

## Lepidoptera species observed in Bucharest, between 2018-2025

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**Abstract:** Between 2018-2025, we have observed and identified over 120 species of Lepidopterans in Bucharest. Most of the sightings consisted of butterflies (members of the families Hesperidae, Papilionidae, Pieridae, Lycaenidae, Nymphalidae).

In order to achieve this, we visited parks and other green spaces from the 6 sectors of Bucharest, during the warmer days. Butterflies, especially belonging to the harder to identify species, were photographed. In some cases, we turned to specialists' help in identifying species. In this time period, we have identified more than 50 species of butterflies. The butterflies were observed flying or sitting on flowers between February to November. Sometimes in the wintertime, there can be seen butterflies like *Vanessa atalanta*, flying in the warmer days of January, like it happened in 2025. The most common species is *Pieris rapae*, a migratory butterfly. Regarding endangered species protected by the national legislation (OUG 57/2007) and by the EU legislation (the Habitats Directive), we have identified: *Zerynthia polyxena*, *Lycaena dispar*, *Cupido alcetas*, *Neptis sappho*. Among the species deemed as threatened to a certain degree by Romanian specialists, we came across: *Nymphalis xanthomelas*, *Nymphalis polychloros*, *Lycaena thersamon*, *Favonius quercus*, *Carcharodus floccifera*, *Iphiclides podalirius* and *Pieris brassicae*. Some years were good for certain species, like it was 2019 for *Vanessa cardui* or 2024 for *Leptotes pirithous*. Specimens of *Lampides boeticus*, a migratory butterfly of subtropical origin, that shows up rarely in Romania, were observed in 2024 in all the 6 sectors of Bucharest.

There were also identified moth species belonging to families like: Hepialidae, Gracillariidae, Plutellidae, Scythrididae, Pterophoridae, Tortricidae, Sesiidae, Zygaenidae, Pyralidae, Crambidae, Geometridae, Sphingidae, Erebididae, Noctuidae.

These moth species were observed not just in the daytime in the green spaces but also by night and in the morning, on building walls, inside buildings, in subway stations, on fences or other supports.

Mowing of the vegetation and the use of pesticides, along with habitat fragmentation caused by the urban development, lead to the decline in butterfly populations, a fact noticed in the threatened species but also in once considered common species, such as *Papilio machaon*, *Aglais io*, *Maniola jurtina*.

There is a close connection between the larval host plants and the presence of the adult butterflies in certain green fields; repeated mowing for example, may lead to the disappearance of the butterfly species in that space. Thus, in order to maintain a healthy butterfly biodiversity, we encourage the expansion of the already existing green spaces, the rational use of pesticides and, besides planting butterfly attractive flowers, the decrease in the mowing frequency and keeping pastures in parks consisting of spontaneous plants.

**Key words:** Lepidoptera, protected species, biodiversity

Received: 31.05.2025

Accepted: 15.06.2025

Published online: 30.09.2025

Article number: ER29202513

doi: 10.24193/entomolrom.29.13