



Redefinition of the genus *Argonychiurus* Bagnall, 1949 (Collembola, Onychiuridae) with description of a new species from Georgia

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The genus *Argonychiurus* was established by Bagnall (1949) based on the type species *Onychiurus perforatus* Handschin, 1920. He included *Onychiurus bertrandi* Denis, 1936 in this newly erected genus, together with *O. perforatus*.

Here, members of the genus *Argonychiurus* were characterized by granulated (morel-like) sensory clubs on Ant III O, a PAO consisting of compound vesicles, chaeta d_0 absent, posterior pso on the head present, indistinct sensory chaetae s , a reduced furca present as a very small area with 1+1 chaetae posteriorly and two manubrial rows of chaetae, Abd VI tergum with three rows of chaetae and unpaired median chaetae present, absence of anal spines, and multiplied pso pattern (Bagnall 1949, Weiner 1996).

The following three species are listed in the genus *Argonychiurus*: *A. bertrandi* (Denis, 1936), *A. fistulosus* (Gisin, 1956) and *A. perforatus* (Handschin, 1920) (Bagnall 1949, Weiner 1996). So far, species of this genus are known only from Europe. Type material of *Onychiurus lenticularius* Gisin, 1962 and *Onychiurus papulosus* Gisin, 1964 was investigated by second and fourth authors and it was found that the above mentioned species in most characters correspond morphologically to the genus *Argonychiurus*, e.g., by presence of compound vesicles in PAO, posterior pso on the head, indistinct sensory chaetae s , the furca reduced to a small finely granulated area with 1+1 chaetae posteriorly in one row, Abd VI tergum with three rows of chaetae and unpaired median chaetae, absence of anal spines, and multiplied pso pattern. However, *O. lenticularius* and *O. papulosus* have a d_0 chaeta present and *O. lenticularius* has smooth sensory clubs with two ribs in Ant III O. The presence of d_0 chaeta and smooth ribbed sensory clubs was not included in the diagnoses of the genus *Argonychiurus* by Bagnall (1949) and Weiner (1996). Diagnosis of the genus *Argonychiurus* is redefined and new combinations for *O. lenticularius* and *O. papulosus* (Gisin, 1962) are suggested to include them in this genus as *Argonychiurus lenticularius* (Gisin, 1962) **comb. nov.** and *A. papulosus* (Gisin, 1964) **comb. nov.**

Besides, as a result of the study of specimens collected by the first author, a new species of *Argonychiurus* from a Georgian cave is described.

Abbreviations. Abd I–VI—abdominal segments I–VI respectively, Th II–III—thoracic segments II–III respectively, Ant I–IV—antennal segments, Ant III O—antennal III sensory organ, Cl I–III—claws of tibiotsarsi I, II and III respectively, Emp—empodium, am—anterior manubrial row of chaetae, mm—medial manubrial row of chaetae, ms—microsensillum, PAO—postantennal organ, pso—pseudocellus(-i), psx—parapseudocellus(-i), s -chaeta—sensory chaeta s , Tita—tibiotsarsus(-i), VT—ventral tube.

The numbering of chaeta in text and figures follows Cassagnau (1974) and Fjellberg (1999).

Argonychiurus Bagnall, 1949

Type species: *Onychiurus perforatus* Handschin, 1920: 22

Diagnosis. *Argonychiurus* species have granulated (morel-like) or smooth sensory clubs with ribs on Ant III O; a PAO consisting of compound vesicles; type A of labial papillae; chaeta d_0 on the head present or absent; posterior

- Antennal base with 3–5 pso; chaeta d₀ present; pseudocellar formula ventrally: 0/000/3–6, 8–9, 6–8, 7–9, 3–5 *A. multiocellatus* **sp. nov.**
- 3 Sensory clubs of Ant III O are smooth with ribs *A. lenticularius* (Gisin, 1962) **comb. nov.**
- Sensory clubs of Ant III O are granulated 4
- 4 Antennal base with 3–4 + 3–4 pso; pseudocellar formula ventrally: 0/000/23330 *A. bertrandi* (Denis, 1936)
- Antennal base with 2+2 pso; pseudocellar formula ventrally different 5
- 5 Pseudocellar formula ventrally: 0/000/33130 *A. papulosus* (Gisin, 1964) **comb. nov.**
- Pseudocellar formula ventrally: 1/000/6, 9, 5–6, 00 *A. perforatus* (Handschin, 1920)

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