

# A NEW SPECIES OF THE GENUS *TUAREGA* UVAROV FROM MOROCCO (ORTHOPTERA, PAMPHAGIDAE)

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**Abstract** A new species *Tuarega ouarzazatensis* sp. nov. (Orthoptera: Pamphagidae) is described from Morocco. The new species is similar to *Tuarega insignis* (Lucas 1851), but differs from the latter in the metazona of pronotum wider with widest part longer than length, median vein of tegmen not combined with cubital vein, the cubital vein of tegmen with 2 branches only. The type specimen is deposited in the Museum of Hebei University, China (MHU).

**Key words** Orthoptera, Pamphagidae, *Tuarega*, new species, Morocco

The genus *Tuarega* was erected by Uvarov in 1943. The main characters of the genus are body large and robust, integument strongly rugose, fastigium of vertex short, wide, slightly sloping forwards and slightly concave, with fastigial furrow obliterated; antennae filiform, slightly shorter than head and pronotum together; pronotum in prozona almost cylindrical, metazona flattened, median carina weak, linear, crossed by three weak sulci; lateral carinae absent; metazona longer than prozona; its posterior margin elongated and angular, with obtuse apex; prosternum with very low collar; mesosternal interspace more than twice as wide as its length; tegmina and wings fully developed; tibia of second leg with a row of tubercles on upper side; hind femur moderately robust, with slightly expanded marginal areas; hind tibia with small apical spine on inner and outer side; arolium small; subtympanal lobe large; Krauss' organ developed; first abdominal tergite above with large, ridge-like convexity. Male supra-anal plate elongate-angular; cerci narrow, incurved. Ovipositor moderately short, slender, with acute curved valves; lower valve with large projection on the basal part. The type species is *Tuarega insignis* (Lucas 1851) (= *Oedipoda insignis* Lucas 1851). According to the Orthoptera species file online this is the only one species belong to this genus (Eades *et al.*, 2010). The type locality of the type species is Northern Africa, Algeria, Kefoum-Tebouc. *T. insignis* is distributed mainly in Northern Africa. Records from South Africa need to be verified (Lucas 1851; Krauss 1892; Kirby 1910; Uvarov 1943; Chopard 1943, 1954;

Dekeyser and Villiers 1956; Dirsh 1956, 1965; Johnston 1956, 1968; Korsakoff 1958; Descamps 1970; Yin, Shi and Yin, 1996; Massa and Rizzo 1998; Umanj 2007, 2008). In this paper a new species of the genus *Tuarega*, *Tuarega ouarzazatensis* sp. nov., is described from Ouarzazate of Morocco.

The type specimen is deposited in the Museum of Hebei University, China (MHU).

*Tuarega ouarzazatensis* sp. nov. (Figs 1–6)

Holotype ♀, 10 km SE Ouarzazate, Morocco (30°51'N, 6°51'W; alt 1100 m), collected by MH and Dr. Jan Habel (Natural History Museum of Luxembourg) in 4 Mar. 2009.

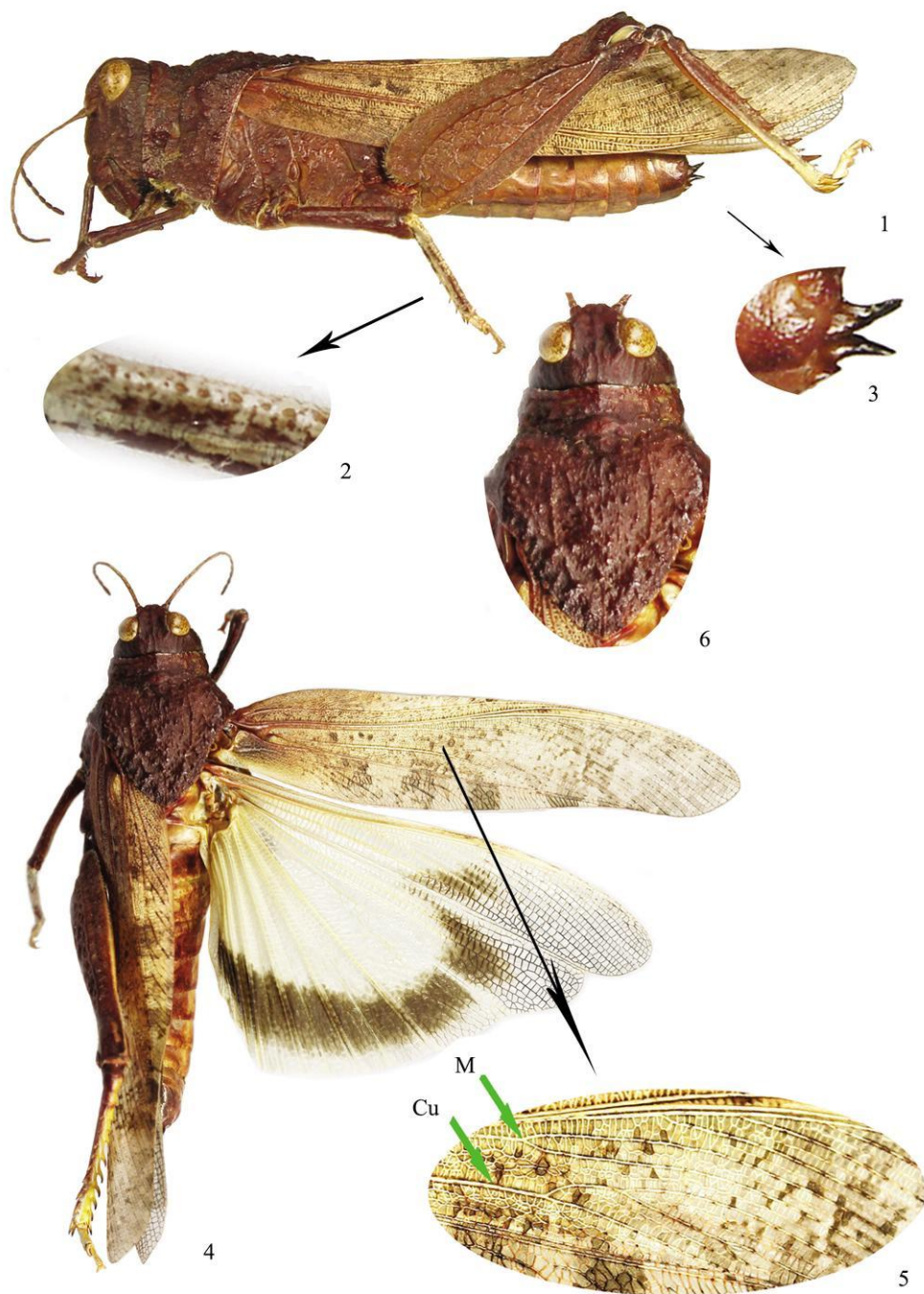
Female. Body large and robust. Integument strongly rugose. Head subglobular, shorter than length of pronotum; fastigium of vertex short, wide, slightly sloping forwards and slightly concave, with fastigial furrow obliterated; frons vertical, frontal ridge low, above ocellus flat, at and below it concave, in basal part obliterated. Eyes oval, ratio of horizontal diameter: longitudinal diameter: subocular furrow as 3:4:5. Antennae filiform, 22 joints, slightly shorter than head and pronotum together. Pronotum in prozona almost cylindrical, metazona flattened, median carina weak, linear, crossed by three shallow indistinct sulci; lateral carinae absent; metazona longer than prozona; its posterior margin elongated and angular, with obtuse apex, width of metazona longer than its length. Prosternum with very low collar. Mesosternal interspace more than twice as wide as its length. Tegmina and wings fully developed, surpassing

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Figs 1- 6 *Tuarega ouarazatensis* sp. nov., female. 1. Lateral view. 2. Tibia of median leg. 3. Ovipositor valves. 4. Dorsal view. 5. Showing M and Cu veins. 6. Dorsal view of head and pronotum.

the end of abdomen distinctly. Cubital vein (Cu) of tegmina with 2 branches, distinct and not interconnected with median vein. Subtympanal lobe large. Krauss' organ developed. First abdominal tergite above with large ridge-like convexity. Tibia of second leg with a row of tubercles on upper side. Hind femur moderately robust, with slightly expanded marginal areas. Hind tibia with small apical spine on inner and outer side, with 9 spines on upper margin of external and internal side (including apical spine). Arolium small. Cerci narrow, incurved, with obtuse

apex. Ovipositor moderately short, slender, with acute curved valves, lower valve with large projection on the basal part.

**Coloration.** Body brown. Tegmina yellowish-brown, with four pale dark bands on the V2 vein area and several dark brown spots. Hind wings yellow at base, with a dark strongly curved band reaching from the apical fourth to the posterior margin, but does not touch the outer margin, apical part with smoky spot, apical vein blackish. Hind femora brown. Hind tibiae (the specimen was deposited in the alcohol, so hind

thiae changed into yellow on inner side; its original color was red) red on inner side. Ovipositor valves blackish.

Male Unknown.

Measurements (in mm). Length of body 54.5; length of elytra 59.6; length of pronotum 16.3; length of hind femur 28.4.

Diagnosis *Tuarega ouarzazatensis* sp. nov. is similar to *Tuarega insignis* (Lucas 1851), but differs

from the latter in three characters (Table 1): the metazona of pronotum wider; widest longer than length; median vein of tegmen not combined with cubital vein; the cubital vein of tegmen with 2 branches only.

Distribution. Currently only known from the type location.

Etymology. The specific epithet is named after the type locality, Ouarzazate, Morocco.

**Table 1** Comparison of *Tuarega ouarzazatensis* sp. nov. and *Tuarega insignis* (Lucas 1851).

	<i>Tuarega ouarzazatensis</i> sp. nov.	<i>Tuarega insignis</i> (Lucas 1851)
Metazona of pronotum	Width longer than length	Width shorter than length
Tegmina	Median vein not combined with cubital vein	Median vein combined with cubital vein at posterior end
Cubital vein of tegmen	Having 2 branches	Having 3 branches

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摩洛哥土尔蝗属一新种（直翅目，癩蝗科）

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**摘要** 记述了采自摩洛哥土尔蝗属 *Tuarega* 1新种，瓦尔扎扎特土尔蝗 *Tuarega ouarzazatensis* sp. nov.，模式标本保存于河北大学博物馆。

尔瓦扎扎特土尔蝗，新种 *Tuarega ouarzazatensis* sp. nov. (图 1~6)

新种与 *Tuarega insignis* (Lucas 1851) 近似，区别特征

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为: 前胸背板沟后区宽大于长, 前翅中脉与肘脉不闭合, 前翅肘脉有 2 个分支。

正模 ♀, 摩洛哥瓦尔扎扎特东南 10 km, 海拔 1 100 m, 2009-03-04 Martin Husemann 和 Jan Habel 博士 (Natural

History Museum of Luxembourg) 采。

词源: 新种种名出自摩洛哥的瓦尔扎扎特, 模式标本产地。

关键词 直翅目, 癞蝗科, 土尔蝗属, 新种, 摩洛哥.

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