

***Aptinus hovorkai* sp. n. (Coleoptera: Carabidae: Brachinini) from Turkey**

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Abstract. A new species *Aptinus hovorkai* sp. n. from central Turkey is described, illustrated and compared with other Turkish species from the genus *Aptinus* Bonelli, 1810, i.e. *A. cordicollis* Chaudoir, 1843 and *A. creticus* Pic, 1903. *A. cordicollis* was also reported from Bulgaria and *A. creticus* from Greece, the isle of Crete.

INTRODUCTION

The genus *Aptinus* Bonelli, 1810 is represented by nine species in the western part of the Palaearctic region, exactly in the northern part of the Mediterranean subregion. The genus was divided in two subgenera, *Aptinus* s. str. and monotypical *Aptinidius* Jeannel, 1942 with the species *A. displosor* (Dufour, 1812). The latter subgenus was synonymized with the *Aptinus* s. str. by Erwin, 1970 in his reclassification of the subfamily Brachininae (given as division Brachinida). Casale & Vigna Taglianti, 1983 revised genus *Aptinus* and Hürka, 1988 revised the East Mediterranean species. Hrdlička, 2003 published recent distribution of the genus *Aptinus*. The group of species (*A. bombardia* (Illiger, 1800), *A. acutangulus* Chaudoir, 1876, *A. merditanus* Apfelbeck, 1918, *A. cordicollis* Chaudoir, 1843 and *A. creticus* Pic, 1903), that also includes the recently described species, is very difficult to identify on the basis of its habitus. The main identifying sign remains the form of the aedeagus.

MATERIAL AND METHODS

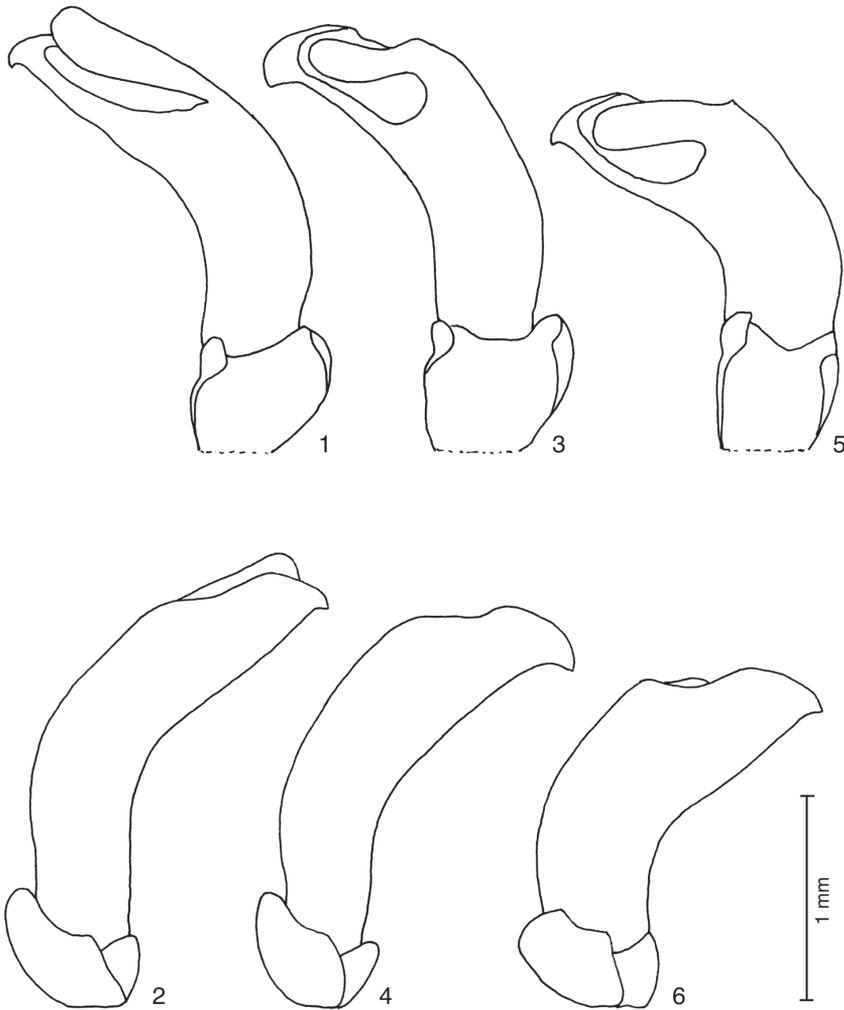
When detaching the inner sack, I followed the method of O. Berlov (Berlov, 1992). This method is normally used in the case of bigger beetles. The aedeagus of the described species is relatively small, only 1,5 mm long. Therefore, it was necessary to apply some adjustments to this method. I used a common plastic 2 ml. medical syringe. Then I replaced the syringe needle by a removeable tip of the drawing pen "Centropen" with a diameter of 0,35 mm (used by ink drawings). Later I removed the metallic cylinder with a wire from the tip of the pen and put the tip on the end of the syringe that I tightened with wet thread. I filled the syringe with the "Colgate" toothpaste. I put the aedeagus for a couple of hours into water, after taking it out of the bath I removed his lower end and fastened it with a wet thread to the tip of the pen. The sack has been detached only with a slight press of the fingers on the plunger of the syringe. For tips of such a small size it is necessary to use a good homogenized toothpaste of a good quality to prevent stopping.

RESULTS

Aptinus hovorkai sp. n.

(Figs 5, 6)

Type material. Holotype (♂), labelled: C. Turkey, Goksun, Doganbeyli, 8.vi.2001, leg. M. Snížek. Paratypes (6 ♂♂, 3 ♀♀ (no. 1-9), the same data as holotype. Holotype is deposited in



Figs 1-6. Aedeagus, lateral view. 1, 2: *Aptinus cordicollis* Chaudoir, 1843; 3, 4: *Aptinus creticus* Pic, 1903; 5, 6: *Aptinus hovorkai* sp. n.



Fig. 7. *Aptinus hovorkai* sp. n.
Inner sac of aedeagus.

coll. National Museum of Prague, 8 paratypes (no. 2-9) in author's collection, 1 paratype (no. 1) in coll. O. Hovorka (Prague).

Description. Colour black. Maxillary appendages, antennae and legs brown. Body length (from anterior margins of labrum to posterior margin of elytra) 8.0 mm (holotype), 7.4-9.7 mm (paratypes). Body length (in compliance with sexes) in 7 males 7.4 - 9.3 (aver. 8.6) mm, in 3 females 8,6 - 9.7 (aver. 9.1) mm.

Head with eyes as wide as pronotum or only slightly narrower than pronotum (width of pronotum : width of head = 1.00 - 1.08 : 1). Mandibles in side-view with unisetose scrobe. Mentum with a single entire tooth at anterior edge. Antennae long, narrow, pubescent throughout.

Pronotum a little longer than wide (1.01 - 1.08 times). Posterior margin distinctly emarginate at middle, invariably narrower than anterior margin (1.08 - 1.16 times). Punctures on disc are sparse and irregular.

Elytra convex, in average 1.38 times longer than together wide (1.30 - 1.46 times). Apical margin slightly obliquely truncate. Elytra subparallel, maximal width in the last third to fourth. Costae in both sexes almost of equal width. Setae on elytra about as long as the width of depressions.

Male anterior tarsal articles (1-3) asymmetrical, with ventral vestiture consisting of two parallel rows of spatulate setae diagonally arranged beneath each article. Female anterior tarsal articles symmetrical, vestiture absent.

Aedeagus short and robust, apical half flattish. In side-view about 2.5 times longer than wide, apically narrowed (Figs 5, 6). From dorsal view the tip is bent to the right. Parameres small and

asymmetrical. Inner sac (Fig. 7) with two sclerotical strongly bent hooklets in ventral part. The left hooklet is stronger than the right one. By the look from above the hooklets are covered with a glazy imbricative membrane with a pattern consisting of short, parallel grooves.

Biology. Unknown.

Differential diagnosis. *Aptinus hovorkai* sp. n. (central Turkey) is similar to *A. cordicollis* (northern Turkey and Bulgaria) and *A. creticus* (southern Turkey and Greece - Crete Is.) from which it differs by its brown coloration of maxillary appendages, antennae and legs (red in *A. cordicollis* and *A. creticus*), shorter setae on elytra (more different in *A. creticus*) and mainly by different form of aedeagus (Figs 1-6). Aedeagus *A. cordicollis* slender, subparallel, in side-view about four times longer than wide, apically narrowed (Figs 1-2). Aedeagus *A. creticus* more robust than in *A. cordicollis*, only about 3.5 times longer than wide, apical part broader (Figs 3-4). Aedeagus *A. hovorkai* sp. n. is very short and robust, about 2.5 times longer than wide, apically strongly narrowed (Figs 5-6).

Etymology. Dedicated to Dr. Oldřich Hovorka (Prague, Czech Republic) for his continuous help in my study of the tribe Brachinini.

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