J. New York Entomol. Soc. 105(3-4):193-198, 1997

NEW SPECIES AND A NEW NAME FOR ANTILLEAN BUPRESTIDAE (COLEOPTERA)

HENRY A. HESPENHEIDE

Department of Biology, University of California, Los Angeles, California 90024-1606

Abstract.—Two species of Buprestidae are added to the Antillean insect fauna. Agrilus jamaicensis is described as the second member of that genus known from the island of Jamaica. Taphrocerus chalumeaui is reported from Guadeloupe, taken on the leaves of the palm Euterpe globosa. Both species are more closely related to Central American forms than to known Antillean species. Agrilus hispaniolae is proposed as a new name to replace A. klapperichi Hespenheide, a primary homonym of A. klapperichi Obenberger.

Fisher's (1925) revision of Antillean Buprestidae reports only one species from the island of Jamaica now considered to belong to the genus Agrilus (Hespenheide, 1974), A. albicollis (Waterhouse), originally described as the type of the genus Paradomorphus. Examination of collections during study of the genus Agrilus (Hespenheide, 1974, 1979) yielded two Jamaican specimens that did not agree with these or the other species known from the Antilles. These specimens represent an unnamed species that is described below. More recently, F. Chalumeau has sent specimens of a species of Taphrocerus from Guadeloupe that is also unknown previously and described here.

Agrilus jamaicensis, new species (Figs. 1–2)

Description: Holotype female: Elongate, strongly flattened above; black with dark metallic blue green reflections throughout except for black median stripe on pronotum and small purplish spot on upper middle of front; small spot of golden setae at anterior angles of pronotum, narrow line of white setae along elytral suture for distal $\frac{1}{3}$; 12.5 mm long, 3.0 mm wide.

Head with front depressed along midline and transversely above middle; surface moderately rugose on upper half, finely punctate on lower half, sparse white setae along midline below middle and above epistoma; antennae reaching posterior angles of pronotum when laid alongside, serrate from segment 5.

Pronotum widest at basal ¹/₃; marginal and submarginal carinae separated along anterior ²/₃, median lobe of anterior margin very shallow; basal margin angulateemarginate at middle of each elytron; disk moderately convex with shallow transverse depressions along base and before middle, narrowly depressed on lateral margins; prehumeral carinae prominent, arcuate, joining marginal carina beyond middle; surface transversely, finely but distinctly rugose, not visibly punctate.

Elytral margins undulate, gradually converging to tips; tips narrowly produced, divergent, narrowly angulate, each with prominent tooth on exterior edge; disk nearly flat with strong, small depressions at base and rather strong depressions along suture;



Figs. 1–2. *Agrilus jamaicensis* Hespenheide, n. sp.; line indicates scale. Figure 1, dorsal view; Figure 2, lateral view. Shaded regions indicate areas of dense setae.

surface polished imbricate-punctate on outer halves, finely transversely rugose on inner halves.

Prosternum glabrous, posterior process bilobed, expanded behind procoxae; prosternal lobe subtruncate. Metacoxae shallowly emarginate on posterior margin, posterolateral angle produced; lateral half of metacoxae and adjacent portions of metasternum and epimeron with dark orange setae, medial half and adjacent metasternum with pale yellow setae. Abdomen with suture between sterna 1 and 2 strongly indicated at sides; apex of lateral portion of sternum 1 broadly rounded and expanded, sterna 1 and 3–5 with dark orange setae; pale yellow setae in broad triangular patches at anterior margins of vertical portions of sterna 1–5, patches of sterna 1 and 2 joined. Tarsal claws with inner teeth broader, rather long and parallel.

Male unknown.

Holotype: "Jamaica," without precise locality (CASC).

Paratype: "Jamaica," without precise locality (BMNH).

Comments: This striking species is very similar to A. dentifer Waterhouse, described from México without more precise locality. A specimen of A. dentifer in my collection from Barro Colorado Island, Panamá, differs from A. jamaicensis as follows: A. dentifer is black with an indistinct spot of sparse white setae along the suture of the elytra at the middle, and lacks the extensive areas of pale setae on the metasternum and sides of the abdomen; the prehumeral carina is only narrowly separated from the marginal carina and the disk of the pronotum is visibly punctate and less strongly rugose; the front is very finely punctate below and nearly smooth on the upper half; the lateral portion of abdominal sternum 1 is only slightly expanded at its apex and the dorsal portions of sterna 3-5 have white rather than orange setae. Although these two species are distinct, they are clearly related, and are part of a larger group of species that includes A. apicatus Waterhouse, A. lentulus Waterhouse, A. cibarius Fisher, A. uvarovi Obenberger and others. All share a convex or weakly depressed pronotum with prehumeral carinae that join the marginal carinae, elongate elytral apices with strong external teeth and a narrow sutural stripe of setae, and similar colorations and patterns of setae on the lateral and ventral portions of the body.

Agrilus albicollis from Jamaica is a black species with some golden reflections, measures less than 10 mm in length, and has the dorsal surface of the pronotum almost entirely obscured by white setae. It is certainly not closely related to *A. jamaicensis*, which is not very similar to the other Antillean Agrilus: *A. denticornis* Chevrolat from Cuba is a much smaller species (<5 mm); *A. dominicanus* Thomson from Cuba and Hispaniola is similar in size, but is uniformly and inconspicuously setose, has a depression along the midline of the pronotum, and has rounded and strongly dentate elytral apices (Fisher, 1925).

That this large, striking species has not been collected recently probably only reflects the general lack of insect collections from the Antilles. Recent collections from Hispaniola have yielded unusual genera and new species, including another *Agrilus* (Hespenheide, 1990, and below), and systematic collecting in Jamaica or elsewhere in the West Indies is likely to be equally profitable.

Taphrocerus chalumeaui, new species (Fig. 3)

Description: Holotype Female: Moderately broad and flattened above, strongly shining; olive green above, except darker spot on each elytron and scutellum and pronotum with coppery reflections; front yellowish green; beneath more convex in crosssection, black with greenish reflections; length 4.3 mm, width 1.5 mm.

Head with narrow medial depression, stronger above middle; surface strongly shagreened, irregularly punctate except for transverse impunctate band across middle of front, punctures small and shallow; sparse area of inconspicuous setae above epistoma, epistomal pores small, separated by own diameter; eyes not prominent.



Fig. 3. *Taphrocerus chalumeaui* Hespenheide, n. sp., dorsal view. Line indicates scale. Shaded regions indicate areas of dense setae.

Pronotum 2 times as wide as long; moderately convex, narrowly transversely depressed along anterior margin and more broadly and deeply so along posterior margin but interrupted at middle, and irregularly so parallel to sides; short linear prehumeral protuberance in posterior angles; sides strongly angulate, widest behind middle; surface strongly shagreened, with ocellate punctures along all margins, sparser on anterior margin and densest in posterior angles, each puncture with semire-cumbent seta. Scutellum strongly shagreened.

Elytra at base wider than pronotum, widest at humeri, constricted behind humeri then shallowly arcuate to tips which are broadly, separately rounded and minutely denticulate; surface shagreened, more strongly so at tips and nearly smooth in oval area behind middle; punctures coarser at base becoming indistinct beyond the middle, second and fourth intervals slightly raised on basal half, suture and sixth interval more strongly raised for entire length (sixth interval subcarinate), especially toward apex, creating narrow triangular depression before apex; transversely depressed at base; setae condensed in spots at basal ¹/₄, at middle, and then along suture to triangular spot in subapical depression.

Antennal grooves on prosternum rather broad and very shallow. Metacoxae conspicuously setose. Abdomen beneath indistinctly shagreened, sparsely minutely punctate and setose; terminal segment broadly subtruncate at apex, apical groove following outline of apical margin, except slightly indented at middle, and overlain with row of long semi-erect setae.

Holotype: Guadeloupe: Morne a Louis, 6.II.1972, F. Chalumeau, "adulte s[ur] feuille de *Eut*[erpe] globosa" (IREC).

Paratype: same data (IREC).

This is the first species of *Taphrocerus* known from the Lesser Antilles and the first member of the genus from the Antilles definitely associated with a species of palm. Other Antillean *Taphrocerus* are associated with sedges (Cyperaceae), although only the Jamaican *T. albomaculatus* Fisher has been reared (T. W. Sherry and Hespenheide, unpublished).

T. chalumeaui appears to be closely related to a group of species that in Central America includes *T. albofasciatus* Fisher (Panamá) and several undescribed forms. This group is characterized by larger size and flattened shape, metallic red, blue or green colors instead of the black typical of most *Taphrocerus*; laterally carinate elytra; and elytral setation patterns similar to that of *T. chalumeaui*. *T. chalumeaui* differs from the species mentioned above in having a color pattern that is olive-green rather than red or blue, in lacking definite lateral elytral carina, as well as in many finer details of morphology. The overall color and the pattern of setae on the elytra will separate it from all other known Antillean species.

Agrilus hispaniolae, new name

A. klapperichi Hespenheide, 1990:402 (primary homonym of A. klapperichi Obenberger, 1940:183).

Dr. Charles Bellamy has kindly pointed out that the name of my recently-described species from the Dominican Republic was preoccupied by that of a Chinese species not included in the most recent catalogue for the genus (Obenberger, 1936).

ACKNOWLEDGMENTS

The author is indebted to F. Chalumeau of the Institut de Recherches Entomologiques de la Caraïbe (IREC); Richard Thompson of The Natural History Museum, London (BMNH); David Kavanaugh of the California Academy of Sciences, San Francisco (CASC); John Kingsolver of the U.S. National Museum (USNM); and the Carnegie Museum, Pittsburgh, Pennsylvania (CMPI) for loaning specimens or providing assistance during visits. Dr. Charles Bellamy advised me on nomenclatural matters. G. H. Nelson reviewed an early draft of the manuscript. Some financial support was provided in part by the UCLA Academic Senate. Margaret Kowalczyk prepared the illustrations.

LITERATURE CITED

Fisher, W. S. 1925. A revision of the West Indian Coleoptera of the family Buprestidae. Proc. U.S. Natl. Mus. 65 (9):1–207.

Hespenheide, H. A. 1974. Nomenclatural notes on the Agrilinae (Coleoptera, Buprestidae): II. *Agrilus*. Entomol. News. 85:48–53.

Hespenheide, H. A. 1979. Nomenclatural notes on the Agrilinae (Buprestidae): IV. Coleopt. Bull. 33:105-120.

Hespenheide, H. A. 1990. New species of Buprestidae (Coleoptera) from the Dominican Republic. Proc. Entomol. Soc. Washington 92:400–406.

Obenberger, J. 1936. Buprestidae 5. In: W. Junk and S. Schenkling (eds.), Coleopterorum Catalogus 152:935–1246. W. Junk,'s Gravenhage.

Obenberger, J. 1940. Ad regionis palaercticae Buprestidarum cognitionem addimenta. Sbornik Narodniho Musea v Praze, B (Prirodovedny) 2:111–189.

Received 1 August 1996; accepted 26 March 1998.



Hespenheide, Henry A. 1997. "New Species and a New Name for Antillean Buprestidae (Coleoptera)." *Journal of the New York Entomological Society* 105, 193–198.

View This Item Online: <u>https://www.biodiversitylibrary.org/item/206640</u> Permalink: <u>https://www.biodiversitylibrary.org/partpdf/180836</u>

Holding Institution Smithsonian Libraries and Archives

Sponsored by Biodiversity Heritage Library

Copyright & Reuse Copyright Status: In Copyright. Digitized with the permission of the rights holder Rights Holder: New York Entomological Society License: <u>http://creativecommons.org/licenses/by-nc/3.0/</u> Rights: <u>https://www.biodiversitylibrary.org/permissions/</u>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.