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THE EFFECT OF PLANT SUCCESSION ON THE LEPIDOPTERAN FAUNA (*RHOPALOCERA* AND *ZYGAENIDAE*) OF THE SKAŁY PRZEGORZALSKIE RESERVE AND ITS ENVIRONS DURING THE LAST FOUR DECADES

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Abstract: The Skały Przegorzalskie reserve was established in 1959 in order to protect xerothermic vegetation and rare thermophilous and heliophilous species. Comparative studies carried out in the plant species conducted from 1999-2003 in Skały Przegorzalskie and the adjacent zone (after a 40-year interval), showed significant changes in the flora and fauna. The impact of various factors, both natural (secondary succession) and anthropogenic (synathropisation, deposition of slag and construction rubble, littering the reserve and the adjacent zone) resulted in a decrease in the proportion of xerothermic sward and scrub communities from 50 to 14%. Some 35 species of rare xerothermic plants became locally extinct, along with 26 species of butterflies (*Rhopalocera*) and zygaenids (*Zygaenidae*). It was shown that the species of butterflies occurring in non-forest mesophilous and xerothermic communities disappeared much faster then their feeding plants. This fact proves the importance of rhopalocerans and zygaenids as important bio-indicators of the richness of species in non-forest communities.

Key words: Plant communities, butterfly fauna, the Skały Przegorzalskie reserve, Krakow district, natural succession, anthropopression, number of species, endangerment.