

POTAMOPHYLAX CINGULATUS Stephens - a polymorphic species ?

B.Szczęsny

Some differences observed between *P.cingulatus* larvae from the Norwegian mountains and the North Carpathians caused me to compare adults from the two regions. Surprisingly, there were some distinct and, I believe, important differences in the morphology of the phallus. So I decided to compare more specimens from other regions of Europe. Dr.Malicky from Lunz and Dr.Décamps from Toulouse kindly sent me material, and Dr.Barnard provided excellent holotype drawings from the British Museum. Their help made my comparisons possible. The provisional results of the studies are as follows.

West European specimens collected along the coastal band (the Pyrenees, British Isles, Norwegian mountains) belong to the same taxon, which is morphologically homogenous - *P.cingulatus* Stephens sensu stricto. It may be recognized by rounded, spineless lateral edges of the apex of phallus and parameres without hairs (Figs. 1-3).

The specimens collected in the Iberian Peninsula have the phallus spineless at the apex, like the coastal population but the parameres are covered with hairs (Figs. 4-5).

The specimen of *P.cingulatus gambaricus* Malicky (Fig.6) from the Apennine Peninsula, undoubtedly should belong to a distinct species.

Specimens from the Alps and the North Carpathians are alike (Fig. 7-11). They differ from the normal form in having the phallus terminating at the edges of the apex with bunches of spines and with a membranous protuberance on its dorsal side; parameres covered with hairs (the Alpine ones only).

The taxonomic position of the specimen from North Sweden (Fig.12) is unclear. According to the morphology of the phallus it can be placed as intermediate between the coastal and North Carpathian populations.

The general conclusion is as follows: European populations of the taxon determined as *P.cingulatus* are far from being homogenous. There are at least three different populations inhabiting different geographical regions and isolated from each other.

Since the problem should be studied in more detail, I would be obliged for help from my colleagues with comments, or by sending me drawings or material of *P.cingulatus* from other parts of Europe.

My address: Zakład Ochrony Przyrody PAN
ul.Lubicz 46
PL - 31-512 KRAKOW





