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THIRTEEN NEW NON-BITING MIDGE (DIPTERA: CHIRONOMIDAE) SPECIES IN THE HUNGARIAN FAUNA FROM THE RIVER TISZA

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TIZENHÁROM FAUNÁRA ÚJ ÁRVASZÚNYOGFAJ (DIPTERA: CHIRONOMIDAE) A TISZÁBÓL

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KIVONAT: 2003-ban árvaszúnyogbábokat és -bábbőröket gyűjtöttünk a Felső-Tisza keresztelvényében, Lónya és Tiszamogyorós között. A talált fajok közül 13 (*Chernovskii* sp., *Chironomus (Lobochironomus) dorsalis*, *Cryptotendipes pseudotener*, *Cyphomella* sp., *Kloosia pusilla*, *Rheocricitopus chalybeatus*, *Rheotanytarsus photophilus*, *Rheotanytarsus rhenanus*, *Tanytarsus brundini*, *Tanytarsus ejuncidus*, *Tanytarsus volgensis*, *Tanytarsus heusdensis* and *Virgatanytarsus arduennensis*) a hazai faunára újnak bizonyult.

ABSTRACT: In 2003 benthic pupae and drifting pupal exuviae were collected at the cross-section of the Upper-Tisza between Lónya and Tiszamogyorós, NE Hungary. 13 in the collected species proved to be new to the fauna of Hungary: *Chernovskii* sp., *Chironomus (Lobochironomus) dorsalis*, *Cryptotendipes pseudotener*, *Cyphomella* sp., *Kloosia pusilla*, *Rheocricitopus chalybeatus*, *Rheotanytarsus photophilus*, *Rheotanytarsus rhenanus*, *Tanytarsus brundini*, *Tanytarsus ejuncidus*, *Tanytarsus volgensis*, *Tanytarsus heusdensis* and *Virgatanytarsus arduennensis*.

KEYWORDS: non-biting midges, Chironomidae, pupa, pupal exuviae, Hungarian fauna

1. Introduction

Although the River Tisza is one of the most studied waters after the Lake Balaton in Hungary, the knowledge on the chironomid fauna of the river is still largely incomplete. Only sporadic data of 68 non-biting midges are known from the Upper-Tisza (BOTOS et al. 1990; FERENCZ 1968, 1974; JUHÁSZ 2003; SZÍTÓ 1974, 1977, 1978, 1981, 1999, 2000a, 2000b, 2002; SZÍTÓ & BOTOS 1989). It

shows that the chironomid fauna of this territory of Hungary is poorly known, and many further species are expected to occur.

2. Material and methods

In July 2004 benthos samples were taken using Petersen dredge at the cross-section of Upper-Tisza between Lónya and Tiszamogyorós (651 rkm., N 48°19'03", E 22°15'03"). Among many chironomid larvae some chironomid pupae were found. At the same site drifting chironomid pupal exuviae were collected from 14 July to 02 August in 2004. Daily sampling was carried out by drift net during the 20-days period.

The pupae and pupal exuviae were preserved in 70% ethanol. For detailed examination the slides were mounted in glycerin without any further preparation. Manuals by LANGTON (1991), LANGTON & VISSER (2003), PANKRATOVA (1983) and SÆTHER et al. (2000) were used for identification. The nomenclature follows MÓRA & DÉVAI (2004). The material is stored at the author's collection.

3. Results

The identification of the collected pupae and pupal exuviae results thirteen species are new to the Hungarian fauna. The species are listed below with some notes on their distribution and taxonomy. The quantity of identified specimens and the date of the collection are also presented.

Rheocricotopus (Psilocricotopus) chalybeatus (EDWARDS, 1929) — Widespread species in the Palaearctic Region. *Material*: 94 pupal exuviae were identified from the material collected during the 20-days investigation.

Chernovskiiia sp. — Two species of this genus are known from Palaearctic Region, but their pupal exuviae are undescribed. Further more a pupal exuvium is described as *Chernovskiiia* Pe1 (LANGTON 1991; LANGTON & VISSER 2003). Due to these informations the collected specimens could not be identified to species level. The genus is new to the Hungarian fauna. *Material*: 89 pupal exuviae were identified from the material collected during the 20-days investigation.

Chironomus (Lobochironomus) dorsalis MEIGEN, 1818 — Holarctic species, known from many countries in Europe. It was previously known as *Einfeldia longipes* STAEGER, 1839 (ASHE & CRANSTON 1990), but based on the recent investigations it proved to be the junior synonym of *Chironomus (Lobochironomus) dorsalis* Meigen, 1818 (SPIES & SÆTHER 2004). *Material*: 2 exuviae, 14 July; 1 exuvium, 29 July.

Cryptotendipes pseudotener (GOETGHEBUER, 1922) — Holarctic species, widespread in Europe. *Material*: a total of 86 exuviae were collected during the 20-days investigation.

Cyphomella Pe1 — The pupal exuvium of this undescribed species can be clearly distinguished from the other European species, *Cyphomella cornea* SÆTHER, 1977 (LANGTON 1991; LANGTON & VISSER 2003). The *Cyphomella* Pe1 still was known only from a river in Greece. *Material*: 1 exuvium, 23 July; 1 exuvium, 25 July.

Kloosia pusilla (LINNAEUS, 1767) — Palaearctic species: widespread in Europe (excluding British Isles), circum-Mediterranean. One of the most frequent

species in the chironomid assemblages of Upper-Tisza. *Material*: 665 exuviae were identified from the material collected during the 20-days investigation.

Rheotanytarsus photophilus (GOETGHEBUER, 1921) — Widespread species in flowing waters of Europe. *Material*: 18 exuviae were identified from the material collected during the 20-days investigation.

Rheotanytarsus rhenanus KLINK, 1983 — Widespread species in Europe (excluding Scandinavia). One of the most frequent species in the chironomid assemblages of Upper-Tisza. *Material*: 869 exuviae were identified from the material collected during the 20-days investigation.

Tanytarsus brundini LINDBERG, 1963 — Holarctic species, widespread in Europe and North Africa. *Material*: 1 exuvium, 01 August; 1 exuvium 02 August.

Tanytarsus ejuncidus (WALKER, 1856) — Widespread in drains and at the slower flowing parts of streams and rivers in Europe. *Material*: 34 pupae, 14 July; 225 exuviae were identified from the material collected during the 20-days investigation.

Tanytarsus volgensis MISEIKO, 1967 — Holarctic species: widespread in Europe, circum-Mediterranean. The species previously was known as *Tanytarsus fimbriatus* REISS et FITTKAU, 1971 (ASHE & CRANSTON 1990), but this name proved to be the junior synonym of *Tanytarsus volgensis* MISEIKO, 1967 (EKREM 2004). *Material*: 30 exuviae were identified from the material collected during the 20-days investigation.

Tanytarsus heusdensis GOETGHEBUER, 1923 — West Palaearctic species: widespread in Europe, circum-Mediterranean. *Material*: 1 pupa, 14 July; 108 exuviae were identified from the material collected during the 20-days investigation.

Virgatanytarsus arduennensis (GOETGHEBUER, 1922) — Widespread species in Europe and the Mediterranean. *Material*: 142 exuviae were identified from the material collected during the 20-days investigation.

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