nicht genau decken (**Abb. 1**). Die Analyse zeigt, dass in solchen Jahren, in denen Hornissen häufig sind, die Wespen eher selten bleiben und umgekehrt (**Abb. 2 & 3**). Ein Einfluss der Hornissen auf die Wespen ist davon abzuleiten. Welcher Art diese Wirkung ist, kann den Daten nicht entnommen werden.

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Notes on *Empria hungarica* (KONOW, 1895), an addition to the German sawfly fauna (Hymenoptera, Tenthredinidae)

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Abstract

New data on the taxonomy, distribution and ecology of the sawfly *Empria hungarica* (KONOW, 1895) are presented. Host plant is probably *Filipendula vulgaris* (Rosaceae). *E. hungarica* occurs in Germany. New record for Bavaria (Isar Valley, extant populations) and Sachsen-Anhalt (Dölauer Heide 1923; no recent records). *E. hungarica* occurs locally throughout the climatically more continentally influenced regions of the West Palaearctic, but is not recorded in north-west Europe.

Introduction

The identification and distribution of this distinctive but apparently very local sawfly species are treated by HEIDEMAA & VIITASAARI (1999). Most authors have ascribed *hungarica* a sub-mediterranean distribution, but HEIDEMAA & VIITASAARI (1999) showed it to be present also in Northern Europe (Estonia and the Voronesz, Kursk and Orel Districts of Russia). Available data indicate that *E. hungarica* is a very local species of predominantly continental distribution and is possibly endangered in Central Europe.

Material and methods

Material was collected in the past four years by hand netting of adults and collection of what are probably the larvae at a nature reserve in the Isar Valley, Lower Bavaria. Specimens are deposited in the Deutsches Entomologisches Institut, Müncheberg (DEI) and the Zoologische Staatssammlung, Munich (ZSM).

Results

German material of *Empria hungarica* (KONOW, 1895) examined*:*
Bavaria; NSG „Rosenau", Landkreis Dingolfing-Landau, 1♂ 12.5.2001, slightly teratological (left antenna with 10 segments, right one missing), swept from Mesobrometum, 1♀, 1♂ 27.4.2004, 1♀ 1♂ 11.5.2004, 1♂ 14.5.2004, 1♂ 21.5.2004, flying around patches of *Filipendula vulgaris*, leg. LISTON (ZSM, DEI); ? larvae (not reared) on *Filipendula vulgaris*, Rosenau, May-June 2004 (DEI); Sachsen-Anhalt; 1♂, Dölauer Heide, Halle a. S., 5.5.(19)23 collector unknown (ZSM).

Adults of *E. hungarica* were netted at the Rosenau as they flew over dry calcareous herb/grass swards (Meso- and Xerobrometum) where *Filipendula vulgaris* was abundant. No other *Empria* species was found at these spots. Young larvae of an *Empria* species were observed on *F. vulgaris* from 21.5.2004. Mature larvae were found until mid June. These have not yet been reared, but seem very likely to belong to *hungarica*. Field observations and the sample data above indicate that *hungarica* is univoltine. Sex ratio based on ten netted imagines (three females released after examination) seems to be approximately 1:1.

The most generally applicable identification key for West Palaearctic *Empria* is by ZHELOCHOVTSEV (1988), but the six European species in the *pumila* species group can however only be identified using this key in combination with other literature (note particularly the description of *E. granatensis* Lacourt, 1988). Female *hungarica* can be easily recognised by the conspicuously white costa and stigma with weak black smudge in centre of stigma base. Other W. Palaearctic *Empria* have a predominantly dark-brown costa and stigma, or rarely as in *E. testaceipes* (KONOW, 1896) uniformly pale yellow-brown. Sexual dimorphism is more pronounced in *hungarica* than in most *Empria* species. Costa and stigma of the German males are almost completely black in the fresh material from Bavaria, not white as in the female and as indicated for both sexes in the key by HEIDEMAA & VIITASAARI (1999). Males can be distinguished from other *Empria* by the combination of white spots on abdominal tergite 1 and the extremely long antennae. The penis valve is well illustrated by CHEVIN (1984) The only previous mention of this species in Germany is by ZIRNGIEBL (1954) who recorded a single female from Birkenheide (Rhineland-Palatinate), leg. ZIRNGIEBL, mid-May 1954. His record, which now seems quite plausible (he specifically mentions the white stigma of his single female specimen), can not be confirmed because the specimen has not been located (not in ZIRNGIEBL collection at ZSM). For this reason *Empria hungarica* was not included in Fauna Germanica (BLANK et al. 2001), although its presence was suspected (BLANK et al. 1998). Apparently overlooked by HEIDEMAA & VIITASAARI (1999) and LACOURT (1999: "S. E. France") is a record of one male from the Marne Region, N. France in 1932 by ZOMBORI (1984).

Although the holotype of *Poecilosoma hungarica* KONOW, 1895, with published type locality "Mehádia, Hungaria" (Transylvania, now part of Romania) in the HNHM Budapest has been completely destroyed by a museum beetle (L. ZOMBORI 2004 personal communication), designation of a neotype is not at present necessary. Current use of the species name (CONDE 1940, HEIDEMAA & VIITASAARI 1999) seems unproblematic, according well with the original description, but the genus as a whole requires much revisionary work.

It is clear from the species description that KONOW only had a single female specimen before him. KONOW does not name the collector, but the label data on the pin transcribed by ZOMBORI indicates that this was probably the well-known entomologist Sandor (=Alexander) MOCSÁRY. There are five labels: 1, lilac coloured small label with MOCSÁRY´s handwriting (not legible); 2, framed MOCSÁRY label reading 604/31. The entry with this number in inventory book is Mehádia, Pojána Museroni, ápr. 29. 1881; 3, small pale label "91", significance not clear; 4, *Poecilosoma hungarica* Knw. n. sp. in

MOCSÁRY´s script; 5, oblong, red. Indicating a type, attached in the 1950´s. The predominantly white costa and stigma and white membraneous patches present on tergum 1, mentioned by KONOW (1895) in the description of the single female indicate that the present concept of the species (CHEVIN 1984, ZHELOCHOVTSEV 1988, HEIDEMAA & VIITASAARI 1999), established by CONDE (1940) is correct. One female (fair condition) and one male (only remains of thorax) in the DEI which are labelled as potential types can not be so. They are both labelled "Moravia", determined by KONOW as *hungarica*, but in fact belong to a further species in this group, *E. ushinskii* DOVNAR-ZAPOLSKIJ, 1929 det. CONDE 1936. It is to CONDE´s credit that he recognised KONOW´s mistake. These specimens have been the source of numerous misunderstandings. ENSLIN (1912-18), still a useful identification tool for workers on Central European sawflies, provides key characters for *hungarica* that seem to refer to *ushinskii*. DOVNAR-ZAPOLSKIJ (1929) probably based his interpretation of *hungarica* on ENSLIN (1912-18), but failed to recognise this taxon as the same as his *ushinskii*, and described the real *hungarica* as *zacharovi* (synonymised with *hungarica* by CONDE 1940).

Discussion

LACOURT (1999) records larvae of eighteen species of European Tenthredinidae as feeding on *Filipendula ulmaria*. With the addition of three species of the families Pamphiliidae (*Onycholyda sertata*), Cephidae (*Hartigia xanthostoma*) and Argidae (*Arge ciliaris)* twenty-one European symphytans are known to be attached to this plant species. Approximately nine of these are monophagous on *F. ulmaria*, the others are either oligophagous on various genera of Rosaceae, or polyphagous. By contrast, only a single symphytan (*Endelomyia filipendulae* LACOURT, 1998) was so-far known from *Filipendula vulgaris* (LACOURT 1999). Results of recent fieldwork by the author at the Nature Reserve "Rosenau", Lower Bavaria, showed larvae of three symphytan species to occur on *F. vulgaris*: *Endelomyia filipendulae* LACOURT, 1998, *Empria ? hungarica* and *Monophadnoides rubi* (HARRIS, 1845) (see also LISTON 2006 in press). The first two are probably monophagous on *F. vulgaris*, the latter is known to be oligophagous on rosaceous plants of various genera, including *F. ulmaria* (LORENZ & KRAUS 1957, LACOURT 1999). No species of sawfly is known to be oligophagous on both *Filipendula* species.

Compared to other *Empria* species *hungarica* is sufficiently distinctive not to have been often overlooked in major collections. It seems likely that it is extremely local. *Filipendula vulgaris* has suffered local extinction in the areas where the historic German records were made in the Dölauer Heide near Halle and southern Rheinland-Pfalz. The importance of *E. hungarica* for its host is unlikely to be significant compared to the much more severe damage caused by larvae of *Monophadnoides rubi* and *Endelomyia filipendulae* (according to observations at Rosenau).

Empria hungarica should be added to the small list of endangered Symphyta in the lower Isar Valley characteristic of the Meso- (Xero-) brometum: *Megalodontes thor* TAEGER, 2002, *Abia nitens* (LINNAEUS, 1758), *Eurhadinoceraea ventralis* (PANZER, 1799), *Endelomyia filipendulae* LACOURT, 1998, *Tenthredopsis lactiflua* (KLUG, 1817), *Pseudodineura clematidisrectae* (HERING, 1924).

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Zusammenfassung

Die Blattwespenart *Empria hungarica* (KONOW, 1895) wird in Deutschland nachgewiesen. Die Wirtspflanze ist wahrscheinlich *Filipendula vulgaris* (Rosaceae). Erstmals wurde *E. hungarica* für die Bundesländer Bayern (aktuelles Vorkommen im Unteren Isartal) und Sachsen-Anhalt (letzter Nachweis

1923 in der Dölauer Heide, keine jüngeren Funde). Der von ZIRNGIEBL (1954) veröffentlichte Fund aus Rheinland-Pfalz konnte nicht bestätigt werden. *Empira hungarica* kommt sehr lokal in den vom Kontinentalklima beeinflussten Gebieten der Westpaläarktis vor. Bisher fehlen jedoch noch Nachweise für den Nordwesten Europas (Beneluxländer, Britische Inseln, Skandinavien). Für die Art werden neue Informationen zur Taxonomie, Verbreitung und Ökologie sowie zur Gefährdungssituation in Deutschland vorgestellt.

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