




Short note

*First Record of *Heteropterus morpheus* (Pallas, 1771) (Lepidoptera: Hesperiiidae) from the Republic of Kosovo*

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Abstract. The first record of the Large Chequered Skipper butterfly *Heteropterus morpheus* (Pallas, 1771) from the Republic of Kosovo is presented. This species was recorded in two localities during our butterfly surveys in “Bjeshket e nemuna” National Park in 2019-2021.

Key words: skipper, “Bjeshket e nemuna” National Park, Kosovo, Balkan Peninsula.

Introduction

The Large Chequered Skipper (*Heteropterus morpheus*) is the single member of the monotypic genus *Heteropterus* Duméril, 1806. *H. morpheus* ranges from Northern Spain, much of Central Europe, Italy, Denmark, Sweden, Lithuania, Balkans, SE and North Bulgaria, North west Turkey, Central Asia, Amur and Korea (Tomas & Levington, 2008).

The species is currently known from most of the Balkans and South-eastern European countries: Albania (Cuvelier et al., 2018; Micevski et al., 2015; Šašić et al., 2015; Verovnik & Popović, 2013), Bosnia and Herzegovina (Đug, 2013; Koren & Kulijer, 2016; Lelo, 2016), Bulgaria (Abadjiev, 2001; Abadjiev & Beshkov, 2007; Hristova & Beshkov, 2017; Kolev 2017; Kolev & Shtinkov, 2016; Kolev & Tsvetanov 2018; Langourov & Simov, 2014), Montenegro (Franeta, 2018; Švara et al., 2015), Serbia

(Jakšić, 2003; Popović et al., 2017; Popović & Verovnik, 2018), Romania (Rákossy, 2013, Vlad Dincă (pers. comm.), Korb & Bolshakov, 2016; Székely, 2008; Wiemers et al., 2018); Slovenia (Verovnik et al., 2012); Croatia (Šašić et al., 2015; Šašić & Mihoci, 2011). The only report from North Macedonia dates from Dimitrov (1909) who reported *Heteropterus morpheus* for the village Krustofor, now Krstoar, few kilometers S from Bitola Town.

Material and Methods

Field survey was conducted during the years 2019-2021 in Peklen Peak and Gryka e Rugoves Gorge in “Bjeshket e Nemuna” National Park. Peklen Peak is located at 1376 m a.s.l. in the northern part of “Bjeshket e Nemuna” NP, whereas Gryka e Rugoves (Rugova Gorge) with an area from 4,301 ha is one of the most beautiful parts of the national park and since 1985 has a status of

Monument of Nature. During the survey an entomological net was used to collect butterfly specimens. After being identified and photographed, captured butterflies were released and only one specimen was taken and preserved as the evidence of its presence.

Results

In total four male specimens were recorded. The first specimen, a male of the Large Chequered Skipper butterfly *Heteropterus morpheus* (Pallas, 1771) was registered in a grassland habitat roadside, on 29 June 2019 in Peklen Peak (42°40'30.79"N, 20°14'11.48"E, 1310 m a.s.l.) (Fig. 1, 3). Next year, on 26 June 2020, at the same place, were registered two males, whereas the fourth one has occurred on 16 June 2021 in a moist habitat near the three water springs in Rugova Gorge (42°41'32"N, 20°10'07"E, 1310 m a.s.l.) (Fig. 2, 3). Prove material is located at the collection of the Department of Biology (Faculty of Mathematics and Natural Sciences in Pristina, Kosovo).



Fig. 1. Peklen Peak (1376 m).

Although the survey in the period from 2019-2021 were quite intensive, the number of *Heteropterus morpheus* (Fig. 4, 5) specimens was quite small, which confirms that the populations are isolated.

H. morpheus in flight from late June to July. The larvae feed on *Eriophorum*, *Poa annua*, *Calamagrostis canescens*, *Brachypodium sylvaticum* and *Molinia* species, including *Molinia caerulea* (Tolman & Lewington, 2008). Most of these plant

species are common in Kosovo (*Calamagrostis canescens*, *Brachypodium sylvaticum* and *Molinia grasses*) and were present in Peklen Peak, one of the localities where *H. morpheus* was recorded



Fig. 2. Rugova Gorge.

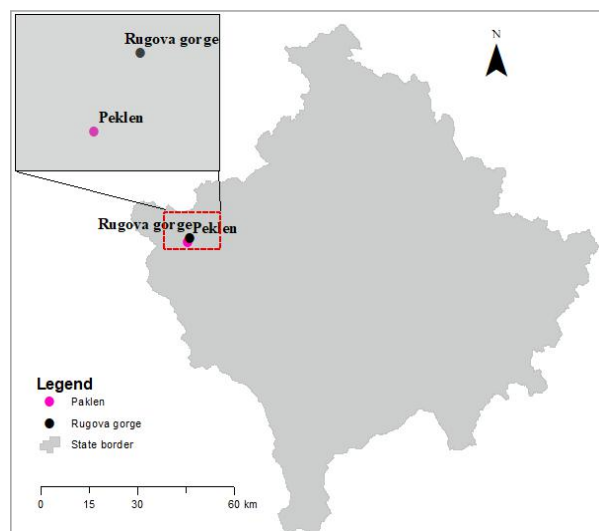


Fig. 3. The localities in Kosovo where *Heteropterus morpheus* was observed.



Fig. 4. *Heteropterus morpheus* – preserved male.



Fig. 5. A male *Heteropterus morpheus* photographed on 16 June 2021 in the Rugova Gorge (Photo: Nikola Micevski, Macedonian Entomological Society).

Discussion

Based on the existing data, *H. morpheus* is distributed in almost all Balkan countries. However, its status according to IUCN threat categories varies across the Balkans. While it has a “Least Concerned (LC)” status in Serbia (Jakšić, 2003, Popović et al., 2017; Popović & Verovnik, 2018), Bosnia and Herzegovina (Koren & Kulijer, 2016; Lelo, 2016), Slovenia (Verovnik et al., 2012) and Hungary (Ádám Kőrösi & Ádám Gó (pers. comm.), Gergely et al., 2017; Sáfián et al., 2012; Varga, 2012), in Bulgaria it is “Vulnerable” (Hristova & Beshkov, 2017), whereas in Croatia (Šašić et al., 2015; Šašić & Mihoci, 2011) and Romania it is a “Near Threatened (NT)” species (Rákossy, 2013; Vlad Dincă (pers. comm.), Korb & Bolshakov, 2016; Székely, 2008; Wiemers et al., 2018). In Albania *H. morpheus* is “Not Evaluated (NE)” according to the IUCN criteria. In Europe as well as in EU, it is evaluated as LC (van Swaay et al. 2010; Wiemers et al. 2018).

Although in this paper we present the first record of *Heteropterus morpheus*, in Kosovo, it should be stated that the threats this species is undergoing are already registered. Unfortunately, during our survey in 2021 in Peklena Peak, a new asphalt road was under construction in the vicinity of the place where the *H. morpheus* specimens were recorded two years earlier, which presents a potential threat for *H. morpheus* host plants and this butterfly species itself. Despite the fact that the area, where *H. morpheus* is registered is a protected area within the “Bjeshket e Nemuna” National Park, due to many visitors this area is under various human impacts, which affect and threaten its flora and fauna. Based on the numbers of *H. morpheus* specimens we registered during a three year survey, we can conclude that this species populations in “Bjeshket e Nemuna” National Park are small and fragmented. Further surveys in the national park and in

other parts of the country would be necessary in order to have more data on the presence and distribution of *H. morpheus* in the Republic of Kosovo.

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