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THE BISEXUAL *DAHLICA TRIQUETRELLA* (HÜBNER, 1813) AND NEW RECORDS OF *LUFFIA LAPIDELLA* (GOEZE, 1783) IN SLOVENIA (LEPIDOPTERA: PSYCHIDAE)

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Abstract - During his expeditions to the Balkans the author found another psychid taxon not registered for Slovenia before, the bisexual form of *Dahlia triquetrella* (Hübner, 1813). New findings of *Luffia lapidella* from the years 2001 and 2013 are also reported. The records are described in detail and the habitats depicted. In addition the first records of *Luffia lapidella* for Ukraine, Turkey and Cyprus are published.

KEY WORDS: Lepidoptera, Psychidae, Naryciinae, Taleporiinae, Slovenia, Croatia, Ukraine, Turkey, Cyprus, new records.

Izvilleček – DVOSPOLNA *DAHLICA TRIQUETRELLA* (HÜBNER, 1813) IN NOVI PODATKI O VRSTI *LUFFIA LAPIDELLA* (GOEZE, 1783) V SLOVENIJI (LEPIDOPTERA: PSYCHIDAE)

Med njegovimi odpravami na Balkan je avtor našel dodatni takson vrečkarjev, ki v Sloveniji še ni bil zabeležen, dvospolno obliko vrste *Dahlia triquetrella* (Hübner, 1813). Poroča tudi o novih najdbah vrste *Luffia lapidella* iz let 2001 in 2013. Najdbe so podrobno opisane, predstavljeni so življenjski prostori. Dodatno so objavljene prve najdbe vrste *Luffia lapidella* v Ukrajini, Turčiji in na Cipru.

KLJUČNE BESEDE: Lepidoptera, Psychidae, Naryciinae, Taleporiinae, Slovenija, Hrvaška, Ukrajina, Turčija, Ciper, nove najdbe.

Introduction

Within the scope of research of the Balkan psychid fauna the author visited Slovenia frequently since 1995. The results of the collecting trips to the western part of Slovenia, with the first records of *Brevantennia adriatica* (Rebel, 1919), had been reported



Fig. 1: Slovenia with locations: 1 – Snežnik, 2 – Dolnja Bitnja (Map adapted from http://commons.wikimedia.org/wiki/File:Slovenia_relief_map.png)

in an earlier paper (Weidlich, 2012). In 1996, 2001 and 2013 the author found two further psychid taxa not known in Slovenia at the time (see Lesar & Govedič, 2010).

***Dahlica triquetrella* (Hübner, 1813), bisexual form**

This species occurs in 3 different morphological phaenotypes. A bisexual one as well as a diploid and tetraploid parthenogenetic form. The tetraploid parthenogenetic form is widespread all over Europe. The bisexual form is very local, often rare and is published from Belgium, the Netherlands, Luxembourg, Germany, Switzerland, Austria, Czech Republic and Hungary (Sauter & Hättenschwiler, 1996: 39). The mentioned records from the Benelux States, Czech Republic and Hungary are probably misidentifications or species confusions with other *Dahlica*-species (see Weidlich, 2013b: in press). The diploid parthenogenetic form is restricted to a few localities in Europe.

From southern Europe the bisexual form is only mentioned from Italy (Seiler, 1961: 290 ff.; Herrmann, 1994: 370), but it is not listed by Sauter & Hättenschwiler (1996: 39) and has been mentioned with question mark by Parenzan & Porcelli (2005-2006: 11).

On May 4th 1996 the author visited the nature park „Snežnik“. Along the road from Ilirska Bistrica to Sviščaki in the mountains, he collected larval cases of *D. triquetrella* at rocks and trees situated in a south orientated beech forest:

2 ♂, 4.5.1996, Nature Park “Snežnik“, env. Sviščaki, appr. 1.000 m; 5 male larval cases and 3 female larval cases with exuviae as well as 9 further cases. From these five ♀ hatched between 5. and 11.5.

In the following years all attempts to visit the habitat again failed by weather circumstances and snow in early spring. First in 2013 the author came to the habitat again. On April 22nd he collected 8 larval cases at rocks. Among them were older ones from the last year. On May 2nd one female hatched waiting for mating until May 4th.

In the meantime, Deutsch also found the bisexual form in Podgorje, as photos demonstrate at http://www.lepiforum.de/lepiwiki.pl?Dahlica_Triquetrella.

Possibly the distribution in the region is less restricted as assumed. Arnscheid (pers. comm.) collected one ♂, e.l. April 2002 in Croatia, on the Krk island, 1 km SW of Vrbnik.

Luffia lapidella (Goeze, 1783)

Luffia lapidella exists in Europe in 2 different phaenotypes. One is bisexual (the nominotypical *lapidella*) and the other parthenogenetic (form *ferchaultella* Stephens, 1850). Furthermore, the form *maggiella* had been described from southern Switzerland. In this taxon males are extremely rare (1-5 %) (Hättenschwiler, 1997: 232).

The nominotypical form is distributed along the northern Mediterranean coast from Portugal, Spain, southern France, Corsica to Italy (Sauter & Hättenschwiler, 1996: 42; Hättenschwiler, 1997: 232-233; Sobczyk, 2011: 172). It is also mentioned from Sardinia and Sicily by Parenzan & Porcelli (2005-2006: 15) and recently from Malta (Zerafa et al. 2008: 51). Isolated occurrences are known from England and the Channel Islands (Hättenschwiler, 1985: 140).



Fig. 2: Newly hatched ♂ of *Dahlica triquetrella*, bisexual form from the Snežnik Mt. (Photo 4.5.1996).

Fig. 3: Habitat of *Dahlica triquetrella*, bisexual form in the nature park „Snežnik“, near Sviščaki (Photo 4.5.1996).



Eastwards of the Apennine peninsula only a few records are known from former Yugoslavia (= Croatia) and Greece (Sauter & Hättenschwiler, 1996: 42; Sobczyk, 2011: 172).

Recently the species has been collected in Albania and Montenegro (Weidlich, 2013a).

More eastwards records have been collected for the first time in the following countries:

Turkey: Westanatolia, Bolu Daglari, Mengen S, 750 m, 15. 4.2004, leg. Weidlich.
Ukraine: Crimea, Svit near Feodosija, 50 m, 24. 4.2006, leg. Rutjan & Weidlich.
Cyprus: Tsada S, 450 m, 14. - 17. 3.2012, leg. Weidlich.



Fig. 4: *Luffia lapidella* – case from Dolnja Bitnja (Photo 22.4.2013).



Fig. 5: Habitat of *Luffia lapidella* in Dolnja Bitnja (Photo 22.4.2013). All photos: Dr. M. Weidlich.

The distribution of the parthenogenic *f. ferchaultella* is limited to the central and western Europe from France, Italy, Great Britain, Ireland, the Netherlands, Belgium, Luxemburg to western Germany (Sauter & Hättenschwiler, 1996: 42; Sobczyk, 2011: 173).

Records from the Azores (Rebel, 1940a: 44 – as *Luffia rebeli* Walsingham, 1908) also belong to the parthenogenetic form (Henderickx, 1997: 22) and probably those from Madeira (Weidlich, 2001: 716-717) as well.

In the neighbourhood of Slovenia the species had been known since a long time and it had been published by Stauder (1914: 12) as frequent near Trieste at the Adriatic coast. It has been collected furthermore in Croatia (Istria, Prkičani near Pisino, 20.9.1996, leg. Weidlich) and on the Krk island (Valbisca, 19.04.2000, leg. Weidlich). Recently it has been collected as the parthenogenetic form *ferchaultella* in Slovenia in the years since 2010, but also one ♂ was found (Rekelj, 2013). All these records were collected near the coast while the first records by the author in 2001 have been taken 28 km from the coastal line.

Records in Slovenia: 5 larval cases including 2 larvae, Brkini, env. Ilirska Bistrica, Dolnja Bitnja, 390 m, 9.3.2001, leg. Weidlich; 13 larval cases, including 2 larvae, ditto, 22.4.2013, leg. M. Weidlich; 1 larval case, near Dolnja Bitnja, 0,2 km N, 390 m, 22.4.2013, leg. M. Weidlich.

The collected cases remain mostly from the last season. The 4 cases with living larvae were of a length of 2-3 mm.

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