

ADDITIONS TO KNOWLEDGE OF THE BETHYLID FAUNA OF HISPANIOLA (HYMENOPTERA: BETHYLIDAE)

HOWARD E. EVANS

Department of Zoology and Entomology, Colorado State University, Fort Collins, Colorado 80523.

Abstract.—Three species of Bethylidae are recorded from Hispaniola (Dominican Republic), two of them new. These are *Rhabdepyris muesebecki* Evans, *Anisepyris grisselli*, new species, and *Nesepyrus antilleanus*, new species. The last represents the first record of that genus from the West Indies.

Several years ago I tabulated the number of species of Bethylidae known from various West Indian islands and concluded that many more species are to be expected on several of the more poorly-collected islands, including especially Hispaniola (Evans, 1970). I report here on three species previously unreported from that island, two of them new and one representing the first record of its genus, *Nesepyrus*, from the West Indies.

Rhabdepyris muesebecki Evans

I described this species from Honduras (Evans, 1965) and have recently recorded it as far south as Bolivia and as far north as Missouri and Florida (Evans, 1978). I have recently studied a male from DOMINICAN REPUBLIC: 30 km N Cabo Rojo, Prov. Pedernales, 20 June 1976 (E. E. Grissell, on *Catalpa longisima*) [Florida State Coll. Arthropods, Gainesville]. This represents only the second record of this genus from the West Indies, *R. versicolor* Evans having been described from St. Croix (Evans, 1970). Both belong to the subgenus *Rhabdepyris* as I have interpreted it.

Anisepyris grisselli Evans, NEW SPECIES

Holotype.—♀, DOMINICAN REPUBLIC: 30 km N Cabo Rojo, Prov. Pedernales, 20 June 1976 (E. E. Grissell, on *Catalpa longisima*) [Florida State Coll. Arthropods, Gainesville].

Description of female type.—Length 8.0 mm, fore wing 4.9 mm. Head, thorax, and front coxae and femora brilliant metallic green; propodeum greenish laterally, bluish dorsally; first 2 abdominal segments black, remainder of abdomen rufous; mandibles fuscous, ferruginous apically; scape

fuscous, with purple reflections; flagellum fuscous above, light brown below; middle and hind coxae and femora black, all tibiae dark brown, tarsi testaceous; wings uniformly tinged with brown. Mandibles broad, with a sharp apical tooth and 4 blunt teeth above it, most basal tooth rather small. Clypeus broadly subangulate, with a high median keel. Antennal scrobes carinate; eyes strongly hairy, vertex slightly concave medially. Width of head $1.04 \times$ length of head; width of front $1.3 \times$ eye height. Ocelli in a compact triangle at level of eye tops, well below vertex crest, ocello-ocular line $1.5 \times$ width of ocellar triangle. Front alutaceous, weakly shining, closely covered with small but well defined punctures. Third antennal segment $1.3 \times$ as long as wide. Pronotal disc alutaceous and punctate like front, but punctures absent along a median strip; anterior margin strongly carinate, but sides of disc more weakly so, the carinae fading out well before reaching posterior margin, latter paralleled across dorsum by a prominent groove. Propodeal disc $1.5 \times$ as wide as long, 5-carinate, irregularly reticulate between carinae; posterior angles foveolate. Mesopleura with upper fovea large, fully enclosed, lower fovea not at all defined on upper margin. Middle tibiae with only scattered short, weak spines; claws trifold.

Allotype.—♂, DOMINICAN REPUBLIC: Boca del Soca, Prov. La Romana, 13 June 1976 (E. E. Grissell, dry scrub) [Florida State Coll. Arthropods, Gainesville].

Description of male allotype.—Length 4.8 mm, fore wing 3.4 mm. Head, thorax, and propodeum blue green, abdomen black except apical 2 segments brownish; mandibles testaceous; antennae dark brown; front coxae black, legs otherwise rufotestaceous; wings subhyaline. Mandibles with 5 sharp teeth; clypeus as in female; scrobes not carinate; eyes with short hairs. Width of head $1.15 \times$ length of head; width of front $1.2 \times$ eye height; ocelli slightly enlarged, ocello-ocular line $0.8 \times$ width of ocellar triangle. First 4 antennal segments in a ratio of 20:4:3:20. Sculpturing of front and pronotum much as in female, but lateral pronotal carinae reaching posterior margin. Propodeal disc $1.6 \times$ as wide as long, sculpturing as in female but posterior angles only very obscurely foveolate. Upper margin of lower mesopleural fovea broadly incomplete, as in female; claws trifold as in that sex.

Paratype.—1 ♂, same data as allotype [U.S. National Museum].

Remarks.—The paratype is closely similar to the allotype but slightly larger, fore wing 3.7 mm. This is an anomalous species, falling in most respects in the *aurichalceus* group as I have defined it (Evans, 1966). However, the tibiae of the female are unusually weakly spinose, the scrobes carinate, and the posterior angles of the propodeum foveolate. In these respects the female would fit better in the *excisus* group (also West Indian), but the mandibles are not typical of that group. The male also appears intermediate between these two groups, having weakly foveolate posterior propodeal angles. There are several differences from *A. darlingtoni* Evans,

described from Haiti: The female has quite different mandibles and more strongly margined scrobes, the male ecarinate scrobes and different propodeal sculpturing; both sexes differ with respect to the trifid claws and the more intense coloration of the propodeum.

Nesepyris antilleanus Evans, NEW SPECIES

Holotype.—♀, DOMINICAN REPUBLIC (On Verawood log, 20 November 1934, Mann, New York, no. 30418 [presumably intercepted at quarantine]) [U.S. National Museum].

Description of female type.—Length 1.8 mm, fore wing 1.3 mm. Body dark brown, also antennae and legs to tibiae; tarsi light brown; mandibles largely testaceous; wings hyaline, veins and stigma light brown. Mandibles slender, bidentate; clypeus, in anterior view, with a flattened, triangular area, in dorsal view truncate; malar space about $\frac{1}{3}$ as long as width of mandibles at their base. Head elongate, widest at eyes and very gradually narrowed behind eyes to a straight vertex; width of head $0.77 \times$ length of head; eyes large, width of front only $0.9 \times$ eye height; eyes removed from vertex crest by very slightly more than their own height. Ocelli in an acute triangle, ocello-ocular line $1.4 \times$ width of ocellar triangle. First 4 antennal segments in a ratio of 7:3:2:2, segment 3 slightly longer than wide. Front and thoracic dorsum evenly alutaceous, moderately shining; propodeal disc approximately as long as wide, median carina weakened behind but reaching transverse carina, disc smooth and polished posterolaterally. Fore wing essentially as figured for *virginianus* by Evans, 1964, Fig. 110. Abdomen shining, slightly depressed.

Remarks.—This species is known only from the type, which will run to *virginianus* Evans in my key to *Nesepyris* (Evans, 1964) except for the relatively larger eyes and narrower front. As compared to that somewhat larger species, *antilleanus* has a complete median propodeal carina, slightly longer flagellar segments, and the eye tops closer to the lateral ocelli and to the vertex crest. This is the first report of the genus from the West Indies.

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LITERATURE CITED

- Evans, H. E. 1964. A synopsis of the American Bethyliidae (Hymenoptera, Aculeata). Bull. Mus. Comp. Zool., Harvard Univ. 132:1-222.
———. 1965. A revision of the genus *Rhabdepyris* in the Americas (Hymenoptera, Bethyliidae). Bull. Mus. Comp. Zool., Harvard Univ. 133:69-151.
———. 1966. A revision of the genus *Anisepyrus* Kieffer (Hym. Bethyliidae). Studia Entomol. 9:1-120.

———. 1970. West Indian wasps of the subfamilies Epyrinae and Bethylinae (Hymenoptera: Bethyridae). *Proc. Entomol. Soc. Wash.* 72:340–356.

———. 1978. The Bethyridae of America north of Mexico. *Mem. Am. Entomol. Inst.* 27, 332 pp.



Evans, Howard E. 1979. "Additions To Knowledge Of The Bethylid Fauna Of Hispaniola." *Proceedings of the Entomological Society of Washington* 81, 456–459.

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