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1904	Needham, J.	G.	Beetle	drift	on	Lake	Michigan.	Can.
Ent., 36, pp. 294–296.								
1878	Riley, C. V.	Mig	ratory b	utterf	lies.	Sci.	Amer., 38, I	5.215.

1890 Schwarz, E. A. Notes on the comparative vitality of insects in cold water. Proc. Entom. Soc. Wash., 1, pp. 208– 215.

1902 Snow, Lætitia M. The microcosm of the drift-line. Amer. Nat., 36, pp. 855–864.

ON SOME NEW OR NOTEWORTHY COLEOPTERA FROM THE WEST COAST OF FLORIDA.

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Among the Coleoptera taken in the vicinity of Dunedin, Florida, during the past two years are several species which are evidently undescribed, and some others worthy of note on account of their rarity or known distribution. I therefore present the following notes and descriptions relative to them. It may be added that Dunedin is located on Clearwater Bay, three miles north of ~ Clearwater, the county seat of Pinellas County, and 27 miles northwest of Tampa. The bay is formed by a number of keys or islands which parallel the coast of Pinellas Peninsula, about two miles One of these, Hog Island, about five miles from the mainland. long and one-half mile wide, has its southern end opposite the town of Dunedin. Its surface is of sand, somewhat thickly clothed with the characteristic sand-loving vegetation of the west coast keys. On the mainland east of the town, which is situated in a noted citrus-growing district, are numerous small lakes or ponds, some of which become almost extinct during the dry or winter season. Along the margins of these ponds and in and about the wet hammocks, which are densely grown up with deciduous trees and underbrush, most of the species noted have been taken. My collecting has been done between Oct. 20 and April 15, though a few species are included which were taken in summer and sent to me.

Scarites californicus Lec.—I regard this as a valid species. It can be separated at a glance from *subterraneus* Fab., of which it has been placed as a variety by Leng and other recent writers. It is strictly maritime, occurring only beneath seaweed or half-buried April, 1917 logs, rarely on the beach of the bay, more frequently on that of the Gulf, where 12 specimens were taken in several hours' search on March 25, beneath thick masses of seaweed along Hog Island. Since *californicus* has never been recorded as mating or even associating with subterraneus, and since the latter is an inland form occurring usually in or about the margins of cultivated grounds, the two, in my opinion, are distinct and separate species.

Tetragonoderus fasciatus Hald.—Among a number of beetles taken by my son and his wife at electric light on the porch of my residence at Dunedin, in June and July, 1915, was a single one of this species. It is not included in Leng's "List of the Carabidæ of Florida,"* he merely stating that one had been taken in Mobile County, Alabama, by Loding. It is frequent in sandy places in Indiana, and Horn gives its range as Michigan and New York to Louisiana and Lower California.

Lebia pulchella Dej.-Single specimens of this handsome Carabid were taken beneath boards along the margins of ponds on Jan. 16 and April 4. Schwarz has taken it at Ft. Capron and Tampa, but it is rare wherever found.

Agonoderus indistinctus Dej.-Single specimens were taken at Dunedin, March 28 and Sanford, March 24. Not included in Leng's list.

Haliplus punctatus Aube.—A single example of what I take to be this species, judging from the translation given by Roberts[†] of Aube's original description, was taken Jan. 30 from a pond in an old clay pit. It is not any one of the species described by Matheson,** and so was sent to that gentleman for examination. He pronounced it a new species, but as he and Roberts disagreed as to what the *H. punctatus* of Aube really is, I place it under that name provisionally.

Peltodytes oppositus Roberts.-Several specimens were taken from ponds and ditches between Feb. 10 and April 2. This and the preceding are the only two species of the family so far taken in the vicinity of Dunedin.

Notomicrus nanulus Lec.—This minute Dytiscid was taken

*Bull. Am. Mus. Nat. Hist., XXXIV, 1915, pp. 555–601. †Journ. N.Y. Ent. Soc., XXI, 1913, 95. **Loc. cit., XX, 1912, 156–193.

from a pond east of Dunedin on Jan. 19 and Feb. 9, 1913, eight specimens having been secured. It has not since been found though especial search has been made for it. It occurs on the underside of wholly immersed boards, and is only detected when it moves. LeConte described it from Louisiana in 1863, from specimens taken by Dr. Schaum, and it has not before been recorded from Florida.

Philhydrus estriatus, sp. nov.—Broadly oblong-oval, feebly convex. Above black, shining, the side margins of thorax and elytra reddish-piceous; under surface dark piceous, the antennæ, palpi and tarsi paler. Thorax and elytra very finely, rather closely and evenly punctate, the elytra without trace of sutural striæ, each with two irregular rows of large punctures located along the lines of the fifth and seventh striæ, were the latter present. Under surface finely and very densely punctate. Mesosternal crest low with front edge strongly oblique. Length 6.5 mm.

Described from three specimens taken from ponds on Jan. 21 and March 23. Intermediate in size between *consors* and *perplexus* of LeConte, being smaller and much less convex than *consors* and larger and more broadly ovate than *perplexus*. In both those species the punctuation is much coarser, the sutural striæ very distinct and the coarser punctures of elytra in four rows. From *P. cinctus* Say, which it resembles in colour, *estriatus* is separated by its less convex form, absence of sutural striæ and oblique front edge of mesosternal crest.

Helocharis maculicollis Muls.—A female of this species, taken Feb. 25, had a large mass of eggs attached to the under side of the abdomen. They were very regularly placed in a double layer, the median portion of 12 eggs consisting of two rows, each made up of three eggs placed end to end. On each side of this longitudinal median axis and arranged at right angles to it were two rows, each composed of nine eggs placed side by side. There were thus 36 eggs in the double layer each side of the median support, or 84 in the whole mass. I can find no previous record of the egg-bearing habit of this species.

Arthmius gracilior Casey.—Taken in some numbers by sifting vegetable mould in a low, wet thicket. Originally described from Tampa, it was placed as a synonym of *Batrisus globicollis* Lec. by Henshaw, but Fall, in a recent letter, states that the sexual characters are different and that it is probably distinct.

Exochomus marginipennis childreni Muls.—This variety is common on oak throughout the winter, and mention is made of it here only to record the taking of two specimens having the elytra wholly pale, the usual subapical black spots being absent.

Hyperaspidius militaris Lec.—Schwarz records this species as "rare on oak shrubs." About Dunedin it is swept in numbers in late autumn and early spring from a species of *Helenium* and other low Compositæ, and has never been taken from oak.

Scymnus oculatus, sp. nov.—Oval, convex. Head, thorax, legs and last ventral wholly pale yellow; under surface reddish yellow, finely and densely punctate; elytra black with a large oval, common reddish spot on median third. Upper surface rather thickly clothed with very fine semi-prostrate whitish hairs. Thorax almost smooth; elytra coarsely not closely punctate. Length 1 mm.

Described from a single specimen beaten from Myrica cerifera L. on March 24. A small and uniquely coloured species belonging to Horn's Group B, i. e., having the metacoxal line running parallel to the first ventral suture. Neither Horn nor Casey describe a form having a single common elytral pale spot, hence I have little hesitation in adding a new member to this already over-crowded genus.

Tritoma dissimilis, sp. nov.—Elongate-oval, feebly convex. Black, legs, antennæ and palpi reddish brown. Head and thorax sometimes piceous, minutely alutaceous, finely and sparsely punctate; sides of thorax straight from base to apex. Elytra slightly wider at base than thorax, widest and most convex at basal third, thence tapering to the rounded apex; striæ with feebly impressed rows of small, close-set punctures; intervals very minutely and sparsely punctate. Under surface finely and sparsely punctate. Length 4–4.5 mm.

Taken from beneath bark of dead oak; March 23, 24. Close to T. angulata Say but larger, with distinctly longer and more tapering elytra and straighter sides of thorax.

Tomarus hirtellus Schwarz. Frequent beneath piles of chips and old leaves. Not listed by Henshaw though it was described in 1878.

Dermestes elongatus Lec. A single specimen was taken from beneath the carcass of a gopher turtle on March 8. LeConte described it from Georgia as rare, and Schwarz records one specimen from Haulover, Florida.

Monœdus guttatus Lec. Taken in numbers Feb. 23-29, and again December 13, by beating masses of a very slender milkweed, Metastelma scoparium Nutt., near the border of a wet hammock. Horn in 1882* characterized the genus *Monædus*, placing it in the family Lathrididæ, and described M. guttatus (crediting the species in a footnote to Dr. LeConte) from "a single specimen taken by H. G. Hubbard at Cedar Keys, Fla."**

In 1894 Sharp erected the family Adimeridæ for a supposed new genus, Adimerus, of which he described three species from Central America.[†] Arrow in 1909 states[‡] that Adimerus Sharp (1894) is a synonym of Monædus Horn (1882), and corrects Horn's mistake regarding the number of tarsal joints. He retained the family name Adimeridæ and listed five species of Monædus. In 1913 Champion^{‡‡} accepted Arrow's conclusions regarding the synonymy of Adimerus and placed M. dubius Sharp as a synonym of *M. guttatus*, but still retained the family name proposed by Sharp.

In conformity with Article 5 of the International Rules of Zoological Nomenclature the family name Adimeridæ Sharp should be abandoned, being based on a generic name which was a synonym, and should be replaced by Monædidæ, with Monædus Horn as the typical genus.¹ The genus is represented in Guadeloupe and Central America by several species which are said to occur under bark. M. guttatus is represented in the U.S. National Museum collection by three specimens from Florida, all taken by Hubbard and Schwarz at Biscavne on May 10; also by specimens from Tampico, Panama, Cuba, Guatemala and Monteserrat.²

*Trans. Amer. Ent. Soc., X, 116, Pl. IV, fig. 10.

**Mr. H. S. Barber, in a recent letter, states that Mr. Schwarz "avers that guttatus was not taken by either Hubbard or himself at Cedar Keys, but that the type specimen came from Jupiter, Fla.

†Biol. Cent. Amer., Col., vol. II, pt. 1, 441, Pl. XIV, figs. 3, 3a and 4. Ann. Mag. Nat. Hist., IV. 195.

‡‡Trans. Ent. Soc. London, 73.

1 Since this was in type Mr. Barber has called my attention to the fact that Leng and Mutchler (Bull. Am. Mus. Nat. Hist., vol. 33, p. 415) have used the family name Monædidæ for four species of Monædus from Guadeloupe.

2 Auct. H. S. Barber, to whom I am also indebted for several of the citations above given.

Tenebroides foveatus, sp. nov. Elongate-oblong, subdepressed. Black, feebly shining, antennæ, palpi and tarsi piceous. Head finely and rather sparsely punctate, vertex with a large, rounded median fovea. Thorax subquadrate, slightly wider than long, sides almost straight, feebly diverging from base to apex; disc sparsely and finely punctured, hind angles almost rectangular. Elytra at base not wider than apex of thorax, sides paralle' to apical third, thence broadly rounded to apex; striæ with rows of unimpressed, medium sized, close-set, round punctures; intervals flat, smooth. Under surface finely and sparsely punctate. Length 10 mm.

One specimen taken at light on porch of house, July 5. Its large size, foveate head and flat, smooth intervals distinguish it from our other described forms.

Lacon curtus Lec. Taken in small numbers on several occasions from beneath logs half buried in dry sand. From three to a dozen are usually found together. Originally described from Georgia, it is not given in Schwarz's "Coleoptera of Florida," though he lists *L. rectangularis* Say as common. I have not seen the latter species in Florida, and Dr. Schwarz may have been mistaken in his identification.

Elater discoideus Fab. A single specimen of this handsome Elaterid was beaten from the bayberry, *Myrica cerifera* L. on Feb. 23. Its range is given as Canada to Georgia, and no previous Florida record can be found.

Cebrio mandibularis Lec. Two specimens of this interesting species were taken at light on June 15, as was also one of C. *bicolor* Fab. The latter species is the only one listed by Schwarz, though LeConte's species was described from Florida in 1865.

Pyractomena lucifera angustata Lec. In 1851 LeConte described* *Pyractomena angustata* from the "Southern States," and stated that: "The thorax is usually longer than wide; in one specimen (probably distorted) the reverse is the case." His species was afterward, by himself and Henshaw, placed as a synonym of *P. lucifera* Melsh. Among the specimens of Lampyrids taken at Dunedin and Eustis, Fla., are three males having the thorax distinctly longer than wide and its sides perfectly straight and parallel

^{*}Proc. Acad. Nat. Sci. Phil., 1851, 336.

from the base to beyond the middle, then strongly oblique to the obtusely angulate apex. In all specimens of *lucifera* at hand, from Indiana and Florida, the thorax is fully or quite as wide as long, with sides more or less curved or oblique from base to apex. The elytra of the Dunedin and Eustis specimens are more distinctly granulatepunctate, and the seventh ventral segments are narrower than in the true *lucifera*. With the belief that these specimens represent at least a distinct variety and that they are probably the same as LeConte's *angustata*, I have restored his name as above given.

Telephorus albolineatus, sp. nov. There has long been confused with the *Telephorus rectus* of Melsheimer, a form which I here separate and name as above. The body is distinctly narrower and has the thorax narrower with sides more curved and apex more rounded than in *rectus*. The black median stripe of the thorax is narrower, with its sides less irregular than there. The elytra are more coarsely, rugosely punctate, are clothed with coarser pubescence and have the suture and side margins narrowly but wholly pale. Legs black, the femora sometimes with basal third yellowish. Length 5–5.5 mm.

Common at Dunedin in March and April, where it occurs on oak, bay and other foliage in wet hammocks. Sanford, March 27. A very closely related, if not the same species, occurs in the tamarack marshes of northern Indiana. LeConte had this species before him when hewrote his second paper on Lampyridæ, * and placed it as "variety" B of *rectus*. I have not as yet taken the true *rectus* in Florida.

Disonycha abbreviata leptolineata, var. nov. During the winter months there occurs in small numbers beneath boards and chunks along the borders of lakes and ponds near Dunedin a form of *Disonycha*, which is evidently an undescribed variety of *D. abbreviata* Muls., if not a distinct species. It differs from northern specimens of *abbreviata* in having the body a brighter red, the antennæ deep black, not piceous, and especially in having the black lines of elytra very narrow, not over one-half the width of those of *abbreviata* and more finely punctate than there. In size, form and structure there appears no difference, hence it may for the present be regarded as a southern colour variety of that species, though Horn in his "Halticini" says of *abbreviata*: "This is one of the least variable of our vittate species."

*Trans. Amer. Ent. Soc. IX, 1881, 52.