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Diurnal Lepidoptera from degraded and restored mining areas in the region of Moldova Nouă – Fluturi diurni din arii miniere poluate și renaturate din zona Moldova Nouă

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Abstract: The study assessed the diversity of diurnal Lepidoptera in the region of the former mining site in Moldova Nouă (Caraș-Severin County, Romania). A total of 22 transects were analysed and classified into five areas based on habitat types: natural grasslands, restored areas, contaminated areas, grazed pastures, agricultural fields, and household gardens. The restored zone recorded the highest values for both the number of individuals and the number of taxa, followed by the natural zone, highlighting the effectiveness of ecological restoration efforts. In terms of species composition, taxa of higher conservation concern, such as *Spialia orbifer* (VU) and *Phengaris arion* (NT), were predominantly recorded in the natural and restored zones. Although no statistically significant differences in biodiversity were detected among the five studied areas, the observed patterns support a positive influence of habitat restoration on lepidopteran communities. An extension of the sampling period in the coming years is recommended to validate the identified trends.

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