In the female a few bristles are sometimes found bordering the cheek along the lateral mouth margin. In the male the lack of the bristles was constant in all specimens examined.

This species has been identified by me from a single female paratype sent me by F. H. Taylor. This specimen was a reared form and undersized but I feel reasonably confident that the species here concerned is S. froggatti.

SOME NEW AND RARE COLEOPTERA FROM SOUTHWESTERN FLORIDA.

BY W. S. BLATCHLEY, Indianapolis, Ind.

I reached Dunedin, I Florida, where I have my winter home, on November 18, 1920, and, with the exception of three weeks, collected about there until April 18, 1921. During the nine winters I have been in Dunedin I have taken the great majority of beetles which can be found in that vicinity at that season, yet each winter I manage to secure a number of interesting forms.

On March I I started on a three weeks' trip to the most southern available points on the west coast. My first stop was at Lakeland, a junction point on the A.C.L. railway, where I spent two days. I had collected about there on two previous occasions at the same season and therefore took little of especial interest. A number of the large tortoise beetle, *Chelymorpha geniculata* Boh., were beaten from bunches of Spanish moss in which they were hibernating. The usual food plant of this species is the creeping goat's-foot morning glory, *Ipomoea pes-caprae* Sweet, but as that plant grows only along the sea-shore, the bettle evidently uses an allied one for food in the interior, Lakeland being 30 miles from the coast. Another capture was a fine specimen of the handsome Cerambycid, *Ancylocera bicolor* Oliv., which was swept from an oak shrub.

At Lakeland I was joined by J. H. Williamson of Bluffton, Ind., who was collecting dragonflies, and on March 3rd we took the train for Ft. Myers, the most southern railway station on or near the west coast. Ft. Myers has a population of about 10,000 and is located on the Caloosahatchie River, 14 miles from The river is a tide water stream to above the town, the black mangrove and other maritime shrubs lining its banks in the uncleared areas. The winter had been very dry and the first day and a half's collection yielded little but what I had taken on previous visits at the same season. However on the third morning I began sifting about an extinct or wet-weather pond which, during the rainy season, covers shallowly an area of 15 to 20 acres, south of the railway and just outside of the city limits. With the exception of one or two small pools which were full of dead or dying fish the pond was wholly dry, and its mucky bed filled with the decaying stems of pickerel weed. Pontededia cordata L., and several species of arrow-head, Sagittaria, smart weed, Polygonum, and other semi-aquatic vegetation. For several hours I sifted with good success the debris. from about the roots of these plants in the dryer portions of the old pond area. Happening to pull up some of the Pontederia roots from a damp mucky place near one of the pools I noted several species of water beetles in the muck. That

¹See Can. Ent., xlix, 1917, 137.

afternoon I returned with a trowel and a soap box, and using the latter as a seat, as near the edge of the pools as I could get without miring down, I began pulling and digging up the decaying pickerel weed roots and stems and shaking them over a newspaper spread out on a thin board which I held on my knees. I soon found I had struck "pay dirt," as aquatic and semi-aquatic beetles by scores were unearthed. I worked thus about this pond for the greater part of three days, sifting at intervals but digging in the muck most of the time, and secured 109 species of beetles besides a number of subaquatic Hemiptera and Orthoptera. A number of the beetles are mentioned on the pages which follow. Others of special interest were Tachys albipes Lec., Chlaenius perplexus Dej., Colpius inflatus Lec., Bidessus subsericeus Bl., Laccophilus gentilis Lec., Celina angustata Aubé, Cercyon variegatum Shp., Oosternum costatum Shp., etc. Rhynchophora taken, which will be treated elsewhere, were Smicronyx quadrifer Casey, not before known from Florida, and a new species of Hyperodes. The three most abundant beetles about the pond were Tachistodes (Agonoderus) testaceus (Dej.) taken mostly by sifting, Hydrovatus compressus Shp. from the muck, and Disonycha pennsylvanica conjugata (Fab.), which occurred by hundreds on Polygonum.

On the afternoon of March 8 we started with the mail carrier in a Ford machine for Caxambus, a fishing station on Marco Island, 90 miles distant. We were due there at 7 P.M. but after various mishaps and the enforced use of three different flivvers, we arrived at 11.30. Here, on account of the dry season and consequent lack of fresh water on the island, the collecting was poor. Mosquitoes, a brackish or salt-water species, and therefore not disheartened by the drouth, were present in hordes. Two days were spent in taking what we could find and early in the morning of the third day my companion, discouraged by the drought and the mosquitoes, started back overland to Ft. Myers, while I took passage in the "mail boat," an 18-foot open gasoline launch, for Chokoloskee, my original objective, 35 miles farther south, where I arrived at noon on March II.

Chokoloskee, a fishing village on a key or island of the same name—one of the "Ten Thousand Islands" off the southwest coast of Florida—is the most southern postoffice and settlement on the west coast. Most of the neighboring islands are covered with mangrove and overflow at high tide. Chokoloskee was originally somewhat higher and was therefore used by the Seminole Indians and their predecessors as a village site. It must have been so used for centuries, as almost the entire area of 107 acres is covered with shell heaps, "kitchen-middens," to a thickness of three to eight feet, and in one place is a look-out mound, a fourth of an acre in area and 27 feet in height, of the same materials. is no stream and only one or two small brackish water ponds on the island. Rain or cistern water is used exclusively by the inhabitants. The vegetation is sparse, the shrubs and trees for the most part stunted, though fairly abundant in species and number. I spent five days on the island, and one day at Everglade, another settlement five miles to the northeast. My collecting was done mostly by beating into an umbrella and by sweeping, and except in Rhynchophora, the results were poor. The fauna is very nearly the same as at Cape Sable and Key West, not more than 20 species being found which had not been

taken by me at those stations. In the rainy season, May to August, there is probably good collecting to be had here, at least I was so told by my landlady, Mrs. C. G. McKinney, who for years has collected butterflies and Orthoptera for northern supply houses. At that season, however, mosquitoes are at their best, and they were bad enough for me in March.

I left Chokoloskee for Ft. Myers on March 18, by a little freight steamer which plies between the two ports. Had one afternoon's collecting at Marco, where we passed the night, and part of the next one at the extinct pond at Ft. Myers. It was on this last afternoon at the pond that I took the second known specimen of my *Pachydrus princeps*. I did not recognize it at the time, else I might have been there yet, searching for others. The next morning I took the train for Tampa and from there to Dunedin by automobile bus, arriving at 4 P.M.

Dicaelus quadratus Lec.2—A single female, 25 mm. in length was taken March 6 beneath an old boat on the margin of the extinct pond at Ft. Myers. It is the same as a species from St. Petersburgh, identified for me by Frederic Blanchard as D. carinatus Dej. and recorded by me under that name.³ I did not at that time have a copy of LeConte's description of quadratus available, but with it now in hand there is no doubt that the two specimens are his species, which he Horn, in his synoptical table,4 separates states is .96 of an inch in length. quadratus from carinatus only by the humeral carina being "moderately elevated and acute near the base only" in quadratus and "very long and more elevated, acute in the entire length" for carinatus. In his bibliography he gives the length of quadratus as 25 mm., and of carinatus as 20 mm. The question arises, may not these two nominal species represent the different sexes of one? If so, it would have to bear Dejean's name.

Dicaelus subtropicus Casey.—The types of this species⁵ were from Palm Beach, Fla. A single specimen was taken on February 9 beneath a chunk on Hog Island, opposite Dunedin.

The species of *Badister* with unspotted elytra form a difficult group to separate satisfactorily with words. The original descriptions of Leconte are conflicting in a number of instances with his later keys⁶ and as a consequence the species are badly confused in most collections. Three species of this group have been taken by me in Florida, one of which appears to be undescribed.

Badister flavipes Lec.—One specimen March 18 from the extinct pond at Ft. Myers. In the original description the intervals are said to be convex, whereas in the keys of LeConte it is included under division with intervals flat. In the specimens at hand, from Little River and Ft. Myers, the three innermost intervals are subconvex, the outer ones flat.

²In the notes and descriptions which follow, the sequence and nomenclature is that of Leng's new "Catalogue of the Coleoptera of America north of Mexico." Where the generic name used by him is different from that heretofore in common use the old name in parenthesis follows the new, e. g. Pseudamphasia (Anisodactylus) sericea Harris.

³Can, Ent., xlvi, 1914, 63.

⁴Bull. Brook, Ent. Soc., iii, 1880, 51.

⁵Memoira iv, 1913, 151.

⁶Trans. Amer. Ent. Soc., viii, 1880, 165; Bu'l. Brook. Ent. Soc., v, 1882, 7.

Badister seclusus sp. nov.

Elongate-oval. Black, shining, the elytra and under surface strongly iridescent; narrow margins of thorax and elytra brownish-piceous; antennae piceous, the two basal joints paler; palpi and legs dull brownish-yellow, head as wide as base of thorax, finely alutaceous, impunctate, its front portion distinctly declivent and concave with prominent raised margins; eyes very large and prominent; antennae nearly half as long as body, the third joint more than twice as long as second, slightly shorter than fourth, joints 4 to 11 very stender, more than four times as long as broad. Thorax short, widest at apical third, the sides thence oblique and distinctly converging to base, which is but two-thirds as wide as apex; side margins narrow to behind the middle, then gradually widening and reflexed to base; hind angles obtuse, not rounded; median line deep, entire; basal impressions narrow, deep. Elytra at base one-third wider than base of thorax; humeri broadly rounded, sides straight and parallel from basal fourth to apical fifth, then broadly rounded into the obtuse apex; striae deep, intervals subconvex, the second with two large dorsal punctures on its inner margin, the first at middle, the other at apical fourth. Length 4.8 mm.

Dunedin, Fla., March 10-April 19. Two specimens taken by sweeping Evidently allied to flavicornis Casey, deferns in a dense damp hammock. scribed7 from Iowa but much smaller and with dark antennae. 'The basal side margins of thorax are much more strongly widened and reflexed than in reflexus. the hind angles more distinct. It is possible that this is the species listed as B. micans Lec. by Schwarz, and by Leng, but it is a much smaller species with very different form of thorax from what I have as micans from Indiana, which was compared with LeConte's labelled type. As pointed out by Casey, loc. cit., the original description of micans calls for a species $4\frac{1}{2}$ lines (9 mm.).

Badister reflexus Lec.-Four specimens from the pond at Ft. Myers; one from Tallahasse. Leng records it⁸ only from Suwanee. The Florida specimens agree with those from Indiana in having the hind angles "very obtuse and rounded," as stated by LeConte in his original description, whereas in his key they are mentioned as "obtuse, not rounded."

Pseudamphasia (Anisodactylus) sericea (Harris)—This common northern Carabid has not heretofore been reported from Florida, though it is known from Louisiana. Two specimens were taken from beneath debris on the shore of Lake Okeechobee near Moore Haven on March 2, 1918. Casey9 has recently erected for it the genus Pseudamphasia.

Pronoterus semipunctatus (Lec.)—From the muck about the Pontederia roots in the pond at Ft. Myers I took three specimens of a small Dytiscid which I was unable to identify, even as to genus, with the literature available. ing that it perhaps might be a West Indian form, I sent a specimen to A. J. Mutchler of the American Museum of Natural History. He replied that it was not represented in the Museum collection either from the United States or West Indies, and suggested that I refer it to H. C. Fall, who has been making a recent

⁷Memoirs, ix, 1920, 208.

⁸Bull. Amer. Mus. Nat. Hist., xxxiv, 1915, 581. ⁹Memoirs v, 1914, 195.

study of the smaller Dytiscidae. This I did, and Mr. Fall reported that: "It seems almost surely to be the rare Canthydrus semipunctatus (Lec.) described from Michigan¹⁰. It is also probably *Pronoterus punctipennis* Sharp, described from Brazil! On comparing your specimen with LeConte's unique type in the Cambridge Museum I find that it differs only in being a little smaller, with somewhat darker elytra and with the posterior angles of the hind coxae a little more I cannot feel so sure that Sharp's species is the same, but the short description is perfectly characteristic so far as it goes. It is not a Canthydrus, but must be referred to Sharp's genus Pronoterus and, LeConte's name being the older, must be known as Pronoterus semipunctatus (Lec.). I do not know that LeConte's specimen has ever been duplicated in this country, so your find is one of great interest. Truly a remarkable distribution if the Michigan, Florida and Brazilian specimens are all one thing!"

Pachydrus (Coelambus) princeps (Blatch.)—The second known specimen was taken March 19 from amidst the decaying stems of pickerel weed in the extinct pond at Ft. Myers. The unique type was from the east shore of Lake Okeechobee. It was described 11 as a Coelambus, but Fall states 12 that it belongs to Pachydrus, a tropical genus, hitherto unrepresented in this country.

Celina slossoni Mutch.—One specimen, April 1, from a mass of water weeds in a small pond near Dunedin, known heretofore only from Sanford, Enterprise and Lake Worth, on or near the east coast.

Derallus altus (Lec.)—Three specimens were taken from the debris of the extinct pond at Fort Myers. The only other Florida record is that of mine from Dunedin¹³.

Helobata (Helopeltis) larvalis (Horn.)—Two specimens were secured from the under side of the decaying leaves of pickerel weed at the Ft. Myers They clung to their cover much as did a small mollusk of the genus Ancylus which was frequent on the leaves. While the beetle has been taken at several stations in Florida, the only definite one hitherto recorded is Sarasota, where I found a single individual in 1911.

Bacanius subdepressus sp. nov.

Broadly oval, subdepressed. Black, shining; femora piceous, antennae, tibiae and tarsi dark reddish brown; the globular antennal club much paler. Head two-thirds as wide as thorax, minutely and sparsely punctate. Thorax twice as wide as long, sides feebly curved, strongly margined, this margin continuous and uninterrupted to tips of elytra; disk, finely, evenly and rather sparsely punctate, base with a single transverse row of smaller punctures. Elytra as wide at base as, and about two-thirds longer than, thorax, without marginal carinæ or discal striae; sparsely, rather coarsely punctate, the punctures on basal half in Pygidium, very minutely punctate. part aciculate or substrigose. process broad, one-half longer than wide, striate each side, minutely punctate, Metasternum very broad, both it and abdomen very minutely truncate at tip. and sparsely punctate. Length .8—I mm.

¹⁰Proc. Amer. Phil. Soc., xvii, 1878, 595.

¹¹Can. Ent., xlvi, 1914, 64. 12The N. Amer. species of *Coelambus*, 1919, p. 1.

¹³Bull. Amer. Mus. Nat. Hist. xli, 320.

Frequent and gregarious, November to April, about Dunedin, beneath the bark of dead water oak and dead white bay; also taken beneath cow dung and by sifting in damp mucky places. Much less convex than any of our other described species.

(To be Continued.)

NEW SPECIES OF CANADIAN SYRPHIDAE, (DIPTERA) Pt. II.

BY C. HOWARD CURRAN, Orillia, Ont.

Cynorhina robusta, new species

Thorax and scutellum moderately long, pale yellow pilose; abdomen black pilose except the immediate basal corners which bear yellow pile; head brown and black pilose; face chiefly piceous, but yellow above.

Length 11 mm. Q. Face piceous, immediately below the antennae, more so at the sides, yellow, the cheeks black; face thinly silvery pollinose, the side margins sparsely whitish pilose; in profile the sub-keel-shaped face is slightly produced below the middle indicating a long tubercle. Antennae black, third joint circular and reddish brown in color, the base below reddish; arista black. Front shining black, somewhat narrowed above; antennal process narrowly reddish apically. Pile of the front black; under the eyes yellowish, on the lower half of the occiput brown, black on the upper half, moderately long below. Posterior orbits narrowly grayish white pollinose.

Thorax shining deep blue-black; mesopleurae margined with reddish except below. Dorsum brassy, and clothed with rather long pale yellow pile; pleurae bare except on the meso and sternopleurae; scutellum similar in color and pile to dorsum.

Abdomen wholly shining black, with a strong purplish reflection, wholly short black pilose except the basal angles which bear longer yellowish pile. First two ventral segments yellow apically at the sides.

Legs blackish, short black pilose, longer on the femora; femora tipped with yellow; bases and ends of the tibiae yellow or yellowish; first three joints of the anterior four and second and third of the hind tarsi, yellow.

Wings moderately brownish, less so outwardly, their bases very conspicuously yellow; stigma brownish, but not readily discerned. Squamae whitish yellow, with similar colored fringe. Halteres yellow.

Holotype, \circ , British Columbia, in the Canadian National Collection, Ottawa.

A robust, conspicuous species resembling *Criorhina*, best characterized by the color of the face and the pile, which is longer and denser than usual.

Cynorhinella, new genus

Face considerably produced downwards, tuberculate; side margins distinct; eyes contiguous; antennae short, third joint roundish; thorax longer than broad, without bristles; abdomen slender, twice as long as the thorax, tapering in the male; femora all somewhat swollen, the hind ones considerably so and arcuate, at the end below with an angular projection exteriorly, as in