

FAUNISTIC NOTE

## *Eriogaster catax* (Lepidoptera: Lasiocampidae) – first record in Muntenia (southern Romania)

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### Abstract

*Eriogaster catax* is a highly threatened species listed on the Annexes II and IV of the Habitats Directive and on the Annex II of the Bern Convention. In Romania, up till now, it was reported only from Banat, Crișana, Satu Mare county, Transylvania and southern Dobruja. A male attracted by a light trap installed near Olteni, Dâmbovița county, in mid-October 2018, has scored the first record of this species in Muntenia. Afterwards, larvae have been found in the same place, confirming the first, adult-based finding.

### Keywords

threatened species, faunistic note, first record, distribution.

The Eastern eggar, *Eriogaster catax* (Linnaeus, 1758), is a moth of the family Lasiocampidae Harris, 1841, largely distributed in the western Palaearctic region. In Europe, its range stretches from northern Spain, France, Belgium and the Netherlands to Ukraine and southern Russia to the Ural Mountains. Within this range, populations of this moth have been found in northern Italy, Switzerland, Germany, southern Poland, Czech Republic, Austria, Slovakia, Hungary, Slovenia and the Balkans: Croatia, Serbia, Romania, Bulgaria, Bosnia and Herzegovina, Montenegro, Macedonia, and Greece (Dubatolov and Zolotuhin 1992, Schintlmeister 1996, Jost et al. 2000, Bury 2015, Gaedike et al. 2017). In Asia, *E. catax* was reported only from

Anatolia (Koçak 2014). Despite this large distribution, local populations of this species are, throughout of its range, scarce and small.

In Romania, following the first record in Săcărâmb (Franzenau 1852), populations have been discovered in Banat, Crișana (Arad county), Satu Mare county, Transylvania and southern Dobruja (Rákosy et al. 2003, Székely 2010, Mihăilescu et al. 2015). Like in many other European countries, the distribution of *E. catax* is still insufficiently known. One reason is that artificial light is generally ineffective in attracting the imagos, so they are hardly captured using light traps (Sáfián 2006). Another reason is that the adults of *E. catax* are on wing from late September or early October until early November, depending on the local climate, habitat and weather conditions during the developing period. After the end of September, weather conditions are changing frequently and nights suitable for collecting using light trap are often difficult to meet.

On the evening of October 13<sup>th</sup>, 2018, the weather was relatively favourable all over the southern part of Romania, with reasonable temperature after dark and lack of precipitation. Taking advantage of this conditions, a light trap using two mercury vapour lamps (160 and 250 Watt) was set in place by the first author at Oltenilor Forest, near Olteni, Dâmbovița county, very close to the northern limit of one of the forest bodies from the Natura 2000 site ROSCI0344 Forests of Southern Piedmont Cândești (Fig. 1). Located at the edge of a clearing inside the forest (44.857478°N 25.376025°E), this light trap provided excellent conditions for capturing night insects.



**Figure 1.** Natural habitat of *Eriogaster catax* in the Oltenilor Forest, Olteni, Dâmbovița county.

Oltenilor Forest is a thermophile broadleaf forest. Its forest edge is bordered mainly with blackberry (*Rubus fruticosus*) and cherry plum (*Prunus cerasifera*), occasionally with common hawthorn (*Crataegus monogyna*) and willow (*Salix sp.*), found in small numbers around the small water body that crosses the forest. Although present, blackthorn (*Prunus spinosa*) is found only in small numbers.

It was at 19:10 in the night of October 13<sup>th</sup>, 2018 when a male of *E. catax* sat down on the bark of a tree near one of the trap's bulb (Fig. 2). This was the only specimen of Eastern eggar observed during that night. However, this is also the first specimen from this species recorded in Romania between the Transylvanian Alps and the Danube.

Later on, in the spring of 2019, searches have been resumed in the same place. As a result, on April 19<sup>th</sup>, 2019, a characteristic webbed nest (Fig. 3) with young larvae (Fig. 4) has been found in the same location, confirming the finding from the previous year. The nest was built at the intersection of several common hawthorn (*Crataegus monogyna*) branches, found at the edge of the clearing, outside the area with a dense canopy. This supports other observations made on the habitat preferences at this species (Kadej et al. 2018).



Figure 2. *Eriogaster catax*, male.



**Figure 3.** *Eriogaster catax*, nest.



**Figure 4.** *Eriogaster catax*, larva.

Occurring in bushy grasslands, coppice woodlands and hedgerows, *E. catax* is a species generally associated to agricultural landscapes with semi-natural shrubby vegetation and hedgerows. It is a threatened species throughout its range.

More important, the last assessment of this species uncovered critical conservation status in the vast majority of the EU countries where local populations still can be found (EIONET 2014), with the number of known populations becoming smaller from one year to another. Although a large majority of authors agree to consider that the decay at this species is associated with the decline of traditional forest managements (coppicing), the loss of riparian forests and other habitat destruction (including removal of hedges, intensification, eutrophication, sinking groundwater levels etc.), it seems that we are still far from having enough information regarding the environment conditions controlling the existence of the local populations at this species and limit its abundance (Kadej et al. 2018). Further efforts are necessary to increase the number of known populations, to assess their conservation status and to fill the gaps in the known distribution of this species. Besides, studies should be undertaken to increase the knowledge of the biology at this species, in order to build effective conservation strategies.

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