

Poland: Conserving where the European bison roam

A wide-ranging series of measures in Poland's Białowieża Forest has helped increase the population of Europe's largest land mammal, the European bison (*Bison bonasus*).

The size and majesty of the European bison was no defence against the humans who hunted it to extinction in the wild in the early 20th century. Following a successful programme to reintroduce the species to the Białowieża Forest in the 1950s, it continues to face serious threats to its existence and is classified as "vulnerable" in the IUCN Red List. Today the European bison is located in small and restricted areas, where the concentration of individuals is too high and food resources poor and declining; and these areas are fragmented and isolated, resulting in low genetic diversity and high susceptibility to disease. A further threat comes from the fact that the species often is seen as a 'problem' by the local population.

To counteract these threats, the 'BISON-LAND' project set out to establish a new strategy for the sustainable conservation of European bison in the Białowieża Forest. Central to this would be the creation of new corridors surrounding the primeval forest to improve the range of the species; measures for improving food sources and habitat conditions; and the introduction of an effective system of bison population monitoring. In addition, the project aimed a three-pronged strategy at improving local communities' attitudes towards the species, focusing firstly on information and education; secondly on preventing conflicts with farmers by implementing a scheme to let meadows from them in which the bison could feed; and thirdly on developing tourism based around the presence of the bison in the region.

The first stage of the project involved conducting an ecological audit of the project area and drawing up proposals for the ecological corridors that were then included in spatial plans for Podlasie region and 11 local areas.

European bison (*Bison bonasus*)



Photo: LIFE06 NAT/PL/000105 - Tomasz Kaminski

Specific habitat management actions aimed at improving bison dispersal in the forest included the reclamation of some 46 ha of meadows for the species, plus the creation of drinking holes, planting of wild fruit trees (a food source for the bison), and construction of supplementary winter feeding sites stocked with hay gathered as part of an agri-environment scheme to mow the meadows on an annual basis.

Use of satellite and radio telemetry to monitor the size and movements of the European bison population in the Białowieża Forest revealed the impact of these LIFE-funded habitat improvements: the number of individuals grew by 13.6% and the number of mixed herds of bison from seven to 12; furthermore, the total area covered by the population was found to have grown by some 32% in the course of the project.

To help ensure the long-term health of the species, genetic screening also took place. The project team collected a total of 430 DNA samples, which were then deposited in the European Bison DNA Collection, with the results of subsequent analyses added to the European Bison Genetic Data Bank. The project also drafted a set of bison genetic variability preservation guidelines.

Threats to the species remain, but the future for the European bison looks much brighter, particularly as the beneficiary has secured additional funds that will enable the continuation of the recurring and non-recurring management activities started with the help of LIFE.

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