

**Afrotropical Asilidae (Diptera) 11. *Ammodaimon acares*,
a new genus and species from southern Namibia (Stenopogoninae)**

by

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ABSTRACT

Ammodaimon acares, a new psammophilous genus and species, is described from material collected near Karasburg in southern Namibia. The species is remarkable on account of its minute size and lack of pulvilli and empodia.

***Ammodaimon* gen. n.**

Derivation: Gr. *amos* = sand; *daimon* = demon. Refers to the fact that members of this genus were found resting on sand, and that they were elusive.

Diagnosis: Antennae arise at or below the half-way level between lower facial margin and top of ocellarium (Figs 2–3); style almost as long as third segment (Fig. 3). Palpi minute, single-segmented. Postpronotal lobe with a single bristle. Dorsocentrals well developed (Fig. 5). Tarsi long and slender, terminated by a pair of long claws (Fig. 6) (longer than fifth tarsomere); empodia and pulvilli absent (Fig. 6). Abdominal terga approximately twice as wide as long when viewed dorsally (Fig. 1). Male genitalia protrude distally and are not largely concealed by preceding tergum in dorsal view (Fig. 1).

Type species: *Ammodaimon acares* sp. n. by monotypy and present designation.

***Ammodaimon acares* sp. n. Figs 1–11**

Derivation. Gr. *acares* = tiny. Refers to the small size of this species.

Description: Based on holotype ♂.

Head: Antenna (Fig. 3) inserted at about half-way between lower facial margin and top of ocellarium. Scape and pedicel subspherical, silvery pruinose, bearing pale yellowish-white bristles and setae. Pedicel longer and stouter than scape. Third segment (first flagellomere) cylindrical, longer than scape and pedicel combined, thickened basally and gradually tapering distally, and bearing an elongate annulated terminal style (microsegment). Style almost as long as third segment, bearing a short apical bristle. Face blackish, silvery pruinose, gently convex and slightly divergent ventrally (Fig. 2). Mystax long, silvery-white and covering entire surface of face (Fig. 2). Frons almost parallel-sided (slightly divergent dorsally) and similar in appearance to face. Ocellarium with 4 pairs of white ocellar setae. Vertex similar in colour to frons, equipped with about 30 white setae. Eye, in lateral profile (Fig. 3), narrower ventrally than dorsally (occiput more extensive ventrally).

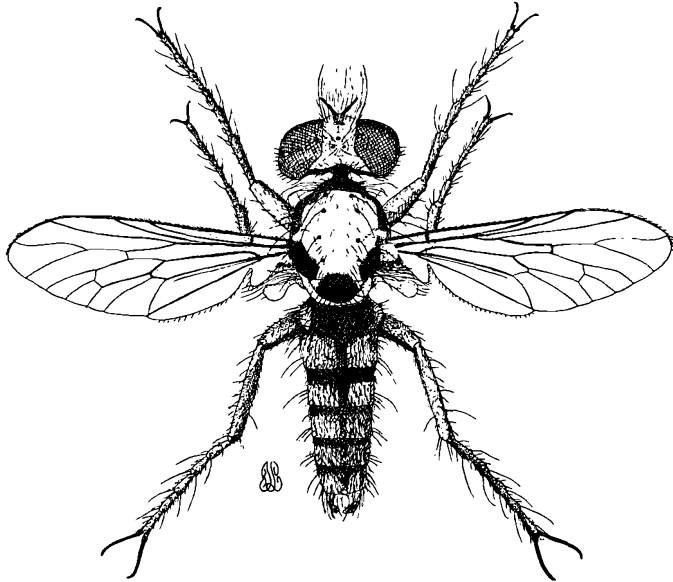
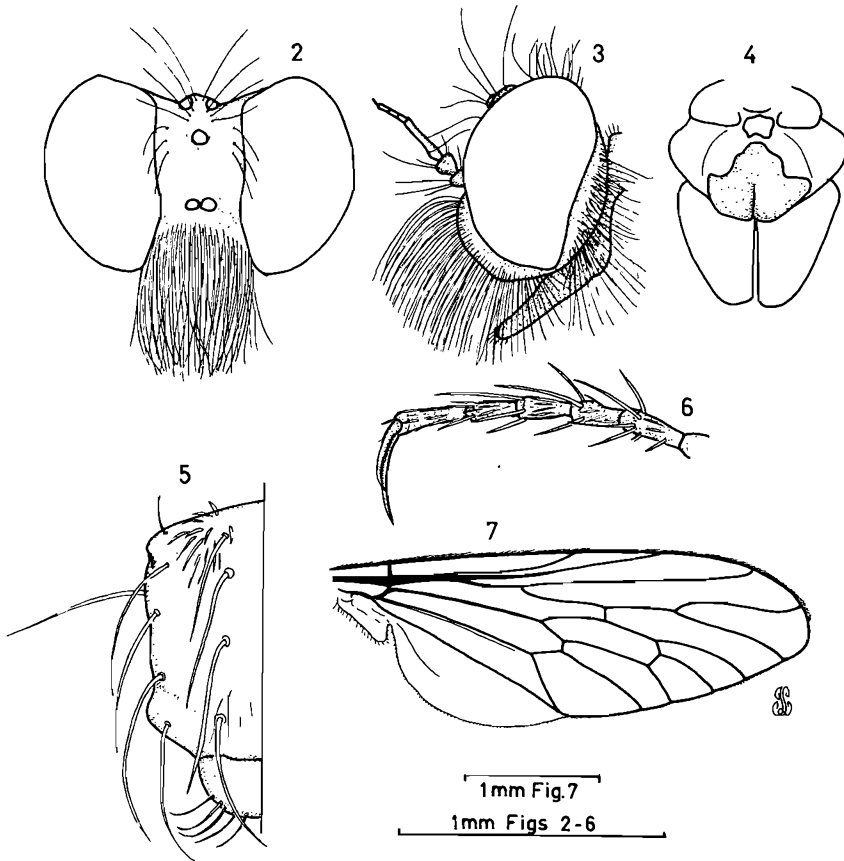


Fig. 1 *Ammodaimon acares* gen. n. & sp. n. adult male.

Occiput shiny black centrally, silvery pruinose and covered with white setae ventrolaterally. Proboscis black, projecting a little beyond face in lateral aspect and completely hidden by thick mystax when viewed from above. Palpi minute, single-segmented and with a few white setae.

Thorax: Pleura black, silvery pruinose except for ventral half of anepisternum which is bare and shiny. Katatergite bears many long, white setae. Upper half of anepisternum and katepisternum with shorter, broader, white setae. Anatergite without setae, black, silvery pruinose. Mesonotum shiny black, with most of central part silvery pruinose (Fig. 1). Postpronotal lobe shiny black with a single white bristle dorsally. 3 notopleurals (1 ventrally placed, 2 dorsally); 1 supra-alar; 1 postalar; all long, whitish. 4 pairs white dorsocentral bristles (Fig. 5); scutellum shiny black with lateral patches of silvery pruinescence, 10 white marginal bristles. Halteres pale yellow. Wings (Fig. 7); 2,3 × 0,9 mm (length from humeral crossvein; breadth through first fork of radial sector); membrane transparent, unmarked; veins pale brown-yellow. Costa extends, as an ambient vein, around wing margin until 1A vein; anal cell and alula not enclosed by a vein on wing margin. Legs: Black, slender, covered with long white bristles. All segments with flat, white, recumbent setae. Tarsi as long as tibiae, terminating in a pair of long, slightly curved claws (Fig. 6). Pulvilli and empodia absent.

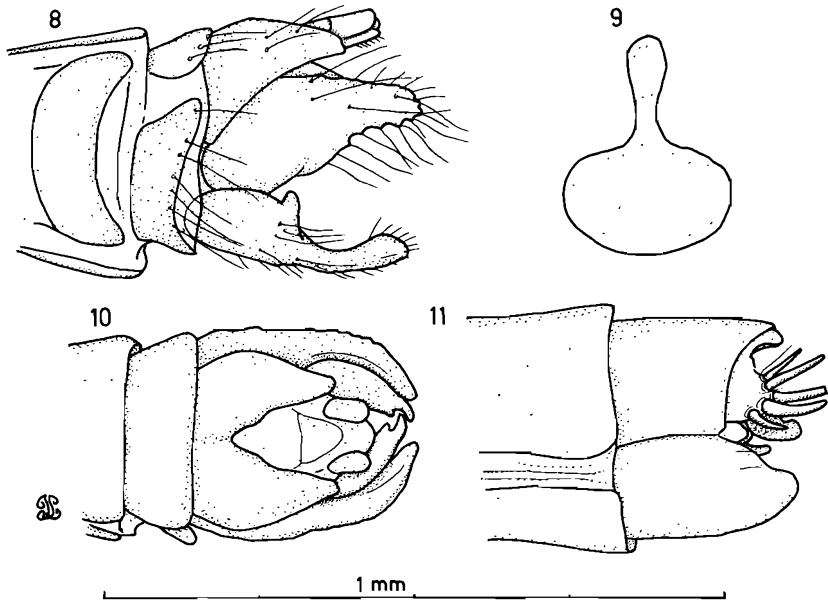
Abdomen: Terga shiny black, posterolateral corners silvery pruinose, bristles and setae white. Sterna similar to terga. Genitalia rotated through 90°, epandrial lobes shortish, proctiger jutting out well beyond tips of epandrial lobes (Figs 8, 10). Hypandrium tapering towards a slightly bulbous distal end (Figs 8–9) (genitalia illustrated are those of the paratype ♂).



Figs 2-7. *Ammodaimon acares* gen. n. & sp. n. 2-3. Head of holotype male. 2. Anterior aspect. 3. Lateral aspect. 4-5 Thorax. 4. Anterior aspect of female paratype (head removed) showing isolated prosternum. 5. Dorsal aspect of holotype male mesonotum and scutellum showing arrangement of bristles. 6. Mid-tarsus of holotype male. 7. Wing of paratype female.

Paratypes: 1 ♂ 12 ♀. ♂ agrees well with holotype but slightly larger (wing $2,4 \times 1,0$ mm). ♀ very similar to ♂ except for the following points: Setae of antennae, frons and ocellarium yellowish. Mystax yellow, and shorter than antennae, except for setae along lower facial margin which are long and white. Frons, vertex and mesonotum silvery-gold pruinose (frons contrasting with silvery pruinose face). Terga 6-8 entirely black and lacking silvery pruinose posterolateral corners. ♀ genitalia (Fig. 11) with acanthophorites, each bearing 5 stout bristles. Eighth sternite shiny yellow-brown. Females vary little in size (wings: $2,3 \times 0,9$ - $3,1 \times 1,2$ mm).

Material examined: NAMIBIA: 2 ♂ (holotype & paratype) 12 ♀ (paratypes), 30 km NW of Karasburg (2718DA), 28.viii.1983, J. Londt & B. Stuckenberg, Arid Karoo type veget. Material deposited in Natal Museum (Type No. NM 2755) except for 2 ♀, one deposited in the State Museum, Windhoek, and one in the British Museum (Natural History), London.



Figs 8-11. *Ammodaimon acares* gen. n. & sp. n. genitalia. 8-10 Paratype male.
8. Lateral aspect. 9. Ventral aspect of hypandrium. 10. Dorsal aspect.
11. Paratype female.

Remarks: This tiny species was found resting on sandy ground on the sunny sides of small woody shrubs in an arid, exposed area probably regularly grazed by sheep or goats. We had been collecting in the area for more than an hour before these minute flies were observed. Individuals flew quickly, close to the ground, and appeared to prefer resting near the bases of shrubs rather than in open unvegetated places. The flies were difficult to get into the net as they tended to remain on the ground, even when the net had been firmly brought down around them. A number of specimens were caught by placing glass tubes over them.

DISCUSSION

Ammodaimon is a distinctive Afrotropical genus. Its minute size makes *A. acares* one of the world's smallest species of asilid.

Oldroyd's (1974) keys identify *Ammodaimon* as a member of the tribe Saropogonini by virtue of the open marginal cell (R_1), elongate third antennal segment which ends in a style, isolated prosternum (Fig. 4) and female acanthophorites. *Ammodaimon* keys to *Acnephalum* in Oldroyd's key to the genera of this tribe because of the lack of pulvilli, open first posterior (R_5) cell of the wing, and the possession of a more or less complete ambient vein which closes most of the wing cells (unlike the condition found in *Sisyrondytes*). Although *Ammodaimon* keys to *Acnephalum* it is in many respects quite different. *Ammodaimon* is not stoutly bee-like, but is rather slender. Species of *Acnephalum* have quite large, two segmented palpi and undifferentiated dorsocentral bristles.

Ammodaimon, however, has minute single-segmented palpi and well-developed dorsocentrals. *Acnephalum* has been considered to lack pulvilli, but species I have seen do in fact possess minute, probably functionless, pulvilli. *Ammodaimon* completely lacks pulvilli and empodia. Papavero's (1973) keys to subfamilies identifies *Ammodaimon* as a member of the Stenopogoninae. Papavero has not yet produced a key to the tribes and genera of this subfamily but Hull's (1962) key to the Stenopogonini is useful. Using this key *Ammodaimon* comes out together with *Ablautus* and *Psilinus* (now thought to belong to the tribe Stichopogonini), but appears to be closer to *Ablautus* (a Nearctic genus). *Ablautus*, however—(as judged by an examination of a pair of *A. californicus* Wilcox)—lacks anepisternal setae, has only a short antennal style and the anal cell and alula have the costal vein extending along their posterior margins.

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REFERENCES

- HULL, F. M. 1962. Robber Flies of the World, the genera of the family Asilidae. *Bulletin of the United States National Museum* 224 (2 Parts). 907 p.
- OLDROYD, H. 1974. An introduction to the robber flies (Diptera: Asilidae) of southern Africa. *Annals of the Natal Museum* 22: 1–171.
- PAPAVERO, N. 1973. Studies of Asilidae (Diptera) systematics and evolution. 1. A preliminary classification in subfamilies. *Arquivos de Zoologia* 23: 217–274.

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