D. olisthostomus*, new genus.

Ramsey (1967), as *D. olisthostomus*, trawl, Bahía Mayagüez.

⁴⁴Deckert & Greenfield (1987) synonymized *Diapterus olisthostomus* with *D. auratus*.

- Pagan & Austin (1970), as *D. olisthostomus*, fish kill, Laguna Joyuda.
 Austin (1971a), as *D. olisthostomus*, (39: 65-94 mm SL), brackish water, Laguna Joyuda; Caño Tiburones, Río Añasco.
 Austin & Austin (1971), as *D. olisthostomus*, food habits.
 Martin & Patus (1973), as *D. olisthostomus*, Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), as *D. olisthostomus*, inner bay, central bay, ship channel, Bahía Jobos.
 Wood et al. (1975), as *D. olisthostomus*, collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
 Negrón González & Cintrón (1979), as *D. olisthostomus*, collected, estuary, Río Manati, Río Cibuco, Río La Plata, Río Loiza, Río Espiritu Santo.
 Corujo Flores (1980), as *D. olisthostomus*, (3: 90-113 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), as *D. olisthostomus*, (32), gill net, Laguna Joyuda.
 Negrón et al. (1982), as *D. olisthostomus*, collected, Laguna Punta Arenas.
 Negrón González (1986), as *D. olisthostomus*, collected, Laguna Pozuela; Laguna Mar Negro; Laguna Salinas.
 Stoner (1986), (79), as *D. olisthostomus*, trawl, Laguna Joyuda.
 Bunkley-Williams et al. (1996b), seine, parasites, La Parguera.

Irish pompano, mojarra.

Diapterus rhombeus (Cuvier in Cuvier & Valenciennes, 1830)

- Poey (1881: 327), as *Moharra rhombea?*, Puerto Rico.
 Stahl (1883: 77), as *Moharra rhombea*, Puerto Rico.
 Evermann & Marsh (1900: 208), as *Gerres rhombeus*, numerous, collected; San Antonio bridge; Mayagüez; Palo Seco.
 Nichols (1929: 286), (1), Cataño.
 Fowler (1930), as *Gerres rhombeus*, (1), Mayagüez.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Fish & Mowbray (1970: 76), (5), sound production, Mayagüez.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Almodóvar & Pagan (1971), (7: 76 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin (1971a), (300+: 33-68 mm SL), muddy bottom, Bahía Guayanilla; Caño Tiburones.
 Austin (1971b), life history aspects, Puerto Rico.
 Austin & Austin (1971), food habits.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (11), gill net, Punta Verraco.
 Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.
 Corujo Flores (1980), (43: 51-142 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (63), gill net, Laguna Joyuda.
 Kimmel (1985b), obs., La Parguera.
 Stoner (1986), (565), trawl, Laguna Joyuda.

rhomboid mojarra, mojarreta.

Eucinostomus argenteus Baird & Girard in Baird, 1855

- Evermann & Marsh (1900: 205), as *E. pseudogula*, (4), Mayagüez; as *E. harengulus*, most abundant species of the family, collected; San Antonio bridge; San Geronimo; Fajardo; Culebra; Isabel Segunda; Boquerón; Mayagüez; Palo Seco.
 Nichols (1929: 283), as *E. pseudogula*, (8), San Antonio bridge.
 Fowler (1930), (2), as *E. harengulus*, Palo Seco.
 Siddiqi & Cable (1960), as *E. californiensis?*, trematodes absent, Puerto Rico.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
Randall (1967), food habits.
Austin (1968), life history aspects, Puerto Rico.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Martin & Patus (1975), inner bay, reef & cays, ship channel, Bahía Jobos.
Yoshioka (1975d), (9), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), obs., Anegada.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Dennis (1992a), obs., mangroves, La Parguera.

spotfin mojarra.

Eucinostomus gula (Quoy & Gaimard, 1824)

Evermann & Marsh (1900: 206), common, San Antonio Bridge; San Geronimo; Fajardo; Culebra; Ensenada de Boquerón.
Nichols (1929: 283), (15), San Antonio Bridge.
Fowler (1930), (2), Puerto Rico.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
Almodóvar & Pagan (1971), (25: 25-69 mm SL), mangroves, Isla Guayacán, La Parguera.
Austin (1971a), (3: 24-27 mm SL), La Parguera; Bahía Guayanilla.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
Riemold (1975), collected, Punta Cangrejos.
Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975f), (1), rotenone, (1), gill net, Punta Verraco.
Dunne & Brown (1979), collected, Anegada.
Stoner (1986), (816), trawl, Laguna Joyuda.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.

silver jenny, blanquilla.

Eucinostomus harengulus Goode & Bean, 1879

Jordan & Dickerson (1882), Mayagüez.
Dennis et al. (in prep.) La Parguera.

cryptic mojarra.

Eucinostomus havana (Nichols, 1912)

Nichols (1915b: 144), as *Xystaema havana*, (2), San Geronimo.
Ramsey (1967), trawl, Bahía Mayagüez.
Yoshioka (1975d), (31), rotenone, nearshore, Punta Manati.
Bunkley-Williams et al. (1996b), seine, parasites, La Parguera.

bigeye mojarra.

Eucinostomus jonesii (Günther, 1879)

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), rotenone, (105), *Syringodium* bed; (3), *Thalassia* bed, La Parguera.
 Kimmel (1975), (1), sandy bottom, Puntas Las Tunas.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (9), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Syringodium* and *Thalassia* beds, La Parguera.

slender mojarra.

Eucinostomus lefroyi (Goode, 1874)

Evermann & Marsh (1900: 207), as *Ulaema lefroyi*, (1: 127 mm TL), Culebra.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1968a: 159), Fig. 181, (1: 122 mm TL), Culebra.
 Austin (1971a), (8: 23-50 mm SL), Bahía Guayanilla; La Parguera.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.
 Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
 Corujo Flores (1980), (2: 71-76 mm SL), gill net, estuary, Río Espiritu Santo.

mottled mojarra.

Eucinostomus melanopterus (Bleeker, 1863)

Austin (1971a), (13: 18-52 mm SL), Bahía Guayanilla; La Parguera; Caño Tiburones; Río Guanajibo.
 Martin & Patus (1973), Bahía Guayanilla.
 Kimmel (1975), (1), sandy bottom, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975c), (1), grassbed, Cabo Mala Pascua.
 Yoshioka (1975d), (8), rotenone, nearshore, Punta Manati.
 Corujo Flores (1980), (2: 67-74 mm SL), gill net, estuary, Río Espiritu Santo.
 Negrón González (1986), collected, Laguna Joyuda; Laguna Boquerón.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Bunkley-Williams et al. (1996b), seine, parasites, La Parguera.

flagfin mojarra.

Eugerres brasiliensis (Cuvier in Cuvier & Valenciennes, 1830)

Cuvier & Valenciennes (1830b: 452), as *Gerres brasiliensis*, type locality, Puerto Rico.
 Poey (1881: 327), as *Gerres brasiliensis*, Puerto Rico.
 Evermann & Marsh (1900: 209), as *Gerres brasiliensis*, (1: 254 mm TL), San Juan market; (1: 229 mm TL), Puerto Real.
 Fowler (1928), as *Gerres brasiliensis*, (1), Puerto Rico.
 Nichols (1929: 287), as *Diapterus brasiliensis*, obs., San Juan market.
 Fowler (1930), as *Gerres brasiliensis*, (1), Puerto Real.
 Martin & Patus (1973), as *E. brasiliensis*, Bahía Guayanilla.
 Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.

streaked mojarra.

Eugerres plumieri (Cuvier in Cuvier & Valenciennes, 1830)⁴⁵

- Cuvier & Valenciennes (1830b: 452), as *Gerres plumieri*, type locality, Puerto Rico [MNHN A5530].
 Saunders (1966a), as *Diapterus plumieri*, blood parasites, Puerto Rico.
 Saunders (1966b), as *Diapterus plumieri*, blood characteristics, Puerto Rico.
 Pagan & Austin (1970), as *Diapterus plumieri*, fish kill, Laguna Joyuda.
 Almodóvar & Pagan (1971), (9: 45-75 mm SL), Isla Guayacán, La Parguera.
 Austin & Austin (1971), food habits.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), as *D. plumieri*, collected, Laguna Piñones.
 Martin & Patus (1975), inner bay, ship channel, Bahía Jobos.
 Negrón González & Cintrón (1979), as *D. plumieri*, collected, estuary, Río Manati, Río Cibuco, Río La Plata, Río Loiza, Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), (23: 96-280 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), as *D. plumieri*, (59), gill net, Laguna Joyuda.
 Stoner (1986), as *D. plumieri*, (94), trawl, Laguna Joyuda.

striped mojarra, espuelúa, mojarra.

Gerres cinereus (Walbaum, 1792)

- Poey (1881: 328), *Eucinostomus aprion*, Puerto Rico.
 Stahl (1883: 77), *Eucinostomus aprion*, Puerto Rico.
 Evermann & Marsh (1900: 207), as *Xystaema cinereum*, common, San Antonio bridge; San Juan; Isabel Segunda; Ensenada de Boquerón.
 Nichols (1929: 284), as *Xystaema cinereum*, (9), Santurce; San Geronimo, San Juan market; Cataño market.
 Erdman (1956), spawning condition, June.
 Erdman (1960a), *Albula vulpes* stomach, Puerto Rico.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo; Bahía Boquerón; Punta Arenas.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 157), Fig. 179, (1: 368 mm TL), St. John.
 Fish & Mowbray (1970: 75), (1), sound production, Mayagüez.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Almodóvar & Pagan (1971), (71: 28-105 mm SL), Isla Guayacán, La Parguera.
 Austin (1971a), (100+: 18-88 mm SL), La Parguera.
 Austin & Austin (1971), food habits.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.
 Riemold (1975), collected, Punta Cangrejos; Mayagüez.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (9: 58-134 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (26), gill net, Laguna Joyuda.
 Kimmel (1985b), obs., La Parguera.
 Negrón González (1986), collected, Laguna Aguas Prietas; Laguna Pozuela; Laguna Boquerón; Laguna Guaniquilla.
 Stoner (1986), (296), trawl, Laguna Joyuda.

⁴⁵Deckert & Greenfield (1987) placed *plumieri* in the genus *Eugerres*.

Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Dennis (1992a), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.
 Acosta (1997), visual, gill net, trammel net, (77), mangroves; (78), inner reef, (18), outer reef, La Parguera.

yellowfin mojarra, muniama.

HAEMULIDAE

Anisotremus surinamensis (Bloch, 1791)

Evermann & Marsh (1900: 194), (1: 61 mm TL), seine, Ponce.
 Nichols (1929: 276), obs., Ponce market.
 Randall (1963a), (4: 236-402 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (5: 210-420 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 140), Fig. 161, (1: 257 mm TL), St. John.
 Randall & Hartman (1968), food habits.
 Martin & Patus (1973), Bahía Guayanilla.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 Kimmel (1975), (2), rock outcrops, Punta Las Tunas.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Yoshioka (1975f), (1), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Randall (1983: 300), Pl. 14c, Virgin Gorda.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985) obs., submersible, S of St. John.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Acosta (1992), gill net catch, Puerto Rico.

black margate, vieja.

Anisotremus virginicus (Linnaeus, 1758)

Cuvier & Valenciennes (1830a: 274), as *Pristipoma rodo*, type locality, Puerto Rico.
 Poey (1881: 324), Puerto Rico.
 Evermann & Marsh (1900: 195), (3), Arroyo; (1), Ponce; (1), Mayagüez.
 Fowler (1930), (1), Ponce.
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968a: 140), Fig. 162, (1: 64 mm TL), Puerto Rico; Fig. 163, (1: 318 mm TL), St. John.
 Fish & Mowbray (1970: 89), sound production, La Parguera; (1), Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 Fast (1974), (1: 150 mm SL), rotenone, artificial reef; obs., patch reef; Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), rock outcrop; (2), algal mat, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Dunne & Brown (1979), obs., Anegada.

Boulon (1985a), obs., St. John.
Dyer et al. (1985), digenetic trematodes, (6), Isla Magueyes, La Parguera.
Kimmel (1985a), shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. Thomas; St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

porkfish, canario.

Conodon nobilis (Linnaeus, 1758)

Poey (1881: 324), as *Pristipoma coro*, Puerto Rico.
Stahl (1883: 77), as *Pristipoma coro*, Puerto Rico.
Evermann & Marsh (1900: 196), collected, Vieques; Arroyo; Ponce; Mayagüez; Arecibo; Palo Seco.
Eger (1970), (17), fish trap, Bahía Yabucoa.
Fish & Mowbray (1970: 90), sound production, Mayagüez.
Heemstra (1974), (1: 64 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 115567].
Erdman (1976), spawning condition.
Erdman et al. (1986), (100), off Punta Guanajibo.
Kimmel (1991), baitfish, Puerto Rico.
Bunkley-Williams et al. (1996a), parasites, Humacao.

barred grunt, verraco, bureteado.

Haemulon album Cuvier in Cuvier & Valenciennes, 1830

Cuvier & Valenciennes (1830a: 341), type locality, St. Thomas [MNHN A.7840].
Evermann & Marsh (1900: 185), Pl. 24, Isabel Segunda.
Siddiqi & Cable (1960), trematode parasites, Puerto Real.
Randall (1963a), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 135), Fig. 155, (1: 467 mm TL), St. John.
Randall & Hartman (1968), food habits.
Austin (1971a), (3: 95-98 mm SL), seine, La Parguera.
Brownell & Rainey (1971), (1), 92 m, shelf edge, Virgin Islands.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Parrish & Zimmerman (1977), Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Williams (1982), leech parasites, Puerto Rico.
Boulon (1985a), obs., St. John.
Kimmel (1985b), obs., La Parguera.
Boulon (1987), obs., St. John.
Acosta (1992), gill net catch, Puerto Rico.
Dennis (1992b), collected, La Parguera.

margate, viuda, viejo blanco.

Haemulon aurolineatum Cuvier in Cuvier & Valenciennes, 1830

- Evermann & Marsh (1900: 192), as *Bathystoma rimator*, Culebra; Ensenada de Boquerón; Aguadilla.
 Nichols (1915b: 143), as *Bathystoma aurolineatum*, (3), Ponce market.
 Fowler (1917), as *Bathystoma aurolineatum*, examined, St. Thomas.
 Fowler (1930), as *Bathystoma rimator*, (1), St. Thomas.
 Erdman (1956), as *Bathystoma aurolineatum*, spawning condition, March.
 Siddiqi & Cable (1960), as *Bathystoma rimator*, trematodes absent, Puerto Rico.
 Courtenay (1961), (1: 124 mm SL), Lameshur Bay, St. John [UMML 5058].
 Randall (1963a), (577: 46-150 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 129), Fig. 147, (1: 175 mm TL), St. John.
 Dammann (1969), (244: 110-200 mm TL), rotenone: (24: 150-207 mm TL), fish trap, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 86), sound production, (3), La Parguera; Mayagüez.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (6: 30-49 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
 Fast (1974), (93: 68-132 mm SL), artificial reef; (10: 22-158 mm SL), patch reef; Media Luna reef, La Parguera.
 Kimmel (1975), (172), rock outcrops; (17), sandy bottom; (22), algal mat; Puntas Las Tunas.
 Martin & Patus (1975), reef & cays, outfall, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), 21, seine, Punta Verraco.
 Parrish & Zimmerman (1977), Punta Ostiones.
 Olsen et al. (1978), (181), fish trap, 55 m, NE of St. Thomas.
 Dunne & Brown (1979), collected, Anegada.
 Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Williams & Williams (1981), isopod parasites, Caja de Muertos; La Parguera.
 Parrish (1982), gill net, off Punta Ostiones.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Lindeman (1986), larval development, (3: 30-32 mm SL), Isla Ratones, Joyuda [UPRM 358]; (5: 16-23 mm SL), Bird Island, La Parguera [UPRM 3629]; (5: 23-30 mm SL), Enrique reef, La Parguera [UPRM 3630]; (2: 16 mm SL), Enrique reef, La Parguera [UPRM 3641].
 Boulon (1987), obs., St. John.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Kimmel (1991), baitfish, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Dennis (1992b), collected, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.

tomtate, mulita, mula, mariquita, maruca, jeniguana.

Haemulon bonariense Cuvier in Cuvier & Valenciennes, 1830

- Poey (1881: 325), as *H. continuum*, Puerto Rico.
 Stahl (1883: 77), as *H. continuum*, Puerto Rico.
 Evermann & Marsh (1900: 187), (2), San Juan market.

Randall (1968a: 132), Fig. 151, (1: 185 mm TL), Puerto Rico.
Almodóvar & Pagan (1971), (2: 86-100 mm SL), mangroves, Isla Guayacán, La Parguera.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
Berrios Diaz et al. (1986), obs., Cayo Ratones, Ponce.
Acosta (1992), gill net catch, Puerto Rico.

black grunt, ronco prieto.

Haemulon carbonarium Poey, 1860

Evermann & Marsh (1900: 188), (1: 203 mm TL), San Geronimo.
Nichols (1929: 272), obs., cooked, San Juan.
Courtenay (1961), (1: 192 mm SL), Congrejos reef, San Juan [UMML 2170].
Randall (1963a), (3: 193-247 mm TL), rotenone, fringing reef, Greater Lameshur Bay; (2: 215-220 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 137), Fig. 157, (1: 330 mm TL), St. John.
Dammann (1969), (1), rotenone; (1), fish trap, Chocolate Hole, St. John.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
Kimmel (1975), (19), rock outcrops; (18), algal mat, Punta Las Tunas.
Dunne & Brown (1979), obs., Anegada.
Williams & Williams (1981), isopod parasites, Culebra; Eagle Shoals, St. John.
Boulon (1985a), obs., St. John.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Lindeman (1986), larval development, (3: 28-30 mm SL), Bahía Boquerón [UPRM 2810]; (2: 39-66 mm SL), Media Luna reef, La Parguera [UPRM 3647].
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Dennis (1992b), collected, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

Caesar grunt, ronco carbonero.

Haemulon chrysargyreum Günther, 1859

Erdman (1956: 332), as *Brachygenys chrysargyreus*, occasional, fish traps, La Parguera; El Combate; Puerto Real.
Courtenay (1961), (1: 103 mm SL), Congrejos reef, San Juan [UMML 1922].
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), as *Brachygenys chrysargyrea*, blood parasites, Puerto Rico.
Saunders (1966b), as *Brachygenys chrysargyrea*, blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 130), Fig. 148, (1: 190 mm TL), St. John.
Dammann (1969), (23: 120-205 mm TL), rotenone; (23: 147-210 mm TL), fish trap, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Kimmel (1975), (2), algal mat; (1), rock outcrops; (1), sandy bottom; Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975b), (4), shore line, Punta Ostiones.
Yoshioka (1975d), (4), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), obs., Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Williams & Williams (1981), isopod parasites, La Parguera; Eagle Shoals, St. John.

Boulon (1985a), obs., St. John.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Lindeman (1986), larval development, (2: 19-22 mm SL), Enrique reef, La Parguera [UPRM 3628]; (2: 14 mm SL), Enrique reef, La Parguera [UPRM 3642]; (6: 9-12 mm SL), Enrique reef, La Parguera [UPRM 3643].
Boulon (1987), obs., St. John.
Bortone et al. (1989), (7), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), obs., mangroves, St. John.
Dennis (1992b), collected, La Parguera.
Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

smallmouth grunt, saboga, corocoro, ronco, coñuíto.

Haemulon flavolineatum (Desmarest, 1823)

Evermann & Marsh (1900: 191), abundant, San Antonio bridge; Culebra; Hucares; Arroyo; Ponce; Ensenada de Boquerón; Puerto Real; Mayagüez.
Fowler (1928), (2), Puerto Rico.
Nichols (1929: 274), (17), San Juan.
Fowler (1930), (2), Ponce.
Siddiqi & Cable (1960), trematode parasites, Cabo Rojo.
Randall (1963a), (1: 82 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (6: 82-141 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (5: 143-165 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 137), Fig. 159, (1: 190 mm TL), St. John.
Dammann (1969), (284: 95-195 mm TL), rotenone; (32: 130-195 mm TL), fish trap, Chocolate Hole, St. John.
Fish & Mowbray (1970: 85), sound production, La Parguera; (2), Mayagüez.
Almodóvar & Pagan (1971), (74: 37-190 mm SL), Isla Guayacán, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Sylvester (1973), thermal tolerance, St. Thomas.
Cooper (1974), (8), rotenone, *Thalassia* bed, La Parguera.
Fast (1974), (25: 74-148 mm SL), rotenone, artificial reef; (4: 73-130 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (4), rock outcrops; (1), sandy bottom; (7), algal mat; Punta Las Tunas.
Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
Smith & Tyler (1975), (10), patch reef, Greater Lameshur Bay, St. John.
Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), obs., shoreline; 10 m, Bahía Tortuguero.
Yoshioka (1975b), fringing reef, Punta Ostiones.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Yoshioka (1975d), (3), rotenone, nearshore, Punta Manati.
Yoshioka (1975f), (1), gill net, Punta Verraco.
Parrish & Zimmerman (1977), Punta Ostiones.
Dowgiallo (1979), parasites, La Parguera; St. Thomas; St. John.
Dunne & Brown (1979), collected, Anegada.
Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.

- Martin & Cooper (1981), *Thalassia* beds, La Parguera.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Williams & Williams (1981), isopod parasites, Caja de Muertos; La Parguera; Culebra; Europa Bay, St. Thomas; Lameshur Bay, St. John; Virgin Gorda; Mosquito Isl.
Williams (1982), leech parasites, Puerto Rico.
Boulon (1985a), obs., St. John.
Boulon (1985b), obs., St. John.
Dyer et al. (1985), digenetic trematodes, (24), Cayo Enrique; Isla Magueyes; shelf edge; La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Lindeman (1986), larval development, (1: 45 mm SL), Caracoles reef, La Parguera [UPRM 3634]; (8: 22-26 mm SL), Isla Magueyes, La Parguera [UPRM 3635]; (97: 6-28 mm SL), Enrique reef, La Parguera [UPRM 3638]; (16: 7-12 mm SL), Enrique reef, La Parguera [UPRM 3636]; (89: 7-18 mm SL), Enrique reef, La Parguera [UPRM 3637]; (40: 9-13 mm SL), San Cristobal reef, La Parguera [UPRM 3639]; (407: 6-23 mm SL), Enrique reef, La Parguera [UPRM 3640]; (2: 34-38 mm SL), St. Thomas [GCRL 2925].
Bortone et al. (1989), (29), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Williams et al. (1991), collected, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Dennis (1992a), obs., mangroves, La Parguera.
Dennis (1992b), collected, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Rasotto & Sadovy (1994), (23: 49-165 mm SL), spear, gill nets, La Parguera.
Acosta (1997), visual, gill net, trammel net, (51), mangroves; (5), inner reef, (9), outer reef, La Parguera.

French grunt, condenado, cachicata.

Haemulon macrostomum Günther, 1859

- Jordan & Evermann (1898a: 1296), (1), St. Thomas.
Evermann & Marsh (1900: 186), collected, San Juan; Arroyo.
Erdman (1956: 320), spawning condition, June; July.
Courtenay (1961), (1: 18 mm SL), Puerto Rico [UMMZ 172944]; (1: 205 mm SL), spear, Congrejos reef, San Juan [UF 201880]; (1), rotenone, Fish Bay, St. John [UF 206002].
Randall (1963a), (2: 330-336 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 135), Fig. 154, (1: 306 mm TL), St. John.
Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), obs., Anegada.
Williams & Williams (1981), isopod parasites, La Parguera.
Randall (1983: 299), Pl. 13a, Puerto Rico.
Boulon (1985a), obs., St. John.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.

Lindeman (1986), larval development, Puerto Rico, (1: 62 mm SL), Media Luna reef, La Parguera [UPRM 3648]; (1: 39 mm SL), Media Luna reef, La Parguera [UPRM 3649].

Boulon (1987), obs., St. John.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Acosta (1992), gill net catch, Puerto Rico.

Boulon (1992), obs., mangroves, St. Thomas; St. John.

Dennis (1992b), collected, La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

Spanish grunt, colombiano.

Haemulon melanurum (Linnaeus, 1758)

Jordan & Evermann (1898a: 1303), St. Thomas.

Siddiqi & Cable (1960), trematode parasites, Puerto Real.

Courtenay (1961), (1), St. Thomas [USNM 39808].

Randall (1968a: 134), Fig. 153, (1: 178 mm TL), St. John.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.

Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Boulon (1992), obs., mangroves, St. Thomas.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

cottonwick, jeniguana.

Haemulon parra (Desmarest, 1823)

Poey (1881: 325), as *H. serratum?*, Puerto Rico.

Stahl (1883: 77), as *H. serratum*, Puerto Rico.

Evermann & Marsh (1900: 187), (1: 267 mm TL), Puerto Real.

Nichols (1929: 271), (1), Santurce.

Parrish & Zimmerman (1977), Punta Ostiones.

Randall (1967), food habits.

Randall (1968a: 133), Fig. 152, (1: 330 mm TL), St. John.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1974), (2), rotenone, rock groin, rocky shore, Punta Higuero.

Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.

Boulon (1985a), obs., St. John.

Kimmel (1985b), obs., La Parguera.

Lindeman (1986), larval development, (1: 18 mm SL), lagoon, Condado, San Juan [UMMZ 172944]; (3: 83-90 mm SL), El Combate [UPRM 869].

Stoner (1986), (1), trawl, Laguna Joyuda.

Boulon (1987), obs., St. John.

Rooker & Dennis (1991), obs., mangroves, La Parguera.

Acosta (1992), gill net catch, Puerto Rico.

Boulon (1992), collected, trap, mangroves, St. Thomas.

Dennis (1992b), collected, La Parguera.

sailors choice, arrayado, roncador.

Haemulon plumierii (Lacepède, 1801)

- Evermann & Marsh (1900: 190), abundant in catch and markets, collected, San Juan; Culebra; Isabel Segunda; Hucares; Arroyo; Ponce; Guánica; Boquerón; Puerto Real; Mayagüez.
- Fowler (1917), examined, St. Thomas.
- Fowler (1928), (1), Puerto Rico.
- Nichols (1929: 274), obs., Ponce market.
- Fowler (1930), (2), Culebra.
- Erdman (1956), spawning condition, March.
- Erdman (1960a), *Albula vulpes* stomach, Puerto Rico.
- Siddiqi & Cable (1960), trematode parasites, Puerto Real; Bahía Boquerón.
- Courtenay (1961), (3: 106-166 mm SL), Bahía de Yegua [UMML 1752].
- Randall (1962b), (229), fish trap, Lameshur Bay, St. John.
- Randall (1963d), (1267: 46-218 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
- Randall (1963g), (1), fish trap, Lameshur Bay, St. John.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
- Randall (1967), food habits.
- Randall (1968a: 136), Fig. 156, (1: 264 mm TL), St. John.
- Dammann (1969), (5: 125-190 mm TL), rotenone, Chocolate Hole, St. John.
- Fish & Mowbray (1970: 84), (2), sound production, La Parguera.
- Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
- Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
- Fast (1974), (2: 190-336 mm SL), rotenone, artificial reef; (1: 220 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
- González-Azar & Vilella (1975), collected, Laguna Ceiba.
- Kimmel (1975), (5), algal mat, (1), sandy bottom; obs., rock outcrops; Punta Las Tunas.
- Martin & Patus (1975), central bay, reef & cays, ship channel, outfall, Bahía Jobos.
- Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
- Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
- Yoshioka (1975f), (15), rotenone, (6), gill net, Punta Verraco.
- Ebersole (1977), behavioral interaction, St. Thomas; St. John.
- Parrish & Zimmerman (1977), Punta Ostiones.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979), obs., Anegada.
- Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
- Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
- Boulon (1985a), obs., St. John.
- Boulon (1985b), obs., St. John.
- Kimmel (1985a), obs., shelf-edge reef, La Parguera.
- Kimmel (1985b), obs., La Parguera.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- Lindeman (1986), larval development, (3: 20-27 mm SL), Isla Magueyes, La Parguera [UPRM 3644]; (3: 23-32 mm SL), Isla Magueyes, La Parguera [UPRM 3645]; (1: 20 mm SL), Isla Magueyes, La Parguera [UPRM 3646]; (3: 19-20 mm SL) [UPRM 3631]; (27: 21-64 mm SL), St. Thomas [GCRL 1740].
- Boulon (1987), obs., St. John.
- Beets (1989), obs., artificial reef, 26 m, St. Thomas.
- Bortone et al. (1989), (6), obs., El Palo reef, La Parguera.
- Kimmel (1991), baitfish target species, Puerto Rico.
- Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
- Román-Cordero (1991), reproduction, Puerto Rico.
- Rooker & Dennis (1991), obs., mangroves, La Parguera.
- Acosta (1992), gill net catch, Puerto Rico.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Dennis (1992b), collected, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
 Tulevich & Recksiek (1994), (9: 225-257 mm TL), fish traps, La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Acosta & Appeldoorn (1995), gill net, La Parguera.
 Rasotto & Sadovy (1994), (24: 138-216 mm SL), spear, gill nets, La Parguera.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.
 Acosta (1997), visual, gill net, trammel net, (27), mangroves; (129), inner reef, (155), outer reef, La Parguera.

white grunt, cachicata, boquicolorado, cici, bariblanca.

Haemulon sciurus (Shaw, 1803)

Cuvier & Valenciennes (1830a: 227), as *H. elegans*, collected, Puerto Rico.
 Poey (1881: 325), as *H. luteum*, Puerto Rico.
 Stahl (1883: 77), as *H. luteum*; as *H. multistriatum*; (p. 163), as *H. multilineatum*, Puerto Rico.
 Evermann & Marsh (1900: 189), collected, San Juan; San Geronimo; Fajardo; Culebra; Vieques; Arroyo; Guánica; Ensenada de Boquerón; Puerto Real.
 Fowler (1928), (4), Puerto Rico.
 Nichols (1929: 273), (1), Santurce market.
 Fowler (1930), (1), Fajardo.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1962b), (75), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (27: 125-210 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 212-254 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 137), Fig. 158, (1: 297 mm TL), St. John.
 Dammann (1969), (2: 165-300 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 83), sound production, La Parguera; (1), Mayagüez.
 Almodóvar & Pagan (1971), (74: 37-190 mm SL), Ish Guayacán, La Parguera.
 Austin (1971a), (1: 78 mm SL), La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Risk (1972), (6), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), (6), rotenone, *Thalassia* bed, La Parguera.
 Fast (1974), (2: 188-240 mm SL), rotenone, artificial reef; (1: 236 mm SL), patch reef; Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (3), algal mat, Punta Las Tunas.
 Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Riemold (1975), collected, Mayagüez; St. John.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (9), rotenone, (8), gill net, Punta Verraco.
 Dunne & Brown (1979), collected, Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Williams (1982), leech parasites, Puerto Rico.
 Dyer (1983), parasites, Virgin Gorda.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Lindeman (1986), larval development, (25: 18-29 mm SL), Isla Magueyes, La Parguera [UPRM 3632]; (19: 22-40 mm SL) Isla Magueyes, La Parguera [UPRM 3633].
 Bortone et al. (1989), (2), obs., El Palo reef, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Dennis (1992a), obs., mangroves, La Parguera.
 Dennis (1992b), collected, La Parguera.
 Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Acosta & Appeldoorn (1995), gill net, La Parguera.
 Acosta (1997), visual, gill net, trammel net, (82), mangroves; (154), inner reef, (82), outer reef, La Parguera.

bluestriped grunt, ronco amarillo, cachicata amarilla.

Haemulon striatum (Linnaeus, 1758)

Evermann & Marsh (1900: 193), as *Bathystoma striatum*, (1: 83 mm TL), seine, San Antonio bridge.
 Fowler (1917), as *Bathystoma striatum*, examined, St. Thomas.
 Fish & Mowbray (1970: 88), (1), sound production, Mayagüez.
 Boulon (1987), obs., St. John.
 UPRM collection, (1: 152 mm SL), La Parguera [UPRM 2604]; (1: 142 mm SL), deepwater, La Parguera [UPRM uncat.]; (2: 140-142 mm SL), shelf edge, Puerto Real [UPRM uncat.].

striped grunt.

Pomadasys corvinaeformis (Steindachner, 1868)

Evermann & Marsh (1900: 197), as *Brachydeuterus corvinaeformis*, collected, Isabel Segunda; Hucares; Arroyo; Mayagüez; Aguadilla; Palo Seco.
 Nichols (1929: 278), (1), Santurce market.
 Fowler (1930), as *B. corvinaeformis*, (2), Aguadilla.
 Bane (1964a), as *B. corvinaeformis*, trawl, trolling bait, Mayagüez.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Eger (1970), (4), trap, Bahía Yabucoa.
 Fish & Mowbray (1970: 91), (1), sound production, Mayagüez.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.

grunt, ronco.

Pomadasys crocro (Cuvier in Cuvier & Valenciennes, 1830)

Poey (1881: 324), as *Pristipoma cultriferum*; as *Pristipoma productum*, Puerto Rico.
 Stahl (1883: 77), as *Pristipoma cultiferum*, Puerto Rico.
 Evermann & Marsh (1900: 198), as *Pomadasis crocro*, (1: 190 mm TL), San Juan market; as *Pomadasis ramosus*, (1), San Juan market; (1), Río Loiza (freshwater); (5), seine, Aguadilla.
 Fowler (1928), as *Pomadasis ramosus*, (1), Puerto Rico.
 Nichols (1929: 278), (1), Santurce market.
 Austin (1971a), (1: 71 mm SL), Caño Tiburones; Río Añasco (freshwater).
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Negrón González & Cintrón (1979), collected, estuary, Río Manatí, Río Cibuco, Río Loiza, Río Espiritu Santo.

Corujo Flores (1980), (3: 15-17 mm SL), gill net, estuary, Río Espiritu Santo.
 Stoner (1986), (2), trawl, Laguna Joyuda.
 Kimmel (1991), baitfish, Puerto Rico.
 Acosta (1992), gill net catch, Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, Humacao.

burro grunt, viejo.

INERMIIDAE

Emmelichthys atlanticus Schultz, 1945

Robins & Starck (1961), (17: 60-79 mm SL), trawl, 70 m, N of Jost Van Dyke, OREGON 2624 [UMML 7339].
 Bullis & Thompson (1965), trawl, 64 m, N of Jost Van Dyke, OREGON 2623; 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
 Randall (1968a: 93), collected, Virgin Islands.

bonnetmouth.

Inermia vittata Poey, 1860

Robins & Starck (1961), (1), 15 m, shipwreck, W of Salt Island (BVI) [UMML 7394].
 Randall (1963a), (1: 77 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Randall (1967), food habits.
 Collette & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Mahnken (1972), obs., Lameshur Bay, St. John.
 Smith & Tyler (1972), (1: 41 mm SL), Greater Lameshur Bay, St. John.
 Kimmel (1985b), obs., La Parguera.

boga.

SPARIDAE

Archosargus rhomboidalis (Linnaeus, 1758)

Poey (1881: 328), as *Sargus caribaeus*, Puerto Rico.
 Evermann & Marsh (1900: 204), as *A. unimaculatus*, Pl. 26, common in San Juan market; collected, San Juan; Hucares; Ponce; Guánica; Puerto Real.
 Fowler (1928), as *A. unimaculatus*, (2), Puerto Rico.
 Nichols (1929: 282), as *A. unimaculatus*, (5), San Juan.
 Fowler (1930), as *A. unimaculatus*, (1), Puerto Real.
 Erdman (1956: 320), as *A. unimaculatus*, spawning condition, February.
 Siddiqi & Cable (1960), as *A. unifasciatus*, trematodes absent, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967a), spawning condition, November - March, La Parguera.
 Randall (1967), food habits.
 Randall (1968a: 146), Fig. 168, (1: 168 mm TL), Puerto Rico.
 Fish & Mowbray (1970: 119), (3), sound production, La Parguera.
 Almodóvar & Pagan (1971), as *A. unimaculatus*, (20: 30-191 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin (1971a), (22: 19-123 mm SL), Bahía Guayanilla; La Parguera.

Austin & Austin (1971), food habits.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, outfall, Bahía Jobos.
Wood et al. (1975), collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
Yoshioka (1975f), (6), rotenone, (6), seine, (1), gill net, Punta Verraco.
Erdman (1976), spawning condition.
Olsen et al. (1978), fish trap, 55 m, NE of St. Thomas.
García (1981), (1), gill net, Laguna Joyuda.
Williams (1982), leech parasites, Puerto Rico.
Boulon (1985a), obs., St. John.
Dyer et al. (1985), digenetic trematodes, (4), Isla Magueyes, La Parguera; Bahía Forforescente.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
Stoner (1986), (28), trawl, Laguna Joyuda.
Dennis et al. (1991), night lighting, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Dennis (1992a), obs., mangroves, La Parguera.
Acosta & Appeldoorn (1995), gill net, La Parguera.
Bunkley-Williams et al. (1996a), parasites, La Parguera.
Acosta (1997), visual, gill net, trammel net, (197), mangroves; (41), inner reef, La Parguera.

sea bream, chopo, cagona.

Calamus bajonado (Bloch & Schneider (ex Parra), 1801)

Poey (1881: 328), Puerto Rico.
Stahl (1883: 78), Puerto Rico.
Evermann & Marsh (1900: 202), Pl. 25, (5), Arroyo; Puerto Real.
Nichols (1929: 280), obs., Ponce market.
Fowler (1930), (1), Arroyo.
Randall & Caldwell (1966), (1: 338 mm SL), spear, 21 m, shelf-edge reef, La Parguera [UPRM 1212]; (2: 137 mm SL), seine, *Thalassia* bed, Fire Bay, St. John [UPRM 1211].
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Fish & Mowbray (1970: 116), sound production, (2), La Parguera; (2), Mayagüez; (1), St. Thomas.
Martin & Patus (1973), Bahía Jobos.
Kimmel (1975), (1), algal mat; obs., sandy bottom, Punta Las Tunas.
Martin & Patus (1975), reef & cays, ship channel, outfall, Bahía Jobos.
Yoshioka (1975a), obs., Bahía Tortuguero.
Yoshioka (1975b), obs., Cabo Mala Pascua.
Dunne & Brown (1979), obs., Anegada.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. Thomas; St. John.
Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Acosta (1997), visual, gill net, trammel net, (10), mangroves; (29), inner reef, (16), outer reef, La Parguera.

jolthead porgy, bajonado, pluma, caricacha.

Calamus calamus (Valenciennes in Cuvier & Valenciennes, 1830)

Evermann & Marsh (1900: 201), (5:89-222 mm TL), Arroyo; Boquerón; Mayagüez.
 Fowler (1917), examined, St. Thomas.
 Fowler (1930), (1), St. Thomas.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall & Caldwell (1966), Fig. 19 (lower), (1: 213 mm SL), Ram's Head Bay, St. John [UMML 8659]; (1: 220 mm SL), St. John [UPRM 1126]; (1: 248 mm SL), Salt Island (BVI) [UPRM 1213].
 Randall (1967), food habits.
 Randall (1968a: 144), Fig. 164, (1: 259 mm TL), St. John.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Acosta (1992), gill net, Puerto Rico.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Acosta (1997), visual, gill net, trammel net, (4), mangroves; (37), inner reef, (10), outer reef, La Parguera.

saucereye porgy.

Calamus penna (Valenciennes in Cuvier & Valenciennes, 1830)

Jordan & Evermann (1898a: 1355), St. Thomas.
 Evermann & Marsh (1900: 203), as *C. artifrons*, (1: 178 mm TL), seine, San Antonio bridge.⁴⁶
 Siddiqi & Cable (1960), as *C. artifrons*, trematode parasites, Cabo Rojo.
 Randall & Caldwell (1966), (1: 277 mm SL), spear, 11 m, Cabritte Horn Point, St. John [UPRM 1548]; specimens examined, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 146), Fig. 167, (1: 236 mm TL), Puerto Rico.
 Martin & Patus (1973), Bahía Jobos.
 Kimmel (1975), (1), algal mat, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, outfall, Bahía Jobos.
 Erdman (1976), spawning condition.
 Parrish (1982), gill net, off Punta Ostiones.
 Acosta (1992), gill net catch, Puerto Rico.

sheepshead porgy.

Calamus pennatula Guichenot, 1868

Evermann & Marsh (1899: 354), as *C. kendalli*, (1: 267 mm TL type), Mayagüez [USNM 49362]; (1: 216 mm TL type?), Arroyo; (1: 216 mm TL type?), Mayagüez.
 Evermann & Marsh (1900: 201), as *C. kendalli*, Fig. 59.
 Nichols (1915b: 143), (3), Ponce market.
 Fowler (1917), as *C. kendalli*, examined, St. Thomas.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall & Caldwell (1966), most common porgy of the genus in Puerto Rico and Virgin Islands; Fig. 15, (1: 244 mm SL), Puerto Rico [UPRM 2373].
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.

⁴⁶According to Randall & Caldwell (1966) *C. artifrons* is restricted to eastern Gulf of Mexico. Based on low lateral line count, dorsal formula, and low forehead profile these records are most likely *C. penna*.

Randall (1967), food habits.
 Randall (1968a: 144), Fig. 165; (1: 312 mm TL), Puerto Rico [UPRM 2373].
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Fast (1974), obs., artificial reef; obs., patch reef, Media Luna reef, La Parguera.
 Erdman (1976), spawning condition.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Olsen et al. (1978), (4), fish trap, 55 m, NE of St. Thomas.
 Stevenson (1978), fish trap, Puerto Real.
 Parrish (1982), fish trap, sand flat, off Punta Ostiones.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Bortone et al. (1989), (2), obs., El Palo reef, La Parguera.
 Kimmel (1991), baitfish, Puerto Rico.
 Acosta (1992), gill net catch, Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, La Parguera.

pluma.

Diplodus argenteus (Valenciennes in Cuvier & Valenciennes, 1830)

Silvester (1916: 216), coral reef, Guánica Harbor.
 Fowler (1928), (1), Puerto Rico.
 Kumpf (1965), as *D. caudimaculata*, observed, Botany Bay, St. Thomas.
 Randall (1967), as *D. caudimacula*, food habits.
 Randall (1968a: 148), as *D. caudimacula*, (1: 273 mm TL), St. John.
 UPRM collection, (1: 150 mm SL), spear, 3 m, Mermaid's Chair, St. Thomas [UPRM 1370].

silver porgy.

SCIAENIDAE

Bairdiella batabana (Poey, 1860)

Poey (1881: 327), as *Johnius batabanus*, Puerto Rico.
 Stahl (1883: 77), as *Johnius batabanus*, Puerto Rico.
 Evermann & Marsh (1900: 217), as *Corvula batabana*, (4: 203-254 mm TL), Arroyo; Puerto Real.
 Robins & Tabb (1965), (1; 172 mm SL), Puerto Rico [USNM 125983]; (1: 183 mm SL), Coral Bay, St. John.

blue croaker, barriga blanca.

Bairdiella ronchus (Cuvier in Cuvier & Valenciennes, 1830)

Poey (1881: 326), Puerto Rico.
 Stahl (1882: 77), Puerto Rico.
 Jordan & Eigenmann (1889), as *Corvula subequalis*, (2), St. Thomas [MCZ].
 Evermann & Marsh (1900: 218), collected, San Juan; Mayagüez.
 Nichols (1929: 291), (2), San Juan market.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Eger (1970), (2), seine, Bahía Yabucoa.

Fish & Mowbray (1970: 101), (9), sound production, Mayagüez.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), central bay, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, thermal cove, Bahía Guayanilla.
 Yoshioka (1975f), as *Bairdiella conchus*, (27), rotenone, Punta Verraco.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati, Río Cibuco, Río La Plata, Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), (51: 82-192 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (69), gill net, Laguna Joyuda.
 Stoner (1986), (52), trawl, Laguna Joyuda.

ground drummer, corbino, corvina.

Bairdiella sanctaeluciae (Jordan, 1890)

Evermann & Marsh (1900: 217), as *Corvula sanctae-luciae*, (21: 64-197 mm TL), Hucares; Isabel Segunda; Ponce; Boquerón; Mayagüez.
 Fowler (1930), as *Corvula sanctaeluciae*, (1), Mayagüez.
 Erdman (1956: 321), as *C. sanctaeluciae*, spawning condition, July.
 Eger (1970), (3), trap, Bahía Yabucoa.
 Martin & Patus (1973), as *C. sanctaeluciae*, Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), as *C. sanctaeluciae*, central bay, reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), as *C. sanctaeluciae*, collected, inner bay, Bahía Guayanilla.

striped croaker.

Cynoscion jamaicensis (Vaillant & Bocourt, 1883)

Evermann & Marsh (1900: 215), (2: 279 mm TL), San Juan market; (2: 114-140 mm TL), Isabel Segunda.
 Meek & Hildebrand (1925), (1: 270 mm SL), Puerto Rico.
 Fowler (1930), (1), Vieques.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Fish & Mowbray (1970: 96), (6), sound production, Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
 Corujo Flores (1980), (9: 205-242 mm SL), gill net, estuary, Río Espiritu Santo.
 Dyer et al. (1985), digenetic trematodes, (29), off Río Añasco.

Caribbean seatrout, dientón.

Equetus lanceolatus (Linnaeus, 1758)

Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 73 m, N of Tortola, OREGON 2615 (corrected).
 Randall (1968a: 152), Fig. 174, (1: 178 mm TL), St. John.
 Collette & Talbot (1972), obs., (2), Greater Lameshur Bay, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 UPRM collection, (2: 132-135 mm SL), fish trap, 55 m, coral, Bahía Añasco [UPRM 448]; (3: 143-157 mm SL), La Parguera [UPRM 2565].

jackknife-fish, verdugo.

Equetus punctatus (Schneider in Bloch & Schneider, 1801)

Erdman (1956: 321), spawning condition, August.
 Randall (1963a), (6: 132-187 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Randall (1967), food habits.
 Randall (1968a: 151), Fig. 173, (1: 178 mm TL), St. John.
 Dammann (1969), (2: 85 mm TL), rotenone, Chocolate Hole, St. John.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Dunne & Brown (1979), obs., Anegada.
 Dyer et al. (1985), digenetic trematodes, (3), Mario reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Acosta (1992), gill net catch, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

spotted drum, guinea.

Larimus breviceps (Cuvier in Cuvier & Valenciennes, 1830)

Poey (1881: 326), as *Monosira stahli*, Pl. 6, (1: 190 mm TL), type locality, Puerto Rico.
 Stahl (1883: 163), as *Monosira stahli*, Puerto Rico.
 Jordan & Eigenmann (1889), Puerto Rico [MCZ]; synonymized *Monosira* with *Larimus*.
 Evermann & Marsh (1900: 216), (8: 89-216 mm TL), San Juan market; Isabel Segunda; Ponce.
 Nichols (1929: 290), (3), Santurce market.
 Erdman (1967a), spawning condition, September, Bahía Añasco.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Fish & Mowbray (1970: 97), (2), sound production, Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), central bay, ship channel, outfall, Bahía Jobos.
 Corujo Flores (1980), (5: 146-168 mm SL), gill net, estuary, Río Espiritu Santo.
 Dyer et al. (1985), digenetic trematodes, (10), off Río Añasco.

shorthead drum, corbino cabezón.

Menticirrhus americanus (Linnaeus, 1758)⁴⁷

Evermann & Marsh (1900: 221), as *M. martinicensis*, collected, San Juan market; Palo Seco.
 Ramsey (1967), as *M. martinicensis*, trawl, Bahía Mayagüez.
 Eger (1970), as *M. martinicensis*, (1), seine, Bahía Yabucoa.
 Martin & Patus (1973), as *M. martinicensis*, Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), as *M. martinicensis*, central bay, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

southern kingfish.

Micropogonias furnieri (Desmarest, 1823)⁴⁸

Cuvier & Valenciennes (1830a: 215), as *Micropogon lineatus*, type locality, Puerto Rico.
 Poey (1881: 325), as *Micropogon undulatus*, Puerto Rico.
 Stahl (1883: 77), as *Micropogon undulatus*, Puerto Rico.
 Evermann & Marsh (1900: 220), as *Micropogon*, (2: 191-267 mm TL), San Juan; Arecibo.
 Ramsey (1967), as *Micropogon*, trawl, Bahía Mayagüez.
 Austin (1971a), as *Micropogon*, (3: 22-23 mm SL), seine, Bahía Guayanilla; (1: 117 mm SL), seine, Caño Tiburones.
 Austin & Austin (1971), as *Micropogon*, food habits.
 Martin & Patus (1973), as *Micropogon*, Bahía Guayanilla; Bahía Jobos.

⁴⁷Chao (1978) places *Menticirrhus martinicensis* in synonymy with *M. americanus*.

⁴⁸Chao (1978) found *Micropogon* preoccupied thus replaced it with *Micropogonias*.

Martin & Patus (1975), as *Micropogon*, ship channel, Bahía Jobos.
 Wood et al. (1975), as *Micropogon*, collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
 Negrón González & Cintrón (1979), as *Micropogon*, collected, estuary, Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), as *Micropogon*, (19: 155-355 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), as *Micropogon*, (6), gill net, Laguna Joyuda.
 Dyer et al. (1985), digenetic trematodes, (2), Bahía Guánica.
 Kimmel (1991), baitfish, Puerto Rico.

southern croaker, burro, corvino.

Odontoscion dentex (Cuvier in Cuvier & Valenciennes, 1830)

Evermann & Marsh (1900: 216), (15: 76-121 mm TL), Boquerón; Puerto Real; Mayagüez.
 Fowler (1928), (2), Puerto Rico.
 Fowler (1930), (1), Mayagüez.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo; Punta Arenas.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 150), Fig. 171, (1: 142 mm TL), Puerto Rico.
 Dammann (1969), (5: 135-168 mm TL), rotenone; (40: 80-156 mm TL), fish trap, Chocolate Hole, St. John.
 Eger (1970), (7), trap, Bahía Yabucoa.
 Fish & Mowbray (1970: 98), (3), sound production, Mayagüez.
 Martin & Patus (1973), Bahía Guayanilla.
 González-Azar & Vilella (1975), collected, Laguna Piñones.
 Kimmel (1975), (1), algal mat; (1), sandy bottom, Punta Las Tunas.
 Yoshioka (1975f), (7), rotenone, Punta Verraco.
 Dyer et al. (1985), digenetic trematodes, (12), Cayo Enrique, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Negrón González (1986), collected, Laguna Mar Negro.

reef croaker, corvina.

Ophioscion punctatissimus Meek & Hildebrand, 1925

Evermann & Marsh (1900: 219), as *O. adustus*, (5: 76-89 mm TL), Arroyo; Vieques.
 Schultz (1945), identified Evermann & Marsh's specimens as *O. punctatissimus*, (4), Vieques [USNM 50161, 126188].
 Fish & Mowbray (1970: 103), (13), sound production, Mayagüez.
 Martin & Patus (1973), as *O. adustus*, Bahía Jobos; Bahía Guayanilla.
 Martin & Patus (1975), as *O. adustus*, inner bay, central bay, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), as *O. adustus*, collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), as *Ophioscion* sp., (4), rotenone, Punta Verraco.
 Dennis et al. (in prep), (1: 105), trawl, 2 m, mud bottom, Bahía Añasco [UPRM 461]; (52: 29.5-108), seine, SW of Playa de Guayanes, Puerto Yabucoa, Foster & Loos, 12 Jul 69 [ANSP 115620]; (154: 27.0-115), seine, SSW of Playa de Guayanes, Puerto Yabucoa, Foster & Loos, 13 Jul 69 [ANSP 115573]; (27: 34.5-87.5), seine, E of Playa de Guayanes, Puerto Yabucoa, Foster et al., 15 Jul 69 [ANSP 115655]; (1: 110), seine, SW of Playa de Guayanes, Puerto Yabucoa, Loos et al., 25 Jul 69 [ANSP 116706]; (2: 105-118), seine, NE of Playa de Guayanes, Puerto Yabucoa, Loos, 25 Jul 69 [ANSP 116721]; (1: 105), seine, SE of Río Guayanes mouth, Puerto Yabucoa, Loos et al., 25 Jul 69 [ANSP 116723]; (13: 32.5-110), seine, SSW of Playa de Guayanes, Puerto Yabucoa, Foster & Loos, 20 Jan 71 [ANSP 118660]; (1: 110), seine, Río Guayanes mouth, Puerto Yabucoa, Cepeda Medina et al., 26 Jan 71 [ANSP 118526]; (2: 69.5-116), rotenone, SW of Playa de Guayanes, Puerto Yabucoa, Loos et al., 28 Jul 71 [ANSP 118697]; (28: 54.0-117), seine, SW of Playa de Guayanes, Puerto Yabucoa, Loos., 25 Jul 73 [ANSP 129978]; (1: 94), seine, Río Guayanes mouth, Puerto Yabucoa, JJ Loos, 27 Jul 73 [ANSP 132076]; (4: 57.5-84.0), seine, SSW of Playa de Guayanes, Puerto Yabucoa, Loos, 27 Jul 73

[ANSP 129947]; (1: 104), seine, E of Playa de Guayanes, Puerto Yabucoa, Loos, 27 Jul 73 [ANSP 132027]; (2: 44.5-45.5), seine, Punta Quebrada, Bahía Yabucoa, Stacey et al., 2 Jul 81 [ANSP 151463].

snake croaker.

Pareques acuminatus (Schneider in Bloch & Schneider, 1801)⁴⁹

- Jordan & Eigenmann (1889), as *Eques acuminatus*, Puerto Rico; St. Thomas [MCZ].
 Evermann & Marsh (1900: 222), as *Eques acuminatus*, (2: 152 mm TL), Arroyo.
 Silvester (1916: 216), as *Eques pulcher*, (1: 50 mm TL), coral, Guánica harbor.
 Fowler (1928), as *Eques pulcher*, (1), Puerto Rico.
 Siddiqi & Cable (1960), as *Eques acuminatus*, trematode parasites, Cabo Rojo.
 Randall (1963a), as *Eques pulcher*, obs., artificial reef, Lesser Lameshur Bay; (1: 72 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Kumpf (1965), as *E. pulcher*, observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), as *Eques pulcher*, blood parasites, Puerto Rico.
 Saunders (1966b), as *Eques pulcher*, blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 150), Fig. 172, (1: 122 mm TL), St. John.
 Fish & Mowbray (1970: 110), (2), sound production, La Parguera.
 Kimmel (1975), as *Equetus pulcher*, (6), algal mat, Punta Las Tunas.
 Yoshioka (1975d), as *Equetus acuminatus*, (2), rotenone, nearshore, Punta Manati.
 Dyer et al. (1985), as *Equetus acuminatus*, digenetic trematodes, (9), Crashboat Basin, Aguadilla.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Hixon & Beets (1993), as *Equetus acuminatus*, obs., artificial reef, Perseverance Bay, St. Thomas.

high-hat, cubbyu.

Sciaena trewavasae Chao & Miller, 1975

- Dennis et al. (in prep.), (3: 157-165), baited fish trap, off Rio Grande de Arecibo mouth, 146 m, 25 Aug 77 [USNM 228255].

Ethelwynn's drum

Stellifer colonensis Meek & Hildebrand, 1925

- Erdman (1956: 332), as *S. stellifer*, common on muddy bottom, (2: 62-92 mm SL), off Río Añasco [UPRM 462 missing]; (8: 39-57 mm SL), Bahía Mayagüez [UPRM 463].
 Ramsey (1967), trawl, Bahía Mayagüez.
 Dennis et al. (in prep.), (177: 15.2-46.5 mm SL), seine, SSW of Playa de Guayanes, Puerto Yabucoa [ANSP 115574]; (90: 26.5-47.5 mm SL), trawl, SW of Playa de Guayanes, Puerto Yabucoa [ANSP 116741]; (16: 36.0-52.0 mm SL), trawl, Sun Oil refinery channel, Puerto Yabucoa [ANSP 116747]; (6: 32.0-38.0 mm SL), trawl, E of Playa de Guayanes, Puerto Yabucoa [ANSP 116743]; (2: 47.5-48.0 mm SL), seine, NE of Río Guayanes mouth, Puerto Yabucoa [ANSP 116713]; (4: 35.5-92.0 mm SL), seine, SE of Río Guayanes mouth, Puerto Yabucoa [ANSP 116724]; (6: 72-107.5 mm SL), seine, SW of Playa de Guayanes, Puerto Yabucoa [ANSP 129996]; (31: 19-52 mm SL), trawl, E of Playa de Guayanes, Puerto Yabucoa [ANSP 132063]; (1: 82 mm SL), trawl, Bahía Yabucoa [ANSP 151458]; (6: 29-87 mm SL), trawl, Bahía Yabucoa [ANSP 151459]; (1: 104 mm SL), Playa Ponce, P.M. Rosado, 24 Jan 58 [UPRM 1300]; (5: 38-58 mm SL), Guanajibo [UPRM 463]; (1: 114 mm SL), trawl, mud bottom, Bahía Mayagüez, Erdman & Lallave, 10 Jan 54 [UPRM 35]; (5: 66-108 mm SL), trawl, Bahía Mayagüez [UPRM 2748]; (1: 107 mm SL), trawl, Bahía Mayagüez [UPRM uncat.]; (9: 61-109 mm SL), trawl, Bahía Mayagüez [UPRM uncat.]; (1: 58 mm SL), trawl, Bahía Mayagüez [UPRM uncat.]; (2: 62-89), rake, off Río

⁴⁹ I follow McPhail (1961) and Chao (1978) in placing *Equetus acuminatus* in the genus *Pareques*.

Añasco [ANSP 144697 formerly UPRM 462]; (6: 44-90 mm SL), trawl, mud bottom, Bahía Añasco [UPRM uncat.]; (5: 81-103 mm SL), trawl, 2.5 m, Bahía Añasco [UPRM uncat.]; (4: 62-95 mm SL), trawl, 2.5 m, Bahía Añasco [UPRM uncat.]; (7: 82-112 mm SL), trawl, 2.5 m, Bahía Añasco [UPRM uncat.]; (6: 82-113 mm SL), trawl, 11 m, A2-2, Bahía Añasco [UPRM uncat.]; (3: 74-103 mm SL), trawl, Bahía Mayagüez [UPRM uncat.]; (3: 51-54 mm SL), trawl, M1-1, Bahía Mayagüez [UPRM uncat.]; (1: 60 mm SL), trawl, M1-3, Bahía Mayagüez [UPRM uncat.].

Panama star drum, corbina, corvina.

Stellifer sp. A

Dennis et al. (in prep.), (1: 68), seine, SW of Playa de Guayanes, Puerto Yabucoa, Loos et al., 25 Jul 69 [ANSP 116706].

Alpha star drum.

Stellifer stellifer (Bloch, 1790)

Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Chao (1978), (1), Puerto Rico.
 García (1981), (8), gill net, Laguna Joyuda.
 Martin & Patus (1984), common over mud.

southern star drum, corbina, corvina.

Umbrina broussonnetii Cuvier in Cuvier & Valenciennes, 1830

Evermann & Marsh (1900: 220), as *U. coroides* (in part).
 Gilbert (1966), (2: 178-191 mm SL), Manti, Bahía Mayagüez [UF 12069]; (3: 169-214 mm SL), trawl, off Río Añasco [UPRM 1217]; (1: 81 mm SL), Vieques [FMNH 3280]; (1: 140 mm SL), Aguadilla [CAS-SU 8253]; (1: 120 mm SL), Hucars [USNM 50189]; (2: 106-119 mm SL), Arroyo [USNM 126193].
 Bunkley-Williams et al. (1996a), (3: 200-225 mm TL), gill net, parasites, Humacao.

sand drum.

Umbrina coroides Cuvier in Cuvier & Valenciennes, 1830

Evermann & Marsh (1900: 220), 5 of 6 specimens are *U. broussonnetii* according to Gilbert (1966).
 Gilbert (1966), (3: 202-208 mm SL), beach seine, Corcega [UPRM 1218]; (2: 53-80.5 mm SL), Mermaid's Chair, St. Thomas [UF 11670].
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Eger (1970), (3), seine, Bahía Yabucoa.
 Fish & Mowbray (1970: 107), (3), sound production, Mayagüez.
 Kimmel (1975), (1), sandy bottom; (1), algal mat; Punta Las Tunas.
 Bunkley-Williams & Williams (1994), parasites, Punta Santiago.
 Bunkley-Williams et al. (1996a), parasites, Humacao.

sand drum, guinea.

MULLIDAE

Mulloidichthys martinicus (Cuvier in Cuvier & Valenciennes, 1829)⁵⁰

- Evermann & Marsh (1900: 121), as *Upeneus martinicus*, Pl. 5, (1: 165 mm TL), Palo Seco.
 Fowler (1917), as *U. martinicus*, examined, St. Thomas.
 Nichols (1929: 228), as *U. martinicus*, (1), Condado rocks, San Juan.
 Erdman (1956: 320), as *U. martinicus*, spawning condition, March; April.
 Siddiqi & Cable (1960), trematode parasites, Puerto Real; Punta Arenas.
 Caldwell (1962), (1: 174 mm SL), trawl, 73 m; NE corner Puerto Rico, OREGON 2625.
 Randall (1962b), (123), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (18: 90-109 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 272 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 153), Fig. 175, (1: 328 mm TL), St. John.
 Dammann (1969), (2: 180 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 112), sound production, (5), Mayagüez; (1), St. Thomas.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Fast (1974), (9: 187-275 mm SL), rotenone, artificial reef; obs., patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), (17), rock outcrops; (2), sandy bottom; (8), algal mat; Punta Las Tunas.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Dunne & Brown (1979), collected, Anegada.
 Stevenson & Stuart-Sharkey (1979), fish trap, Puerto Real.
 Bauer (1981), food habits.
 Parrish (1982), collected, off Punta Ostiones.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (1), Cayo Enrique, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Aronson & Sanderson (1987), as *Mulloides*, obs., Greater Lameshur Bay, St. John.
 Boulon (1987), obs., St. John.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Kimmel (1991), baitfish, Puerto Rico.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Burger et al. (1992c), mercury levels, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

yellow goatfish, queen mullet, salmonete amarillo.

Pseudupeneus maculatus (Bloch, 1793)

⁵⁰Some ichthyologists use *Mulloides* but this is an objective synonym of *Mulloidichthys* according to Eschmeyer (1990).

- Evermann & Marsh (1900: 120), as *Upeneus maculatus*, one of the most common species sold on the streets; (51: 57-241 mm TL), "nearly every collecting station."
- Fowler (1917), as *Upeneus maculatus*, examined, St. Thomas.
- Nichols (1929: 227), as *Upeneus maculatus*, (2), Ponce market.
- Fowler (1930), (2), as *Upeneus maculatus*, Puerto Rico.
- Erdman (1956: 320), spawning condition, January.
- Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
- Randall (1962a), cleaned by *Elacatinus* sp., St. John.
- Caldwell (1962), (2: 59-64 mm SL), Puerto Rico [CAS 94744]; (1: 85 mm SL), trawl, 73 m; NE corner Puerto Rico, OREGON 2625; (10: 84-156 mm SL), trawl, 46 m, N of St. Thomas, OREGON 2608; (6: 78-104 mm SL), trawl, 53 m, S of St. John, OREGON 2617; (3: 89-106 mm SL), S of St. Thomas, OREGON 2619; (17: 67-127 mm SL), S of St. John, OREGON 2618.
- Randall (1962b), (195), fish trap, Lameshur Bay, St. John.
- Randall (1963a), (33: 88-165 mm SL), rotenone, artificial reef, Lesser Lameshur Bay.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Erdman (1967b), post larvae, in tuna and bird stomachs, Puerto Rico.
- Ramsey (1967), (3), trawl, Bahía Boquerón.
- Randall (1967), food habits.
- Randall (1968a: 153), Fig. 176, (1: 244 mm TL), St. John.
- Fish & Mowbray (1970: 111), (4), sound production, Mayagüez.
- Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
- Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
- Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
- Martin & Patus (1973), Bahía Jobos.
- Fast (1974), (1: 84 mm SL), rotenone, artificial reef; obs., fish trap, patch reef; Media Luna reef, La Parguera.
- Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
- Kimmel (1975), (99), algal mat; (8), rock outcrops; (5), sandy bottom; Punta Las Tunas.
- Martin & Patus (1975), outfall, Bahía Jobos.
- Riemold (1975), collected, St. John.
- Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
- Yoshioka (1975a), obs., 10 m, 20 m, Bahía Tortuguero.
- Yoshioka (1975b), fringing reef, Punta Ostiones.
- Yoshioka (1975c), obs., Cabo Mala Pascua.
- Yoshioka (1975d), obs., nearshore, Punta Manati.
- Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
- Ebersole (1977), behavioral interaction, St. Thomas; St. John.
- Parrish & Zimmerman (1977), off Punta Ostiones.
- Colin & Clavijo (1978), obs., spawning, March, Reef Bay, St. John.
- Stevenson (1978), fish trap, Puerto Real.
- Dunne & Brown (1979) obs., Anegada.
- Stevenson & Stuart-Sharkey (1979), fish trap, Puerto Real.
- Bauer (1981), food habits.
- Parrish (1982), obs., off Punta Ostiones.
- Boulon (1985a), obs., St. John.
- Boulon (1985b), obs., St. John.
- Kimmel (1985b), obs., La Parguera.
- Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería; Cayo Ratones, Ponce.
- Aronson & Sanderson (1987), obs., Greater Lameshur Bay, St. John.
- Boulon (1987), obs., St. John.

Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Burger et al. (1992c), mercury levels, Puerto Rico.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Bunkley-Williams et al. (1996a), parasites, Humacao, La Parguera.
Colin (1996), obs., spawning aggregations, Reef Bay, St. John.

spotted goatfish, salmonete colorado.

Upeneus parvus Poey, 1853

Stahl (1883: 76), as *Upeneoides parvus*, Puerto Rico.
Lachner (1954), (2), Bahía Añasco [USNM 128263, 144555].
Erdman (1956: 317), (4), trawl, Bahía Añasco (same as Lachner's specimens?).
Bullis & Thompson (1965), trawl, 49 m, N of Tortola, OREGON 2611 (corrected).

dwarf goatfish.

PEMPHERIDAE

Pempheris schomburgkii (Müller & Troschel in Schomburgk, 1848)

Erdman (1956: 331), as *P. mulleri*, (1), San Juan; (25), rotenone, off Cabo Rojo Lighthouse.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 155), Fig. 177, (1: 114 mm TL), St. John.
Martin & Patus (1974), obs., rocky shore, Punta Higuero.
Yoshioka (1975a), obs., 5 m, Bahía Tortuguero.
Yoshioka (1975d), (25), rotenone, nearshore, Punta Manati.
Parrish & Zimmerman (1977), off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Parrish (1982), gill net, off Punta Ostiones.
Dyer et al. (1985), digenetic trematodes, (10), Laurel reef, La Parguera.

copper sweeper.

KYPHOSIDAE

Kyphosus incisor (Cuvier in Cuvier & Valenciennes, 1831)

Stahl (1883: 77), as *Pimelepterus flavolineatus*, Puerto Rico.
Evermann & Marsh (1900: 211), new genus, new species.
Randall (1967), food habits.
Acosta (1992), gill net catch, Puerto Rico.

yellow chub, chopá amarilla.

Kyphosus sectatrix (Linnaeus, 1766)

- Poey (1881: 330), as *Pimelepterus boscii*, Puerto Rico.
 Stahl (1883: 167), as *Pimelepterus boscii*, Puerto Rico.
 Evermann & Marsh (1900: 211), new genus, new species.
 Randall (1965c), food habits, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), food habits.
 Randall (1968), collected, Puerto Rico.
 Dunne & Brown (1979), obs., Anegada.

Bermuda chub, chopá blanca.

EPHIPPIDAE*Chaetodipterus faber* (Broussonet, 1782)

- Cuvier & Valenciennes (1831: 113), as *Ephippus faber*, collected, Puerto Rico.
 Poey (1881: 330), as *Ephippus faber*, Puerto Rico.
 Stahl (1883: 77), as *Ephippus faber*, (p. 163) as *Ephippus gigas*, Puerto Rico.
 Evermann & Marsh (1900: 246), Pl. 33, collected, San Juan; Isabel Segunda; Arroyo; Puerto Real; Mayagüez.
 Siddiqi & Cable (1960), trematode parasites, Cabo Rojo; Puerto Real; Isla Ratones.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 161), Fig. 184, (1: 351 mm TL), St. John.
 Randall & Hartman (1968), food habits.
 Fish & Mowbray (1970: 123), (1), sound production, La Parguera.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), algal mat, Punta Las Tunas.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Riemold (1975), collected, Punta Cangrejos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Dunne & Brown (1979), obs., Anegada.
 Corujo Flores (1980), (1: 206 mm SL), gill net, estuary, Río Espíritu Santo.
 Boulon (1985a), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (9), Media Luna reef; Mario reef, La Parguera; Bahía Guánica.
 Kimmel (1985b), obs., La Parguera.
 Stoner (1986), (1), trawl, Laguna Joyuda.
 Acosta (1992), gill net catch, Puerto Rico.

Atlantic spadefish, paguala, palaguala, palometa, chiririca.

CHAETODONTIDAE

Chaetodon capistratus Linnaeus, 1758

- Cuvier & Valenciennes (1831: 64), examined, Puerto Rico.
Evermann & Marsh (1900: 249), Pl. 35, most abundant chaetodont, collected, San Antonio Bridge; Fajardo; Hucares; Boquerón; Puerto Real; Mayagüez; (p. 250), as *C. bricei*, juvenile, (1: 32 mm TL), Fajardo.
Fowler (1928), (5), Puerto Rico.
Nichols (1930: 331), (2), San Geronimo; Santurce.
Siddiqi & Cable (1960), trematode parasites, Puerto Real.
Randall (1962b), (69), fish trap, Lameshur Bay, St. John.
Randall (1963a), (1: 64 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (4: 69-90 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (3: 88-94 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Erdman (1967b), in tuna and bird stomachs, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 178), Fig. 200, (1: 99 mm TL), St. John.
Dammann (1969), (6: 38-103 mm TL), rotenone, Chocolate Hole, St. John.
De Lisle (1969), cleaning behavior, La Parguera.
Almodóvar & Pagan (1971), (3: 55-57 mm SL), mangroves, Isla Guayacán, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Vicente (1973), food habits, parasites, La Parguera.
Cooper (1974), (4), rotenone, *Thalassia* bed, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Martin & Patus (1975), central bay, reef & cays, outfall, Bahía Jobos.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), obs., shoreline, 20 m, Bahía Tortuguero.
Yoshioka (1975b), obs., fringing reef, Punta Ostiones.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Yoshioka (1975f), (7), rotenone, Punta Verraco.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Burgess (1978), (1: 20 mm SL), Bahía Fosforescente [UF 210929].
Dunne & Brown (1979), collected, Anegada.
Martin & Cooper (1981), *Thalassia* beds, La Parguera.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Williams & Williams (1981), isopod parasites, Caja de Muertos; La Parguera; Culebra; Lameshur Bay, St. John; The Baths, Virgin Gorda; Mosquito Isl.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John.
Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería, Ponce.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Dennis (1992a), obs., mangroves, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Meadows (1993), (59), quinaldine, Saba Isl., St. Thomas.
Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

four-eye butterflyfish, mariposa.

Chaetodon ocellatus Bloch, 1787

- Cuvier & Valenciennes (1831: 67), as *C. bimaculatus*, examined, Puerto Rico.
 Siddiqi & Cable (1960), trematode parasites, Puerto Real.
 Randall (1962b), (few), fish trap, Lameshur Bay, St. John.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1968a: 180), Fig. 202, (1: 140 mm TL), St. John.
 Fish & Mowbray (1970: 125), (1), sound production, La Parguera.
 Yoshioka (1975a), obs., shoreline, Bahía Tortuguero.
 Williams & Williams (1981), isopod parasites, La Parguera; Buck Isl., St. Thomas.
 Clavijo (1985), hybrid, (1), patch reef, La Parguera.
 Dyer et al. (1985), digenetic trematodes, (7), Mario reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, E of Vieques.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

spotfin butterflyfish, mariposa.

Chaetodon sedentarius Poey, 1860

- Erdman (1956: 333), not common, (1), Puerto Rico [UPRM 576]; (2: 69-79 mm SL), west coast, Puerto Rico [UPRM 579].
 Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 53 m, S of St. John, OREGON 2617; 79 m, off San Juan, OREGON 2662; 70 m, off Arcibo, OREGON 2667 (corrected).
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 180), Fig. 203, (1: 114 mm TL), St. John.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 Kimmel (1975), obs., Punta Las Tunas.
 Williams & Williams (1981), isopod parasites, Salinas de Ensenada; La Parguera.
 Parrish (1982), obs., in fish trap, off Punta Ostiones.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; Grappler Seamount; E of Vieques.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Boulon (1992), obs., mangroves, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

reef butterflyfish, mariposa.

Chaetodon striatus Linnaeus, 1758

- Cuvier & Valenciennes (1831: 10), examined, St. Thomas.
 Evermann & Marsh (1900: 249), Pl. 34, abundant, collected, Arroyo; Ponce; Puerto Real; Mayagüez.
 Fowler (1928), (5), Puerto Rico.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1962b), (few), fish trap, Lameshur Bay, St. John.
 Randall (1963a), obs., artificial reef, Lesser Lameshur Bay; (2: 110-118 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 118-120 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Bullis & Thompson (1965), trawl, SW of St. John, OREGON 2618; 44 m, SE of Vieques, OREGON 2628 (corrected).
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 179), Fig. 201, (1: 140 mm TL), St. John.
 Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 126), (1), sound production, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (9), algal mat; (7), rock outcrops; Punta Las Tunas.
 Martin & Patus (1975), outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975a), obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
 Yoshioka (1975b), (1), shoreline, Punta Ostiones.
 Yoshioka (1975d), (3), rotenone, nearshore, Punta Manati.
 Burgess (1978), (2: 20-94 mm SL), San Juan [USNM 254747]; (p. 472) photograph, Aguadilla.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Williams & Williams (1981), isopod parasites, La Parguera; White Horse Key, Anegada.
 Clavijo (1985), hybrid, (1), patch reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, E of Vieques.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

banded butterflyfish, mariposa.

Prognathodes aculeatus (Poey, 1860)⁵¹

Erdman (1956: 339), tholichthys prejuvenile, in *Pseudoscopelus scriptus* stomach, from marlin stomach, La Parguera.

Erdman (1961a), Puerto Rico.

Hubbs (1963), (1: 23 mm SL), verified tholichthys prejuvenile of Erdman [USNM 114652]; (1: 65 mm SL), rotenone, Cayo Don Luis, Bahía Montalvo [UPRM ?]; (1: 71 mm SL), fish trap, La Parguera [UPRM ?]; Fig. 14, (1: 65 mm SL), fish trap, La Parguera [UPRM ?]; (1: 58 mm SL), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM 1136]; (1: 53 mm SL), spear, 30 m, Tourmaline reef, Mayagüez [UPRM 993]; (4: 33-59 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [FMNH 65431, UMML 7038]; (3: 59-63 mm SL), spear, 30-34 m, Frenchcap Cay, S of St. Thomas [UMML 9792]; (2: 43 mm SL), trawl, 69 m, N of St. John, OREGON 2624 [UMML 7310]; (1: 48 mm SL), trawl, 53 m, S of St. John, OREGON 2617 [FMNH 65432].

Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 53m, S of St. John, OREGON 2617; 70 m, N of Jost Van Dyke, OREGON 2624; 44 m, SE of Vieques, OREGON 2628 (corrected).

⁵¹Both Maugé & Bauchot (1984) and Nalbant (1995) have elevated *Prognathodes* to generic rank and have included *aculeatus* and *guyanensis* in the genus.

Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Yoshioka (1975c), obs., Cabo Mala Pascua.
 Burgess (1978), as *Chaetodon aculeatus*, (3: 58-63 mm SL), spear, 34 m, off Frenchcap Cay, St. Thomas [SIO 59-54]; (1: 63 mm SL), (p. 319), photograph, St. Thomas.
 Kimmel (1985a), as *Chaetodon aculeatus*, obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), as *Chaetodon aculeatus*, obs., La Parguera.
 Nelson & Appeldoorn (1985), as *Chaetodon aculeatus*, obs., submersible, Grappler Seamount; E of Vieques; S of St. John.
 Colin & Clavijo (1988), as *Chaetodon aculeatus*, spawning, shelf-edge reef, La Parguera.

longsnout butterflyfish.

Prognathodes guyanensis (Durand, 1960)⁵²

Woods (1961), as *Chaetodon gonoides*, (1: 95 mm SL), trawl, 229 m, Aguadilla, OREGON 2655 [USNM 186318].
 Nelson & Appeldoorn (1985), as *C. aya*, obs., submersible, Grappler Seamount; N St. Thomas.

Antillean butterflyfish.

POMACANTHIDAE⁵³

Centropyge argi Woods & Kanazawa, 1951

Bullis & Thompson (1965), trawl, 48 m, SW of St. John, OREGON 2618 (corrected).
 Randall (1967), food habits.
 Collette & Talbot (1972), obs., (1), 15 m, Greater Lameshur Bay, St. John.
 Kimmel (1985b), obs., shelf-edge reef, La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques; Grappler Seamount.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.

cherubfish.

Holacanthus ciliaris (Linnaeus, 1758)

Cuvier & Valenciennes (1831: 154), examined, St. Thomas; reported, Puerto Rico.
 Evermann & Marsh (1900: 252), as *Angelichthys ciliaris*, Pl. 37, common, collected, Culebra; Ponce.
 Nichols (1930: 333), as *Angelichthys ciliaris*, obs., Ponce market.
 Siddiqi & Cable (1960), trematode parasites, La Parguera.
 Randall (1962b), (16), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (17: 40-66 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 185), Figs. 209, 210, (2: 64-213 mm TL), St. John.
 Randall & Hartman (1968), food habits.
 De Lisle (1969), cleaning behavior, La Parguera.

⁵²Hubbs (1963) synonymized *P. gonoides*, with *P. guyanensis*.

⁵³Burgess (1974) separated Pomacanthidae from Chaetodontidae.

Fish & Mowbray (1970: 130), sound production, (1), Mayagüez; (1), La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 Kimmel (1975), (1), algal mat, Punta Las Tunas.
 Yoshioka (1975d), obs., nearshore, Punta Manati.
 Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Moyer et al. (1983), spawning, La Parguera.
 Dyer et al. (1985), digenetic trematodes, (4), Laurel reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, Grappler Seamount.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

queen angelfish, isabelita.

Holacanthus tricolor (Bloch, 1795)

Cuvier & Valenciennes (1831: 162), as *Chaetodon tricolor*, collected, St. Thomas.
 Evermann & Marsh (1900: 251), Pl. 36, collected, Arroyo, Isabel Segunda.
 Nichols (1930: 332), (1), Ponce market.
 Viguera (1940), trematodes, Puerto Rico.
 Siddiqi & Cable (1960), trematode parasites, La Parguera.
 Randall (1962b), (1), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (8: 32-64 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 45 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (4: 32-84 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 184), Fig. 208, (1: 165 mm TL), St. John.
 Randall & Hartman (1968), food habits.
 Fish & Mowbray (1970: 129), (1), sound production, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Kimmel (1975), (18), algal mat; (4), rock outcrops; Punta Las Tunas.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Yoshioka (1975a), obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
 Yoshioka (1975c), obs., Cabo Mala Pascua.
 Yoshioka (1975d), obs., nearshore, Punta Manati.
 Yoshioka (1975f), collected, Punta Verraco.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), obs., Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Williams & Williams (1981), isopod parasites, Caja de Muertos; La Parguera; St. Thomas; Lameshur Bay, St. John; The Baths, Virgin Gorda.
 Moyer et al. (1983), spawning, La Parguera.

Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Grizzle & Williams (1985), lesions, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques; Grappler Seamount.
 Medina Colon et al. (1986), obs., grassbeds, Cayo Ratones, Ponce.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

rock beauty, black & yellow swede, catalineta, palmoneta.

Pomacanthus arcuatus (Linnaeus, 1758)

Cuvier & Valenciennes (1831: 202), as *Chaetodon aureus*, collected, St. Thomas; (p. 208), as *P. balteatus*, type locality, Puerto Rico [MNHN A.3857], (p. 209), as *P. cingulatus*, type locality, Puerto Rico?; (p. 210), as *P. quinquecinctus*, type locality, Puerto Rico?.

Poey (1881: 329), as *Chaetodon littoricola*, Puerto Rico: as *Chaetodon aureus*, St. Thomas.

Stahl (1883: 77), as *Chaetodon littoricola*, Puerto Rico.

Evermann & Marsh (1900: 251), collected, Culebra; Isabel Segunda; Puerto Real.

Fowler (1917), examined, St. Thomas.

Fowler (1948), (1: 16 mm TL), San Juan.

Siddiqi & Cable (1960), trematode parasites, Guaníca, La Parguera, Puerto Real; Guaniquilla.

Randall (1962b), as *P. aureus*, (47), fish trap, Lameshur Bay, St. John.

Randall (1963a), as *P. aureus*, (2: 254-336 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (1: 245 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), as *P. aureus*, observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), as *P. aureus*, blood parasites, Puerto Rico.

Saunders (1966b), as *P. aureus*, blood characteristics, Puerto Rico.

Ramsey (1967), (1), trawl, Bahía Boquerón.

Randall (1967), food habits.

Randall (1968a: 182), Fig. 205, (1: 302 mm TL), Puerto Rico.

Randall & Hartman (1968), food habits.

De Lisle (1969), cleaning behavior, La Parguera.

Fish & Mowbray (1970: 127), as *P. aureus*, (2), sound production, La Parguera.

Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.

Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Fast (1974), obs., patch reef, Media Luna reef, La Parguera.

Martin & Patus (1974), obs., rocky shore, Punta Higuero.

Kimmel (1975) obs., rock outcrops, Punta Las Tunas.

Martin & Patus (1975), reef & cays, ship channel, outfall, Bahía Jobos.

Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.

Yoshioka (1975a), obs., 10 m, 20 m, Bahía Tortuguero.

Dunne & Brown (1979), obs., Anegada.

Moyer et al. (1983), spawning, La Parguera.

Boulon (1985a), obs., St. John.

Boulon (1985b), obs., St. John.

Dyer et al. (1985), digenetic trematodes, (17), Bird Island; Turrumote reef; Laurel reef; shelf-edge reef; La Parguera.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, E of Vieques; S of St. John.
Boulon (1987), obs., St. John.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Bunkley-Williams et al. (1996a), parasites, La Parguera.

gray angelfish, flatfish, chirivita.

Pomacanthus paru (Bloch, 1787)

Fraser-Brunner (1933), examined, St. Thomas, St. John.
Fowler (1948), as *P. arcuatus*, (1: 16 mm TL), San Juan.
Randall (1962b), as *P. arcuatus*, (9), fish trap, Lameshur Bay, St. John.
Randall (1963a), as *P. arcuatus*, obs., artificial reef, Lesser Lameshur Bay; (1: 133 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Kumpf (1965), as *P. arcuatus*, observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), as *P. arcuatus*, blood parasites, Puerto Rico.
Saunders (1966b), as *P. arcuatus*, blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 184), Figs. 206, 207, (2: 43-241 mm TL), St. John.
Randall & Hartman (1968), food habits.
De Lisle (1969), cleaning behavior, La Parguera.
Fish & Mowbray (1970: 127), as *P. arcuatus*, sound production, (1), Mayagüez; (2), La Parguera.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Fast (1974), (1: 131 mm SL), rotenone, artificial reef, Media Luna reef, La Parguera.
Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
Yoshioka (1975a), obs., shoreline, 10 m, Bahía Tortuguero.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Yoshioka (1975d), (4), rotenone, nearshore, Punta Manati.
Yoshioka (1975f), collected, Punta Verraco.
Dunne & Brown (1979), obs., Anegada.
Moyer et al. (1983), spawning, La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, Grappler Seamount.
Medina Colon et al. (1986), obs., grassbeds, Cayo Ratones, Ponce.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Boulon (1992), obs., mangroves, St. Thomas; St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

French angelfish, chirivita.

CICHLIDAE*Oreochromis mossambicus* (Peters, 1852)⁵⁴

- González-Azar & Vilella (1975), as *Tilapia mossambica*, collected, Laguna Piñones.
 Negrón González & Cintrón (1979), as *T. mossambica*, collected, estuary, Río Cibuco; Río Loiza.
 Corujo Flores (1980), (17: 212-342 mm SL), as *T. mossambica*, gill net, estuary, Río Espiritu Santo.
 García (1981), as *Sarotherodon mossambica*, (1), gill net, Laguna Joyuda.
 Negrón et al. (1982), as *T. mossambica*, collected, Laguna Arenas.
 Negrón González (1986), as *T. mossambica*, collected, Laguna Pozuela; Laguna Mar Negro; Laguna Guaniquilla.
 Burger et al. (1992a), as *T. mossambica*, gill net, Humacao, Boqueron.
 Burger et al. (1992b), as *T. mossambica*, collected, low salinity marsh, Roosevelt Roads; Humacao, Boqueron.
 Burger et al. (1992c), as *T. mossambica*, mercury levels, Roosevelt Roads; Humacao, Boqueron.

Mozambique tilapia, tilapia, tilapia prieta, chopá.

POMACENTRIDAE*Abudefduf saxatilis* (Linnaeus, 1758)

- Poey (1881: 336), as *Glyphidodon saxatilis?*, Puerto Rico.
 Stahl (1883: 77), as *Glyphidodon saxatilis*, Puerto Rico.
 Evermann & Marsh (1900: 227), common, collected, San Juan; Culebra; Puerto Real.
 Fowler (1928), as *A. marginatus*, (1), Puerto Rico.
 Nichols (1930: 308), (6), San Juan.
 Fowler (1948), (7: 19-36 mm TL), San Juan.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1963a), (107: 78-132 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (12: 29-119 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 196), Fig. 219, (1: 135 mm SL), St. John.
 Dammann (1969), (10: 105-150 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 134), (1), sound production, La Parguera.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
 Martin & Patus (1974), (33), rotenone, beach, rocky shore, steps, Punta Higuero.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975a), (8), rotenone, shoreline; obs., 5 m, Bahía Tortuguero.
 Yoshioka (1975b), (4), shoreline, Punta Ostiones.
 Yoshioka (1975c), (19), rocky shoreline, Cabo Mala Pascua.
 Yoshioka (1975d), (156), rotenone, nearshore, Punta Manati.

⁵⁴The Mozambique tilapia was introduced to Puerto Rico in 1958 and are sometimes found in coastal brackish water habitats (Erdman, 1984).

Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
Yoshioka (1975f), (2), seine, Punta Verraco.
Dunne & Brown (1979), obs., Anegada.
Dyer et al. (1985), digenetic trematodes, (8), Media Luna reef, La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

sergeant major, sargento, mariquita.

Abudefduf taurus (Müller & Troschel in Schomburgk, 1848)

Nichols (1915b: 144), as *A. analagus*, (1: 170 mm TL), Condado rocks, San Juan.
Nichols (1930: 309), as *A. analogus*, emended spelling.
Randall (1963a), (3: 123-152 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 134-135 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 197), Fig. 220, (1: 173 mm TL), St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1974), (10), rotenone, beach, rocky shore, Punta Higuero.
Yoshioka (1975c), (6), rocky shore, Cabo Mala Pascua.
Yoshioka (1975d), (4), rotenone, nearshore, Punta Manati.
Kimmel (1985b), obs., La Parguera.

night sergeant.

Chromis cyanea (Poey, 1860)

Randall (1963a), (5: 18-34 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 198), Fig. 222, (1: 117 mm TL), St. John.
Dammann (1969), (12: 103-133 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Hartline et al. (1972), obs., behavior, Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Fast (1974), (2: 32-33 mm SL), rotenone, patch reef; obs., artificial reef; Media Luna reef, La Parguera.
Kimmel (1975), (1), rock outcrop, Punta Las Tunas.
Smith & Tyler (1975), (5), Greater Lameshur Bay, St. John.
Yoshioka (1975a), obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Dunne & Brown (1979), obs., Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; E of Vieques.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Lascon (1992), (18) collected, genetic analysis, La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.

blue chromis.

Chromis enchrysurus Jordan & Gilbert, 1882

Emery & Smith-Vaniz (1982), (2: 77-83 mm SL), 146 m, W of Cabo Rojo [ANSP 138132].
Nelson & Appeldoorn (1985), obs., submersible, Guánica.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

yellowtail reeffish.

Chromis insolata (Cuvier in Cuvier & Valenciennes, 1830)

Bullis & Thompson (1965), trawl, 73 m, off Guana Isl., OREGON 2625 (corrected).
Emery (1968), (2), rotenone, 55 m, shelf edge, La Parguera [UPRM 1063, 2405]
Kimmel (1985b), obs., shelf-edge reef, La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, N of St. Thomas; S of St. John; E of Vieques; Grappler
Seamount; Guánica; NW corner Puerto Rico.
Dennis (pers. obs.), most common deepwater *Chromis*, Puerto Rico.

sunshinefish.

Chromis multilineata (Guichenot, 1853)

Cable & Quick (1954), as *C. marginatus*, collected, parasites, Puerto Rico.
Erdman (1956: 332), as *C. marginatus*, common, La Parguera; spawning condition, May.
Randall (1963a), (2: 26 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Randall (1967), food habits.
Dammann (1969), (6: 87-136 mm TL), rotenone; (14: 120-145 mm TL), fish trap; as *C. marginatus*, (1), fish trap,
Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), obs., artificial reef; (6: 29-81 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), (1), Greater Lameshur Bay, St. John.
Yoshioka (1975a), obs., 10 m, 20 m, Bahía Tortuguero.
Yoshioka (1975b), fringing reef, Punta Ostiones.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Dunne & Brown (1979), obs., Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Williams & Williams (1981), isopod parasites, Congrejos; La Parguera; Río Añasco; Punta Cadena; Corcega;
Vieques; Culebra; Lameshur Bay, St. John; The Baths, Virgin Gorda; White Horse Key, Anegada; Mosquito
Isl.
Dyer et al. (1985), digenetic trematodes, (11), off Río Añasco.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.

Humann (1994: 125), photograph, Culebra.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

brown chromis.

Chromis scotti Emery, 1968

Dennis et al. (in prep.), (1: 59 mm SL), spear, off Rincón [UPRM 3716]; frequent, shelf edge, Puerto Rico.

purple reef fish.

Microspathodon chrysurus (Cuvier in Cuvier & Valenciennes, 1830)

Cuvier & Valenciennes (1830a: 476), as *Glyphisodon chrysurus*, type locality, St. Thomas [MNHN A.8125].

Silvester (1916: 216), as *M. niveatus*, (1: 50 mm TL), coral reef, Guánica harbor entrance; as *M. fowleri*, (5: 130-190 mm TL types), coral reef, Guánica harbor entrance [PUZM 3060].

Silvester (1918: 22), as *M. niveatus*, Pl. 4, Fig. 1; as *M. fowleri*, Pl. 4, Fig. 2; as *M. chrysurus*, obs., off Guánica harbor.

Fowler (1928), as *M. niveatus*, (1), Puerto Rico.

Fowler (1948), as *Stegastes chrysurus*, (2: 17-19 mm TL), San Juan.

Randall (1963a), (54: 29-132 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (45: 24-151 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 194), Fig. 218, (1: 180 mm SL), St. John.

Randall & Hartman (1968), food habits.

Dammann (1969), (16: 60-147 mm TL), rotenone; (12: 134-156 mm TL), fish trap; Chocolate Hole, St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Earle (1972), obs., Greater Lameshur Bay, St. John.

Risk (1972), (25), obs., patch reef 4 m, Greater Lameshur Bay, St. John.

Fast (1974), fish trap, patch reef, Media Luna reef, La Parguera.

Yoshioka (1975b), fringing reef, Punta Ostiones.

Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Dunne & Brown (1979), obs., Anegada.

Waldner & Robertson (1980), habitat distribution, La Parguera.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Clavijo (1990), obs., La Parguera.

Dyer et al. (1991), parasite, Puerto Rico.

McGehee (1991), obs., La Parguera.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

McGehee (1994), obs., La Parguera.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

yellowtail damselfish.

Stegastes adustus (Troschel in Müller 1865)⁵⁵

- Evermann & Marsh (1900: 224), as *Eupomacentrus fuscus*, Pl. 27, collected, San Juan; San Geronimo; Ponce; Aguadilla.
- Fowler (1928), as *Pomacentrus fuscus*, many, Puerto Rico.
- Siddiqi & Cable (1960), as *P. fuscus*, trematode parasites, Punta Arenas.
- Randall (1963a), as *P. fuscus*, (42: 42-75 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (43: 19-72 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Kumpf (1965), as *P. fuscus*, observed, collected, Botany Bay, St. Thomas.
- Randall (1967), as *P. fuscus*, food habits.
- Glynn (1968), as *P. fuscus*, mortality, La Parguera.
- Randall (1968a: 190), as *E. fuscus*, Fig. 213, (1: 97 mm TL), Puerto Rico.
- Dammann (1969), as *E. fuscus*, (43: 37-106 mm TL), rotenone, Chocolate Hole, St. John.
- Fish & Mowbray (1970: 132), as *E. dorsopunicans*, (5), sound production, La Parguera.
- Austin (1971a), as *P. fuscus*, (1: 105 mm SL), Caño Tiburones.
- Earle (1972), as *P. fuscus*, obs., Greater Lameshur Bay, St. John.
- Risk (1972), as *E. fuscus*, (54), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
- Fast (1974), as *E. fuscus*, (3: 85-88 mm SL), rotenone, artificial reef; (10: 46-84 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
- Greenfield & Woods (1974), as *E. dorsopunicans*, (7), Punta Arena, Joyuda [FMNH 61483].
- Martin & Patus (1974), as *E. fuscus*, rotenone, rocky shore, Punta Higuero.
- González-Azar & Vilella (1975), as *E. fuscus*, collected, Laguna Ceiba.
- Kimmel (1975), as *P. fuscus*, (1), rock outcrop, Punta Las Tunas.
- Martin & Patus (1975), as *E. fuscus*, central bay, Bahía Jobos.
- Yoshioka (1975a), as *P. fuscus*, (8), rotenone, shoreline, Bahía Tortuguero.
- Yoshioka (1975b), as *P. fuscus*, (9), shoreline, Punta Ostiones.
- Yoshioka (1975d), as *P. fuscus*, (41), rotenone, nearshore, Punta Manati.
- Yoshioka (1975e), as *P. fuscus*, rotenone, rocky shore, Punta Higuero.
- Ebersole (1977), as *E. fuscus*, behavioral interaction, St. Thomas; St. John.
- Dunne & Brown (1979), as *E. dorsopunicans*, collected, Anegada.
- Waldner & Robertson (1980), as *E. dorsopunicans*, habitat distribution, La Parguera.
- Robertson & Allen (1981), (6: 45-77 mm SL), La Parguera [WAM P25524-008].
- Kimmel (1985b), as *Stegastes fuscus*, obs., La Parguera.
- Nelson & Appeldoorn (1986), as *P. fuscus*, obs., submersible, E of Vieques.
- Bortone et al. (1989), as *P. fuscus*, obs., El Palo reef, La Parguera.
- McGehee (1991), as *S. dorsopunicans*, obs., La Parguera.
- Boulon (1992), as *S. dorsopunicans*, collected, trap, mangroves, St. Thomas; obs., St. John.
- Lascon (1992), as *S. dorsopunicans*, (14) collected, genetic analysis, La Parguera.
- McGehee (1994), as *S. dorsopunicans*, obs., La Parguera.
- Turingan & Acosta (1994), as *P. fuscus*, obs. Corona de Laurel, La Parguera.

dusky damselfish.

Stegastes diencaeus (Jordan & Rutter, 1897)^{56,57}

- Emery & Burgess (1974), as *E. mellis*, (5: 34-44 mm SL), Puerto Rico? [UPRM 2612].
- Dunne & Brown (1979), as *Eupomacentrus* sp., collected, Anegada.

⁵⁵Typically called *Stegastes dorsopunicans*, but *adustus* is an older name. *Stegastes fuscus*, the other “dusky” damselfish, is restricted to Brazil (Greenfield & Woods, 1974).

⁵⁶Emery & Allen (1980) show that *Stegastes* is a senior synonym of *Eupomacentrus*.

⁵⁷Robertson & Allen (1981) found *S. mellis* to be the juvenile of *S. diencaeus*.

- Waldner & Robertson (1980), as *E. mellis*, habitat distribution, La Parguera.
Ogden & Ebersole (1981), as *E. mellis*, obs., artificial reef, Lesser Lameshur Bay, St. John.
Robertson & Allen (1981), (1: 37 mm SL), La Parguera [WAM P25524-001].
Kimmel (1985b), as *S. diencias*, obs., La Parguera.
Bortone et al. (1989), as *Pomacentrus diencaeus*, obs., El Palo reef, La Parguera.
Hixon & Beets (1993), as *S. mellis*, obs., artificial reef, Perseverance Bay, St. Thomas.
Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.

longfin damselfish.

Stegastes leucostictus (Müller & Troschel in Schomburgk, 1848)⁵⁶

- Evermann & Marsh (1900: 224), as *Eupomacentrus analis*, San Juan; (39), Fajardo; (7: 76-102 mm TL), Culebra; (3), Hucares; (17: 76-89 mm TL), Ponce; Guánica; (11), Puerto Real; (4), Mayagüez; Aguadilla; (p. 226), as *Eupomacentrus leucostictus*, Pl. 28, San Juan; Culebra; Guánica; Puerto Real.
Nichols (1915b: 144), as *E. atrocyaneus*, Bahía San Juan.
Fowler (1928), as *Pomacentrus leucostictus*, many, Puerto Rico.
Nichols (1930: 306), as *P. leucostictus*, (7), Santurce; San Geronimo; Tallaboa; as *P. analis*, (5), Santurce.
Fowler (1948), as *P. fuscus leucostictus*, (9: 15-25 mm TL), San Juan.
Erdman (1956: 321), as *P. leucostictus*, spawning condition, September.
Siddiqi & Cable (1960), as *Pomacentrus*, trematodes absent, Puerto Rico.
Randall (1963a), as *P. leucostictus*, (31: 18-50 mm SL), rotenone, fringing reef, Greater Lameshur Bay; collected, Ram's Head Bay, St. John.
Kumpf (1965), as *P. leucostictus*, observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), as *E. leucostictus*, blood parasites, Puerto Rico.
Saunders (1966b), as *E. leucostictus*, blood characteristics, Puerto Rico.
Randall (1967), as *E. leucostictus*, food habits.
Randall (1968a: 192), Fig. 216, (1: 53 mm TL), Puerto Rico.
Dammann (1969), as *E. leucostictus*, (26: 39-77 mm TL), rotenone; (4: 83-104 mm TL), fish trap; Chocolate Hole, St. John.
Earle (1972), as *P. leucostictus*, obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), as *E. leucostictus*, Bahía Guayanilla; Bahía Jobos.
Cooper (1974), as *E. leucostictus*, rotenone, (6), *Thalassia* bed; (1), *Syringodium* bed; La Parguera.
Fast (1974), as *E. leucostictus*, obs., artificial reef; patch reef, Media Luna reef, La Parguera.
Martin & Patus (1974), as *E. leucostictus*, obs., rocky shore, Punta Higuero.
González-Azar & Vilella (1975), as *E. leucostictus*, collected, Laguna Ceiba.
Martin & Patus (1975), as *E. leucostictus*, reef & cays, outfall, Bahía Jobos.
Wood et al. (1975), as *E. leucostictus*, collected, inner bay, thermal cove, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), as *P. leucostictus*, (5), rotenone, shoreline, Bahía Tortuguero.
Yoshioka (1975b), as *P. leucostictus*, (1), shoreline, Punta Ostiones.
Yoshioka (1975d), as *P. leucostictus*, (41), rotenone, nearshore, Punta Manati.
Ebersole (1977), as *E. leucostictus*, behavior, St. Thomas; St. John.
Dunne & Brown (1979), as *E. leucostictus*, collected, Anegada.
Waldner & Robertson (1980), as *E. leucostictus*, habitat distribution, La Parguera.
Martin & Cooper (1981), as *E. leucostictus*, seagrass beds, La Parguera.
Robertson & Allen (1981), (18: 35-63 mm SL), La Parguera [WAM P25524-002].
Kimmel (1985b), obs, La Parguera.
McGehee (1991), obs., La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Dennis (1992a), obs., mangroves, La Parguera.
Lascon (1992), (23) collected, genetic analysis, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.

McGehee (1994), obs., La Parguera.
 Turingan & Acosta (1994), obs. Corona de Laurel, La Parguera.
 McGehee (1995), collected, La Parguera.

beaugregory.

Stegastes partitus (Poey, 1868)⁵⁶

Erdman (1961a), as *Eupomacentrus partitus*, Puerto Rico.
 Randall (1963a), as *Pomacentrus pictus*, obs., artificial reef, Lesser Lameshur Bay; (11: 29-52 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 33-51 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
 Kumpf (1965), as *P. partitus*, observed, collected, Botany Bay, St. Thomas.
 Randall (1968a: 193), as *E. partitus*, Fig. 217, (1: 63.5 mm TL), St. John.
 Collette & Talbot (1972), as *P. partitus*, obs., Greater Lameshur Bay, St. John.
 Earle (1972), as *P. partitus*, obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), as *P. partitus*, obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), as *E. partitus*, Bahía Jobos.
 Fast (1974), as *E. partitus*, obs., artificial reef; (6: 37-43 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), as *P. partitus*, (19), rock outcrops; (8), algal mat; Punta Las Tunas.
 Martin & Patus (1975), as *E. partitus*, reef & cays, Bahía Jobos.
 Smith & Tyler (1975), as *P. partitus*, (5), Greater Lameshur Bay, St. John.
 Yoshioka (1975a), as *P. partitus*, obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
 Yoshioka (1975b), as *P. partitus*, fringing reef, Punta Ostiones.
 Yoshioka (1975c), as *P. partitus*, obs., Cabo Mala Pascua.
 Yoshioka (1975d), as *P. partitus*, obs., nearshore, Punta Manati.
 Yoshioka (1975f), collected, Punta Verraco.
 Dunne & Brown (1979), as *E. partitus*, obs., Anegada.
 Waldner & Robertson (1980), as *E. partitus*, habitat distribution, La Parguera.
 Ogden & Ebersole (1981), as *E. partitus*, obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985a), as *P. partitus*, shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1986), as *P. partitus*, obs., submersible, N of St. Thomas; S of St. John; E of Vieques.
 Sadovy (1986), life history, La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), as *P. partitus*, obs., El Palo reef, La Parguera.
 McGehee (1991), obs., La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Lascon (1992), (22) collected, genetic analysis, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.
 McGehee (1994), obs., La Parguera.
 Turingan & Acosta (1994), as *P. fuscus*, obs. Corona de Laurel, La Parguera.
 Cole & Sadovy (1995), obs., Enrique reef, La Parguera.
 McGehee (1995), collected, La Parguera.

bicolor damselfish.

Stegastes planifrons (Cuvier in Cuvier & Valenciennes, 1830)⁵⁶

Nichols (1915b: 144), as *Eupomacentrus chrysus*, (1), San Antonio Bridge, San Juan.
 Randall (1963a), as *Pomacentrus planifrons*, obs., artificial reef, Lesser Lameshur Bay; fringing reef, Ram's Head Bay; St. John.
 Kumpf (1965), as *P. planifrons*, observed, collected, Botany Bay, St. Thomas.

- Randall (1967), as *P. planifrons*, food habits.
Randall (1968a: 191), as *E. planifrons*, Fig. 214, (1: 56 mm TL), St. John.
Dammann (1969), as *E. planifrons*, (52: 35-100 mm TL), rotenone; (9: 80-110 mm TL), fish trap; Chocolate Hole, St. John.
Collette & Talbot (1972), as *P. planifrons*, obs., Greater Lameshur Bay, St. John.
Earle (1972), as *P. planifrons*, obs., Greater Lameshur Bay, St. John.
Risk (1972), as *E. planifrons*, (37), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
Smith & Tyler (1972), as *P. planifrons*, obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), as *E. planifrons*, Bahía Jobos.
Martin & Patus (1975), as *E. planifrons*, central bay, Bahía Jobos.
Smith & Tyler (1975), as *P. planifrons*, (8), Greater Lameshur Bay, St. John.
Ebersole (1977), as *E. planifrons*, behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), as *E. planifrons*, collected, Anegada.
Waldner & Robertson (1980), as *E. planifrons*, habitat distribution, La Parguera.
Ogden & Ebersole (1981), as *E. planifrons*, obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985a), as *P. planifrons*, obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Hinds & Ballantine (1987), behavior, Mario reef, La Parguera.
McGehee (1991), obs., La Parguera.
Bortone et al. (1989), as *P. planifrons*, obs., El Palo reef, La Parguera.
Clavijo (1990), as *P. planifrons*, obs., La Parguera.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Lascon (1992), (25) collected, genetic analysis, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.
McGehee (1994), obs., La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
McGehee (1995), collected, La Parguera.

threespot damselfish.

Stegastes variabilis (Castlenau, 1855)

- Randall (1963a), as *Pomacentrus variabilis*, (14: 35-64 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (17: 25-59 mm SL), rotenone, fringing reef, Greater Lameshur Bay; collected, fringing reef, Ram's Head Bay; St. John.
Kumpf (1965), as *P. variabilis*, observed, Botany Bay, St. Thomas.
Saunders (1966a), as *Eupomacentrus variabilis*, blood parasites, Puerto Rico.
Saunders (1966b), as *E. variabilis*, blood characteristics, Puerto Rico.
Randall (1967), as *P. variabilis*, food habits.
Randall (1968a: 191), as *E. variabilis*, Fig. 215, (1: 71 mm TL), Puerto Rico.
Randall & Hartman (1968), as *E. variabilis*, food habits.
Dammann (1969), as *E. variabilis*, (250: 20-110 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), as *P. variabilis*, obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), as *P. variabilis*, obs., Greater Lameshur Bay, St. John.
Fast (1974), as *E. variabilis*, (2: 27-28 mm SL), rotenone, artificial reef; (6: 25-48 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
Martin & Patus (1973), as *E. variabilis*, Bahía Jobos.
Martin & Patus (1974), as *E. variabilis*, obs., rocky shore, Punta Higuero.
Greenfield & Woods (1974), as *E. variabilis*, (2), Ratones Isl., Joyuda [FMNH 61486].
Martin & Patus (1975), as *E. variabilis*, reef & cays, Bahía Jobos.
Smith & Tyler (1975), as *P. variabilis*, (8), Greater Lameshur Bay, St. John.
Yoshioka (1975d), as *P. variabilis*, (22), rotenone, nearshore, Punta Manati.

Ebersole (1977), as *E. variabilis*, behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), collected, Anegada.
 Waldner & Robertson (1980), as *E. variabilis*, habitat distribution, La Parguera.
 Robertson & Allen (1981), (5: 57-72 mm SL), La Parguera [WAM P25524-003].
 Kimmel (1985a), as *P. variabilis*, obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1986), as *P. variabilis*, obs., submersible, Grappler Seamount.
 Bortone et al. (1989), as *P. variabilis*, obs., El Palo reef, La Parguera.
 McGehee (1991), obs., La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Booth & Beretta (1994), obs., Flat Cay; Outer Brass Island, St. Thomas.
 McGehee (1994), obs., La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 McGehee (1995), collected, La Parguera.

cocoa damselfish.

CIRRHITIDAE

Amblycirrhitus pinos (Mowbray in Breder, 1927)

Randall (1963a), (1: 50 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (4: 27-52 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
 Randall (1963e), collected, Puerto Rico; Virgin Islands.
 Randall (1967), food habits.
 Randall (1968a: 98), Fig. 113, (1: 69 mm TL), St. John.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (2: 23-34 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
 Kimmel (1975), (9), rock outcrops; (3), algal mat; Punta Las Tunas.
 Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Buchheim & Hixon (1992), obs., Saba Isl.; Flat Cay, St. Thomas.

redspotted hawkfish.

MUGILIDAE

Agonostomus monticola (Bancroft, 1836)

Poey (1881: 335), Puerto Rico.
 Stahl (1883: 78), as *Dajaus (Agonostomus) monticola*, Puerto Rico.
 Evermann & Marsh (1900: 114), very abundant in fresh-water streams.
 Mohr (1927: 178), as *A. squamipinne*, Ponce [ZMH H176, ZMH H177, ZMH H179].
 Schultz (1946), examined, Puerto Rico.
 Anderson (1957), (2: 33-39 mm SL), Río Carolina [USNM 101483].
 Erdman (1967a), post larvae, October, Aguadilla; Corcega; juveniles, Punta Picuda, Río Grande.

Austin (1971a), Río Añasco.
 Yoshioka (1975a), (28), rotenone, shoreline, Bahía Tortuguero.
 Erdman (1976), spawning condition; post larvae, off Aguadilla.
 Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), (15: 32-234 mm SL), gill net, estuary, Río Espiritu Santo.

mountain mullet, dajao.

Joturus pichardi Poey, 1860

Grana (pers. comm.), estuary, Río Añasco.⁵⁸

hognose mullet, morón, lisa morón.

Mugil curema Valenciennes in Cuvier & Valenciennes, 1836

Evermann & Marsh (1900: 113), second most abundant mullet in Puerto Rico, collected, San Juan; Fajardo; Vieques; Culebra; Arroyo; Ensenada del Boquerón; Mayagüez; Aguadilla.
 Fowler (1928), (3), Puerto Rico.
 Nichols (1929: 222), (3), San Juan.
 Cable & Quick (1956), parasites, Puerto Rico.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1967), food habits.
 Eger (1968), (1), oil spill mortality, Bahía San Juan.
 Randall (1968a: 53), Fig. 57, (1: 262 mm TL), Puerto Rico.
 Eger (1970), (4), seine, Bahía Yabucoa.
 Almodóvar & Pagan (1971), (1: 236 mm SL), mangroves, Isla Guayacán, La Parguera.
 Austin (1971a), (200+: 27-200 mm SL), La Parguera; Caño Tiburones; Laguna Joyuda; Río Guanajibo; Río Añasco.
 Austin & Austin (1971), food habits.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.
 Martin & Patus (1975), inner bay, reef & cays, ship channel, Bahía Jobos.
 Riemold (1975), collected, Puerto Rico.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975d), (282), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (1), gill net, Punta Verraco.
 Erdman (1976), spawning condition; juveniles.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati; Río Cibuco; Río La Plata; Río Loiza; Río Espiritu Santo, Río Mameyes.
 Corujo Flores (1980), (103: 98-280 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (161), gill net, Laguna Joyuda.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Dyer et al. (1985), digenetic trematodes, (1), Bahía Guayanilla.
 Garcia & Williams (1985), parasites, Laguna Joyuda.
 Kimmel (1985b), obs., La Parguera.
 Negrón González (1986), collected, Laguna Pozuela; Laguna Mar Negro; Laguna Salinas; Laguna Boquerón; Laguna Guaniquilla; Laguna Joyuda.
 Stoner (1986), (1), trawl, Laguna Joyuda.
 Kimmel (1991), baitfish, Puerto Rico.
 Acosta (1992), gill net catch, Puerto Rico.

⁵⁸Larvae found in marine waters. It is considered endangered by Commonwealth Department of Natural Resources (F. Grana, pers. comm.).

Bunkley-Williams et al. (1996a), parasites, Humacao, Ponce, La Parquera, Mayagüez.

white mullet, cramo, jarea.

Mugil liza Valenciennes in Cuvier & Valenciennes, 1836

Cuvier & Valenciennes (1836: 83), type locality, Puerto Rico.

Poey (1881: 335), as *M. brasiliensis*; as *M. lebranchus*, Puerto Rico.

Stahl (1883: 78), as *M. lebranchus*, Puerto Rico.

Evermann & Marsh (1900: 113), as *M. brasiliensis*, most abundant mullet in markets in Puerto Rico.

Fowler (1928), as *M. brasiliensis*, (1), Puerto Rico.

Siddiqi & Cable (1960), as *M. brasiliensis*, trematodes absent, Puerto Rico.

Fish & Mowbray (1970: 167), as *M. brasiliensis*, sound production, (1), Mayagüez.

Austin (1971a), (1: 124 mm SL), Puerto Rico.

Martin & Patus (1974), dipnetted, rocky shore, Punta Higuero.

González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.

Erdman (1976), spawning condition.

Negrón González & Cintrón (1979), collected, estuary, Río Manatí; Río Cibuco; Río La Plata; Río Loiza; Río Espiritu Santo.

Corujo Flores (1980), (2: 358-473 mm SL), gill net, estuary, Río Espiritu Santo.

García (1981), (5), gill net, Laguna Joyuda.

Kimmel (1991), baitfish, Puerto Rico.

Dennis (pers. obs.), juveniles, tidal pools, Isabela.

liza, *lisa*, *lisa macho*.

Mugil trichodon Poey, 1875

Evermann & Marsh (1900: 113), (1), Puerto Real.

Martin & Patus (1973), common, shallow bays, estuaries, Bahía Jobos.

González-Azar & Vilella (1975), collected, Laguna Piñones; Laguna Ceiba.

Martin & Patus (1975), inner bay, reef & cays, ship channel, Bahía Jobos.

Yoshioka (1975c), Cabo Mala Pascua.

Yoshioka (1975d), (61), rotenone, nearshore, Punta Manatí.

Dunne & Brown (1979), obs., sandy bottom, Jack Bay, Anegada.

Negrón González (1986), collected, Laguna Joyuda.

Kimmel (1991), baitfish, Puerto Rico.

fantail mullet.

SPHYRAENIDAE

Sphyraena barracuda (Walbaum, 1792)

Cuvier & Valenciennes (1829a: 343), collected, Puerto Rico.

Poey (1881: 334), as *S. picuda*, Puerto Rico.

Stahl (1881: 76), as *S. picuda*, Puerto Rico.

Evermann & Marsh (1900: 115), (13: 152-406 mm TL), San Juan market; San Antonio Bridge; Fajardo; Culebra; Hucares; Ensenada del Boquerón; Mayagüez.

Fowler (1904), (1), Puerto Rico [ANSP].

Nichols (1915b), not poisonous, Puerto Rico.

Fowler (1928), (9), Puerto Rico.

Nichols (1929: 223), (1), San Antonio Bridge.

- O'Neill (1938), fish poisoning, Culebra; St. Thomas.
Gilman (1942), fish poisoning, Culebra; St. Thomas.
Arcisz (1950), fish poisoning, St. Thomas.
Mather (1956), sport fishing, Virgin Islands.
Erdman (1956: 321), juveniles.
Erdman & Maytag (1957), (4), longline, off San Juan.
Idyll & Randall (1959), (21), trolling; St. John.
Idyll & Randall (1960), hook and line; (64), trolling; St. John.
DeSylva (1963), food habits, Puerto Rico.
Bane (1964b), trolling, Puerto Rico.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Erdman (1967a), spawning condition, Puerto Rico.
Randall (1967), food habits.
Eger (1968), (1), oil spill mortality, Bahía San Juan.
Randall (1968a: 54), Fig. 58, (1: 490 mm TL), St. John.
Almodóvar & Pagan (1971), (30: 85-430 mm SL), mangroves, Isla Guayacán, La Parguera.
Austin (1971a), (6: 23-609 mm SL), Bahía Guayanilla; La Parguera.
Austin & Austin (1971), food habits.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Cooper (1974), (2), rotenone, *Syringodium* bed, La Parguera.
Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (1), algal mat; (1), sandy bottom; Punta Las Tunas.
Martin & Patus (1975), reef & cays, ship channel, outfall, Bahía Jobos.
Riemold (1975), collected, Punta Cangrejos; Mayagüez.
Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Yoshioka (1975f), (1), gill net, Punta Verraco.
Erdman (1976), spawning condition; juveniles.
Parrish & Zimmerman (1977), off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Corujo Flores (1980), (1: 312 mm SL), gill net, estuary, Río Espíritu Santo.
García (1981), (18), gill net, Laguna Joyuda.
Martin & Cooper (1981), *Syringodium* beds, La Parguera.
Boulon (1985a), obs., St. John.
Boulon (1985b), obs., St. John.
Dyer et al. (1985), digenetic trematodes, (10), Isla La Cueva, La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Escalona de Motta et al. (1986), ciguatera, Puerto Rico.
Negrón González (1986), collected, Laguna Mar Negro; Laguna Joyuda.
Stoner (1986), (4), trawl, Laguna Joyuda.
Boulon (1987), obs., St. John.
Brandon (1987), recreational landings, St. Thomas; St. John.
Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
Tosteson et al. (1988), ciguatera, Puerto Rico.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Dennis et al. (1991), night lighting, La Parguera.
 Kimmel (1991), baitfish target species, Puerto Rico.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Dennis (1992a), obs., mangroves, La Parguera.
 Escalona et al. (1992), ciguatoxins, Puerto Rico.
 Friedlander (1992), trolling, NE corner Puerto Rico.
 Gamboa et al. (1992), ciguatoxins, Puerto Rico.
 Tosteson et al. (1992), ciguatoxins, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Friedlander et al. (1994), trolling, (42), inshore; (24), shelf edge, St. Thomas.

great barracuda, picúa, picúa brava.

Sphyræna guachancho Cuvier in Cuvier & Valenciennes, 1829

Evermann & Marsh (1900: 116), Puerto Rico?
 Fowler (1928), (5), Puerto Rico.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Ramsey (1967), (12), trawl, Bahía Mayagüez.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), inner bay, central bay, ship channel, Bahía Jobos.
 Corujo Flores (1980), (2: 298-299 mm SL), gill net, estuary, Río Espíritu Santo.
 UMML collection, (1: head only), seine, La Parguera [UMML 8498]; (1), Mayagüez [UMML 12427]; (1),
 Guanajibo, Mayagüez [UMML 12428]; (1), Bahía Mayagüez [UMML 12431].

guaguanche, picúa parda, guachanche.

Sphyræna picudilla Poey, 1860

Stahl (1883: 76), Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 55), Fig. 59, (1: 363 mm TL), St. John.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Dunne & Brown (1979), obs., Anegada.
 Parrish (1982), gill net, off Punta Ostiones.
 Kimmel (1991), baitfish, Puerto Rico.
 Friedlander et al. (1994), trolling, (1), inshore, St. Thomas.
 Yoshioka, B. (pers. comm.), school, Media Luna reef, La Parguera.

southern sennet, picudilla, picúa lanceta, picúa chin.

POLYNEMIDAE

Polydactylus oligodon (Günther, 1860)

Dennis et al. (in prep), (1: 118 mm SL), rotenone, <2 m, rocky shore, Yabucoa [UPRM 3060]; (6: 6: 32.0-67.5 mm SL), seine, SSW of Playa de Guayanes, Puerto Yabucoa [ANSP 115599]; (2: 50-94 mm SL), seine, SW of Playa de Guayanes, Puerto Yabucoa [ANSP 115633]; (17: 42-77.5 mm SL), seine, E of Playa de Guayanes, Puerto Yabucoa [ANSP 115671]; (1: 123 mm SL), seine, SSW of Playa de Guayanes, Puerto Yabucoa [ANSP 118511];

(1: 73 mm SL), seine, Sun Oil refinery jetty, SW of Playa de Guayanes, Puerto Yabucoa [ANSP 129980]; (8: 38.0-64.0 mm SL), E of Playa de Guayanes, Puerto Yabucoa [ANSP 132028].

little-scale threadfin.

Polydactylus virginicus (Linnaeus, 1758)

Poey (1881: 334), as *Trichidion plumieri*, Puerto Rico.

Stahl (1883: 78), as *Trichidion plumieri*, Puerto Rico.

Evermann & Marsh (1900: 117), (23), San Juan market; Isabel Segunda; Ponce; Puerto Real; Mayagüez; Palo Seco.

Nichols (1929: 225), peddled cooked, San Juan.

Randall (1966b), Fig. 1, (1: 192 mm SL), beach seine, Mayagüez [UPRM 1056].

Ramsey (1967), trawl, (1), Bahía Boquerón; (6), Bahía Mayagüez.

Eger (1968), (1), oil spill mortality, Bahía San Juan.

Randall (1968a: 56), Fig. 60, (1: 254 mm TL), Puerto Rico [UPRM 1056].

Eger (1970), (14), seine, Bahía Yabucoa.

Fish & Mowbray (1970: 169), (3), sound production, Mayagüez.

Austin (1971a), (10: 32-146 mm SL), Bahía Guayanilla.

Austin & Austin (1971), food habits.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Kimmel (1975), (5), sandy bottom, Punta Las Tunas.

Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.

Riemold (1975), collected, Mayagüez.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Yoshioka (1975f), as *Polydactylus* sp., (4), rotenone, Punta Verraco.

Negrón González & Cintrón (1979), collected, estuary, Río Manati; Río Cibuco; Río Espiritu Santo, Río Mameyes.

Corujo Flores (1980), (11: 96-193 mm SL), gill net, estuary, Río Espiritu Santo.

García (1981), (1), gill net, Laguna Joyuda.

Kimmel (1991), baitfish, Puerto Rico.

barbu.

LABRIDAE

Bodianus pulchellus (Poey, 1860)

Dunne & Brown (1979), obs., Anegada.

Dennis et al. (in prep.), (1: 160 mm SL), off Mayagüez [UPRM 3662].

spotfin hogfish.

Bodianus rufus (Linnaeus, 1758)

Cuvier & Valenciennes (1839: 103), as *Cossyphus bodianus*, type localities, Puerto Rico; St. Thomas.

Silvester (1916: 216), as *Harpa rufa*, (1: 150 mm TL), coral reef, Guánica.

Silvester (1918: 23), new genus.

Fowler (1928), (1), Puerto Rico.

Fedderm (1963), (1: 215 mm SL), 15 m, Eagle Shoal, St. John.

Kumpf (1965), as *B. pulchellus*, observed, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 200), Fig. 223, (1: 262 mm TL), St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Fast (1974), trap, patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), (3), rock outcrops, Punta Las Tunas.
 Yoshioka (1975b), obs., fringing reef, Punta Ostiones.
 Yoshioka (1975c), obs., Cabo Mala Pascua.
 Yoshioka (1975d), obs., nearshore, Punta Manati.
 Yoshioka (1975f), collected, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Gomon (1979), (2: 138-148 mm SL), Congrejos [UMML 1930]; (1: 213 mm SL), Eagle Shoal, St. John [UMML 6699].
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Nelson & Appeldoorn (1985), obs., submersible, S of St. John.
 Boulon (1987), obs., St. John.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

Spanish hogfish, Spanish piper, loro capitán.

Clepticus parrae (Bloch & Schneider, 1801)

Bullis & Thompson (1965), trawl, 53 m, S of St. John, OREGON 2617 (corrected).
 Randall (1967), food habits.
 Randall (1968a: 213), Fig. 240, (1: 244 mm TL), St. John.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Mahnken (1972), cleaned by shrimp, Lameshur Bay, St. John.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Dunne & Brown (1979), obs., Anegada.
 Kimmel (1975), obs., Punta Las Tunas.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Parrish (1982), fish trap; gill net; off Punta Ostiones.
 Dyer et al. (1985), digenetic trematodes, (8), Turrumote reef, La Parguera.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.

creole wrasse

Decodon puellaris (Poey, 1860)

Woods (1961), OREGON 2655, 183 m.
 Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607; 183 m, off Punta Higuero, OREGON 2655; 79 m, off San Juan, OREGON 2662 (corrected).
 Powell et al. (1972), (1: 110 mm SL), trawl, off San Juan, OREGON 2662 [FSBC 1565].
 Martin & Patus (1984), Puerto Rico.

red hogfish.

Doratonotus megalepis Günther, 1862

- Evermann & Marsh (1899: 354), as *D. decoris*, (1: 37 mm TL type), seine, Ponce [USNM 49363].
Evermann & Marsh (1900: 233), (1: 44 mm TL), seine, Hucares; (p. 234), as *D. decoris*, Pl. 29.
Randall (1968a: 212), Fig. 239, (1: 53 mm TL), St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), (30: 24-55 mm SL), rotenone, artificial reef; (1: 52 mm SL), patch reef; Media Luna reef, La Parguera.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
Kimmel (1975), (8), algal mat, Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975c), (1), grassbed; (1), rocky shore; Cabo Mala Pascua.
Farm (1993), obs., Enrique reef, La Parguera.

dwarf wrasse.

Halichoeres bivittatus (Bloch, 1791)

- Evermann & Marsh (1900: 232), as *Iridio bivittatus*, collected, San Geronimo; Fajardo; Culebra; Mayagüez.
Fowler (1928), (1), Puerto Rico.
Erdman (1956: 332), as *H. bivittata*, common over grass bottom in shallow water.
Siddiqi & Cable (1960), as *H. bivittata*, trematode parasites, Isla Ratones.
Randall (1963a), (8: 25-77 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (4: 38-80 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (15: 26-42 mm SL), fringing reef, Ram's Head Bay, St. John.
Randall & Randall (1963), spawning, St. John.
Randall & Böhlke (1965), Fig. 5, (2: 58-121 mm SL), hoop net, La Parguera [UPRM 1585].
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 202), Fig. 226, (1: 142 mm TL), St. John.
Dammann (1969), (3: 43-48 mm TL), rotenone, Chocolate Hole, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), (5: 27-64 mm SL), artificial reef, Media Luna reef, La Parguera.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975d), (85), rotenone, nearshore, Punta Manati.
Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), collected, Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.
Aronson & Sanderson (1987), obs., Greater Lameshur Bay, St. John.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

slippery dick.

Halichoeres caudalis (Poey, 1860)

- Martin & Patus (1984), Punta Monserrate, Luquillo [USNM 147640].

Dennis et al. (in prep.), (2: 35.5-48.5), reef edge, Monserrate, Luquillo, Erdman, 15 Sep 48 [USNM 147640].

painted wrasse.

Halichoeres cyanocephalus (Bloch, 1791)

Randall & Böhlke (1965), Fig. 3a, (1: 75 mm SL), Ram's Head Bay, St. John [UMML 6250]; Fig. 3b, (1: 205 mm SL), market, St. Thomas [UPRM 1053]; (1), 70 m, Puerto Rico.

Kimmel (1985b), obs., La Parguera.

Dennis (per. obs.), (2), juvenile, 20 m, shelf-edge reef, La Parguera.

yellowcheek wrasse.

Halichoeres garnoti (Valenciennes in Cuvier & Valenciennes, 1839)

Erdman (1956: 319), rare in Puerto Rico waters.

Randall (1963a), (20: 27-68 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 57-80 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (1: 28 mm SL), rotenone, fringing reef, Ram's Head Bay.

Randall & Randall (1963), spawning, St. John.

Randall & Böhlke (1965), (1: 163 mm SL), La Parguera [UPRM 11].

Kumpf (1965), observed, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 206), Fig. 229, (2: 56-86 mm TL), Yawzi Pt. Lameshur Bay, St. John [UMML 8480]; Fig. 230, (1: 122 mm TL), St. John.

Dammann (1969), (2: 80-100 mm TL), rotenone, Chocolate Hole, St. John.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.

Kimmel (1975), (4), rock outcrops; (1), algal mat, Punta Las Tunas.

Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.

Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Dunne & Brown (1979), collected, Anegada.

Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Aronson & Sanderson (1987), obs., Greater Lameshur Bay, St. John.

Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Boulon (1992), obs., mangroves, St. Thomas; St. John.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

yellowhead wrasse.

Halichoeres maculipinna (Müller & Troschel in Schomburgk, 1848)

Silvester (1918: 23), as *Iridio maculipinna*, common on coral reefs off Guánica harbor.

Erdman (1956: 332), (1: 95 mm TL), Playa Tamarindo, Guánica [UPRM 528].

Randall (1963a), (2: 82-90 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (6: 33-49 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (19: 27-47 mm SL), rotenone, Ram's Head Bay, St. John.

Randall & Randall (1963), spawning, St. John.

Randall & Böhlke (1965), Fig. 1a, (1: 50 mm SL), Puerto Rico [UPRM 1567].

Kumpf (1965), observed, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 206), Fig. 231, (1: 61 mm TL), Puerto Rico; Fig. 232, (1: 132 mm TL), St. John.

Dammann (1969), (4: 45-57 mm TL), rotenone, Chocolate Hole, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Fast (1974), obs., patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 Kimmel (1975), (8), rock outcrops; (1), algal mat, Punta Las Tunas.
 Yoshioka (1975c), (1) rocky shore, Cabo Mala Pascua.
 Yoshioka (1975d), (10), rotenone, nearshore, Punta Manati.
 Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

clown wrasse.

Halichoeres pictus (Poey, 1860)

Randall & Böhlke (1965), Fig. 10, (2: 75-95 mm SL), St. John [UPRM 1020, 1022].
 Randall (1968a: 207), Fig. 233, (1: 86 mm TL), rotenone, 12 m, Lameshur Bay, St. John [UPRM 1022]; Fig. 234, (1: 112 mm TL), spear, 20 m, reef, Reef Bay, St. John [UPRM 1020].
 Smith & Tyler (1975), (5), patch reef, Greater Lameshur Bay, St. John.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Patus (1984), (1), seagrass, 1.5 m, north coast, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

rainbow wrasse.

Halichoeres poeyi (Steindachner, 1867)

Evermann & Marsh (1900: 232), as *Iridio kirschii*, (2: 108 mm TL), San Antonio Bridge; Fajardo.
 Nichols (1930: 315), as *H. kirschii*, (1), Santurce.
 Randall (1963a), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Bullis & Thompson (1965), trawl, 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).
 Randall & Böhlke (1965), Fig. 6, (2: 86-135 mm SL), Puerto Rico [UPRM 1045, 1051].
 Randall (1967), food habits.
 Randall (1968a: 209), Fig. 235, (1: 102 mm TL); Fig. 236, (1: 160 mm TL), Puerto Rico.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Kimmel (1975), (27), rock outcrops; (7), algal mat; Punta Las Tunas.
 Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
 Yoshioka (1975d), (4), rotenone, nearshore, Punta Manati.
 Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
 Yoshioka (1975f), collected, Punta Verraco.
 Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985b), obs., La Parguera.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

blackear wrasse.

Halichoeres radiatus (Linnaeus, 1758)

- Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1962b), (14), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (1: 39 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (3: 45-150 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
 Randall & Randall (1963), spawning, St. John.
 Randall & Böhlke (1965), Fig. 4b, (1: 193 mm SL), fish trap, La Parguera [UPRM 1033].
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 203), Fig. 227, (1: 122 mm TL), St. John; Fig. 228, (1: 236 mm TL), St. John.
 Dammann (1969), (3: 43-51 mm TL), rotenone, Chocolate Hole, St. John.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), obs., Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Aronson & Sanderson (1987), obs., Greater Lameshur Bay, St. John.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

puddingwife, capitán de piedras, doncella.

Lachnolaimus maximus (Walbaum, 1792)

- Cuvier & Valenciennes (1839: 286), as *L. suillus*, type locality, St. Thomas; (p. 288), as *L. caninus*, type locality, St. Thomas; (p. 291), as *L. psittacus*, type locality, Puerto Rico.
 Poey (1881: 336), as *Lachnolaemus suillus*, Puerto Rico.
 Evermann & Marsh (1900: 230), collected, Isabel Segunda; Arroyo; Ensenada del Boquerón.
 Fowler (1928), as *L. maximum*, (2), Puerto Rico.
 Nichols (1930: 311), obs., Ponce market.
 Siddiqi & Cable (1960), trematode parasites, La Parguera.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), (1), trawl, Bahía Boquerón.
 Randall (1967), food habits.
 Randall & Warmke (1967), food habits, Puerto Rico.
 Randall (1968a: 201), Fig. 225, (1: 221 mm TL), St. John; (1: 813 mm TL), Puerto Rico.
 Fish & Mowbray (1970: 138), (1), sound production, La Parguera.
 Martin & Patus (1973), Bahía Jobos.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), inner bay, Bahía Jobos.
 Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
 Colin (1982), spawning, shelf edge, La Parguera.

Williams (1982), leech parasites, Puerto Rico.
Dyer et al. (1985), digenetic trematodes, (11), Isla La Cueva; Margarita reef; Turrumote reef; La Parguera.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Escalona de Motta et al. (1986), ciguatera, Puerto Rico.
Stoner (1986), (1), trawl, Laguna Joyuda.
Boulon (1987), obs., St. John.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

hogfish, eaglemouth, capitán, doncella de pluma.

Thalassoma bifasciatum (Bloch, 1791)

Nichols (1915b: 144), (1), Santurce; as *T. nitidum*, common in tide pool and around rocks, San Juan.
Fowler (1948), (5: 22-48 mm TL), San Juan.
Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
Randall (1962a), cleaning *Scarus vetula*, St. John.
Randall (1963a), (16: 31-82 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (54: 14-79 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (80: 12-64 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall & Randall (1963), spawning, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 210), Fig. 237, (1: 89 mm TL), Puerto Rico; Fig. 238, (1: 117 mm TL), Puerto Rico.
Dammann (1969), (7: 36-81 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Reinboth (1973), behavior, Mayagüez; St. John.
Fast (1974), (19: 13-84 mm SL), rotenone, artificial reef; (23: 13-75 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
Losey (1974), cleaning behavior, Punta Ostiones.
Martin & Patus (1974), rotenone, dipnetted, rocky shore, Punta Higuero.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (19), rock outcrops, Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), (12), Greater Lameshur Bay, St. John.
Yoshioka (1975a), (4), rotenone, shoreline; obs., shoreline, 10 m, 20 m, Bahía Tortuguero
Yoshioka (1975b), obs., fringing reef; shoreline; Punta Ostiones.
Yoshioka (1975c), obs., Cabo Mala Pascua.
Yoshioka (1975d), (120), rotenone, nearshore, Punta Manati.
Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
Yoshioka (1975f), collected, Punta Verraco.
Hanlon & Kaufman (1976), obs., with *Condylactis gigantea*, Lameshur Bay, St. John.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), collected, Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.

Nieves (1985), obs., with *Condylactis gigantea*, Puerto Rico.
 Shapiro et al. (1988), obs. San Cristobal, La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Fitch & Shapiro (1990), spawning, La Parguera.
 McGehee (1991), obs., La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Yoshikawa (1992), behavior, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Shapiro & Rasotto (1993), collected, La Parguera.
 Appeldoorn et al. (1994), spawning, La Parguera.
 Hensley et al. (1994), spawning, San Cristóbal reef, La Parguera.
 McGehee (1994), obs., La Parguera.
 Shapiro et al. (1994b), collected, Enrique reef, La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

bluehead.

Xyrichtys martinicensis (Valenciennes in Cuvier & Valenciennes, 1839)

Randall (1965a), as *Hemipteronotus martinicensis*, Fig. 9, (1: 82 mm SL), rotenone, sand with seagrass, Crashboat Basin, Aguadilla [UPRM 1735].
 Randall (1968a: 216), as *H. martinicensis*, Fig. 244, (1: 81 mm TL), St. John.
 Kimmel (1975), as *H. martinicensis*, (5), sandy bottom, Punta Las Tunas.
 Kimmel (1985b), as *H. martinicensis*, obs., La Parguera.

rosy razorfish.

Xyrichtys novacula (Linnaeus, 1758)

Randall (1965a), as *Hemipteronotus novacula*, (1: 175 mm SL), spear, 5 m, El Negro reef, Mayagüez [UPRM 1007].
 Randall (1967), as *H. novacula*, food habits.
 Randall (1968a: 214), as *H. novacula*, Fig. 241, (1: 178 mm TL), St. John; Fig. 242, (1: 48 mm TL), St. John.
 Dunne & Brown (1979), as *H. novacula*, collected, Anegada.
 Kimmel (1985b), as *H. novacula*, obs., La Parguera.
 Beets (1989), as *H. novacula*, obs., artificial reef, 26 m, St. Thomas.

pearly razorfish.

Xyrichtys splendens (Castlenau, 1855)

Randall (1965a), as *Hemipteronotus splendens*, Fig. 5b, (1: 47.5 mm SL), St. John [UPRM 1209]; Fig. 7, (1: 104 mm SL), Puerto Rico [UPRM 1162].
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Randall (1967), as *H. splendens*, food habits.
 Randall (1968a: 215), as *H. splendens*, Fig. 242, (1: 48 mm TL), St. John; Fig. 243, (1: 124 mm TL), Puerto Rico [UPRM 1162].
 Kimmel (1975), as *H. splendens*, (1), algal mat, Punta Las Tunas.
 Dunne & Brown (1979), as *H. splendens*, collected, Anegada.
 Kimmel (1985b), as *H. splendens*, obs., La Parguera.

green razorfish.

SCARIDAE

Cryptotomus roseus Cope, 1871

- Siddiqi & Cable (1960), as *Cryptotomus auropunctatus*, trematodes absent, Puerto Rico.
Bullis & Thompson (1965), trawl, 44 m, SE of Vieques, OREGON 2628 (corrected).
Randall (1968a: 219), Fig. 246, (1: 99 mm TL), St. John.
Powell et al. (1972), (1: 72 mm SL), S of Vieques [FSBC 1913].
Fast (1974), (4: 24-38 mm SL), patch reef, Media Luna reef, La Parguera.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

bluelip parrotfish.

Scarus coelestinus Valenciennes in Cuvier & Valenciennes, 1840

- Cuvier & Valenciennes (1840: 180), type locality, St. Thomas [MNHN 2459].
Erdman (1956: 333), as *Pseudoscarus coelestinus*, fish traps, La Parguera.
Schultz (1958), examined, St. Thomas.
Randall (1963a), (1: 512 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 214-375 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall (1963f), collected, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 235), Fig. 266, (1: 516 mm TL), St. John; (1: 762 mm TL), Puerto Rico.
Randall & Hartman (1968), food habits.
Fish & Mowbray (1970: 149), (1), sound production, La Parguera.
Dunne & Brown (1979), obs., Anegada.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería, Ponce.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.

midnight parrotfish, judfo.

Scarus coeruleus (Bloch, 1786)

- Cuvier & Valenciennes (1840: 186), collected, St. Thomas; reported, Puerto Rico.
Evermann & Marsh (1900: 244), Pl. 32, (2: 368-508 mm TL), Culebra; obs., St. Thomas; Tortola.
Fowler (1917), as *Callyodon caeruleus*, examined, St. Thomas.
Fowler (1928), as *Callyodon caeruleus*, (3), Puerto Rico.
Schultz (1958), examined, (3), Puerto Rico.
Randall (1962b), (116), fish trap, Lameshur Bay, St. John.
Randall (1963a), (2: 220-263 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1968a: 232), Fig. 263, (1: 328 mm TL), St. John; Fig. 264, (1: 625 mm TL), St. John.
Dammann (1969), (6: 68-115 mm TL), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 148), (1), sound production, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Fast (1974), obs. patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), obs., Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (14), rotenone, Punta Verraco.
 Dunne & Brown (1979), obs., Anegada.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.

blue parrotfish, brindao.

Scarus croicensis Bloch, 1790⁵⁹

Jordan & Evermann (1898: 1651), examined, St. Thomas.
 Evermann & Marsh (1900: 244), collected, San Geronimo; San Antonio Bridge; Fajardo; Culebra; Hucares; Boquerón; Mayagüez.
 Nichols (1930: 326), (4), San Juan.
 Longley & Hildebrand (1941), (6), Puerto Rico [USNM].
 Schultz (1958), (2), Puerto Rico; (1), St. Thomas.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Randall (1963a), (2: 55-66 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (4: 120-187 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (1: 54 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
 Randall (1963f), Pl. 2a (1: 168 mm SL), St. John; Pl. 2b, (1: 183 mm SL), St. John.
 Randall & Randall (1963), spawning, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, (1), Bahía Boquerón; (1), Bahía Mayagüez.
 Randall (1968a: 229), Fig. 259, (1: 208 mm TL), St. John; Fig. 260, (1: 213 mm TL), St. John.
 Dammann (1969), (61: 35-111 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 147), (7), sound production, La Parguera.
 Almodóvar & Pagan (1971), (8: 55-95 mm SL), mangroves, Isla Guayacán, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Fast (1974), (1: 148 mm SL), patch reef, Media Luna reef, La Parguera.
 Barlow (1975b), behavior, off Punta Ostiones.
 Martin & Patus (1975), central bay, reef & cays, outfall, Bahía Jobos.
 Riemold (1975), collected, Puerto Rico.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (6), rotenone, Punta Verraco.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Parrish & Zimmerman (1977), off Punta Ostiones.
 Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Parrish (1982), obs., mucous cocoon, off Punta Ostiones.
 Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.

⁵⁹Randall & Nelson (1979) show that the oldest name for *S. croicensis* is *S. iseri* (Bloch, 1789) (emended to *iserti*), but this name has been proposed to be suppressed by the ICZN based on the 50 year rule. I retain the long standing use pending a decision by the ICZN.

Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Colin & Clavijo (1988), as *S. iserti*, spawning, shelf-edge reef, La Parguera.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Clavijo (1990), as *Sc. iserti*, obs., La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Boulon (1992), obs., mangroves, St. Thomas; St. John.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

striped parrotfish; cotorro.

Scarus guacamaia Cuvier, 1829

Cuvier & Valenciennes (1840: 178), St. Thomas [MNHN B.2038]; (p. 181), as *S. turchesius*, type locality, Puerto Rico [MNHN 2460].
 Poey (1861: 393), as *Scarus pleianus*, type locality, St. Thomas.
 Stahl (1883: 78), as *Pseudoscarus turchesius*, Puerto Rico.
 Evermann & Marsh (1900: 245), as *P. guacamaia*, numerous specimens, seine, San Antonio Bridge; Fajardo; Culebra; Puerto Real.
 Fowler (1928), as *Callyodon guacamaia*, (2), Puerto Rico.
 Meek & Hildebrand (1928), as *P. guacamaia*, examined, St. Thomas.
 Nichols (1930: 327), as *P. guacamaia*, (2), Santurce.
 Schultz (1958), (1), St. Thomas.
 Randall (1962b), (4), fish trap, Lameshur Bay, St. John.
 Randall (1963f), Puerto Rico.
 Randall (1965c), food habits, St. John.
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 233), Fig. 265, (1: 572 mm TL), St. John.
 Fish & Mowbray (1970: 150), (3), sound production, La Parguera.
 Martin & Patus (1973), Bahía Jobos.
 Fast (1974), fish trap, patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975a), obs., shoreline, 10 m, Bahía Tortuguero.
 Dunne & Brown (1979), obs., Anegada.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), obs., mangroves, St. John.

rainbow parrotfish, guacamayo.

Scarus taeniopterus Desmarest, 1831

Cuvier & Valenciennes (1840: 193), as *Sc. vetula*, St. Thomas.
 Jordan & Evermann (1898: 1646), examined, Puerto Rico; St. Thomas.
 Fowler (1917), as *Callyodon taeniopterus*, examined, St. Thomas.
 Randall (1963a), (1: 35 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (7: 30-217 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (2: 135-200 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
 Randall (1963f), Pl. 2c, (1: 153 mm SL), St. John; Pl. 2d, (1: 200 mm SL), St. John.
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.

- Randall (1967), food habits.
Randall (1968a: 230), Fig. 261, (1: 185 mm TL), St. John; Fig. 262, (1: 239 mm TL), Puerto Rico.
Randall & Hartman (1968), food habits.
Dammann (1969), (48: 39-115 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Fast (1974), (1: 252 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
Barlow (1975b), behavior, off Punta Ostiones.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Erdman (1976), spawning condition.
Parrish & Zimmerman (1977), off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Parrish (1982), gill net, off Punta Ostiones.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Clavijo (1990), obs., La Parguera.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

princess parrotfish, princesa.

Scarus vetula Schneider in Bloch & Schneider, 1801

- Evermann & Marsh (1900: 243), Pl. 31, (1: 318 mm TL), Puerto Real.
Fowler (1917), as *Callyodon vetula*, examined, St. Thomas.
Nichols (1930: 325), (1), Santurce.
Erdman (1956: 333), as *S. acutus*, commercial fish catch, La Parguera.
Schultz (1958), examined, (1), St. Thomas.
Randall (1962a), cleaned by *Thalassoma bifasciatum*, St. John.
Randall (1962b), (6), fish trap, Lameshur Bay, St. John.
Randall (1963a), (10: 95-286 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (9: 190-254 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall & Randall (1963), spawning.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 228), Fig. 257, (1: 259 mm TL), St. John; Fig. 258, (1: 335 mm TL), St. John.
Randall & Hartman (1968), food habits.
Fish & Mowbray (1970: 146), (1), sound production, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Barlow (1975b), behavior, off Punta Ostiones.
Fast (1974), fish trap, patch reef, Media Luna reef, La Parguera.
Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
Parrish & Zimmerman (1977), off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Clavijo (1982), life history, La Parguera.
Parrish (1982), obs., mucous cocoon, off Punta Ostiones.

Clavijo (1983), spawning, La Parguera.
Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. Thomas.
Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Acosta (1997), visual, gill net, trammel net, (1), mangroves; (39), inner reef, (56), outer reef, La Parguera.

queen parrotfish, perico.

Sparisoma atomarium (Poey, 1861)

Randall (1965b), Fig. 1a, (1: 63 mm SL), 6 m, grassbed, Lameshur Bay, St. John [UMML 6702]; Fig. 1b, (1: 73 mm SL), St. John [UPRM 1278]; (5: 41-81 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607 [USNM 195948]; (3: 60-68 mm SL), trawl, 53 m, S of St. John, OREGON 2618 [UMML 7108].
Kimmel (1985b), obs., La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Boulon (1992), obs., mangroves, St. Thomas; St. John.

greenblotch parrotfish.

Sparisoma aurofrenatum (Valenciennes in Cuvier & Valenciennes, 1840)

Jordan & Evermann (1898: 1634), examined, St. Thomas.
Evermann & Marsh (1900: 238), (1: 191 mm TL), Arroyo.
Fowler (1917), examined, St. Thomas.
Schultz (1958), examined, Puerto Rico; St. Thomas.
Randall (1963a), (27: 42-212 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (6: 139-166 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall & Randall (1963), spawning.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 226), Fig. 254, (2: 163-190 mm TL), St. John.
Fish & Mowbray (1970: 142), sound production, La Parguera; Mayagüez.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Cooper (1974), (4), rotenone, *Thalassia* bed, La Parguera.
Fast (1974), (3: 20-90 mm SL), rotenone, artificial reef; (1: 49 mm SL), rotenone, patch reef; Media Luna reef, La Parguera.
Barlow (1975b), behavior, off Punta Ostiones.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Erdman (1976), spawning condition.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Parrish & Zimmerman (1977), off Punta Ostiones.
Stevenson (1978), fish trap, Puerto Real.
Dunne & Brown (1979), obs., Anegada.

Stevenson & Stuart-Sharkey (1979), fish trap, Puerto Real.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Parrish (1982), fish trap, off Punta Ostiones.
 Dyer et al. (1985), digenetic trematodes, (1), shelf-edge reef, La Parguera.
 Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Clavijo (1990), obs., La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
 Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
 Bunkley-Williams et al. (1996a), parasites, Humacao.
 Acosta (1997), visual, gill net, trammel net, (55), inner reef, (57), outer reef, La Parguera.

redband parrotfish.

Sparisoma chrysopterum (Bloch & Schneider, 1801)

Cuvier & Valenciennes (1840: 185), as *Scarus chrysopterus*, collected, St. Thomas.
 Jordan & Evermann (1898: 1639), as *Sp. flavescens*, examined, St. Thomas.
 Evermann & Marsh (1900: 239), collected, Arroyo; Isabel Segunda; obs., Culebra; p. 240, as *Sp. lorito*, (2),
 Arroyo; Puerto Real; p. 240, as *Sp. flavescens* (in part), abundant, collected, San Juan; Fajardo; Culebra;
 Hucares; Isabel Segunda; Ponce; Guánica; Ensenada del Boquerón; Puerto Real; Mayagüez; p. 242, as *Sp.*
brachiale, San Geronimo; Isabel Segunda; Arroyo; Aguadilla.
 Randall (1962b), (41), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (3: 139-209 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 222), Fig. 250, (1: 264 mm TL), St. John; Fig. 251, (1: 267 mm TL), Puerto Rico.
 Fish & Mowbray (1970: 143), (4), sound production, La Parguera.
 Almodóvar & Pagan (1971), (5: 70-125 mm SL), mangroves, Isla Guayacán, La Parguera.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), rotenone, (53), *Thalassia* bed; (4), *Syringodium* bed; La Parguera.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 Barlow (1975b), behavior, off Punta Ostiones.
 Kimmel (1975), (7), algal mat; (1), rock outcrops; Punta Las Tunas.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
 Yoshioka (1975a), (1), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975b), (7), shoreline, Punta Ostiones.
 Yoshioka (1975d), (3), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (10), rotenone, (3), seine, Punta Verraco.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Stevenson (1978), fish trap, Puerto Real.
 Dunne & Brown (1979), collected, Anegada.

Stevenson & Stuart-Sharkey (1979), fish trap, Puerto Real.
 Martin & Cooper (1981), seagrass beds, La Parguera.
 Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

redtail parrotfish.

Sparisoma radians (Valenciennes in Cuvier & Valenciennes, 1840)

Evermann & Marsh (1900: 236), as *Sp. xystrodon*, very common, San Juan; San Geronimo; Fajardo; Culebra; Hucares; Isabel Segunda; Arroyo; Ponce; Guánica; Ensenada del Boquerón; Puerto Real; Mayagüez; Aguadilla; p. 237, as *Sp. hoplomystax*, (1: 70 mm TL), Mayagüez; p. 238, as *Sp. niphobles*, abundant.
 Fowler (1917), as *Sp. xystrodon*, examined, St. Thomas.
 Nichols (1930: 318), (6), Santurce; Ponce market.
 Erdman (1956: 333), (1: 65 mm TL), fish trap, La Parguera; spawning condition, November.
 Schultz (1958), examined, Puerto Rico, St. Thomas.
 Randall (1963a), (1: 79 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
 Randall (1965c), seagrass, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, (6), Bahía Boquerón; (1), Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 226), Fig. 255, (1: 89 mm TL), St. John; Fig. 256, (1: 76 mm TL), St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), (69), rotenone, *Thalassia* bed, La Parguera.
 Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
 Martin & Patus (1975), central bay, reef & cays, ship channel, outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
 Yoshioka (1975f), (34), rotenone, Punta Verraco.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Farm (1993), obs., Enrique reef, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Marconato & Shapiro (1996), collected, La Conserva reef, La Parguera.

bucktooth parrotfish.

Sparisoma rubripinne (Valenciennes in Cuvier & Valenciennes, 1840)

Cuvier & Valenciennes (1840: 203), as *Scarus virens*, type locality, Puerto Rico [MNHN A8228].
 Poey (1881: 336), as *Scarus truncatus*, Puerto Rico.
 Stahl (1883: 78), as *Sc. truncatus*, Puerto Rico.

- Evermann & Marsh (1900: 241), common, collected, San Juan; Fajardo; Hucares; Arroyo; Ponce; Guánica; Ensenada del Boquerón; Puerto Real; Mayagüez; Aguadilla; p. 241, as *Sp. flavescens* (in part), abundant.
- Fowler (1948), (1: 25 mm TL), San Juan.
- Schultz (1958), as *Sp. rubripinnis*, (8), Puerto Rico.
- Randall (1962b), (71), fish trap, Lameshur Bay, St. John.
- Randall (1963a), (3: 256-306 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (8: 198-244 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (11: 218-255 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Randall (1963f), Pl. 3c, (1: 150 mm SL), St. John; Pl. 3d, (1: 255 mm SL), St. John.
- Randall & Randall (1963), spawning, St. John.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Randall (1967), food habits.
- Randall (1968a: 220), Fig. 248, (1: 178 mm TL), St. John.
- Randall & Hartman (1968), food habits.
- Fish & Mowbray (1970: 145), sound production, (1), La Parguera; (1), St. Thomas.
- Earle (1972), obs., Greater Lameshur Bay, St. John.
- Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
- Cooper (1974), (16), rotenone, *Thalassia* bed, La Parguera.
- Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
- Barlow (1975b), behavior, off Punta Ostiones.
- Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
- Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
- Yoshioka (1975b), (2), shoreline, Punta Ostiones.
- Yoshioka (1975c), (2), rocky shore, Cabo Mala Pascua.
- Yoshioka (1975d), (65), rotenone, nearshore, Punta Manati.
- Yoshioka (1975f), (2), rotenone, Punta Verraco.
- Colin (1978b), spawning, St. John.
- Dunne & Brown (1979), obs., Anegada.
- Martin & Cooper (1981), *Thalassia* beds, La Parguera.
- Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
- Kimmel (1985b), obs., La Parguera.
- Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
- Bortone et al. (1989), obs., El Palo reef, La Parguera.
- Acosta (1992), gill net catch, Puerto Rico.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
- Colin (1996), obs., spawning aggregations, Reef Bay, St. John.

redfin parrotfish.

Sparisoma viride (Bonnaterre, 1788)

- Cuvier & Valenciennes (1840: 175), as *Scarus abildgaardii*, collected, St. Thomas.
- Jordan & Evermann (1896: 1638), examined, St. Thomas.
- Evermann & Marsh (1900: 240), collected, Culebra; Arroyo; p. 239, as *Sp. abildgaardi*, Pl. 30, (2: 279-318 mm TL), Arroyo.
- Fowler (1917), as *Sp. abildgaardi*, examined, St. Thomas.
- Fowler (1928), as *Sp. abildgaardi*, (1), Puerto Rico.
- Nichols (1930: 320), as *Sp. abildgaardi*, (2), Santurce.
- Schultz (1958), as *Sp. viridis*, Puerto Rico; St. Thomas; as *Sp. abildgaardi*, (1), Puerto Rico; (4), St. Thomas.
- Siddiqi & Cable (1960), as *Sp. abildgaardi*, trematodes absent, Puerto Rico.
- Randall (1962b), (77), fish trap, Lameshur Bay, St. John.
- Randall (1963a), (4: 93-132 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (8: 45-230 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (5: 30-235 mm SL), rotenone, fringing reef, Ram's Head Bay; St. John.
- Randall & Randall (1963), spawning, St. John.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

- Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 225), Fig. 252, (1: 259 mm TL), St. John; Fig. 253, (1: 310 mm TL), St. John.
Randall & Hartman (1968), food habits.
Dammann (1969), (10: 35-190 mm TL), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 144), (11), sound production, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Cooper (1974), (3), rotenone, *Thalassia* bed, La Parguera.
Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
Barlow (1975b), behavior, off Punta Ostiones.
Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
Riemold (1975), collected, St. Thomas; St. John.
Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
Yoshioka (1975f), (1), rotenone, Punta Verraco.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Parrish & Zimmerman (1977), off Punta Ostiones.
Dunne & Brown (1979), obs., Anegada.
Martin & Cooper (1981), *Thalassia* beds, La Parguera.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería, Ponce.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Clavijo (1990), obs., La Parguera.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. Thomas; St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Acosta (1994), gill and trammel nets, Margarita reef, La Parguera.
Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Acosta & Appeldoorn (1995), gill net, La Parguera.
Acosta (1997), visual, gill net, trammel net, (2), mangroves; (32), inner reef, (55), outer reef, La Parguera.
- stoplight parrotfish, loro verde, chaporra.

OPISTOGNATHIDAE

Lonchopisthus micrognathus (Poey, 1860)

- Erdman (1961a), as *L. vanderbilti*, (2), surface, dynamite, N of Media Luna, La Parguera [UMML 10956].
Weiler (1976), collected, backreef slope, 18 m, Laurel reef, La Parguera.
Colin & Arneson (1978), collected, backreef slope, 18 m, Laurel reef, La Parguera.
Kimmel (1985b), obs., La Parguera.

swordtail jawfish.

Opistognathus aurifrons (Jordan & Thompson, 1905)

Böhlke & Thomas (1961), (10: 47-71 mm SL), Greater Lameshur Bay, St. John [UMML 4944, 4945, 5320, 5322]; (40: 9-52 mm SL), Great Salt Pond Bay, St. John [UMML 7806].

Randall (1967), food habits.

Randall (1968a: 168), Fig. 190, (1: 56 mm SL), St. John.

Kimmel (1975), obs., 18 m, Punta Las Tunas.

Waldner (1975), geographic variation, (50), Lesser Lameshur Bay, St. John [UMML 4944]; Greater Lameshur Bay, St. John [UMML 4945, 5320, 5322]; Salt Pond Bay, St. John [UMML 5321, 5323, 7806, 28479]; St. John [UMML 14332].

Dyer et al. (1985), digenetic trematodes, (3), Media Luna reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Beets (1989), obs., artificial reef, 26 m, St. Thomas.

Bortone et al. (1989), obs., El Palo reef, La Parguera.

Rasotto & Manni (1995), (12), quinaldine, Media Luna reef; San Cristobal reef, La Parguera.

yellowtail jawfish.

Opistognathus gilberti Böhlke, 1967

Thresher (1984: 130), photograph, Puerto Rico.

Dennis et al. (in prep), (1: 41.8 male), 55 m, shelf-edge reef, La Parguera, PLC, 28 Jan 78 [ANSP 134240]; (1: 53 male), 54 m, shelf-edge reef, Salinas de Ensenada, PLC, 28 Feb 78 [ANSP 138876].

yellow jawfish.

Opistognathus lonchurus Jordan & Gilbert, 1882

Dennis et al. (in prep), (1: 108 mm SL), sand near reef, 14 m, El Negro, Mayagüez [ANSP 142700 formerly UPRM 2521]; (1), trawl, off Punta Higuero, OREGON 2654 [FSBC 1564]; (1: 97.5 mm SL), 49 m, off baseball park, Rincón [ANSP 134237]; (1: 94 mm SL), 52 m, off baseball park, Rincón [ANSP 138362]; (1: 88 mm SL), off baseball park, Rincón [ANSP 138138]; (5), off baseball park, Rincón [ANSP 140955].

mustache jawfish.

Opistognathus macrognathus Poey, 1860

Randall (1967), food habits.

Randall (1968a: 168), Fig. 191, (1: 117 mm TL), Lameshur Bay, St. John [UMML 9097?].

Martin & Patus (1984), (2), 10 m, off Punta Ostiones.

Rasotto & Manni (1995), (11), quinaldine, Media Luna reef; San Cristobal reef, La Parguera.

Smith-Vaniz (1997), (2: 31-92), Laurel reef, La Parguera [ANSP 134244]; (1: 111), Ahogado reef, La Parguera [ANSP 134245]; (6: 44-86), Laurel reef, La Parguera [ANSP 134246, 141704, 142092]; (1: 66), La Parguera [UPRM 2628]; (3: 44-51), Great Salt Pond, St. John [UF 205155]; (2: 77-84), Lameshur Bay, St. John [UF 207400, 209097]; (1: 96), St. John [UPRM 1100].

banded jawfish.

Opistognathus maxillosus Poey, 1860

Erdman (1956: 336), (2), grassbed, Maunabo [USNM 147645]; (2: 60-62 mm SL), Balneario Aeropuerto, Guánica [UPRM 699]; (1: 87 mm SL), rotenone, rocky beach, Playa Jaboncillo, Guánica [UPRM 941]; Condado rocks.

Randall (1963a), (2: 48-60 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Martin & Patus (1973), (1), *Thalassia* bed, 1 m, Bahía Jobos.

Martin & Patus (1975), outfall, Bahía Jobos.
Weiler (1976), backreef, Laurel, La Parguera.
Rasotto et al. (1992), (6), Media Luna reef, La Parguera.
Rasotto (1993), (8: 20-45 mm SL), quinaldine, Media Luna reef, La Parguera.
Rasotto & Manni (1995), (15), quinaldine, Media Luna reef; San Cristobal reef, La Parguera.
Smith-Vaniz (1997), (2: 71-79), Laurel reef, La Parguera [ANSP 141705]; (1: 92), Bayamon [UF 58080]; (1: 93), Bayamon [UF 58091]; (1: 112), Condado Rocks, San Juan [UMMZ 172852]; (1: 125), Condado Rocks, San Juan [UMMZ 172861]; (2: 97-99), grassbed, Maunabo [USNM 147645]; (1: 31), Boca de Cangrejos, San Juan [USNM 216402]; (2: 27-91), Puerto Rico [UPRM 1101].

mottled jawfish.

Opistognathus whitehurstii (Longley, 1931)

Randall (1967), food habits.
Randall (1968a: 170), Fig. 193, (1: 51 mm TL), Puerto Rico.
Kimmel (1975), (2), rock outcrops, Punta Las Tunas.
Martin & Patus (1984), (2), *Thalassia* bed, Bahía Jobos.
Kimmel (1985b), obs., La Parguera.
Rasotto et al. (1992), (59), Media Luna reef, La Parguera.
Marconato & Rasotto (1993), collected, La Parguera.
Rasotto (1993), (50: 11-30 mm SL), quinaldine, Media Luna reef, La Parguera.
Rasotto & Manni (1995), (48), quinaldine, Media Luna reef; San Cristobal reef, La Parguera.
Smith-Vaniz (1997), (6: 34-52), Puerto Rico [UPRM 2582]; (1: 44), Puerto Rico [UPRM 3253]; (1: 37), Salt Pond Bay, St. John [UF 209026]; (1: 30), Scrub Island, BVI [ANSP 96926].

dusky jawfish.

DACTYLOSCOPIDAE

Dactyloscopus comptus Dawson, 1982

Dawson (1982b), (1: 39 mm SL), Fajardo [USNM 128832]; (1: 13 mm SL), Greater Salt Pond Bay, St. John [UMML 14317].

sand stargazer.

Dactyloscopus crossotus Starks, 1913

Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
Dunne & Brown (1979), collected, Anegada.
Dawson (1982b), (5: 29-35 mm SL), Puerto Rico [LACM 6721-4].

bigeye stargazer.

Dactyloscopus poeyi Gill, 1861

Dawson (1982b), (1: 32 mm SL), Guana Isl. [ANSP 144247].

sand stargazer.

Dactyloscopus tridigitatus Gill, 1859

Evermann & Marsh (1900: 304), (1: 76 mm TL), seine, Ensenada del Boquerón.
Fowler (1928), (1), Puerto Rico.

Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1974), (4), rock groin, rocky shore, Punta Higuero.
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), central bay, Bahía Jobos.
 Dunne & Brown (1979), collected, Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Dawson (1982b), (1: 49 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 115664]; (1: 60 mm SL), Boquerón, FISH HAWK [FMNH 3317]; (1: 41 mm SL), Puerto Rico [LACM 7797]; (1: 57 mm SL), Puerto Rico [LACM 7819]; (2: 31-33 mm SL), reef, 2 m, La Parguera [UMML 10325]; (1: 61 mm SL), Boca de Congrejos, San Juan [UMMZ 172688]; (13: 28-63 mm SL), north coast, Puerto Rico [USNM 221446] (20: 27- 63 mm SL), Guana Isl. [ANSP 107651]; (1: 37 mm SL), Guana Isl. [ANSP 108839]; (5: 30-53 mm SL), Guana Isl. [ANSP 108840]; (12: 25-57 mm SL), Guana Isl. [ANSP 108841]; (1: 61 mm SL), Virgin Islands [GCRL 1918]; (1: 28 mm SL), Greater Lameshur Bay, St. John [UF 205266]; (1: 38 mm SL), rotenone, Lesser Lameshur Bay, St. John [UF 233323]; (13: 25-66 mm SL), rotenone, Lesser Lameshur Bay, St. John [UF 233324]; (13: 22-56 mm SL) rotenone, Great Salt Pond Bay, St. John [UF 233325]; (1: 27 mm SL), Jack Bay, Anegada [BMNH 1976.7.15.174]; (27: 21-56 mm SL), Anegada [BMNH 1976.7.15.175-200].

sand stargazer.

Gillellus greyae Kanazawa, 1952

Dawson (1982b), (1: 32 mm SL), rotenone, seagrass, Lesser Lameshur Bay, St. John [UMML 33346].

arrow stargazer.

Gillellus uranidea Böhlke, 1968

Dammann (1969), (1), rotenone, Chocolate Hole, St. John.

Dawson (1982b), (1: 22 mm SL), rotenone, Puerto Rico [UF 24486]; (1: 21 mm SL), reef, 2 m, La Parguera [UMML 33341].

warteye stargazer.

Leurochilus acon Böhlke, 1968

Dunne & Brown (1979), collected, Anegada.

Dawson (1982b), (1: 20 mm SL), Anegada [BMNH 1976.7.15.201].

stargazer.

Myxodagnus belone Böhlke, 1968

Böhlke (1968), paratypes, (21: 40-52 mm SL), surf zone, Crashboat Basin, Aguadilla [UPRM 2575, USNM 202735, ANSP 111609]; (4: 48-53 mm SL), Crashboat Basin, Aguadilla [ANSP 111610].

Dawson (1982b), as above except, [ANSP 117414 (formerly UPRM 2575)], GCRL 16909 (formerly ANSP 117414).

dartfish.

Platygillellus rubrocinctus (Longley, 1934)

Erdman (1961a), as *Heteristius rubrocinctus*, Puerto Rico.

Martin & Patus (1974), as *Gillellus rubrocinctus*, rotenone, rocky shore, Punta Higuero.

Kimmel (1975), as *G. rubrocinctus*, (2), rock outcrops, Punta Las Tunas.

Yoshioka (1975a), as *G. rubrocinctus*, (5), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975d), as *G. rubrocinctus*, (4), rotenone, nearshore, Punta Manati.

Dunne & Brown (1979), as *G. rubrocinctus*, collected, Anegada.

Dawson (1982b), (1: 25 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 115589]; (1: 34 mm SL), reef, Puerto Yabucoa [ANSP 118482]; (2: 20-21 mm SL), 2 m, reef, La Parguera [UMML 10324]; (5: 22-34 mm SL), Guana Isl. [ANSP 110216]; (4: 38-42 mm SL), Anegada [BMNH 1976.7.15.173].

saddled stargazer.

CHAENOPSIDAE⁶⁰

Acanthemblemaria aspera (Longley, 1927)

Martin & Patus (1973), (1), reef, 5 m, Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Smith & Tyler (1975), as *A. chaplini*, (7), patch reef, Greater Lameshur Bay, St. John.

Dennis et al. (in prep), (1: 14 mm SL), quinaldine, 20 m, shelf edge reef, La Parguera [UPRM 3724]; (1: 15 mm SL), rotenone, 5 m, dead reef rock, Turrumote reef, La Parguera [UPRM uncat.]; (31: 12-20 mm SL), rotenone, shelf edge, La Parguera [UPRM uncat.]; (1: 18 mm SL), quinaldine, worm tube, shelf edge, La Parguera [UPRM uncat.]; (1: 14 mm SL), rotenone, live *Acropora palmata*, San Cristobal, La Parguera [UPRM uncat.]; (3: 19.8-21.6 mm SL), rotenone, 14 m, El Negro reef, Mayagüez, [ANSP 142943].

roughhead blenny.

Acanthemblemaria maria Böhlke, 1961

Dunne & Brown (1979), (4), collected, Anegada.

secretary blenny.

Acanthemblemaria spinosa Metzelaar, 1919

Böhlke (1961), (1: 21 mm SL), near shore, Bahía de Yegua [UMML 1775]; (1: 21 mm SL), Lesser Lameshur Bay, St. John [UMML 3769]; (10: 19-24 mm SL), Greater Lameshur Bay, St. John [UMML 4946]; (1: 19 mm SL), Kiddle Bay, St. John [UMML 5459]; (6: 21-24 mm SL), White Bay, Guana Island [ANSP 94321].

Smith & Tyler (1972), (1: 20 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), Bahía Jobos.

Fast (1974), (4: 17-19 mm SL), patch reef, Media Luna reef, La Parguera.

Martin & Patus (1974), dipnetted, rocky shore, Punta Higuero.

Smith-Vaniz & Palacio (1974), (4: 17-25 mm SL), Crashboat Basin, Aguadilla [LACM 6721-22, 6721-23]; (1: 22 mm SL), Scrub Island [ANSP 94321].

Martin & Patus (1975), reef & cays, Bahía Jobos.

Smith & Tyler (1975), (4), Greater Lameshur Bay, St. John.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Buchheim & Hixon (1992), obs., Saba Isl.; Flat Cay, St. Thomas.

Rasotto (1995), Puerto Rico [UPRM 3086].

spinyhead blenny.

⁶⁰According to George & Springer (1980) the family Clinidae is not present in the western Atlantic, thus species in this region have been separated into their former subfamilies which have been raised to family rank (but see Acero P., 1984).

Chaenopsis limbaughi Robins & Randall, 1965

Robins & Randall (1965), paratypes, (1: 46 mm SL), Firewood Bay, Culebra [UMML 17362]; (1: 40 mm SL), El Negro reef, Mayagüez [UMML 17361]; (1: 67 mm SL holotype, 3: 28-58 mm SL, paratypes), Ram's Head Bay, St. John [ANSP 101161, UMML 11240]; (2: 59-65 mm SL), Cruz Bay, St. John [UMML 2377]; (1: 70 mm SL), Caneel Bay, St. John [UMML 5624]; (15: 20-64 mm SL), Great Salt Pond Bay, St. John [UMML 5150]; (2: 45-46 mm SL), Salt Pond Bay, St. John [UMML 11242]; (3: 38-64 mm SL), Reef Bay, St. John [UPRM 1042].
 Randall (1968a: 245), (1: 74 mm TL), Fig. 278, St. John.
 Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.
 Kimmel (1985b), obs., La Parguera.

yellowface pikeblenny.

Chaenopsis ocellata Poey in Gill, 1865

Robins & Randall (1965), (1: 65 mm SL), Majemo reef, La Parguera [UPRM 1153]; (1), *Caranx bartholomaei* stomach, Reef Bay, St. John [UMML 14392].
 Dunne & Brown (1979), (1), collected, Anegada.
 Humann (1994: 285), photograph, Puerto Rico.

bluethroat pikeblenny.

Coralliozetus cardonae Evermann & Marsh, 1899⁶¹

Evermann & Marsh (1899: 362), (1: 25 mm TL holotype, 2 paratypes), coral reefs, Cardona lighthouse, Ponce [USNM 49377, 50222, 125968].
 Evermann & Marsh (1900: 317), Fig. 103.
 Martin & Patus (1973), (2), grass beds, Bahía Jobos.
 Martin & Patus (1974), dipnetted, rocky shore, Punta Higuero.
 Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.

twinhorn blenny.

Emblemaria pandionis Evermann & Marsh, 1900

Evermann & Marsh (1900: 318), Fig. 104, (1: 38 mm TL holotype), tangle, 20 m, Vieques [USNM 49535]; (1: 38 mm TL paratype), dredge, 20 m, Vieques [USNM 125972].
 Stephens (1970), (13), Great Salt Pond, [UMML 5154]; (1), Salt Pond Bay [UMML 9151]; (2), Salt Pond Bay, [UMML 6698]; (10), between Salt Pond and Ram's Head Bay [UMML 14337]; St. John.
 Smith & Tyler (1975), (2), patch reef, Greater Lameshur Bay, St. John.
 Martin & Patus (1984), (1), rotenone, algal plain, 20 m, off Puerto Real.
 Kimmel (1985b), obs., La Parguera.
 Humann (1994: 266), photograph, Culebra.
 UPRM collection, (3), Bahía de Guánica [UPRM 3682]; (2), Punta Corcobado, Guánica [UPRM 3683].

sailfin blenny.

Emblemaria piratula Ginsburg & Reid in Ginsburg, 1942

Dennis et al. (in prep), (2: 15-18 mm SL), rotenone, 19.8 m, moat at shelf-edge reef, La Parguera [UPRM 3742]; (1: 17.5 mm SL), rotenone, 10.7 m, coral rubble, point at east end of great Salt Pond Bay, St. John [UF 208311]; (2: 16.5-17 mm SL), rotenone, 12.2 m, off Yawzi Point, St. John [UF 214975]; (5), 21 m, shelf-edge reef, La Parguera [ANSP 136248].

⁶¹Böhlke (1957b), synonymized *Coralliozetus* with *Emblemaria*, but Stephens (1961), resurrected *Coralliozetus* as a valid genus.

pirate blenny.

Emblemariopsis bottomei Stephens, 1961

Humann (1994: 269), as *Coralliozetus bahamensis*, Culebra.

Dennis et al. (in prep), (2: 19-21 mm SL), rotenone, 3.7 m, dead *A. palmata* frond, Turrumote, La Parguera [UPRM uncat.]; (1: 21.2 mm SL), rotenone, 3.7 m, live *A. palmata* branch, Turrumote, La Parguera [UPRM 3745]; (6: 19.4-22.8 mm SL), quinaldine, 3 m, Laurel reef, La Parguera [UPRM uncat.].

blackhead blenny.

Emblemariopsis leptocirrus Stephens, 1970

Stephens (1970: 289), Fig. 6, (1: 21 mm SL holotype), El Negro reef, Mayagüez [USNM 203819]; (2: 18-21 mm SL paratypes), St. John [UPRM 1640].

Smith & Tyler (1972), (1: 20 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Yoshioka (1975c), (1), rocky shore, Cabo Mala Pascua.

UPRM collection, (1: 16 mm SL), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM 3661]; (1: 31 mm SL), rotenone, 20 m, shelf-edge reef, La Parguera [UPRM 3747].

smallhorn blenny.

Emblemariopsis occidentalis Stephens, 1970

Dennis et al. (in prep), (1: 11.9 mm SL), quinaldine, 19.8 m, shelf-edge reef, La Parguera [UPRM uncat.].

blackfin blenny

Emblemariopsis signifera (Ginsburg, 1942)

Smith & Tyler (1972), as *Pseudemblemaria signifera*, (5: 14-17 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), (16), patch reef, Greater Lameshur Bay, St. John.

UPRM collection, (1: 16 mm SL), rotenone, shelf-edge reef, La Parguera [UPRM 3744].

UMML collection, (1: 15 mm SL), rotenone, Yawzi Point, Lameshur Bay, St. John [UMML 12234].

flagfin blenny.

Lucayablennius zingaro (Böhlke, 1957)

Dennis et al. (in prep), (1: 25 mm SL), rotenone, 54.9 m, shelf-edge reef, La Parguera [UPRM 2314]; (1), quinaldine, 9.2 m, Mario reef, La Parguera [UPRM 3287]; (2: 20.5-22.0 mm SL), rotenone, *Lutjanus chrysurus* stomach, El Negro reef, Mayagüez [ANSP 144655].

arrow blenny.

Stathmonotus gymnodermis Springer, 1955

Springer (1955b), (1: 27 mm SL holotype), San Geronimo, San Juan [USNM 117436]; paratypes, (1: 22 mm SL), same locality as holotype [USNM 163419]; (2: 19-22 mm SL), St. Thomas [USNM 163325].

Martin & Patus (1984), as *Stathmonotus hemphilli*, (1: 11.9 mm SL), beach, E of Mar Chiquita [USNM 219091]; (1: 11.2 mm SL), tidepool, Punta Chivato [USNM 219142].

Hastings & Springer (1994), (1 holotype), San Juan [USNM 117436]; (2), St. Thomas [USNM 163324].

naked blenny.

Stathmonotus hemphilli Bean, 1885

Yoshioka (1975a), (1), rotenone, shoreline, Bahía Tortuguero.

Dennis et al. (in prep), (1), causeway, San Geronimo and Condado Rocks, San Juan [UMMZ 171165].

blackbelly blenny.

Stathmonotus stahli (Evermann & Marsh, 1899)

Evermann & Marsh (1899: 359), as *Auchenistius stahli*, (1: 30 mm TL holotype), Ponce [USNM 49372]; (13), coral, Culebra [USNM 126078]; (5), Puerto Real.

Evermann & Marsh (1900: 316), as *Auchenistius stahli*, Fig. 102.

Fowler (1928), as *Auchenistius stahli*, (5), Puerto Rico.

Springer (1955b), subspecies *S. stahli stahli*, (1), Cabo Rojo [USNM 128815].

Randall (1968a: 242), Fig. 275, (1: 33 mm TL), Puerto Rico.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Hastings & Springer (1994), (1 holotype), Ponce [USNM 49371]; (3), Puerto Real [USNM 50163]; (7), Culebra [USNM 126078]; (1), Cabo Rojo [UF13358; USNM 128815]; (1), La Parguera [USNM 205219]; (2), St. Thomas [USNM 117440].

seagrass blenny.

LABRISOMIDAE⁶⁰

Labrisomus bucciferus (Poey, 1868)

Springer (1959a), (9), rocks, Condado, San Juan [UMMZ 171188, 171200, 171205; 171229, 171237]; (1), across from capital, San Juan [UMMZ 171212]; (1), coal dock, Charlotte Amalie, St. Thomas [USNM 114754].

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.

Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.

Kimmel (1975), (17), rock outcrops, Punta Las Tunas.

Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

Yoshioka (1975b), (1), shoreline, Punta Ostiones.

Yoshioka (1975d), (32), rotenone, nearshore, Punta Manati.

Yoshioka (1975f), (1), seine, Punta Verraco.

Dunne & Brown (1979), (1), collected, Anegada.

Martin & Cooper (1981), *Thalassia* beds, La Parguera.

Rasotto (1995), Puerto Rico [UPRM 3124; 3127; 3196].

puffcheek blenny.

Labrisomus gobio (Valenciennes in Cuvier & Valenciennes, 1836)

Springer (1959b), St. John [UMML uncat.].

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.

Dunne & Brown (1979), (21), collected, Anegada.

UMML collection, (7), rotenone, <5 m, Lesser Lameshur Bay, St. John [UMML 3756].

palehead blenny.

Labrisomus guppyi (Norman, 1922)

Springer (1959a), (5), Guana Isl. [ANSP 74680].

Randall (1963a), (15: 80-129 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1967), (6: 56-75 mm SL), food habits.
Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1974), (4), rotenone, beach, rock groin, rocky shore, Punta Higuero.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975c), (7), rocky shore, Cabo Mala Pascua.
Yoshioka (1975d), (27), rotenone, nearshore, Punta Manati.
Dunne & Brown (1979), (3), collected, Anegada.

mimic blenny.

Labrisomus haitiensis Beebe & Tee-Van, 1928

Springer (1959b), St. John [UMML uncat.].
Dammann (1969), (3: 54-57 mm TL), rotenone, Chocolate Hole, St. John.
Smith & Tyler (1972), (10: 31-38 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), (10), Greater Lameshur Bay, St. John.
Yoshioka (1975c), (1), rocky shore, Cabo Mala Pascua.
Dunne & Brown (1979), (4), collected, Anegada.
Rasotto (1995), Puerto Rico [UPRM 2772; 3128; 3130].

longfin blenny.

Labrisomus kalisherae (Jordan, 1904)

Randall (1967: 787), (1: 62 mm SL), food habits.

downy blenny.

Labrisomus nigrinotus Howell Rivero, 1936

Yoshioka (1975a), (2), rotenone, shoreline, Bahía Tortuguero.
Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
UPRM collection, (1: 33 mm SL), Bahía Jobos [UPRM 3090]; (11: 36-44 mm SL), reef front, 3 m, Cayos de Barca, Bahía Jobos [UPRM uncat.]; (2: 42-44 mm SL), rotenone, 5 m, fore reef, Turrumote reef, La Parguera [UPRM uncat.].

spotcheek blenny.

Labrisomus nuchipinnis (Quoy & Gaimard, 1824)

Evermann & Marsh (1900: 311), Pl. 46, common in Puerto Rico; collected, San Antonio Bridge; Fajardo; Isabel Segunda; Culebra; Arroyo; Ponce; Mayagüez; Palo Seco.
Fowler (1928), (1), Puerto Rico.
Fowler (1948), (2: 54-72 mm TL), San Juan.
Erdman (1956: 321), spawning condition, October.
Springer (1959a), (2), Palo Seco [USNM 50197]; (1), San Geronimo, San Juan [USNM 117438]; (4), Mayagüez [USNM 63046, 126187]; Puerto Real, FISH HAWK [AMNH 2074]; Mayagüez, FISH HAWK [ANSP 23611]; (1), Fajardo, FISH HAWK [SU 8247]; (2), tide pools, San Juan [UMMZ 160623]; (1), tide pools, Condado, San Juan [UMMZ 171164]; rocks, Condado, San Juan [UMMZ 171208]; (4), across from capital, San Juan [UMMZ 171213, 171215]; (2), lagoon, Condado, San Juan [UMMZ 171220]; (1), night light, Gata Isl., Ponce [UMMZ 171242]; (1), Playa de Vega Baja [UMMZ 171149].
Randall (1963a), (3: 80-129 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), (22: 59-131 mm SL), food habits.
 Dammann (1969), (6: 66-77 mm TL), rotenone, Chocolate Hole, St. John.
 Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Cooper (1974), rotenone, (15), *Thalassia* bed; (2), *Syringodium* bed, La Parguera.
 Martin & Patus (1974), (1), rotenone, rock groin, rocky shore, Punta Higuero.
 Kimmel (1975), (17), rock outcrops; (7), algal mat; Punta Las Tunas.
 Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
 Yoshioka (1975a), (6), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975c), (1), seagrass bed, Cabo Mala Pascua.
 Yoshioka (1975d), (112), rotenone, nearshore, Punta Manati.
 Yoshioka (1975e), collected, rotenone, rocky shore, Punta Higuero.
 Yoshioka (1975f), (1), seine, Punta Verraco.
 Dunne & Brown (1979), (2), collected, Anegada.
 Martin & Cooper (1981), seagrass beds, La Parguera.
 Martin & Patus (1984), as *Labrisomus kalisherae*, (3), Puerto Real, FISH HAWK [USNM 73834].
 Boulon (1992), collected, trap, mangroves, St. Thomas.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Rasotto (1995), Puerto Rico [UPRM 3031; 3037].

hairy blenny.

Malacoctenus aurolineatus Smith, 1957

Smith (1957), Pl 1., Fig. 1, (1: 35 mm SL holotype), Laguna Condado, San Juan [UMMZ 171179]; paratypes (8: 12-32 mm SL), Laguna Condado, San Juan [UMMZ 171162, 171163, 171190; (2: 12-24 mm SL), shore, San Juan Island, San Juan [UMMZ 171214].
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Martin & Patus (1973), Bahía Jobos.
 Kimmel (1975), (2), rock outcrops, Punta Las Tunas.
 Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
 Yoshioka (1975a), (1), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
 UMML collection (5), rotenone, <5 m, Lesser Lameshur Bay, St. John [UMML 3785].

goldline blenny.

Malacoctenus boehlkei Springer, 1959

Springer (1959b), (4), rotenone, Yawzi Point, Greater Lameshur Bay, St. John [UMML 4918].
 Smith & Tyler (1975), (3), patch reef, Greater Lameshur Bay, St. John.
 UPRM collection, (2: 40-41 mm SL), rotenone, Media Luna reef, La Parguera [UPRM 3187].

diamond blenny.

Malacoctenus delalandi (Valenciennes in Cuvier & Valenciennes, 1836)

Evermann & Marsh (1900: 310), (3: 44 mm TL), Hucares; Ponce.
 Springer (1959a), (1), Hucares [USNM 126125]; (1), Ponce [USNM 50179].
 Martin & Patus (1973), Bahía Guayanilla, Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Yoshioka (1975f), (1), rotenone, Punta Verraco.

Delalande's blenny.

Malacoctenus erdmani Smith, 1957

Smith (1957), Pl. 1, Fig. 2, (1: 26 mm SL holotype), Laguna Condado, San Juan [UMMZ 171175]; paratypes (15: 14-25 mm SL), Laguna Condado, San Juan; (2: 14-21 mm SL) [UMMZ 171176, 171157, 171173, 171183, 171187, 171192, 171204, 171207, 171217, 171226, 171231]; shoreline, San Juan Island, San Juan [UMMZ 171211].

Martin & Patus (1973), Bahía Jobos.

Kimmel (1975), (2), rock outcrops, Punta Las Tunas.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Wood et al. (1975), collected, inner bay, Bahía Guayanilla.

Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.

Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.

imitator blenny.

Malacoctenus gilli (Steindachner, 1867)

Evermann & Marsh (1899: 358), as *M. puertoricensis*, (1: 64 mm TL type), Hucares [USNM 49371]; cotypes, (3), Fajardo; (3), Culebra.

Evermann & Marsh (1900: 309), as *M. puertoricensis*, Fig. 98.

Fowler (1928), as *M. puertoricensis*, (2), Puerto Rico.

Springer (1959a), (4), Ponce [USNM 50180]; (1), Hucares [USNM 49371 type]; Ensenada Honda, Culebra [USNM 125974]; (1), Fajardo [USNM 128802]; (1), Luquillo [USNM 147634]; Fajardo, FISH HAWK [SU 8656]; (38), rocks, Condado, San Juan [UMMZ 171161, 171170, 171174, 171178, 171182, 171186, 171203, 171209, 171227-28]; (2), causeway Condado, San Juan [171166, 171191]; (19), lagoon, Condado, San Juan [UMMZ 171210, 171221, 171230, 171234, 171236]; (2), lagoon, Caribe Hilton, Condado, San Juan [UMMZ 171216]; (5), pool, San Geronimo, Condado, San Juan [UMMZ 171222-23].

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Cooper (1974), (8), rotenone, *Thalassia* bed, La Parguera.

Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.

Yoshioka (1975d), (2), rotenone, nearshore, Punta Manati.

Yoshioka (1975f), (9), rotenone, Punta Verraco.

Dunne & Brown (1979), (3), collected, Anegada.

Martin & Cooper (1981), *Thalassia* bed, La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

dusky blenny.

Malacoctenus macropus (Poey, 1868)

Evermann & Marsh (1899: 358), as *M. moorei*, (1: 36 mm TL type), Culebra [USNM 49370].

Evermann & Marsh (1900: 309), as *M. moorei*, Fig. 97.

Nichols (1930: 375), as *Acteis moorei*, new genus.

Springer (1959a), (1), Culebra [USNM 49370 type]; (1), Fajardo [USNM 128792]; (1), Culebra, FISH HAWK [SU 8151]; (6), Isla de Ramos [UMMZ 171195]; (1), rocks, Condado, San Juan [UMMZ 171201] (1), lagoon, Condado, San Juan [UMMZ 171232]; (1), St. Thomas [USNM 78160]; (1), Guana Isl. [ANSP 74502]; (1), St. Thomas [MCZ 12632].

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.

Yoshioka (1975a), (48), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975b), (4), shoreline, Punta Ostiones.

Dunne & Brown (1979), (1), collected, Anegada.

Kimmel (1985b), obs., La Parguera.

McGehee (1991), obs., La Parguera.

Boulon (1992), obs., mangroves, St. John.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 McGehee (1994), obs., La Parguera.
 Rasotto (1995), (18), quinaldine, La Conserva reef, La Parguera.

rose blenny.

Malacoctenus triangulatus Springer, 1959

Springer (1959a), (5 paratypes), rocks, Condado, San Juan [UMMZ 171181, 171225]; (2), causeway, Condado, San Juan [UMMZ 171193]; (1), Punta San Diego, Fajardo [USNM 128794].
 Springer (1959b), (1), St. John [UMML uncat].
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Randall (1968a: 240), Fig. 272, (1: 53 mm TL), St. John.
 Dammann (1969), (11: 35-66 mm TL), rotenone, Chocolate Hole, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Springer & Gomon (1974), (1), reef, Puerto Yabucoa [ANSP 118488]; (1), Puerto Rico [LACM 6721-15]; (5), St. Thomas [LACM 7789].
 Kimmel (1975), (1), algal mat, Punta Las Tunas.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975a), (7), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), (5), rotenone, nearshore, Punta Manati.
 Kimmel (1985b), obs. La Parguera.
 McGehee (1991), obs., La Parguera.
 Boulon (1992), obs., mangroves, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 McGehee (1994), obs., La Parguera.
 Rasotto (1995), (17), quinaldine, La Conserva reef, La Parguera.

saddled blenny.

Malacoctenus versicolor (Poey, 1876)

Springer (1959a), (1), San Geronimo, San Juan [USNM 117435]; (1), tide pool, San Juan [UMMZ 171151].
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Martin & Patus (1974), (1), rotenone, rock groin, Punta Higuero.
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
 Yoshioka (1975a), (7), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.
 Dunne & Brown (1979), collected, Anegada.
 Rasotto (1995), Puerto Rico [UPRM 1631; 3148].

barfin blenny.

Nematoclinus atelestos Böhlke & Springer, 1975

Böhlke & Springer (1975), (1: 22 mm SL), trawl, 48 m, SE of St. Thomas, OREGON 2618 [FMNH 64814].

blenny.

Paraclinus barbatus Springer, 1955 *Paraclinus barbatus* Springer, 1955

Springer (1955a), (1: 28.3 mm SL holotype), St. Thomas [ZMUC P76230].
 Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.

goatee blenny.

Paraclinus cingulatus (Evermann & Marsh, 1899)

Evermann & Marsh (1899: 361), as *Auchenopterus cingulatus*, (1: 21 mm TL holotype), coral reef, Ponce [USNM 49375]; paratypes, (3), Ponce; (1), Puerto Real [USNM 50165, 125928].

Evermann & Marsh (1900: 315), as *Auchenopterus cingulatus*, Fig. 101.

Nichols (1930: 379), as *Tekla cingulata*, new genus.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975d), (18), rotenone, nearshore, Punta Manati.

Dunne & Brown (1979), obs., Anegada.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

coral blenny.

Paraclinus fasciatus (Steindachner, 1876)

Springer (1955a), (2), St. Thomas [USNM 38772, ZMUC 44].

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1974), (1), rotenone, rocky shore, Punta Higuero.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975a), (4), rotenone, shoreline, Bahía Tortuguero.

Yoshioka (1975d), (2), rotenone, nearshore, Punta Manati.

Dunne & Brown (1979), (4), rotenone, Anegada.

banded blenny.

Paraclinus grandicomis (Rosén, 1911)

Kimmel (1975), (2), algal mat, Punta Las Tunas.

horned blenny.

Paraclinus nigripinnis (Steindachner, 1867)

Evermann & Marsh (1899: 360), as *Auchenopterus albicaudus*, (1: 38 mm TL type), Arroyo [USNM 49373]; as *Auchenopterus rubescens*, (1: 33 mm TL type), Puerto Real [USNM 49374]; as *Auchenopterus fajardo*, (1: 41 mm TL), Fajardo [USNM 49376].

Evermann & Marsh (1900: 316), as *Auchenopterus fasciatus*, (1: 32 mm TL), Hucares [USNM 126077]; (p. 313) as *Auchenopterus albicaudus*, Fig. 99; as *Auchenopterus fajardo*, Pl. 47; (p. 314), as *Auchenopterus rubescens*, Fig. 100.

Nichols (1930: 380), as *Tekla fasciata*, new genus.

Springer (1955a), (1), Maunabo [USNM 147649]; (1), Cabo Rojo [USNM 128812]; (3), coal dock, Charlotte Amalie, St. Thomas [USNM 117421].

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.

Kimmel (1975), (2), rock outcrops, Punta Las Tunas.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

Yoshioka (1975d), (10), rotenone, nearshore, Punta Manati.

Yoshioka (1975e), rotenone, rocky shore, Punta Higuero.

Yoshioka (1975f), (1), rotenone, (2), seine, Punta Verraco.

Martin & Cooper (1981), *Thalassia* beds, La Parguera.

Rasotto (1995), Puerto Rico [UPRM 3156].

blackfin blenny.

Starksia atlantica Longley, 1934

Dennis et al. (in prep), (1: 12.3 mm SL), rotenone, 10 m, Horseshoe reef, Anegada [UPRM 3161].

smootheye blenny.

Starksia culebrae (Evermann & Marsh, 1899)

Evermann & Marsh (1899: 357), as *Malacoctenus culebrae*, (1: 35 mm TL holotype), coral reef, Culebra [USNM 49369]; (3 paratype), same location [USNM 50207, 125973].

Evermann & Marsh (1900: 308), as *Malacoctenus culebrae*, Fig. 96.

Fowler (1928), as *Malacoctenus culebrae*, (1), Puerto Rico.

Nichols (1930: 374), as *Brannerella culebrae*, new genus.

Böhlke & Springer (1961), as *Starksia ocellata*, (4: 19-25 mm SL), Greater Lameshur Bay, St. John [UMML 7828].

Greenfield (1979), resurrected *S. culebrae*, from synonymy with *S. ocellata*.

Antillean checkered blenny.

Starksia fasciata (Longley, 1934)

Dennis et al. (in prep), (5: 10.0-18.0 mm SL), rotenone, 4.6 m, forereef, Turrumote, La Parguera [UPRM uncat]; (2), rotenone, 4.6 m, forereef, El Palo, La Parguera [UPRM uncat.].

blackbar blenny.

Starksia hassi Klausewitz, 1958

Böhlke & Springer (1961), (1: 25 mm SL), trawl, 40 m, Punta Borinquen, OREGON 2659 [ANSP 94142]; Fig. 3, (3: 28 mm SL), trawl, 70 m, N of St. John, OREGON 2624 [FMNH 64815].

Smith & Tyler (1972), (2: 20 mm SL), rotenone, 12 m, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), obs., Greater Lameshur Bay, St. John.

pale-banded blenny.

Starksia lepicoelia Böhlke & Springer, 1961

Böhlke & Springer (1961), (4: 19-25 mm SL paratypes), Greater Lameshur Bay, St. John [UMML 4906].

Dammann (1969), (2: 29-31 mm TL), rotenone, Chocolate Hole, St. John.

Smith & Tyler (1972), (4: 20-22 mm SL), rotenone, 12 m, Greater Lameshur Bay, St. John.

Kimmel (1975), (2), rock outcrops, Punta Las Tunas.

Smith & Tyler (1975), (1), Greater Lameshur Bay, St. John.

UPRM collection, (1: 24 mm SL), rotenone, 15 m, shelf-edge reef, La Parguera [UPRM 2332]; (2: 19-24 mm SL), rotenone, 10 m, Horseshoe reef, Anegada [UPRM 3160].

blackcheek blenny.

Starksia nanodes Böhlke & Springer, 1961

Böhlke & Springer (1961), (1: 13 mm SL paratype), Greater Lameshur Bay, St. John [UMML 8310].

Dennis et al. (in prep), (7: 8.2-15.0 mm SL), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM uncat.]; (1: 16.1 mm SL), rotenone, 15.2 m, El Negro reef, Mayagüez [UPRM 1671]; (3: 16.5-18.5 mm SL), rotenone, 13.7 m, El Negro reef, Mayagüez, PR [UPRM 2394].

dwarf blenny.

Starksia slutieri (Metzelaar, 1919)

Martin & Patus (1984), (1), Bahía Jobos [USNM 219143].

Dennis et al. (in prep), (1: 19.8), back reef flats, Cayo de Barca, Bahía Jobos, PR, A. Szmant, 31 Oct 73 [USNM 219143]; (1: 24), rotenone, 21 m, shelf-edge reef, La Parguera, PR, [UPRM 2270].

brokenbar blenny.

TRIPTERYGIIDAE

Enneanectes altivelis Rosenblatt, 1960

Smith & Tyler (1972), (2: 20-23 mm SL), rotenone, 12 m, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), (3), patch reef, Greater Lameshur Bay, St. John.

UPRM collection, (1: 22 mm SL), rotenone, 5 m, Lameshur Bay, St. John [UPRM 1653]; (1: 20 mm SL), rotenone, 15 m, El Negro reef, Mayagüez [UPRM 1661]; (1: 22 mm SL), rotenone, 20 m, shelf edge, La Parguera [UPRM 1666]; (3: 14 mm SL), rotenone, shelf-edge reef, La Parguera [UPRM 3664].

lofty triplefin.

Enneanectes atrorus Rosenblatt, 1960

Dunne & Brown (1979), (13), collected, Anegada.

Dennis et al. (in prep), (1: 22 mm SL), rotenone, 18 m, Guánica [UPRM 2289]; (2: 22-24 mm SL), rotenone, 21 m, shelf edge, La Parguera [UPRM 2336]; (1: 14 mm SL), rotenone, 21 m, shelf edge, La Parguera [UPRM 3663]; (1: 24 mm SL), El Negro reef, Mayagüez [UPRM 1660]; (1: 24 mm SL), rotenone, 18 m, Lameshur Bay, St. John [UF 214915].

blackedge triplefin.

Enneanectes boehlkei Rosenblatt, 1960

Rosenblatt (1960), (2: 21-24 mm SL), Guana Island (BVI) [ANSP 74449].

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975d), (9), rotenone, nearshore, Punta Manati.

Rasotto (1995), Puerto Rico [UPRM 3665; 3667].

UPRM collection (1: 42 mm SL), rotenone, 12 m, Eagle Shoal, St. John [UPRM 1656 missing]; (1: 23 mm SL), rotenone, Cabo Rojo [UPRM 2288].

roughhead triplefin.

Enneanectes jordani (Evermann & Marsh, 1899)

Evermann & Marsh (1899: 357), as *Gillias jordani*, (1: 23 mm SL holotype), Cardona Lighthouse reef, Ponce [USNM 49368]; (1: 23 mm SL paratype), same locality as type [USNM 126096].

Evermann & Marsh (1900: 307), as *Gillias jordani*, Fig. 95.

Fowler (1928), as *Gillias jordani*, (1), Puerto Rico.

mimic triplefin.

Enneanectes pectoralis (Fowler, 1941)

Rosenblatt (1960), (1: 21 mm SL), St. Thomas [USNM 78149].

Randall (1968a: 243), Fig. 276, (1: 30 mm TL), Puerto Rico.

Dunne & Brown (1979), (29), collected, Anegada.

Rasotto (1995), Puerto Rico [UPRM 2247; 3668].

redeye triplefin.

BLENNIIDAE*Entomacrodus nigricans* Gill, 1859

- Nichols (1915b: 146), as *Salariichthys textilis*, abundant, shallow pools, Condado rocks, San Juan.
- Randall (1963a), as *E. textilis*, (25: 32-51 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (92: 13-48 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
- Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
- Randall (1967), food habits.
- Springer (1967), (1), Bahía Yegua [UMML 1776]; (2: 25-36 mm SL), El Combate, Cabo Rojo [UPRM 130]; (5: 14-40 mm SL), rocky shore, lighthouse, Rincón [UPRM 724]; (9: 17-47 mm SL), rocky tidal pools, Río Guajataca mouth [UPRM 842]; (1), Puerto Rico [USNM 117410]; (1), Mary's Creek, St. John [UMML 2471]; (2), Greater Lameshur Bay [UMML 6223]; (14), 5 m, Lesser Lameshur Bay [UMML 3735]; (4), Europa Bay, St. John [UMML 5457].
- Randall (1968a: 237), Fig. 269, (1: 61 mm TL), Puerto Rico.
- Martin & Patus (1973), Bahía Jobos.
- Martin & Patus (1974), (20), rotenone, tide pools, rocky shore, beach, Punta Higuero.
- Martin & Patus (1975), reef & cays, Bahía Jobos.
- Yoshioka (1975a), (63), rotenone, shoreline, Bahía Tortuguero.
- Yoshioka (1975c), (10), rocky shore, Cabo Mala Pascua.
- Yoshioka (1975d), (39), rotenone, nearshore, Punta Manati.
- Yoshioka (1975f), (5), rotenone, Punta Verraco.
- Kimmel (1985b), obs., La Parguera.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

pearl blenny.

Hypleurochilus pseudoaequipinnis Bath, 1994

- Erdman (1961a), as *H. bermudensis*, Puerto Rico.
- Randall (1966a), as *H. aequipinnis*, (1: 43 mm SL), Mayagüez [USNM 120341]; (2: 27-34 mm SL), dock, Isla Grande, San Juan [UPRM 2303]; (3: 22-42 mm SL), dock, 2 m, Isla Magueyes, La Parguera; (3: 25-40 mm SL), mangrove roots, 1 m, Bahía Montalvo, La Parguera [MNHN 1965-292].
- Saunders (1966a), as *H. aequipinnis*, blood parasites, Puerto Rico.
- Erdman (1967a), as *H. aequipinnis*, egg brooding, oyster shells on mangrove roots, December to January, La Parguera.
- Martin & Patus (1973), as *H. aequipinnis*, Bahía Guayanilla; Bahía Jobos.
- Martin & Patus (1975), as *H. aequipinnis*, reef & cays, Bahía Jobos.
- Wood et al. (1975), as *H. aequipinnis*, collected, inner bay, thermal cove, Bahía Guayanilla.
- Yoshioka (1975f), as *H. aequipinnis*, (1), seine, Punta Verraco.
- Erdman (1976), as *H. aequipinnis*, eggs and embryos.
- Bath (1994), (3), mangrove islet, Bahía Montalva, La Parguera [MNHN 1965-292]; (4), French Bay, St. Thomas [USNM 78159].

oyster blenny.

Hypleurochilus springeri Randall, 1966

- Randall (1966a), (1: 48 mm SL holotype), rotenone, rocky shore, Cabo Rojo Lighthouse [USNM 257884]; paratypes, (1: 34 mm SL), coral reef, Bahía de Yegua [UMML 1758]; (1: 20 mm SL), coral reef, 1 m, Punta Arenas, Mayagüez [UPRM 2370]; (1: 29 mm SL), Greater Lameshur Bay, St. John [LACM 7507]; (2: 24-27 mm SL), White Bay, Guana Island (BVI) [ANSP 93077].

Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), ship channel, Bahía Jobos.
Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
Martin & Patus (1984), (1), grassbed with *Porites* rubble, Cayos de Barca, Bahía Jobos [USNM 219141].

orangespotted blenny.

Hypsoblennius exstochilus Böhlke, 1959

Dennis et al. (in prep), (1: 42), Puerto Rico [ANSP 144649].

longhorn blenny.

Lupinoblennius vinctus (Poey, 1867)⁶²

Corujo Flores (1980), as *L. dispar*, (21: 9-24 mm SL), estuary, Río Espiritu Santo.
Martin & Patus (1984), as *L. dispar*, (1), ectoproct mass on mangrove root, Bahía Guayanilla [USNM 219135]; (1), *Thalassia* bed near mangroves, Bahía Guayanilla [USNM 219139].
Wood et al. (1975), as *Blennius nicholsi*, collected, inner bay, Bahía Guayanilla.
Dennis et al. (in prep), (2: 15.2-19.3), back reef flats with turtlegrass, Cayo Puerco, Bahía Jobos [USNM 219135]; (1: 18.2 mm SL), hand, mangrove roots, Bahía Guayanilla [ANSP 137867]; (5: 13.5-27.1 mm SL), on ectoprocts, mangroves, thermal cove, Bahía Guayanilla [ANSP 137868]; (1: 21.2 mm SL), mangrove roots, Río Yaucó, Bahía Guayanilla [ANSP 138564]; (1: 22.5 mm SL), Bahía Guayanilla [USNM 219139]; (1: 24 mm SL), prop roots, mangroves, thermal cove, Bahía Guayanilla [UPRM 3734]; (1: 19.9 mm SL), Cayo Mata, Bahía Guayanilla [UPRM 3735]; (7: 15.9-25.0 mm SL), prop roots, mangrove, Cayo Mata, Bahía Guayanilla [UPRM 3737]; (1), mangroves, Bahía Montalva, La Parguera [UMMZ 172539]; (1), Magueyes dock, La Parguera [UMMZ 172538]; (2: 17.7-20.5), prop roots, shoreline mangroves, La Parguera [UPRM 3732]; (5: 16.1-25.2 mm SL), prop roots, mangrove, Punta Ostiones [UPRM 3736].

mangrove blenny.

Ophioblennius atlanticus (Valenciennes in Cuvier & Valenciennes, 1836)

Silvester (1916: 217), as *Rupiscartes macclurei*, (1: 55 mm SL holotype), dead coral, Guánica Harbor [PUZM 3081]; (1: 50 mm SL paratype), same locality as holotype.
Silvester (1918: 24), as *Alticus macclurei*, Pl. 3 Fig. 2.
Springer (1962), as subspecies *O. atlanticus macclurei*, type specimens discarded; (1: 41 mm SL), Cruz Bay, St. John [UMML 2399]; (24: 43-75 mm SL), Greater Lameshur Bay, St. John [UMML 3746].
Randall (1963a), obs., artificial reef, Lesser Lameshur Bay; (96: 46-78 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (194: 34-72 mm SL), fringing reef, Ram's Head Bay, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Dammann (1969), (6: 61-80 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), obs., artificial reef; patch reef, Media Luna reef, La Parguera.
Martin & Patus (1974), rotenone, rocky shore, Punta Higuero.
Kimmel (1975), (2), algal mat, Punta Tunas.
Yoshioka (1975b), fringing reef, Punta Ostiones.
Dunne & Brown (1979), (2), collected, Anegada.
Kimmel (1985b), obs., La Parguera.

⁶²Bath (1996) synonymized *Lupinoblennius dispar* Herre, 1942 with *Blennius vinctus* Poey, 1867 and retained the genus *Lupinoblennius*.

McGehee (1989), collected, La Parguera.
 McGehee (1991), obs., La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 McGehee (1994), obs., La Parguera.

redlip blenny.

Parablennius marmoreus (Poey, 1876)⁶³

Randall (1967), as *Blennius marmoreus*, food habits.
 Smith & Tyler (1975), as *B. marmoreus*, (1), patch reef, Greater Lameshur Bay, St. John.
 Yoshioka (1975d), as *B. marmoreus*, (2), rotenone, nearshore, Punta Manati.
 Yoshioka (1975e), as *B. marmoreus*, rotenone, rocky shore, Punta Higuero.
 Humann (1994: 279), photograph, Culebra.
 UPRM collection, (1: 14 mm SL), rotenone, 5 m, Turrumote reef, La Parguera [UPRM 3708]; (1: 34 mm SL), rotenone, 12 m, Cabritte Horn Point, Lameshur Bay, St. John [UPRM 1152].

seaweed blenny.

Scartella cristata (Linnaeus, 1758)⁶⁴

Nichols (1915b: 146), as *Blennius cristatus*, Condado rocks, San Juan.
 Randall (1963a), (7: 29-63 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (17: 23-56 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Kumpf (1965), as *B. cristatus*, observed, collected, Botany Bay, St. Thomas.
 Randall (1967), as *B. cristatus*, food habits.
 Randall (1968a: 235), as *B. cristatus*, Fig. 267, (1: 76 mm TL), St. John.
 Martin & Patus (1974), as *B. cristatus*, rotenone, rocky shore, Punta Higuero.
 Yoshioka (1975a), as *B. cristatus*, (34), rotenone, shoreline, Bahía Tortuguero.
 Yoshioka (1975d), as *B. cristatus*, (15), rotenone, nearshore, Punta Manati.
 Dunne & Brown (1979), as *B. cristatus*, obs., Anegada.

molly miller.

CALLIONYMIDAE

Diplogrammus pauciradiatus (Gill, 1865)⁶⁵

Nichols (1915b: 145), as *Callionymus calliurus*, (1), dredge, Bahía Condado, San Juan.
 Davis (1966), as *Callionymus pauciradiatus*, (1: 15 mm SL), night light, Isla Magueyes, La Parguera [UMML 8152]; (2: 22-25 mm SL), St. John [UPRM 1163, 1166].
 Kimmel (1985b), obs., La Parguera.

spotted dragonet.

Paradiplogrammus bairdi (Jordan in Eigenmann & Eigenmann 1888)⁶⁶

⁶³Bath (1977) placed *marmoreus* in *Parablennius*.

⁶⁴Bath (1977) placed *cristata* in *Scartella*.

⁶⁵Nakabo (1982) placed *pauciradiatus* in *Diplogrammus*.

Davis (1966), as *Callionymus bairdi*, (1: 14 mm SL), San Geronimo, San Juan [USNM 117420].
 Randall (1968a: 176), as *Callionymus bairdi*, Fig. 199, (1: 43 mm TL), St. John.
 Kimmel (1975), (1), algal mat; (1), rock outcrops, Punta Las Tunas.

lancer dragonet.

ELEOTRIDAE

Dormitator maculatus (Bloch, 1785)

Poey (1881: 339), as *D. mugiloides*, Puerto Rico.
 Stahl (1883: 79), as *D. mugiloides*, Puerto Rico.
 Evermann & Marsh (1900: 289), Pl. 45, (1), Mayagüez; (85), mangrove lagoon, Hucares.
 Fowler (1928), several, Guánica Lake.
 Nichols (1930: 360), (1), San Juan; obs., Guánica.
 Austin (1971a), (8: 45-81 mm SL), brackish water, Caño Tiburones.
 Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.
 Corujo Flores (1980), (115: 10-120 mm SL), gill net, estuary, Río Espiritu Santo.

fat sleeper, mapiro, masaguán.

Eleotris pisonis (Gmelin, 1788)

Poey (1881: 339), as *E. gyrinus*, Puerto Rico.
 Stahl (1883: 79), as *E. gyrinus*, Puerto Rico.
 Evermann & Marsh (1900: 291), (13: 89-159 mm TL), Río Bayamon; (1: 38 mm TL), Mayagüez; (3: 33-52 mm TL), Arroyo.
 Fowler (1928), many, Guánica Lake.
 Nichols (1930: 361), (2), Guánica.
 Austin (1971a), (2: 32-245 mm SL), brackish water, Caño Tiburones; fish kill, Río Guanajibo mouth.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati; Río Espiritu Santo.
 Corujo Flores (1980), (145: 13-132 mm SL), gill net, estuary, Río Espiritu Santo.
 Negrón González (1986), as *E. pismis*, collected, Laguna Joyuda.

spinycheek sleeper, morón, moroncillo.

Erotelis smaragdus (Valenciennes in Cuvier & Valenciennes, 1837)

Ginsburg (1953a), specimen examined, Puerto Rico.
 Erdman (1956: 334), mud bottom, mangroves, Luquillo Beach.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (1), seine, Punta Verraco.
 Stoner (1986), (26), trawl, Laguna Joyuda.

emerald sleeper, guavina.

Gobiomorus dormitor Lacepède, 1800

Cuvier & Valenciennes (1837: 255), as *Philypnus dormitor*, collected, Puerto Rico.

⁶⁶Nakabo (1982) placed *bairdi* in *Paradiplogrammus*.

- Poey (1881: 339), as *P. dormitor*, Puerto Rico.
 Stahl (1883: 79), as *P. dormitor*, Puerto Rico.
 Evermann & Marsh (1900: 288), as *P. dormitor*, "abundant in larger streams ... most important fresh-water food fish in Puerto Rico", collected, Río Loiza; Río de Caguitas; Río Bayamon.
 Fowler (1928), as *P. dormitor*, (3), Río Utado.
 Nichols (1930: 359), (2), Mayagüez.
 González-Azar & Vilella (1975), collected, Laguna Piñones.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati; Río Cibuco; Río La Plata; Río Loiza; Río Espiritu Santo; Río Mameyes.
 Corujo Flores (1980), (92: 14-362 mm SL), gill net, estuary, Río Espiritu Santo.
 Negrón González (1986), collected, Laguna Aguas Prietas.

bigmouth sleeper, guavina.

- Guavina guavina* (Valenciennes in Cuvier & Valenciennes, 1837)
 Evermann & Marsh (1900: 290), fresh and brackish waters, (2: 165-216 mm TL), San Juan market.
 Austin (1971a), (1: 257 mm SL), Puerto Rico.
 Martin & Patus (1984), drainage canals, Aguadilla; Rincón.

sleeper, guavina.

GOBIIDAE

- Awaous banana* (Valenciennes in Cuvier & Valenciennes, 1837)
 Poey (1881: 338), as *Rhinogobius contractus*, Puerto Rico.
 Stahl (1883: 78), as *R. contractus*, Puerto Rico.
 Evermann & Marsh (1900: 297), as *A. taiasica*, common in fresh and brackish waters, Río Bayamon; Río de Caguitas; Vieques.
 Fowler (1928), as *Chonophorus taiasica*, many, Puerto Rico.
 Nichols (1930: 367), as *C. taiasica*, obs., Guánica.
 Austin (1971a), as *A. tajasica*, Río Añasco.
 Yoshioka (1975c), as *A. tajasica*, (11), seine, grassbed?, Cabo Mala Pascua.
 Negrón González & Cintrón (1979), as *A. tajasica*, collected, estuary, Río La Plata; Río Espiritu Santo; Río Mameyes.
 Corujo Flores (1980), as *A. tajasica*, (2: 201-210 mm SL), gill net, estuary, Río Espiritu Santo.
 Watson (1996), examined, Puerto Rico.

river goby, saga.

- Barbulifer antennatus* Böhlke & Robins, 1968
 Kimmel (1975), (1), rotenone, rock outcrops, Punta Las Tunas.

barbulifer.

- Barbulifer ceuthoecus* (Jordan & Gilbert, 1884)
 Erdman (1956: 336), as *B. cauthoecus*, (1: 15 mm SL), Río Guajataca mouth [UPRM 850, discarded]; (1), beach rocks, Caña Gorda, Guánica [UPRM 947].
 Böhlke & Robins (1968), (1: 15 mm SL), Guánica [UPRM 947]; (11: 14-17 mm SL), 1 m, Greater Lameshur Bay, St. John [UMML 5158]; (4: 17-18 mm SL), Guana Island (BVI) [ANSP 110656].

bearded goby.

Bathygobius curacao (Metzelaar, 1919)

- Ginsburg (1947), as *B. curacao curacao*, specimen examined, St. Thomas.
Martin & Patus (1973), Bahía Jobos.
Cooper (1974), rotenone, (138), *Thalassia* bed; (15), *Syringodium* bed, La Parguera.
Martin & Patus (1975), central bay, reef & cays, ship channel, Bahía Jobos.
Yoshioka (1975d), (17), rotenone, nearshore, Punta Manati.
Yoshioka (1975f), (1), rotenone, Punta Verraco.
Martin & Cooper (1981), *Syringodium* and *Thalassia* beds, La Parguera.
Martin & Patus (1984), abundant in grass beds; (1), reef flats, Cayo de Barca, Bahía Jobos [USNM 219094].

notchtongue goby.

Bathygobius mystacium Ginsburg, 1947

- Martin & Patus (1973), Bahía Jobos.
Martin & Patus (1975), ship channel, Bahía Jobos.
Yoshioka (1975d), (21), rotenone, nearshore, Punta Manati.

island frillfin.

Bathygobius saporator (Valenciennes in Cuvier & Valenciennes, 1837)

- Evermann & Marsh (1900: 294), as *Gobius saporator*, most abundant and generally distributed goby in Puerto Rico, collected, San Antonio Bridge; San Geronimo; San Juan; Fajardo; Hucares; Isabel Segunda; Culebra; Ponce; Guánica; Puerto Real; Mayagüez; Palo Seco.
Fowler (1928), several, Puerto Rico.
Jordan et al. (1930), reported, St. Thomas.
Fowler (1948), (2: 20-55 mm TL), San Juan.
Nichols (1930: 363), (17), Bahía Condado; Martin Peña; Santurce; Palo Seco.
Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Randall (1968a: 248), Fig. 280, (1: 157 mm TL), Puerto Rico.
Pagan & Austin (1970), fish kill, Laguna Joyuda.
Austin (1971a), (8: 36-70 mm SL), common at all mangrove sites; fish kill, Laguna Joyuda; Río Guanajibo.
Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
Cooper (1974), (17), rotenone, *Syringodium* bed, La Parguera.
Martin & Patus (1974), (21), rotenone, dipnet, beach, rocky shore, tide pools, steps, Punta Higuero.
Martin & Patus (1975), central bay, reef & cays, Bahía Jobos.
Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), (26), rotenone, shoreline, Bahía Tortuguero.
Yoshioka (1975c), (8), rocky shore, Cabo Mala Pascua.
Yoshioka (1975d), (233), rotenone, nearshore, Punta Manati.
Yoshioka (1975f), (1), rotenone, (2), seine, Punta Verraco.
Dunne & Brown (1979), collected, Anegada.
Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.
Corujo Flores (1980), (29: 13-68 mm SL), gill net, estuary, Río Espiritu Santo.
García (1981), (3), gill net, Laguna Joyuda.
Martin & Cooper (1981), *Syringodium* beds, La Parguera.
Stoner (1986), (7), trawl, Laguna Joyuda.
Boulon (1992), collected, trap, mangroves, St. Thomas.

frillfin goby, moroncillo.

Bollmannia boqueronensis Evermann & Marsh, 1899

Evermann & Marsh (1899: 356), (1: 70 mm TL holotype), dredge, 16 m, Boquerón, FISH HAWK 6074 [USNM 49366]; (4 paratypes), same location.
Evermann & Marsh (1900: 298), Fig. 92.
Ramsey (1967), trawl, Bahía Boquerón.
Weiler (1976), sandy bottom, leeward side, Laurel reef, La Parguera.
Colin & Arneson (1978), sandy bottom, leeward side, Laurel reef, La Parguera.
Kimmel (1985b), obs., La Parguera.

white-eye goby.

Bollmannia communis Ginsburg, 1942

Dennis et al. (in prep), (1: 40.5), dredge, 37 m, mud bottom, Añasco [UPRM 1557]; (1: 39.0), trawl, off Añasco [UPRM 2196]; (2: 45-48), trawl, 26 m, off Río Añasco [UPRM uncat.]; (3), Margarita reef, La Parguera [ANSP 147645].

ragged goby.

Bollmannia sp.

Dennis et al. (in prep), (2: 22.3-26.1), 91 m, shelf edge, S of Margarita reef, La Parguera [ANSP 150387].

goby.

Chriolepis fisheri Herre, 1942

Dennis et al. (in prep). (1: 19.7 mm SL), 21 m, edge of sand channel, shelf-edge reef, N of El Buoy, La Parguera [ANSP 145008].

translucent goby.

Coryphopterus alloides Böhlke & Robins, 1960

Dunne & Brown (1979), obs., Anegada.
UMML collection (1), rotenone, 30 m, Lameshur Bay, St. John [UF 208728].

barfin goby.

Coryphopterus dicrus Böhlke & Robins, 1960

Böhlke & Robins (1960b), paratypes, (2: 28-31 mm SL), Bahía de Yegua [UMML 1780]; (7: 11-30 mm SL), Laguna Condado, San Juan [UMMZ 172939, 172993, 172929]; (2: 16-23 mm SL), Isla de Ramos [UMMZ 172921]; (1: 25 mm SL), Lesser Lameshur Bay, St. John [UMML 3771]; (4: 22-28 mm SL), Guana Island (BVI) [ANSP 93047].
Dammann (1969), (2: 35-42 mm TL), rotenone, Chocolate Hole, St. John.
Smith & Tyler (1972), (3: 17-25 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Fast (1974), (4: 23-40 mm SL), rotenone, artificial reef; (2: 22-29 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Dunne & Brown (1979), collected, mangroves, Anegada.
Kimmel (1985b), obs., La Parguera.
Cole & Shapiro (1990), (2), collected, shelf edge, La Parguera.

colon goby.

Coryphopterus eidolon Böhlke & Robins, 1960

- Böhlke & Robins (1960b), (13: 16-38 mm SL paratypes), Greater Lameshur Bay, St. John [UMML 6643].
Smith & Tyler (1972), (22: 18-44 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Greenfield & Johnson (in prep.), (9), rotenone, 27 m, drop off, shelf-edge reef, La Parguera [UPRM uncat.].

pallid goby.

Coryphopterus glaucofraenum Gill, 1863

- Nichols (1915b: 145), as *Gobius translucens*, Fig. 2, (1: 27 mm SL type), San Antonio Bridge, San Juan [AMNH 4802].
Fowler (1928), as *Gobius glaucofraenum*, (2), Puerto Rico.
Nichols (1930: 364), as *G. glaucofraenum*, (1), Mayagüez.
Fowler (1948), (1; 47 mm TL), San Juan.
Böhlke & Robins (1960b), (1: 24 mm SL), Fajardo [USNM 144047]; (8: 19-45 mm SL), La Gata, La Parguera [UMMZ 171779, 171780, 172536, 173078]; (6: 22-32 mm SL), Laguna Condado, San Juan [UMMZ 172885, 172900, 172961]; (4: 25-41 mm SL), Lesser Lameshur Bay, St. John [UMML 3762]; (23: 21-39 mm SL), Greater Lameshur Bay, St. John [UMML 4912]; (5: 21-34 mm SL), Tortola (BVI) [ANSP 93085].
Erdman (1960a), as *Lophogobius glaucofraenum*, *Albula vulpes* stomach, Puerto Rico.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 249), Fig. 282, (1: 58 mm TL), Puerto Rico.
Dammann (1969), (5: 32-60 mm TL), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Fast (1974), (30: 17-38 mm SL), rotenone, artificial reef; (6: 22-33 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Wood et al. (1975), collected, inner bay, outer reefs, Bahía Guayanilla.
Yoshioka (1975f), (1), seine, Punta Verraco.
Dunne & Brown (1979), (13), collected, Anegada.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Garzón-Ferreira & Acero P. (1990), (1), La Parguera [UPRM uncat.].
Boulon (1992), obs., mangroves, St. Thomas; St. John.
Cole & Shapiro (1992), quinaldine, behavior, La Parguera.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Cole & Shapiro (1995), quinaldine, behavior, La Parguera.

bridled goby.

Coryphopterus hyalinus Böhlke & Robins 1962

- Dammann (1969), as *C. haulinus?*, (1), rotenone, Chocolate Hole, St. John.
Cole & Shapiro (1990), (85), quinaldine, shelf edge, La Parguera.
Dennis et al. (in prep), (5: 13.0-28.2 mm SL), sclero cave, Salinas de Ensenada [ANSP 144915]; (1: 16.2 mm SL), shelf-edge reef, La Parguera [ANSP 144343]; (18: 7.0-15.5 mm SL), quinaldine, 24 m, shelf-edge reef, La Parguera [UPRM 3749].

glass goby.

Coryphopterus lipernus Böhlke & Robins, 1962

Smith & Tyler (1975), as *Coryphopterus* sp., collected, Greater Lameshur Bay, St. John.
 Smith & Tyler (1977), (8: 8-15 mm SL), 11 m, Greater Lameshur Bay, St. John [AMNH 31118, 34948].
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Cole & Shapiro (1990), (31), collected, shelf edge, La Parguera.

peppermint goby.

Coryphopterus personatus (Jordan & Thompson, 1905)

Böhlke & Robins (1962), (11: 14-25 mm SL), Lameshur Bay, St. John [UMML 3777, 4932, 8734].
 Randall (1968a: 250), Fig. 282, (1: 33 mm TL), Puerto Rico.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), (8: 17-29 mm SL), rotenone, Greater Lameshur Bay, St. John.
 Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Boulon (1992), obs., mangroves, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

masked goby.

Coryphopterus thrix Böhlke & Robins, 1960

Smith & Tyler (1972), (4: 27-28 mm SL), rotenone, 11 m, Greater Lameshur Bay, St. John.
 Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
 Greenfield & Johnson (in prep.), (16), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM uncat.].

bartail goby.

Coryphopterus tortugae (Jordan, 1904)⁶⁷

Garzón-Ferreira & Acero P. (1990), (13), La Parguera [UPRM uncat.].

sand goby.

Ctenogobius boleosoma (Jordan & Gilbert, 1882)⁶⁸

Nichols (1915b: 146), as *Gobius boleosoma*, common, Bahía Condado, San Juan.
 Fowler (1928), as *Gobius*, (2), Puerto Rico.
 Nichols (1930: 365), as *Gobius*, (7), Río Loiza mouth, San Juan.
 Erdman (1956: 321), as *Gobionellus*, spawning condition, November.
 Martin & Patus (1973), as *Gobionellus*, Bahía Jobos; Bahía Guayanilla.
 Cooper (1974), (81), as *Gobionellus*, rotenone, *Syringodium* bed, La Parguera.
 Martin & Patus (1975), as *Gobionellus*, reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), as *Gobionellus*, collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975c), as *Gobionellus*, (1), grass bed, Cabo Mala Pascua.
 Erdman (1976), as *Gobionellus*, spawning colors.
 Dunne & Brown (1979), as *Gobionellus*, collected, Anegada.

⁶⁷Many specimens identified as *C. glaucofraenum* are most likely *C. tortugae* see Garzón-Ferreira & Acero P. (1990) for characters separating the two species, but see Smith-Vaniz and Böhlke (1991) for further comment.

⁶⁸Pezold (1990) moved most species previously under *Gobionellus* to *Ctenogobius*.

Corujo Flores (1980), as *Gobionellus*, (9: 18-39 mm SL), gill net, estuary, Río Espíritu Santo.
Martin & Cooper (1981), as *Gobionellus*, common, *Syringodium* beds, La Parguera.
Negrón González (1986), as *Gobionellus*, collected, Laguna Joyuda.
Stoner (1986), as *Gobionellus*, (58), trawl, Laguna Joyuda.

darter goby.

Ctenogobius fasciatus Gill, 1858

Erdman (1956: 335), as *G. claytoni*?, Río Grande de Loiza mouth.
Dennis et al. (in prep), (1: 22.5 mm SL), lagoon, W of Luquillo [USNM 144036].

goby.

Ctenogobius saepepallens Gilbert & Randall, 1968

Gilbert & Randall (1968), as *Gobionellus*, paratypes, (4: 20-26 mm SL), Firewood Bay, Culebra [UPRM 2412]; (1: 22 mm SL), Reef Bay, St. John [UMML 1766]; (1: 24 mm SL), Salt Pond Bay, St. John [UF 13524].
Martin & Patus (1973), as *Gobionellus*, Bahía Guayanilla.
Cooper (1974), (114), as *Gobionellus*, rotenone, *Syringodium* bed, La Parguera.
Wood et al. (1975), as *Gobionellus*, collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975d), (8), as *Gobionellus*, rotenone, nearshore, Punta Manati.
Colin & Arneson (1978), as *Gobionellus*, back reef lagoon, Laurel reef, La Parguera.
Martin & Cooper (1981), as *Gobionellus*, common, *Syringodium* beds, La Parguera.
Kimmel (1985b), as *Gobionellus*, obs., La Parguera.
GCRL collection, (2: 21.0-22.1 mm SL), ichthyocide, open pond behind Red Bay, St. Thomas, CE Dawson, 12 Nov 66 [GCRL 1999].

dash goby.

Ctenogobius stigmaturus (Goode & Bean, 1882)

Dennis et al. (in prep), (2: 18.5-27.5 mm SL), beach, west of Mosquito pier, Vieques [UF-UMIM 3412]; (1: 23.5 mm SL), night light, mud bottom, 1 m, mangrove lagoon, La Parguera [UPRM 3721].
Greenfield & Johnson (in prep.), rotenone, La Parguera.

spottail goby.

Elacatinus chancei (Beebe & Hollister, 1933)

Erdman (1956: 335), as *G. horsti*, (3), Condado rocks, San Juan.
Kumpf (1965), as *G. horsti*, observed, Botany Bay, St. Thomas.
Böhlke & Robins (1968), (1: 32 mm SL), 12 m, Enrique reef, La Parguera [ANSP 101669].
Collette & Talbot (1972), as *G. horsti*, obs., patch reef, Greater Lameshur Bay, St. John.
Smith & Tyler (1972), as *G. horsti*, obs., patch reef, Greater Lameshur Bay, St. John.
Colin (1975), (1: 24 mm SL), Lameshur Bay, St. John.
Kimmel (1985b), obs., La Parguera.

shortstripe goby.

Elacatinus dilepis (Robins & Böhlke, 1964)

Martin & Patus (1973), Bahía Jobos.
Fast (1974), (1: 18 mm SL), rotenone, 23 m, patch reef, Media Luna reef, La Parguera.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Martin & Patus (1984), (1), grass bed, Cayo de Barca, Bahía Jobos [USNM 219137].
UPRM collection, (1: 16 mm SL), rotenone, 5 m, head coral, El Palo, La Parguera [UPRM uncat.].
Greenfield & Johnson (in prep.), (1), rotenone, 4 m, coral, Margarita reef, La Parguera [UPRM uncat.].

orangeside goby.

Elacatinus evelynae (Böhlke & Robins, 1968)

- Erdman (1956: 335), as *Gobiosoma oceanops*, (4), rotenone, coral head, Ahogado reef, La Parguera.
 Randall (1962a), as *Elacatinus* sp., cleaning *Pseudupeneus maculatus*, St. John.
 Randall (1967), as *Gobiosoma* sp., food habits.
 Böhlke & Robins (1968), (1: 24 mm SL), La Parguera [ANSP 111272]; paratypes, (8: 20-24 mm SL), Lameshur Bay, St. John [UMML 3780, ANSP 110570]; (2: 28 mm SL), Guana Isl. (BVI) [ANSP 110569].
 Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
 De Lisle (1969), as *G. genie*, cleaning behavior, La Parguera.
 Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Fast (1974), (1: 23 mm SL), rotenone, artificial reef; (3: 16-25 mm SL), patch reef, Media Luna reef, La Parguera.
 Losey (1974), as *G. genie*, cleaning behavior.
 Colin (1975), (1: 23 mm SL), La Parguera [UMML 30364].
 Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
 Dunne & Brown (1979), (1), collected; as *G. genie?*, obs., Anegada.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

sharknose goby.

Elacatinus gemmatus (Ginsburg, 1939)

- Böhlke & Robins (1968), (1), Enrique reef, La Parguera [UF 12622].
 Dunne & Brown (1979), (6), collected, Anegada.
 Greenfield & Johnson (in prep.), (1), rotenone, 4 m, patch reef, behind Margarita reef, La Parguera [UPRM uncat.].

freklefin goby.

Elacatinus multifasciatus (Steindachner, 1876)

- Steindachner (1876: 231), as *Gobiosoma multifasciatum*, type locality, St. Thomas.
 Silvester (1916: 216), (2: 20-25 mm TL), coral rocks, Guánica harbor.
 Silvester (1918: 24), as *Gobiosoma viridistriatum*, (2 types), same as above [PUZM 3079, 3126].
 Fowler (1928), (2), Puerto Rico.
 Jordan et al. (1930), reported, St. Thomas.
 Böhlke & Robins (1968), (2: 20-29 mm SL), Lesser Lameshur Bay, St. John [UMML 3766]; (1), Europa Bay, St. John [UMML 5390]; (1: 9 mm SL), Little Camonoe Isl. [ANSP 96790].

greenband goby.

Elacatinus pallens (Ginsburg, 1939)

- Dennis et al. (in prep), (2: 10.2-11.0 mm SL), quinaldine, 16.8 m, reef crest, shelf-edge reef, Salinas de Ensenada [UPRM 3720]; (1), Margarita reef, La Parguera [ANSP 14996].

semiscaled goby.

Elacatinus prochilos (Böhlke & Robins, 1968)

- Martin & Patus (1984), as *Elacatinus*, reported common at some localities.
 Dennis et al. (in prep), (2: 19-23 mm SL), 4.6 m, El Negro reef, Mayagüez [UPRM 3547].

whiteline goby.

Elacatinus randalli (öhlke & Robins, 1968)

Böhlke & Robins (1968), (1: 29 mm SL paratype), 55 m, shelf-edge reef, La Parguera.

yellownose goby.

Elacatinus saucrus (Robins, 1960)

Smith & Tyler (1972), (6: 14-20 mm SL), rotenone, 12 m, patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.

Kimmel (1985b), obs., La Parguera.

UPRM collection, (1: 12 mm SL), rotenone, 5 m, head coral, El Palo reef, La Parguera [UPRM uncat.].

Greenfield & Johnson (in prep.), (4), rotenone, 7 m, patch reef, behind Margarita reef, La Parguera [UPRM uncat.].

leopard goby.

Elacatinus tenox (Böhlke & Robins, 1968)

Dennis et al. (in prep), (1), on sponge (*Neofibularia nolitangere*), shelf-edge reef, La Parguera [UPRM uncat. missing].

slaty goby.

Evorthodus lyricus (Girard, 1858)

Evermann & Marsh (1900: 295), as *Gobius lyricus*, (9), Fajardo; (2), Isabel Segunda.

Nichols (1930: 366), as *Gobius lyricus*, (6), Caña Martin Peña, San Juan; (1), Guánica.

Erdman (1976), spawning condition, mouth, Río Guanajibo.

lyre goby.

Ginsburgellus novemlineatus (Fowler, 1950)

Erdman (1956: 335), as *Gobiosoma novemlineatum*, associated with sea urchin on rocky shores, (17: 8-15 mm SL), tidal pool, Río Guajataca [UPRM 851].

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Yoshioka (1975c), (1), rocky shore, Cabo Mala Pascua.

ninelined goby.

Gnatholepis thompsoni Jordan, 1902

Erdman (1956: 336), (1), Punta San Diego, Fajardo.

Randall (1963a), collected, fringing reef, Greater Lameshur Bay; (43: 23-44 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Kumpf (1965), observed, Botany Bay, St. Thomas.

Randall (1967), food habits.

Randall (1968a: 248), Fig. 281, (1: 46 mm TL), Puerto Rico.

Dammann (1969), (5: 36-65 mm TL), rotenone, Chocolate Hole, St. John.

Earle (1972), obs., Greater Lameshur Bay, St. John.

Risk (1972), (55), obs., patch reef 4 m, Greater Lameshur Bay, St. John.

Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.

Yoshioka (1975c), (7), seagrass beds, Cabo Mala Pascua.

Dunne & Brown (1979), collected, Anegada.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

goldspot goby.

Gobioides broussonetii Lacepède, 1800

Poey (1881: 338), as *Gobioides barreto*, Puerto Rico.

Evermann & Marsh (1900: 300), synonymized *barreto* and *broussonetii*.

Eger (1968), (6), oil spill mortality, Bahía San Juan.

Negrón González & Cintrón (1979), collected, estuary, Río Cibuco; Río Loiza; Río Espiritu Santo.

UPRM collection, (1: 319 mm SL), shrimp net, Laguna Torrucillas [UPRM 2696].

violet goby, congrio.

Gobionellus oceanicus (Pallas, 1770)

Poey (1881: 338), as *Gobionellus lanceolatus*, Puerto Rico.

Stahl (1883: 78), as *G. lanceolatus*, Puerto Rico.

Evermann & Marsh (1899: 355), as *Gobius bayamonensis*, (1: 229 mm TL type), San Juan market [USNM 49365].

Evermann & Marsh (1900: 296), as *Gobius bayamonensis*, Fig. 90; as *Gobius oceanicus*, Fig. 91, common, San Juan market; San Juan harbor; Boquerón; Culebra; Palo Seco.

Nichols (1930: 367), as *Gobius oceanicus*, (1), Punta Palo Seco.

Austin (1971a), (10: 19-178 mm SL), Puerto Rico.

Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.

Corujo Flores (1980), (1: 136 mm SL), gill net, estuary, Río Espiritu Santo.

Negrón González (1986), collected, Laguna Aguas Prietas.

Stoner (1986), (5), trawl, Laguna Joyuda.

Pezold & Grady (1989), (1), San Juan, FISH HAWK [USNM 49365]; (1), pool, Río Añasco mouth [USNM 205203];

(1), Puerto Rico [USNM BOC 2763]; (4), dock, S side of Isla Grande, San Juan [ANSP 144493]; (1), Palo Seco, FISH HAWK [AMNH 2069]; (6), Puerto Rico [LACM 7725].

highfin goby, esmeralda, setí.

Gobiosoma spes (Ginsburg, 1939)

Böhlke & Robins (1968), (1: 16 mm SL), Río Hondo, Bayamon [UF 12597].

Corujo Flores (1980), (27: 11-22 mm SL), gill net, estuary, Río Espiritu Santo.

vermiculated goby.

Gobulus myersi Ginsburg, 1939

Hastings (1983), (1: 28 mm SL), 8 m, La Parguera [ANSP 144500].

paleback goby.

Lophogobius cyprinoides (Pallas, 1770)

Erdman (1956: 334), occasional in mangrove inlets, collected; Luquillo Beach; La Parguera; Caño Corazones; Mayagüez.

Austin (1971a), (1: 46 mm SL), low salinity, Caño Tiburones; obs., Laguna Joyuda; fish kill, Río Guanajibo.

Dawson (1972), (1: 40 mm SL), Río Piedras [USNM 123648]; (2: 26-60 mm SL), Luquillo creek [USNM 144048]; (4: 25-59 mm SL), mangrove creek, Luquillo [USNM 147632].

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Dennis (pers. obs.), obs., mangroves, La Parguera; collected, Laguna San Jose, San Juan.

crested goby.

Lythrypnus crocodilus Beebe & Tee-Van, 1939

Greenfield & Johnson (in prep.), (2), rotenone, 4 m, patch reef, behind Margarita reef, La Parguera [UPRM uncat.].

goby.

Lythrypnus elasson Böhlke & Robins, 1960

Fast (1974), (1: 25 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.

Smith & Tyler (1972), (3: 8 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.

Greenfield & Johnson (in prep.), (232), rotenone, 31-37 m, drop off, shelf-edge reef, off Salinas, Guánica [UPRM uncat.].

dwarf goby.

Lythrypnus nesiotus Böhlke & Robins, 1960

Erdman (1956: 336), as *Rhinogobius mowbrayi*, Ahogado reef, La Parguera; Condado rocks, San Juan.

Böhlke & Robins (1960a), (1: 14 mm SL), Margarita reef, La Parguera [UPRM 1786 missing]; (2: 10-14 mm SL), Greater Lameshur Bay, St. John [UMML 4936].

Smith & Tyler (1972), (23: 7-12 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Fast (1974), (8: 11-14 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.

Kimmel (1985b), obs., La Parguera.

island goby.

Microgobius carri Fowler, 1945

Birdsong (1981), (3: 22-44 mm SL), 9 m, between Salt Pond and Ram's Head Bay, St. John [UMML 6982]; (1),

Caneel Bay, St. John [UMML 7399]; (1: 44 mm SL), rotenone, sand, Reef Bay, St. John [UPRM 1797].

Greenfield & Johnson (in prep.), (1), rotenone, 6 m, *Thalassia* beds, east of Cabo Rojo [UPRM uncat.].

Seminole goby.

Microgobius meeki Evermann & Marsh, 1899

Evermann & Marsh (1899: 356), (1: 38 mm TL holotype), 30 m, Culebra [USNM 49367].

Evermann & Marsh (1900: 300), Fig. 93.

Birdsong (1981), (1: 21 mm SL), mud bottom, Laguna Joyuda [UPRM 683]; (1: 21 mm SL), rotenone, Laguna

Joyuda [UPRM 1764]; (3: 22-25 mm SL), rotenone, Laguna Joyuda [UPRM 2361]; (13: 15-24 mm SL),

rotenone, mangroves with mud bottom, Laguna Joyuda [UPRM 2398].

mangrove goby.

Microgobius signatus Poey, 1876

Weiler (1976), sandy bottom, back reef, Laurel reef, La Parguera.

Colin & Arneson (1978), Laurel reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

sand goby.

Nes longus (Nichols, 1914)

Böhlke & Robins (1968), (1: 52 mm SL), El Negro reef, Mayagüez [ANSP 101670].

Weiler (1976), sandy bottom, back reef, Laurel reef, La Parguera.

Colin & Arneson (1978), obs., Laurel reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Stoner (1986), (2), trawl, Laguna Joyuda.

orangespotted goby.

Oxyurichthys stigmalocephalus (Mead & Böhlke, 1958)

Fast (1974), as *Gobionellus*, (2: 31-45 mm SL), rotenone, 23 m, artificial reef, Media Luna reef, La Parguera.

Dennis et al. (in prep), (1: 82 mm SL), quinaldine, sandy bottom, leeward side, Laurel reef, La Parguera, [UPRM 3723]; (2: 57.0-57.5 mm SL), 12.2 m, sediment bottom, El Negro reef, Mayagüez [ANSP 144379]; (1: 56 mm SL), 12.2 m, sand and *Halophila* bottom, Crashboat Basin, Aguadilla [ANSP 144495 formerly UPRM 2661].

spotfin goby.

Palatogobius paradoxus Gilbert, 1971

Gilbert (1971), Fig. 1, (1: 25 mm SL holotype), Reef Bay, St. John [ANSP 109182].

Dennis et al. (in prep), collected, rubble bottom, shelf-edge, La Parguera.

mauve goby.

Priolepis hipoliti (Metzelaar, 1922)⁶⁹

Erdman (1956: 335), as *Gobius ebriosus*, collected, reef, Luquillo Beach; (6: 13-17 mm SL), tidal pool, Río Guajataca mouth [UPRM 848].

Randall (1963a), as *Quisquilius hipoliti*, collected, fringing reef, Greater Lameshur Bay; fringing reef, Ram's Head Bay, St. John.

Randall (1968a: 251), as *Q. hipoliti*, Fig. 284, (1: 28 mm TL), Puerto Rico.

Smith & Tyler (1972), as *Q. hipoliti*, (4: 20-22 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.

Martin & Patus (1973), as *Q. hipoliti*, Bahía Jobos.

Martin & Patus (1975), as *Q. hipoliti*, central bay, Bahía Jobos.

Smith & Tyler (1975), as *Q. hipoliti*, collected, patch reef, Greater Lameshur Bay, St. John.

Dunne & Brown (1979), as *Q. hipoliti*, (2), Anegada.

UPRM collection, rotenone, shelf-edge reef; El Palo reef, La Parguera.

rusty goby.

Psilotris batrachodes Böhlke, 1963

Greenfield & Johnson (in prep.), (1), rotenone, 21 m, shelf-edge reef, La Parguera [UPRM uncat.].

toadfish goby.

Psilotris celsus Böhlke, 1963

Böhlke (1963), (1: 36 mm SL paratype), Europa Bay, St. John [UMML 5393].

highspine goby.

Pycnomma roosevelti Ginsburg, 1939

Dennis et al. (in prep), (1: 19 mm SL), reef, La Parguera [ANSP 149437].

Greenfield & Johnson (in prep.), (1), rotenone, 3 m, coral, inside, Margarita reef, La Parguera [UPRM uncat.].

Roosevelt's goby.

⁶⁹Greenfield (1989) placed *Quisquilius* in synonym with *Priolepis*.

Risor ruber (Rosén, 1911)

- Böhlke & Robins (1968), (1: 18 mm SL), St. Thomas [USNM 38774]; (1: 14 mm SL), Virgin Gorda [USNM 183609].
Smith & Tyler (1972), (3: 11-12 mm SL), rotenone, patch reef, Greater Lameshur Bay, St. John.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Colin (pers. comm.), in *Xestospongia*, shelf edge, La Parguera.
Dennis (pers. obs.), in *Iricina*, shelf edge, La Parguera [UPRM uncat.].

tusked goby.

Sicydium plumieri (Bloch, 1786)

- Cuvier & Valenciennes (1837: 168), Puerto Rico.
Evermann & Marsh (1899: 355), as *S. caguitae*, (1: 92 mm TL type), freshwater, Río de Caguaitas.
Evermann & Marsh (1900: 291), as *S. caguitae*, Fig. 89.
Silvester (1916: 216), as *S. antillarum*, Río Arecibo tributaries.
Silvester (1918: 23), as *S. antillarum*, additional data on above specimens.
Fowler (1928), many, Puerto Rico; as *S. antillarum*, (14), Río Arecibo.
Erdman (1956: 321), larvae, Río Arecibo mouth, December.
Erdman (1961b), life history, Puerto Rico.
Erdman (1967a), larvae, Puerto Rico.
Negrón González & Cintrón (1979), collected, estuary, Río Espiritu Santo.
Erdman (1986), life history, Puerto Rico.
Kimmel (1991), baitfish, Puerto Rico.
Mochizuki et al. (1991), morphology, Puerto Rico.

sirajo goby, olivo, chupa piedra, setí (larvae).

Varicus bucca Robins & Böhlke, 1961

- Robins & Böhlke (1961), (2: 40-46 mm SL paratype), 220 m, trawl, S of Vieques, OREGON 2627 (station corrected) [FMNH 65608; UMML 7114].

goby.

MICRODESMIDAE*Cerdale floridana* Longley, 1934

- Randall (1963a), as *Microdesmus floridanus*, (2: 22-31 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John [UPRM 1096].
Dawson (1974), (2: 22-31 mm SL), Ram's Head Bay, St. John [UPRM 1096].
SIO collection, post larvae, west coast, Puerto Rico.

pugjaw wormfish.

Microdesmus lanceolatus Dawson, 1962

- Dennis et al. (in prep), post larvae, western Puerto Rico.

lancetail wormfish.

Microdesmus longipinnis (Weymouth, 1910)

- SIO collection, post larvae, west coast, Puerto Rico.

Dennis et al. (in prep), (1: 185 mm SL), sand & mud bottom, on benthic *Sargassum* plant, Guanica [ANSP 144350]; (1: 21 mm SL), night light, mangrove lagoon, west of La Parguera [UPRM 3725]; (1:24 mm SL) night light, Isla Magueyes dock, La Parguera [UPRM 3748].

pink wormfish.

Microdesmus luscus Dawson, 1977

Dawson (1977), (1: 26 mm SL paratype), 1 m, Laurel reef, La Parguera [GCRL 14237].
SIO collection, post larvae, west coast, Puerto Rico.

blind wormfish.

Ptereleotris helenae (Randall, 1968)⁷⁰

Randall (1968a), as *Ioglossus helenae*, Fig. 286, (1: 109 mm TL), Puerto Rico.

Randall (1968b), as *I. helenae*, (1: 83 mm SL holotype), 14 m, El Negro reef, Mayagüez [USNM 201411]; paratypes, (16: 28-88 mm SL), El Negro reef, Mayagüez [BMNH 1966.9.22.1-3; LACM 6992-1,3; MNHN 1966-738; ANSP 103617; CAS-SU 63565; SIO 66-264; UF 13370]; (1: 78 mm SL), St. Thomas [UMML 6231]; (1: 20 mm SL), Botany Bay, St. Thomas [UF 13369]; (1: 44 mm SL), Lameshur Bay, St. John [UMML 6055, (2: 12-16 mm SL), Ram's Head Bay, St. John [UMML 9155].

Kimmel (1985b), as *I. helenae*, obs., La Parguera.

hovering goby.

ACANTHURIDAE

Acanthurus bahianus Castelnau, 1855

Poey (1881: 330), as *A. tractus*, Puerto Rico.

Stahl (1883: 77), as *A. tractus*, Puerto Rico.

Evermann & Marsh (1900: 254), as *Teuthis bahianus*, Fig. 70, second in abundance within the genus, collected, San Geronimo; San Juan; Fajardo; Hucares; Isabel Segunda; Culebra; Arroyo; Ponce; Mayagüez; Aguadilla.

Fowler (1928), as *Hepatus bahianus*, (2), Puerto Rico.

Nichols (1930: 335), as *T. bahianus*, (17), San Juan; Tallaboa.

Cable & Quick (1956), parasites, Puerto Rico.

Siddiqi & Cable (1960), trematode parasites, Puerto Rico.

Randall (1962b), (281), fish trap, Lameshur Bay, St. John.

Randall (1963a), (14: 58-184 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (7: 30-121 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (22: 29-167 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.

Randall (1965c), food habits, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Ramsey (1967), trawl, Bahía Boquerón.

Randall (1967), food habits.

Randall (1968a: 256), Fig. 288, (1: 198 mm TL), Puerto Rico.

Dammann (1969), (73: 37-159 mm TL), rotenone, Chocolate Hole, St. John.

Fish & Mowbray (1970: 153), sound production, (5), La Parguera, (1), Mayagüez.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

⁷⁰Randall & Hoese (1985) placed *Ioglossus* in synonymy with *Ptereleotris* and moved to Microdesmidae.

Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
Cooper (1974), rotenone, (10), *Thalassia* bed; (1), *Syringodium* bed; La Parguera.
Fast (1974), (7: 52-188 mm SL), rotenone, artificial reef; (1: 186 mm SL), patch reef; Media Luna reef, La Parguera.
Martin & Patus (1974), obs., steps, Punta Higuero.
Kimmel (1975), (35), rock outcrops; (92), algal mat; Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
Yoshioka (1975d), (23), rotenone, nearshore, Punta Manati.
Yoshioka (1975e), collected, rotenone, Punta Higuero.
Yoshioka (1975f), (4), rotenone, Punta Verraco.
Dunne & Brown (1979), collected, Anegada.
Martin & Cooper (1981), *Syringodium* and *Thalassia* beds, La Parguera.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Williams (1982), leech parasites, Puerto Rico.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Kimmel (1991), baitfish, Puerto Rico.
Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
Rooker & Dennis (1991), obs., mangroves, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
Acosta et al. (1994), fish trap, obs., Corona de Laurel, La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Colin (1996), obs., spawning aggregations, Salinas de Ensenada.

ocean surgeonfish, médico, cirujano.

Acanthurus chirurgus (Bloch, 1787)

Cuvier & Valenciennes (1835: 168), as *Chaetodon chirurgus*, collected, Puerto Rico.
Evermann & Marsh (1900: 254), as *Teuthis hepatus*, most common tang around Puerto Rico, collected, San Juan; Puerto Real; Hucares; Culebra; Guánica; Boquerón; Mayagüez.
Fowler (1928), as *Hepatus hepatus*, (1), Puerto Rico.
Randall (1962b), (108), fish trap, Lameshur Bay, St. John.
Randall (1963a), (29: 60-221 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
Randall (1965c), food habits, St. John.
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Boquerón.
Randall (1967), food habits.
Randall (1968a: 257), Fig. 289, (1: 216 mm TL), St. John.
Dammann (1969), (21: 65-127 mm TL), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 152), sound production, La Parguera; Mayagüez.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

- Earle (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Cooper (1974), (1), rotenone, *Thalassia* bed, La Parguera.
 Fast (1974), (1: 29 mm SL), rotenone, patch reef; (7: 52-188 mm SL), artificial reef, Media Luna reef, La Parguera.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), reef & cays, outfall, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
 Dunne & Brown (1979), obs., Anegada.
 Martin & Cooper (1981), *Thalassia* beds, La Parguera.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Williams & Williams (1981), isopod parasites, La Parguera; Corcega; Culebra; Congo Cay, St. Thomas; Lameshur Bay, St. John; White Horse Key, Anegada.
 Dyer et al. (1985), digenetic trematodes, (9), Cayo Enrique; Turrumote reef, La Parguera.
 Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
 Boulon (1985b), obs., St. John.
 Kimmel (1985b), obs., La Parguera.
 Berrios Diaz et al. (1986), obs., Cayo Ratones, Ponce.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 McGehee (1991), obs., La Parguera.
 Recksiek et al. (1991), fish trap, Corona de Laurel, La Parguera.
 Rooker & Dennis (1991), obs., mangroves, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Dennis (1992a), obs., mangroves, La Parguera.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 McGehee (1994), obs., La Parguera.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

doctorfish, barbero, médico.

Acanthurus coeruleus Schneider in Bloch & Schneider, 1801

- Cuvier & Valenciennes (1835: 179), as *A. caeruleus*, examined, Puerto Rico; reported, St. Thomas.
 Evermann & Marsh (1900: 253), as *Teuthis coeruleus*, common, but the least abundant tang, collected, Culebra; Arroyo; Aguadilla.
 Fowler (1917), as *Hepatus coeruleus*, examined, St. Thomas.
 Fowler (1928), as *Hepatus caeruleus*, (4), Puerto Rico.
 Nichols (1930: 334), as *T. caeruleus*, obs., San Juan.
 Cable & Quick (1956), parasites, Puerto Rico.
 Siddiqi & Cable (1960), as *A. caeruleus*, trematode parasites, Parguera; Guaniquilla.
 Randall (1962b), (161), fish trap, Lameshur Bay, St. John.
 Randall (1963a), (49: 35-157 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (56: 27-137 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (25: 30-137 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
 Randall (1965c), food habits, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 255), Fig. 287, (1: 173 mm TL), Puerto Rico.
 Dammann (1969), (27: 36-130 mm TL), rotenone, Chocolate Hole, St. John.
 Fish & Mowbray (1970: 151), (1), sound production, La Parguera.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

- Earle (1972), obs., Greater Lameshur Bay, St. John.
Risk (1972), (5), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
Fast (1974), (1: 120 mm SL), rotenone, artificial reef; (1: 129 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
Martin & Patus (1974), obs., steps, Punta Higuero.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (4), rock outcrops; (9), algal mat, Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
Yoshioka (1975a), obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
Yoshioka (1975b), reef, Punta Ostiones.
Yoshioka (1975f), (3), seine, Punta Verraco.
Dunne & Brown (1979), collected, Anegada.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Dyer (1983), parasites, Virgin Gorda.
Hay & Taylor (1985), herbivory, Brewer's Bay, St. Thomas.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Medina Colon et al. (1986), obs., grassbeds, Cayo Berbería, Ponce.
Boulon (1987), obs., St. John.
Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Clavijo (1990), obs., La Parguera.
McGehee (1991), obs., La Parguera.
Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Acosta (1994), trammel and gill nets, Margarita reef, La Parguera.
McGehee (1994), obs., La Parguera.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Colin (1996), obs., spawning aggregations, Salinas de Ensenada.
Acosta (1997), visual, gill net, trammel net, (10), mangroves; (24), inner reef, (62), outer reef, La Parguera.

blue tang, blue doctor, barbero, médico.

TRICHIURIDAE

Trichiurus lepturus Linnaeus, 1758

- Cuvier & Valenciennes (1832: 237), collected, Puerto Rico.
Poey (1881: 333), as *Lepturus lepturus*, Puerto Rico.
Stahl (1883: 162), as *L. lepturus*, Puerto Rico.
Evermann & Marsh (1900: 125), Fig. 29, (1: 381 mm TL), Mayagüez; (1: 685 mm TL), Palo Seco.
Siddiqi & Cable (1960), trematode parasites, Joyuda.
Erdman (1967a), spawning, Mar-Apr, Puerto Rico.
Ramsey (1967), trawl, Bahía Mayagüez.
Eger (1968), (7), oil spill mortality, Bahía San Juan.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Wood et al. (1975), collected, inner bay, Bahía Guayanilla.
 Negrón González & Cintrón (1979), collected, estuary, Río Manati; Río Espiritu Santo.
 Corujo Flores (1980), (12: 403-787 mm SL), gill net, estuary, Río Espiritu Santo.
 Kimmel (1991), baitfish, Puerto Rico.
 Dennis (pers. obs.), spawning aggregates?, mangrove areas, Bahía Fosforescente, La Parguera, March.

cutlassfish, machete, sable.

SCOMBRIDAE

Acanthocybium solandri (Cuvier in Cuvier & Valenciennes, 1832)

Erdman (1956: 326), fairly common, Grappler Seamount, November and December.
 Mather (1956), bait, Virgin Islands.
 Erdman & Maytag (1957), (1), longline, off San Juan.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Bird (1967), sport fishing, Grappler Seamount, Puerto Rico.
 Erdman (1967a), spawning condition, Puerto Rico.
 Erdman (1976), as *A. solandri*, spawning condition.
 Dyer et al. (1985), digenetic trematodes, (5), Media Luna reef, La Parguera.
 Prince & Gonzalez (1985), fish aggregating device, San Juan.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Friedlander (1992), trolling, NE corner Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, Aguadilla.

wahoo, peto, carite tiburón.

Auxis rochei (Risso, 1810)⁷¹

Erdman et al. (1986), collected, juveniles, Aguadilla, March, July, and September.

bullet mackerel.

Auxis thazard (Lacepède, 1800)⁷¹

Evermann & Marsh (1900: 122), (1), Arecibo.
 Erdman (1957), food of blue marlin, Puerto Rico.
 Bane (1964b), collected, trolling, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967b), in tuna and bird stomachs, Puerto Rico.
 Erdman (1976), spawning condition.
 Burger et al. (1992c), mercury levels, Puerto Rico.

frigate mackerel, maduro, maúro, vaquita.

⁷¹Previously only one frigate mackerel (*A. thazard*) was thought to occur in the western Atlantic but Richard & Randall (1967) show that *A. thazard* is relatively rare and *A. rochei* is the more common western Atlantic species.

Euthynnus alletteratus (Rafinesque, 1810)

- Fowler (1905a), as *Pelamys alleterata*, (2), St. Thomas
 Erdman (1956: 325), most abundant scombrid in Puerto Rican waters, beach seine, Rincón; Aguadilla, June and July.
 Mather (1956), sport fishing, Virgin Islands.
 Idyll & Randall (1959), beach seine; (153), trolling; St. John.
 Idyll & Randall (1960), (65), trolling; St. John.
 Siddiqi & Cable (1960), trematode parasites, La Parguera.
 Bane (1964a), trolling, Mayagüez; Rincón; Aguadilla.
 Bane (1964b), collected, trolling, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Erdman (1967b), schooling, St. John, June.
 Randall (1967), food habits.
 Randall (1968a: 120), Fig. 137, (1: 325 mm TL), St. John.
 Erdman (1976), spawning condition.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Kimmel (1991), baitfish, Puerto Rico.
 Friedlander et al. (1994), trolling, (6), inshore; (6), shelf edge, St. Thomas.

little tunny, albacora, vaca, bonito.

Katsuwonus pelamis (Linnaeus, 1758)

- Mather (1956), sport fishing, Virgin Islands.
 Erdman & Maytag (1957), in yellowfin tuna stomach, off San Juan.
 Bane (1964b), collected, trolling, Puerto Rico.
 Saunders (1966a), as *Euthynnus pelamis*, blood parasites, Puerto Rico.
 Saunders (1966b), as *E. pelamis*, blood characteristics, Puerto Rico.
 Bird (1967), sport fishing, Puerto Rico.
 Erdman (1976), as *E. pelamis*, spawning condition, Puerto Rico.
 Graves et al. (1984), (1), purchased, biochemical analysis, Ponce.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Beets & LaPlace (1991), as *E. pelamis*, baitfish target species, St. Thomas.
 Kimmel (1991), as *E. pelamis*, baitfish and target species, Puerto Rico.
 Friedlander (1992), trolling, NE corner Puerto Rico.

skipjack tuna, ocean bonito, bacora, bonito.

Scomberomorus cavalla (Cuvier, 1829)⁷²

- Cuvier & Valenciennes (1832: 187), as *Cybium caballa*, type locality, Puerto Rico.
 Evermann & Marsh (1900: 123), as *S. maculatus*, Pl. 6, Puerto Rico.
 Nichols (1929: 230), obs., Ponce market.
 O'Neill (1938), fish poisoning, Culebra; St. Thomas.

⁷²Erdman (1949) questioned the occurrence of *S. maculatus* in the Caribbean. Further work by Collette et al. (1978) and Collette & Russo (1984) indicate no specimens of *S. maculatus* are known from the Caribbean. One spotted *Scomberomorus* was found in the UF collection with a color photograph was identified as *S. maculatus*. It must be rare and easily confused with *S. regalis*.

Erdman (1956: 321), spawning condition, August.
 Mather (1956), bait, Virgin Islands.
 Idyll & Randall (1959), hook and line; (16), trolling; St. John.
 Idyll & Randall (1960), (34), trolling; St. John.
 Siddiqi & Cable (1960), as *S. maculatus*, trematodes absent, Puerto Rico.
 Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
 Bane (1964b), collected, trolling, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 119), Fig. 136, (1: 1107 mm TL), St. John.
 Martin & Patus (1975), inner bay, central bay, Bahía Jobos.
 Erdman (1976), spawning condition.
 Boulon (1985a), obs., St. John.
 Boulon (1985b), obs., St. John.
 Kimmel (1985b), obs., La Parguera.
 Prince & Gonzalez (1985), fish aggregating device, San Juan.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Kimmel (1991), baitfish target species, Puerto Rico.
 Friedlander (1992), trolling, NE corner Puerto Rico.
 Friedlander et al. (1994), trolling, (2), inshore; (14), shelf edge, St. Thomas.

king mackerel, kingfish, longmouth, sierra, carite.

Scomberomorus maculatus (Mitchill, 1815)⁷²

Martin & Patus (1973), Bahía Jobos.
 Fast (1974), obs., artificial reef; patch reef, Media Luna reef, La Parguera.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Boulon (1985a), obs., St. John.
 Boulon (1987), obs., St. John.
 Dennis et al. (in prep), (2: 429-470 mm FL), hand line, north coast, Puerto Rico, S. de France, 8 Jul 86 [UF 48259, 48834].

Spanish mackerel, sierra.

Scomberomorus regalis (Bloch, 1793)

Poey (1881: 331), as *Cybium regale*, Puerto Rico.
 Stahl (1883: 77), as *C. regale*, Puerto Rico.
 Evermann & Marsh (1900: 124), Fig. 28, (1: 406 mm TL), Puerto Real.
 Erdman (1956: 320), spawning condition.
 Mather (1956), bait, Virgin Islands.
 Idyll & Randall (1959), hook and line; (82), trolling; St. John.
 Idyll & Randall (1960), (17), trolling; St. John.
 Bane (1964a), gill net; beach seine, trolling bait; Puerto Rico.
 Bane (1964b), collected, trolling, Puerto Rico.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 117), Fig. 134, (1: 414 mm TL), St. John.
 Collette & Talbot (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., patch reef, Greater Lameshur Bay, St. John.
 Kimmel (1975), (1), algal mat, Punta Las Tunas.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
 Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.
 Erdman (1976), spawning condition.
 Ebersole (1977), behavioral interaction, St. Thomas; St. John.
 Collette et al. (1978), specimens examined, Puerto Rico; Virgin Islands.
 Corujo Flores (1980), (9: 224-528 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (1), gill net, Laguna Joyuda.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Clavijo et al. (1987), fish attractor, 26 m, SE of St. Thomas.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Acosta (1992), gill net catch, Puerto Rico.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Friedlander et al. (1994), trolling, (20), inshore; (4), shelf edge, St. Thomas.
 Bunkley-Williams et al. (1996a), parasites, Humacao, La Parguera.

cero, alasana, pelicán, sierra.

Thunnus alalunga (Bonnaterre, 1788)⁷³

Bullis & Mather (1956), caught off Ponce, January to April.
 Erdman (1956: 326), longline, Puerto Rico.
 Bane (1964b), collected, trolling, Puerto Rico.
 Erdman (1976), spawning condition, Puerto Rico.

albacore, albacora.

Thunnus albacares (Bonnaterre, 1788)

Erdman (1956: 326), the common large tuna in Puerto Rico.
 Mather (1956), bait, Virgin Islands.
 Erdman & Maytag (1957), (4), longline, off San Juan.
 Bane (1964b), collected, trolling, Puerto Rico.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Bird (1967), sport fishing, Puerto Rico.
 Erdman (1967a), spawning condition, Puerto Rico.
 Erdman (1976), spawning condition, Puerto Rico.
 Prince & Gonzalez (1985), fish aggregating device, San Juan.
 Brandon (1987), recreational landings, St. Thomas; St. John.
 Feigenbaum et al. (1989), fish attractor, N of Fajardo.
 Beets & LaPlace (1991), baitfish target species, St. Thomas.
 Friedlander (1992), trolling, NE corner Puerto Rico.

yellowfin tuna, atún de aletas amarillas.

Thunnus atlanticus (Lesson, 1831)

Erdman (1956: 326), most abundant species of *Thunnus* in Puerto Rico; abundant, off Aguadilla.
 Mather (1956), sport fishing, Virgin Islands.
 Erdman & Maytag (1957), in blue marlin stomach, off San Juan.

⁷³Most reports of *T. alalunga* are based on *T. atlanticus* according to Bullis & Mather (1956).

Idyll & Randall (1960), (1), trolling; St. John.
Rivas (1961), (1: 534 mm FL), San Juan [UMML 3949].
Bane (1964a), longline, La Parguera.
Bane (1964b), collected, trolling, food habits, biology, Puerto Rico.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Erdman (1967a), spawning condition, Puerto Rico.
Erdman (1976), spawning condition; juveniles, Puerto Rico.
Brandon (1987), recreational landings, St. Thomas; St. John.
Feigenbaum et al. (1989), fish attractor, N of Fajardo.
Friedlander (1992), trolling, NE corner Puerto Rico.
Friedlander et al. (1994), trolling, (1), shelf edge, St. Thomas.

blackfin tuna, albacora, bonito, atún.

Thunnus obesus (Lowe, 1839)

Bullis & Mather (1956), caught off Ponce, winter.
Erdman (1956: 326), (1: 82 kg), longline, Ponce, summer.
Mather & Gibbs (1958), (1), Ponce, spring 1955.

bigeye tuna, atún, ojo grande.

Thunnus thynnus (Linnaeus, 1758)

Erdman (1956: 326), (1: 74 kg), hook and line, San Juan, September 1955.
Bird (1967), sport fishing, Puerto Rico.
Erdman (1976), (2: 118-138 kg), hook and line, San Juan, January 1960.

bluefin tuna, atún.

XIPHIIDAE

Xiphias gladius Linnaeus, 1758

Erdman (1956), longline, south coast, Puerto Rico; (1: 533 mm TL), dolphin stomach, La Parguera; (1: 235 mm TL), blue marlin stomach, La Parguera.
Erdman (1963b), (2: 34-114 kg), longline; (4), juveniles, dolphin and marlin stomachs; Puerto Rico.

swordfish, pez espada.

ISTIOPHORIDAE

Istiophorus platypterus (Shaw in Shaw & Nodder, 1792)

Erdman (1956: 329), as *I. americanus*, most abundant October to April, Puerto Rico.
Erdman (1957), as *I. americanus*, sport fishing, Puerto Rico.
Erdman & Maytag (1957), (2), longline, off San Juan.
Mather (1956), as *I. americanus*, sport fishing, Virgin Islands.
Erdman (1963a), as *I. americanus*, sport fishing, San Juan.
Saunders (1966a), as *I. albicans*, blood parasites, Puerto Rico.
Bird (1967), sport fishing, St. Thomas.

Erdman (1967a), as *I. albicans*, spawning condition, Puerto Rico.
Erdman (1976), postlarvae, May.
Brandon (1987), recreational landings, St. Thomas; St. John.

sailfish, pez vela, abanico.

Makaira nigricans Lacepède, 1802

Erdman (1956: 329), as *M. ampla*, caught throughout the year in Puerto Rico; the most abundant billfish in Puerto Rico.
Mather (1956), as *M. ampla*, sport fishing, Virgin Islands.
Erdman (1957), sport fishing, Puerto Rico.
Erdman & Maytag (1957), (2), longline, off San Juan.
Erdman (1962), life history, Puerto Rico.
Bane (1964b), collected, trolling, Puerto Rico.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Bird (1967), sport fishing, Puerto Rico.
Erdman (1967a), spawning condition, Puerto Rico.
Erdman (1968), spawning condition, Puerto Rico.
Erdman (1976), spawning condition, postlarvae, Puerto Rico.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
Brandon (1987), recreational landings, St. Thomas; St. John.
Hogans (1988), parasites, San Juan.
Dyer et al. (1992b), parasite, Puerto Rico.
Friedlander & Contillo (1994), hook & line, St. Thomas; Virgin Gorda.

blue marlin, aguja azul.

Tetrapturus albidus Poey, 1860

Erdman (1956: 329), as *Makaira albida*, scarce in Puerto Rican waters.
Mather (1956), as *M. albida*, sport fishing, Virgin Islands.
Erdman (1957), sport fishing, Puerto Rico.
Erdman & Maytag (1957), (1), longline, off San Juan.
Bird (1967), sport fishing, Puerto Rico.
Erdman (1967a), spawning condition, Puerto Rico.
Erdman (1976), spawning condition.
Erdman et al. (1986), recaptured tagged fish from Massachusetts off Puerto Rico.
Brandon (1987), recreational landings, St. Thomas; St. John.
Dyer et al. (1992b), parasite, Puerto Rico.

white marlin, aguja blanca.

Tetrapturus pfluegeri Robins & de Sylva, 1963

Migdalski (1958), as *T. belone*, Puerto Rico.
Robins & de Sylva (1963), (1: 1530 mm TL holotype), hook and line, San Juan, 1 Oct 57 [USNM 202818]; (1: 1550 mm TL), hook and line, San Juan, September 1961.
Brandon (1987), as "spearfish", recreational landings, St. Thomas; St. John.

longbill spearfish.

ARIOMMATIDAE

Ariomma regulus (Poey, 1868)

Dennis et al. (in prep), (4: 23.0-25.5 mm SL), 1 m, White Bay, Guana Isl [ANSP 157304].

spotted driftfish.

CENTROLOPHIDAE

Hyperoglyphe cf. *perciformis* (Mitchill, 1818)

Martin & Patus (1973), juvenile, Sargassum clump, Bahía Jobos.

Martin & Patus (1975), as *Hyperoglyphe* sp., ship channel, Bahía Jobos.

driftfish.

NOMEIDAE

Nomeus gronovii (Gmelin, 1788)

Nichols (1915b: 143), (1), under *Physalia*, Río Loiza mouth.

Martin & Patus (1973), Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Erdman (1976), juveniles.

man-o-war fish.

Psenes cyanophrys Valenciennes in Cuvier & Valenciennes, 1833

Erdman (1956: 328), several, *Coryphaena* stomach, La Parguera.

Erdman (1967b), in tuna and bird stomachs, Puerto Rico.

Erdman (1976), postlarvae; juveniles.

UMML collection, (1), dipnet, in *Sargassum*, surface, St. John [UMML 8679].

UPRM collection, (2: 79-106 mm SL), dip net, under wooden plank, off La Parguera [UPRM uncat.].

freckled driftfish.

STROMATEIDAE

Peprilus paru (Linnaeus, 1758)

Evermann & Marsh (1900: 141), Fig. 39, (2: 165-190 mm TL), market, San Juan.

Ramsey (1967), trawl, Bahía Mayagüez.

Fish & Mowbray (1970: 164), (1), sound production, Mayagüez.

Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.

Martin & Patus (1975), reef & cays, Bahía Jobos.

Wood et al. (1975), collected, inner bay, thermal cove, Bahía Guayanilla.

Erdman (1976), as *P. alepidotus*, spawning condition.

southern harvestfish, papito, palometa.

BOTHIDAE*Bothus lunatus* (Linnaeus, 1758)

- Jordan & Evermann (1898b: 2665), as *Platophrys lunatus*, examined specimen, St. Thomas.
Evermann & Marsh (1900: 322), as *P. lunatus*, collected, (2: 50-131 mm TL), San Antonio Bridge; Culebra; (2: 45-97 mm TL), Ponce; (1: 215 mm TL), Aguadilla.
Nichols (1930: 386), as *P. lunatus*, (1), San Juan.
Randall (1963a), (1: 230 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.
Kumpf (1965), observed, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Ramsey (1967), trawl, Bahía Boquerón.
Randall (1967), food habits.
Randall (1968a: 162), Fig. 185, (1: 279 mm SL), St. John.
Dammann (1969), as *B. lunatus*, (1), rotenone, Chocolate Hole, St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), (9: 20-90 mm SL), rotenone, artificial reef; obs., patch reef, Media Luna reef, La Parguera.
Kimmel (1975), (2), sandy bottom; (7), algal mat; Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Yoshioka (1975d), (11), rotenone, nearshore, Punta Manati.
Yoshioka (1975e), collected, rotenone, Punta Higuero.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), obs., Anegada.
Dyer et al. (1985), digenetic trematodes, (4), Cayo Enrique, La Parguera.
Kimmel (1985b), obs., La Parguera.

peacock flounder, tapaculo.

Bothus maculiferus (Poey, 1860)

- Kimmel (1975), (2), algal mat, Punta Las Tunas.
Martin & Patus (1984), (2), sandy tide pool, near Punta Manati [USNM 219092].
Dennis et al. (in prep), (1: 57 mm SL), seine, Isla Matei, La Parguera [UPRM 3695]; (1: 110 mm SL), Puerto Rico [UPRM 3701]; (2), sandy tide pool, near Punta Manati, F.D. Martin, 21 Feb 74 [USNM 219092].

maculated flounder.

Bothus ocellatus (Agassiz in Spix & Agassiz, 1831)

- Evermann & Marsh (1900: 321), as *Platophrys ocellatus*, Fig. 105, (4: 46-73 mm TL), San Antonio Bridge; San Juan; Culebra; Boquerón.
Nichols (1930: 385), as *Platophrys ocellatus*, (1), Condado rocks, San Juan.
Siddiqi & Cable (1960), trematode parasites, Punta Arenas.
Bullis & Thompson (1965), trawl, 33 m, N of Tortola, OREGON 2613; 73 m, N of Tortola, OREGON 2615; 75 m, N of Tortola, OREGON 2616; 51 m, NW of St. Thomas, OREGON 2626 (corrected).
Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
Randall (1967), food habits.
Randall (1968a: 163), Fig. 186, (1: 74 mm TL), St. John.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Fast (1974), (1: 30 mm SL), rotenone, patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), (10), sandy bottom, Punta Las Tunas.
 Yoshioka (1975d), (7), rotenone, nearshore, Punta Manati.
 Dunne & Brown (1979), (1), collected, Anegada.
 Martin & Cooper (1981), *Syringodium* beds, La Parguera.

eyed flounder.

Bothus robinsi Topp & Hoff (ex Jutare) 1972

Powell et al. (1972), (1: 91 mm SL), trawl, 49 m, N of Tortola, OREGON 2612 [FSBC 1550].
 Dennis et al. (in prep), (1: 91), trawl, 49 m, N of Tortola, OREGON 2612 [FSBC 1550]; (1), trawl, 51 m, NW of St. Thomas, OREGON 2626 [USNM 282698].

spottail flounder.

PARALICHTHYIDAE⁷⁴

Citharichthys arenaceus Evermann & Marsh, 1900⁷⁵

Evermann & Marsh (1900: 326), Fig. 106, (1: 162 mm TL holotype), Mayagüez [USNM 49526]; paratypes, (9: 59-130 mm TL) same locality as holotype; (1: 125 mm TL), Aguadilla; (1: 123 mm TL), San Juan.
 Ramsey (1967), trawl, Bahía Boquerón.
 Dawson (1969), re-examined holotype and paratypes [USNM 49536, 50195, 126424].
 Van der Veer et al. (1994), (28), seine, Puerto Rico.
 Joyeux et al. (1995), seine and trawl, La Parguera, Boqueron, Río Guanajibo, Río Añasco, Playa Añasco, Caño Rincon.

sand whiff.

Citharichthys cornutus (Günther, 1880)

Evermann & Marsh (1900: 325), as *C. unicornis*, (1: 57 mm TL), Bahía Mayagüez.
 Bullis & Thompson (1965), trawl, 64 m, N of Jost Van Dyke, OREGON 2622 (corrected).

horned whiff.

Citharichthys gymnorhinus Guthertz & Blackman, 1970

Guthertz & Blackman (1970), listed from N of Puerto Rico, but none in material examined.
 Powell et al. (1972), (2: 36-39 mm SL), trawl, 64 m, N of Jost Van Dyke, OREGON 2622 (corrected) [FSBC 1559].

anglefin whiff.

Citharichthys spilopterus Günther, 1862

Evermann & Marsh (1900: 326), abundant; collected, San Antonio bridge; San Juan; Fajardo; Vieques; Ponce; Boquerón; Puerto Real; Mayagüez, Aguadilla; Palo Seco.
 Nichols (1930: 388), (2), Palo Seco.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Austin (1971a), (1: 72 mm SL), Bahía Guayanilla; obs., Guánica.

⁷⁴Paralichthyidae is separated from Bothidae based on the advise of D. Hensley (pers. comm.).

⁷⁵*Citharichthys arenaceus* may not be distinct from *C. uhleri*, if so, the latter name would have priority (Dawson, 1969; Gilbert & Kelso, 1971).

Austin & Austin (1971), food habits.

González-Azar & Vilella (1975), collected, Laguna Piñones.

Negrón González & Cintrón (1979), collected, estuary, Río Manatí; Río Cibuco; Río La Plata; Río Espiritu Santo.
Corujo Flores (1980), (2: 103-106 mm SL), gill net, estuary, Río Espiritu Santo.

Van der Veer et al. (1994), (49), trawl; (75), seine, Bahía de Jobos; Bahía Guánica; La Parguera; Playa Guanajibo;
Río Guanajibo; Río Añasco; Laguna Rincón.

Joyeux et al. (1995), seine and trawl, La Parguera, Boqueron, Río Guanajibo, Río Añasco, Añasco Beach, Caño Rincon, Caño Corazones, Río Grande de Loiza, Laguna Torrecillo.

bay whiff.

Citharichthys uhleri Jordan in Jordan & Goss, 1889⁷⁶

Erdman (1972), as *C. spilopterus*, Pl. 27.

Uhler's whiff.

Cyclopsetta fimbriata (Goode & Bean, 1885)

Bullis & Thompson (1965), trawl, 33 m, N of Tortola, OREGON 2613; 51 m, NW of St. Thomas, OREGON 2626 (corrected).

Powell et al. (1972), (1: 144 mm SL), trawl, N of Tortola, OREGON 2613 [FSBC 1548].

flounder.

Etropus crossotus Jordan & Gilbert, 1882

Evermann & Marsh (1900: 329), Fig. 107, collected, Arroyo; Mayagüez; Palo Seco.

Ramsey (1967), trawl, Bahía Mayagüez.

Eger (1970), (2), trap, Bahía Yabucoa.

Austin (1971a), (300+: 15-87 mm SL), La Parguera.

Austin & Austin (1971), food habits.

Kimmel (1985b), obs., La Parguera.

Stoner (1986), (319), trawl, Laguna Joyuda.

Van der Veer et al. (1994), (6), trawl, (38), seine, La Parguera; Playa Guanajibo.

fringed flounder, lenguado.

Syacium gunteri Ginsburg, 1933

Bullis & Thompson (1965), trawl, 33 m, N of Tortola, OREGON 2613 (corrected).

Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.

Powell et al. (1972), (2: 82-88 mm SL), trawl, N of Tortola, OREGON 2613 [FSBC 1549].

shoal flounder.

Syacium micrurum Ranzani, 1842

Evermann & Marsh (1900: 324), common, collected, Hucares; Culebra; Ponce; Boquerón; Bahía Mayagüez; Agiadilla; Palo Seco.

Bullis & Thompson (1965), trawl, 77 m, N of St. Thomas, OREGON 2607 (corrected).

Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.

Fraser (1971), (2: 151-167 mm SL), trawl, off Boqueron, OREGON Stat. 5451.

Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.

Kimmel (1975), (15), sandy bottom, Punta Las Tunas.

⁷⁶Gilbert & Kelso (1971: 28), identified Erdman's (1972) specimen, as *C. uhleri*, based on color pattern.

Martin & Patus (1975), central bay, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Van der Veer et al. (1994), (1), seine, Puerto Rico.

channel flounder.

ACHIRIDAE⁷⁷

Achirus declivis Chabanaud, 1940

Dennis et al. (in prep), (3: 28.0-36.5 mm SL), Laguna Joyuda [ANSP 144392 formerly UPRM 1350]; (1: 125 mm SL), rotenone, Laguna Joyuda [ANSP 143003 formerly 1349]; (1: 137 mm SL), 31 m, mud bottom, off Añasco [ANSP 143002]; (1: 88 mm SL), trawl, 27 m, off Añasco, PR [ANSP 144385]; (1: 122 mm SL), Río Guanajibo, Mayagüez [ANSP 144513 formerly UPRM 469]; (1: 58 mm SL), trawl, Mayagüez [ANSP 144515 formerly 2275]; (1: 45 mm SL), Caño Corazones mouth, Mayagüez [ANSP 144520]; (1: 126 mm SL), Puerto Rico [ANSP 144514].

lost sole.

Achirus lineatus (Linnaeus, 1758)

Poey (1881: 341), as *Monochir maculipinnis*, Puerto Rico.
 Stahl (1883: 80), as *M. maculipinnis*, Puerto Rico.
 Evermann & Marsh (1900: 331), Fig. 108, collected, San Juan market; Vieques; Boquerón; Palo Seco.
 Fowler (1948), as *Achirus achirus*, (1: 25 mm TL), San Juan.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Pagan & Austin (1970), fish kill, Laguna Joyuda.
 Austin (1971a), (60: 11-60 mm SL), mangroves, Caño Tiburones; La Parguera; Guayanilla.
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), ship channel, Bahía Jobos.
 Corujo Flores (1980), (2: 111-113 mm SL), gill net, estuary, Río Espiritu Santo.
 García (1981), (111), gill net, Laguna Joyuda.
 Martin & Patus (1984), (2: 14-19 mm SL), Bahía Jobos [SIO 74-144]; (1: 41 mm SL), Bahía Jobos [SIO 74-147]; as *Trinectes inscriptus*, (1: 43.5 mm SL), rotenone, Bahía Jobos [SIO 74-145].
 Stoner (1986), most abundant species, (1348), trawl, Laguna Joyuda.
 Van der Veer et al. (1994), (30), trawl; (83), seine, Bahía de Jobos; Bahía Guánica; La Parguera; Laguna Joyuda; Río Guanajibo; Laguna Rincón.

lined sole.

Gymnachirus nudus Kaup, 1858

Randall & Randall (1960), as *G. nudus* and *G. williamsoni*, St. John.
 Dawson (1964), (1: 42 mm SL), Lesser Lameshur Bay, St. John [UMML 6750]; (1: 62 mm SL), trawl, N of Tortola, OREGON 2613 [GCRL 62616].
 Martin & Patus (1973), Bahía Jobos.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Martin & Patus (1984), (1), <0.5 m, mangrove channel, Bahía Jobos [UMMZ 192630].

zebra sole.

Trinectes inscriptus (Gosse, 1851)

⁷⁷Chapleau & Keast (1988) have raised Achiridae to the family level.

Evermann & Marsh (1900: 330), as *Achirus inscriptus*, collected, San Antonio Bridge; San Juan; Fajardo; Bahía Mayagüez; Aguadilla; Palo Seco.

Van der Veer et al. (1994), (10), trawl; (36), seine, Río Guanajibo; Río Añasco; Laguna Rincón.

UPRM collection, (2: 36-37 mm SL), Bahía Fosforescente, La Parguera [UPRM 1882]; (1: 24 mm SL), seine, Playa Papayo, La Parguera [UPRM 2917]; (27: 32-64 mm SL), beach seine, Playa Papayo, La Parguera [UPRM 3726]; (3: 35-60 mm SL), mangrove channel, La Parguera [UPRM uncat.]; (1: 105 mm SL), gill net, Laguna Joyuda [UPRM uncat.].

scrawled sole.

CYNOGLOSSIDAE

Symphurus arawak Robins & Randall, 1965

Robins & Randall (1965), (1: 27 mm SL paratype), rotenone, 18 m, Greater Lameshur Bay, St. John [UPRM 2313].

Randall (1968a: 166), Fig. 189, (1: 28 mm TL), St. John.

Martin & Patus (1984), seine, sandy beach, Mayagüez.

Caribbean tonguefish, lenguado.

Symphurus caribbeanus Munroe, 1991

Austin & Austin (1971: 38 in part), as *S. plagusia*, Bahía Guayanilla [UPRM 2926].

Munroe (1991), (1: 100 mm SL holotype), Bahía Mayagüez [USNM 313487]; paratypes, (10: 90-122 mm SL), Río Añasco [UPRM 740]; (1: 98 mm SL), Mayagüez [UPRM 1588]; (8: 58-98 mm SL), Guayanilla [UPRM 2926]; (1: 70 mm SL), Playa de Guayanés, Puerto Yabucoa [ANSP 118553]; (7: 43-82 mm SL), Puerto Yabucoa [ANSP 115601]; (1: 96 mm SL), Río Añasco [UPRM 736].

tonguefish.

Symphurus plagiusa (Linnaeus, 1766)

Van der Veer et al. (1994), (74), trawl; (12), seine, La Parguera; Río Guanajibo; Playa Guanajibo; Playa Añasco; Laguna Rincón.

tonguefish.

Symphurus plagusia (Bloch & Schneider (ex Browne), 1801)

Poey (1881: 341), as *Aphoristia ornata*, Puerto Rico.

Stahl (1883: 80), as *A. ornata*, Puerto Rico.

Evermann & Marsh (1900: 332), (15: 68-146 mm TL), Hucares; Ponce; Boquerón; Mayagüez; Palo Seco.

Nichols (1930: 391), (1), Palo Seco.

Ginsburg (1951b), as *S. plagusia plagusia*, (4), Ponce [USNM 50178].

Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.

Austin (1971a), (18: 30-104 mm SL), Bahía Guayanilla.

Austin & Austin (1971), food habits.

Corujo Flores (1980), (1: 109 mm SL), gill net, estuary, Río Espíritu Santo.

Munroe (1991), (1: 103 mm SL neotype), Puerto Yabucoa [ANSP 132030]; (1: 83 mm SL), Mayagüez [FMNH 3286]; (1: 117 mm SL), Añasco Bay [FMNH 61572]; (1: 127 mm SL), Mani Beach, Mayagüez [UF 12059]; (1: 113 mm SL), Puerto Yabucoa [ANSP 129952]; (1: 98 mm SL), Puerto Yabucoa [ANSP 129985]; (4: 62-83 mm SL), Ponce [USNM 50178].

tonguefish.

Symphurus tessellatus (Quoy & Gaimard, 1824)

Evermann & Marsh (1900), as *S. plagusia*, (in part), Palo Seco.

Munroe (1991), (1: 142 mm SL), Puerto Rico [UPRM 2717]; (1: 111 mm SL), Mayagüez [UPRM 2859]; (1: 130 mm SL), Río Añasco [UPRM 3758]; (2: 130-133 mm SL), Bahía Mayagüez [UPRM 3759]; (1: 92 mm SL), Palo Seco, FISH HAWK [MCZ 28843]; (1: 146 mm SL), Mani Beach, Mayagüez [UPRM 1590]; (15: 114-172 mm SL), Mayagüez [UPRM 2743]; (2: 128-143 mm SL), Río Añasco [UPRM 3760]; (3: 126-158 mm SL), Bahía Mayagüez [UPRM 3761] (1: 132 mm SL), Mayagüez [USNM 126448].

tonguefish.

BALISTIDAE*Balistes capriscus* Gmelin, 1789

Erdman (1956: 335), rare, several obs., La Parguera.

Randall (1968a: 260), Fig. 291, (1: 135 mm TL), Puerto Rico.

Fish & Mowbray (1970: 171), (1), sound production, La Parguera.

Kimmel (1975), (1), sandy bottom, Punta Las Tunas.

Erdman (1976), juveniles, fish stomachs.

Olsen et al. (1978), (4), fish trap, 55 m, NE of St. Thomas.

UPRM collection, (2: 178-198 mm SL), market, Puerto Real [UPRM 1605].

ANSP collection, (1: 35 mm SL), *Coryphaena* sp. stomach, off La Parguera [ANSP 98276].

gray triggerfish.

Balistes vetula Linnaeus, 1758

Evermann & Marsh (1900: 256), Pl. 39, not uncommon; (4), Arroyo.

Fowler (1917), examined, St. Thomas.

Nichols (1930: 336), obs., Ponce market.

Idyll & Randall (1959), fish trap, St. John.

Idyll & Randall (1960), hook and line; Caneel Bay, St. John.

Siddiqi & Cable (1960), trematode parasites, La Parguera.

Randall (1962b), (51), fish trap, Lameshur Bay, St. John.

Randall (1963a), (6: 215-330 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (1: 334 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.

Bullis & Thompson (1965), trawl, 48 m, SW of St. John, OREGON 2618 (corrected).

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Moore (1967), (1: 178 mm SL), Aguadilla [USNM 126421].

Randall (1967), food habits.

Randall (1968a: 258), Fig. 290, (1: 330 mm TL), Puerto Rico.

Fish & Mowbray (1970: 172), (1), sound production, Mayagüez.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Earle (1972), obs., Greater Lameshur Bay, St. John.

Fast (1974), obs., patch reef, Media Luna reef, La Parguera.

Martin & Patus (1974), obs., rocky shore, Punta Higuero.

Kimmel (1975), (2), sandy bottom; (2), algal mat, Punta Las Tunas.

Riemold, R.J. (1975), collected, David Point, St. Thomas.

Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.

Yoshioka (1975a), obs., 10 m, Bahía Tortuguero.
Yoshioka (1975b), Cabo Mala Pascua.
Dunne & Brown (1979), obs., Anegada.
Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
Boulon (1985a), obs., St. John.
Boulon (1985b), obs., St. John.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Berrios Diaz et al. (1986), obs., Cayo Berbería; Cayo Ratones, Ponce.
Kimmel (1985b), obs., La Parguera.
Boulon (1987), obs., St. John.
Manooch & Mason (1987), collected, age & growth, Puerto Rico; Virgin Islands.
Beets (1989), obs., artificial reef, 26 m, St. Thomas.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. John.
Beets & Friedlander (1992), fishery analysis, St. Thomas.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
Wainwright & Turingan (1993), (5: 145-175 mm SL), Puerto Rico.
Turingan (1994), spear, Puerto Rico.
Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.
Turingan & Wainwright (1993), feeding, Puerto Rico.
Turingan et al. (1995), feeding, La Parguera.

queen triggerfish, oldwife, puerco, peje puerco, cachucho.

Canthidermis sufflamen (Mitchill, 1815)

Erdman (1956: 334), as *C. sobaco*, (1), fish trap, La Parguera.
Moore (1967), (1: 63 mm SL), La Parguera [UMML 5888]; (1: 310 mm SL), La Parguera [UMML 2422]; (1: 404 mm SL), St. John [UMML 2422].
Randall (1967), food habits.
Randall (1968a: 263), Fig. 294, (1: 414 mm TL), St. John.
Dunne & Brown (1979), obs., Anegada.
Kimmel (1985b), obs., La Parguera.
Prince & Gonzalez (1985), fish aggregating device, San Juan.
Friedlander et al. (1994), trolling, (1), shelf edge, St. Thomas.

ocean triggerfish, turco.

Melichthys niger (Bloch, 1786)

Randall (1965c), as *M. radula*, food habits, St. John.
Moore (1967), (3: 211-230 mm SL), San Juan [UMMZ 172720, 172734]; (1: 96 mm SL), La Parguera [UMMZ 673096]; (1: 150 mm SL), Congrejos reef, San Juan [UMML 2163].
Randall (1967), food habits.
Randall (1968a: 261), Fig. 292, (1: 330 mm TL), Puerto Rico.
Martin & Patus (1974), obs., rocky shore, Punta Higuero.
Kimmel (1975), (2), algal mat, Punta Las Tunas.
Yoshioka (1975a), obs., shoreline, 10 m, 20 m, Bahía Tortuguero.
Erdman (1976), post larvae, in *Tetrapturus albidus* stomach.
Dunne & Brown (1979), obs., Anegada.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Turingan (1994), spear, Puerto Rico.
Turingan et al. (1995), feeding, La Parguera.

black durgon, japonesa, tobi.

Xanthichthys ringens (Linnaeus, 1758)

Erdman (1956: 334), abundant, blue marlin stomach, San Juan, October 1956.

Moore (1967), (2: 98-100 mm SL), Ram's Head Bay, St. John [UMML 6249].

Randall et al. (1978), Fig 2a, (1: 141 mm SL), Puerto Rico (specimen lost); (1: 69 mm SL), *C. hippurus* stomach, San Juan [UMML 3030].

Kimmel (1985b), obs., La Parguera.

Turingan (1994), spear, Puerto Rico.

Turingan et al. (1995), feeding, La Parguera.

sargassum triggerfish, puerquito.

MONACANTHIDAE⁷⁸

Aluterus monoceros (Linnaeus, 1758)⁷⁹

Randall (1968a: 271), (1), Puerto Rico.

Dennis et al. (in prep), (1), off west coast Puerto Rico, OREGON 5456, 3 Jun 65 [ANSP 103512]; (1: 352 mm SL), hook and line, off Aguadilla [UPRM 3731].

unicorn filefish.

Aluterus schoepfii (Walbaum, 1792)

Erdman (1956: 334), (1), Isla Magueyes, La Parguera; as *Alutera punctata*, more abundant than *A. scriptus* as juveniles, but just as common as adults.

Randall (1967), food habits.

Randall (1968a: 270), Fig. 301, (1: 432 mm TL), Puerto Rico.

Fish & Mowbray (1970: 177), (1), sound production, La Parguera.

Fast (1974), (2: 410-430 mm SL), rotenone, artificial reef, Media Luna reef, La Parguera.

Yoshioka (1975b), reef, Punta Ostiones.

Yoshioka (1975c), (1), seine, grassbed, Cabo Mala Pascua.

Dyer et al. (1985), digenetic trematodes, (3), Isla Magueyes, La Parguera.

Kimmel (1985a), shelf-edge reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Bunkley-Williams & Williams (1994), (1), hand, parasites, Punta Santiago.

Bunkley-Williams et al. (1996a), parasites, La Parguera.

orange filefish, pereza.

Aluterus scriptus (Osbeck, 1765)

Poey (1881: 345), as *Alutera scripta*, Puerto Rico.

Nichols (1930: 342), as *Alutera scripta*, obs., Ponce market.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

⁷⁸Some researchers place the monacanthids with the balistids in Balistidae, but Tyler (1980) gives details for separation.

⁷⁹*Aluterus* is the senior synonym of *Alutera* (Eschmeyer, 1990).

Ramsey (1967), as *Alutera scripta*, trawl, Bahía Boquerón.
Randall (1967), as *Alutera scripta*, food habits.
Randall & Hartman (1968), as *Alutera scripta*, food habits.
Fish & Mowbray (1970: 178), (1), sound production, La Parguera.
Austin (1971a), (1: 37 mm SL), seine, La Parguera, May.
Dunne & Brown (1979), as *Alutera scripta*, obs., Anegada.
Kimmel (1985b), obs., La Parguera.

scrawled filefish, pereza, lija trompa.

Cantherhines macrocerus (Hollard in Guichenot, 1853)

Randall (1964), Fig. 5, (1: 305 mm SL), trap, La Parguera [UPRM 1149 discarded]; specimens examined, Virgin Islands.
Randall (1967), food habits.
Randall (1968a: 268), Fig. 299, (1: 366 mm TL), La Parguera [UPRM 1149 discarded].
Randall & Hartman (1968), food habits.
Kimmel (1975), (1), algal mat, Punta Las Tunas.
Stevenson & Stuart-Sharkey (1980), fish trap, Puerto Real.
Williams (1982), leech parasites, Puerto Rico.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Bunkley-Williams & Williams (1994), (1: 394 mm SL), hand, parasites, La Parguera.
Turingan (1994), spear, Puerto Rico.
Turingan et al. (1995), feeding, La Parguera.

whitepotted filefish.

Cantherhines pullus (Ranzani, 1842)

Evermann & Marsh (1900: 258), as *Cantherhines pullus*, (2: 178 mm TL), Arroyo.
Silvester (1916: 216), as *Pseudomonacanthus amphioxys*, (3), coral reef, Punta Ballenas, Guánica.
Fowler (1928), as *P. amphioxys*, (3), Puerto Rico.
Nichols (1930: 339), as *Cantherhines pullus*, obs., San Juan.
Berry & Vogele (1961), as *Amanses pullus*, (1: 138 mm SL), Arroyo [CAS-SU 8266]; (1: 142 mm SL), Puerto Rico [USNM 162780]; (1: 136 mm SL), Mayagüez [USNM 126425].
Randall (1962b), as *A. pullus*, (51), fish trap, Lameshur Bay, St. John.
Randall (1963a), (2: 89-139 mm SL), rotenone, fringing reef, Greater Lameshur Bay; (1: 134 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Randall (1964), Fig. 17, (1: 136 mm SL), spear, 6 m, Lameshur Bay, St. John [UPRM 1148].
Kumpf (1965), observed, Botany Bay, St. Thomas.
Saunders (1966a), blood parasites, Puerto Rico.
Saunders (1966b), blood characteristics, Puerto Rico.
Erdman (1967b), as *A. pullus*, in tuna and bird stomachs, Puerto Rico.
Randall (1967), food habits.
Randall (1968a: 267), Fig. 298, (1: 165 mm TL), St. John.
Randall & Hartman (1968), food habits.
Dammann (1969), (6: 58-155 mm TL), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 175), as *Cantherhines pullus*, (2), sound production, La Parguera.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
González-Azar & Vilella (1975), collected, Laguna Ceiba.
Kimmel (1975), (42), algal mat; (6), rock outcrops; (2), sandy bottom; Punta Las Tunas.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Dunne & Brown (1979), obs., Anegada.
Parrish (1982), fish trap, off Punta Ostiones.

Kimmel (1985a), obs., shelf-edge reef, La Parguera.
 Kimmel (1985b), obs., La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

orangespotted filefish, pereza, lija.

Monacanthus ciliatus (Mitchill, 1818)

Evermann & Marsh (1900: 258), Fig. 71, collected, San Geronimo; Isabel Segunda; Guánica; Boquerón; St. Thomas.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Berry & Vogele (1961), (1: 45 mm SL), St. Thomas [USNM 178812].
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 264), Fig. 295, (1: 96 mm TL), St. John.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos.
 Fast (1974), (1: 18 mm SL), rotenone, 23 m, patch reef, Media Luna reef, La Parguera.
 Kimmel (1975), (2), algal mat, Punta Las Tunas.
 Martin & Patus (1975), outfall, Bahía Jobos.
 Dyer et al. (1985), digenetic trematodes, (5), La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

fringed filefish.

Monacanthus tuckeri Bean, 1906

Nichols (1915b: 145), (1: 38 mm TL), dredge, Bahía Condado, San Juan.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Erdman (1967b), in tuna and bird stomachs, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
 Randall (1967), food habits.
 Randall (1968a: 266), Fig. 296, (1: 86 mm TL), Puerto Rico.
 Risk (1972), (2), obs., patch reef 4 m, Greater Lameshur Bay, St. John.
 Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
 Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Boulon (1992), obs., mangroves, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

slender filefish.

Stephanolepis setifer (Bennett, 1831)

Evermann & Marsh (1900: 259), as *Monacanthus hispidus*⁸⁰, Fig. 72, not common, (1), Boquerón; (5), Puerto Real.
 Siddiqi & Cable (1960), as *Monacanthus hispidus*?, trematode parasites, Cabo Rojo.
 Saunders (1966a), as *Monacanthus hispidus*?, blood parasites, Puerto Rico.

⁸⁰*Stephanolepis hispidus* is not known from the Caribbean, but fin-ray counts of Evermann & Marsh fit *hispidus*.
 Specimens of *S. setifer* with high dorsal and anal ray counts are known to occur here.

Saunders (1966b), as *Monacanthus hispidus?*, blood characteristics, Puerto Rico.
 Randall (1968a: 267), as *Monacanthus setifer*, Fig. 297, (1: 178 mm TL), Puerto Rico.
 Fish & Mowbray (1970: 35), as *Monacanthus hispidus?*, sound production, (1), La Parguera; (1), St. Thomas.
 Martin & Patus (1973), grass beds, Bahía Jobos.
 Martin & Patus (1975), reef & cays, Bahía Jobos.
 Yoshioka (1975d), as *S. hispidus*, (1), rotenone, nearshore, Punta Manati.

pygmy filefish.

OSTRACIIDAE

Acanthostracion polygonius Poey, 1876

Tyler (1965), (1: 55 mm SL), trawl, 77 m, N of St. Thomas, OREGON 2607; (2: 144-217 mm SL), St. Thomas [USNM 34927-28].
 Saunders (1966a), as *Lactophrys polygonius*, blood parasites, Puerto Rico.
 Saunders (1966b), as *L. polygonius*, blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Randall (1968a: 277), Fig. 308, (1: 246 mm TL), St. John.
 Randall & Hartman (1968), food habits.
 Collette & Talbot (1972), as *L. polygonius*, obs., Greater Lameshur Bay, St. John.
 Kimmel (1975), (6), algal mat, Punta Las Tunas.
 Kimmel (1985b), obs., La Parguera.
 Colin & Clavijo (1988), spawning, shelf-edge reef, La Parguera.
 Acosta (1992), as *L. polygonia*, gill net catch, Puerto Rico.

honeycomb cowfish, chapín.

Acanthostracion quadricornis (Linnaeus, 1758)

Stahl (1883: 81), as *Acanthostracion quadricorne*, Puerto Rico.
 Evermann & Marsh (1900: 264), as *Lactophrys tricornis*, Fig. 77, common, collected, Isabel Segunda; Arroyo; Ponce; Boquerón; Puerto Real.
 Cable (1954), parasites, Bahía Salinas, Cabo Rojo.
 Siddiqi & Cable (1960), as *Lactophrys tricornis*, trematode parasites, Cabo Rojo; Puerto Real.
 Kumpf (1965), as *L. quadricornis*, observed, Botany Bay, St. Thomas.
 Saunders (1966a), as *L. quadricornis*, blood parasites, Puerto Rico.
 Saunders (1966b), as *L. quadricornis*, blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón.
 Randall (1967), food habits.
 Randall (1968a: 276), Fig. 307, (1: 241 mm TL), Puerto Rico.
 Randall & Hartman (1968), food habits.
 Fish & Mowbray (1970: 183), as *L. quadricornis*, (1), sound production, La Parguera.
 Earle (1972), as *L. quadricornis*, obs., Greater Lameshur Bay, St. John.
 Parrish (1982), as *L. quadricornis*, fish trap, off Punta Ostiones.
 Acosta (1992), as *L. quadricornis*, gill net catch, Puerto Rico.
 Bunkley-Williams et al. (1996a), parasites, Aguadilla.

scrawled cowfish, chapín.

Lactophrys bicaudalis (Linnaeus, 1758)

Evermann & Marsh (1900: 264), Pl. 40, collected, Arroyo; Ponce; Boquerón.

Siddiqi & Cable (1960), trematode parasites, Cabo Rojo.
 Randall (1962b), (9), fish trap, Lameshur Bay, St. John.
 Randall (1963g), (1), fish trap, Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Ramsey (1967), trawl, Bahía Boquerón.
 Randall (1967), food habits.
 Randall (1968a: 274), Fig. 304, (1: 366 mm TL), St. John.
 Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
 Kimmel (1975), (1), rock outcrops, Punta Las Tunas.
 Dunne & Brown (1979), obs., Anegada.
 Dyer et al. (1985), digenetic trematodes, (5), Mario reef, La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), obs., mangroves, St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

spotted trunkfish, chapín.

Lactophrys trigonus (Linnaeus, 1758)

Poey (1881: 347), Puerto Rico.
 Stahl (1883: 81), Puerto Rico.
 Evermann & Marsh (1900: 263), Figs. 75 and 76, (1: 76 mm TL), San Antonio bridge.
 Siddiqi & Cable (1960), trematodes absent, Puerto Rico.
 Kumpf (1965), observed, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Randall (1967), food habits.
 Tyler (1967), Fig. 8, (1: 345 mm SL), Puerto Real; (8: 288-359 mm SL), examined, Puerto Rico.
 Randall (1968a: 275), Fig. 305, (1: 287 mm TL), St. John.
 Fish & Mowbray (1970: 181), (2), sound production, La Parguera.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 Earle (1972), obs., Greater Lameshur Bay, St. John.
 Martin & Patus (1973), Bahía Jobos; Bahía Guayanilla.
 González-Azar & Vilella (1975), collected, Laguna Ceiba.
 Martin & Patus (1975), reef & cays, ship channel, Bahía Jobos.
 Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.
 Yoshioka (1975f), (1), rotenone, Punta Verraco.
 Kimmel (1985b), obs., La Parguera.
 Acosta (1992), gill net catch, Puerto Rico.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

trunkfish, chapín, gallina.

Lactophrys triqueteter (Linnaeus, 1758)

Evermann & Marsh (1900: 262), Fig. 74, common, collected, Isabel Segunda; Culebra; Arroyo; Puerto Real.
 Fowler (1928), as *Ostracion triqueteter*, (2), Puerto Rico.
 Siddiqi & Cable (1960), trematode parasites, Puerto Real.
 Randall (1962b), (20), fish trap, Lameshur Bay, St. John.
 Kumpf (1965), observed, collected, Botany Bay, St. Thomas.
 Saunders (1966a), blood parasites, Puerto Rico.
 Saunders (1966b), blood characteristics, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón.
 Randall (1967), food habits.

- Randall (1968a: 273), Fig. 303, (1: 145 mm TL), St. John.
Randall & Hartman (1968), food habits.
Dammann (1969), (2), rotenone, Chocolate Hole, St. John.
Fish & Mowbray (1970: 179), sound production, (3), La Parguera; (1), St. Thomas.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Cooper (1974), (1), rotenone, *Thalassia* beds, La Parguera.
Fast (1974), obs., artificial reef; patch reef; Media Luna reef, La Parguera.
Kimmel (1975), (2), sandy bottom; (2), rock outcrops; (1), algal mat; Punta Las Tunas.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.
Martin & Cooper (1981), *Thalassia* beds, La Parguera.
Dunne & Brown (1979), obs., Anegada.
Kimmel (1985a), obs., shelf-edge reef, La Parguera.
Kimmel (1985b), obs., La Parguera.
Bortone et al. (1989), obs., El Palo reef, La Parguera.
Acosta (1992), gill net catch, Puerto Rico.
Boulon (1992), obs., mangroves, St. John.
Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.

smooth trunkfish, chapín.

TETRAODONTIDAE

Canthigaster rostrata (Bloch, 1786)

- Evermann & Marsh (1900: 269), (7: 44-70 mm TL), seine, San Antonio Bridge; Fajardo; (2), San Geronimo.
Nichols (1930: 349), (4), Santurce; Condado, San Juan.
Fowler (1948), (2: 21-47 mm TL), San Juan.
Randall (1963a), (5: 25-38 mm SL), rotenone, artificial reef, Lesser Lameshur Bay; (4: 22-34 mm SL), rotenone, fringing reef, Ram's Head Bay, St. John.
Bullis & Thompson (1965), trawl, 70 m, N of Jost Van Dyke, OREGON 2624 (corrected).
Kumpf (1965), observed, Botany Bay, St. Thomas.
Ramsey (1967), trawl, Bahía Boquerón: Bahía Mayagüez.
Randall (1967), food habits.
Randall (1968a: 280), Fig. 311, (1: 69 mm TL), Puerto Rico.
Randall & Hartman (1968), food habits.
Dammann (1969), (7: 52-67 mm TL), rotenone, Chocolate Hole, St. John.
Starkus (1970), toxicity, Puerto Rico.
Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
Earle (1972), obs., Greater Lameshur Bay, St. John.
Smith & Tyler (1972), obs., Greater Lameshur Bay, St. John.
Eger & Starkus (1973), toxicity, Puerto Rico.
Martin & Patus (1973), Bahía Jobos.
Fast (1974), (3: 40-49 mm SL), rotenone, artificial reef; (3: 26-44 mm SL), patch reef, Media Luna reef, La Parguera.
Kimmel (1975), (2), rock outcrops; (1), algal mat, Punta Las Tunas.
Martin & Patus (1975), reef & cays, Bahía Jobos.
Smith & Tyler (1975), patch reef, Greater Lameshur Bay, St. John.
Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
Ebersole (1977), behavioral interaction, St. Thomas; St. John.

Dunne & Brown (1979), collected, Anegada.
 Ogden & Ebersole (1981), obs., artificial reef, Lesser Lameshur Bay, St. John.
 Kimmel (1985a), obs., shelf-edge reef, La Parguera
 Kimmel (1985b), obs., La Parguera.
 Beets (1989), obs., artificial reef, 26 m, St. Thomas.
 Bortone et al. (1989), obs., El Palo reef, La Parguera.
 Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
 Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
 Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

sharpnose puffer.

Lagocephalus laevigatus (Linnaeus, 1766)

Poey (1881: 346), as *Tetrodon laevigatus?*, Puerto Rico.
 Stahl (1883: 81), as *Tetrodon laevigatus*, Puerto Rico.
 Evermann & Marsh (1900: 266), Fig. 78, collected, Palo Seco; Mayagüez.
 Erdman & Maytag (1957), (1), in yellowfin tuna stomach, off San Juan.
 Erdman (1967b), in tuna and bird stomachs, Puerto Rico.
 Ramsey (1967), trawl, Bahía Boquerón.
 Fish & Mowbray (1970: 184), (1), sound production, (1), Mayagüez.
 Shipp (1974), (1: 215 mm SL), Mario reef, La Parguera [UPRM 1389]; (2: 47-54 mm SL), beach seine, Tres Hermanos, [UPRM 1395]; (4: 31-37 mm SL), trawl, 4 m, muddy bottom, Bahía Añasco [UPRM 2936].
 Corujo Flores (1980), (5: 111-150 mm SL), gill net, estuary, Río Espiritu Santo.

smooth puffer, tambor, raton.

Sphoeroides dorsalis Longley, 1934

Shipp (1974), (1: 89 mm SL), trawl, 49 m, OREGON 5458 [ANSP 106727].
 UPRM collection, (5: 35-59 mm SL), rotenone, sand bottom, 12 m, Crashboat Basin, Aguadilla [UPRM 2689].

marbled puffer.

Sphoeroides greeleyi (Gilbert, 1900)

Randall (1968a: 279), as *Sphaeroides greeleyi*, Fig. 310, (1: 86 mm TL), Puerto Rico.
 Shipp (1974), (4: 32-62 mm SL), Mayagüez [ANSP 101834]; (4: 55-80 mm SL), Mayagüez [ANSP 23598]; (1: 65 mm SL), Salinas, Guánica [UPRM 1393]; (1: 85 mm SL), San Antonio Bridge, San Juan [USNM 126191].
 Kimmel (1985b), obs., La Parguera.

Caribbean puffer.

Sphoeroides nephelus (Goode & Bean, 1882)

Evermann & Marsh (1900: 268), as *Sphaeroides marmoratus*, common, collected, San Antonio Bridge; Hucares; Mayagüez; Aguadilla.
 Meek & Hildebrand (1928), as *S. marmoratus*, examined, Puerto Rico.
 Nichols (1930: 347), as *Tetraodon marmoratus*, (1), San Antonio Bridge; (1), Punta Palo Seco.
 Shipp & Yerger (1969), (4: 191-220 mm SL), La Parguera, Puerto Rico [UPRM 1390].
 Shipp (1974), (4: 191-220 mm SL), La Parguera [UPRM 1390]; (1: 215 mm SL), La Parguera [UPRM 2383]; (1: 190 mm SL), Isla Magueyes, La Parguera [UPRM 2951].

southern puffer.

Sphoeroides spengleri (Bloch, 1785)

- Evermann & Marsh (1900: 267), as *Spheroides spengleri*, Fig. 79, common, collected, San Antonio Bridge; San Geronimo; Fajardo; Culebra; Puerto Real.
- Nichols (1930: 346), as *Tetraodon spengleri*, (1), Santurce.
- Randall (1963a), as *Sphaeroides spengleri*, (1: 60 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.
- Kumpf (1965), observed, Botany Bay, St. Thomas.
- Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
- Randall (1967), as *Sphaeroides spengleri*, food habits.
- Randall (1968a: 278), as *Sphaeroides spengleri*, Fig. 309, (1: 117 mm TL), St. John.
- Starkus (1970), toxicity, Puerto Rico.
- Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.
- Earle (1972), obs., Greater Lameshur Bay, St. John.
- Eger & Starkus (1973), toxicity, Puerto Rico.
- Martin & Patus (1973), Bahía Jobos.
- Shipp (1974), (1: 59 mm SL), Bayamon [UF 57729]; (1: 51 mm SL), Puerto Rico [UF 58980]; (2: 61-65 mm SL), Mayagüez [UF 59084]; (2: 46-47 mm SL), rotenone, 12 m, sandy bottom, Crashboat Basin, Aguadilla, [UPRM 2688]; (1: 44 mm SL), St. Thomas [GCRL 1850].
- Martin & Patus (1975), reef & cays, Bahía Jobos.
- Yoshioka (1975d), (1), rotenone, nearshore, Punta Manati.
- Yoshioka (1975f), (1), rotenone, Punta Verraco.
- Ebersole (1977), behavioral interaction, St. Thomas; St. John.
- Dunne & Brown (1979), obs., Anegada.
- Dyer et al. (1985), digenetic trematodes, (1), La Parguera.
- Kimmel (1985b), obs., La Parguera.
- Rooker & Dennis (1991), obs., mangroves, La Parguera.
- Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.
- Hixon & Beets (1993), obs., artificial reef, Perseverance Bay, St. Thomas.
- Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

bandtail puffer.

Sphaeroides testudineus (Linnaeus, 1758)

- Poey (1881: 347), as *Tetrodon testudineus*, Puerto Rico.
- Stahl (1883: 81), as *T. testudineus*, Puerto Rico.
- Evermann & Marsh (1900: 269), as *Spheroides testudineus*, Pl. 41, common, collected, San Antonio Bridge; San Geronimo; Fajardo; Hucars; Isabel Segunda; Boquerón; Mayagüez; Aguadilla; Palo Seco.
- Nichols (1930: 348), as *Tetraodon testudineus*, (17), Santurce; Palo Seco.
- Erdman (1956: 320), as *Spheroides testudineus*, spawning condition, Feb.
- Siddiqi & Cable (1960), trematode parasites, Punta Arenas.
- Saunders (1966a), blood parasites, Puerto Rico.
- Saunders (1966b), blood characteristics, Puerto Rico.
- Ramsey (1967), trawl, Bahía Boquerón; Bahía Mayagüez.
- Dammann (1969), (1), rotenone, Chocolate Hole, St. John.
- Eger (1970), (4), trap, Bahía Yabucoa.
- Fish & Mowbray (1970: 185), (2), sound production, Mayagüez.
- Starkus (1970), toxicity, Puerto Rico.
- Almodóvar & Pagan (1971), (2: 33-205 mm SL), mangroves, La Parguera.
- Austin (1971a), (70: 18-77 mm SL), Río Guanajibo mouth; La Parguera.
- Austin & Austin (1971), food habits, Puerto Rico.
- Milstein (1971), toxicity, Puerto Rico.
- Eger & Starkus (1973), toxicity, Puerto Rico.
- Martin & Patus (1973), Bahía Guayanilla; Bahía Jobos.
- Cooper (1974), (1), rotenone, *Syringodium* bed, La Parguera.

Shipp (1974), (3: 51-133 mm SL), Bahía Boquerón, [UPRM 1398]; (1: 87 mm SL), St. John [GCRL 1917]; (1: 68 mm SL), St. Thomas [GCRL 1849].

Martin & Patus (1975), inner bay, central bay, reef & cays, ship channel, Bahía Jobos.

Wood et al. (1975), collected, outer reefs, Bahía Guayanilla.

Corujo Flores (1980), (10: 32-59 mm SL), gill net, estuary, Río Espiritu Santo.

Martin & Cooper (1981), *Syringodium* beds, La Parguera.

Kimmel (1985b), obs., La Parguera.

Stoner (1986), (24), trawl, Laguna Joyuda.

Boulon (1992), collected, trap, mangroves, St. Thomas.

Dennis (1992a), obs., mangroves, La Parguera.

Turingan (1994), spear, Puerto Rico.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

checkered puffer, tamboril, tambor.

DIODONTIDAE

Chilomycterus antennatus (Cuvier, 1816)

Poey (1881: 346), as *Chilomycterus puncticulatus*, type locality, Puerto Rico.

Evermann & Marsh (1900: 272), Pl. 42, (1), San Geronimo; (1), seine, Mayagüez.

Randall (1967), food habits.

Randall (1968a: 284), Fig. 315, (1: 137 mm TL), St. John.

Dennis (pers. obs.), (1), observed, Collado reef; (1), fish trap, Enrique reef, La Parguera.

bridled burrfish.

Chilomycterus antillarum Jordan & Rutter, 1897

Saunders (1966a), blood parasites, Puerto Rico.

Ramsey (1967), trawl, Bahía Mayagüez.

Randall (1968a: 283), collected, Puerto Rico.

UMML collection (1), Cruz Bay, St. John [UMML 2421].

web burrfish.

Chilomycterus atringa (Linnaeus, 1758)

Fish & Mowbray (1970: 190), (1), sound production, La Parguera.

spotted burrfish.

Diodon holocanthus Linnaeus, 1758

Evermann & Marsh (1900: 271), (1: 127 mm TL), seine, Bahía Guánica.

Randall (1963a), (3: 135-150 mm SL), rotenone, artificial reef, Lesser Lameshur Bay, St. John.

Saunders (1966a), blood parasites, Puerto Rico.

Saunders (1966b), blood characteristics, Puerto Rico.

Randall (1967), food habits.

Randall (1968a: 282), Fig. 312, (1: 142 mm TL), fish trap, La Parguera [UPRM 2128].

González-Azar & Vilella (1975), collected, Laguna Ceiba.

Kimmel (1975), obs., Punta Las Tunas.

Yoshioka (1975f), (2), rotenone, Punta Verraco.

Kimmel (1985b), obs., La Parguera.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

balloonfish, guanábana.

Diodon hystrix Linnaeus, 1758

Poey (1881: 346), *Paradiodon hystrix*, Puerto Rico.

Stahl (1883: 81), *P. hystrix*, Puerto Rico.

Cable (1956), parasites, west coast, Puerto Rico.

Siddiqi & Cable (1960), trematode parasites, Punta Arenas; Guánica.

Randall (1963a), (1: 394 mm SL), rotenone, fringing reef, Greater Lameshur Bay, St. John.

Kumpf (1965), observed, collected, Botany Bay, St. Thomas.

Erdman (1967b), in tuna and bird stomachs, Puerto Rico.

Ramsey (1967), trawl, Bahía Boquerón.

Randall (1967), food habits.

Glynn (1968), feeding, La Parguera.

Randall (1968a: 282), Fig. 313, (1: 381 mm TL), St. John.

Starkus (1970), toxicity, Puerto Rico.

Collette & Talbot (1972), obs., Greater Lameshur Bay, St. John.

Earle (1972), obs., Greater Lameshur Bay, St. John.

Kimmel (1975), (1), rock outcrops, Punta Las Tunas.

Riemold, R.J. (1975), collected, Coral Bay, St. John.

Leis (1978), (1: 328 mm SL), St. Thomas [GCRL 66:1703].

Dunne & Brown (1979), obs., Anegada.

Dyer et al. (1985), digenetic trematodes, (6), Ahogado reef, La Parguera.

Kimmel (1985b), obs., La Parguera.

Boulon (1992), collected, trap, mangroves, St. Thomas; obs., St. John.

Turingan (1994), spear, Puerto Rico.

Turingan & Acosta (1994), obs., Corona de Laurel, La Parguera.

Acosta (1997), visual, gill net, trammel net, (6), mangroves; (18), inner reef, (29), outer reef, La Parguera.

porcupinefish, guanabana, puerco espino.

MOLIDAE

Masturus lanceolatus (Liènard, 1840)

Dyer et al. (1985), as *Mola lanceolata*, digenetic trematodes, (1), La Parguera.

Dennis et al. (in prep), (1), La Parguera, Aug 1983 [UPRM uncat.].

sharptail mola.

Mola mola (Linnaeus, 1758)

Erdman (1961a), Puerto Rico.

Erdman (pers. comm.), (1: 25 mm TL), skipjack tuna stomach, San Juan, Feb. 1959; (1 adult), obs., off La Parguera, Dec. 1957.

ocean sunfish.

Ranzania laevis (Pennant, 1776)

Dennis et al. (in prep), (1: 625 mm TL), washed up on beach, Río Guanajibo mouth, Mayagüez [UPRM 3693].

slender mola.

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