



Abstract

Low-Input Agriculture as a Chance to Preserve Endangered Species of Segetal Flora †

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Abstract: As a result of human activity, the rate of extinction of species is now 100 to 1000 times faster than under natural conditions [1]. According to the FAO, 75% of the genetic diversity of agricultural crops worldwide has been lost since 1990. In Poland, about 100 species of field weeds are in danger of extinction. Archaeophytes growing on heavy calcareous soils, which are characteristic of the *Lathyro-Melandrietum noctiflori*, *Caucalido-Scandicetum*, *Kicxietum spuriae* communities, and weeds associated with the cultivation of flax, are particularly endangered. Halting the loss of rural biodiversity is a priority for the EU's environmental protection strategy. Research aimed at assessing the infestation status of the weed agrophytocoenoses, located on rendzinas in the Lublin Province (Poland), has been conducted since 1997. The research was carried out using the Braun-Blanquet phytosociological method. Lublin Province is located in the south-eastern part of Poland. Here, there are good conditions for agricultural production. Agricultural land covers 57.9% of the total area of the voivodeship, of which 99.3% is agricultural land suitable for a good standard of farming. In such favorable environmental conditions, agriculture in the Lublin Province is characterized by an unfavorable structure of farms: 55.6% of more than 180,000 farms are those with an area under 5 ha. Such a large fragmentation of farms results in a low profitability of the agricultural sector, which results from extensive farming. Research has shown that low-input agriculture is conducive to the preservation of rare and endangered species of segetal flora [2]. *Muscari comosum*—a critically endangered (ER) species under strict protection—were found on several sites in the study area. Several sites of *Caucalis platycarpus* and *Galium tricornutum*, also recognized as ER species, were found in heavy rendzinas. Moreover, numerous sites of such rare species as *Adonis aestivalis*, *Anthemis tinctoria*, *Thymelaea passerina*, *Lysimachia arvensis*, *Chaenorhinum minus* and *Euphorbia exigua* were also identified. Research on the state of the population of rare species is a key challenge for scientists, because only knowledge about this will provide a basis for future relevant actions aimed at maintaining biodiversity and restoring degraded ecosystems [The poster presentation].



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