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**Larwy rodzaju *Philopotamus* Stephens, 1829  
(Insecta: Trichoptera) w Polsce**

**Larvae of the genus *Philopotamus* Stephens, 1829  
(Insecta: Trichoptera) in Poland**

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**Abstract** — A key to the separation of larvae of the genus *Philopotamus* Stephens occurring in Poland is presented. It includes 3 species: *Ph. ludificatus* McLach., *Ph. montanus* (Don.), and *Ph. variegatus* (Scop.). The *Ph. variegatus* larva has not been known as yet. A few remarks on the habitat of the above-mentioned larvae are given.

In Europe the genus *Philopotamus* is represented by 7 unquestionable species and by a similar number of doubtful forms of the rank of a species or subspecies, needing revision (Botoşaneanu 1967, Décamps 1967). In Central Europe, also in Poland, only 3 species occur (Tomaszewski 1965, Botoşaneanu 1967): *Ph. ludificatus* McLachlan, 1878, *Ph. montanus* (Donovan 1813), and *Ph. variegatus* (Scopoli 1763).

From among them *Ph. ludificatus* and *Ph. montanus* have for a long time been known in their larval stages, and diagnostic characters for separation of larvae of these species be can already found in Ulmer's key (1909).

The Trichopterorum Catalogus (Fischer 1961) quotes papers (published in the 19th century) on the metamorphosis and even biology of the *Ph. variegatus* larva, yet one should be critical of these data since there is no certainty whether the isolated larvae belonged to the above-mentioned species, the adults of the two similar species *Ph. montanus* and *Ph. variegatus* having not quite clearly been told apart at that time.

A correct separation of these two species in the imago stage was not possible until B o t o s a n e a n u's paper was published (1969).

The diagnostic features for separation of the larva of the species *Ph. variegatus* are quoted below. Pupae from which seven larval exuviae were obtained derive from the stream Poniczanka (a tributary of the River Raba) at a height of 650 m above sea level.

### Key to the larvae of the genus *Philopotamus*

- 1 (2) Anterior, assymetric edge of frontoclypeus strongly prominent, indentation on it and the anterio-lateral horns of the frontoclypeus clearly not in a line (fig. 1B); anterior edge of pronotum rounded (fig. 2); black strip on side margins of pronotum does not reach the basis of the — x hair (fig. 4A); black strip on the posterior margin of pronotum usually discontinuous (fig. 2) . . . . . *variegatus*.
- 2 (1) Anterior, assymetric edge of frontoclypeus slightly prominent, indentation on it and the anterio-lateral horns of the frontoclypeus in a line (fig. 1A, C); anterior edge of bends, forming distinct angles (fig. 3); black strip on lateral margins of pronotum reaches at least the basis of the — x hair (fig. 4B, C).
- 3 (4) Black strip on lateral margins of pronotum reaches exactly the basis of the — x hair (fig. 4B), ending about the middle of pronotum length (fig. 3A) . . . . . *ludificatus*.
- 4 (3) Black strip on lateral margins of pronotum runs by the basis of the — x hair (fig. 4C), taking up about  $\frac{2}{3}$  of pronotum length (fig. 3B) . . . . . *montanus*.

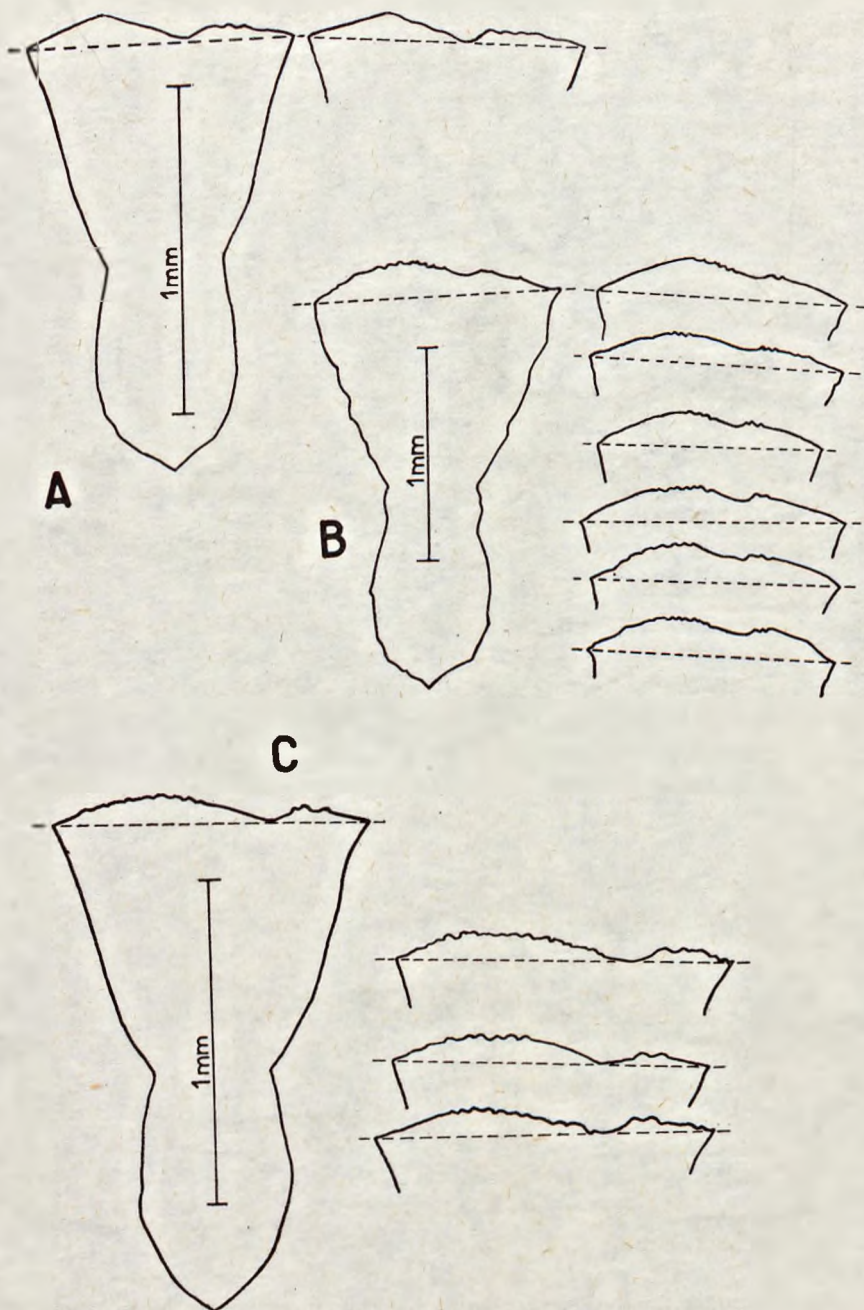
Larvae of the genus *Philopotamus* live in running waters of mountainous and upland regions. In mountain streams the larvae of this genus are an important element in the bottom fauna. They live under stones, among fallen leaves of trees, on pieces of wood lying in the water etc., where they construct spinning nets.

It is *Ph. ludificatus* that is most frequently found in Carpathian streams and the zone of distribution of this species in its larval stage extends over, streams, up to about 1500 m above sea level.

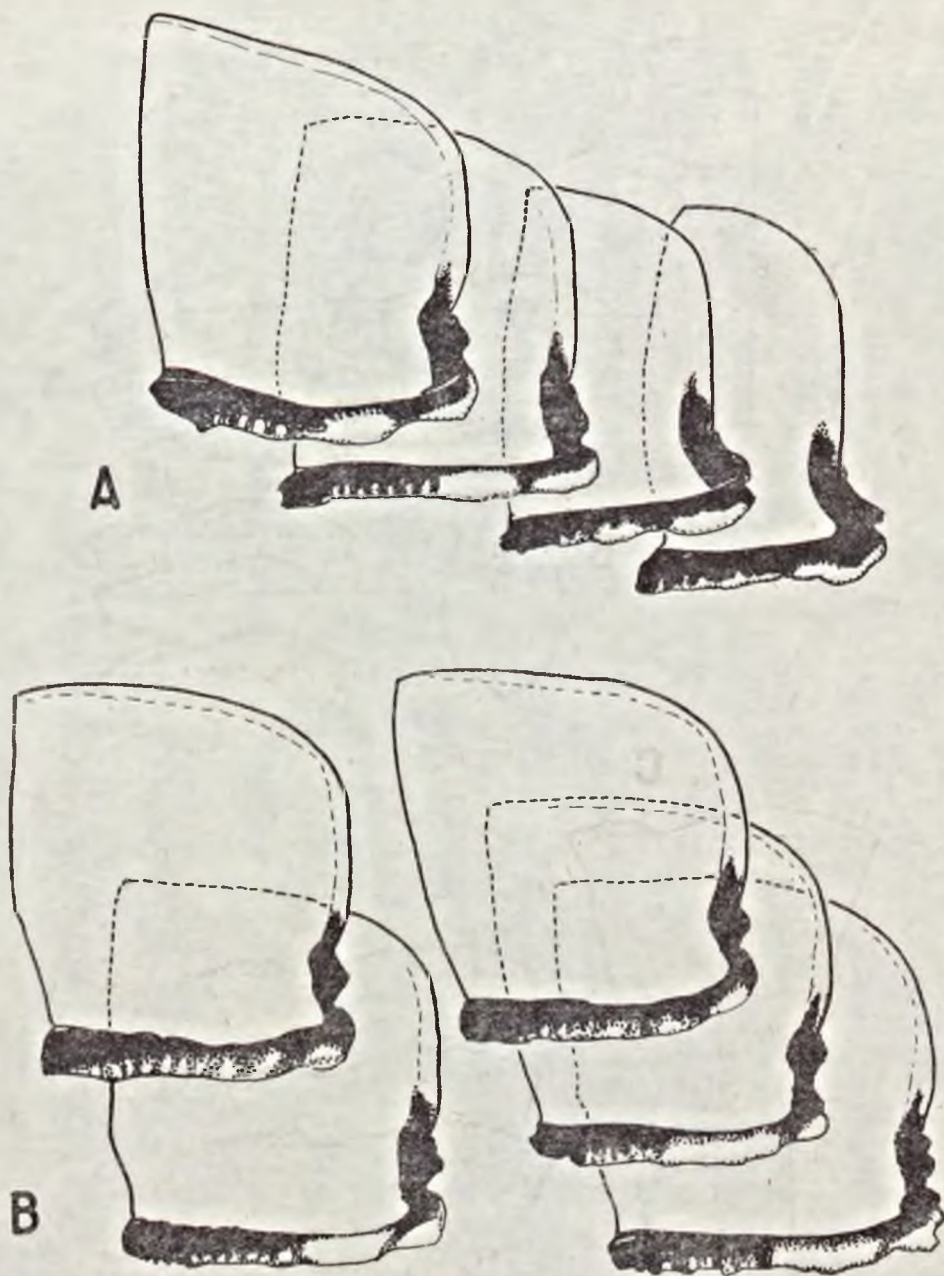
In spite of its name *Ph. montanus* lives rather in warmer streams of the lower parts of the Carpathian Mts, e.g. in the Middle Beskid Mts and the Carpathian Plateau.

*Ph. variegatus* is a rarely found species. In the Carpathian Mts small-numbered specimens of adults were usually caught near the lower situated sections of greater streams (below 850 m above sea level).





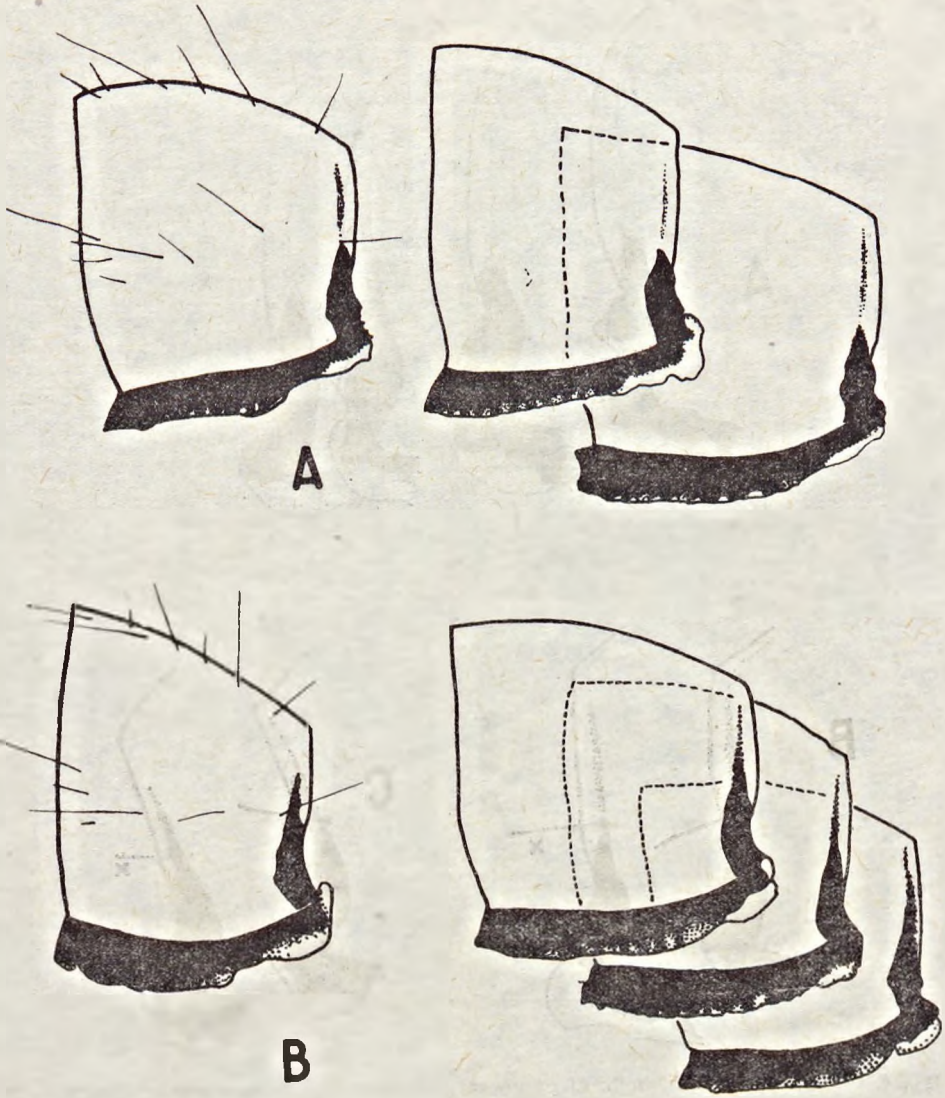
Ryc. 1. Frontoclypeus larwy i jego krawędź przednia  
 Fig. 1. Frontoclypeus of the larva and its front margin.  
 A — *Ph. montanus*; B — *Ph. variegatus*; C — *Ph. ludificatus*



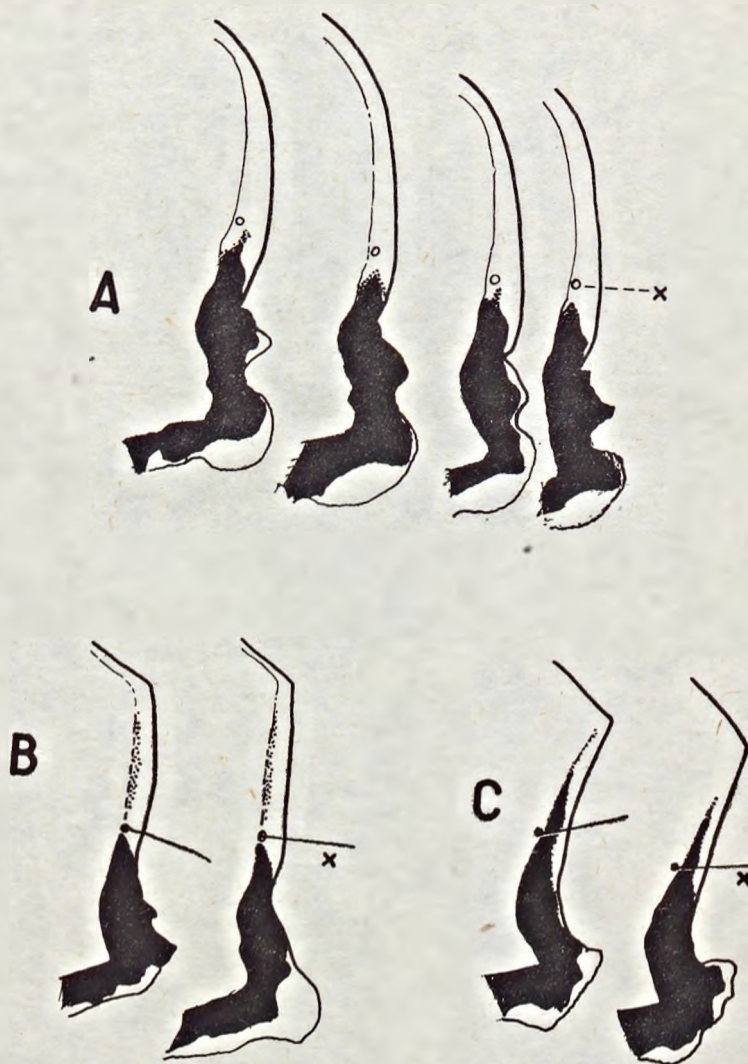
Ryc. 2. Część pronotum larwy *Ph. variegatus*. A — od strony bocznej przy różnym ułożeniu u różnych osobników; B — od strony grzbietowej u różnych osobników

Fig. 2. Part of pronotum of the *Ph. variegatus* larva. A — from the lateral side at different positions of different individuals; B — from the dorsal side of different individuals





Ryc. 3. Część pronotum larwalnego  
Fig. 3. Part of the larval pronotum. A — *Ph. ludificatus*; B — *Ph. montanus*



Ryc. 4. Fragment krawędzi bocznej pronotum larwalnego z usytuowaniem włoska — x u różnych osobników

Fig. 4. Fragment of the side margin of the larval pronotum with the position of the — x hair in different individuals. A — *Ph. variegatus*; B — *Ph. ludificatus*; C — *Ph. montanus*

#### STRESZCZENIE

Przedstawiono klucz do larw rodzaju *Philopotamus* Stephens występujących w Polsce, obejmujący trzy gatunki: *Ph. ludificatus* McLach., *Ph. montanus* (Don.) i *Ph. variegatus* (Scop.). Larwa *Ph. variegatus* nie była dotychczas znana. Podano również kilka uwag dotyczących środowiska życia larw w/w. gatunków.

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