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The Dolomiti Bellunesi National Park "Fauna" special project

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Abstract

The special project "Fauna" is the instrument of fauna planning of the Dolomiti Bellunesi National Park. It concerns: knowledge, detailed check list with commentary about Vertebrates and Invertebrates; the effective proposals of management and preservation of the zoocoenosis; planning of future scientific research; priorities of intervention. All the information about the plan have been georefered and implemented in a GIS.

Keywords

Dolomiti Bellunesi National Park, fauna management, fauna preservation

Introduction

The Dolomiti Bellunesi National Park (DBNP) is situated in the most southerly part of the Dolomites, between the Cismon stream and the Piave river. With its 31.512 hectares, it is one of the most preserved mountain areas in the east alpine arc, with a very high floral and vegetational biodiversity; with the sole exception of the ibex, it has all the items that represent the alpin vertebrate fauna.

The Plan of the Park (published in the Supplement of the Official Journal of 26.01.2001) defines guide lines and criteria for the management and the preservation of ecosystems and biocoenosis, but gives the detailed explanation of all the actions, carried out, in the different sectors of the Park, to a series of special projects, like the Fauna project.

Materials and methods

The Fauna Special Project (FSP) is a "preservation plan", that has the purpose of analizing interactions between fauna and its environment, discovering the correct measures to preserve the "Zoocoenosis" For this reason, the FSP is a useful help for the Park Authority to plan future strategies for the fauna.

The goals of the FSP are:

1. critical valutation of faunal knowledge available for the area of the Park;
2. implementation of all the information available in a GIS;
3. presentation of proposals of preservation, study and research;
4. definition of the priorities of the actions

The preservation proposals have been created with the purpose of maximising the ensemble of the advantages from the presence of the fauna and have been chosen, besides their ecological validity, for their compatibility with the environmental and social situation of the area.

The advantages from the fauna in a protected area can be looked for in three different situations: ecological (connected to the stability of natural ecosystems), economic (connected to positive economic consequences from the fauna's activity) and aesthetic (connected to the importance that man gives to the simple presence of the animals, even if he does not use them directly)

Effective and planning stages have considered that the park is a reality that has to be analized in a wider territorial sense, with important ecological , environmental, and human relations.

This guideline has been requested, knowing that every planning action has to take consider all the points even if they are not scientific.

Especially for faunal planning, we have to consider not only priority law lines and wright hopes of the local inhabitants, without forgetting that in a national park the management of the fauna have necessary to privilege cultural and preservation aspects, connected to and indirect using of animal species.

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Also for this reason, the FSP has been realized by a "holistic approach"with the intention of considering not only the species important for social aspects like Ungulates and Galliformes, but also for the whole zoocoenosis.

The *Taxa* that have been considered are as follows: Invertebrates, only for a few systematic groups; Ostitis, Amphibia, Reptiles, Nesting Birds (especially alpine Galliformes), Mammals, especially Ungulates.

All this makes it possible to characterize the area of the Park with respect to outside areas.

A numerous work team has been set up to satisfy the complexity of the project: Marco Apollonio (Sassari University), Andrea Mustoni, Barbara Chiarenzi, Sandro Ruffo, Beatrice Sambugar, Enrico Marconato, Andrea Dall'Asta, Michele Cassol, Paolo and Giacomo De Franceschi, Maurizio Ramanzin (University of Padua), Marco Catello, Pier Giuseppe Meneguz and Luca Rossi (University of Turin), Simonetta Fuser, Mara Maffei (†), Gianpiero Andreatta (State Forest Department)

Results

Analysis of the faunal context

Different research done in the past years by the Park give a clear context of all the species present in the area. More research is necessary, especially for the Invertebrates. Nowadays only 446 species have been counted in a census. What is very important is the presence of endemic species in the hypogeal fauna and *Rosalia alpine* (in the Appendix II European Directive 92/43 CEE Habitat).

204 species of Vertebrates have been counted in a census, but different systematic groups have been studied with different levels of research.

For Mammals, Ungulates, Carnivores, Birds and Ostitis Fish all the species present in the area have been found. More research is needed for Insectivora, Rodentia and Chiroptera.

Some important faunal species are present in the Park:

a) Fish: *Alburnus alburnus alborrella*, *salmo (trutta) marmoratus*, *Cottus gobio* (in the Appendix II of Habitat Directive);
b) The Amphibia, represented by the most typical species of the mountain area, such as the *Triturus carnifex*, present together with the *Bombina variegata*, in the Appendix II of Habitat Directive;
c) Reptiles (13 species) including *Zooteca vivipara*, *Archeolacerta horvatie*, *Vipera berus*, *Vipera ammodytes*, included in the IV Appendix of the Habitat Directive.
d) The most important presence in the Birds species, is the *Gypaetus barbatus* and *Gyps fulvus* (irregular presence within the Park), included in the Appendix I Directive 79/409 CEE Birds; however some species, like *Aquila chrysaetos*, *Crex crex* (included in the Appendix I Directive Birds and *Tetrao urogallus*, are present in the area of the Park in large numbers.

Proposals of management and preservation

The actions suggested can be classified in 4 types:

- Action of Environmental Improvement:
  Includes actions on the habitat like mowing and thinning out, in places that have been identified as fundamental for the species studied.
- Actions of Elementary Monitoring:
  Actions carried out periodically to keep the populations monitored (health monitoring, census, etc);
- Actions of active management of the specie:
  Reintroductions and exterminations, etc;
- Research Actions:
  Research projects and actions necessary to obtain further faunal knowledge of the Park.

For every action a level of priority has been defined (maximum, high and medium) to allow the Park to also plan also the division of financial resources available. The difficulty in defining an "Emergency Index" given to the different species, considering ecological and social aspects, is well known in the Faunal Planning.

84 proposals have been created, and are as follows: 15 actions of environmental improvement; 27 of elementary monitoring; 20 active management of the species and 22 of research: Most of them are being carried out or in advanced planning.

All the data of the fauna of the park have been put in a database integrated in a GIS, that allows the production of maps of the distribution of the different species and will let, thanks to the information already available about forestry types and herbaceous consortiums, future elaborations obtained through models of environmental qualification.

Conclusions

The FSP has been created with the purpose of reaching two main goals: to check the knowledge of the species present in the Dolomiti Bellunesi national Park and identify a series of future actions to support the preservation of the faunal heritage.

The whole work has been created with the intention of considering the whole actual zoocoenosis, in the best way, with the knowledge that social interest favours those types of *Taxa* that are easy to understand and of direct use.

The FSP has for this reason tried to resolve all the questions connected to faunal groups often forgotten in the planning (little Mammals, Chiroptera and Carnivores), species that in a protected area should have the same dignity with respect to other species usually studied.

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