

On the trail of gallinaceans in the Hohe Tauern National Park

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Summary

In the years 2006 and 2007 there was a survey of grouse and rock partridge in the western part of the Hohe Tauern National Park in Tyrol. With the data of the survey a model of the distribution of birds was built and the density of birds was determined.

Client

Hohe Tauern National Park Tyrol

Processor

Hafner, REVITAL ZT GmbH, Waldplan Senitza

Project duration

11/2006-07/2008

Keywords

modelling, survey of species, density of birds, dispersion

Wood Grouse, Black Grouse, Snow Grouse, Hazel Grouse, Rock Partridge

For the native, feral gallinaceans the Hohe Tauern National Park is an important habitat. The main part of the European population is found in the alpine region.

Apart from the Wood Grouse and the Hazel Grouse, which are living in the near-natural native forests, the Hohe Tauern National Park takes special care of the preservation of the Black Grouse, the Snow Grouse and the Rock Partridge.

The wide near-natural areas below and above the timber line provide a suitable habitat for these species.

The exact breeding habitats and the requirements of such habitats of these species are unknown in the Hohe Tauern National Park.

So the administration of the Hohe Tauern National Park decided to conduct a scientific research into the occurrence and distribution of feral gallinaceans in the Tyrolean part of the National Park, west of the Tauernbach and Isel.

A complete area wide investigation is very difficult because of the size of the National Park.

On the basis of the methodology developed by Hafner and Senitza only a few areas („reference areas“) should be investigated. The results of the investigation should be calculated with a computer based model for the whole study area.

The objective of this ambitious project was not only the modelling of the distribution of the birds but also to create a base for the protection of the feral gallinaceans.

Nine biologists searched for gallinaceans in an area about 40 sq. km in May and July of this year.

In the early morning hours the courtship display was documented and after sunrise further direct and indirect proofs (feathers, tracks, droppings, ...) were searched.

At every reference point different information e.g. type of vegetation, gradient, sea level, was collected. With this information it was possible to describe the habitat elements in detail.

Special thanks to the hunters without whose support the development of this project would not have been possible.

The knowledge of the hunters was a great help in choosing the study areas. The field researches were made easier through their cooperation and local knowledge.

All in all more than 700 (!) proofs were provided. As expected the main focus of the monitoring was the Snow Grouse (more than 400 observations) and the Black Grouse (more than 200 observations). The monitoring of the Rock Partridge resulted in more than 60 proofs.

The results of the field research were evaluated and computerized so that it was possible to identify well-suited habitats for the individual species. With the density of birds in the reference areas, the stock figures in the protection area was estimated for all species.

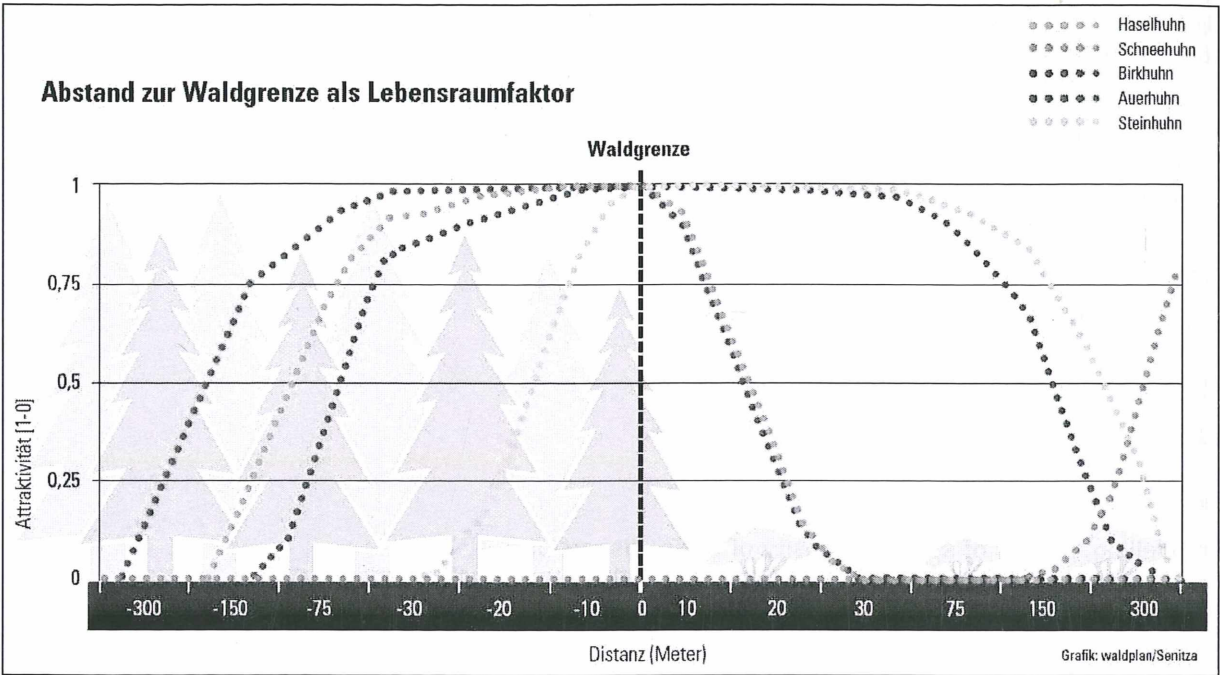


Figure 1: The distance to the timber line is an important factor of habitat for gallinaceans: Hazel and Wood Grouse are living as so called „Waldhühner“ in closed forests. Black Grouse and Rock Partridge are mainly breeding on and just over the timber line. The habitat of the Snow Grouse begins above the last grove.

In the Tyrolean part of the Hohe Tauern National Park (611 sq. km) west of the Isel and Tauernbach - the following stock figures were estimated:

- Wood Grouse: 3-5 individuals (population partially outside the National Park)
- Black Grouse: 160-250 individuals
- Snow Grouse: 480-600 breeding pairs
- Hazel Grouse: 30-35 breeding pairs
- Rock Partridge: 56-100 breeding pairs

The new results enable not only detailed stock figures to be made, but also contribute to the protection of these species. In the main distribution areas of the species measures for the preservation of the habitats und the protection of the individual species (visitor management) could be put into practice. The specific knowledge about the requirements of the habitats for each species is very important.

In 2009 and 2012 the rest of the Hohe Tauern National Park in Carinthia and Salzburg will also be researched.

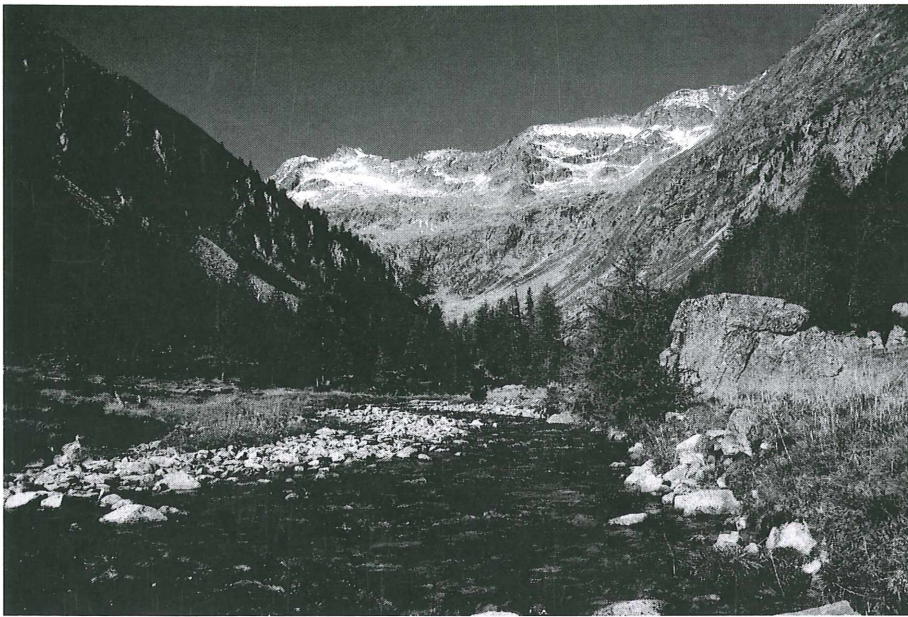


Figure 2: The „Patschalm“, a tributary valley of the Defereggental, is characterized by a large variety on different habitats (Picture: Christian Ragger).



Figure 3: A Snow Grouse in the summer plumage (Picture: Christian Ragger)

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