

A NORTH AMERICAN COLOTRECHNUS (ZANONIA)
(HYMENOPTERA: PTEROMALIDAE)

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During the last 25 years specimens of a curious chalcidoid have been received in the U. S. National Museum for identification. Most of the specimens were from Florida. This species could not be placed with certainty in any of the families of the Chalcidoidea, although it had the habitus of a torymid. It therefore has been identified as "? unknown genus of Torymidae [or Callimomidae]" by several taxonomists who have worked in the U. S. National Museum.

This form, however, lacks two of the most salient characters of the family Torymidae. It does not have an exserted ovipositor, and the cerci are not exserted and located at the apex of the ninth abdominal tergite (*see* Burks, 1940, Proc. U. S. Natl. Mus. 88 : 333, fig. 14h), but are reduced to a pair of flat discs which have migrated anteriorly well into the ninth abdominal tergite.

This so-called torymid has two apical spurs on the hind tibia, the femora are stout, the parapsidal grooves are virtually absent, the scutellum has a pair of sublateral, longitudinal grooves, the axillae are produced far forward of the anterior margin of the scutellum, the marginal vein of the forewing is long and somewhat thickened, the stigmal vein is enlarged and nearly sessile, and the setae on the forewing are arranged in rows along the paths of the obsolete veins, much as in the eulophid genus *Euderus*. The antenna has two ring segments, six funicle segments which are broader than long, and a three-segmented club which is only slightly separated from the funicle. The gaster is narrow and acuminate, with the ninth tergite considerably extended, enclosing the elongate ovipositor. This form would logically be placed in the Cleonymini of the Pteromalidae, following the classification used in the *Hymenoptera of America North of Mexico* (Peck in Muesebeck *et al.*, 1951, U. S. Dept. Agr. Monog. 2, pp. 534-568).

As it seemed unlikely that a chalcid having such an array of distinctive generic characters would still be undescribed, a search was made through the literature for a described genus having these characters. This search finally led to the genus *Zanonia* Masi (1921, Ann. Mus. Civ. Stor. Nat. Genova, ser. 3, 9 : 184), described for *Z. viridis* Masi, from Bengazi, Libya. Our North American form agrees in all generic particulars with *Zanonia*. I have not seen a specimen of *Z. viridis*, but Masi's excellent description and figures make the identity of *Zanonia* quite clear.

Once the genus *Zanonia* had been located, it was possible to trace its subsequent history. The year following the description of *Zanonia*, Masi had the opportunity to study specimens of *Colotrechnus subcoeruleus* Thomson, the type species of the European genus *Colotrechnus* Thomson, and concluded that *Zanonia* and *Colotrechnus* were very closely related (1922, Bol. Soc. Ent. Ital. 54 : 111). Recently Delucchi (1956, Zeit. f. Agnew. Ent. 39 : 233) has gone one step farther and has synonymized *Zanonia* under *Colotrechnus*. I am not sure that this is justified, principally because I ex-

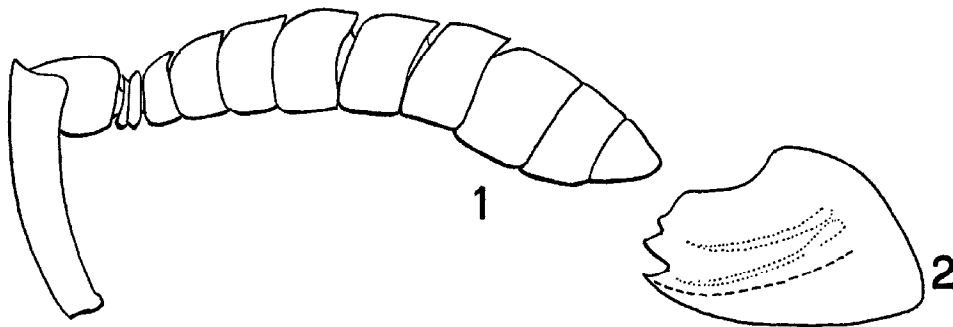
amined a specimen of *Colotrechnus subcoeruleus* [det. Ruschka] when I was attempting to identify our so-called torymid, and I had decided they were not congeneric because of the different wings and antennae. In *Colotrechnus* the marginal vein of the forewing is only one-third as long as the submarginal, and the wing disc bears a large, rounded shaded area; in *Zanonia* the marginal vein is one-half as long as the submarginal, and the wing is hyaline. In *Colotrechnus* the funicle segments are slender and elongate, all longer than wide, while the funicle segments in *Zanonia* are short and compact, all wider than long.

The classification of the Pteromalidae is at present in such a chaotic state, however, that an attempt to resurrect the genus *Zanonia* would only contribute to the confusion. Consequently, I propose to treat *Zanonia* as a subgenus of *Colotrechnus*, so that its distinctive characters will not be lost sight of. The North American species to be described below is much more closely related to *Zanonia viridis* Masi, from Africa, than it is to *Colotrechnus subcoeruleus* Thomson, from Europe.

Colotrechnus (Zanonia) ignotus, new species

Agrees with *viridis*, Masi in that the scutellum bears one pair each of lateral and apical bristles, the gaster is almost or quite twice as long as the thorax, the posterior margin of the basal two gastral tergites each has a small, rounded, posterior projection at the meson, and the width of the malar space is one-third as great as the height of the compound eye; *viridis* and *ignotus* differ in that the propodeum and basal gastral tergite of *viridis* are a metallic golden color, while these areas are dark metallic blue-green in *ignotus*; in *viridis* the wing veins are yellow, while they are white in *ignotus*; and in *viridis* the antennal scape is slightly produced at the middle of the inner anterior margin, while this margin is entire in *ignotus*.

FEMALE.—Length 2.0-2.6 mm. Head (except for malar space), pronotum, and mesoscutum very dark metallic green; scutellum, propodeum, and dorsum of gaster dark metallic blue-green; malar space of head, pleura and sternum of body, coxae, femora, and tibiae very dark metallic blue; palpi black; antennae very dark brown to black, scape and pedicel usually with metallic green sheen; wings hyaline, venation white; basal three segments of each tarsus white, fourth segment usually tan, apical segment black.



Colotrechnus (Zanonia) ignotus, n. sp., Fig. 1, antenna of female;
Fig. 2, mandible of female.

Antennae inserted slightly below center of face, dorsal to level of ventral margins of compound eyes; scape short, not reaching level of anterior ocellus; pedicel and flagellum (figure 1), short and compact, all segments of funicle wider than long; length of malar space one-third as great as height of compound eye; length of ocellular line twice as great as diameter of lateral ocellus, and one-half as great as length of postocellar line; surface of scrobe cavity and supraclypeal area between and below antennal bases smooth and shining, rest of head minutely shagreened and with sparse, very short and fine pubescence; eyes with extremely minute, silvery pubescence; mandible (figure 2) with two acute and one broad, shouldered tooth.

Head broader than pronotum and as broad as thorax just anterior to tegulae; thoracic notum with minute alveolate sculpture, this sculpture finer on scutellum than on praescutum; mesoscutum with sparse, short, appressed pubescence; scutellum with one pair of lateral and one pair of apical bristles, otherwise bare; ventral side of costal cell of forewing with a row of short bristles extending entire length of cell near its anterior margin and a row of longer bristles posterior to this row in apical half of cell; submarginal vein with 10 to 14 dorsal bristles; marginal vein one-half as long as submarginal and three and one-third times as long as stigmal; postmarginal vein one-fifth as long as submarginal; legs stout, hind coxa enlarged and lengthened and approximately triangular in cross-section; femora enlarged, subflattened, with margins noncarinate; hind femur with a single, longitudinal row of bristles on outer side; tibiae subflattened, slightly broadened apically.

Propodeum smooth, very short on meson and lacking paraspiracular carinae; spiracles large, ovate, touching anterior propodeal margin; area just lateral to propodeal spiracles with dense, long setae; gaster elongate-acuminate, twice as long as thorax; first gastral tergite (abdominal tergite III) basally smooth, becoming slightly reticulate at posterior margin; following tergites with minute, alveolar reticulation; posterior margins of first and second gastral tergites each with a rounded, posterior production at meson, posterior margins of tergites 3-6 straight; tergite 4 with a single cross-row of bristles located near base, posterior half of tergite 5 setose, entire exposed surface of tergite 6 setose; tergite 7 with denser but shorter setae; cercus bearing 3 long bristles.

MALE.—[Available specimens in very poor condition.] Length 1.3 mm. Head and body almost black, with less intense metallic coloration than in female. Length of malar space one-fourth as great as height of compound eye; length of ocellular line and maximum diameter of lateral ocellus equal; gaster ovate, shorter than thorax.

Type locality.—Marion Co., Florida.

Types.—U.S.N.M. No. 63913.

The type, allotype, and 34 ♀ and 1 ♂ paratypes are deposited in the U. S. National Museum collection; 10 ♀ and 1 ♂ paratypes are deposited in the collection of the Florida State Plant Board, Gainesville, Fla.

Described from 45 ♀ and 3 ♂ specimens, as follows: Type ♀, allotype ♂, and 23 ♀ and 1 ♂ paratypes, Marion Co., Fla., Apr. 8-17, 1956, some specimens taken sweeping *Erigeron quercifolius*, R. A. Morse; 1 ♂ paratype, Waco, Tex., Oct. 10, 1956, in airplane trap at 200' alt., P. A. Glick; 1 ♀ paratype, Glades Co., Fla., Dec. 6, 1955, sweeping weeds, R. A. Morse;

2 ♀ paratypes, Lake Co., Fla., Apr. 8, 1956, R. A. Morse; 1 ♀ paratype, Gainesville, Fla., May 24, 1956, on *Melilotus alba*, R. A. Morse; 1 ♀ paratype, Highlands Co., Fla., Oct. 3, 1956, on *Bidens pilosa*, R. A. Morse; 4 ♀ paratypes, Homestead, Fla., Mar. 1, 1956, H. V. Weems, Jr.; 3 ♀ paratypes, Key Vaca, Fla., Dec. 28, 1955, on *Bidens pilosa*, H. V. Weems, Jr.; 3 ♀ paratypes, Stock Isl., Dec. 27, 1954, on *Flaveria linearis*, H. V. Weems, Jr.; 1 ♀ paratype, Florida City, Fla., Dec. 31, 1951, H. V. Weems, Jr.; 1 ♀ paratype, Key West, Fla., Dec. 29, 1954, on *Flaveria linearis*, H. V. Weems, Jr.; 1 ♀ paratype, Key Largo, Fla., Dec. 6, 1954, H. V. Weems, Jr.; 1 ♀ paratype, Key Largo, Fla., Dec. 6, 1954, H. V. Weems, Jr.; 1 ♀ paratype, Ukiah, Calif., Mar. 31, 1931, sweeping grass, C. C. Wilson; 1 ♀ paratype, Oracle, Ariz., Aug. 26, 1934, 4500' elev., Ian Moore; 1 ♀ paratype, Wayne Co., N. C., June 15, 1955, H. V. Weems, Jr.

The host of *Colotrechnus (Zanonia) ignotus* is unknown.