

Plants, invertebrates and birds biodiversity around Lake Cuejdel Natural Reserve

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Cuejdel lake is the youngest natural barrage lake in Romania. Its birth determined the emergence of new environmental conditions resulting in a high biological diversity. For this reason a multidisciplinary study was necessary to investigate the biodiversity of Cuejdel Lake and its surroundings. This research aims to achieve a biodiversity database for Cuejdel Lake Nature Reserve together with a distribution map for each natural habitat and species of community interest and an extensive analysis of spatial scale distribution of habitats. We are also following the state of conservation of natural habitats and species of conservation interest within the area. So far a number of 161 plant species were recorded; the investigations on the animal biodiversity reveals 8 invertebrates species (Odonata and Lepidoptera Order) and 27 bird species.

Environmental factors directly contribute to how an ecosystem is born, organized and developed. Among them, landslides are example of geomorphic disturbances that can produce important losses of biodiversity. Being seen only as a destabilizing factor, ecological role brought by landslides is often overlooked, but changing the initial conditions, they turn back the clock of succession, providing new places for different organism to colonize them. Natural disturbances to plant communities are simultaneously a source of mortality for some individuals and a source of establishment sites for others. In our case, a new formed lake give us the opportunity to investigate how new physical conditions could create such a well shaped biodiversity around Cuejdel Lake. Recently, through elaboration of laws on the natural protected areas regime, preservation of natural habitats, wild flora and fauna in started in 2001 and continuing in 2004 through a government decision on creation of the protected natural area regime for new areas, the lake is a protected area of national interest - Cuejdel Lake Nature Reserve.