

Biodiversity in Quarries - a Study Case from Iglicioara Quarry, Romania

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Abstract

The quarrying industry is an indispensable resource for human society, although it has a negative impact on biodiversity. Stone quarries, apart from the detrimental effect, generate new habitats, favourable for some species. We inventoried vertebrate diversity in an active quarry to evaluate its impact and importance. We identified 5 main habitat types. Among the species observed, 2 species of amphibians, 7 species of reptiles, 18 species of birds and 5 species of terrestrial mammals actively use the quarry area for feeding and/or breeding. The ruderal vegetation habitat with 25 species has the highest species richness. Modelling the species richness distribution throughout the quarry, we observed that a species richness hot-spot is in the ruderal vegetation habitat, where it intercepts temporary ponds and sterile deposits. Species accumulation curves and species richness estimators highlight that we have not reached a plateau and additional species might be present. The quarry, although active, creates new habitats and is a species rich spot. Thus, it is an example for conservation and biodiversity management.

Keywords: quarries, biodiversity, habitats, conservation, rehabilitation.