

The natural groups of *Campsomeriella* Betr., 1941 (Hymenoptera Scoliidae)*

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GENUS *Campsomeriella* BETREM, N. STATUS.

The taxon *Campsomeriella* was erected by BETREM as a subgenus of *Campsomeris* in 1941, but Professor BRADLEY and I regard it now as a good genus.

The type of the genus is *Scolia thoracica* Fabr., 1787. This nominal species was misidentified by DE SAUSSURE and SICHEL as by other authors who confused it with *Tiphia collaris* F. but in 1928 I identified it as a common South Palaearctic species. The study of the type of FABRICIUS confirmed this (cf. BETREM, p. 28—31, and BRADLEY, p. 25 in BRADLEY & BETREM, the Fabrician types of Scoliidae, *Spolia Zoologica* 21, 1964). This type was studied again by BETREM (1966) to ascertain the structural characters that we now know differentiate certain species. The results of this reexamination confirmed the former identification.

Further study of the Indo-Australian and African taxa have revealed the fact that some groups have been in the genus *Campsomeris* that may better be united with *Campsomeriella*.

BRADLEY (1957, *Trans. Amer. ent. Soc.* 83 : 69) erroneously placed certain American species of *Campsomeris* in *Campsomeriella*. This error was corrected by BETREM (1962, *Ent. News* 73 : 207) and the correction was confirmed by BRADLEY (1964, *Ent. News*, 75 : 102). *Campsomeriella* is wholly an Old World genus. The other taxa, referred to above, all to be included in *Campsomeriella*, are *Anulimeris*, *Madonimeris*, *Hirtimeris*, and *Rodriguimeris*. For their type-species see the list at the end of this paper. These are all new taxa which I am establishing in this paper.

♀. Anterior rim of the clypeus as broad or much broader medially than at the sides of the median portion. Front and vertex impunctate except sometimes the posterior portion of the latter, their surface often somewhat opaque, anterior ocellus anteriorly in a pit; fissura frontalis sometimes deep; a large shallow groove at the side of the posterior ocelli, which have an indication of the postfrontal suture. Carina occipitalis complete on the upper part of the head; temporal groove usually deep, always present.

Impunctate posterior margin of the pronotum rather broad laterally; impunctate area behind the callosity absent to rather large. Cavity before the tegulae large, densely pilose and limited by a distinct carina. Dorsal area of the mesopleura rather large, transition to the vertical portion rounded, practically straight, not distinctly more elevated than the posterior point of the pronotum. Anterior upper area of the mesopleura entirely punctate, or its anterior half more or less impunctate; anterior lower area almost entirely punctate or varying to largely im-

* This research was supported by a grant from the National Science Foundation.

punctate anteriorly; posterior upper area punctate but with its lower portion impunctate; lower half of the posterior lower mesopleural area rarely entirely punctate, upper half remotely punctate but usually at least posteriorly impunctate. Transition between the dorsal area and the vertical portion of the metapleura very sharp, carina-like; upper plate impunctate, rarely some punctures below the carina, in *thoracica* often finely punctate in part; lower plate remotely finely punctate, usually impunctate above and posteriorly.

Area horizontalis medialis not densely punctate, often almost impunctate, more or less pointed behind; area horizontalis lateralis impunctate on its anterior, inner corner, medially with large punctures, its posterior third normally punctate, but often very finely so; area posterior medialis practically entirely impunctate, in two species remotely punctate.

Wings fuliginous or basally more or less hyaline, apex always dark. First submarginal cell usually setose only medially along the hyaline stripe, rarely setose only above or also basally. Longer spur of tibiae III long and straight, rather acute; white to black depending on the subgenus.

Tergites very opaque; a subbasal cross-area of fine punctures on tergite 3(2), subapical row of punctures distinct; area between this row of punctures and the apical fringes impunctate except at the sides; sternites shining.

The males of this genus can usually be recognized easily by the palettes, which have an angular circumference and look therefore somewhat like those of the taxon *Phalerimeris* Betr., furthermore their head is usually broader than high, their scutellum and metanotum black, and their sternites entirely or almost entirely black. The males of *C. annulata* and *C. collaris* are exceptions because they have more yellow markings; this may be considered as a primitive condition.

The allocation of some males to certain African taxa is still doubtful. The systematics of the males give and will continue to give much trouble, because of their quite different coloration in different geographical regions. The resemblance of the males of different taxa is so great that we cannot always differentiate them at the moment. Therefore, we will restrict this paper to the females only.

KEY TO THE NATURAL GROUPS OF THE GENUS *Campsomeriella*

F e m a l e s

- 1a. Basal portion of the carina lateralis extending somewhat beyond the spiracles. Spurs white. The impunctate area behind the callosity small to very small. Males with no copulation brushes on the apical sternites. Subgenus *Annulimeris* Betr. (7)
- b. Basal portion of the carina lateralis not attaining the spiracle. Spurs black, or black basally but dark testaceous apically. First submarginal cell setose medially and anteriorly. (2)
- 2a. Area posterior medialis practically impunctate, rarely with remote fine punctures. Vestiture never entirely rufous-brown. Area horizontalis medialis triangularly protruded medially. Last sternites of the abdomen of the males with copulation brushes. Subgenus *Campsomeriella* Betr. (3)

- b. Body entirely covered with yellow-brown setae. Areae posteriores rather deeply punctate. Impunctate area behind the callosities rather large, almost reaching the posterior corner of the pronotum. Anterior upper area of the mesopleura entirely coarsely punctate; anterior lower area with a median impunctate area above; posterior upper area in greater part impunctate, posterior lower area in greater part remotely punctate; upper plate of the metapleura with fine punctures above, lower plate in greater part remotely punctate. Area horizontalis medialis with a median tubercle, not triangularly protruded. Longer spur long, weakly spatulate. Islands Northeast of Madagascar. Subgenus *Rodriguimeris* Betr.
- 3a. Impunctate area on the anterior half of the mesopleura very large, only two or three rows of punctures on the anterior portion of the mesopleura along the crest. Setae of the collar white or black. (6)
- b. Impunctate area on the anterior half of the mesopleura almost always smaller or almost absent; usually many rows of punctures on the anterior portion of the mesopleura before the crest. Setae of the collar brown, white or rarely black. (4)
- 4a. Scutellum and metanotum entirely punctate except the hind margin of the scutellum. Mesoscutum rather narrowly impunctate only medially. Area horizontalis medialis not impunctate medially, sometimes remotely punctate. Fringes of the abdomen either white or black. Section *Campsomeriella* Betr., 1941 (5)
- b. Scutellum, metanotum and median portion of the area horizontalis medialis impunctate. Mesoscutum usually broadly impunctate medially. Impunctate area at the side of the pronotum large, limited above by a distinct declivity. Upper plate of the metapleura entirely impunctate. Fringes of the abdomen black. Eastern Java, southern and middle Celebes, Moluccas, New Guinea, Bismarck Archipelago, Solomon Islands. Section *Hirtimeris* Betr.
- 5a. Usually a distinct ridge at the sides of the impunctate disc of the clypeus. Vertical portion of the vertex in greater part punctate. Southern Palearctic region, Ethiopian Region, Madagascar. Group of *C. thoracica*.
 - A. Posterior upper corner of the upper plate of the metapleura often with many fine punctures. Wings hyaline, apex beyond the cross-veins of the forewings dark. Southern Palearctic Region. *C. thoracica* (F., 1787).
 - B. Entire upper plate of the metapleura impunctate or with some punctures above. Wings entirely fuliginous. Ethiopian Region. *C. coelebs* (Sichel, 1864).
- b. Transition between the disc of the clypeus and its punctate sides often not angular nor with a distinct ridge. Vertex entirely impunctate except quite near the occipital carina. Group of *C. collaris*.
- 6a. Posterior areas of the propodeum with fine scattered punctures. Area horizontalis medialis densely punctate. Upper anterior area of the mesopleura almost entirely punctate. Vestiture entirely black. Group of *C. dimidiatipennis*.
- b. Posterior areas of the propodeum entirely impunctate. Interspaces between

- the punctures of the area horizontalis medialis larger than their diameters. Vestiture white in part. Group of *C. pseudocollaris*.
- 7a. Area posterior medialis punctate. Impunctate area behind the callosity not limited above by a declivity. Upper portion of the lower posterior area of the mesopleura remotely punctate. First submarginal cell setose only anteriorly and often in its center. Temporal groove shallow. Eastern Ethiopian Region. Section *Madonimeris* Betr.
- b. Area posterior medialis impunctate. Impunctate area behind the callosity sharply defined above by a declivity. Upper portion of the lower posterior area of the mesopleura almost impunctate. First submarginal cell setose: anteriorly, broadly along its center, and basally except along the submarginal vein. Temporal groove very deep. Indo-Malayan Region. Section *Annulimeris* Betr.

LIST OF THE SPECIES AND HIGHER TAXA OF THE GENUS *Campsomeriella*

Subgenus *Rodriguimeris*, n. subgenus

C. (R.) fax Bradley, 1930.

C. (R.) rodriguensis Bradley, 1936.

Subgenus *Annulimeris* Betr. n. subgen.

Section *Annulimeris* Betr.

C. (A.) annulata (F., 1793)

Section *Madonimeris* Betr.

C. (A.) madonensis (Buysson, 1910) = ? ♂ *C. leptotrichia* (Cam., 1910).

Subgenus *Campsomeriella* Betr., 1941

Section *Hirtimeris* Betr.

C. (C.) hirticollis (F., 1804), n. comb.

subsp. *hirticollis* (F. 1804).

subsp. *bernsteini* Betr., 1928.

C. (C.) agilis (Sm., 1858), n. comb., = *C. leefmansii* Betr., 1928.

C. (C.) manokwariensis (Cam., 1906), n. comb.

subsp. *lanhami* Kromb., 1963.

subsp. *manni* Kromb., 1963.

Section *Campsomeriella* Betr., 1941

Group of *C. dimidiatipennis*.

C. (C.) dimidiatipennis (Sauss.)

Group of *C. pseudocollaris*.

C. (C.) pseudocollaris Br. and Betr. i. litt.

C. (C.) philippinicola Betr. i. litt.

Group of *C. thoracica*.

C. (C.) thoracica (F., 1787).

C. (C.) coelebs (Sichel, 1864).

Group of *C. collaris*.

C. (C.) collaris (F. 1775).

C. (C.) quadrifasciata (F., 1798).

subsp. *quadrifasciata* (F., 1798) and its geographical variations.

subsp. *sauteri* Betr., 1928, n. comb.

subsp. *macgregori* Cocq., 1927.

The descriptions in the preceding key and the list of type-species that follows will serve to establish these nominal taxa.

LIST OF THE TAXA OF THE GENUS AND THEIR TYPES

1. *Campsomeriella* Betrem, 1941. *Notes d'Entom. Chinoise* 8 : 86. Type-species of the genus, subgenus and section *Scolia thoracica* (F., 1787) n. comb. original designation .
2. *Annulimeris* Betr. n. subgenus and section. Type-species of the subgenus and section *Scolia annulata* F., 1793 = *Campsomeriella (Annulimeris) annulata* (F., 1793) n. comb.
3. *Madonimeris* n. subgen. and section. Type-species *Dielis madonensis* Buysson, 1910 = *Campsomeriella (Annulimeris) madonensis* (Buysson, 1910), n. comb.
4. *Hirtimeris* n. sect. Type-species *Scolia hirticollis* F., 1804 = *Campsomeriella (Campsomeriella) hirticollis hirticollis* (F., 1804) n. comb.
5. *Rodriguimeris* n. subgen. Type-species *Campsomeris fax* Bradley, 1936 = *Campsomeriella (Rodriguimeris) fax* (Bradley, 1936) n. comb.

Sary, Peter, Aphid parasites of Czechoslovakia. A review of the Czechoslovak Aphidiidae (Hymenoptera). Czech. Acad. Science, Prague, 1966, 242 p., 21 platen waarvan twee in kleuren. Voor Nederland: Uitg. Dr. W. Junk, van Stolkweg 13, Den Haag. Prijs f 30 (\$ 8,35).

De schrijver is niet alleen een wereldvermaard specialist voor Aphidiidae, maar kent ook grondig de rijke bladluisfauna van zijn land. De titel van het werk verradt niet hoeveel er in de 14 hoofdstukken wordt behandeld. De systematicus zal misschien soortbeschrijvingen missen, maar vindt een gedetailleerde, goed geïllustreerde determineertabel.

Per parasiet zijn de bladluisoorten waarin ze leven, elders per bladluisoort alle parasieten die er uit gekweekt zijn, en voor de landbouwentomoloog de bladluizen per gewas of biotoop met bijbehorende parasieten overzichtelijk samengevat.

Dergelijke hoofdstukken zijn zeer bruikbaar en, evenals artikelen over de morfologie en anatomie van eieren, larven, enz., min of meer te verwachten. Het verrassende is evenwel de schat aan ecologische gegevens, grotendeels origineel werk, die dit boek bevat. Het wordt besloten met een literatuurlijst, 9 platen met lijntekeningen, 11 platen met foto's, die onder de reproductie enigszins geleden hebben en een index waarin de bladluizen zijn wegge-laten. — D. HILLE RIS LAMBERS.

Afdeling „Zuid-Holland”. De derde vergadering van de afdeling „Zuid-Holland” is vast-gesteld op 15 februari 1967, des avonds om 8 uur in het restaurant in de Rivièrahall te Rotterdam.

Men bereikt de Rivièrahall door het Centraal Station via de achteruitgang te verlaten en dan links af te slaan in de richting van de diergaarde.

I. A. KAIJADOE, Secretaris.