

NOTES ON THE ANTHONOMINAE

(COLEOPTERA, CURCULIONIDAE)

19. A contribution to the knowledge of the Curculionoidea

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While I was working on a revision of the Myrmecinae, several closely related species of the genus *Anthonomus* Germar, which superficially resemble the Myrmecinae, have come to my attention. They constitute the *funereus* and *albolineatus* groups of the Biologia Centrali-Americana and include the North American *albopilosus* Dietz.

They are members of *Anthonomus* (s. str.) having the scrobes directed against the eye; antennal funicle 7-segmented; antennal club not loosely articulate; elytra non-tuberculate; form oblong to obovate, very black and shining and for the most part resembling the genus *Myrmex* Strum.

Included in the paper are *Anthonomus funereus* Champ., *aterrimus* Champ., *otidocephaloides* Champ., *albopilosus* Dietz, *incanus* Champ., *albolineatus* Champ., *canescens* Champ., and two new species, both closely related to *funereus*.

Measurements of length are taken from a lateral view. Total length measured from front edge of eyes to apex of elytra. Other measurements are at widest or longest part of structure, with the exception of the rostrum, which is measured on the chord of the arc, from anterior margin of eyes to apex, excluding mandibles.

Localities given are for known records for the species or those of the material examined.

Key to the species treated:

1. Elytra nearly bare of vestiture except for setae around the margins and along the suture, the enclosed area very shining. 2
- 1'. Elytra uniformly clothed with white setae or with the white setae condensed in patches, or stripes on the intervals. 6
2. Anterior femora bidentate. *aterrimus* Champion
- 2'. Anterior femora unidentate. 3
3. Sutural interval, at least for a short distance behind the scutellum, with closely placed white setae. 4
- 3'. Sutural interval without a patch or band of closely placed setae behind the scutellum or at any other place on the sutural interval. *otidocephaloides* Champion
4. Punctures on pronotum fine, separated by twice or more their own diameter; a few scattered setae present in the rather bare area on the elytra, many of the elytral intervals clothed with a single row of inconspicuous, fine, black, recurved setae. Venezuela.
parafunereus, new species
- 4'. Punctures of pronotum coarser, not so widely separated; white setae apparently absent from bare area of the elytra, except in the extreme apical region. 5
5. Rostrum longer, more slender, two-thirds longer than prothorax (1.666:1); fore femora longer, more slender (length to width-4.200:1); fore tibiae of ♂ bent in basad third, long and slender (length to width-8:1); pronotal punctures moderately coarse, separated by approximately their diameter; striae of elytra feebly impressed. (Panama, Nicaragua)
funereus Champion
- 5'. Rostrum shorter, more robust, two-fifths longer than prothorax (1.416:1); fore femora shorter, more robust (length to width-3.333:1); fore tibiae of ♂ not noticeably bent in basad third, shorter, more robust (length to width-5.833:1); pronotal punctures very coarse, separated by half or less their diameter; elytral striae strongly impressed. Mexico.
veracruzensis, new species

6. Elytra rather sparsely and uniformly clothed with white setae none of which are condensed in patches or lines on the elytra; male with a small tooth on the inner edge of the hind tibia near the apex. *albopilosus* Dietz
- 6'. Not as above. 7
7. Elytral vestiture finer, rather uniform, not condensed in lines or patches, except occasionally in a small spot immediately behind the scutellum. *incanus* Champion
- 7'. Elytral vestiture coarse, condensed in lines and/or patches, a prominent line behind scutellum frequently extending to apex. 8
8. Elytral vestiture arranged in interrupted lines on the elytra, becoming evanescent on the disc anteriorly; prothorax coarsely, rather sparsely punctured. . . . *albolineatus* Champion
- 8'. Elytral vestiture serially arranged on each of the intervals, extending up the intervals to the base; prothorax coarsely, closely punctured. *canescens* Champion

***Anthonomus aterrimus* Champion**

Anthonomus aterrimus Champion 1903, p. 167.

Panama: Bugaba, Volcan de Chiriqui (Champion); San Margarita, C. Z., V-15-46, ELS. Three examples have been studied, none varying notably from the original description.

***Anthonomus otidocephaloides* Champion**

Anthonomus otidocephaloides Champion 1906, p. 722.

Panama: Bugaba (Champion); Puerto Bello, V-20-46, ELS, (ELS).

Only the example collected by the author has been examined. This specimen fits the original description so perfectly that there can be no doubt as to its identity. This species is deceptively like the smaller species of *Myrmex* in general facies.

***Anthonomus parafunereus*, new species**

Female. Elongate-oblong; very shining black with antennal scape reddish brown, funicle and club darker; head, sides, base and middle line of prothorax, scutellum, first elytral interval and apical margin of elytra sparsely clothed with short recurved white setae, first elytral interval a short distance behind scutellum and metepisterna densely clothed with similar setae, the bare, shining part of the elytra with a few scattered setae, most intervals with a single row of very fine, inconspicuous black setae. *Rostrum* nearly twice as long as prothorax (13.2:7), slender, moderately arcuate, finely, sparsely punctured in the basal half, smooth and shining in the apical half with a few minute, scattered punctures, a deep sulcus in the basal third above each antennal scrobe. Antennae inserted just before middle, scape attaining eye; funicle long and slender, first two segments elongate, the first more robust, nearly one-third longer than second, second twice as long as third, third and fourth subequal, fifth a little shorter, the fifth, sixth and seventh nearly subequal (3.2.2:1:1:8:9:8); club elongate, almost as long as the preceding five combined. *Head* smooth, with a few scattered minute punctures, front flattened, with a very small, deep, foveiform puncture; eyes moderately convex, coarsely granulated, separated on front, at nearest point, by one-half the width of the rostrum at base. *Prothorax* slightly wider than long (7.5:7), base more than one-third wider than apex, strongly convex dorsally, sides strongly rounded, constricted at apex, margined along basal edge; pronotum finely, sparsely punctured, the punctures separated from one and one-half to twice their diameter, a little coarser and closer on sides. *Elytra* elongate, one-half longer than wide (16.2:10.4), one and three-eighths (16.2:7) longer than the prothorax, sharply margined basally; humeri rather prominent; sides slightly divergent from humeri to middle, then strongly convergent to apex; striae not impressed except the first which is feebly impressed just behind the scutellum; striae punctures small, rounded, deep, separated by one and one-half to two times their diameter; intervals flat. *Ventral side* sparsely clothed with recumbent white setae which are denser and more squamiform laterally. Prosternum very short in front of fore coxae. Metasternum and abdominal sternites 1-4 strongly alutaceous; fifth sternite moderately deeply punctured, shorter than preceding two combined. Anterior femora more robust, more strongly clavate than others, anterior femoral tooth large and acute, remaining, small and acute. All tibiae strongly sinuate at middle. Tarsal claws with a long slender tooth. Length 4.5 mm., width 1.75 mm.

Male. Unknown.

Type locality. Akuiman, Venezuela.

Type material. Holotype (#69), ♀, 1 ♀ paratype (ELS), 3 ♀ ♀ paratypes (D. G. Kissinger Collection), all from Akuiman, Venezuela, 1940, P. Anduze Collr.; 1 ♀ paratype, Paraitepuy, Venezuela, XII-16-40, P. Anduze, (ELS). Length of paratypes 3.0-5.0 mm., width 1.4-2.0 mm.

This species is most closely related to, but quickly separated from, *A. funereus* Champion of Central America, differing in the finer pronotal and strial punctures; the non-impressed elytral striae and the absence of reddish basad areas of the femora.

Anthonomus funereus Champion

Anthonomus funereus Champion 1903, p. 166. (In part).

Panama: Bugaba (Champion); *Nicaragua:* Chontales (Belt).

A rather knotty problem has arisen regarding the type of *funereus*. J. Balfour Browne informs me that "This specimen figured (Pl. 10, fig. 1, 1a, b.) is from Mexico: Toxpam (Salle). This specimen bears the British Museum type label." The specimen bearing the type label cannot be accepted as the holotype, since Champion states (p. 166) "Five specimens, the two from Mexico belonging to the variety." I have examined a male from Bugaba, Panama which Champion had at hand at the time he drew up the descriptions. It is designated as lectotype to replace the specimen wrongly labeled type in the British Museum (Natural History) Collection.

I have examined one of the two examples belonging to the "variety" mentioned by Champion from Toxpam, Mexico and find it to be *veracruzensis*, new species. It is not a "variety" of *funereus* differing as pointed out in the key and elsewhere in this paper.

A number of errors in Champion's original description of *funereus* have been found. I have taken the liberty of modifying and adding more to his original description.

Elongate-ovate, very shining, black, the antennal scape, and usually the base of the femora also, ferruginous; the head, the sides, base, and middle of the prothorax, the apical declivity of the elytra, the under surface, and legs with long and sparse, a line along the suture of the elytra at base, extending on to the scutellum, another along their apical margin, and the sternal side-pieces, with dense, white pubescence. *Head* sparsely punctured, the interocular space smooth, in some specimens, deeply foveate above eyes, the latter large and separated at nearest point on front by three-fifths the width of the rostrum at base. *Rostrum* (♂) about two-thirds longer than prothorax (1.666:1), moderately curved, seriate-punctate, sparsely punctured apically, (♀) longer and smoother, the antennae inserted near the middle in the ♀ and at about one-third or two-fifths from apex in the ♂. Antennae with first funicular segment nearly as long as following two combined, second one-half longer than third, 3-5 equal, 6-7 equal, slightly shorter than each of the preceding (2.25:1.5:1.:1.:1.:8:8); club elongate, nearly as long as the preceding four combined. *Prothorax* a little broader than long (7:6), transversely convex, rounded at the sides, narrowed and constricted in front, moderately coarsely punctured, on pronotum separated by about their diameter, closer on sides. *Elytra* oblong, two-thirds longer than wide (15:9), gibbous, compressed at sides, sloping towards the base, which is sharply margined, not much wider than prothorax; humeri a little swollen; suture depressed in front; striae finely punctured, the punctures oblong, separated for the most part by their diameter; intervals flat and smooth. Legs long; anterior femora strongly clavate and with a stout triangular tooth, middle and hind femora with an acute tooth; front and middle tibiae strongly sinuate, hind tibiae slender, same width throughout; fore tibiae of ♂ strongly curved in basal third. Tarsal claws with a long tooth. Length 3.5-4.0 mm., width 1.5-1.75 mm. (Lectotype, length 3.8 mm., width 1.6 mm.)

Anthonomus veracruzensis, new species

Anthonomus funereus var. Champion 1903, p. 166, and Tab. X. (fig. 1, 1a, b, ♂.)

Male. Elongate-oblong; very shining, black with antennae and base of femora reddish brown; head, sides, base and middle line of prothorax, scutellum, the first elytral interval, and apical margin of elytra and legs clothed with coarse white recumbent setae. *Rostrum* nearly one-half longer (8.5:6) than prothorax, slightly curved, closely, evenly punctured basad of antennal insertion, sparser and finer apically. Antennae inserted one-third from apex; funicle with first

and second segment elongate, first more robust, densely clothed with long setae, one third longer than second, second nearly twice as long as third, third and fourth subequal, each slightly longer than fifth or sixth, seventh a little longer (2.5:1.9:1.:1.:8:8:1); club elongate, longer than the preceding four combined. *Head* closely, coarsely punctured; the front with a deep punctiform fovea; eyes prominent, convex, coarsely granulated, separated at nearest point on front by three-fifths the width of the rostrum at base. *Prothorax* one-sixth wider than long (7:6), base about one-third wider than apex, sides strongly rounded, strongly constricted apically, pronotum and flanks very closely, deeply punctured, separated by less than one-fourth their diameter. Scutellum rounded. *Elytra* elongate, three-fifths longer than wide (14:9), strongly margined basally; humeri rectangular, prominent; the sides slightly divergent to beyond middle, then strongly convergent to apex; striae feebly impressed, except the sutural striae adjacent and immediately behind scutellum; striae punctures fine, elongate, not deeply impressed, separated by about their length; intervals flat, very minutely punctulate. *Ventral side* with prosternum rather densely clothed with long white setae, meso-, metasternum, and abdominal sternites rather sparsely clothed with short, clavate, scale-like setae, the metepisterna densely clothed with similar scale-like setae. Metasternum finely punctured laterally, finely transversely rugulose at middle. Abdominal sternites rather closely punctured; the first and second slightly flattened and densely punctured at middle; fifth sternite truncated apically, and with a dense patch of setae at middle. Pygidium very closely, finely punctured, feebly concave in apical half, apical margin raised into a sharp carina. Fore femora more robust than the others, armed with a large acute tooth. Teeth very small on middle and hind femora, being nearly absent on the hind pair. Fore and middle tibiae feebly sinuate, the hind ones not at all sinuate. Tarsal claws with a long slender tooth. Length 3.7 mm., width 1.5 mm.

Female. Differs from the ♂ only slightly, having the first and second abdominal sternites more strongly convex, the fifth sternite not truncate, but rounded apically and lacking the patch of setae at middle.

Type locality. Cordoba, Vera Cruz, Mexico.

Type material. Holotype (#70), ♂, from type locality, III-1-46, ELS, (ELS). Allotype, Toxpan, Mexico, Sallé collr., (*funereus* var. Champion), Entomological Collection, British Museum (Natural History).

Nearest *funereus* Champion, but differs in that *veracruzensis* has the rostrum shorter, more robust and more strongly curved, the legs are shorter and robust (see accompanying chart), pronotum more densely, coarsely punctured, and the smaller femoral teeth.

	<i>parafunereus</i>	<i>funereus</i>	<i>veracruzensis</i>
Length of rostrum-prothorax	1.886:1	1.667:1	1.417:1
Fore femora Length-width	4.286:1	4.200:1	3.333:1
Fore tibia Length-width	6.667:1	8:1	5.833:1

***Anthonomus albopilosus* Dietz**

Anthonomus albopilosus Dietz 1891, p. 222.

United States, Arizona: Bisbee, Tombstone, and Nogales; *Arkansas:* Fayetteville, VII/X-13-26, D. Isley, (U. Arkansas, ELS); *California:* Araz and El Centro; *Mississippi:* Richton, IX-16-31, H. Dietrich, (Cornell U., ELS); *New Mexico:* Santa Fe, VIII-5-49, (USNM), Las Cruces, Silver City, and San Marical; *Texas:* Angletown, V-13-44, Fraser & Harrison, (USNM), Brownsville, Radford, Mission, Presidio, Marfa. *Mexico, Sonora:* Cananea and Fronteras, (ELS); *Chichuahua:* Guadalupe, (ELS).

***Anthonomus incanus* Champion**

Anthonomus incanus Champion 1903, p. 168.

Mexico: Mazatlan, Ventanas, Colima City (Höge), Cuernavaca (Smith).

No examples of this species were recognized in the material at hand. The Mazatlan record is rather indefinite in as much as there are several localities known as Mazatlan in Mexico.

Anthonomus albolineatus Champion

Anthonomus albolineatus Champion 1903, p. 167.

Mexico, Vera Cruz: Orizaba, Sallé collr., (examined), Catemeco, Coyame, VI-54, DGK, (ELS), Cordoba. *Guatemala, Vera Paz*: Cubilguitz, Champion collr.

Three of the four examples examined fit the original description very well. The fourth example, a diminutive female, from 10 miles N.E. of Mogone, Oaxaca, Mexico (at the fork in the Rio Coatzacoalcos), III-14-46, ELS, (ELS), is tentatively placed here.

Anthonomus canescens Champion

Anthonomus canescens Champion 1903, p. 168.

Mexico, Guerrero: Acapulco, Höge collr.

No examples of this species were recognized in the material at hand.

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