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# STANFORD ICHTHYOLOGICAL BULLETIN

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Complete in 1 number, comprising  
2 articles, 170 pages, and 1 figure

A CATALOGUE OF THE TYPE SPECIMENS OF RECENT  
FISHES IN THE NATURAL HISTORY MUSEUM OF  
STANFORD UNIVERSITY

By J. Böhlke

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A MINUTE NEW HERRING-LIKE CHARACID FISH GENUS ADAPTED  
FOR PLANKTON FEEDING, FROM THE RIO NEGRO

By J. Böhlke

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## INTRODUCTION

".....if you are troubled with a pride of accuracy and would have it completely taken out of you, print a catalogue!"—Robert Louis Stevenson.

The project which finally resulted in this paper was begun about two years ago for the express purpose of bringing order to the type material of fishes in the Natural History Museum of Stanford University. The causes of disorder were many, and include the following: (1) with uncertain curatorial help in the earlier days the cataloguing and labeling of type specimens was rather careless—often with no mention that they were types; (2) what are now termed holotypes were previously referred to merely as "types", and both syntypes and paratypes were called "cotypes"; (3) type labels bearing manuscript names were commonly encountered, with no indication that the names were unpublished; (4) several earlier partial attempts to bring order resulted primarily in a more upset state and in the spread of type material throughout the building; (5) in the days when Dr. David Starr Jordan and his colleagues and students were working up National Museum material and returning types and first series to that institution, exchange of material between Stanford and the National Museum was extremely informal and often no record was made of the transfers; and (6) at the beginning of World War II a wise but necessarily hurried and incomplete transfer was made of types and uniques from the main collection to a section of the basement. Altogether it had become quite difficult to find a given type.

The author attempted to locate all type material; to check the original descriptions of species to determine the status of the material, whether holotypic, paratypic or other; and, finally, to file the specimens in their proper places in the collections. The system finally decided upon included retention of holotypes, neotypes, and syntypes in a special place, safer from fire, earthquake, war damage, etc., in the heavily protected basement of the museum building; return of paratypes to their systematic positions in the general collection; and the retention of manuscript types in our recently established "type purgatory" until such a time as the names are either published or suppressed.

**Brief history of the fish collections at Stanford.** The history of ichthyology in America has as perhaps its most important chapter the history of ichthyology at Stanford. This has all resulted from Senator Stanford's choice of David Starr Jordan as first president of the new university. When Dr. Jordan came to Stanford from the University of Indiana in 1891, he brought with him both a nucleus of ichthyologists to the faculty of the university and the nucleus of an ichthyological collection. The fishes were first housed in the laboratories of the Department of Zoology, which after 1900 were in Jordan Hall. Although the fish collections grew rapidly in the 1890's, they had no nominal curator until after the turn of the century. Edwin C. Starks held the position of Curator of Zoology from 1901 to 1908.

The early morning of April 18, 1906, saw much damage to the Stanford buildings as a result of the San Francisco earthquake (the San Andreas fault is only four miles west of the campus). The fish

collections took their share of the damage. More than 1,000 jars and bottles were broken although the majority survived intact. The wreckage lay on the floor, kept wet with water from hoses manned day and night by Professors Snyder and Starks, until new bottles and alcohol could be secured. An effort was made to match specimens and data, this work being done by each member of the entire ichthyological group who had most actively been working on the specimens concerned. As a result, much was saved that might have been lost, although there were numerous instances in which the material had to be discarded. In others, some doubt could not be avoided. A small printed label stating "Bottle broken during earthquake" was inserted in each bottle. Unfortunately, according to Prof. J. O. Snyder, a careless curatorial assistant later removed these labels from about half of the jars bearing them. Register numbers in the following list from bottles bearing such labels are preceded by an asterisk (\*). While asterisks do not mark all the broken bottles, they at least serve as caution signals for some.

The earthquake damage caused a major change in curatorial routine. Previously, a tin tag bearing the register number was merely dropped into each bottle, together with the original paper work labels. Subsequently, a tin tag register number was tied securely to each specimen, although in recent years these have been tied to not more than a dozen specimens of larger lots of a single species from a single locality. Also, tin tags, which frequently corroded if the tin was not pure, have now been replaced by tags of a particularly tough and almost indestructible parchment paper. Finally, the old type outside neck-labels are now being replaced by inside typewritten labels.

After 1908, Starks became Assistant Professor of Zoology and a long period intervened during which there was no official curator. Much of Professor Stark's time between 1914 and 1918 was spent preparing zoological specimens for exhibition in Jordan Hall as the beginning of a departmental teaching museum. Carl L. Hubbs held the position of Mechanical Assistant in Zoology between 1914 and 1916, which position entailed considerable curatorial work. However, it is evident that there was no real curator during this time from Snyder's statement in a letter which appeared in the Annual Report of the President of Stanford University for the thirty-second academic year ending August 31, 1923: "The collections [of fishes] have grown to such proportions that they should soon be brought under regular curatorial care, to insure safe preservation, careful labeling, systematic cataloguing, and such arrangement as will render their contents available for reference."

During the academic year 1924-25 the Natural History Museum was organized and collections and research facilities were moved "temporarily" to the south wing of the Leland Stanford Junior Museum building, where they are still situated. In 1925-26 there was a fusion of the Department of Zoology and Department of Entomology, and entomological research also became centered at the Natural History Museum. Moreover, the departmental library, including the Jordan library of ichthyology, was divided between the newly established Library of Biology and that of the Natural History Museum, most of the works pertaining to systematic zoology being deposited in the Museum. In 1928, Dr. Albert W. C. T. Herre was appointed Curator of

the Zoological Museum. In 1934, through reorganization of the entire School of Biological Sciences, the Department of Zoology ceased to exist, and the Natural History Museum became an administrative unit of the School. It assumed responsibility for all natural history teaching and research. George S. Myers, who had worked with the collections as a student, was appointed to the university staff in 1936 as Associate Professor of Biology (Zoology) and Curator of the Zoological Collections, Dr. Herre assuming the title of Curator of Ichthyology. Professor Myers became full Professor and Head Curator in 1938. Dr. Herre continued as Curator of Ichthyology until he became emeritus, in 1946. Meanwhile, Miss Margaret H. Storey was appointed Assistant Curator of the Zoological Collections in 1940, though she had for several previous years been a volunteer worker in the museum.

The faculty and students in zoology at Stanford have always placed strong emphasis on field work. As a result, many expeditions were undertaken—all of which have added greatly to the size and representation of the ichthyological collections. In the earliest days of the university, following the previous practice at Indiana University, faculty and students made many trips by wagon and train throughout the Pacific Coast States and to Baja California and the Mexican mainland. In addition, the Fur Seal Investigation trips, the various *Albatross* cruises, etc., often included Stanford personnel, and Stanford ichthyologists reported on much of the material. The following is a list of some of the major expeditions which added notably to the Stanford fish collections:

- |            |  |  |   |
|------------|--|--|---|
| 1889       | De Pauw University Expedition to the Hawaiian Islands. Oliver P. Jenkins.  |  | Cloudsley Rutter, Fred M. Chamberlain, Norman B. Scofield, William S. Atkinson. |
| 1890       | Colorado River Basin in Arizona. Charles H. Gilbert and A. B. Alexander.   |  |   |
| 1894       | Expedition to Idaho. Charles H. Gilbert.   |  |   |
| 1894       | Mountains of southern Arizona and northern Sonora, Mexico. William W. Price and Ray Lyman Wilbur.  |  |   |
| 1894-1895  | Hopkins Expedition to Mazatlan. David Starr Jordan, George B. Culver, Edwin C. Starks, Thomas M. Williams, Norman B. Scofield, James A. Richardson, Frank H. Lamb, George B. Seward. |  |   |
| 1895       | Carmel River Expedition. Norman B. Scofield, Cloudsley Rutter, Alvin Seale, Charles J. Pierson.  |  |   |
| 1896       | Panama. Charles H. Gilbert, Edwin C. Starks, Charles J. Pierson, Richard C. McGregor.  |  |   |
| 1896-1897  | Central Mexico. David Starr Jordan and John O. Snyder.   |  |   |
| 1897       | Baja California and the off-shore islands of Mexico. Richard C. McGregor.  |  |   |
| 1898-1899  | Hopkins-Stanford Galapagos Expedition, 1898-1899. Galapagos Archipelago, Cocos Island, Clipperton Island. Edmund Heller and Robert E. Snodgrass.                                     |  |   |
| 1898, 1899 | U.S. Fish Commission Exploration of the Sacramento-San Joaquin Basin, California.  |  |   |
| 1898-1901  | Andes of Ecuador, Peru and Bolivia. Perry O. Simons.   |  |   |
| 1899       | Branner-Agassiz Expedition to Brazil. John C. Branner and Arthur W. Greeley.   |  |   |
| 1900       | Hawaiian Islands. David Starr Jordan and John O. Snyder.   |  |   |
| 1900       | Japan. David Starr Jordan and John O. Snyder.  |  |   |
| 1901       | Hawaiian Islands. David Starr Jordan, Michitaro Sindo, Eric K. Jordan, Oliver P. Jenkins.  |  |   |
| 1902       | Hawaii, Saipan, Bird and Necker Islands (an <i>Albatross</i> expedition). David Starr Jordan, Charles H. Gilbert, John O. Snyder, Walter K. Fisher.                                  |  |   |
| 1902       | U.S. Bureau of Fisheries Survey of Samoan Fish and Fisheries. David Starr Jordan, Vernon L. Kellogg, Michitaro Sindo, Robert E. Allardice.   |  |   |
| 1904       | U.S. Bureau of Fisheries Exploration of the lakes and streams of southern Oregon and northern California. John O. Snyder, Edwin C. Starks.   |  |   |
| 1904       | Angara and Irkutsk Rivers, the outlets of Lake Baikal, at Irkutsk, Siberia. James F. Abbott.   |  |   |
| 1906       | <i>Albatross</i> 1906 North Pacific cruise. Japan, Riukiu Archipelago, Aleutian Islands, Kamchatka. Charles H. Gilbert, John O. Snyder, Walter K. Fisher.                            |  |   |
| 1907       | Naples, Italy. Edwin C. Starks.  |  |   |
| 1909       | U.S. Bureau of Fisheries Exploration of the streams tributary to Monterey Bay, California. John O. Snyder, Willis H. Rich, Carl H. Gilbert.  |  |   |
| 1911       | U.S. Bureau of Fisheries Exploration of the Lahontan System of Nevada and northeastern California. John O. Snyder and C. H. Richardson.  |  |   |
| 1911       | Japan and Korea. David Starr Jordan.   |  |   |
| 1911       | Stanford Expedition to Brazil. John C. Branner, Harold Heath, Edwin C. Starks, William M. Mann, Fred Baker, Olaf P. Jenkins, Earl Leib, George C. Branner.                           |  |   |
| 1914       | World cruise, including Australia and Ceylon. David Starr Jordan and Walter K. Fisher.   |  |   |
| 1918       | Barbados-Antigua Expedition of the State University of Iowa, C. C. Nutting, Director. Walter K. Fisher.  |  |   |
| 1919       | U.S. Bureau of Fisheries Exploration of the Bonneville Basin of Utah and Idaho. John O. Snyder and Carl L. Hubbs.  |  |   |

- 1921 Hawaiian Islands. David Starr Jordan.
- 1922 Japan. David Starr Jordan.
- 1924 Hawaiian Islands. Eric K. Jordan.
- 1925-1938 Deep-sea and shore fishes from various expeditions in the Atlantic and Pacific oceans. New York Zoological Society under the direction of William Beebe. While there were no connections between these expeditions and Stanford at the time, the collections were recently presented to the university.
- 1928-1929 Crane Pacific Expedition of the Field Museum. Haiti, Panama, Cocos Island, Galapagos Archipelago, Marquesas, Tuamotus, Society Islands, Fiji Islands, New Hebrides, Solomons, New Britain, New Guinea, Waigiu, Moluccas, Celebes, Borneo, Sangir Islands, Philippine Islands. Albert W. C. T. Herre.
- 1929 Expedition to the Mexican border and West Texas. Gregory M. Kranzthor and George S. Myers.
- 1930 Expedition to Death Valley. George S. Myers and Joseph H. Wales.
- 1930 Canal Zone, Panama. Richard C. Blackwelder and Theodore O. Zschokke.
- 1931 Albert W. C. T. Herre Philippine Expedition. Philippine Islands, China, Hainan Island.
- 1933-1934 World trip. Marianas, Pelews, Celebes, Philippines, China, Malaya, Ceylon, British East Africa, Zanzibar, Natal, Cape Town, Brazil, Argentina. Albert W. C. T. Herre.
- 1933-1942 Pebas, Peru (a number of collections at different times). William G. Scherer.
- 1934-1935 Florida. Margaret H. Storey.
- 1936-1937 Chusan Archipelago, Shanghai, south China, Philippines, British North Borneo, Sarawak, Malaya, Burma, Ganges delta, Hong Kong, Japan. Albert W. C. T. Herre.
- 1937-1938 Hancock Expedition (a *Velero III* expedition). Cocos Island, Galapagos, Peru, Ecuador, Colombia, Panama. George S. Myers.
- 1937-1938 Venezuela. Franklyn F. Bond of the University of Rochester. While Dr. Bond had no direct contact with Stanford at the time of his expedition, most of the fresh-water fishes were later presented to the Museum.
- 1938 Crocker-Stanford Deep-Sea Expedition, California Coast, aboard the *Zaca*. George S. Myers, Rolf L. Bolin, Alexander J. Calhoun, Earl S. Herald, William A. Gosline, E. Kenneth Stanton.
- 1939 Mississippi, Missouri and Colorado Rivers in Minnesota, South Dakota and Wyoming. George S. Myers and William A. Gosline.
- 1939 Central America to Costa Rica (a California Division of Fish and Game trip on the *N. B. Scofield*). Rolf L. Bolin.
- 1939-1940 Islands off southern California and Baja California. Vernon E. Brock.
- 1940-1941 Philippine Islands, Malaya, Burma, India, Hong Kong. Albert W. C. T. Herre.
- 1941 Southwestern Arizona, northeastern Sonora including Puerto Peñasco on the Gulf of California. John Poindexter and party of 9 including Alexander J. Calhoun and Margaret H. Storey.
- 1941 Coastal plain of the State of Rio de Janeiro, Brazil. Lt.-Col. and Mrs. Thomas D. White. While not a Stanford trip, the Whites later presented their collection to Stanford.
- 1942-1944 Brazil. George S. Myers.
- 1943-1944 Ecuador. Ira L. Wiggins.
- 1946 Baja California. Ira L. Wiggins, A. M. Vollmer, Harold M. Hill, Telford H. Work.
- 1947 Bikini Scientific Resurvey, U.S. Navy. George S. Myers.
- 1947 Persian Gulf. Telford H. Work.
- 1948 Puerto Peñasco area, Sonora, Mexico. Natural History Club of Stanford University—party of 36.
- 1949 San Quintín area, Baja California. Natural History Club of Stanford University—party of 38.
- 1949 New Zealand. George S. Myers.
- 1949 Point Barrow, Alaska. Ira L. Wiggins.
- 1950 Point Barrow, Alaska. Ira L. Wiggins.
- 1950 Ecuador. John and Ann Funkhouser.
- 1950 Guaymas Expedition, Guaymas, Sonora, Mexico. Giles W. and Nancy W. Mead, and Norman J. and Diana V. Wilimovsky.
- 1950 Crescent City area, California. Giles W. and Nancy W. Mead, James Böhlke, Eugenia L. Brandt, Norman J. and Diana V. Wilimovsky, Jay M. Savage, John C. Briggs.
- 1950, 1951 Panama. William T. Miller.
- 1951 Point Barrow, Alaska. Ira I. Wiggins, Norman Wilimovsky, James Böhlke.
- 1952 Japan. Giles W. Mead.
- 1952 Mexico, Central America. William T. Miller.
- 1952 Point Barrow, Alaska. Ira L. Wiggins.

George E. Lindsay, Donald E. Wohlschlag, H. Adair Fehlmann, Daniel M. Cohen, Norman J. and Diana V. Wilimovsky.

1952 Baja California, islands of the Gulf of California (an *Orca* expedition). George E. Lindsay, James Böhlke, Jay M. Savage, Frank S. Cliff, Daniel M. Cohen, John P. Figg-Hoblyn, Reid Moran, William C. Steere, Jon Lindbergh.

1953 Rio Esmeraldas System, Ecuador. Gustavo Orcés.

Different lots of fishes sent up at various times from the California State Fisheries Laboratory, Terminal Island, California.

Collections of fishes periodically sent up from the Hopkins Marine Station, Pacific Grove, California, by Prof. Rolf L. Bolin.

The following collections were made during the last world war:

New Guinea and the Philippine Islands. Stanley S. Jewett, Jr.

New Guinea and the Philippine Islands. Oliver B. Cope.

New Guinea. Earl S. Herald.

Morotai. Gen. Thomas D. White.

In addition to the above sources of specimens for the Stanford museum, important exchanges have been completed with the Australian Museum, the California Academy of Sciences, the Carnegie Museum and the Zoological Survey of India. Also, the following major purchases of fishes were made by the museum:

Deep-sea fishes of the Sagami Sea collected by Alan Owston aboard the *Golden Hind* and purchased from him in Tokyo for the university by Charles H. Gilbert during the 1906 *Albatross* cruise.

Fishes from the port of Swatow, China, collected by Miss Adele M. Fielde, a resident missionary, and sent to Indiana University in 1885. Stanford later purchased the fishes while still unworked.

Cameroon fresh-water fishes and marine fishes from Cameroon, Gold Coast and Dakar purchased from the Rev. A. I. Good who collected them in 1936-1941.

Fresh-water fishes from southern Peru, purchased from Hilda Hempl Heller, who collected them in 1951.

The fish collections at Stanford are now estimated to contain well over half a million identified specimens, as well as types for 1,845 published names. As stated by Professor Myers, the Museum's policy in the acquisition of specimens is the building up of a representative world collection of

fishes and not the amassing of large series of any one species. This is designed to permit general studies of anatomy and phylogenetic relationships, rather than intensive work on speciation.

**The limitations of this type list.** First of all, due largely to the poor concentration and labeling of type material already mentioned, the present list cannot be considered complete and final to date. More types doubtless will be found, and the absence from this list of a type presumably at Stanford must not be taken as evidence of its permanent loss. The types listed in this catalogue are all that could be found by search of the Stanford registers and of the collections during a two-year period. In recent years, bright blue and red cloth ribbons have been used to indicate holotypes and paratypes, respectively, so they were more easily found than the earlier types. The latter had outside neck labels of a tan color not easily distinguished from those of the general collection. A third type of outside label, used during the period between the two just mentioned, had a fine red line around its edges, which often faded.

Also, there are several types of situations which may have caused error in this list. Foremost among these are the specimens called syntypes. For many of them, later type designations have been found which changed their status; it is quite possible that other such designations exist which were not found and which would change the status of specimens that are here still called syntypes. Secondly, many of the place names mentioned in the text are now obsolete. The data herein were usually taken from the original description, the Stanford register and notes in the bottles, so that the terminology and spelling of the time is generally followed. Finally, no redeterminations were made of type specimens; they appear only as originally described. While many redeterminations could easily have been made, there were others that would have taken much time. It was decided that consistency should be maintained and no wholesale change of names on such a large scale should be attempted.

The system followed utilizes the ordinal names familiar through long use (by Gill, Jordan, Regan, etc.) to ichthyologists everywhere. The general order-of-precedence is largely that of Berg (1940, *Classification of fishes, both recent and fossil*. Trav. Inst. Zool. Acad. Sci. U.R.S.S., tome 5, livr. 2, pp. 87-517, text-figs. 1-190) but with several emendations.

**Type designations used in this paper.** Since the type concept in zoology has not become wholly standardized, the type designations used in this paper are here defined:

(1) *Holotype*—Any single specimen identified as "holotype" or "type" by length, photograph or number in the original description; or, if the description merely mentions a "type" existing (without stating any number, length, or other distinguishing feature), the specimen in the collection which is marked as type is considered the holotype. If the original description was based on a single specimen, it, of course, automatically becomes the holotype.

(2) *Syntype*—Any specimen of a series used to

prepare the original description from which no single specimen was selected as type, or, if no single specimen has subsequently been selected as type.

(3) *Paratype*—Any specimen of the series (in instances where a holotype was selected) upon which the ideas of the species expressed in the original description were based—other than the holotype. Even if not specifically mentioned in the description, specimens are here considered paratypes if there is any indication of their having been utilized by the describer previous to publication of the original description. Such indication may be in the form of notations in the register or bottle, specimens from the same series as others mentioned as types, or specimens the present writer is reasonably certain the original author must have examined before the date of publication of the new name. This paratype concept is perhaps not accepted by some workers, who insist that paratypes as well as holotypes must be definitely designated in the original description. However, until rather recently, very few paratypes (cotypes) were ever designated; rather, there would often be statements like the following: "The new species was also taken at Wakanoura, Tokyo and Nagasaki". In instances like this the specimens from Wakanoura, Tokyo and Nagasaki, if found and known to be from the expedition reported on, are considered paratypes. The primary reason for such a broad concept of paratypes is that they have no nomenclatural significance according to the International Rules of Zoological Nomenclature, as revised at the Paris meetings, 1948 (see 1950, Bull. Zool. Nomenclature, vol. 4, pts. 7/9, pp. 185-188), and are merely convenient as systematic tools—albeit very important and useful ones. They can easily be distributed, exchanged and borrowed for examination when making systematic comparisons. While a source of error still exists in the possibility that more than a single form is present in a paratypic series, a worker can usually estimate the chance of error by evaluating the general meticulousness of the describer. The problem of having many series of paratypes from widely separated localities with the possibility that future

work may show the necessity of subspecific divisions within the type material is no real problem at all. The paratypes of one species can easily become types of another. The situation does exist, however, in which a subspecies describer may not wish all the specimens he examined to be considered types (e.g. intergrades). But subspecies for fishes are for the most part more or less contemporary and a modern description should cover such instances.

(4) *Lecto-holotype*—The single specimen which has been selected as the holotype from a syntypic series, subsequent to the time of publication of the new name.

(5) *Lecto-paratype*—Any specimen of the original syntypic series left after a lecto-holotype is designated. These need not be specifically designated to attain lecto-paratype status, but are all the remaining specimens.

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This paper was completed March 31, 1953.

"I truly believe that in the [Stanford Natural History Museum] there is abundance of infinitely admirable things, whereof God alone hath knowledge."—modified after Laurent Vital in *Voyage de Charles Quint*, 1518.

*Holotype*: SU 6148; Laguna de Chapala, near Ocotlán, Jalisco, México. Collector: John O. Snyder; December 26, 1898. *Paratypes*: (4): SU 6207; data exactly as for holotype.

Family POECILIIDAE

*ACANTHOPHACELUS BIFURCUS* Eigenmann 1909, Ann. Carnegie Mus., vol. 6, no. 1, p. 52.

*Paratypes* (2): SU 21930; small pond at Christianburg, Demarara River, British Guiana. Collector: Carl H. Eigenmann; 1908.

*Holotype*: Carnegie Mus. 1088—now in the Chicago Nat. Hist. Mus.

*GAMBUSIA INFANS* Woolman 1894, Bull. U.S. Fish Comm., vol. 14 for 1894, p. 62.

\**Lecto-paratypes* (8): SU 859; Río de Lerma at Salamanca (about .75 miles south of the Mexican Central Railway and 150 miles northwest of the City of México), State of Guanajuato, México. Collector: Albert J. Woolman; summer of 1891.

*Lecto-holotype*: U.S. Nat. Mus. 45570. Although no type was selected in the original description, Jordan and Evermann 1896, Bull. U.S. Nat. Mus. No. 47, part 1, p. 680, give the above U.S. Nat. Mus. number for the "type"—this amounting to a lectotype designation.

*GIRARDINUS IHERINGII* Boulenger 1889, Ann. Mag. Nat. Hist., ser. 6, vol. 4, p. 266.

*Syntype* (1): SU 1132; Rio Grande do Sul, Brazil. Collector: Hermann von Ihering. In his description, Boulenger states: "Male 25 millim. long, female 42. Numerous specimens, from Rio Grande do Sul." Since this does not amount to the designation of a type specimen, the Stanford specimen is considered a syntype.

*GLARIDICHTHYS TORRALBASI* Eigenmann 1903, Bull. U.S. Fish Comm., vol. 22 for 1902, p. 225, fig. 4.

*Paratypes* (3): SU 8500; San Cristóbal, Cuba. Collector: Carl H. Eigenmann; March, 1902.

*Holotype*: Indiana Univ. Mus. 9662 now at the California Acad. Sci.

*PLATYPOECILUS DOMINICENSIS* Evermann and Clark 1906, Proc. U.S. Nat. Mus., vol. 30, no. 1478, p. 852, fig. 2.

*Paratype* (1): SU 9350; small stream in the San Francisco Mountains in the interior of Santo Domingo, some 40 miles from Santo Domingo City. Collector: August Busck; September, 1905.

*Holotype*: U.S. Nat. Mus. 53277.

*POECILIA BRANNERI* Eigenmann 1894, Ann. New York Acad. Sci., vol. 7, p. 629.

*Syntypes* (2): SU 2158; undoubtedly from the low-

er Amazon and probably from Pará, Brazil. Collector: C. F. Hartt.

*POECILIA LIMANTOURI* Jordan and Snyder 1901, Bull. U.S. Fish Comm., vol. 19 for 1899, p. 129, fig. 10.

*Holotype*: SU 6165; Rio Tamesoe, near Tampico, Tamaulipas, México. Collector: John O. Snyder; January 12, 1899. \**Paratypes* (11): SU 6190; data exactly as for holotype.

*POECILIA PRESIDIONIS* Jordan and Culver, in: Jordan 1895, Proc. California Acad. Sci., ser. 2, vol. 5, p. 413, pl. 29.

*Syntypes* (68): SU 2687; clear waters of the Río Presidio, about Presidio, Sinaloa, México. Collectors: David Starr Jordan and party on the Hopkins Expedition; December 24, 1894-January 25, 1895.

*PRIAPELLA INTERMEDIA* Alvarez y Carranza 1951, Ciencia, p. 284.

*Paratypes* (3): SU 17486; Santa María Chimalapa, Arroyo el Zacatal, Oaxaca, México. Collector: J. Carranza; May 15, 1950.

*Holotype*: place of deposition unknown.

*XIPHOPHORUS MONTEZUMAE* Jordan and Snyder 1901, Bull. U.S. Fish Comm., vol. 19 for 1899, p. 131, fig. 11.

*Holotype*: SU 6145; Río Verde, near Rascón, San Luis Potosí, México. Collector: John O. Snyder; January 24, 1899. *Paratypes* (31): SU 6146; data exactly as for holotype. *Paratypes* (105): SU 6194; data exactly as for holotype.

Order ANACANTHINI

Family MORIDAE

*PHYSICULUS JORDANI* Böhlke and Mead 1951, Stanford Ichthyological Bull., vol. 4, no. 1, p. 27.

*Holotype*: SU 21759; Station 3695, off Tsurugi Saki Light (S. 80°, W. 4.3 m.), Honshu Island, Japan. Collector: "Albatross"; May 4, 1900; 110-259 fathoms.

*PHYSICULUS NEMATOPUS* Gilbert 1890, Proc. U.S. Nat. Mus., vol. 13, no. 797, p. 114.

*Syntype* (1): SU 141; Station 2997, Gulf of California (24° 39' 30" North Latitude, 110° 34' West Longitude); 221 fathoms. Collector: "Albatross"; March 16, 1889.

*PHYSICULUS RASTRELLIGER* Gilbert 1890, Proc. U.S. Nat. Mus., vol. 13, no. 797, p. 113.

*Syntypes* (13): SU 185; Station 2987, off Lower