Wrocław, 28 XII 1994

# Paranurida kopetdagi a new genus and species of Neanuridae from Turkmenia\*

(Insecta: Collembola)

DARIUSZ SKARŻYŃSKI, ROMUALD J. POMORSKI Zoological Institute, Wrocław University, Sienkiewicza 21, 50-335 Wrocław, Poland

ABSTRACT. Paranurida kopetdagi n. gen. et n. sp. is described from the Kopet Dag (Turkmenia). Its systematic position is discussed.

Key words: Entomology, taxonomy, new genus, new species, Collembola, Neanuridae.

## Paranurida n. gen.

## DIAGNOSIS

Small size. Body shape of *Micranurida* - type with uniform granulation, without tubercules and reticulations. Pigmentation diffuse bluish-gray with 2 + 2 black eyes. Ant. IV with 8 hammer-shape sensilla, seta "i" and microsensillum. Chaetotaxy of ordinary setae on ant. IV reduced. PAO absent. Labral chaetotaxy in 2 rows. Mandible absent. Maxilla styliform. Body chaetotaxy homogenous, similar to *Pseudachorutinae*. No furca. Claw untoothed, with remnant of empodial appendage.

## **D**ERIVATIO NOMINIS

On account of similarity to *Paranura Axelson*, 1902 and *Anurida Laboulbéne*, 1865.

## DISCUSSION

Paranurida gen.`n. represents a combination of morphological features characteristic of many genera within the Neanuridae. Combination of the following

<sup>\*</sup>The paper was sponsored by Wrocław Uniwersity, research project No. 1018/W/IZ/94

characters: lack of PAO, shape of sensilla on ant. IV, presence of microsensillum on ant. IV, absence of furca, body chaetotaxy, lack of tubercules and typically rounded abd. VI, as well as reduced number of eyes indicate a relationship with numerous genera within Pseudachorutinae, e.g.: Anurida Laboulbéne, 1865; Micranurida BORNER, 1901; Pseudachorutella Stach, 1949; Pseudanurida Schott, 1901. The new genus also appears to be related to some species of Paranura (Neanurinae), e.g.: P. impedita Palacios-Vargas & Deharveng, 1987 and P. quadrilobata Hammer, 1953, since like them it has no tubercles, furca and PAO; it has a similar arrangement and number of sensilla on ant. IV and reduced number of eyes. Besides, the lack of mandibles suggests relationship to the Brachystomellinae, especially to genera without PAO e.g.: Cassagnella Najt & Massoup, 1974, Bonetella Stach, 1949 and Subclavontella Stach, 1949. The structure of mouthparts, reduced chaetotaxy of ordinary setae on ant. IV and presence of remnant of empodial appendage are characteristic only of this genus. Paranurida gen. n. does not fit within the definitions of the Neanurinae and Pseudachorutine formulated by Massoud (1967) and Deharveng (1981) and the situation requires re-defining these subfamilies or simply resigning them.

## Paranurida kopetdagi n. sp.

## MATERIAL

Holotype male and paratype male (on slides), Nochur region, Kopet Dag, Turkmenia, April 1993, soil sample, leg. Grzegorz Wójcik (preserved in authors collection).

## DESCRIPTION

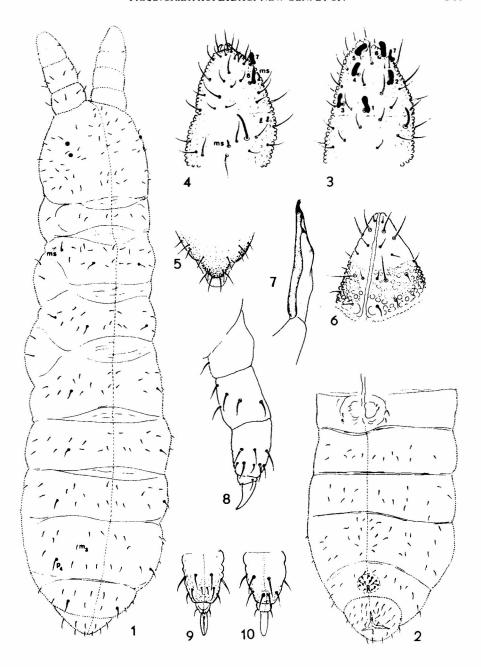
Length without antennae 0,5 mm. Body shape of *Micranurida*-type, with normally rounded abd. VI. Colour diffuse bluish-gray. 2 + 2 black pigmented eyes. Granulation homogenous, without tubercules and reticulations.

Antenna IV with 8 subeqal, thick and hammer-shaped sensilla in arrangement similar to antennal chaetotaxy of Neanurinae (figs. 3, 4). Chaetotaxy of long ordinary chaetae on Ant. IV reduced - its impossible to identify 4 triplets of setae typical for the Neanurinae (Deharveng, 1981). Apical bulb trilobed. Subapical organ on the bottom of deep funnel (spiracle), ms on ant. IV in latero-external position c.1/2 length from the base, ms on ant. III slightly below AO III. AO III as in fig. 3, 4.

## PAO absent.

Buccal conus long. Labrum with 3 +3 setae in 2 rows and 1+1 prelabral setae (fig. 5), labium with 8 + 5 setae (fig. 6). Maxilla styliform (fig. 7). Mandible absent.

Body chaetotaxy as in fig. 1, 2. Ordinary setae of mesochetae-type. Tergite setae sensuales thin, twice longer than ordinary setae. Formula of s-setae: 0/022/11111. Th. I with 3 + 3 setae. Only 2nd thoracic tergite with ms laterally. Abd. IV distinctly broader with row m (seta  $m_3$  present) and 3 + 3 setae between sensilla  $p_4$ . On abd. IV



1-10. Paranurida kopetdagi n. sp.: 1 - dorsal chaetotaxy; 2 - ventral chaetotaxy of abdomen; 3 - III and IV antennal segment in ventro-lateral position, 4 - III and IV antennal segment in dorso-lateral position, 5 - labrum, 6 - labium, 7 - maxilla, 8 - leg of the 3rd pair, 9 - ventral side of tibiotarsus, 10 - dorsal side of tibiotarsus

sternite no remnants of furca. Chaetotaxy of this area as in fig 2.

Subcoxae I, II, III with 1, 2, 2 setae respectively. Tibiotarsi with 2 regular verticils of setae, of which distal one is composed of 10 (5 + 5) setae. Subdistal composed of 6 (3 + 3) setae (figs. 8-10). Claws without inner tooth, but with remnant of empodial appendage (fig. 8).

DERIVATIO NOMINIS

The name is derived from the type locality.

ACKNOWLEDGMENTS

We are greatly indebted to Dr Wanda Weiner for her valuable taxonomical remarks and to Mr Grzegorz Wójcik from the Botanical Garden of Wrocław University, for the material.

#### REFERENCES

Deharveng, L., 1981. La chétotaxie dorsale de l'antenne et son intérêt phylogénéticue chez les Collemboles Neanuridae. Nouv. rev. entomol. 11/1: 3-13.

Massoup, Z., 1967. Monografie des *Neanuridae*, Collemboles Poduromorphes à pièces buccales modifiées. Biol. Amer. Austral.. 3: 7-399.