

**Natura 2000 Lepidoptera species in Maramureş County: distribution and conservation**Cristian SITAR\*<sup>1,2</sup>, Gheorghe ARDELEANU<sup>3</sup>, Adrian ARDELEANU<sup>3</sup>, Geanina Magdalena SITAR<sup>4</sup><sup>1</sup>Zoological Museum, Babeş-Bolyai University, Cluj-Napoca, Romania, <sup>2</sup>Department of Cluj, Emil Racoviţă Institute of Speleology, Cluj-Napoca, Romania, <sup>3</sup>Independent Researcher, Baia Mare, Romania<sup>4</sup>Doctoral School "Education, Reflection, Development", Faculty of Psychology and Educational Sciences, Babeş-Bolyai University, Cluj-Napoca, Romania

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**Abstract:** This study presents the distribution and conservation status of Lepidoptera species of community interest in Maramureş County, a region characterized by a high diversity of habitats and significant ecological value. Field surveys and entomological observations have documented the presence of several species listed in the Habitats Directive 92/43/EEC and within the Natura 2000 network, highlighting the importance of natural areas in Maramureş for the conservation of this faunal group.

The species for which distribution data are provided include: *Proserpinus proserpina* (PALLAS, 1772), *Calimorpha quadripunctaria* (PODA, 1761), *Zerynthia polyxena* ([DENIS & SCHIFFERMÜLLER], 1775), *Parnassius mnemosyne* (LINNAEUS, 1758), *Euphydryas aurinia* (LINNAEUS, 1758), *Lopinga achine* (SCOPOLI, 1763), *Lycaena helle* ([DENIS & SCHIFFERMÜLLER], 1775), *Lycaena dispar* (HAWORTH, 1802), as well as species of the genus *Phengaris* (*P. arion*, *P. teleius*, and *P. alcon*, with the subspecies *P. alcon alcon* and *P. alcon xerophita*). *Phengaris teleius* is known in Maramureş from the areas of Seini and Ilba. *Phengaris alcon* was recorded in the Igriş Mountains (Runc Dam) and at Preluca Veche, confirming the persistence of populations in their characteristic habitats. The strongest populations of *P. arion* in Maramureş occur in the Igriş and Gutâi Mountains.

Additional species of high conservation interest were also documented: *Argynnis laodice* (PALLAS, 1771), recorded in the Prislop Pass area, and *Pyrgus sidae* (ESPER, 1784), present at Preluca Veche. Furthermore, the potential occurrence of *Eriogaster catax* (LINNAEUS, 1767) in Maramureş County is discussed.

The results emphasize the importance of continuous monitoring of Lepidoptera species of community interest in Maramureş, where mountain, hill, and meadow habitats provide essential conditions for maintaining biodiversity. The data obtained represent a significant contribution to updating knowledge on the distribution and conservation status of these protected species and constitute a solid basis for developing regional management and conservation measures.

**Keywords:** Lepidoptera, community interest species, Natura 2000, Maramureş, distribution, habitats, conservation management.

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