

# NEW AND LITTLE KNOWN SCORPIONS AND SOLIFUGES FROM THE NAMIB DESERT AND SOUTH WEST AFRICA

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(With 5 figures)

The following contribution, which represents a description of new or little known scorpions and solifuges from various parts of the S. W. African territory, demonstrates how inadequately the arachnid fauna of the region is known, even in the case of such large bodied orders as scorpions. The most interesting recent discovery is a new species of scorpion, *Uroplectes teretipes*, from the Skeleton Coast, very different from any others belonging to this genus and characterised by great elongation of the legs and pedipalps, somewhat like that displayed by many dune inhabiting tenebrionid beetles. This is the fourth species of *Uroplectes* found living in the Namib littoral.

My sincere thanks are due to the following collectors who have shown their interest in the Arachnida by contributing materials and observations: Dr. Charles Koch of the Namib Desert Research Station, Mr. W. D. Haacke of the Transvaal Museum, Mr. F. Gaerdes of Okahandja and Dr. W. G. H. Coaton of the Division of Entomology, Plant Protection Research Institute, Pretoria.

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## SCORPIONS

### Family BUTHIDAE

#### Genus UROPLECTES Peters

#### UROPLECTES TERETIPES sp. n.

Figs. 1, 2, 2a

*Holotype*, 1 ♀ (NM. 9101), near Rocky Point, 300 yards from the beach, mouth of the Hoarusib River, Kaokoveld, S. W. Africa; collected by F. Gaerdes, October 1965.

*Colour*. Trunk dorsally very pale yellow brown, only the ocular tubercle black, ventrally pale yellow; appendages pale yellow; tail pale yellow except segments III and IV which are black, contrasting strongly with the remainder of the animal, apical half of aculeus brown, but remainder of vesicle pale yellow, caudal segment II with some obscure blackish markings appearing as narrow lines outlining the keels on the ventral surface, Fig. 2.

*Carapace* anterior to ocular tubercle weakly shagreened, posterior to ocular tubercle with larger but still minute scattered dust-like granules, ocular tubercle smooth, the eyes separated by more than twice their diameter.

*Tergites* shagreened in anterior halves, dust-like scattered granules on posterior halves, median keels strong but lateral keels represented only in V and VI by an enlarged granule on each side on the posterior margin; last tergite with 4 long distinct crests; sternites smooth, shiny, the last with distinct lateral keels, the median ones obsolete.

*Cauda*. Dorsal keels obsolete except in segment I, ventral keels present but smooth, not granular, except in V; segments IV and V entirely smooth laterally; vesicle small and slender, the aculeus equal in length to bulb, entirely smooth without vestige of tooth or tubercle inferiorly; all caudal segments and vesicle with sparse, short hairs.

*Pectines* very long, extending outwards well beyond the body, 37—38 teeth, the first one enlarged as in *planimanus* but longer and rather less curved, almost twice as long as the teeth in the middle of the comb, Fig. 3a.

*Pedipalp* very elongate, when pressed back reaching to about the middle of first caudal segment; hand short, about a fourth length of movable finger, not flattened above or with a sharp inner edge, hardly wider than widest part of brachium; movable finger about  $1\frac{3}{4}$  length of carapace or equal to caudal segment V and  $\frac{2}{5}$  of IV; arrangement of granules on cutting edge of fingers as in *planimanus* but 10 distinct rows instead of 9.

*Legs.* All legs elongate, especially the posterior ones; leg IV (39 mm) a little shorter than length of entire tail, or equal to trunk plus caudal segments I, II and  $\frac{1}{3}$  of III.

*Dimensions:* Trunk 23.5, tail 41, length of carapace 6.4, width 7.2, pedipalp 28.5; hand back 3.7, movable finger 10.8; leg IV 39 mm.

*Remarks.* The species differs completely from any other form of *Uroplectes* found in Southern Africa, with a far larger number of pectinal teeth than any known species; the nearest resemblances seem to lie with *planimanus* in the arrangement of the granules of the cutting edge of movable finger and the shape of the enlarged basal pectinal tooth (fig. 3b). It differs markedly from this species in the greatly elongated legs and pedipalps, the slender habitus in general, the colouring, the large number of pectinal teeth, the much narrower hand without a flattened upper surface or fairly sharp inner edge. Males of *Uroplectes* are usually considerably more slender than the females and the male of this species, when found, should prove to have an excessively elongate and slender habitus. This is the fourth species of *Uroplectes* occurring in the litoral of S. W. Africa, another instance of the excessive speciation, which has taken place in this region.

Although it would seem likely from a geographical viewpoint that this scorpion would be the same as *U. pilosus* (Thorell), of which the Transvaal Museum has specimens of both sexes from Cape Cross, it is not even related to this rare species, found only about 200 miles to the south and on the same barren coast. The following is a brief supplementary description of *U. pilosus* (Thorell).

#### UROPLECTES PILOSUS (Thorell)

*Lepreus pilosus* Thorell 1877, Act. Soc. Ital. Sci. Nat., 19, p. 118.

*Colour* uniformly yellow without markings, vesicle and caudal segment V of the  $\delta$  a little darker, light yellow brown.

The pilosity of the species in both sexes is its most striking character, especially on caudal segments I—IV and the last sternite, the fingers and hand of the pedipalp. Lateral crests of the tergites distinct except in the anterior ones, much more so than in *teretipes*.

*Caudal* segments with the median keels of the ventral surface absent, but the lateral keels well defined; superior crests of segments I—III well developed with shiny rows of granules, the last granule in each enlarged and tooth-like, larger in the  $\delta$  than in the  $\varphi$ ; segment V covered entirely with a shagreen of fine granules, finer and very dense in the  $\delta$ , the inferior surface with 3 well defined granular crests; vesicle below and at the sides with scattered granules, larger and stronger in the  $\delta$ ; vesicle distinctly wider than segment V in the  $\varphi$ , subequal in the  $\delta$ , its ventral surface somewhat flattened (more distinctly so in the  $\varphi$ ). Tail distinctly longer in proportion to body length in the  $\delta$ .

*Pedipalp.* The hand a little wider than the brachium; movable finger with 9 complete rows of granules, as in *planimanus* (10 in *teretipes*, 11 in *otjimbinguensis*).

*Pectinal teeth:*  $\delta$ , 30—31;  $\varphi$ , 28—29, the basal tooth oval, much wider than the others, not longer than the middle teeth of the pectine, in general resembling that of the  $\varphi$  of *carinatus* and *otjimbinguensis*.

*Dimensions.* Total length of  $\delta$  54, tail 32; of  $\varphi$  total length 50, trunk 20.5 mm.

It thus differs from *teretipes* in pilosity, colour, number and shape of the pectinal teeth, granulation of the tail segments and in lacking the extreme attenuation of the appendages, which is so characteristic of that species.

The four species of *Uroplectes* found in the Namib of S. W. Africa are: *planimanus*, *pilosus*, *otjimbinguensis* and *teretipes*.

### Family SCORPIONIDAE

#### Genus OPISTHOPHTHALMUS C. L. Koch

#### OPISTHOPHTHALMUS GIGAS HAACKEI subsp. n.

*Holotype* 1  $\varphi$  (NM. 9105), Fish River Canyon, S. W. Africa, collected by W. D. Haacke.

*Colour.* Carapace reddish brown, interocular area yellow to orange; abdomen dorsally and ventrally blackish with olive green tinge, first sternite lighter; tail similar to abdomen, a little lighter towards apex, vesicle orange-yellow; legs yellow. Pedipalp reddish brown (a little darker than carapace), except hand which is yellow, contrasting strongly with the blackish-brown fingers.

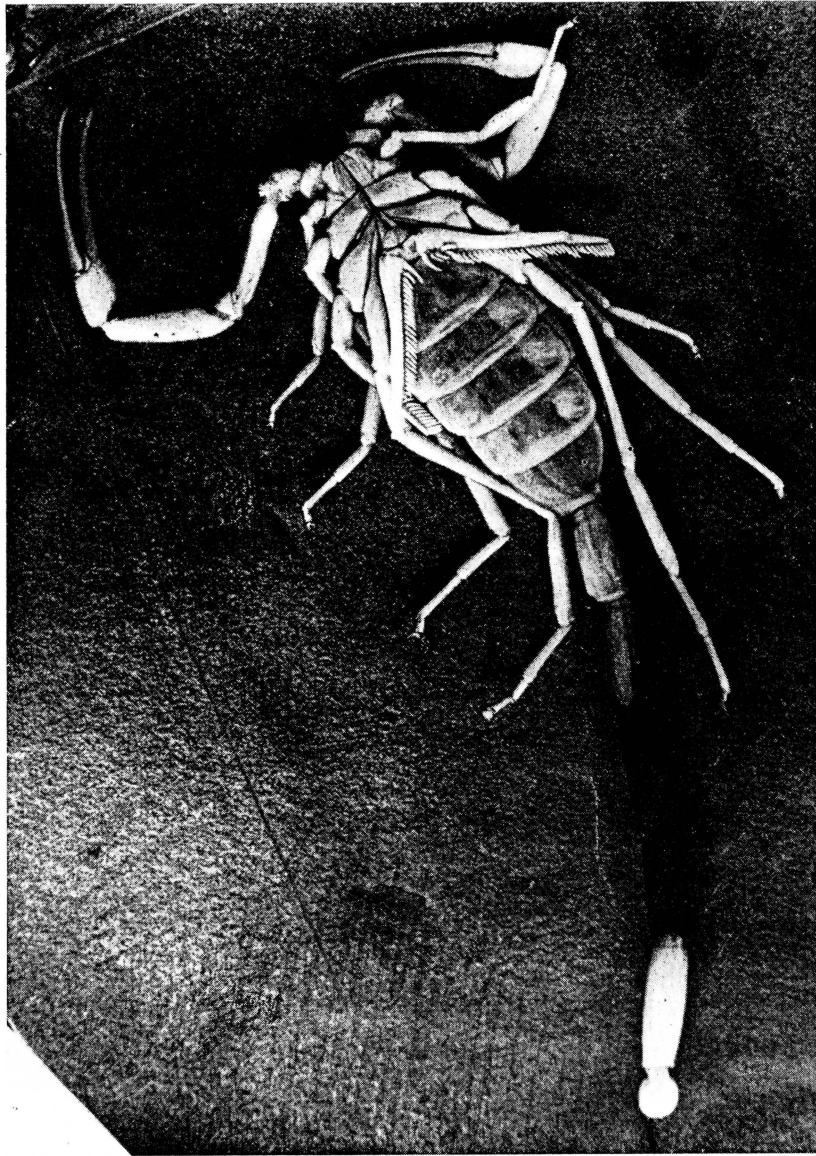


FIGURE 2. *Uroplectes teretipes* sp. n.: Ventral view of the female holotype (photo L. Kelsall).



FIGURE 1. *Uroplectes teretipes* sp. n.: Dorsal view of the female holotype (photo L. Kelsall).