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TWO NEW NAUCORID BUGS OF THE GENUS *AMBRYsus*

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The following new *Ambrysi* were discovered after the manuscripts dealing with United States and Mexican species had been completed, and this paper is offered as a supplement to these treatments. Keys are included to allow the incorporation of the new species into the overall keys for the two regions.

Family NAUCORIDAE

Genus *Ambrysus* Stål, 1862

Ambrysus thermarum, new species

FIGURE 1, b, c

Description.—A small, pale species, nearly approaching *Ambrysus funebris* La Rivers, 1949, as the smallest species in the genus, and greatly resembling the latter in general conspectus; size 7.0–8.0 mm. long and 4.5–5.0 mm. wide. Dorsum bicolored, the scutellum and anterior portion yellowish, the posterior area (hemelytra) brownish. Venter brownish, contrasting strongly with the yellow-white appendages.

Head glistening, yellow, slightly roughened and weakly punctate, protuberant before eyes and with the faintest suggestion of truncation in front. Eyes blackish, slightly raised above general head sur-

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face when viewed posteriorly. Head ratios are: Total length to width (including eyes) 19:28 (68 percent); anterior distance between eyes to posterior distance 12:17 (71 percent); anterior distance between eyes to inner eye-margin 12:11; posterior distance between eyes to greatest length of head posterior to this line 17:6 (35 percent).

Pronotum glistening, densely, shallowly punctate; color yellow to amber; lateral edges smoothly rounded, nonserrate, occasionally with some weak pilosity. Curvature 14 percent (average 25:4), postero-lateral angles well rounded. Dorsal ratios are: Width between anterior angles to greatest pronotal width 29:51 (57 percent); median length to greatest width 17:51 (33 percent); width between anterior angles to distance between anterior angle and posterior baseline of pronotum 29:25 (86 percent).

Scutellum yellow-amber, shiny; shagreened with dense, shallow, white-rimmed punctation; ratio of three sides 30:24:24.

Hemelytra uniformly brownish, yellowing medially and in embolar region; shagreened as is scutellum. Embolium about normal for the genus, length-to-width ratio 29:9 (31 percent), rarely with some sparse, occasional marginal pilosity. Hemelytra moderately exposing lateral connexival edges, which latter have some prominent, short yellow pilosity. Hemelytra just attaining abdominal apex.

Venter reddish brown, contrasting with the light-colored legs. Connexival posterolateral angles weakly acute-angulate, gradually enlarging posteriorly, not in the least spinose; connexival edges smooth, nonserrate, moderately pilose. Female subgenital plate apex simply concave, the concavity somewhat angular at its deepest point. Male genital process sharply right-angulate, tapering to apex, appearing much like a very thin foot, curving abruptly outward.

Leg I yellow-white, darkening to light amber on tibia-tarsus; ratio of length to greatest width of femur 27:16 (59 percent); combined tibia-tarsus, when closed, just attaining, or slightly surpassing, adjacent (proximal) end of femur.

Leg II yellow; ratio of femoral length to median width of ventral surface 25:5 (20 percent), length 1.9 mm.; tibia with distal end ventrally with one complete transverse terminal row of reddish spines set solidly across tip (remnants of the second, subterminal row, when complete and unbroken by use, extend about two-thirds of the width of tibia), ratio of length to width 22:2 (10 percent), length 1.75 mm.

Leg III yellow; ratio of length to femoral width 30:5.5 (18 percent), length 2.1 mm.; distal end of tibia ventrally with the same type of transverse spination as in mesotibia; ratio of length to width 37:2 (5 percent), length 3.0 mm.

Tibia has the characteristic spinate appearance in contrast to the smoother micro-armed femora, with the long, silky, swimming hairs on metatibia contrasting with the less hirsute appearance of the

mesotibia. All tarsi, except protarsi, 3-segmented; the first segment minute; the last two long and slender, terminating in two moderately curved claws.

Type and paratypes.—USNM 60987.

Type locality.—New Mexico, Sierra County, Hot Springs.

Material examined.—Holotype (male), allotype, and four paratypes, collected by Loew, September 11, 1874 (P. R. Uhler collection), in U. S. National Museum.

Remarks.—This unique little species, discovered during the course of checking the Ambrysi in the National collection, is probably an offshoot, as far as present material can indicate, of *Ambrysus mormon* stock. The female subgenital plate is mormonoid in structure, and the variable *mormon*-type male process could easily have given rise

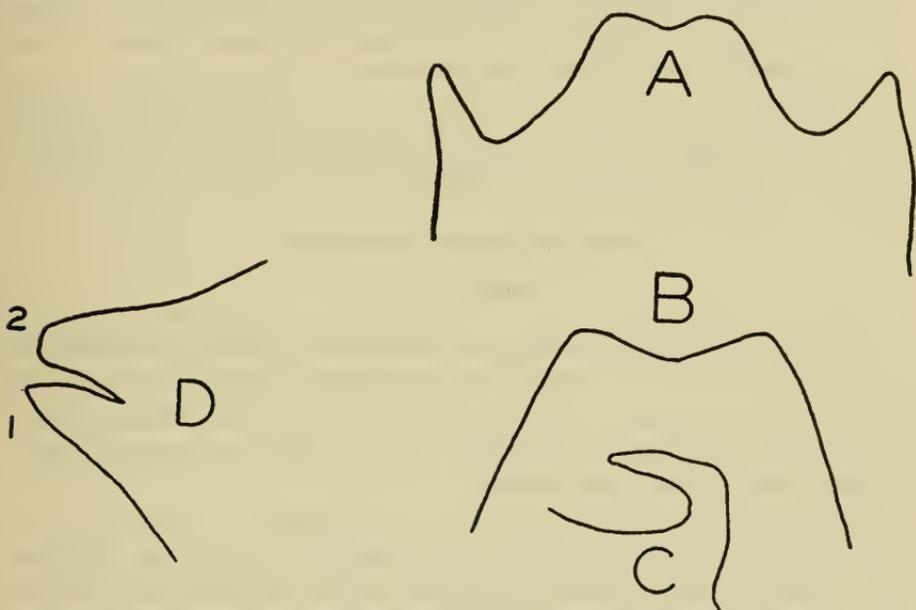


FIGURE 1.—Diagnostic characteristics of *Ambrysus bispinus* and *A. thermarum*: *a*, Apex of subgenital plate of *A. bispinus*, female holotype (visible only in ventral view), $\times 22$; *b*, apex of subgenital plate of *A. thermarum*, female allotype, $\times 22$; *c*, genital process on caudal edge of tergite V of *A. thermarum*, male holotype, $\times 22$; *d*, bispinate condition of left connexivum of abdominal sternite V of *A. bispinus*, female holotype, showing (1) anterior posterolateral angle and (2) posterior latero-caudal angle (ventral view, with caudal tip of abdomen oriented at the top of the field), $\times 22$.

to the distinctive male process of *A. thermarum*, which has evolved toward the *A. woodburyi* type to such an extent that, with only the male to examine, it would have been considered an aberrant *A. woodburyi*. At present, it is the most definitely adapted thermal ecad of the *A. mormon* type, but as nothing is known of the structure of the type locality, it is impossible to say whether this seems to be due to complete isolation or not.

The following modification of my key to United States *Ambrysi* (La Rivers, 1951) will satisfactorily compare *A. thermarum* with its closest relatives:

- 8 (7). Female subgenital plate simply, broadly, and smoothly concave apically, the lateral bordering angles sharp; concavity, measured in terms of depth of concavity against length between bordering lateral angles, never less than 20 percent; in clean material embolium nearly unicolorous, only very faintly lighter exteriorly, no contrasting colors present.

buenoi Usinger, 1946

Female subgenital plate, if simply concave, has (a) rounded lateral angles, or (b) if lateral angles are sharp, then depth of concavity is considerably less than 20 percent; in clean material embolium always sharply and contrastingly transversely bicolored, anterior two-thirds light yellow, posterior one-third blackish-brown----- 8A

- 8A (8). Male genital process narrowing to apex, strongly, abruptly and almost right-angularly turned outward, giving the appearance of a long, attenuated foot with a rather sharp heel; female subgenital plate simply concave at apex, somewhat angularly so.

thermarum, new species

Male genital process not definitely narrowing to apex, and not foot- or boot-shaped, although curving variably outward; female subgenital plate simply and roundly concave at apex-- *mormon* Montandon, 1909

Ambrysus bispinus, new species

FIGURE 1, a, d

Description.—A large, darkly mottled species, well rounded and convex; size 12.0–14.0 mm. long and 7.0–9.0 mm. wide. Dorsum not distinctly bicolored (i. e., anterior portion lighter than posterior area), more or less uniformly mottled. Venter yellow or brownish, unicolorous and lighter than dorsum.

Head glistening, yellow-brown, smooth, weakly and vaguely punctate, slightly and broadly protuberant, and truncate before the eyes. Eyes blackish, nearly flush with plane surface of head when viewed posteriorly. Head ratios are: Total length to width (including eyes) 34:54 (63 percent); anterior distance between eyes to posterior distance 26:33 (79 percent); anterior distance between eyes to inner eye-margin 26:25; posterior distance between eyes to greatest length of head posterior to this line, 33:8 (22 percent).

Pronotum glistening, yellowish with brown mottling, sparsely punctulate, rugulose behind head; lateral edges smooth, nonserrate, rounded, on one specimen with traces of faint pilosity which appears to have been rubbed off. Curvature 10 percent (average 52:5); posterolateral angles well rounded. Dorsal ratios are: Width between anterior angles to greatest pronotal width 53:73 (73 percent); median length to greatest width 39:73 (53 percent); width between anterior angles to distance between anterior angle and posterior baseline of pronotum 53:52.

Scutellum glistening, yellow medially and on posterior angle, yellow along lateral edges, reddish brown elsewhere; shagreened with dense, coarse, white-spotted punctures; ratio of three sides 70:50:50.

Hemelytra mottled brown and yellow, glistening; shagreened as is scutellum. Embolium slightly narrow for the genus, length-to-width ratio 60:18 (30 percent), with no detectable marginal pilosity in the specimens examined. Hemelytra moderately exposing connexival margins, which latter have sparse, short pilosity, concentrated somewhat at the posterolateral angles. Hemelytra just, to not quite, attaining abdominal tip.

Venter yellow to brown, the legs usually not markedly contrasting with the body in color. Connexival posterolateral angles acute-angulate, short, gradually increasing in size posteriorly, not in the least spinose; margins with some weak dentation, detectable only with considerable magnification, on all segments except I and II. Female segment V (the insect being oriented so that the abdominal tip is at the top of the field) possesses two posterolateral connexival processes; the exterior posterolateral angle and an interior, prominent, blacker, rather blunt elongation of the caudal margin of segment V lying adjacent to the posterolateral angle. I have referred to this in other species as the laterocaudal connexival angle. Tip of female subgenital plate strongly and distinctively quadrisinuate, the lateral terminal angles long and rather sharp, but not extending as far caudad as the median, paired sinuosities which lie close together as a doubly rounded, blunt process longer than the lateral spines. Character of the male genital process unknown.

Leg I amber; ratio of length to greatest femoral width 48:31 (65 percent); combined tibia-tarsus, when closed, just attaining adjacent (proximal) end of femur.

Leg II amber; ratio of length to median width of femur 46:10 (22 percent), length 3.4 mm.; tibia with distal end ventrally with one-and-one-half transverse rows of reddish spines, the terminal row complete, the subterminal row, as indicated above, only half complete; ratio of length to width 40:4.5 (11 percent), length 3 mm.

Leg III amber; ratio of length to median femoral width 57:11 (19 percent), length 4.2 mm.; tibia with same type of transverse terminal spination as in mesotibia, ratio of length to width 70:5 (7 percent), length 5.2 mm.

Tibia possesses the typical spinate appearance in contrast to the smooth femora; long, golden, silky, swimming hairs are present on the metatibia and lacking on the mesotibia. All tarsi, except protarsi, are 3-segmented, the first segment minute, the last two long and slender, terminating in two moderately curved claws.

Type and paratype.—USNM 60988.

Type locality.—México, Veracruz, Jalapa.

Material examined.—Holotype (female) and a single female paratype from México, Oaxaca, Camotlán, collected by W. S. Miller, April 14, 1944, in the U. S. National Museum.

Remarks.—In external appearance, *A. bispinus* is superficially indistinguishable from *A. cosmius* and, as such, has probably shared the latter's confusion as *A. signoreti* Stål, 1862, in collections. However, the structure of the female subgenital-plate apices is quite different in the two species. In this respect, *A. bispinus* most closely resembles *A. guttatipennis* Stål, 1876, but while the subgenital plates might not be able, alone, to separate all variables of both species, the possession of primary and secondary connexival angles on abdominal segment V, with present material, sharply sets *A. bispinus* off from all other Ambrysi of the *signoreti* group. These two angles are more specifically referred to as the posterolateral and laterocaudal connexival angles, and the laterocaudal is lacking in all other known members of the group. It has shown up in other, distant sections of the genus, being known in *A. parviceps* Montandon, 1897, *A. hungerfordi* Usinger, 1946 (both in the *pudicus* group), and *A. puncticollis* Stål, 1876 (a monotypic group). It is this character upon which the specific name of *A. bispinus* is based. In addition, the male genital process, when known, will furnish more evidence of the species' affiliations, either supplementing or diverting present indications.

The following couplets will enable the new species to be incorporated in my key to Mexican Ambrysi now in press:

- 24 (15). Female subgenital plate, viewed ventrally, asymmetrical on left side, where a prominent flap occupies the border beyond (laterad of) the left lateral angle; right border scarcely produced.

dilatatus Montandon, 1910

Female subgenital plate, viewed ventrally, not markedly or noticeably asymmetrical from one lateral border to the other..... 25

- 25 (24). Female possessing both primary and secondary posterolateral connexival spines on abdominal sternite V (i. e., the primary angle being the posterolateral angle proper, the secondary angle being the laterocaudal angle)..... **bispinus**, new species

Female lacking the secondary (laterocaudal) angle.

remaining Mexican species of the **signoreti** group

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