

**A NEW SPECIES OF *RHAMPHOMYIA* (*SENSU STRICTO*)
MEIGEN (DIPTERA, EMPIDIDAE)
FROM SOUTHERN ANATOLIA, TURKEY¹**

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ABSTRACT: A new species of *Rhamphomyia* (s. str.) from southern Anatolia (Karaman province) is described and illustrated and compared with related species.

KEY WORDS: *Rhamphomyia*, Diptera, Empidiidae, new species, southern Anatolia, Turkey

Rhamphomyia Meigen is one of the largest genera of the family Empididae. Recently, Chvála and Wagner (1989) listed 315 species in the Palaearctic Region. Although 30 species have been described since then (Barták, 1985, 1997, 1998, 1999, 2000, 2001, 2004, 2006; Barták and Syrovátka, 1983), there is no *Rhamphomyia* record from Turkey with the exception of recently described *R. cimrmani* Barták, 2006. Due to the geographical position and habitat diversity of Turkey, a high number of species from *Rhamphomyia* is expected. The Holarctic subgenus *Rhamphomyia* s.str. was delimited by Barták (1982), it contains species with setulose proepisternal depression, complete anal vein (A1) and acute axillary angle.

METHODS

McAlpine (1981) morphological nomenclature was followed, with a few modifications. The genitalia were macerated in 10% KOH (24 hours, at room temperature). Abbreviations used are as follows: T 1, 2, 3 / Mt 1, 2, 3 = length of fore, mid, hind tibia: length of fore, mid, hind basal tarsomere, respectively; Mt 1, 2, 3 / Mt 1, 2, 3 = length of fore, mid, hind basal tarsomere: width of this tarsomere, respectively; M2 / D = length of vein M2: greatest length of discal medial cell; M3 / Db = length of apical of M3: preapical sections of vein CuA1; lw / ww = greatest length of wing: greatest width of wing.

***Rhamphomyia* (s. str.) *karamanensis* sp. n.**

Figs. 1-4

Male

Eyes holoptic, facets in lower half of eyes much smaller than upper ones. Frons black, grey pruinose, without hairs. Ocellar setae black and fine, approximately one third as long as frons, accompanied by 1-2 pairs of slightly shorter setulae. Face black, light grey pruinose, lower part 0.21 mm broad and as long as its width, without hairs. Occiput black, light grey pruinose, fine black setose, postocular row incomplete. Antenna black, ratio of antennal segments = 12: 9: 50: 7, longest setulae on

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basal two segments about 0.15 mm long. Labrum shining brownish-black, shorter than height of head. Palpus brown, short, covered with several dark setulae. Gena narrow and pruinose, clypeus polished partially.

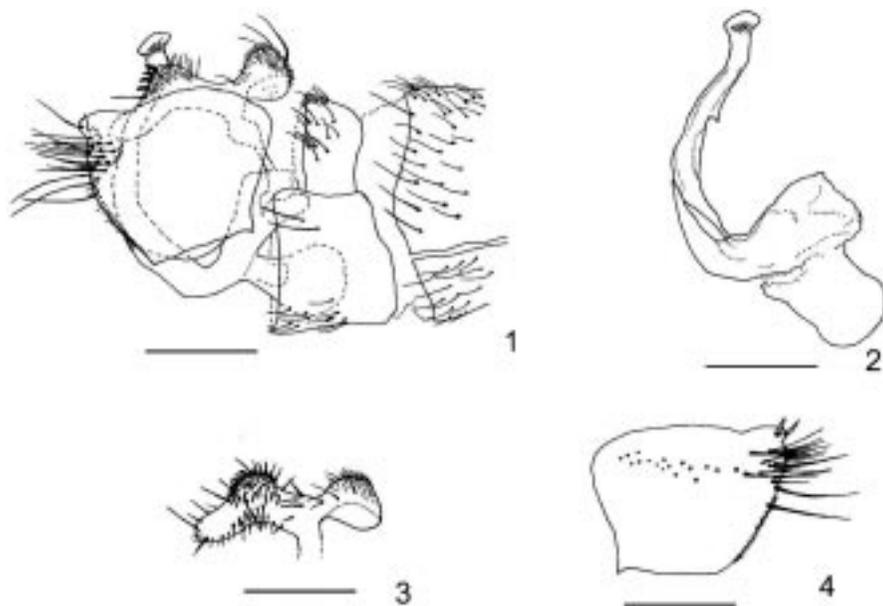
Thorax black, light grey pruinose, with two brown stripes along rows of dorsocentral setae. All setae and setulae are black. Chaetotaxy: about 15 setulae on proepisternum; 3-4 setulae on proepisternal depressions; prosternum bare; 16 biserial, fairly fine acrostichals; 25-28 irregularly biserial dorsocentrals about 0.20 mm long, ending with 3 stronger prescutellars; 4-5 setulae on intrahumeral areas; 1 strong posthumeral and 0-2 additional setulae; 1 strong humeral accompanied with about 10 much smaller and finer setulae; 3 strong notopleurals and 2-3 short setulae on anterior part of notopleuron; 1 strong supraalar (plus 1-2 additional setulae) and about 4-5 setulae in prealar areas; 1 long and 1 small postalars; 2 scutellars; laterotergite (metapleura) with black setae.

Pleura and coxae same appearance, coxae with black setose. Legs brownish-black, pruinose (pruinosity consists of rather long microchaetae), black setose. A long seta present in comb at tip of hind tibia. Fore femur with sparse row of fine anteroventral setulae shorter than width of femur, posterior surface rather densely covered with equally fine setulae about as long as width of femur. Fore tibia with 4-5 pairs of anterodorsal and posterodorsal setae twice as long as width of tibia, fine setulae between them also relatively long, posteroventral ciliation about as long as width of tibia. Mid femur with fine anteroventral setulae half as long as width of femur, anterodorsal and posteroventral setae somewhat longer, up to as long as width of femur. Mid tibia with 3 long, strong anterodorsals on apical half of tibia, 3 times as long as width of tibia; posterodorsal setae absent except single short subbasal and preapical setae, 2-3 anteroventral and equal number of posteroventral setae twice as long as width of tibia. Hind femur with only very fine and short ventral setulae (approximately half as long as width of femur), also other ciliation short and fine except several fine posterior setulae on basal part of femur about as long as width of femur. Hind tibia very slightly swollen and flattened, with 3-4 anterodorsal and 5-6 posterodorsal setae, about 1.5 times as long as width of tibia ventral; setulae are shorter. Basal tarsomeres of all legs thin and short setose, with short ventral spines, $T1 / Mt1 = 2.1-2.2$, $Mt1 / Mt1 = 6.5$, $T2 / Mt2 = 2.9-3.0$, $Mt2 / Mt2 = 5.6-5.7$, $T3 / Mt3 = 2.1$, $Mt3 / Mt3 = 7.1$.

Wing clear, stigma brown, veins brown, anal vein (A1) complete. Costal seta absent, axillary angle deeply incised. $M2 / D = 1.5-1.6$, $M3 / Db = 2.7-2.8$, $lw / ww = 2.7-2.8$. Halteres yellow, calypters yellow with dark fringes.

Abdomen black, light grey pruinose, dorsal genital lamella partly polished. All setae and setulae dark. Hind marginal setae on sides of tergites 2-3 are as long as their segments, on remaining segments setae slightly shorter than sclerites, discal setulae shorter than marginals. Dorsum of tergites with short setulae. Sternite 1 with 2 setulae on sides. Terminalia simple (Figs 1-4). Cercus with submedian dorsal process and long preapical seta; epandrium broadly ovate, with long setae only at tip; phallus slightly broadened at tip and also laterally about middle and with a small dorsal hook; hypandrium ovate and free at tip.

Length of body 5.5 mm, wing 5.7 mm.



Figures 1-4: *Rhamphomyia karamanensis* sp. n.: 1. Terminalia in lateral view, 2. phallus (lateral view), 3. cercus (lateral view), 4. epandrium (lateral view), scales 0.3 mm.

Female

Eyes broadly dichoptic, all facets same size. Frons, face and occiput black, densely grey pruinose. Frons almost parallel-sided, upper part only slightly broadened. Frontal setulae black and quite short. Face broader than frons and broadened towards lower part. Upper half of occiput covered with black, long and strong setae, lower part of occiput with longer and finer yellowish-brown hairs. Antenna black, first antennal segment 1.5 times as long as 2nd antennal segment. 3rd antennal segment nearly 3 times as long as first antennal segment, style short, as long as 2nd antennal segment. Labrum slightly longer than height of head, shining black.

Thorax black, grey pruinose, with four brown stripes, two stripes along lines of dorsocentral setae and two stripes along sides of mesoscutum; outer pair of stripes less distinct and thinner. All setae and setulae black, shorter than setae and setulae of male. Chaetotaxy: pronotum with row of short setulae; prosternum bare, about 10-15 setulae on proepisternum; acrostichals and dorsocentrals equally long and biserial, dorsocentrals ending with 3 pairs of long prescutellars; 1 strong postpronotal accompanied with small setulae; 1 posthumeral with several setulae nearby; 3 strong notopleurals; on anterior part of notopleuron with additional 3-4 short setulae; 1 supraalar and about 2-3 setulae in prealar areas; 1 strong and 1 quite short and fine postalar; 2 scutellars; laterotergite with black setae.

Pleura and coxae same appearance, coxae black setose except fore coxae with yellowish-brown long hairs and additional black setae (3-4 in row). Legs black, slightly

grey pruinose. All femora with short black setulae. Fore tibia covered with short black setulae, denser on ventral part, posterodorsally with strong setae as long as width of tibia, anterodorsally with strong seta on middle part, preapical setae longer than width of tibia. Mid tibia covered with short black setae, posterodorsally with 2-3 strong setae, as long as width of tibia, preapical setae shorter than preapicals on fore tibia. Hind tibia covered with short black setae anterodorsally and posterodorsally with row of strong setae becoming longer than width of tibia towards tip; preapical pair of setae much longer than width of tibia. All tarsal segments with preapical setae, hind basitarsus dorsally with 2 long setae (longer than width of basitarsus), posteroventrally and anteroventrally with 3-4 strong setae, as long as width of basitarsus.

Wing slightly brown tinged, veins dark brown, anal vein complete. Costal seta absent. Halter yellow with darker stem, calypter yellow with dark fringes.

Abdomen black, grey pruinose and covered with black setulae. Anterior four segments laterally with very long setae (as long as their segments), following segments with shorter setae.

Length of body 5.5 – 5.8 mm, wing 5.7 – 6.0 mm.

Differential Diagnosis: *Rhamphomyia* (s.str.) *karamanensis* sp. n. belongs to the *R.* (s.str.) *ignobilis* complex. It is most closely related to several species of this complex on the basis of the relatively long and narrow cercus, however its peculiar shape (Fig. 3) clearly distinguishes this new species from other species of this complex. In a sense, this new species represents a connecting line between Frey's subgenera *Eorhamphomyia* (no strong ventral setae on hind femora in both sexes) and *Collinaria* (costal seta absent). The most closely related species is probably *R. biroi* Bezzi, however the authors have not seen any male specimen of this species and the original description is quite unsatisfactory. Females are similar to *R. biroi*, however this species has much shorter setose abdomen (hind marginal setae on segments 4-5 are at most 1/3 as long as their segments), whereas the setae in females of *R. karamanensis* are at least as long as particular segments.

Variability: One male from the Karamanbey mountain pass has five stripes on the mesoscutum, main two stripes on dorsocentral setae brown and distinct, outer pairs brown but thin and not very distinct, middle stripe on acrostichal setae slightly distinct (only view from above), black and ending in the middle of mesoscutum. Halteres yellow with stem nearly black. Other all characters are identical.

Holotype Male: Turkey centr., 100 km NE Konya, Karaman env., pasture, 30.iv.1996, leg. B. Mocek, deposited in Museum Hradec Králové.

Additional Materials: Turkey centr., 100 km NE Konya, Karaman env., pasture, 30.iv.1996, 1 female, leg. B. Mocek, deposited in Museum Hradec Králové; Turkey, İçel, Mersin, between Çatak and Findikpinari, 20.v.2005, 1 male, 1 female, leg. A. Hasbenli, deposited in Zoological Museum of Gazi University (ZMGU); Turkey, İçel, Silifke, between Kıcaköy and Çömelek, 21.v.2005, 1 male, leg. A. Hasbenli, deposited in Zoological Museum of Gazi University (ZMGU); Turkey, Karaman, between Ermenek and Karaman, Karamanbey mountain pass, 22.v.2005, 2 males, 1 female, leg. M. Çiftçi, deposited in Zoological Museum of Gazi University (ZMGU).

Distribution: Turkey.

Dates of Occurrence: April-May.

Derivatio Nominis: The species is named after the province of the type locality.

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