

# ANNOTATIONES ZOOLOGICAE et BOTANICAE

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## A NEW CENTRAL EUROPEAN SPECIES OF THE GENUS THEOPHILEA PIC (COLEOPTERA, CERAMBYCIDAE)

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**Key words:** Taxonomy, *Theophilea subcylindricollis* sp. n., spermatheca

### Abstract

*Theophilea subcylindricollis* sp. n. from Hungary, Slovakia and the western Caucasus is described, differential diagnosis between *T. cylindricollis* Pic and *T. subcylindricollis* sp. n. is given, their external characters and terminalia (including female spermatheca) are illustrated and discussed.

Abbreviations used: AL = length of antenna, EL = length of elytra, Ew = maximal width of elytra, PL = length of pronotum, PW = width of pronotum.

### *Theophilea subcylindricollis* sp. n.

Type locality: southern Hungary, Harkány.

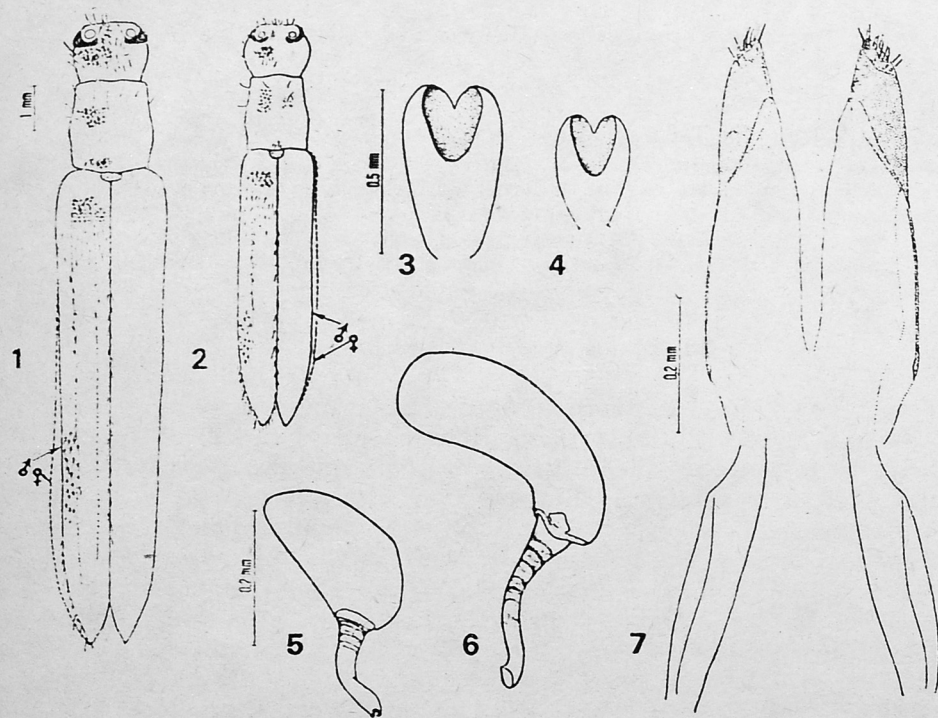
Type material: **Holotype**, ♂, Hungaria mer.: Harkány 5. 5. 1976 leg. Švihla. In collection Hladil. Babice nad Svitavou near Brno. **Allotype** ♀ and 49 ♂, 22 ♀ **paratypes**. Allotype, 13 ♂, 6 ♀ paratypes (coll. Hladil, coll. Kratochvíl, Prague), 1 ♂, 1 ♀ (National Museum, Prague), the same locality and data as the holotype. Hungaria mer.: Villányi, Máriagyúd 9.–12. 5. 1978. leg. Řiha et Zvarič 7 ♂, 1 ♀ (coll. Hladil and Sláma, Prague); idem, Balatonföldvár 6. 6. 1978, leg. Retezár 1 ♂; the same locality, 11. 5. 1975, leg. Szaláki 8 ♂, 6 ♀ (coll. Hladil and Sláma); the same locality, 6. 6. 1976, leg. Juhaxa 6 ♂, 6 ♀ (coll. Hladil and Sláma); the same locality, 15. 5. 1977, leg. Gaskő 2 ♂ (coll. Sláma); idem, Czarnóte, 6. 1968, leg. Sláma 2 ♂ (coll. Sláma); idem, Balaton, 31. 5. 1978, leg. Raez 1 ♂, 1 ♀ (coll. Kratochvíl); idem, Pálkonya (swamp), 30. 5. 1964, leg. Štys 1 ♂ (coll. Kratochvíl); Czechoslovakia: Komárno, 3. 6. 1977, leg. Sekera 1 ♂ (coll. Hladil); USSR: Caucasus occ., Krasnodar, 6. 1984, leg. Lobanov 7 ♂, 2 ♀

(1 ♂, 1 ♀ Zoological Institute, USSR Academy of Sciences, Leningrad, USSR; coll. Kratochvíl and Hladil).

Comparative material of *T. cylindricollis* Pic (3 ♂, 4 ♀) with locality data: USSR, Armenia, Gekhart 1 200 m, 29. 6. 1978, leg. Hladil (coll. Hladil).

Length 5.60 — 7.80 mm. Body very elongate, subparallel (Fig. 2). Colouration black, with bluish to greenish lustre. Integument very densely and more or less regularly punctate; pubescence double: (a) recumbent, very short, pale hairs, (b) erect, long black setae.

Head orthognathous in lateral view, slightly transverse in dorsal view (Fig. 2), coarsely punctate (the punctures partly confluent), punctuation somewhat coarser than on pronotum. Pale pubescence is denser and more conspicuous than that on elytra, in addition some dark, not very long setae are present. Antennae reaching beyond body length; base of scape and whole pedicel (sometimes also the base of joint 3) brownish;



Figs. 1 — 7. Body outline of *Theophilea cylindricollis* Pic (1) and *T. subcylindricollis* sp. n. (2), semi-schematic pictures. Tarsomere 3 of *T. cylindricollis* Pic (3) and *T. subcylindricollis* sp. n. (4), schematic pictures, all setae omitted. Spermatheca of *T. subcylindricollis* sp. n. (5) and *T. cylindricollis* Pic (6). Ovipositor of *T. cylindricollis* Pic (7)

scape moderately swollen in lateral view; all joints with short pale pubescence and long dark setae, the latter are not present on 4 terminal joints.

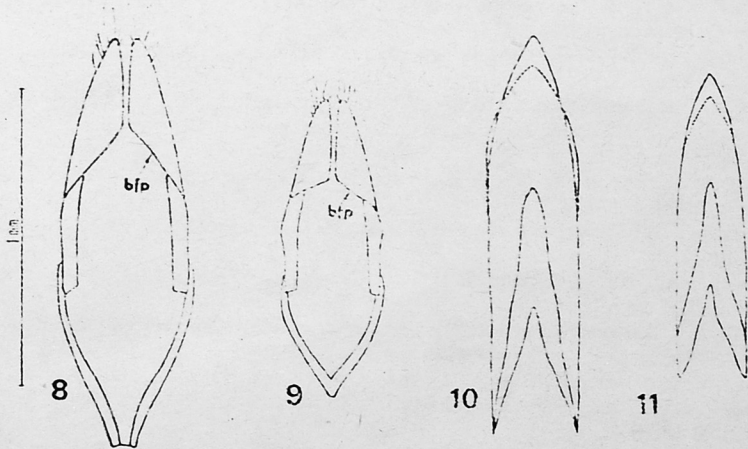
Pronotum (Fig. 2) subcylindrical, conspicuously longer than broad (PW situated in basal third), constricted near base, nearly parallel-sided, almost straight at apex; basal corners of pronotum slightly produced. Punctuation very dense and regular on the whole surface of pronotum, the spaces between punctures narrower than the punctures. Indistinct median, longitudinal, smooth line present only in several specimens. Pale pubescence indistinct; the coarse sparse black pubescence, present at pronotal apex, is sparser and coarser than on the head.

Mesoscutellum (Fig. 2) feebly transverse, nearly semicircular; punctuation coarse, very variable; pubescence pale.

Elytra (Fig. 2) nearly parallel-sided, apices roundly acuminate; humerus flat, not very prominent. Longitudinal, inconspicuous flat costae bearing a row of more distinct pale setae present on each elytron. Punctuation very coarse, almost twice as coarse as on the head, punctures often confluent into transverse wrinkles. Pale pubescence conspicuous; it is gradually more conspicuous and more scale-shaped towards elytral apex (chiefly in males). Some short and dark bristles (being conspicuously stouter and longer than the pale pubescence) present on the perimeter of elytral apices.

Legs long, with inconspicuous punctuation, pale pubescence coarser and more distinct here than on other parts of body. Excavated apical portion of tarsomere 3 in all tarsi as long as basal, not excavated portion (Fig. 4).

Male. Elytra rather more slender; punctures coarser, sparser and more



Figs. 8 - 11. Tegmen, dorsal view: *Theophilea cylindricollis* Pic (8) and *T. subcylindricollis* sp. n. (9) (bfp - basal folding of parameres). Phallus, ventral view: *T. cylindricollis* Pic (10), *T. subcylindricollis* sp. n. (11)

Table 1. Characters distinguishing *T. cylindricollis* Pic from *T. subcylindricollis* sp. n.

Character	<i>T. cylindricollis</i>	<i>T. subcylindricollis</i>
Body length, male	10 mm	5.6 — 7.8 mm
female	9.8 — 10.5 mm	6.5 — 7.8 mm
Scape in lateral view	less swollen	more swollen
PL/PW, male	1.10	1.29
female	1.05	1.20
PW	situated near the middle	situated at the basal third
Humerus	conspicuous (Fig. 1)	inconspicuous (Fig. 2)
Longitudinal elytral costa	double (Fig. 1)	single (Fig. 2)
Scutellum length/width	1.75 — 2.23	1.07 — 1.23
Excavation of tarsomere 3	shorter than basal not excavated portion (Fig. 3)	as long as basal not excavated portion (Fig. 4)
Postpygidium, male	emarginate at apex, apical slight folding arcuate	almost straight at apex, apical slight folding straight
Arms of phallobase	not connate at base (Fig. 8)	connate at base (Fig. 9)
Base of folding of parameres	more conical (Fig. 8)	less conical (Fig. 9)
Dorsal wall of phallus	broader than ventral one	as broad as ventral one
Female spermatheca	reniform (Fig. 6)	not reniform (Fig. 5)

irregularly tuberculate in front of the elytral apex (chiefly at sides). Pygidium and postpygidium nearly straight at apices, both these parts with feeble, arcuate maculae. Sternum VII nearly straight at apex, sternum VIII shallowly and broadly emarginated at apex. Tegmen (Fig. 9) with basally connate arms of phallobase, base of parameres tuberculate at sides. Phallus (Fig. 11) with both dorsal and ventral walls of equal width.

Measurements. Body length/AL = 0.84 — 0.86; PW/PL = 0.83 — 0.85; EL/EW = 3.38 — 4.25; EL/PL = 4.29 — 4.42; EW/PW = 1.37 — 1.39; body length = 5.60 — 7.80 mm; body width = 0.97 — 1.27 mm.

Female. Elytra somewhat broader (Fig. 2), without tuberculate sculpture in front of the apex. Pygidium with more conspicuous emargination at apex. Postpygidium much the same as in male. Sternum VII as in male, sternum VIII with more emarginated apex. Ovipositor as figured (Fig. 7), without specific characters. Spermatheca (receptaculum seminis) with specific structure (Fig. 5).

Measurements. Body length/AL = 0.87 — 0.91; PW/PL = 0.81 — 0.83;

EL/EW = 3.89 - 4.38; EL/PL = 4.52 - 4.72; EW/PW = 1.26 - 1.47;  
body length = 6.50 - 7.80 mm; body width = 1.00 - 1.09 mm.

Differential diagnosis is evident from Table 1.

### Discussion

I have collected *T. cylindricollis* Pic in the Armenian SSR in a habitat different from that where *T. subcylindricollis* sp. n. has been collected by Czechoslovak collectors. Having compared a large number of specimens, I have found several specific characters that differ between the specimens from Armenia and those collected in Hungary.

The holotype of *T. cylindricollis* Pic, 1895 originates from Armenia (the exact locality is not given) and it is insufficiently described (Pic's usual brief description). The holotype, deposited in the Musée d'Histoire Naturelle in Paris, has been inaccessible to me. On the basis of Pic's description, I have concluded that the specimens collected by me in Armenia are identical with Pic's type material.

The immature stages of *Theophilea* are not known; the larvae most probably live on Gramineae (*Carex*, *Agropyron* etc.), presumably in their rhizomes. The Armenian specimens of *T. cylindricollis* were collected together with *Calamobius filum* Rossi.

As regards the female spermatheca, this has not been previously known to occur in Cerambycidae; the preparation of this organ is rather difficult and requires boiling of the whole abdomen in a solution of potassium hydroxide.

### Acknowledgements

I am obliged to Mr Karel Majer (of the University of Agriculture, Brno) for the preparation of the female spermathecae of both species. I am also indebted to all who enabled me to study this very interesting material.

### Literature

KASZAB, Z. 1971: Cincérek - Cerambycidae. In: Magyarország Allátvilága. Fauna Hungariae, IX. Kötet. Coleoptera IV. 5. Füzet. Akad. Kiadó, Budapest, 283 pp.

PIC, M., 1895: Descriptions de Longicornes d'Arménie et régions voisines. *L'Échange*, 11, 38 - 40.

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