FOLIA HISTORICO NATURALIA MUSEI MATRAENSIS
2001 25: 83-90

Further data to the caddisflies (Trichoptera) of Hungary

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ABSTRACT. Further data to the caddisfly (Trichoptera) fauna of Hungary. – Three species proved to be new for the Hungarian fauna: *Hydroptila pulchricornis* (Pictet, 1834), *Hydropsyche exocellata* Dufour, 1841 and *Cyrnus flavidus* McLachlan, 1864. The number of recorded caddisfly species increased up to 209 in Hungary. Data of some interesting species are also given. With 14 Figs incl. 4 maps.

Introduction

Until the beginning of the 80's about 160-165 caddisfly species were known from Hungary. The examination of the Hungarian fauna was rather insufficient earlier, most regions of the country were known poorly or were unknown totally.

Since the year 1982 a very intensive collecting activity was started by the author and Á. Uherkovich. 37 species were found as a result of this work, and these were published in a series of papers (NÓGRÁDI 1984, 1985, 1986, 1988, 1992, 1994, 1998). The first summarizing of the known species was published in 1989 as the first check list of Hungary (UHERKOVICH, NÓGRÁDI 1989), later another synthesis was published about the examinations of the Hungarian caddisflies (NÓGRÁDI, UHERKOVICH 1995a).

In the second half of the 90's we collected personally and by light trap in the Szigetköz (upper Hungarian Danube region, NW Hungary) and along the river Dráva. The results of these studies were presented mostly from the Dráva region, where a great number of species – among others many rarities – were taken (NÓGRÁDI, UHERKOVICH 1995b, 1998, UHERKOVICH, NÓGRÁDI 1999a). From the Szigetköz only a few important data were published in company of other results.

The examination carried out in the late 90's resulted three species which were not collected earlier in Hungary, and data of many species which either were known from only a few sites or they were collected only decades or a century ago.

Three species new in the Hungarian fauna

Hydroptila pulchricornis (Pictet, 1834) – The distribution of this species is known insuffuciently due to its minute dimension and few data. Earlier it was not published in Hungary, the first specimen – a male – was collected in the Barcs Juniper Woodland, at a fish pond (July 24, 1997, leg. Á. Uherkovich; gen. prep. No. 2304), where we collected several times earlier and a high number of species had been pointed out from there (NÓGRÁDI, UHERKOVICH 1998). The genitals of the male are very charateristic (Figs. 1–4).

Hydropsyche exocellata Dufour, 1841 – Although the species was published from Hungary (KISS 1980, 1987), voucher specimens were not found in collections, and its occurrence seemed to be impossible. As it was pointed out, the species of the *Hydropsyche guttata* group were confused very often, thus many older publications gave misidentifications (MALICKY 1977).

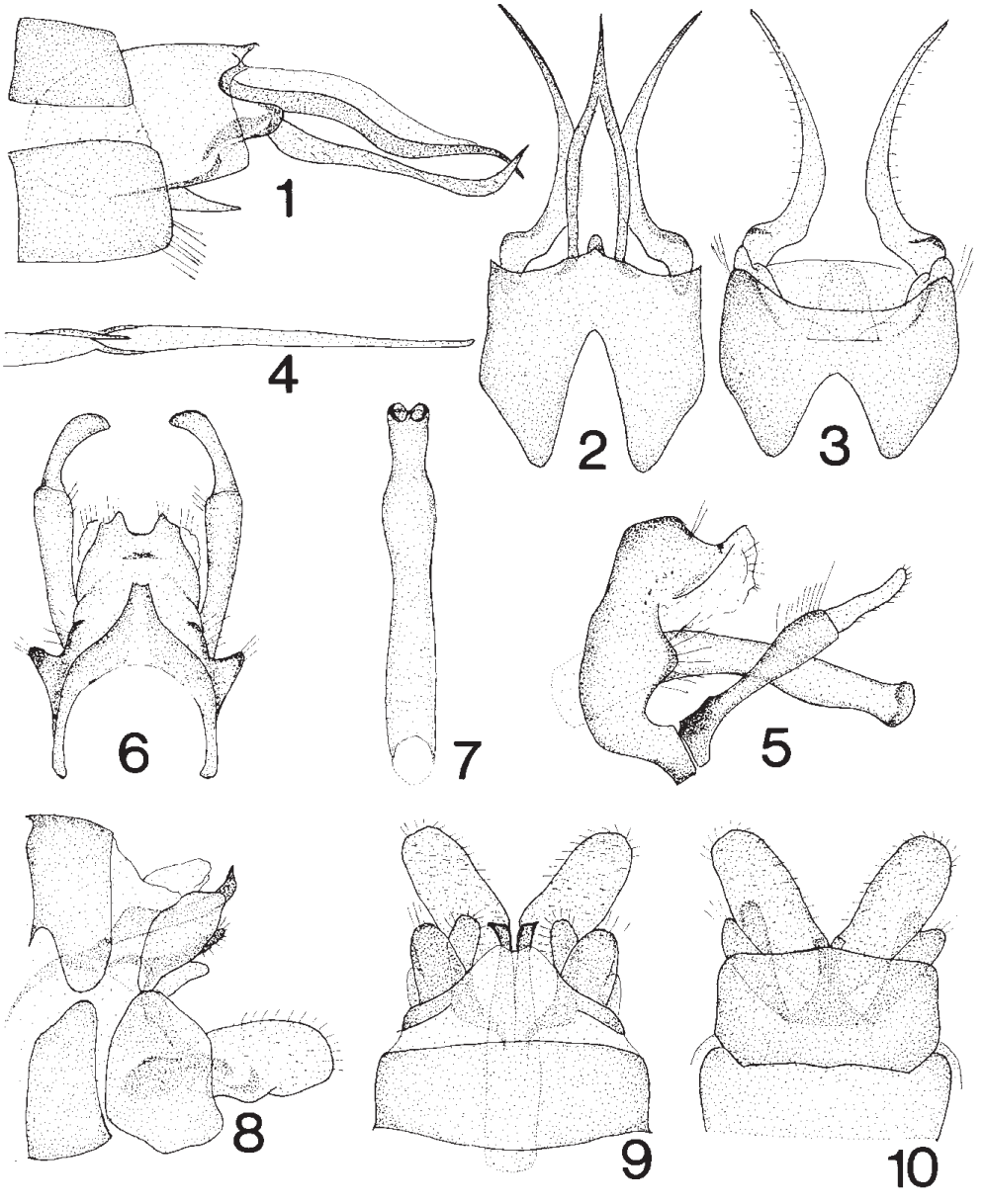

Fig. 1-10.

Male genitalia of *Hydroptila pulchricornis* (Pictet, 1834) lateral (1), dorsal (2), ventral (3), phallus lateral; male genitalia of *Hydropsyche exocellata* Dufour, 1841 lateral (5), dorsal (6), phallus dorsal (7); male genitalia of *Cyrnus flavidus* McLachlan, 1864 lateral (8), dorsal (9) and ventral (10).

1-10. ábra.

A *Hydroptila pulchricornis* (Pictet, 1834) hím ivarszerve oldalról (1), felülről (2), alulról (3), a phallus oldalról (4); a *Hydropsyche exocellata* Dufour, 1841 hím ivarszerve oldalról (5), felülről (6), a phallus felülről (7); a *Cyrnus flavidus* McLachlan, 1864 hím ivarszerve oldalról (8), felülről (9) és alulról (10).

The species has a definite Western European distribution, it hardly reaches Central Europe. The first Austrian specimen was taken recently (as it was informed by H. Malicky in 2000), close to the Bavarian border. Recently it was collected twice in the Szigetköz, NW Hungary. The first adult was taken by Gy. Sziráki in 1999 (Rajka, Danube, June 28, 1999), while in 2001 further five males were swept by Á. Uherkovich at artifical rapids of a branches nearby Dunasziget (Dunasziget: Cikolasziget, Denkpál rapids, May 11, 2001; gen prep. No. 2344, 2345). In the latter occassion very many *Hydropsyche* adults were on wings in the site, but only these five ones were taken. The determination of the first specimen was checked also by H. Malicky personally (Figs. 5–7). We may suppose that larvae or pupae were swept by the Danube from the upper reaches, and some of these specimens could developed or colonized temporary the quick running water having high soluted oxigene content.

Cyrnus flavidus McLachlan, 1864. A male have been collected in the Szigetköz, upper Hungarian Daube reaches, along a canal dig some years ago on the inundation area for assuring of the ground level and vegetation (Cikolasziget, July 27, 1997, leg. S. Nógrádi & Á. Uherkovich; gen. prep. No. 2307). Although we visited that site several times since the first catch, no further adults came onto light. This is a relative frequent species in northwest Europe, e.g. on the lowlands of Germany and Poland. (Figs. 8–10) From Hungary it had been mentioned many years ago, but the specimen could not be found in any collections. Thus we removed it from the first Hungarian check list (UHERKOVICH, NÓGRÁDI 1989).

Some important caddisfly data from the previous years

Rhyacophila pascoei McLachlan, 1879. UJHELYI (1981) mentioned its eight Hungarian localities, in his collection adults were preserved from five localities (NÓGRÁDI 1995). Since the beginning of 80's it became to be very rare, we collected it only once (NÓGRÁDI, UHERKOVICH 1995). In 1999 a male was captured at Halászi (Szigetköz, NW Hungary), where a trap functioned since 1993. Until this time no specimens of this species were found amongst circa 100,000 adults!

Orthotrichia angustella (McLachlan, 1865). It is known since 1986 from Hungary (NÓGRÁDI 1986). During the past fifteen years we collected several specimens in the southern and western part of Hungary, and it proved to be a rather frequent species in an artifical, temporary water course of Central Transdanubia (UHERKOVICH, NÓGRÁDI 1999b) with a dominance of 5 p. c. In NW Hungary (Szigetköz) the first specimen was captured in 1996 by light trap, in 2000 we collected again some specimens in another locality (Fig. 11).

Oxyethira tristella Klapálek, 1895. First occurrence was detected from NE Hungary, where this species was frequent (NÓGRÁDI 1994, UHERKOVICH, NÓGRÁDI 1998). In the Szigetköz the first specimen was captured in 1996 (NÓGRÁDI 1998). Later, since 1997 several further specimens were taken, time by time it can be not very rare (Fig. 12). Presumable it lives in the unpolluted water having high oxygene content of Danube and branches, it could adopted to the better conditions.

Tinodes waeneri (Linnaeus, 1758). Fauna Regni Hungariae (MOCSÁRY 1900) presented its occurrence along the Danube at Budapest. Since that time neither at this locality nor in other places was found, and one could suppose that it extincted from Hungary. Place by place it can be pretty common west- and northward from the Carpathian Basin. After a century a male was captured in the Szigetköz (Halászi, July 3-6, 1999, light trap).

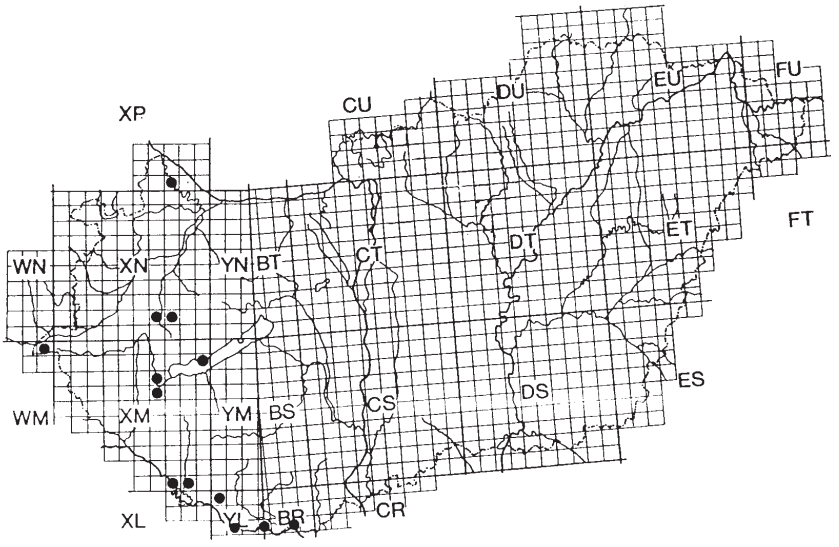

Fig. 11. Distribution of *Setodes viridis* Fourcr. in Hungary.
11. ábra. A *Setodes viridis* Fourcr. magyarországi eltejedése.

Halesus radiatus (Curtis, 1834). Recently this species can be collected only in the Szigetköz. As it is on wing only in second half of October or in beginning of November, it is captured rarely. During the last years it was collected many times, predominantly by light traps.

Silo nigricornis (Pictet, 1834). Voucher specimens were not found either in the HNHM collection or in Ujhelyi's one (NÓGRÁDI 1995, 1998). In the Bakony Mts. a monstrosity of this species was taken, the data of this adult was not published but occurrence was mentioned (NÓGRÁDI, UHERKOVICH 1995a). As it has older and very probably authentic mention, we did not move it from the check list. Recently further adults were collected along the Dráva river (Vízvár, Oct. 13, 2000, leg. S. Nógrádi & Á. Uherkovich, 1 male) and upper Hungarian Danube region (Püski, Zátonyi-Holt-Duna, May 10, 2001, leg. Á. Uherkovich, 1 male).

Silo piceus (Brauer, 1857). The Hungarian occurrences could not been confirmed by the revision of collections. The first authentic and existing specimens were captured along the Dráva river during the 90's (NÓGRÁDI, UHERKOVICH 1995b), from where three adults were preserved in collections. Later, in the years 1999, 2000 and 2001 we collected further many adults (133?? 3??) by hand on light, at Vízvár, along the river Dráva (May 1, 1999, April 28 & May 25, 2000, May 5, 2001).

Paroecetis strucki (Klapálek, 1903). The first Hungarian voucher specimens – two males – were found during a revision of the Remetey's collection deposited in the Hungarian Natural History Museum (NÓGRÁDI 1989, 1992). These adults were collected about fifty years ago, since that time no further specimens were taken. Along the Moson Danube (Mosoni-Duna), at Halászi our light trap captured a male (June 29, 1997). Thus the conditions of the develop of this species again can be exist in Hungary.

Setodes viridis (Fourcroy, 1785). Although an old and non-authentic publication was given about this species (PILLICH 1914), the first authentic adults were captured in the 80's

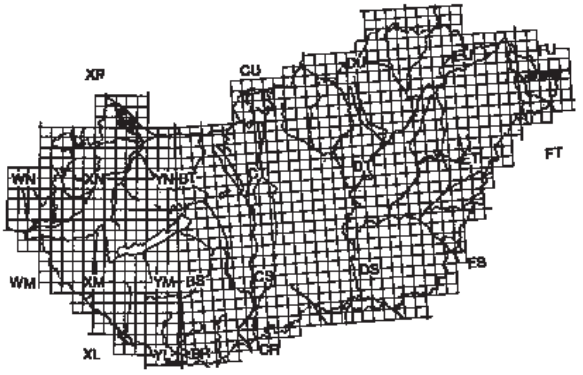

Fig. 12. Distribution of *Oxyethira tristella* Klap. in Hungary.
12. ábra. Az *Oxyethira tristella* Klap. magyarországi elterjedése.

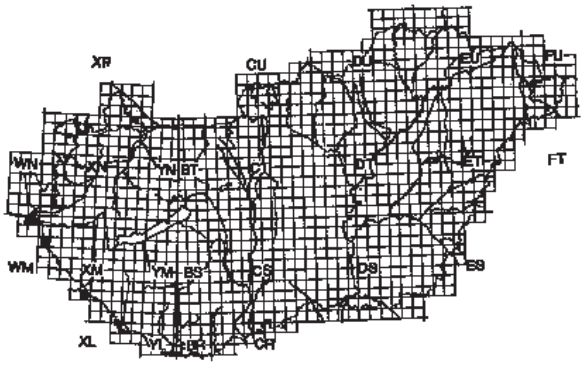

Fig. 13. Distribution of *Orthotrichia angustella* McL. in Hungary.
13. ábra. Az *Orthotrichia angustella* McL. magyarországi elterjedése.

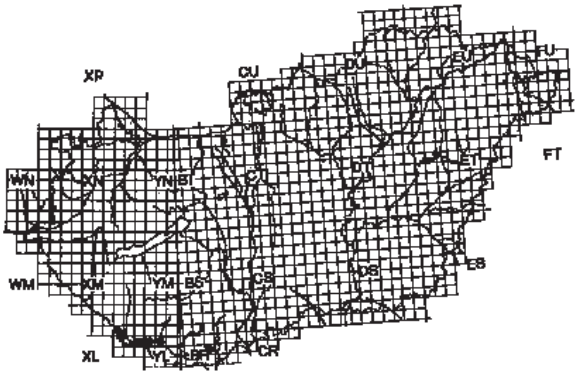

Fig. 14. Distribution of *Adicella syriaca* Ulmer in Hungary.
14. ábra. Az *Adicella syriaca* Ulmer magyarországi elterjedése.

at Magyarszombatfa, W Hungary (NÓGRÁDI 1985). Later we collected further specimens not far from its first site (NÓGRÁDI, UHERKOVICH 1995c). Thus until recent time only western Hungarian occurrences were known. Along the Dráva river we collected a male in 1999 (Őrtilos, gravel pits, July 1, 1999, leg. Á. Uherkovich, see Fig 13).

Revision of the Adicella species of Hungary

During the last decades 4 *Adicella* species were pointed out from Hungary. Two species *(A. filicornis* (Pictet, 1834) and *A. reducta* (McLachlan, 1865)) were presented by Ujhelyi's paper (UJHELYI 1974). Later we found two other species: *Adicella balcanica* Botosaneanu & Novák, 1965 and *Adicella syriaca* Ulmer, 1907.

As the genitals of these species – mostly those of the females – resemble each other, sometimes we also confused the species, and erroneous publications were also made about them.

Adicella balcanica Botosaneanu & Novák, 1965 was collected first in Kőszeg Mountains, West Hungary, in the eastermost foothills of the Alps (NÓGRÁDI 1988). Later we published it from the Dráva region (NÓGRÁDI, UHERKOVICH 1998), but during the revision it proved to be *A. syriaca.* Thus now only one single male is known from Hungary, the above mentioned specimen. Although we visited its first site repeadetely, no more specimen was collected.

Adicella syriaca Ulmer, 1907.The first domestic specimen was found in 1985 at Kisdobsza, South Hungary (NÓGRÁDI 1986, NÓGRÁDI, UHERKOVICH 1988). Later it was found in the material of a forestry light trap at Sumony (South Hungary). In a paper (NÓGRÁDI, UHERKOVICH 1998) we gave an occurence of *Adicella balcanica* Bots. & Novák from Bélavár, at the Dráva river. As result of a revision this caddisfly proved to be also *Adicella syriaca* Ulmer. In the year 2000 and 2001 the species was collected in three further sites: at Darány and Vízvár, along the Dráva river, and at Kistótfalu (also in South Hungary, but latest one far from larger waters, see NÓGRÁDI 2000). It seems that the small and weak populations grew stronger recently, similar symptom could be observed also in other cases. (Fig 14)

Acknowledgements

I express my sincere thanks to Dr. L. Ábrahám, Dr. Gy. Sziráki and Dr. Á. Uherkovich for the collected materials which they passed onto me for elaboration and publication, and to Dr. Á. Uherkovich and Mr. B. Trócsányi for the translation and revision of my text.

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További adatok Magyarország tegzeseihez (Trichoptera)

NÓGRÁDI SÁRA

Mintegy két évtizeddel ezelőtt hazánk területéről hozzávetőleg 160-165 tegzes fajt ismertünk. Azóta a fajok számát mintegy negyvennel megnövelve 3 évvel ezelőtt már 205 faj volt ismeretes, annak ellenére, hogy bizonyos fajokat időközi revíziók során törölni kellett a hazai fajjegyzékből. Az elmúlt néhány évben tovább folytatódott Magyarország tegzes faunájának intenzív vizsgálata. Az utóbbi 4-5 év alatt begyűjtött és feldolgozott legalább száz-százötvenezerezer példány között számos érdekesség akadt.

Újabb három fajjal gyarapodott a hazai fajok száma (*Hydroptila pulchricornis* (Pictet, 1834), *Hydropsyche exocellata* Dufour, 1841 és *Cyrnus flavidus* McLachlan, 1864). Ezek közül az elsőt még soha nem említették hazánkból, a *H. exocellata* bizonyítatlan adatát közölték, valamint a *C. flavidus*-nak is volt egy régi, bizonytalan és azóta sem megerősített előfordulása. Az új fajok közül az első a Dél-Dunántúlról (Barcs), a másik kettő a Szigetközből került elő.

A korábban már közölt fajok közül néhány nagyon szórványos elterjedésű és ritka faj újabb adatait is közreadja itt a szerző. Érdekes, hogy közülük az egyik, a *Tinodes waeneri* (Linnaeus, 1758) az elmúlt száz évben egyáltalán nem került elő, bár ez idő alatt sem volt ritka Nyugat- és Észak-Európában. További, az utóbbi időben megjelent fajoknak viszont térhódítása figyelhető meg: néhány évvel ezelőtti kimutatásuk után újabb és újabb lelőheleik és példányaik váltak ismertté.

A jelen cikkben közölt eredmények jórészt a Dráva mentéről és a Szigetközből származnak. Ez is aláhúzza annak a jelentőségét, hogy egy, látszólag jól ismert, de nagy fajdiverzitású területen új és új fajok előkerülése várható. A Dráva – elsősorban somogyi szakasza – természeteshez közel álló vízfolyás, a meder helyenként alig szabályozott, benne rendkívül gazdag tegzes együttesek fordulnak elő.

A Szigetköz esetén az emberi beavatkozás drasztikus változásokat okozott, ezek közül némelyek pillanatnyilag kedvezőnek tűnnek. Ugyanis az ártéri vízellátó rendszer részben mesterségesen létrehozott medreiben rendkívül erős a vízáramlás, oxigénben telített a víz, s ilyen élőhely Magyarországon természetes körülmények között nem fordul elő. Számos faj megjelent ezekben a vizekben, és átmenetileg megtelepedett, esetleg igen magas dominancia-értéket ért el. Hasonló érdekes jelenséget tapasztalhattunk korábban az Északi-Bakony egyik, sokáig működő, akkori formájában mesterséges vízfolyása, a Meleg-víz mentén.

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