

THE IDENTITY OF *MACROCEPHALUS BIDENS*
OLIVIER, 1795, WITH A REVIEW OF
THE GENUS *TOXONOTUS* LACORDAIRE
(COLEOPTERA: ANTHRIBIDAE)¹

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Recently, while checking the descriptions and figures of Anthribid weevils in Olivier's *Entomologie*, my attention was drawn to an unfamiliar name. A check of some other important anthribid literature revealed that in the one hundred and fifty-nine years since Olivier's description and figures were published, the name, *Macrocephalus bidens*, has vanished from the pertinent anthribid literature of the world with the single exception of Schönherr's *Genera et Species Curculionidum*, where in volumes one and five (1833, 1839) it is listed in "*incerti generis, species mihi invisae*". It is not mentioned in Lacordaire (1866), Bovie's catalogue (1906), Wolfrum's paper on West Indian anthribids (1930), the anthribid portion and supplement of the *Coleopterorum Catalogus* (Wolfrum, 1929, 1953), or Blackwelder's catalogue (1947).

Actually, *Macrocephalus bidens* Olivier should not be dropped from the lists, for it is a recognizable species. It is restricted to this hemisphere by its type locality "Saint Domingue" which has gradually changed through Saint Dominique, Santo Domingo, and Dominican Republic, and at the time of Olivier's description, referred to all, or part, of the island of Hispaniola. Once a Caribbean locality is established, the description and figures characterize *bidens* as having a short, wide rostrum, three transversely arranged "tubercles" on the disc of the prothorax, more "tubercles" on the elytra, and very hairy legs. This combination of features immediately rules out all New World genera except *Neanthribus* Jordan and *Toxonotus* Lacordaire. The two genera in question both occur on His-

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paniola; however, Olivier mentions nothing which might help to decide between them. The two are differentiated by the presence of a tarsal spine, long male antennae, and emarginate eyes in *Toxonotus*, while *Neanthribus* has no tarsal spine, short male antennae, and truncate eyes. Of these, the tarsal spine is not visible on the plates, but neither was it mentioned in the original description of the generic type species of *Toxonotus*, *T. fascicularis*. As a matter of fact, it was not mentioned at all until 1866, thirty-three years after Schönherr's description of *fascicularis*, and seventy-one years after the description of *bidens*. The antennae, as figured, could be those of *Neanthribus* or a female *Toxonotus*, and the eyes are so poorly illustrated that it is difficult to be certain of their shape, although one gets the impression that they might be entire. Since there are no diagnostic generic criteria available, the only recourse is to attempt identification of the species *bidens* itself. The written description is again useless, but Olivier's plate shows a unicolored brownish insect, with the exception of the pale declivity of the elytra, paler head, and slender, hairy, red legs. I know of no *Neanthribus* species which fits this description; however, a few weeks ago, I gave a manuscript name to a species of *Toxonotus* from Hispaniola which, at the time, I thought was undescribed, and which matches this color scheme perfectly. I haven't the slightest doubt that this species is, in reality, Olivier's *bidens*, and it should therefore be known as **Toxonotus bidens** (Olivier), new combination.

In order to avoid any possibility of confusion, the following review of *Toxonotus* is presented.

Genus *Toxonotus* Lacordaire, 1866

Toxonotus Lacordaire, 1866, Gen. Coleop. vol. 7, p. 575. Generitype: *Anthribus fascicularis* Schönherr, 1833, by original designation and monotypy.

As far as known, this is the only genus in the world fauna which has a long, slender spine on the dorsal, apical margin of all first tarsal segments. This spine extends half-way over the second segment, and is sometimes partially obscured by long pubescence. To my knowledge, there is only one other anthribid which ever has a spine

on the first tarsal segment. It occurs in some males of *Piesocorynus mixtus* Leconte; however, in this species the spine, when present, is on the ventral surface, and is usually subapical in position. The genus is further characterized as follows: rostrum and interocular area with a median carina which is interrupted by a deep, sharply limited pit located opposite the lower limit of the eyes; transverse carina of prothorax basal, fitting against the bi-convex basal margin of the elytra; dorsal surface of the prothorax and elytra ornamented with tufts of erect pubescence and a lateral fringe; tibiae with long, erect, pale pubescence giving a bottle-brush effect; tarsi with the above-mentioned spine on the first segment, and the third segment not conspicuously dilated into a broad pad, the lobes free, not conate; antennae of males three-fourths to one and one-half times the total length of the body, of females up to one-half the length of the body; eyes with the margin adjacent to the antennal scrobes strongly emarginate.

The relationships between *Toxonotus* and the related genera *Neanthribus*, *Phoenicobiella*, and *Platystomos* are extremely complex. It is evident from a study of all four genera and many species that three distinct evolutionary lines are present, plus several connecting forms. The three lines are climaxed by *Platystomos* in the Old World, and *Neanthribus* and *Phoenicobiella* in the New, with such forms as the two *Toxonotus* species and "*Neanthribus*" *lividus* Lec. and *trituberculatus* Suffr. as the intermediate links. There are several other intermediate forms also, but it is not my intention to discuss them here; at least one is still undescribed, and the subject will be covered in detail in a generic revision of the North American fauna soon to be ready for publication. I have mentioned this complex now only so that other coleopterists familiar with the group might see the problem too, and perhaps lend pertinent material, for I particularly need Antillean specimens and exotic *Neanthribus* and *Platystomos* species. As a matter of fact, even locality records and biological data for United States species would help considerably in deciphering the complex zoogeography and relationships.

The species described as *Toxonotus trituberculatus* Suffrian, 1870, has been transferred to *Neanthribus* by Wolf-
rum (1930). Judging by Suffrian's description, the species
properly belongs in *Phoenicobiella* or in a new genus. It
is obviously one of the key species in the intergrading
generic complex mentioned above. The two remaining
species of *Toxonotus* can be distinguished by the following
key and short diagnoses.

1. Apex of prothorax with two patches of extremely
dense, pale, brown pubescence, one on either side
of the median line; elytral pubescence striped,
even-numbered interspaces bluish gray, odd-num-
bered ones brown or brown flecked with white
..... *Toxonotus fascicularis* (Schön.)
2. Apex of prothorax without patches of denser pubes-
cence, instead with two short, curving, white lines;
elytral pubescence not striped, brown to brownish
gray *Toxonotus bidens* (Olivier)
Toxonotus fascicularis (Schönherr)

Anthribus fascicularis Schönherr, 1833, *Genera et Spe-
cies Curculionidum* 1(1) :132. Type locality: Cuba.

Integument dark brown to black except for antennae,
apices of femora, tibiae, and tarsi which are paler. Pub-
escence very short; on prothorax variegated with gray and
brown, two large patches of dense pale brown extending
from lateral discal tufts to apex; on elytra sparse, striped
with gray and brown as mentioned in key, sometimes with
first three interspaces heavily dusted with white, declivity
with a sharply contrasting, dense white patch which at-
tains the apical margin only along the suture, this sutural
connection sometimes partially or completely interrupted;
on metasternum gray to white. Antennae with segments
11, 10, and the distal portion of 9 dark brown to black,
contrasting sharply with the remainder which is gray.

This species ranges throughout southern Florida and
Cuba. The northernmost locality known to me is Enter-
prise, Volusia County, Florida. Two hundred and eight
specimens examined; of these, two from Baragua, Cuba,
were collected at light by L. C. Scaramuzza in May. No
other biological data available.

Toxonotus bidens (Olivier) new combination

Macrocephalus bidens Olivier, 1795, Entomologie, vol. 4, genus no. 80, p. 14, Pl. 2, fig. 18a, b. Type locality: Saint Domingue.

Identical with *T. fascicularis* (Schön.) with the exception of the color and vestiture. Integument varying from dark red to a startlingly clear, pale red, the latter especially on the appendages. Pubescence long and coarse, appearing shaggy and unkempt beside the trim-looking *T. fascicularis*; on prothorax unicolored brown, with no dense apical patches; instead with two arcuate lines of coarse white bristles which originate just laterad of each of the two small apical tufts, and run posteriad for a short distance before curving laterally and ending midway between the lateral discal tufts and the pronotal apex; on elytra pale brown to almost gray, not conspicuously striped, apical declivity with coarse, dirty white bristles, slightly denser than elsewhere, but not short as in *fascicularis*, and not sharply demarcated; on metasternum dirty yellow. Antennae unicolored gray, the last three segments not contrasting sharply with the remainder.

Three specimens known to me; a pair in the Museum of Comparative Zoology, the male labeled, "Ennery, Haiti, nr. 1000 ft., Sept. 6-11, 1934, (Darlington)", the female simply, "S. Dom.", and the third, of undetermined sex, in the American Museum of Natural History labeled, "San Lcrenzo [sic], R. Dom. vi-27-29-15". The M.C.Z. female is considerably paler than the other two specimens. Its clear red, hairy legs leave an indelible impression.

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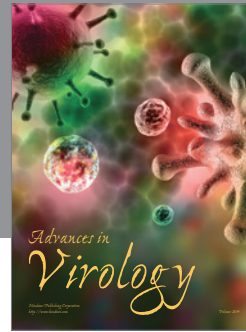
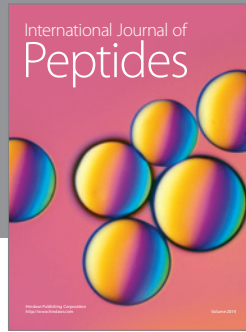
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THE ANT CENTROMYRMEX DONISTHORPEI MENOZZI, A SYNONYM. — Menozzi described *Centromyrmex donisthorpei* in 1925 (Philippine Jour. Sci., 28:443, pl. 1, figs. 4a, 4b, female) from two specimens. One of these, here designated as lectotype, is from Iligan, Mindanao, and is now on deposit in the Museum of Comparative Zoology. While slightly darker than the average specimen of *Centromyrmex feae* (Emery) (1889, Ann. Mus. Civ. Stor. Nat. Genova, 27: 491, pl. 10, figs. 11-15, worker), originally cited from Burma, I can detect no taxonomically important differences between it and female specimens (alate and dealate) taken with workers of the common *C. feae* at several widely separated southeast Asian localities. A **new synonymy** is indicated. — W. L. BROWN, JR., Museum of Comparative Zoology.



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