A new species of the genus *Holopogon* from Turkey (Diptera: Asilidae)

Guy Tomasovic, Guy Van de Weyer & Jos Dils

Abstract. *Holopogon hasbenlii* **sp. n.** is described from Turkey and the structures of the aedeagus are illustrated. A key for the Turkish species of *Holopogon* is given.

Samenvatting. Een nieuwe soort *Holopogon* uit Turkije (Diptera: Asilidae)
Een nieuwe soort, *Holopogon hasbenlii* **sp. n.**, wordt beschreven uit Turkije en de mannelijke genitaliën worden afgebeeld. Een sleutel voor de in Turkije voorkomende soorten uit het genus *Holopogon* wordt gegeven.

Résumé. Une espèce nouvelle du genre *Holopogon*, de Turquie (Diptera: Asilidae)
Une nouvelle espèce de Turquie, *Holopogon hasbenlii* **sp. n.**, est décrite et les structures des genitalia mâles sont illustrées. Une clef pour les espèces d'*Holopogon* de Turquie est présentée.

Key words: *Holopogon hasbenlii* sp. n. – Asilidae – Turkey

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Presentation

All the species of the genus *Holopogon* Loew, 1847 are small, shiny black flies, colouring that is in relation with their ecosystem. It is an ecologically genus, well isolated by the hunting zone of the species that extends in a single layer, above the surface of grasses and shrubs. In this layer, small insects are the main food source of this small predator. Each species of *Holopogon* shows a preference for occupying a habitat with specific microclimate components. Actually, there are 63 species distributed in the world: 23 species in the Nearctic region, 4 in the Neotropical region, and 36 in the Palaearctic region (Geller-Grimm 2007).

Lehr (1972) noted that the species of *Holopogon* in the fauna of the USSR are clearly recognizable by their characters of colouring, the distribution of the hairs on the body and the form of hind tibia and of the antennae. However, this is not always so easy for the species around the Mediterranean. For example, Carlos *et al*. (2002) cite 11 species from Spain, where 4 species, *H. binotatus* Loew, 1870, *H. claripennis* (Loew, 1856), *H. flavotibialis* Strobl, 1909, and *H. rugiventris* Strobl, 1906, are endemic. But Geller-Grimm (2007) cites only 7 species for the same country, removing *H. fumipennis* (Meigen, 1820), *H. nigripennis* (Meigen, 1820), *H. siculus* (Macquart, 1834), and *H. venustus* (Rossi, 1790).

At this moment only 4 species of the genus *Holopogon* are published for the Turkish fauna. Lehr (1988) cited *H. albosetosus* Schiner, 1867. Hayat (1993) added H. *fumipennis* and *H. priscus* (Meigen, 1820) from Erzurum and

surroundings and finally Bozak & Hradsky (2001) added *H. nigropilosus* Theodor, 1980 (distribution: fig. 1).

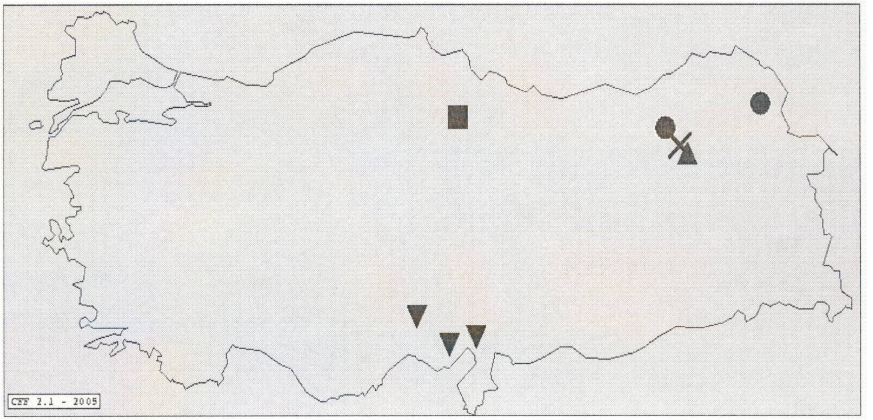

Fig. 1. Distribution of the genus *Holopogon* in Turkey.
● *Holopogon hasbenlii* 2 specimens
× *Holopogon priscus* 2 specimens
■ *Holopogon albosetosus* 1 specimen
▼ *Holopogon nigropilosus* 4 specimens
▲ *Holopogon fumipennis* 1 specimen

In Belgium, we have just the species *H. nigripennis* (Meigen, 1820), which is classified as a very uncommon species and the majority of the specimens are been collected on calcareous substrate (Tomasovic 1998a, b).

***Holopogon hasbenlii* spec. nov.** (figs. 2a–c)

Material: Holotype ♂, Turkey, Erzurum, Gölyurt Geçidi, 23.07.2005, 2366 m, N 40°20'55" E 40°47'35", leg. J. Dils & J. Faes. Paratypes 1♂: same data as holotype, and 1♂, Turkey, Kars, Duranlı (8 km S of Akçay), 22.07.2003, 2000 m, N 40°02'53" E 43°17'02", leg. T. & W. Garrevoet & N. Vandorpe. The holotype will be deposited in the Zoological Museum of Amsterdam (ZMA), 1 paratype in the private collection of Milan Hradsky (Czech Republic) and 1 paratype in the private collection of G. Van de Weyer (Belgium).

Male. Length 7 mm. Colour shining black.

Head: Face black. Mystax with fine, long black setae reaching the antennae. Frons and ocellar tubercle with long and fine black setae. Occiput blackish, with black setae and black hairs. Antennae black, scape short with smalle, black setae, pedicel longer than scape with a ventral stron, black setae, postpedicel twice as long as scape + pedicel, arista subulate.

Thorax: shining black, scutum with greyish tomentum and sparse, fine black hairs. 2 notopleurals, other setae indistinct. 8 long, fine and black scutellar bristles. Pleurae with greyish tomentum and white hairs. Legs black with white

setae. Hind femora, tibia and basitarsus thickened. Wing plate darkened, ist apical half lighter.

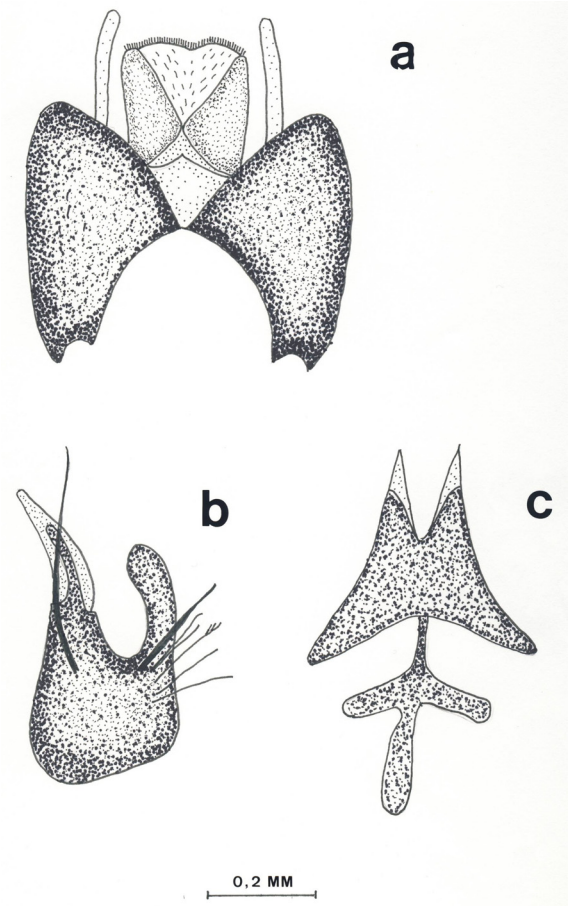

Fig. 2. Male genitalia of *Holopogon hasbenlii* **sp. nov. a**.– Epandrium and proctiger, **b**.– Gonocoxite and distisylus, **c**.– aedeagus (by G. Tomasovic).

Abdomen: shining black without tomentum, tergites with sparse, short black hairs. Sternites with long, fine white hairs.

Male genitalia (Fig. 2): parts of epandrium triangular with a small notch at the end. Proctiger broad, with long straight processes, in basal region of ventral part. These processes are rounded at their tip. Gonocoxites with a long, broad, curved, ventral process and a smaller, pointed dorsal process. Dististylus

long, tapering, pointed, slightly curved. Sheath of aedeagus with two large triangular processes. Apodeme short.

Female. Unknown.

Fig. 3. Area of the Gölyurt Geçidi, Erzurum, Turkey, 23.07.2005 (Photo: Theo Garrevoet).

Differential diagnosis

Habitus of this species looks much like *H. fumipennis* but it can be separated from it by the wholly black hairs of the *mystax* and on the scutum, by the mystax reaching the antennae and by the strong black setae on the pedicel. The structures of the male genitalia look like those of the *claripennis* group, but *H. hasbenlii* stands out by the wholly black legs, whereas the legs of the *claripennis* group are bicolorous. The genitalia of *H. hasbenlii* are also similar to those of *H. kugleri* Theodor, 1980 from Israel, illustrated by Theodor (1980), but they can be separated from it by the presence of the processes at the basal region of proctiger.

For the identification key for the Palaearctic species of *Holopogon* we have followed Engel (1927) and Lehr (1972). The latter author also says that "the structure of the external sexual appendages in the male is very uniform and is not always suitable for use identification purpose". This is true because the genitalia

are very small and sometimes hidden by hairs or the last tergite. But if prepared, the genitalia offer good supplementary criteria for a more accurate identification.

Etymology

This new species is named in honour of Prof. Dr. Abdullah Hasbenli, Gazi University, Ankara, for his contributions to the taxonomy of Diptera and the knowledge of the Turkish fauna.

Simple key to the males of the Turkish *Holopogon*

1. – Wing uniformly darkened. Mesonotum with white and black setae..... ..... *fumipennis* Meigen
   – Wing colourless. Mesonotum with yellow-tipped hairs. .... *priscus* Meigen
   – Wing with obscure base and clear tip **2**
2. – Mystax white. 2nd segment of antennae, short and conical .... *albosetosus* Schiner
   – Mystax with black and yellowish hairs. 2nd segment of antennae pear-shaped, slightly tapering ..... *nigropilosus* Theodor
   – Mystax black. 2nd segment of antennae narrow and long ..... *hasbenlii* **sp. n.**

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