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A New Species of *Laccophilus* from the Bahamas (Coleoptera, Dytiscidae)¹

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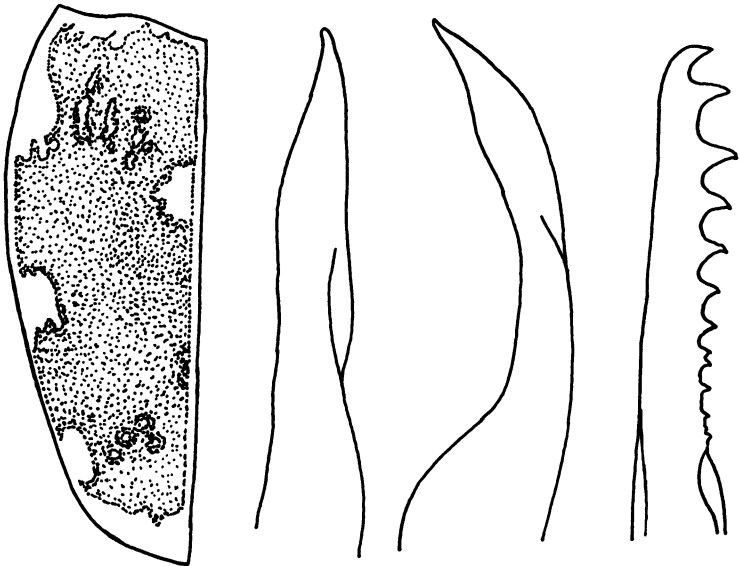
The new species of *Laccophilus* described below was collected on Great Inagua Island in the Bahamas during the Van Voast expedition of the American Museum of Natural History in 1953. Its remarkable size distinguishes it from all the known species of the genus, and it is surprising that it has not been discovered previously.

Laccophilus inagua, new species

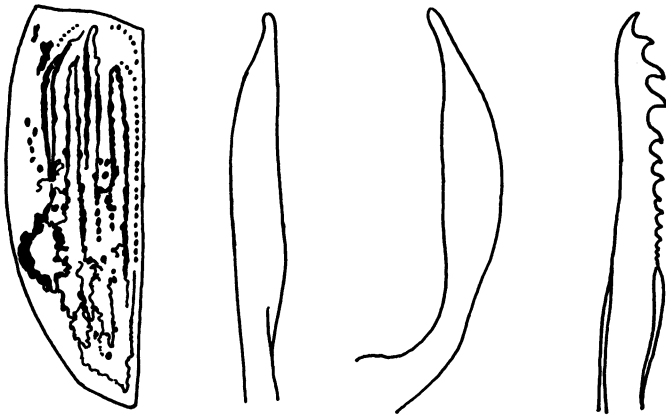
DIAGNOSIS: Largest species now known in genus, some females exceeding 7 mm. in total length. Superficially resembling some African species, but structurally closer to *L. quadrilineatus* Horn from United States and Mexico. Differing from *quadrilineatus* in its larger size, darker coloration, and lack of distinctive, vermiculate, dark, longitudinal markings on elytra as well as in structure of male genitalia. Prosternal process short; male without coxal file (Sharp, 1882, Group 2). Prothoracic microsculpture irregularly polygonal; elytral microsculpture single; elytra with distinct light spots and diffuse, partly marmorate, dark markings (Guignot, 1959, Group 8). Microsculpture and genitalia of this species and *quadrilineatus* set them apart from other species in Nearctic-Neotropical fauna.

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FIG. 1. *Laccophilus inagua*, new species; Great Inagua, Bahamas. *Left to right*: Semidiagrammatic representation of left elytron of holotype female, to show pattern; stippled area brown, irregularly marmorate. Ventral and lateral views of aedeagus of male allotype. Ovipositor of female paratype.

FIG. 2. *Laccophilus quadrilineatus* Horn; Guaymas, Sonora. *Left to right*: Elytron, showing, semidiagrammatically, pattern of irregularly vermiculate, longitudinal, brown lines and irregular darkened areas against brownish yellow background. Other structures as in figure 1. Corresponding structures are drawn to the same scale.

HOLOTYPE FEMALE: Robust, moderately convex, elongate-oval, greatest width at basal third of elytra, attenuate behind, with elytral apices broadly obliquely truncate. Total length, 6.9+ mm.; greatest width, 3.95 mm.; length of elytron at suture, 5.5+ mm.; width at base of pronotum, 3.1 mm.; width at apex of pronotum, 1.98 mm.; length of pronotum at midline, 1.2 mm.; width between eyes, 1.25 mm.; length from base of prosternal process to apex of coxal lamina, 3.3 mm.; length of prosternal process, 0.81 mm.

Head microreticulate, meshes feebly impressed and irregular on front, frequently unclosed, with secondary fine sculpture within larger meshes (double); usual coarse punctures along inner margins of eyes.

Pronotum with sides curved, convergent anteriorly; disk with meshes of microsculpture impressed, more so than on head, meshes irregularly polygonal, small and mostly closed and with secondary sculpture within meshes (double); usual coarse punctures, in part setigerous, conspicuous along anterior margin and at sides.

Elytra with microsculpture impressed, about as on pronotum, but more regularly polygonal and with little secondary sculpture within meshes (single); not distinctly double as in *maculosus*, i.e., with secondary sculpture within meshes or with irregular large meshes enclosing smaller ones; microsculpture much like that of *quadrilineatus* but more deeply impressed and more regular; usual rows of coarse setigerous punctures on disk and laterally conspicuous, but sutural row of fine and inconspicuous punctures; marginal apical row of setigerous punctures conspicuous, setae long, yellow; elytra toward apices with finer, irregularly shaped punctures scattered irregularly among coarser punctures of confluent rows; elytral apices more squarely truncate than those of either *maculosus* or *quadrilineatus*, particularly more so than those of latter.

Venter: Metacoxae microreticulate much as in *maculosus*, the meshes elongate and rather regular; no trace of coxal file; surface more coarsely sculptured than that of *quadrilineatus*. Basal abdominal sternites with conspicuous oblique scratches; fine microsculpture on surface between scratches. Last visible abdominal sternite irregularly impressed at sides, but not forming distinct median ridge; surface coarsely punctate with setigerous punctures and with transverse scratches; posterior margin arcuate at sides, forming a rather acuminate tip; edge reflexed, forming a distinct margin as in female of *quadrilineatus*. Prosternal process not very acute, moderately expanded in apical third with a moderate carina. Anterior and middle tarsi simple. Ovipositor stout.

Color: Head light brownish yellow on clypeus and front; dark brown at base. Pronotum very light brownish yellow, with indefinite brown

transverse bar at middle (more definite in other specimens in series). Elytra basically light brownish yellow, with darker pigment leaving light markings as follows: (1) margin with subbasal, postmedian, and preapical expansions and apex light; (2) irregular elongate light spots forming a vague fascia in subbasal area; (3) narrowly light base and narrow light sutural line with a premedian expansion and indications of a postmedian expansion; (4) small, rounded, preapical spots (fig. 1). Dark pigment irregularly distributed, in part appearing marmorate. Venter in part yellowish brown, with irregular dark brown areas on metacoxae and abdominal sternites.

ALLOTYPE MALE: Disarticulated, but parts similar in color and form to those of female; evidently more slender. Length of elytron, 5.7 mm. (possibly somewhat distorted in drying); width at base of pronotum, 2.75 mm.; width at apex of pronotum, 1.89 mm.; length of prosternum at midline, 1.20 mm.; width between eyes, 1.20 mm.; length from pronotal base to apex of coxal lamina, 3.3 mm.; length, prosternal process, 0.80 mm. Anterior tarsi feebly dilated with palettes beneath, less so than those of *quadri-lineatus*; anterior (inner) claw with a feeble tooth at middle of under side. Middle tarsi lost. Metacoxae without trace of coxal file. Last visible abdominal sternite with vestiture and sculpture much like those of female, but more strongly impressed on each side, so that a feeble ridge is formed at middle (not so conspicuous as in *quadri-lineatus* male) but slightly curving to left (when viewed from below); posterior margin irregularly arcuate, not so strongly acuminate as that of female, acumination displaced to right of center (when viewed from below); edge not reflexed, border very fine.

Genitalia similar to those of *quadri-lineatus*; parameres very similar, but aedeagus more acuminate and different in shape (fig. 1).

VARIATION: The series before me varies somewhat in size (largest female, 7.1 mm.; smallest, 6.3 mm.) and considerably in the extent of the light markings on the elytra. In some the subbasal elongate spots are expanded and partly confluent, a fact that suggests a solid transverse fascia. In others the light areas are reduced in comparison with those of the holotype, and in some the light expansion along the suture is missing.

TYPE MATERIAL: Holotype, allotype, and 12 female paratypes, all from Great Inagua Island, 1 mile east of Matthewtown, January 31, 1953, E. B. Hayden and Leonard Giovannoli. The holotype, allotype, and six paratypes are in the American Museum of Natural History. The other paratypes are distributed as follows: one in the United States National Museum, Smithsonian Institution; one in the California Academy of Sciences; one in the Museum of Comparative Zoölogy at Harvard Col-

lege; one in the British Museum (Natural History); and two in the University of Michigan Museum of Zoology.

The species was collected in association with *Laccophilus vacaensis* Young (new record for the Bahamas), *Tropisternus lateralis* (Fabricius), and *T. quadristriatus* Horn. The association with *T. quadristriatus* suggests that *L. inagua* is a brackish-water form.

REFERENCES CITED

GUIGNOT, F.

1959. Revue des hydrocanthares d'Afrique. Ann. Mus. Roy. Congo Belge, ser. 8°, vol. 78, pp. 531-532.

SHARP, D.

1882. On aquatic carnivorous Coleoptera or Dytiscidae. Sci. Trans. Roy. Dublin Soc., ser. 2, vol. 2, pp. 287-288.

