



***Jacekaphorura* gen. nov.—a new genus of Protaphorurini (Collembola: Onychiuridae) from mountainous Yakutia, East Siberia**

ROMUALD J. POMORSKI & ANATOLY BABENKO¹

¹*Severtsov Institute of Ecology & Evolution RAS, Leninski pr. 33, Moscow 119071, Russia. E-mail: lsdc@mail.ru*

The Siberian fauna of Onychiuridae seems to be rather diverse and only slightly touched by taxonomic works (Martynova 1976; Fjellberg 1987; Pomorski 2001). The vast territory of Yakutia (Sakha Republic) is not an exception. Thus, only 3 of 13 Onychiuridae species collected in 2002 by O. Makarova in upper current of Kyubyume River in the eastern mountainous part of Yakutia could be identified more or less correctly during a primary sorting of material. Up to now some of the others were described by Pomorski & Kaprus' (2007) and Babenko (2009). Here we present a description of a new species from the same region which can not be placed in any existing genus.

Abbreviations: *Abd.*1–6—abdominal segments, *A–E* papillae—papillae on labial palp, *Ant.*1–4—antennal segments, *AO*—antennal organ on *Ant.*3, *d*₀—unpaired axial seta on dorsal side of head, *MSPU*—Moscow State Pedagogical University, Department of Zoology and Ecology, *PAO*—postantennal organ, *pso*—pseudocellus, *psx*—parapseudocellus, *Th.*1–3—thoracal segments, *T*-setae—the four most distal setae on tibiotarsi, *VT*—ventral tube.

***Jacekaphorura* gen. nov.**

Type species: *Jacekaphorura sakhaensis* sp. nov.

Diagnosis. Body white, cylindrical with slightly broadened tip, *Abd.*6 small, hardly separated from *Abd.*5, anal spines absent. Integument with fine and regular granulation. Pseudocelli present on both dorsal and ventral sides of body, *Th.*1 with dorsal *pso*. Furca remnant as finely granulated area with 2+2 posterior setae, arranged in two rows in middle part of abdominal sternum 4. *AO* with 5 papillae and granulated sensory clubs. Postantennal organ with simple vesicles. Labial palp of A-type (Fjellberg 1999). Maxillary head with unmodified lamellae. Dorsal chaetotaxy plurichaetotic, both micro- and macrosetae pointed. *Th.*2–3 with lateral microsensilla. Unpaired dorsal seta *d*₀ on head absent. Thoracal sterna and *VT* base without setae. Tibiotarsi with 11 setae in distal whorl.

Etymology. The genus named by Anatoly Babenko after Romuald Jacek Pomorski whose prominent activity in Onychiuridae studies was suddenly severed by his untimely decease.

Discussion. *Jacekaphorura* gen. nov. is characterized by simple vesicles in *PAO*, the absence of *d*₀ on head, and a complete distal row of setae on tibiotarsi which points to its probable position within Protaphorurini. The most notable features of the new genus distinguishing it from other members of the tribe are furca vestige without clear cuticular structures and the complete absence of anal spines. In the tribe it shares the former character only with *Megaphorura* Fjellberg, 1998, which however differs by having strong anal spines and setae on all thoracal sterna and *VT* base. Apart from these characters, a triangular position of anterior *pso* on head, as well as the separation of the most lateral *pso* on *Abd.* 5 are also untypical of the tribe. There are a few characters that are common for *Jacekaphorura* gen. nov. and Thalassaphorurini, mainly furca vestige and mutual position of some *pso*. However, most of Thalassaphorurini are characterized by the presence of *d*₀ on head, reduced number of distal tibiotarsal setae (all or some *T*-setae are absent), and marked antennal and dorsal sensilla.

Using the interactive key of Onychiurinae (Bellinger *et al.* 1996–2010) the genus appears close to *Similonychiurus* Pomorski, 2007 and *Spelaphorura* Bagnall, 1948. The former is a Nearctic genus belonging to a different subfamily, Lophognatellinae (probably mistakenly placed in the key), characterized by strongly modified mouth parts (maxillae and labial palp). Apart from this character, *Jacekaphorura* and *Similonychiurus* can be distinguished by different structure of furca remnant with 2+2 small posterior setae in two rows in the former versus a convexity with 1+1 setae in the latter, number of papillae, guard setae and shape of sensory clubs in *AO* (5 papillae, 5 setae, clubs granulated in *Jacekaphorura* versus 4 papillae, 4 setae and stick-like clubs in *Similonychiurus*), as well as by differentiated tergal sensilla, unique elevated mushroom-like shape of *pso*, and the absence of *psx* in *Similonychiurus*.