

### A new species of genus *Acrochordomerus* HERMANN from Turkey (Insecta: Diptera: Asilidae)

With 6 Figures

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**Abstract.** The new species *Acrochordomerus mediterraneus* (subfamily Laphistiinae) is described from Southern Turkey, it is illustrated and compared with *A. aeneus* HERMANN. Another extant species, *Acrochordomerus engeli* EFFLAUTOUN, is regarded as most probably not belonging to this genus.

#### Introduction

The collecting trip of Czech entomologists to Turkey in 1993 has brought a rich material of Asilidae (Diptera), including a new species of the genus *Acrochordomerus* HERMANN. Our study of fresh material of the genus *Acrochordomerus* made it possible to redefine its true limits.

The genus *Acrochordomerus* was originally proposed by HERMANN (1920) to accomodate a single species, *A. aeneus* HERMANN. Its description was based on a single female from Northern Syria. Later on, ENGEL (1930) examined the HERMANN's type and two additional females from Taurus Mountains (KORB lgt.), all deposited in the Zoologische Staatssammlung München (ZSM). Another species, *A. engeli*, was described by EFFLAUTOUN (1937) from Egypt. His description, based on a single male (examined also by ENGEL), considerably extended the limits of the genus *Acrochordomerus*. However, some characters, especially the shape of the head in profile, the wing venation and the shape of the hind legs, which EFFLAUTOUN (1937) used in the delimitation of the genus, seem to make the generic limits unnatural. Subsequently HALL (1962) redefined the genus only on the basis of one of the three females deposited in ZSM (probably HERMANN's type of *A. aeneus*) and listed EFFLAUTOUN's species as belonging here without further comments. He placed the genus in the subfamily Dasypogoninae, tribe Laphistini. LEHR (1988) listed then *Acrochordomerus* with the two species in the subfamily Laphistiinae.

Among the genera of Laphistiinae, the genus *Acrochordomerus* may be distinguished by the following characters: (i) face of head in lateral aspect moderately produced immediately below antennae and with relatively low, rounded gibbosity on the lower part (Fig. 1); space between both produced parts distinctly concave, mystacial bristles long; (ii) occiput in profile narrow, gradually raising ventrally, being swollen and bulbous on either side of the base of proboscis; (iii) proboscis robust and cylindrical, only a little shorter than height of eye, subtruncate ventroapically at apex; (iv) antenna unusually elongate and slender, the first segment without ventral tubercle, the third segment long, cylindrical, with two microsegments, the second microsegment long and spoon-shaped with a spine in the cavity; (v) thorax closely punctate dorsally, without any pollinose pattern; (vi) number of chaetotaxic mesonotal bristles reduced to several pairs of posterior acrostichal bristly hairs, further 1 praesutural and 1 supraalar bristle, which may be supplemented by several, more or less elongate, lateral bristly

hairs; (vii) pleuron with three complete, vertical pollinose stripes reaching coxae; (viii) scutellum without any conspicuous marginal bristles; (ix) hind femur only slightly thickened, with lateroventral row of 3–6 short spines on stout tubercles; (x) hind tibia distinctly stout, gradually narrowed towards base, not bent; (xi) wings relatively broad, vein  $r_{2+3}$  almost recurrent at the apex, cell  $R_1$  narrowly closed and very shortly stalked, cell  $R_5$  closed and shortly stalked at the apex, ambient vein complete; (xii) abdomen with 6 tergites in both sexes; each tergite closely punctate, without discal bristles; (xiii) hypopygium transversely ovoid to shortly pear-shaped, gonocoxites strongly curved in ventral aspect.

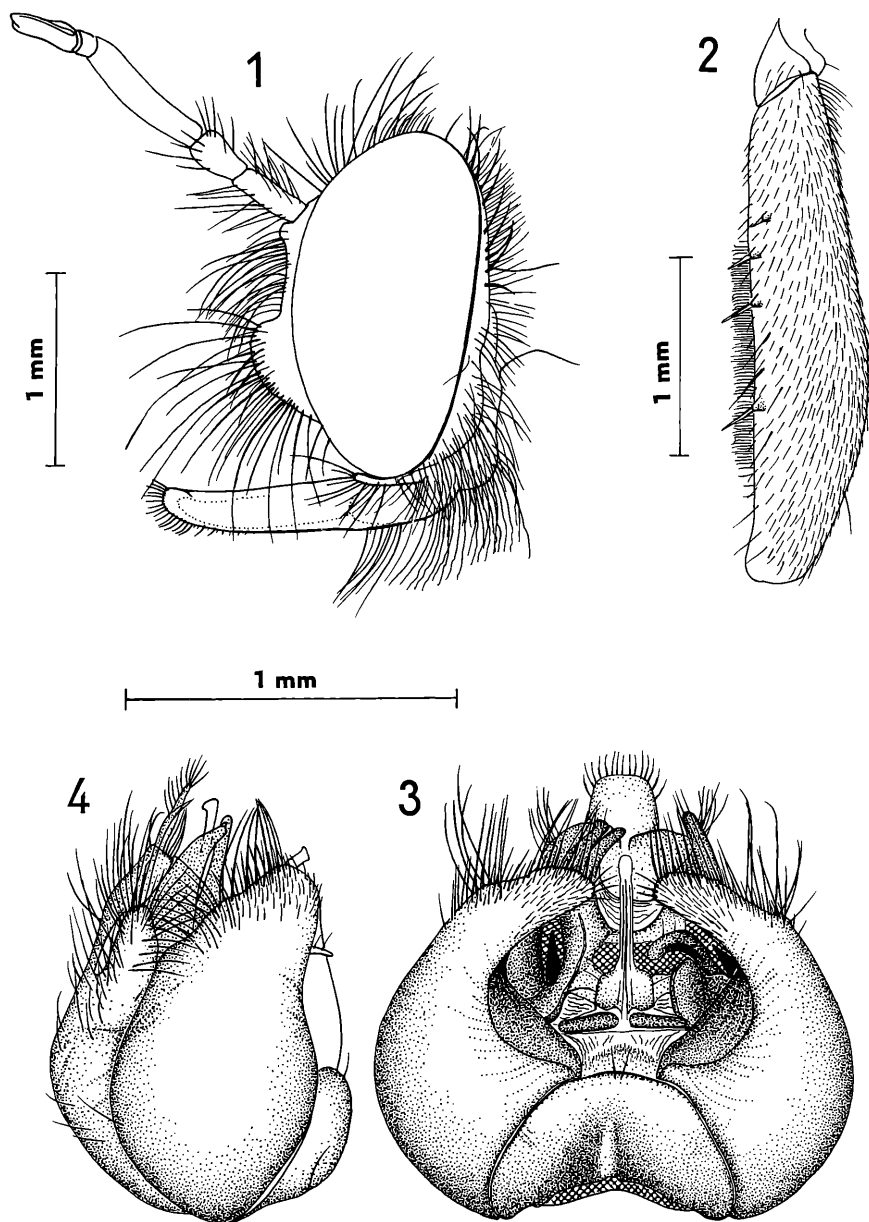
The new species described below has all of the named characters and is, without any doubt, congeneric with *Acrochordomerus aeneus* HERMANN. *A. engeli* EFFLAUTOUN, studied here only from the original description, differs from the type species of the genus *Acrochordomerus* by the following characters: (i') face of head in lateral aspect with rather large antennal tubercle, nearly straight beneath antennae and moderately retreating ventrally, mystacal bristles short; (ii') occiput in profile quite narrow, very slightly swollen on either side of the base of proboscis; (iii') proboscis robust, but short, only a little longer than half of height of eye distinctly tapering towards the subtruncate apex; (v') thorax pollinose dorsally, with median and lateral stripes, shiny black; lateral stripes more conspicuous, forming two broad, almost quadrate spots on each side of the mesonotum; (vi') chaetotaxic bristles entirely absent except for 1 or 2 praesutural stouter bristly hairs; (x') hind tibia conspicuously bent; (xi') wings relatively broad, vein  $r_{2+3}$  nearly straight at the apex, cell  $R_1$  fully open, cell  $R_5$  widely open; (xiii') hypopygium ovate, acuminate at the apex, gonocoxites elongate-triangular in ventral aspect.

In our view most of the mentioned differences between *A. engeli* EFFLAUTOUN and *A. aeneus* HERMANN, are of generic, rather than specific value. According to them EFFLAUTOUN's species *engeli* is not a member of the genus *Acrochordomerus* HERMANN. It seems that this species is rather closely related to *Torebroma gymnops*, which was described by HULL (1958) from a single female from "Arabia". The true generic position of *A. engeli* EFFLAUTOUN cannot be assessed without a study of the relevant material.

#### *Acrochordomerus mediterraneus* spec. nov. (Figs. 1–4)

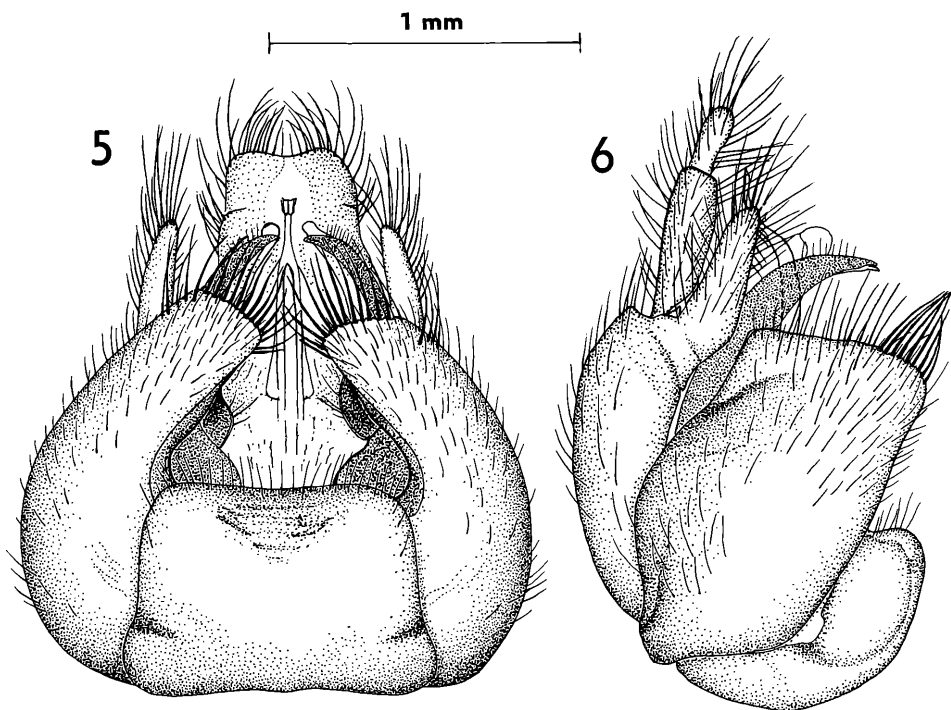
**Diagnosis.** A medium-sized, shining green-blue species, densely punctate covered with short, recumbent, predominantly light pubescence, easily distinguished by characteristic head profile, black mystacal and occipital bristles, long antennae and hind femora armed with only 3–4 strong lateroventral spines.

**Description.** Male. Head, mouth parts and antennae black, occiput with metallic violet lustre. Pubescence of head yellow-white, strong mystacal and occipital bristles shiny black, thin lateral bristles of mystax paler, brown- to white-yellow. Strong setae of palpus and the second antennal segment black, single longest seta of the first antennal segment usually darker than the others. Face below antennae 0.22–0.25 times wider than head, except for antennal and facial gibbosity, covered with dense, golden-yellow pollen, in medial part, rather densely pubescent, setae thin and strongly downcurved. Facial gibbosity projecting laterally, striking, about as high as the length of the second antennal segment, irregularly convex, gradually retreating towards the ventral one seventh of the vertical length of eye. Mystax with moderately dense, downcurved bristles, distinctly longer than half of the length of proboscis. Subantennal facial gibbosity by half lower than facial one. Distance between antennal insertion and facial gibbosity distinctly larger than the length of the first antennal segment. Frons and vertex finely transversely wrinkled in the middle, with numerous, weak bristly hairs, moderately outcurved along eye margins. Ocellar callus with 7 pairs of bristly hairs, only slightly outcurved, a single pair scarcely more stiff. Inner part of occiput distinctly reticulate, its outer part smooth, bearing a row of about 15 strong but relatively short bristles, slightly curved anterolaterally, complemented with short hairs, sparsely scattered on either upper side. Pubescence of lower occiput dense, hairs thin, a little longer than scapus, curled at apex. Proboscis robust, subcylindrical, feebly curved dorsally, apex ventroapically subtruncate. Apical segment of palpus calavate, moderately curved dorsally.



Figs. 1–4: *Acrochordomerus mediterraneus* spec. nov. 1 – head, lateral view; 2 – hind femur; 3 – hypopygium, ventral view, 4 – dito, lateral view.

Antennae except for scape, dull brownish pollinose. Scape by one quarter longer than pedicel, flagellum 1.75 times longer than scape and pedicel combined. First microsegment short, not as wide as the third segment, second microsegment nearly four times longer than the first one, slightly more robust, bluntly rounded at the apex, bearing deep, spoon-shaped furrow with a basal spine dorsolaterally. Pubescence of basal segments normal, scape with only one ventral bristle, which is as long as the segment.



Figs. 5–6: *Acrochordomerus aeneus* HERMANN (Iskenderun). 5 – hypopygium, ventral view; 6 – dito, lateral view.

Thorax shiny black, praescutum green-blue, scutum, scutellum and mesopleura blue. Mesonotum closely punctate, more or less transversely wrinkled, covered with short, recumbent pubescence. Punctures rather deep, distinctly larger than lateral eye facets, usually separated by their diameter, becoming more sparser towards posterior margin of scutum. Setae yellow-white, as long as 6–8 diameters of lateral eye facet, forming an indistinct sinuate pattern laterally. Dorsal bristles of mesonotum: only 4 pairs, of hairy acrostichal bristles slightly developed on scutum; 1 yellow-brown presutural; 1 yellow-brown supraalar bristle. Postalar callus black, smooth. Scutellum with punctures somewhat sparser and setae longer than those on mesonotum, no marginal bristles present. Pleura brightly pollinose, pollen white- to brown-ochraceous, following area of pleura remaining shiny and bare: blue – great anterior and dorsal part of mesopleura; black – great anterior part of sternopleura, small central portion of pteropleura and anterior part of hypopleura. Pubescence of pleura rather long, yellow-white, forming groups of thin, abundant bristly hairs on pro-, meso-, meta- and posthypopleura, from which dorsal mesopleural hairs are rather stiff, semirecumbent and metapleural ones a little darker, brownish, kinked at their apices.

Legs black, densely clothed with appressed, short, whitish to yellowish, or on distal two thirds of femora and tarsi of hind legs, blackish hairs. Bristly hairs of legs white, thin bristles yellow-white, more stronger bristles and spines yellow- to red-brown, erect hairs brown-yellow with white apices. Fore femora moderately swollen at proximal two fifths, bearing short antero- and moderately long postero-ventral rows of bristly hairs. Fore tibiae rod-shaped with 2 moderately long, thin bristles ventrally; 3 moderately long, stout bristles lateroventrally and 5–6 shorter and thinner bristles dorsally; apex with 4 moderately long and 5 short bristles. Middle femora not swollen, pubescence as on fore ones. Middle tibiae with pubescence as on fore ones, but instead of thin ventral bristles they have a row of 3 moderately long and strong bristles medioventrally; apex with additional short bristles subapically. Hind femora moderately swollen at distal two fifths, dorsal surface moderately curved, their distal half

armed with a row of 3–4 rather short spines lateroventrally and a dense band of rather short, erect hairs ventromedially. Hind tibiae moderately swollen distally, bearing a row of 6 short, quite weak bristles lateroventrally, complemented with 1 short dark bristle and 1 rather long and strong bristle distally; a row of 3 rather short, strong bristles dorsally and a dense ventral band of rather short erect hairs, extending from the base quite to the apex; apex with moderately long, stout bristles including 1–2 lateral, 1 dorsal, 2 medial, 2 ventral bristles, complemented with 1 dorsal and 2–3 medial slender dark bristles. Bristles of fore and middle tarsi yellow-brown, hind tarsi with ventral and lateral bristles red-brown and dorsal ones black. Tarsal claws black, strongly curved at their apices, pulvilli yellow-brown with yellow-white fringes.

Wings with venation piceous, costal and subcostal cell deep brown, veins except for distal portions, margined with brown. Costal bristles small, shiny black. Squamae yellow-white with short whitish fringes. Halteres brownish with yellow knobs.

Abdomen black with slight greenish lustre. Surface of tergites transversely wrinkled, densely, rather coarsely punctate, covered with short, recumbent pubescence. Punctures deep, 1.5–2 times larger than lateral eye facets, separated by less than their diameter, becoming distinctly smaller anteriorly and sparser posteriorly. Setae white, on sides of praepical and on entire surface of apical segment black, about as long as 3 diameters of a lateral eye facet. Sides of anterior tergites with dense tufts of rather stiff yellow-white hairs, rather long and more or less curved posteriorly. Sternites shiny black, transversely wrinkled, narrow posterior margin of each sternite brown, dull, brown-grey pollinose. Pubescence relatively long and dense, yellow-brown bristly hairs obliquely outstanding, becoming black and somewhat shorter on distal sternites.

Hypopygium black, gonocoxites strongly curved in ventral view, moderately acuminate at their apices. Pubescence of hypopygium black.

**Female.** Resembling male in all respects including the number of lateroventral spines of hind femur, but face of head with white pollen. Cerci short, covered with dense white hairs only.

**Length:** Body 9.2–11.2 mm, wing 7.2–7.7 mm.

**Type material** Holotype: ♂, Southern Turkey, Silivke-Bogsak, 4. 7. 1993, M. HRADSKÝ lgt. Allotype: ♀, the same data as holotype. Paratypes: 4 ♂♂, 1 ♀, the same data as holotype. The type material is deposited in coll. M. HRADSKÝ, Zámuky (Czech Republic).

**Etymology:** This new species is named with respect to its distribution.

*Acrochordomerus mediterraneus* spec. nov. is closely related to *A. aeneus* HERMANN. Distinguishing characters of the two species may be tabulated as follows.

*A. aeneus* HERMANN

Head with mystacal and occipital bristles yellow-white to white. Occipital bristles rather slender.

Apical hairs of the palpus pale. Hind femur with 5–6 spines ventrolaterally.

Tarsal segments of hind leg with shiny black pubescence dorsally.

Pubescence of abdominal tergites moderately long, hairs yellow-white or white on all segments, about as long as 5 diameters of a lateral eye facet.

Hypopygium as in Figs. 4–5.

*A. mediterraneus* spec. nov.

Head with occipital and strong mystacal bristles black. Occipital bristles moderately stout.

Apical hairs of the palpus dark. Hind femur with 3–4 spines ventrolaterally (Fig. 2).

Tarsal segments of hind leg with shiny black pubescence dorsally.

Pubescence of abdominal tergites short, hairs white, on sides of praepical and on apical segment black, about as long as 3 diameters of a lateral eye facet.

Hypopygium as in Figs. 3–4.

Material studied: *Acrochordomerus aeneus* HERMANN: ♂, ♀, Southern Turkey, 20 km SE Isken-  
derun (at the sea shore), 2. 6. 1983, E. HÜTTINGER lgt. (coll. M. HRADSKÝ).

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