

Tabanus riyadhae (Diptera: Tabanidae), a New Species from Saudi Arabia

M. A. AMOUDI¹ AND M. LECLERCQ²

J. Med. Entomol. 25(5): 399-401 (1988)

ABSTRACT *Tabanus riyadhae*, n. sp. from Al-Zolfi, central region of Saudi Arabia, is described. The species belongs to the Palearctic group I of *Tabanus* s.s. It is clearly distinct from all previously known Palearctic and Ethiopian species. A checklist of the 22 known species of Saudi Arabian Tabanidae is given and includes 2 additional species not reported previously for the country.

KEY WORDS Insecta, *Tabanus riyadhae*, n. sp., *Tabanus ruficrus*, *Tabanus unifasciatus*

LECLERCQ (1982, 1986) recorded 14 species of Tabanidae from Saudi Arabia: 2 of Afrotropical origin, 4 from the nonforested parts of the Ethiopian Region, and 8 Palearctic species to which *Tabanus unifasciatus* Loew 1858, must be added (Leclercq 1966). Recent work of Amoudi (in press) provides information on 6 more interesting Ethiopian species of Tabanidae in the country including 2 species that have not been recorded before. Thus, the Tabanidae are represented in Saudi Arabia by 21 species, to which we are adding the new species *T. riyadhae*, which is quite distinct from all other *Tabanus* species of Saudi Arabia.

Tabanus riyadhae, n. sp.

Fig. 1-7

Diagnosis

Tabanus riyadhae, n. sp. belongs to Palearctic group I of *Tabanus* s.s. (Leclercq 1966). The combined features placing it in this group are as follows: eyes bare, unicolorous brown, without band or other pattern when rehydrated; frons with basal-median calli united into a linear extension. However, the species is distinct from all known Palearctic species (Leclercq & Olsufjev 1981, Leclercq 1982).

Tabanus riyadhae is similar in some respects to the artificial but convenient Ethiopian group of *T. ruficrus* Palisot de Beauvois 1807 (Oldroyd 1954), which is composed of giant species that are more than 22 mm long; with frons rather elongate, about seven times as long as its breadth at antennae; with widened basal area of costa with a well-defined groove, which is devoid of hairs. However, in *T. riyadhae* the widened basal area of the costa lacks a well-defined groove and has hairs. Moreover, in the key to females of the *ruficrus* group, *T. riyadhae* is clearly distinct from all included species in

many respects, i.e., thorax not conspicuously paler than abdomen, middle and hind femora rusty brown, hair fringe of hind tibia not black, third segment of antenna with dorsal tooth, and the characteristic basal-median frontal calli.

We know of no species from the oriental region that is related to *T. riyadhae* (Stone 1975).

Length, body 22 mm; wing 19 mm.

Head. Eyes bare, unicolorous brown, without band or pattern (rehydrated). Frons about 7 times as long as broad, the margins almost parallel, index 7:1. Tomentum of frons yellowish grey with few short black hairs at upper end of frontal callus; vertex brownish, 3 vestigial ocelli visible but flat and nonfunctional. Calli narrow, reddish brown, united into a long linear extension reaching from base to three-fourths height of frons. Subcallus flat, face and parafacials yellowish grey with rusty yellowish hairs, especially below the head where hairs longer. Palpi long and slender, pointed, rusty yellowish with mixed black and rusty short hairs. Proboscis brown. Antennae rusty yellowish; upper edge of first and second segments and tooth of third segment with short black hairs.

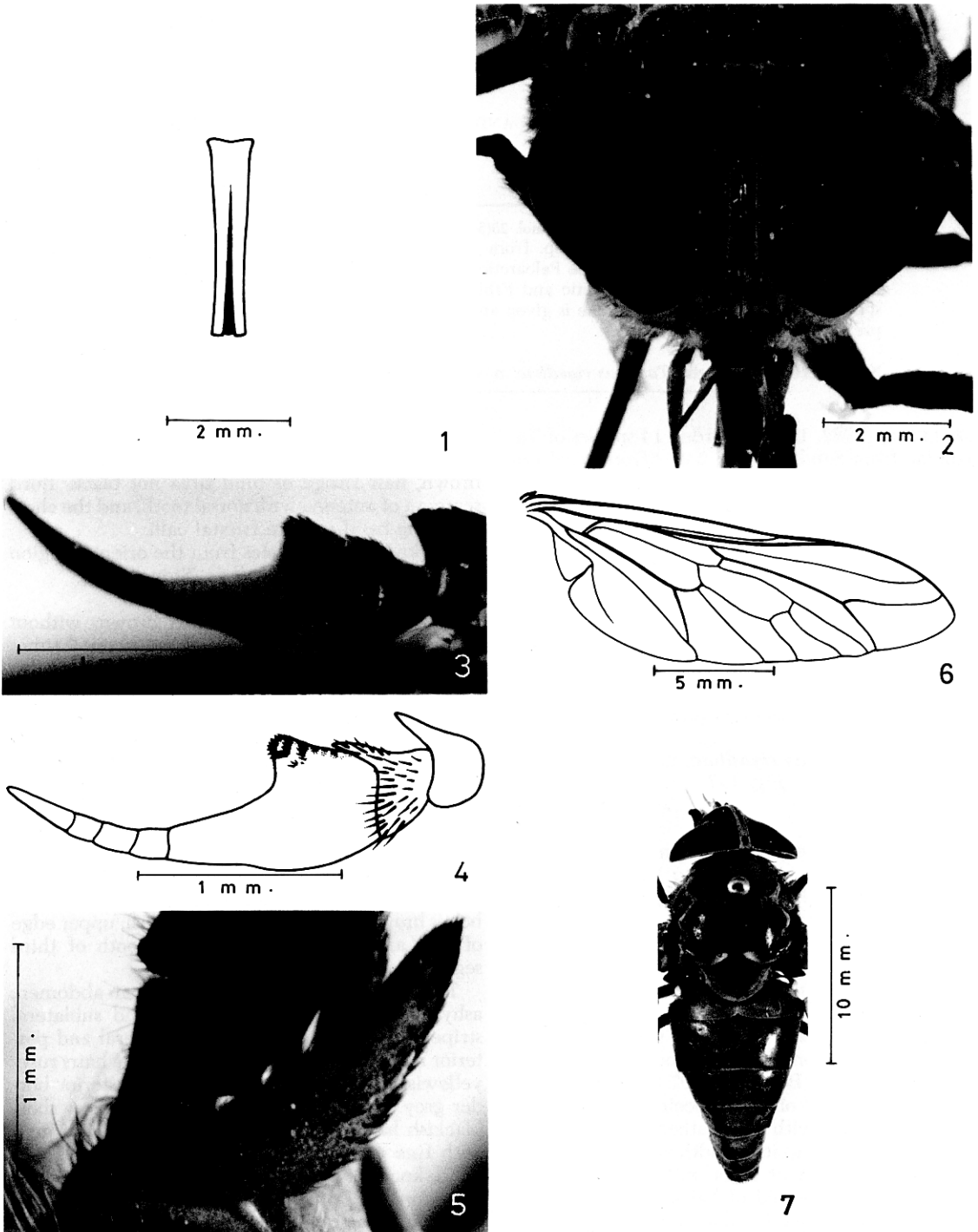
Thorax. Not conspicuously paler than abdomen, ashy brown with greyish median and sublateral stripes faintly indicated and with lateral and posterior margins more distinctly grey; fine hairs rusty yellowish. Scutellum brownish with posterior border grey. Notopleural lobes yellow with few short blackish hairs on postero-lateral side. Pleura grey with fine yellowish hairs. Haltere brownish with white knob.

Abdomen. Dorsum dull yellowish red and posterior margins of each segment with conspicuous brown, especially from second to seventh segments, and fine pale hairs on posterior borders from first to sixth segments. Venter similar.

Legs. Coxae dull greyish with rusty yellowish hairs. Legs 2, 3: femora and tibiae brownish, mixed short yellowish and blackish hairs; tibia 3 with short blackish hairs on external side; tarsi blackish with short blackish hairs on last segment. Leg 1: coxa dull greyish with long rusty yellowish hairs, femur

¹ King Saud University, College of Science, Zoology Department, P.O. Box 2455, Riyadh 11451, Saudi Arabia.

² Rue du Prof. E. Malvoz, 41, B-4610 Beyne-Heusay, Belgium, associated with the Faculty of Agronomic Sciences of the State, General Zoology and Faunistic, B-5800 Gembloux, Belgium.



Figs. 1-7. *T. riyadhae*, n. sp. ♀: (1-2) frons; (3-4) antennae; (5) palp; (6) wing; (7) dorsal view of holotype.

brownish with short blackish hairs on upper border, elsewhere rusty yellowish; tibia brownish with dark apex, short rusty yellowish hairs, tarsus blackish.

Wing. Membrane faintly smoky; costal cell yellowish; veins clear brownish, vein R4 without appendix.

Types. HOLOTYPE, ♀; PARATYPES, 2 ♀♀. Saudi Arabia, Central Region, Al-Zolfi, 612 m, 27-V-1980. Holotype and one paratype deposited in the collection of the King Saud University, College of Science, Riyadh; one paratype in the collection of M. Leclercq, Beyne-Heusay, Belgium.

Etymology. The name *riyadhae* is a Latin genitive form of the name of the city of Riyadh.

Remarks

Viewed in the context of the Saudi Arabian tabanid fauna as a whole, *T. riyadhae* is quite distinct from all other species with Palearctic relationships and from the Ethiopian group of *T. ruficrus*. *T. riyadhae* could have Ethiopian affinities. However, it is distinct from the other African species in Saudi Arabia in many ways, specifically costa, frons, antenna, and coloration. We suggest that *T. riyadhae* may be an endemic species, but further research is needed to define its precise habitat and geographical distribution.

A checklist of the 22 species of Tabanidae now known in Saudi Arabia follows. The 9 species marked with an asterisk (*) have Palearctic affinities and the other 13 species appear to be of Ethiopian origin.

Pangoniinae: Philolichini:

- Philoliche (Philoliche) magrettii* (Bezzi 1901)
(Amoudi, unpublished)
Philoliche (Dorcaloemus) auricomus Austen 1910
(Amoudi, unpublished)

Tabaninae: Tabanini:

- Ancala latipes* (Macquart 1838) (Amoudi in press)
Atylotus agrestis (Wiedemann 1828) (Amoudi in press)
**Atylotus farinosus* (Szilady 1915) (Leclercq 1982)
**Atylotus pallescens* (Walker 1871) (Moucha 1976, Leclercq 1982)
**Tabanus albifacies* Loew 1856 (Leclercq 1982)
**Tabanus arabicus* Macquart 1839 (Leclercq 1982)
Tabanus biguttatus Wiedemann 1830 (Leclercq 1982)
Tabanus camelarius Austen 1911 (Leclercq 1986)
**Tabanus cordiger* Meigen 1820 (Leclercq 1986)
**Tabanus fumidus* Austen 1922 (Leclercq 1982)
**Tabanus leleani turkestanicus* Olsufjev 1970 (Leclercq 1982)

- Tabanus leucostomus* Loew 1858 (Leclercq 1986)
Tabanus mordax Austen 1911 (Leclercq 1986)
Tabanus riyadhae, n. sp.
**Tabanus sabuletorum* Loew 1874 (Leclercq 1982)
Tabanus sufis Jaennicke 1867 (Leclercq 1986)
Tabanus taeniola Palisot de Beauvois 1807
(Amoudi in press)
**Tabanus unifasciatus* Loew 1858 (Leclercq 1966)

Tabaninae: Haematopotini:

- Haematopota abyssinica* Surcouf 1908 (Amoudi in press)
Haematopota coronata Austen 1908 (Leclercq 1982, 1986)

References Cited

- Amoudi, M. In press.** New records of Tabanidae (Diptera) from southwest Saudi Arabia with some aspects on their descriptions and biological information. *J. Biol. Sci. Res.*
- Leclercq, M. 1966.** Revision systematique et biogeographique des Tabanidae (Diptera) Palearctiques. II. Tabaninae. *Mém. Inst. R. Sci. Nat. Belg.*, 2ieme serie, 80: 1-237.
- 1982.** Insects of Saudi Arabia Diptera: fam. Tabanidae. *Fauna Saudi Arabia* 4: 447-449.
- 1986.** Diptera: fam. Tabanidae of Saudi Arabia (part 2). *Fauna Saudi Arabia* 8: 340-342.
- Leclercq, M. & N. G. Olsufjev. 1981.** Nouveau catalogue des Tabanidae palearctiques (Diptera). *Notes Faun. Gembloux* 6: 1-15.
- Moucha, J. 1976.** Horse-flies (Diptera: Tabanidae) of the world. Synoptic catalogue. *Acta ent. Mus. Nat. Pragae Suppl.* 7: 1-319.
- Oldroyd, H. 1954.** The horse-flies (Diptera: Tabanidae) of the Ethiopian region, vol. II. British Museum, Natural History, London.
- Stone, A. 1975.** Family Tabanidae, pp. 43-81. *In* M. D. Delfinado & D. E. Hardy [eds.], *A catalogue of the Diptera of the oriental region, vol. II.* University Press of Hawaii, Honolulu.

Received for publication 20 July 1987; accepted 1 April 1988.