

Cloeon petropolitanum Kluge et Novikova, 1992 in the Carpathian Basin (Ephemeroptera: Baetidae)

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ABSTRACT: *Cloeon petropolitanum* Kluge et Novikova, 1992 is recorded from Hungary and Ukraine. Information about habitats and biology is given. The localities are depicted on a map.

Cloeon petropolitanum was described by KLUGE & NOVIKOVA (1992) from St.-Petersburg, Russia, as the second species of a new subgenus *Intercloeon*. Since then the species was not found elsewhere. In fact, the two records of *Cloeon simile* Eaton, 1870 published by KOVÁCS *et al.* (1999) refer to *Cloeon petropolitanum*. The authors recognized that the larvae were different from those of *C. simile*, but in 1999 they did not know the paper of KLUGE & NOVIKOVA (1992) (see Faunistical data).

The specimens on which the present paper is based, are preserved in 70% ethanol and deposited in the Mátra Museum, Gyöngyös, Hungary.

Faunistical data – HUNGARY: Arak: darnózsели út, Nováki-csatorna, XP70, 117 m a. s. l., wide: 5 m, 22.05.2006, 3 larvae, Kovács T. – Fülesd: 491-es út, Tapolnak-főcsatorna, FU21, 112 m a. s. l., wide: 5 m, 23.05.2002, 1 larva, Juhász P.-Kovács T.; 16.05.2006, 1 larva, Kovács T. – Garbolc: méhtelegi út, Sár-Éger-csatorna, FU31, 119 m a. s. l., wide: 6 m, 24.05.2002, 1 larva, Juhász P.-Kovács T.; 16.05.2006, 3 larvae, Kovács T. – Kispalád: határra vezető út, Palád-patak, FU31, 121 m a. s. l., wide: 4 m, 16.05.2006, 3 larvae, Kovács T. – Magosliget: Batár 08.06.1995, 1, BK, iKT, KT (KOVÁCS *et al.* 1999 sub nomen: *Cloeon simile* Eaton, 1870); 77-es határkő, Batár, FU32, 120 m a. s. l., wide: 10 m, 24.05.2002, 11 larvae, Juhász P.-Kovács T.; 12.07.2003, 2 larvae, senior Kovács T.-Kovács T.; 12.07.2003 larvae breeding, emerged 1 female adult in 19.07.2003, senior Kovács T.-Kovács T.; 22.07.2004 larvae breeding, emerged 1 male and 2 female adults from 27.07.2004 to 27.07.2004, Kovács T. – Panyola: Szikra Tsz, Öreg-Túr, FU02, 110 m a. s. l., wide: 20 m, 23.05.2002, 2 larvae, Juhász P.-Kovács T. – Püski: halászi út, Nováki-csatorna, XP70, 121 m a. s. l., wide: 7 m, 22.05.2006, 1 larva, Kovács T. – Tiszabecs: Batár 07.06.1995, 1, BK, iKT, KT (KOVÁCS *et al.* 1999 sub nomen: *Cloeon simile* Eaton, 1870); Batár a Tiszába torkolásnál, FU32, 117 m a. s. l., wide: 3 m, 23.05.2002, 1 larva, Juhász P.-Kovács T.; 12.05.2004, 1 larva, Juhász P.-Müller Z.; 27.06.2004, 2 larvae, Juhász P.-Kiss B.-Kovács T.-Müller Z. – Túrístvándi: erdőszugolytanyai út, Öreg-Túr, FU22, 114 m a. s. l., wide: 12 m, 27.05.2006, 1 larva, Müller Z.. UKRAINE: Bobove: Batár [= Tiszabökény: Batár], FU32, 24.05.2002, 3 larvae, Juhász P.-Kovács T. – Velika Palad: Palad [= Nagypalád: Palád-patak], FU31, 16.05.2006, 1 larvae, Kovács T. – Vilok: Batár [= Tiszaújlak: Batár], 27.06.2004, 1 larva, Juhász P.-Kiss B.-Kovács T.-Müller Z..

The localities of *Cloeon petropolitanum* are found in two regions which are 300 km apart: the Szigetköz (Nováki-csatorna) in north-western Hungary, and the Szatmári-sík (Batár, Öreg-Túr, Palád-patak, Sár-Éger-csatorna, Tapolnak-főcsatorna) in north-eastern Hungary (Fig. 1). All localities are in lowland watercourses (110-121 m a. s. l.) that are 3–20 m wide and 0.3–1.5 m deep. The bed of the Batár (at Magosliget), the Öreg-Túr, the Palád-patak, the Sár-Éger-csatorna and the Tapolnak-főcsatorna is covered with fine particles, while the bottom of the Batár (Tiszabecs) and the Nováki-csatorna is gravelly. The larvae were found in the slow-running stretches with dense aquatic vegetations, in May, June and July. KLUGE & NOVIKOVA (1992) mention September as well.

Other mayflies co-existing with *Cloeon petropolitanum* are listed in the subsequent table, based on KOVÁCS (2005ab, 2006ab) and KOVÁCS *et al.* (1999, 2003) /Halászi (KOVÁCS 2006ab)=Arak/:

	Arak: Nováki- csatorna	Püski: Nováki- csatorna	Panyola: Öreg- Túr	Túrist- vándi: Öreg-túr	Fülesd: Tapolnak- főcsatorna	Tisza- becs: Batár	Magos- liget: Batár	Garbolc: Sár-Éger- csatorna	Kispalád: Palád- patak
<i>B. pentapleobodes</i>	+	+	-	-	-	+	-	+	-
<i>B. tracheatus</i>	+	+	-	-	+	+	+	+	+
<i>C. luteolum</i>	+	+	-	-	-	+	+	+	-
<i>C. dipterum</i>	+	+	+	+	+	+	+	+	+
<i>C. petropolitanum</i>	+	+	+	+	+	+	+	+	+
<i>P. bifidum</i>	+	+	-	-	-	+	+	-	-
<i>P. werneri</i>	-	-	-	-	+	-	+	-	+
<i>E. vulgata</i>	+	+	-	+	-	+	+	-	-
<i>C. horaria</i>	+	+	+	-	+	+	+	+	-
<i>C. robusta</i>	+	+	+	-	-	-	-	+	-

The rare species were turned up in the following number of the nine sampling sites: *Baetis tracheatus* 7, *Paraleptophlebia werneri* 3; more common species: *Cloeon dipterum* 9, *Caenis horaria* 7, *Centroptilum luteolum*, *Ephemera vulgata* 5, *Baetis pentapleobodes*, *Caenis robusta*, *Procloeon bifidum* 4. Several species were found in one locality only: Arak: *Cloeon simile*, *Ephemerella ignita*; Püski: *Baetis buceratus*, *Heptagenia flava*, *Ephemera lineata*; Tiszabecs: *Baetis fuscatus*, *Centroptilum pulchrum*, *Heptagenia longicauda*, *Habrophlebia fusca*, *Habrophlebia lauta*, *Leptophlebia marginata*, *Potamanthus luteus*. These are not included in the table. *Cloeon simile* and *Leptophlebia marginata* deserve special mention because these are very rare in Hungary. The most valuable species assemblage of mayflies is found in the Batár (Fig. 2) and the Nováki-csatorna.

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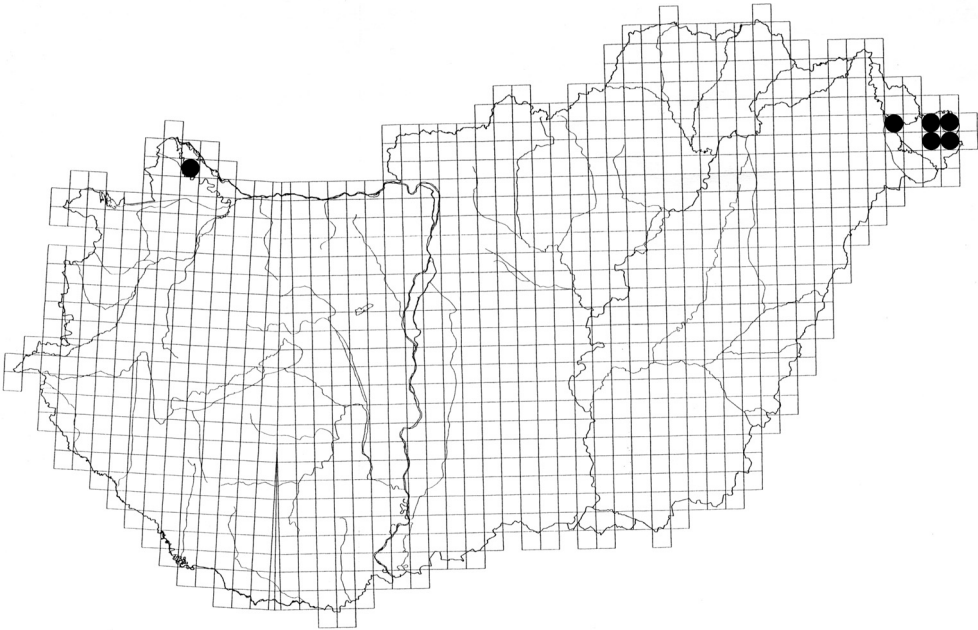


Fig. 1. Distribution of *Cloeon petropolitanum* Kluge et Novikova, 1992 in the Carpathian Basin



Fig. 2. A nearly undisturbed habitat: the Batár at Magosliget, autumn, 2006

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