

**TRICHOMALUS LONCHAEAE, N. SP. (HYMENOPTERA, PTEROMALIDAE), A PARASITE OF LONCHAEIDAE (DIPTERA) IN GERMANY**

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The following description is published in order to make a name available for a species of *Trichomalus* reared from *Lonchæa zetterstedti* Beck. (Diptera, Lonchæidae) in Germany. Further specimens attributed to the new species come from Czechoslovakia and from England.

***Trichomalus lonchaeae*, sp. nova**

According to the recent key to the European species of *Trichomalus* Thoms. by Delucchi and Graham (1956, *Beitr. z. Ent.*, 6: 543—576), the new species belongs to the second group, with front coxæ dark, propodeal neck not very strongly sculptured and not set off from the propodeal disc, and with basal vein of forewing more or less bare (cf. l.c., p. 548, № 10), and runs here to *tenellus* (Walk.) and *inscitus* (Walk.), having the first funicle segment subquadrate, sensillæ on flagellum not much numerous, and the wing pubescence not extremely short and dense. From *T. inscitus* it differs by the testaceous femora and rugose propodeal disc, from *tenellus* by longer neck part more deeply separated from the propodeal disc, the sculpture of which is less regular and tends to form transverse rugæ or carinulæ at least at median carina (fig. 1).

Female. Length, 2.2—2.9 mm. Greenish-bronze or sometimes with brassy reflections, especially on vertex, face, and thoracic dorsum; abdomen duller on the disc; palpi and mandibles dull testaceous, antennæ fuscous to black, with scapus testaceous, only slightly infuscated above distally; legs rufo-testaceous, coxæ metallic, tarsi pale except last segment of mid and hind tarsi which is fuscous; femora sometimes slightly infuscated on outer surface; wings subhyaline with venation fusco-testaceous.

Head in dorsal view broader than thorax (generally about 1.1:1; viz. 34:29, 50:46, etc., in various specimens), about 2.1 to 2.3 times as broad as long; temples rounded off behind eyes and only about one quarter as long as the eye; ocelli in a triangle of about 130°, POL:OOL as 7:5; head in front view broader than high (34:27), with genæ roundedly narrowed to-

wards mouth. Compound eye oval (17:12), about twice as high as length of malar space (17:8); this with malar groove reduced, indistinct; malar (= genal) suture distinct. Antennæ inserted slightly below centre of face, distinctly above level of lower extremities of eyes; distance between antennal toruli about 1.3 times as great as diameter of each, distance between torulus and eye margin to that between torulus and lower margin of clypeus as 8:10. Antennal scrobe rather deep. Head finely reticulate, more coarsely so on upper face, very finely so on genæ; lower face radiately strigose leaving a small median areæ on clypeus nearly smooth.

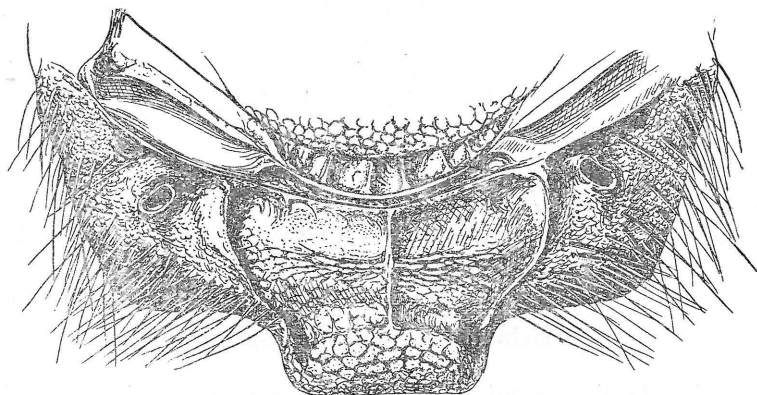


Fig. 1. *Trichomalus lonchææ*, n. sp., propodeum, metanotum and apex of scutellum.

Antennal scapus linear, not reaching median ocellus, about as long as funicle segments 1—4 combined. Pedicellus about twice as long as broad, and as long as second anellus plus first funicle segment. Anelli about three times as broad as long each, second broader than the first. Flagellum fili-form to moderately clavate (in certain view), first funicle segment slightly longer than broad, second quadrate, last (sixth) slightly broader than long and slightly shorter than first; clava somewhat shorter than preceding three segments combined (7:8). Linear sensillæ not numerous, first funicle segment with 2—3 sensillæ dorsally, sixth with about 5.

Thorax 1.5 times as long as broad (45:29), not strongly vaulted longitudinally. Mesoscutum transverse (27:17), its reticulation only slightly coarser than that on disc of scutellum; the latter nearly flat in anterior  $\frac{2}{3}$ , about 2.5 times as long as distance between axillæ (16:6), with apical quarter (frenum) more coarsely reticulate; basal furrow of metascutellum divided by 4—6 longitudinal carinulæ. Median cordiform part of propodeum smooth and impressed basally on either side, transversely rugulose (medially; sometimes tending to form a transverse costula here, cf. fig. 1) to reticulate (outer part), in the middle; smooth on the bottom of the deep pits at median carina and the very deep pits at distal ends of either plical carina, just before the vaulted neck-part. Lateral pilosity dense, white, areas between

spiracles and plicae nearly smooth. Spiracles reniform. Forewing: costal cell with complete row of hairs on lower surface, and some more hairs scattered in its distal half; cubital and basal folds bare, the latter in one specimen with one, in another with two hairs; marginal vein slightly longer than postmarginal (in the type 16:14.5, stigmal 10).

Gaster broadly lanceolate, as long as head plus thorax, broader than the latter, about twice as long as broad, concave dorsally, with basal tergite occupying hardly  $\frac{1}{4}$  of dorsal surface; hind margin of first gastral tergite not incised medially; tergites 2—5 subequal in length, each alutaceous basally.

Male unknown.

Two females of this new *Trichomalus* were reared by Mr. G. Morge in Summer 1957 from larvæ of *Lonchæa zetterstedti* Becker, collected by him 29. 5. 1957 on *Picea* logs at Kornau near Oberstdorf, the Allgäuer Alps in Germany (Southern Bavaria). The larger female of 2.9 mm. has been labelled as holotype (Cat. № 3463, Natl. Mus. Praha), the smaller one, of 2.2 mm. in length, as paratype. Further paratypes (only caught specimens) come from Czechoslovakia: Bohemia, Pohořany near Litoměřice, one female, 11. 5. 1954 (Bouček leg.); Týniště nad Orlicí, one female, 9. 5. 1958 (Bouček leg.); Slovakia, Banská Štiavnica, one female, 9. 1956 (Čapek leg.); and from England, Wytham Wood, Berks., 12. 4. 1952, one female (M. de V. Graham leg.; in his coll.).

In spite of the recent valuable revision of the genus *Trichomalus* Thoms. by Delucchi and Graham (1956), which has made an end to the chaos prevailing here before, some species still seem rather critical, at least until our knowledge is supported by detailed biological data on each of them. Therefore I requested Dr. Graham of Oxford, England, for his opinion on the species submitted to me by Dr. Morge, and offered him this species to describe when new. He refused this, very kindly examined the two reared specimens, and sent them back to me pointing out the close affinity to *Trichomalus tenellus* (Walk.). He also gave me opportunity of comparing this species with a specimen of *tenellus* agreeing with the type of the latter species preserved in Walker's collection. I wish to express my sincere thanks to Dr. Graham for his kind and valuable help. I am grateful, too, to my friend Dr. G. Morge of the Forest Zoology Institute, Eberswalde near Berlin, Germany, for the reared material of the new specieses.

The host recorded of *Lonchæa* is new for the genus *Trichomalus*, and of interest. As far as the evidence is available, only one European species of this genus, *T. nanus* (Walk.) (= *statutus* Först.) has been reported as a parasite of a dipterous host, of *Oscinella frit* L. living in grasses.

V anglickém textu popisují nový druh rodu *Trichomalus* (čeled' Pteromalidae) jednak podle kusů vychovaných v Bavorsku z larev dravé mouchy hnílenky *Lonchæa zetterstedti*, žijící pod korou smrku, jednak podle exemplářů sbíraných volně v přírodě v ČSR a v Anglii. Jen díky tomu že byl rod *Trichomalus* nedávno revidován na základě studia typů Delucchim a Gra-

hamem, bylo možné rozhodnout, zda jde skutečně o druh nový. Pro větší jistotu bylo několik kusů posláno dr. Grahamovi k posouzení.

Rod *Trichomalus* Thoms. je v naší vlasti zastoupen asi 20 až 30 druhy, zatím dosti málo známými, neboť kromě asi tuctu druhů, jež lze bezpečně určit, se zde setkáváme s množstvím jedinců neodpovídajících údajům v popisech ani ve zmíněném klíči. Pro značnou variabilitu není snadné rozhodnout o druhové příslušnosti, zvláště když dosavadní znalosti bionomické jsou jen kusé. Po této stránce je nejznámějším *T. perfectus* (Walk.), i u nás běžný parazit nosatců rodu *Ceutorrhynchus*, zvláště škůdce *C. assimilis* (Payk.) v šešulích řepky. Avšak způsob života např. našeho nejhojnějšího druhu *T. campestris* (Walk.) není známý vůbec. Jiné druhy byly hlášeny jako cizopasníci larev nosatců jednak minuujících v listech (*Orchestes*), jednak hálkotvorných (*Gymnetron*), i jinak žijících (např. *Apion*), dále některých žlabatek, např. *Timaspis papaveris* (Kieff.), ba i bzunky ječné *Oscinella frit* (L.). Podobně jako u mnoha jiných přirozených taxonomických skupin parazitů je zřejmě i zde výběr hostitelů řízen spíše ekologickými vztahy než systematickou příslušností napadaných druhů.