

# A new species of *Potamophylax* (Trichoptera, Limnephilidae) from Albania

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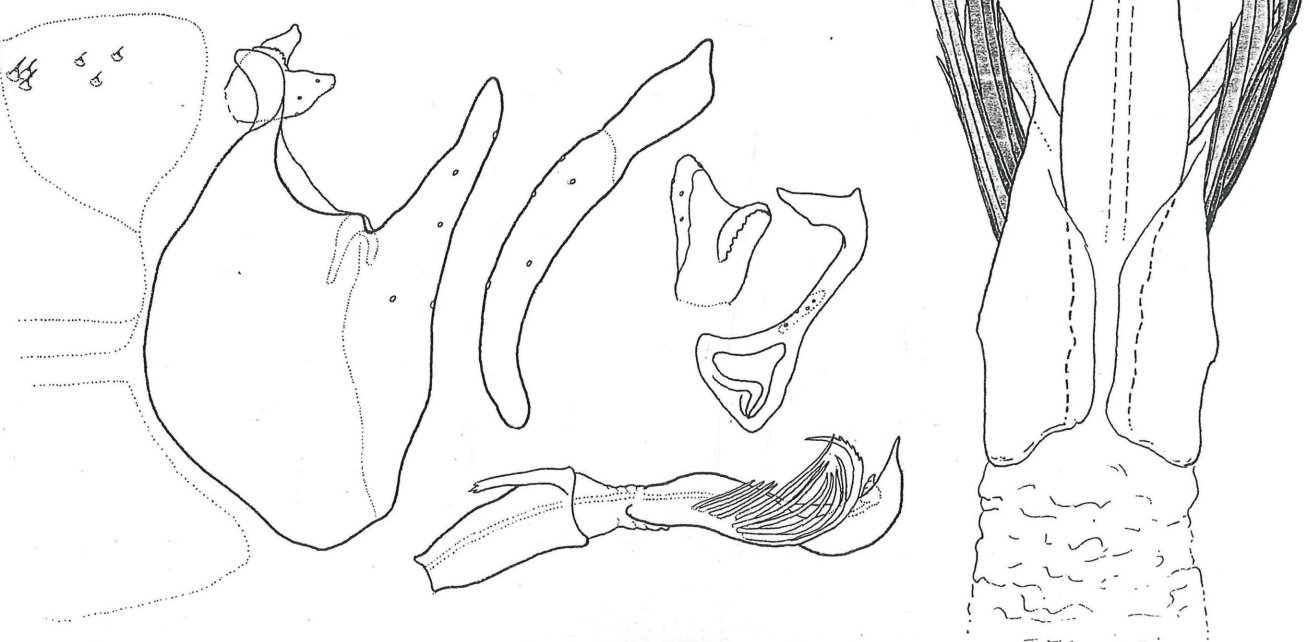
Several specimens of the polymorphous *Potamophylax cingulatus* species were sent from various localities by the first author to the second and third authors to help their ongoing studies on the subspecies structure of this species. Among the sent material, the second author recognised a possibly new *Potamophylax* species. After careful comparative studies with the most closely related species, *Potamophylax goulandrionum*, collected in two localities in Albania, we have concluded that it is a valid new species. We describe it here. The terminology for the description follows that of VSHIVKOVA (2007) for limnephilids, although the cercus instead of preanal appendages and paraproct instead of intermediate appendages are used based upon our own terminology survey (OLÁH & JOHANSON 2008).

## *Potamophylax seprus* new species

**Description.** Male (in alcohol): light brown species, with yellowish body appendages and brown wings without any visible pattern; hindwing hyaline. Spurs 134. Forewing length 16 mm. – Male genitalia: posterodorsal spinate area on tergite 8 forming a single transversal apicodorsal area without any mesal division; sparsely covered by short fine bristles with much developed alveoli and with an acute apex; bristle size and density increasing anterad. Segment 9 longer ventrally, shorter strap or bridle-like dorsally; its lateral length elongated by rounded almost semicircular convexity anteriad; on the lateral shoulder in the midlateral concavity, the midlateral sclerotized strips of sternite 9 well-developed fingerlike and directed long ventromesad just below the lower apex of the paraproct's outer branch; vestige of sternal abdominal lateral suture of the fused 9 segment well developed and together with its internal ridge gives a strengthening support to the fingerlike midlateral sclerotized strip. 10<sup>th</sup> segment fused to 9<sup>th</sup> tergite forming together the short dorsal bridle. Cerci (superior or preanal appendages) in

caudal view are bilobed; lateral setose lobe much longer, shorter mesal lobe strongly sclerotized, especially on the lateral and dorsal edges with irregular serrate (denticulate) margin. Paraproctal complex (intermediate appendages) in caudal view forming an inner branch with apical third laterad directed, greater than a 90° angle; outer branch of the paraproct exhibits a closed almost regular triangulate frame; the setose area on the lower basal part of the inner branch elongated. Gonopods gradually narrowing apicad in lateral view without capitate apex; apicolateral angle tapering in ventrocaudal view. Phallic organ with well developed phallobase suspended on its dorsoapical rim by a pair of sclerotized straps of the phallocrypt; straps are located dorsolaterally connecting the phallobase to the area where the lower apex of paraproct lower branch and the finger-like sclerotized strip of segment 9 meet; however the three structures not fused sclerotically; phallicata (aedeagus) broad and arching in lateral view; endophallus opens subapically dorsad; ejaculatory duct well-visible throughout the phallobase, short phalotheca, endotheca and phallicata up to the phallotremal sclerite in the endophallus; parameres produced into a high plate, higher than the phallicata with sweeping broom-shaped bunch of spines, about 15 spines located laterad on the vertically flattened plate-shaped shaft of the parameres; 4-5 smaller spines located anteriad; about 8-9 doubled long spines posterad and the apical part of the parameres produced into a very strong spine curving upwards and anterad with serrated dorsoapical end.

**Holotype** male: Albania, Skrapar county, Tomor Mts, Kulmak pass, mountain grassland near the bektashi teqe, 40°37'N, 20°11'E, 1485m, 23.8.2006, leg. Z. Fehér, A. Hunyadi, T. Huszár & D. Murányi, coll. Hungarian Natural History Museum, Budapest.





**Etymology:** the name refers to the broom shaped bunch of spines on the paramere, broom-like *seprus* in Hungarian.

**Diagnosis:** the species group of *Potamophylax latipennis* has bilobed cerci with a synapomorphy of the strongly sclerotized inner or mesal cercal lobe. The cercal lateral angle is produced into the moderately sclerotized outer or lateral setose lobe and the cercal mesal angle is produced into the strongly sclerotized inner or mesal rounded and serrate lobe. Four species belong to this species cluster: *Potamophylax latipennis* CURTIS 1834, *P. cingulatus* STEPHENS 1837, *P. goulandrionum* MALICKY 1974 and *P. seprus* n.sp. *P. cingulatus* is a highly polymorphous species with several described subspecies. The separation of subspecies was based primarily on the phallicata apex and on the spine structure of the parameres. However this polymorphous species exhibits more variability, than established by the described subspecies (MALICKY, personal communication).

Weakly sclerotized and unarmed cerci are considered a plesiomorphic condition in the Lepidoptera and most Trichoptera (VSHIVKOVA 2007). Strongly sclerotized inner areas of cerci are a synapomorphy for some lineages of Chaetopterygini and Limnephilini. A strongly sclerotized inner lobe of cerci with irregular serrate dorsal and mesal margins or edges seems synapomorphy for the *P. latipennis* species group.

*P. seprus* belongs to the *P. latipennis* group and most resembles *P. goulandrionum* described from Greece. Easily distinguishable in apical view either from *P. latipennis* by the shorter cercal mesal lobe or from *P. cingulatus* by the right angle of the laterad curving apical third of the inner branch of paraproct. *P. goulandrionum* has also a shorter cercal mesal lobe and right angle on the paraproct. However *P. seprus* differs from *P. goulandrionum* very clearly by the high phallicata and by the vertically flattened and very high plate-like paramere shaft as well as by the spine bunch on the parameres. There are several dimensional and proportional differences in the shape of segment 9, cerci, paraproct and gonopod, but having only a single male specimen its variability is unknown.

#### References

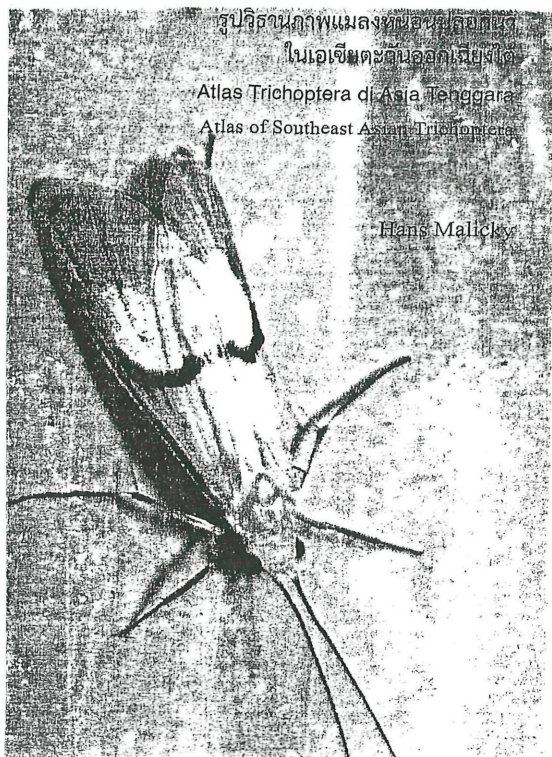
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