## EUPITHECIA ULTIMARIA BOISDUVAL, 1840 – A NEW GEOMETRID MOTH SPECIES IN THE FAUNA OF SLOVENIA (LEPIDOPTERA: GEOMETRIDAE)

Radovan ŠTANTA<sup>1</sup>, Matjaž ZADRGAL<sup>2</sup>, Milan SUKIČ<sup>3</sup>

<sup>1</sup>Miren 163, SI-5291 Miren, Slovenija, e-mail: radovan.stanta@gmail.com

<sup>2</sup>Pod Lazami 53, Vrtojba, SI-5290 Šempeter pri Gorici, Slovenija,

e-mail: zadrgalm@gmail.com

<sup>3</sup>Šutna 62, SI-4209 Žabnica, Slovenija, e-mail: sukic.milan@gmail.com

**Abstract** – A female of *E. ultimaria* was caught in May 2022 near Brestovica pri Komnu, in the Karst, western Slovenia. This is the first record of this species in Slovenia.

KEY WORDS: Geometridae, Eupithecia ultimaria, Karst, Slovenia

**Izvleček** – *EUPITHECIA ULTIMARIA* Boisduval, 1840 NOVA VRSTA PEDICA V FAVNI SLOVENIJE (LEPIDOPTERA: GEOMETRIDAE). Samičko pedica *E. ultimaria* smo ujeli v maju leta 2022 v bližini Brestovice pri Komnu, na Krasu, zahodna Slovenija. To je prva najdba te vrste v Sloveniji. KLJUČNE BESEDE: Geometridae, *Eupithecia ultimaria*, Kras, Slovenija

Eupithecia ultimaria Boisduval, 1840 is a Mediterranean-Turanian species distributed from the Iberian Peninsula across North Africa to Iran. In Europe, it occurs in Portugal, Spain, France, Italy and Greece (Mironov, 2003). A few decades ago, it colonized the Channel Islands and the south coast of England. In France, it can be found on the Atlantic and Mediterranean coasts. It also inhabits the large Mediterranean islands. In Italy, for a long time it was only known from the west coast. However, in recent decades it has also been found on the Adriatic coast, near Ravenna - Emilia Romagna (Bendazzi & Pezzi, 2009), in Oasi Vallevecchia di Brussa between Bibione and Caorle - Veneto (specimens in private collections of C. Morandini, L. Morin, R. Štanta, M. Zadrgal) and along the coast of the Friuli-Venezia Giulia region. Here C. Morandini and L. Morin found it on the coast between the mouth of the river Isonzo - Soča and Monfalcone - Tržič (Riva Lunga and Lido di Staranzano), L. Morin also found it near Grado - Gradež and near Selz -

Selce at Ronchi dei Legionari - Ronke. In 2021, it was also found in the extreme south of Istria, Croatia (Koren, 2022).

Eupithecia ultimaria is one of the smallest Geometrid Moths of this genus. The wingspan is 13 - 18 mm. There is a very conspicuous dark, elongated central spot on the grey-brown base of the forewings. The tip of the forewings is rather narrow. The adults are on the wings from April to June and then again from September to October in two generations per year. The larvae feed on various species of *Tamarix* and *Myrica gale* (Leraut, 2009).

One female of *E. ultimaria* was captured on May 12, 2022 at the Klariči water pumping station west of the village of Brestovica pri Komnu in the northwestern Karst (WGS84: N 45.81191, E 13.60204, UTM: UL97, 30 m, leg. R. Štanta, M. Zadrgal, M. Sukič in coll. Štanta). Around 11 pm it was attracted by a light tent illuminated with a 15W superactinic UV tube covered with a translucent white synthetic fabric. The specimen is a little worn but still has clearly visible patterns on the wings. Nevertheless, we analysed the genital structures with the help of Mironov (2003) and Leraut (2009).

The bursa copulatrix is irregularly pear-shaped, on about half of the surface that is not covered with spines there are two sclerotized narrow bands with marginal spines. In this respect it differs considerably from related species, so that identification is not difficult.



**Fig. 1**: Eupithecia ultimaria, Brestovica pri Komnu, 12. 5. 2022, wingspan 15 mm. Photo: R. Štanta.



**Fig. 2**: Female genitalia of *Eupithecia ultimaria*. Photo: R. Štanta.

The capture site is located at the foot of one of the warmest karst valley, which is dominated by karst dry grasslands and a stand with species such as Mahaleb Cherry (*Prunus mahaleb*), Rock Buckthorn (*Frangula rupestris*) and Smoke Tree (*Cotinus coggygria*). On the slopes and in some smaller groups at the bottom of the valley we find a forest association of European Hop-hornbeam, Autumn Moor Grass, Downy Oak and Black Pine (*Ostryetum carpinifoliae-Seslerio autumnalis-Quercetum pubescentis-Pintum nigra*).

This habitat is not suitable for the described species, as we could not observe any food plants for the larvae. We therefore, assume that it has flown in from the coast of the nearby Gulf of Trieste, more precisely from the area of Monfalcone - Tržič. Villaggio del Pescatore – Ribiška vas is only about 3 kilometers as the crow flies from the capture sites. On its coast there are many naturally grown Common Tamarisks (*Tamarix gallica*) as well as cultivated ones that have been planted to reinforce breakwaters and create windbreak hedges.

We would like to thank our butterfly colleagues Carlo Morandini, Lucio Morin, Stanislav Gomboc, Željko Predovnik, and Bojan Zadravec for the information they provided.

The voucher specimen and the genital preparation are kept in the collection of R. Štanta.

## References

**Bendazzi, I., Pezzi, G.** (2009): Interessanti ritrovamenti entomologici nella ZPS dell'ex zuccherificio di Mezzano (Ravenna). — *Quaderni di Studi Naturalistici della Romagna*, 29: 37-44.

**Jež, M., Lavbič, J.** (2024): Seznam slovenskih imen v Sloveniji živečih Pedicev (Lepidoptera, Geometridae). — *Acta Entomologica Slovenica*, 32(1): 67–112.

- **Koren, T.** (2022): The diversity of moths (Lepidoptera: Heterocera) of significant landscape Donji Kamenjak and Medulin archipelago, Istria, Croatia. *Annales. Series Historia Naturalis* 32(1): 237-260.
- **Leraut, P.** (2009): *Moths of Europe, Geometrid Moths, Volume II.* N.A.P Editions, 804 pp.
- **Mironov**, V. (2003): *The Geometrid Moths of Europe, Volume 4, Larentiinae II.*—Apollo Books, Stenstrup, 463 pp.
- **Štanta, R., Zadrgal, M.** (2016): Contribution to the knowledge of Lepidoptera fauna of the Karst. *Acta Entomologica Slovenica*, 24(2): 69–150.