NOTES ON THE WINTER AND EARLY SPRING COLEOPTERA OF FLORIDA, WITH DES-CRIPTIONS OF NEW SPECIES.

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In 1911, and again in 1913, I spent the time from January 10 to April 15 in Central and Southern Florida, collecting especially Coleoptera, Orthoptera and Hemiptera, but also taking what came readily to hand in other orders. In the Canadian Entomologist for November, 1912, and January, 1913, I made mention of the places where I collected the first trip and described with notes a number of apparently new species.

In 1913 I made my headquarters at Dunedin, a small town on the Gulf Coast about twenty miles northwest of Tampa, and the bulk of my collecting was done in the immediate vicinity of that place. However, on February 18, a companion and I placed a small boat in Lake Tohopekaliga at Kissimmee, and with tent, cooking outfit and supplies, made our way down through three or four lakes, the largest of which was Lake Kissimmee, then down the river of that name to Lake Okeechobee, around the northern and eastern sides of that large body of water, then across it and down the Caloosahatchee River to the Gulf Coast below Fort Myers. Our trip occupied twenty-six days and was somewhat hurried, as my companion was a fisherman and hunter, little interested in entomology. As a consequence, most of my collecting was done in early morning, at the noon stops, and in the evenings after the camp duties had been completed. However, I had one full day at Kissimmee, three on the west shore of Lake Istokpoga, and a like number on the southwestern end of Pelican Bay, Lake Okeechobee, just east of Kreamer Island.

From the town of Kissimmee to the upper end of Lake Okeechobee the distance, as the crow flies, is about eighty miles; but, as the river runs, it is 240, the channel winding its way back and forth across a swamp, twenty to twenty-five miles in width, for the whole way. In only a few places are the banks of this river and Lake Okeechobee five to eight feet above the water, in most places not averaging that many inches. Cypress and bay trees, with branches thickly loaded with the long pendent "Spanish moss," scrub live oak, elbow brush and swamp elder, covered with February, 1914

semi-tropical vines of many kinds, form the prevailing vegetation along the banks, while pickerel weed, water hyacinth, arrow heads, sawgrass and spatterdock fill the marshes. Along Lake Okeechobee a custard apple and wild papaw become plentiful, while here and there a rubber tree with spreading branches rears its head above the underbrush. My main collecting was done by beating and by overturning drift along the shores, though in a few places I was able to do some sweeping and sifting.

At Dunedin, and later on at Sanford, Eustis and Ormond, collecting was done in all possible ways. Of the insects taken during the trip of 1913 only the Coleoptera have been mounted and studied. About 900 species of these were secured during the two seasons. Could I have remained through May, probably as many more could have been taken, as the spring broods were just coming out in numbers when I had to leave.

Brief notes on the occurrence of a few of the rare or little known species will be given in this and a succeeding paper, together with descriptions of a number of forms apparently hitherto undescribed.*

209.**—Pasimachus strenuus Lec. A single example of this large Scaritid was taken near Ormond, March 24, from beneath a chunk in open pine woods. Length 37.5 mm.

Scarites californicus Lec. A half dozen or so from beneath logs half buried in the beach sand. St. Petersburgh, January 23; Dunedin, January 20. Smaller than *subterraneus* Fab., much more shining and with the striæ of elytra almost obliterated. The two can be separated at a glance, though *californicus* is not recognized in our lists. Length 15—17 mm.

535.—Pterostichus morio Dej. A single specimen at Dunedin, January 17, from beneath chunk near border of lake.

536.—Pterostichus faber Germ. This was the most common species of *Pterostichus* taken, having been secured in six widely separated localities. Schwarz lists it as "very rare." It occurs singly or in pairs beneath rubbish along streams or ponds. Of this genus and *Evarthrus* I took but five species in the two winters,

^{*}Notes on 55 other species of Coleoptera taken by me at Ormond in the early spring of 1899 will be found in the appendix to my "Nature Wooing at Ormond by the Sea."

**The numbers are those of the Henshaw Check List and Third Supplement.

and Schwarz lists but six, three of which are identical with mine. In Indiana thirty species have been taken, while in individuals they are here among the most common of the Carabidæ.

Diplochila nupera Casey. A single example from the border of Arch Creek (eight miles north of Miami), March 21. Readily distinguished by its small size and the rectangular hind angles of thorax. Length, 10 mm.

- 719.—**Dicælus quadratus** Lec. One specimen at Fort Myers, March 6.
- 720.—**Dicælus carinatus** Dej. One specimen from near St. Petersburgh, January 17. Both this and the preceding from beneath chunks in low damp woods.
- 935.—Pinacodera platicollis Say. A number were beaten from lårge bunches of "Spanish moss" (*Tillandsia usneoides* L.) at Dunedin, Lake Okeechobee and Ormond.
- 992.—Chlænius herbaceus Chev. Twenty or more specimens of this beetle, usually regarded as very rare, were taken from beneath boards, etc., along the borders of some small fresh water lakes just back of Dunedin. January 21-April 1.
- 1132.—Selenophorus fossulatus Dej. Common beneath dried cow dung in open pine woods near Sarsota. February 15—March 2.
- 1152.—Acupalpus longulus Dej. Taken by sifting at Dunedin, Lake Okeechobee and Sanford, January 24—March 30. Canthydrus floridanus, sp. nov.

Short, ovate, strongly convex. Head and thorax reddish-yellow, with a blackish or fuscous cloud on occiput and middle of apical half of thorax; elytra dark brown; antennæ, under surface and legs pale reddish-yellow. Head and thorax without punctures except a few coarse ones along the basal half of latter. Elytra with numerous irregularly placed, very shallow punctures. Length 2—2.2 mm.

Described from five specimens taken from beneath rubbish at Kissimmee and on the southeastern shore of Lake Okeechobee, February 16—March 6.

Shorter and more strongly convex than either *gibbulus* Aube or *puncticollis* Crotch. Prosternal process between the front coxæ narrower and elytral punctures finer and more shallow than in either.

Cælambus princeps, sp. nov.

Broadly oval, subdepressed above, strongly convex beneath. Head, elytra and narrow front and hind margins of thorax dark reddish or piceous brown; disc of thorax, under surface and legs pale reddish brown; antennæ and palpi still paler. Eyes very finely granulate, separated by one and one-third times their own diameters. Clypeus broadly rounded, finely but distinctly margined. Head and thorax finely, sparsely and irregularly punctured; elytra conjointly one and one-fourth times longer than wide, a little more coarsely, more regularly and aciculately punctate; both they and the under surface very finely and indistinctly alutaceous. Meso- and meta-sterna and abdomen finely, sparsely and irregularly punctate, the punctures shallow. Length 4.5 mm.; width 2.8 mm.

Described from a single example taken March 6 from beneath decaying water hyacinth on the southeast shore of Lake Okee-chobee.

Mr. John D. Sherman, Jr., of Mount Vernon, New York, a special student of the Dytiscidæ, to whom the specimen was sent for examination, says, "It is undoubtedly a new and very striking species, in size and shape reminding me of *Pachydrus brevis* Sharp from Porto Rico."

1661.—Helopeltis larvalis Horn. One, March 4, from beneath chunk half buried in the mud of a tide-water marsh near Sarasota. Megilla fuscilabris decepta, var. nov.

Form of the common fuscilabris Muls. (maculata DeG,.) but smaller. Ground colour above a paler red. Head wholly black; thorax with four small black spots on the basal half, these arranged either obliquely in pairs in the form of a little crown, or with the front pair united behind to form a small V, or with all four united making an irregular crescent which encloses a small red spot in front of scutellum; elytra with the subapical spots of fuscilabris usually united to form a common spot on the suture; tibiæ more or less reddish, especially so near base. Length, 5 mm.

Swept from low herbage. Sanford, March 28; Ormond, April 14. Mr. Chas. W. Leng, of New York City, has nine specimens from the Angell collection taken at Key West, Fla., without date. Both fuscilabris Muls. and floridana Leng have a large pale triangular

spot on head, this very rarely wanting in the former. Fuscilabris has two common sutural spots and four spots on each elytron; floridana, one sutural spot and five spots on each elytron, while decepta, in all but one or two of the known specimens, has three sutural spots (scutellar, postmedian and subapical) and three spots on each elytron. The spots are much larger than those of floridana and, excepting the scutellar one, more subequal in size than in either of the other forms. The upper surface is much less distinctly alutaceous than in either. I found floridana to be quite common in February on the spatter-dock (Nymphaa advena Soland.) along the Kissimmee River.

Neoharmonia venusta dissimila, var. nov.

Differs from the typical venusta in being more rotund; in having the head wholly black, the black spots of thorax enlarged and coalesced to form a single large three-lobed discal blotch, the median lobe of which reaches the front margin; and in the four median black spots of elytra being wholly wanting, thus leaving the two basal spots on each, and the common irregular subapical cross-bar. Length 6.5 mm.

One specimen beaten from elder blossoms on the southeast shore of Lake Okeechobee, March 6. Mr. Wm. T. Davis, of New Brighton, Staten Island, New York, reports that he has a specimen of var. dissimila very similar to the one above described, but having the thorax coloured as in typical venusia. It was beaten from the black willow (Salix nigra L.) on the shore of Plummer's Island, Maryland. June 25, 1911.

Neoharmonia notulata Muls. One beaten from oak shrubs on Istokpoga Creek, February 26. It has the thorax coloured as in the above variety of *venusta*, the elytra black with a large irregular red spot on middle of each.

Psyllobora 20-maculata pallidicola, var. nov.

Smaller and paler than 20-maculata, not alutaceous and much less distinctly punctate; thorax wholly pale, without the spots seen in that and other described forms. Elytra without common sutural spots, the others rather large and well defined, with three near middle of disc more or less connected. Length 1.8—2 mm.

Beaten from foliage of the wax-myrtle or bayterry (Myrica cerifera L.), Dunedin, January 18; Lake Istokpoga, February 25; Ormond, April 13.

I have followed Leng in making this a variety of 20-maculata Say, though it is my opinion that in time all the more southern non-alutaceous and finely punctate forms will be recognized as distinct from that common northern species, though closely related among themselves.

3086.—Axion tripustulatum DeG. Quite common on oak and myrtle near Dunedin; also at Bassenger, Arch Creek and other places. January 24—March 30.

9906.—Novius cardinalis Muls. Five examples of this introduced species were beaten from wild grape along the borders of a large orange grove near Dunedin, January 20.

Aditoma bifida Casey. This peculiar Colydiid was taken in small numbers both at Sanford and near Oneca, January 13—February 10. It occurs beneath the bark of dead pine in open woods. **Trogoderma fascifera**, sp. nov.

Oblong-oval, robust. Black, feebly shining; elytra with a common broad dark red antemedian band, the hind edge of which is concave on each elytron, and the front one more broadly and obliquely so; tibiæ, tarsi and basal joints of antennæ reddish-brown. Eyes entire, rather small, widely separated. Antennæ of male serrate from the fourth joint. Head finely and densely reticulate-punctate. Thorax nearly twice as wide as long, as wide at base as elytra, sides feebly rounded into apex; disc with middle third finely and sparsely punctate, its sides punctate like the head. Elytra sparsely and finely punctate, each puncture bearing a short, prostrate grayish hair. Pro- and meso-sterna with large shallow variolate punctures; abdomen finely and rather densely articulate-punctate. Length 4.5 mm.; width 3 mm.

Described from a single male taken February 25 by sifting on the west shore of Lake Istokpoga. Readily known by its large size and the reddish cross-band of elytra which reaches from the middle more than half way to base, and sends a spur along each side of suture nearly to the scutellum. The prosternal process is feebly concave and finely carinate for its entire length, and the antennal fossæ are wider and more shallow than in our other species.

(To be continued.)