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On the Systematics of the Genus *Tricimba* LIOY, 1864 (Diptera, Chloropidae)

With 14 Figures

VENELIN L. BESCHOVSKI

Sofia

As pointed out by ANDERSSON (1978) the genus *Tricimba* is a complex one. This was confirmed by the study on male genitalia of *Tricimba cincta* (MEIGEN, 1830), *T. humeralis* (LOEW, 1858), *T. lineella* (FALLÉN, 1820), and *T. setulosa* (BECKER, 1903), collected from different parts of the Palearctic. These four species were divided into three groups on the bases of the wing venation, frontal triangle size and structure of male genitalia, the groups being: 1. *T. cincta* and *T. humeralis*; 2. *T. lineella* and 3. *T. setulosa*. The groups are incorporated in the genus *Tricimba* on the basis of the flattened scutellum, and the three longitudinal furrows on the mesonotum. However, each group has its own peculiarities concerning the apomorphous characters of the wing venation, the relative size of the frontal triangle and the structure of the genitalia. No such considerable interspecific differences were observed within the other well defined genera of the tribe Oscinellini. That is why I find it necessary to divide this genus into three subgenera corresponding to groups already referred to.

Subgenus *Nartshukiella* subg. n.

Type species *Chlorops cincta* MEIGEN, 1830

Frontal triangle relatively large, *sc* located at the same level as the upper surface and with no warts at the bases (Fig. 1); *ba* and *d* with normal proportions, no peculiarities; *ta-tp* about twice as long as *tp*, the latter being slightly oblique (Fig. 4). Epandrium rounded, cerci well defined and separated, edyta simple, hypandrium closed (Fig. 7–9). Females with long cylindrical cerci (Fig. 10).

Specific composition: *Tricimba* (*Nartshukiella*, subg. n.) *cincta* MEIGEN, distributed in Europe and North America, and *Tricimba* (*Nartshukiella* subg. n.) *humeralis* LOEW, distributed in Middle and Southern Europe, the Caucasus, Afghanistan, Kazakhstan and North Africa.

Subgenus *Tricimba* s. str.

Type species *Oscinis lineella* FALLÉN, 1820

Frontal triangle relatively small, not extending far away from the ocellar callus. Scutellum with short *sc*, located on the same level as the lower surface, warts at the basis present (Fig. 2). Wings with enlarged *ba* at the basis of r_{4+5} , *d* without peculiarities, *ta-tp* about twice as long as *tp*, the latter being considerably oblique (Fig. 5). Epandrium widened, cerci reduced down to a mesolobus, edyta slightly bifurcate at the apex, hypandrium open (Fig. 11, 12). Cerci of females pear-like (Fig. 13).

Specific composition: *Tricimba* (*Tricimba*) *lineella* (FALLÉN), distributed in Europe and North America.

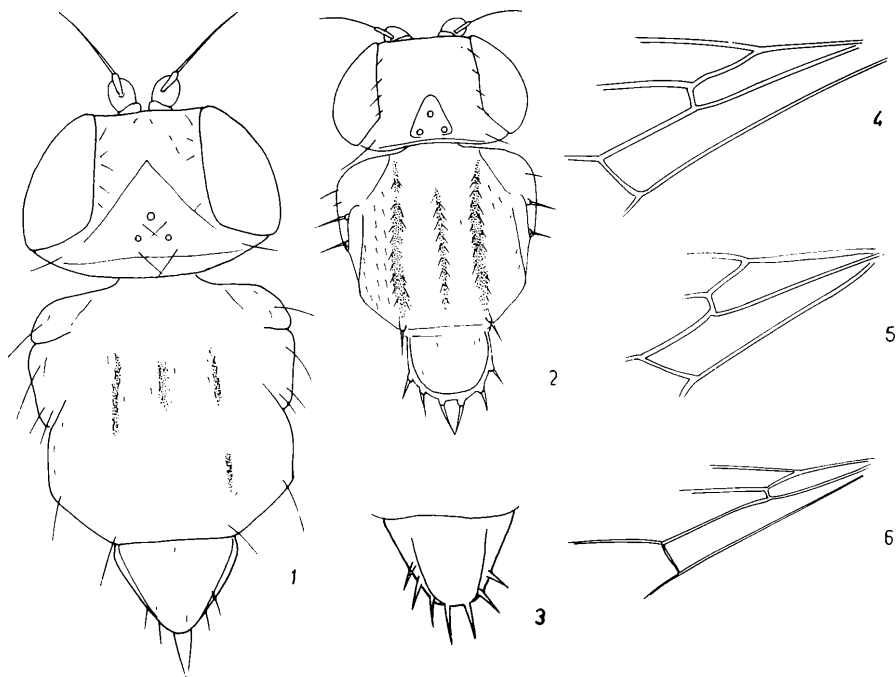


Fig. 1–6. 1 *Tr. cincta*, head and thorax, dorsal view. 2 *T. lineella*, head and thorax, dorsal view. 3: *T. setulosa*, scutellum only, dorsal view. 4–6: *b* and *d* wing cells: 4: *T. cincta*, 5: *T. lineella*, 6: *T. setulosa*.

Subgenus *Schumanniella* subg. n.

Type species *Notonaulax setulosa* BECKER, 1903

Sc thickened, short, located at the same level as the upper surface, no warts at the base (Fig. 3). *ba* without peculiarities, *d* elongated particularly beyond *tp*; *ta-tp* about three times as long as *tp* (Fig. 6). *tp* almost perpendicular to *m*₂₊₃ and *m*₃₊₄. Epan-drium with reduced and desclerotized cerci fused in mesolobus. Edyta complex, deeply indented and with long hairs (Fig. 14).

Specific composition: *Tricimba* (*Schumanniella* subg. n.) *setulosa* (BECKER, 1903), distributed in Egypt. ¹⁾

Material studied *T. (N.) cincta*, 2 ♂♂ and 2 ♀♀ from Bulgaria, 2 ♂♂ and 2 ♀♀ from Mongolia. *T. (N.) humeralis*, 1 ♂ and 2 ♀♀ from Bulgaria, 1 ♂ and 1 ♀ from Mongolia. *T. (T.) lineella*, 1 ♂ and 2 ♀♀ from Bulgaria, 1 ♂ and 1 ♀ from Sakhalin island, 1 ♂ from the European territory of the USSR. *T. (Sch.) setulosa*, 1 ♂, holotype from Egypt.

The new taxa were named after the dipterologists Dr. E. P. NARTSHUK of the Institute of Zoology, Acad. Sci. USSR, Leningrad, and Dr. H. SCHUMANN of the Zoological Museum, Humboldt University, Berlin. I thank them for the provided materials of the genus *Tricimba*.

¹⁾ Unfortunately, the holotype sent to me by Dr. SCHUMANN of the Humboldt University, Berlin, has no head. Abdomen and genitalia are embedded in a permanent microscopic preparation but the hypandrium is missing. That is why the frontal triangle and the hypandrium are not described here. The female paratype of *T. setulosa* does not belong to the genus *Tricimba*.

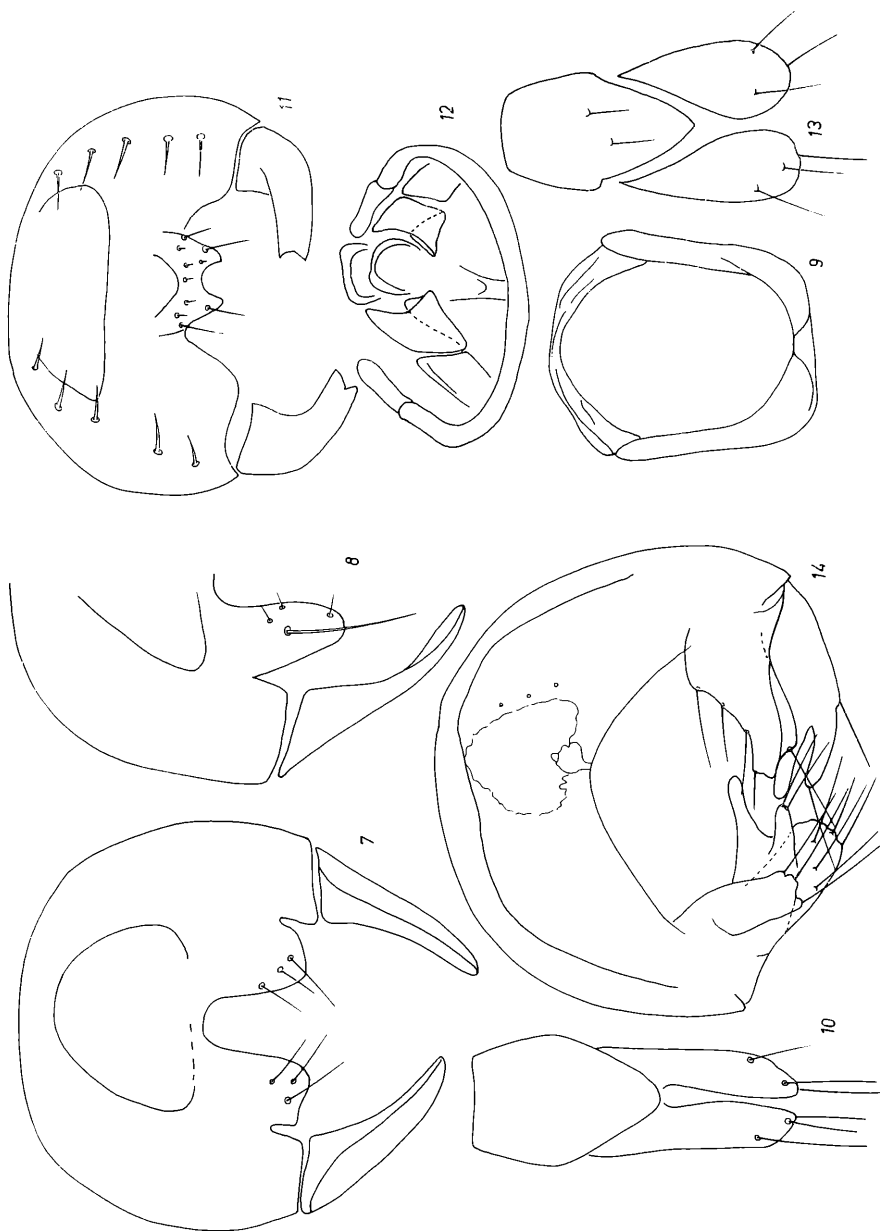


Fig. 7-14. Genitalia. 7-10: *T. cincta*: 7 epandrium, apical view, 8: the same, lateral-apical view, 9: hypandrium, 10: female cerci and dorsal plate, dorsal view 11-13: *T. lineella*: 11 epandrium, apical view, 12: hypandrium, 13 female cerci and dorsal plate, dorsal view. 14: *T. setulosa*, epandrium, general view.

Key to subgenera of the genus *Tricimba*

- 1 (2) *ba* widened (Fig. 5). Frontal triangle small, not extending far from ocellar callus (Fig. 2). *ta-tp* twice as long as *tp*. Male cerci reduced to a mesolobus, edyta slightly bifurcate at the apex (Fig. 11, 12). Cerci of females pear-like (Fig. 13).
Subg. **Tricimba** LIOY
- 2 (1) *ba* normal, other features different.
- 3 (4) *d* of normal size, *ta-tp* just twice as long as *tp* (Fig. 4). Male cerci well separated, edyta simple (Fig. 7, 8).
Subg. **Nartshukiella** subg. n.
- 4 (3) *d* elongated, *ta-tp* three times as long as *tp* (Fig. 6). Male cerci reduced to a mesolobus, edyta indented and with hairs (Fig. 14).
Subg. **Schumanniella** subg. n.

Summary

Male genitalia, wing venation and frontal triangle of four species of the genus *Tricimba* were studied. The interspecific variations of the features described are wide enough to divide the genus into three subgenera: *Nartshukiella* subg. n. with two species *T. (N.) cincta* and *T. (N.) humeralis*; *Tricimba* s. str. with *T. (T.) lineella* and *Schumanniella* subg. n. with *T. (Sch.) setulosa*. A key to the subgenera is presented.

References

- ANDERSSON, H., 1978: Taxonomic and phylogenetic studies on Chloropidae (Diptera) with special reference to Old World genera. — *Entomologica Scandinavica*, Suppl. 8, 200 pp.

Address of the author:

Dr. V. L. Beschovski, Zoological Institute, Bulgarian Academy of Sciences, Boulev. Ruski 1, 1000 Sofia; Bulgaria

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Autor(en)/Author(s): Beschovski Venelin L.

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