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# A new *Tapinopterus* (Coleoptera: Carabidae: Pterostichini) from southern Turkey

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## Abstract

A new species of *Tapinopterus* Schaum, 1858 from the western Taurus Mountains (Turkey: Antalya/Konya provinces) is described: *T*. (*Molopsis*) *lohaji* sp.n.

Key words: Carabidae, Pterostichini, *Tapinopterus, Molopsis*, new species, taxonomy, Turkey.

## Zusammenfassung

Eine neue Art der Gattung *Tapinopterus* Schaum, 1858 aus dem westlichen Taurus Gebirge (Türkei: Antalya/Konya Provinzen) wird beschrieben: *T*. (*Molopsis*) *lohaji* sp.n.

## Introduction

The subgenus *Molopsis* Schatzmayr, 1943 of genus *Tapinopterus* Schaum, 1858 was recently revised in an excellent way by Lohaj et al. (2012). Nine species have been identified, which are distributed in the western part of Turkey (Fig. 8). All species are confined to mountain areas in western Anatolia, localized and rare.

In recent years the author studied the endemic carabid fauna of Anatolia intensively (Donabauer 2004a, b, 2006, 2007a, b, 2012), especially the genera *Trechus* (Trechini) and *Deltomerus* (Patrobini). The main goal of this paper is to provide the description of a new species of *Tapinopterus* (*Molopsis*) collected by the author during a field trip to southern Turkey in April 2004.

## Material and methods

This paper is based on the revision by Lohaj et al. (2012). Acronyms: HW – head width; PA – width of pronotum at apex; PB – width of pronotum at base; PW – maximal width of pronotum; PL – length of pronotum; EL – length of elytra; EW – maximal width of elytra.

The stacked photographs (Figs. 6 - 7) were taken with a Leica DFC490 camera attached to a Leica MZ16 binocular microscope with the help of Leica Application Suite V3 and processed with CombineZM and Adobe Photoshop 7.0 software.

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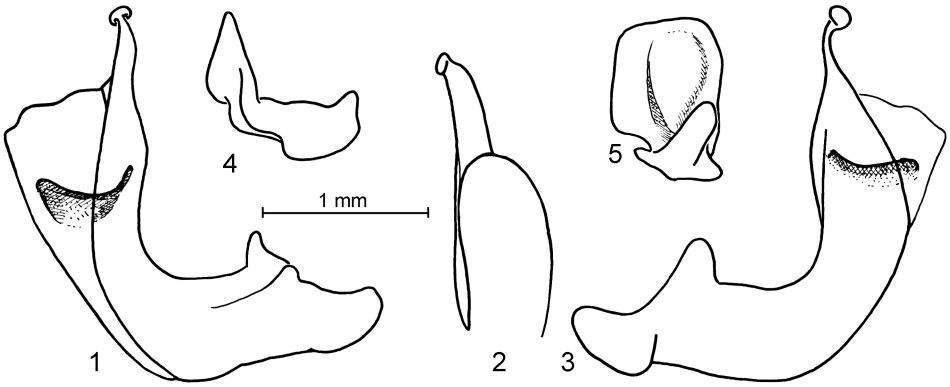


Figs. 1 - 5: *Tapinopterus* (*Molopsis*) *lohaji* sp.n.: aedeagus in (1) left lateral, (2) ventral, and (3) right lateral view. (4) Right paramere, mesal face. (5) Left paramere, lateral face.

## Results

### ***Tapinopterus* (*Molopsis*) *lohaji* sp.n.** (Figs. 1-8)

Etymology: This species is dedicated to Roman Lohaj (Pezinok, Slovakia), first author of the revision of the subgenus *Molopsis* (Lohaj et al., 2012).

Type material: Holotype (male) and paratypes (5 males, 11 females) labelled "Turkey (S), Antalya/Konya, West Toros, Geyik Dağları, ENE of Yarpuz, 1800 m a.s.l., 2.IV.2004, leg. Donabauer" (coll. Donabauer; 1 male, 1 female in coll. Lohaj).

Type locality: Turkey, western Taurus Mountains, exactly at the border of Antalya and Konya Provinces, Alacabel Geçidi, in a large sink hole (37.172731°N, 31.927471°E, 1800 m a.s.l.; Google maps) beside the street.

Diagnosis and comparative notes: *Tapinopterus lohaji* sp.n. is assigned to *Tapinopterus* immediately by the lack of a basolateral puncture on the pronotum. Furthermore it is assigned to *Molopsis* (please refer to Lohaj et al. 2012: p. 5 for a detailed description of the subgenus) by the typical *Molops*-like habitus, the elytron without scutellar setigerous puncture and its distribution in western Anatolia. It deviates from the subgeneric description and from all other described taxa by having multiple (2 - 4) lateral setae on anterior half of pronotum. Within *Molopsis* it is superficially most similar to *T. wiedemanni* (Chaudoir, 1850) from northwestern Turkey, Bolu (point 8 in the key of Lohaj et al 2012: pp. 31-32) because both species share a knobbed apex of the aedeagus (see Figs. 1 - 3), which is not found in other species of *Molopsis*. Beside the multiple lateral setae on pronotum and a totally distinct distribution, *T. lohaji* sp.n. is distinguished from *T. wiedemanni* by a shorter and thicker, less elongated apex of aedeagus in lateral view and onychium with 1 - 2 pairs of setae underneath. According to morphological characteristics and distribution (Fig. 8) *T. lohaji* sp.n. is closest to *T. machardi* Jeanne, 2005 from the Taurus Mountains in close vicinity: both species share all relevant morphological characteristics including onychium with 1 - 2 pairs of setae underneath (not found in any other *Molopsis*) and the general shape of the aedeagus, except for a simple aedeagal apex in the latter and with one lateral seta on pronotum only.

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Figs. 6 - 7: Habitus of *Tapinopterus* (*Molopsis*) *lohaji* sp.n.: (6) male holotype; (7) female paratype.

Description: Body black; antennae, mandibles, tibiae, and tarsi hardly contrasting to body; length measured from apex of mandibles to the apex of elytra 11 - 13.5 mm. Habitus typical for *Molopsis*, body rather flattened, as in Figures 6 and 7.

Proportions given as average (minimum - maximum), N = 8 (4 males, 4 females): PW/HW = 1.29 (1.27 - 1.32); PW/PL = 1.44 (1.40 - 1.50); PW/PA = 1.19 (1.14 - 1.23); PW/PB = 1.43 (1.38 - 1.50); PB/PA = 0.83 (0.80 - 0.87); EW/PW = 1.21 (1.18-1.23); EL/EW = 1.62 (1.54-1.67).

Head relatively large and robust, smooth, with prominent eyes. Frons with two supraorbital setigerous punctures. Clypeus with two long setae, labrum anteriorly with six marginal setae. Antennae relative short, reaching anterior angles of elytra, antennomere I twice as long as II and much thicker than remaining, antennomeres IV - XI covered by dense pubescence.

Pronotum wider than long along mid-line, with rounded sides. Anterior angles slightly protruded, angled at apex. Posterior angles distinct, slightly acute, without setigerous punctures. Base of pronotum on each side with single modestly deep, smooth, linear im-

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Fig. 8: Distribution map of *Tapinopterus* (*Molopsis*): 1 – *T. oyukluensis* Lohaj, Guéorguiev, Dubault & Lassalle, 2012; 2 – *T. lohaji* sp.n.; 3 – *T. machardi* Jeanne, 2005; 4 – *T. phrygius* G. Müller, 1932; 5 – *T. molopiformis* (Lutshnik, 1922); 6 – *T. molopinus* (Chaudoir, 1868); 7 – *T. chaudoiri* Lohaj, Guéorguiev, Dubault & Lassalle, 2012; 8 – *T. wiedemanni* (Chaudoir, 1850); 9 – *T. relegatus* Lohaj, Guéorguiev, Dubault & Lassalle, 2012. The distribution of *T. aenigmaticus* Lohaj, Guéorguiev, Dubault & Lassalle, 2012 is not clear.

pression spreading over basal third. Median longitudinal impression distinct, not reaching basal or anterior margins. Marginal groove evenly narrow along entire sides, with 2 or 3, exceptionally 4, setigerous punctures in anterior half.

Elytra oval, moderately convex, with distinct, finely punctate striae, with short scutellar stria, scutellar setigerous punctures missing. Third elytral interval with two setigerous punctures (the normal 2nd and 3rd dorsal elytral punctures of carabids) situated in apical half of elytra. Umbilicate series normal, consisting of ca. 17 punctures; one setigerous punctures at the end of 7th elytral stria.

Legs relatively short, robust, tarsomeres 1 - 4 glabrous above, pubescent ventrally, tarsomere 5 (onychium) with one or two pairs of setae underneath (without setae in all other *Molopsis* species except *T. machardi* Jeanne, 2005). Males with first three protarsomeres dilated, ventrally with densely arranged adhesive setae.

Median lobe of aedeagus highly characteristic. In ventral view (Fig. 2) apical lamella long, thin, more or less regularly curved to left and slightly sinuous before left-orientated tip; in lateral view (Figs. 1, 3) basal bulb relatively long, curved copulatory sclerite in central position, apex becoming thinner towards knobbed tip. Right paramere relatively long, more or less curved medially, basal part thicker than apical one, with thickened marginal part in internal view, apical part pointed towards apex (Fig. 4). Left paramere as in Figure 5.

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Ecology: All specimens have been collected close to a huge snow field under very wet and cold conditions in early April. The location is a very large sink hole close to the timber line. Many specimens are immature. Another interesting and possibly endemic carabid beetle collected at this site is *Trechus pamphylicus* Jeanne, 1996 (type locality). In some distance another *Tapinopterus* was collected.

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