

## **Chapter 4. Summary and management recommendations to Austria.**

This study was designed to provide an overview of the magnitude and seasonal patterns of brown bear damage in several European countries, including Romania, Italy, Slovenia, Norway, Sweden, and Austria. The goal of the study was to describe bear management in these countries by examining the different management strategies for dealing with brown bear damage in each country, how bear management is organized, which organizations are involved, and which duties these organizations fulfill.

Data were collected in two field seasons during the summers of 1995 and 1996. Bear damage data were obtained from interviews with wildlife managers, hunters, and farmers in Romania, Italy, Slovenia, Norway, Sweden, and Austria, and from official records of their bear management agencies. Difficulties in collecting the data included different systems of recording data (e.g., bear damage reported in monetary value, number of incidents, number of livestock killed), and that most data were recorded in the native language of the study country and were not available in English.

Annual economic loss to bears in most study countries was below \$ 20,000 US, and bears often accounted for < 10% of all damage by wildlife. However, while damage measured over a whole country or region was minor, the local impact was important (Warren and Mysterud 1995). For instance, one farmer in Norway lost 1/3 of his sheep in one night after 10 years of no bear predation at all (Warren and Mysterud 1995). Most damage incidents involved sheep and beehives in all countries, and mainly occurred between June and August. Preventive measures included electric fencing of bee hives, sheep-guarding dogs in Romania and Italy, supplementary feeding in Romania, Slovenia, and Italy, and preventive husbandry methods such as moving sheep off meadows early in the season or at night, or switching to cattle production in bear-damage prone areas.

All study countries offered a more or less well functioning damage compensation program to farmers. The hunting associations of Slovenia and the Austrian states of Styria and Carinthia used membership fees to pay for a private insurance, which was used to reimburse farmers who experienced bear damage. Damages by bears in Norway, Sweden,

Romania, and Italy were compensated by the respective governments. In all countries, bear damage had to be verified by either foresters, bear biologists, veterinarians or other officials (Table 24) and a report had to be sent to the agency responsible for bear management.

Wagner (1997) reported that most compensation programs in the USA and Canada were established for valuable species (bear, elk and deer) whose populations have increased because of management efforts by state/provincial wildlife agencies. Indeed, experience seems to suggest that a good compensation system is mandatory for the successful conservation of bears in Europe. As illustrated by the situation in Italy, a lengthy, ineffective compensation procedure might increase poaching and impede success of maintaining a permanent bear population in Austria.

The second part of this study was the assessment of the organizational structure of different bear management programs in Europe. Methods included a content analysis of interviews with wildlife managers, farmers, and local people in each country. Time constraints and logistics did not allow for a random sample of interviewees. Much information was lost during the translation of the interviews into English for the analysis.

In each country different organizations were involved in bear management, including private and governmental organizations. In Norway, Sweden, northern Slovenia, and central Italy outside the Abruzzo National Park, bears were managed by government organizations (Figure 24). Management of brown bears in Austria, southern Slovenia, and Romania was a cooperative effort among NGOs and the respective governments. The 3 countries are distinct in that Austria is focused on preservation of a reintroduced population, whereas Slovenia and Romania manage their bear populations primarily for hunting. In all 3 countries, the national hunters associations play an important role in the management of bears. They provide damage compensation insurance (except in Romania), as well as other important aspects of management, such as population monitoring, hunting, and feeding (except in Austria).

In countries where bears were hunted (southern Slovenia, Romania, Sweden), problem bears could be shot within the legal harvest limit during the hunting season.

Countries in this study that did not have a regular hunting season (Norway, Italy, Austria), experienced difficult decisions regarding the elimination of problem bears. Most of them have small populations and the elimination of one bear may seriously affect the viability of the population, especially if it concerns a female.

Brown bear management in Europe included a broad spectrum of goals, ranging from no protection, to regulated hunting, to total protection. Romania, Sweden and southern Slovenia took a conservationist approach, characterized by economic use of their bear population. Romania and southern Slovenia also fed bears, which could be viewed as a utilitarian management scheme. All of these countries had viable bear populations. The second management approach, classified as the preservationist approach, was observed in Norway, Italy, Northern Slovenia, and Austria. This management strategy was characterized by year-long protection of bears, low population numbers, and no feeding of bears.

### **Bear management recommendations for Austria**

A well-functioning brown bear conservation program in Austria will have to include:

- ◆ Comprehensive public education
- ◆ A quick action procedure in case of a problem bear and/or bear damage
- ◆ Standardized compensation programs in all Austrian states
- ◆ Communication and cooperation among individual states
- ◆ Centralized data base on bear observations and damages
- ◆ Clear formulation of goals and objectives in future management plan

A management priority in Austria should lie in public education to gain support for brown bear conservation. Interviewed farmers in central Austria indicated that they were against reintroduction of bears and did not believe that bears belong in the cultural

landscape of Austria. I believe that this strong opposition of the local populations stems from a lack of public information and involvement during the reintroduction of bears in the 1980s. Several farmers and foresters mentioned that they were never asked their opinion about reintroducing brown bears to that area and “heard it on the radio” that bears had been released. Not surprisingly, they felt that responsible authorities did not care about their concerns.

A second important aspect to make brown bear conservation successful in Austria seems to be a quick action procedure for dealing with problem bears. Surveys conducted by the Wildlife Management Institute of the BOKU University (*Institut für Wildbiologie und Jagdwirtschaft*) in Vienna, Austria, showed that in 1993, 85 % of the local people in the Mariazell area of central Austria thought the bear was an asset to the area; in 1994 and 1995, only 67 % and 45 % respectively, felt the same way. The drop in local support for the presence of bears was probably related to a peak in bear damage in the summer of 1994. Bureaucratic obstacles kept authorities from quick management actions, such as trapping and radio-collaring the offending animals or issuing a kill permit when damages kept increasing. A facilitation of the bureaucratic process to speed up management procedures is essential to reduce damage and gain public support.

Related to quick action in a bear problem situation is a well-functioning compensation program. The states of Lower Austria, Upper Austria, and Styria in Central Austria each have separate damage compensation programs (Table 19). In the border area between Styria and Lower Austria, farmers in Lower Austria were not satisfied that Styria paid more money for a sheep killed by a bear. Damage insurance in Styria and Carinthia is financed by the state hunting associations and seems to work well. Insurance programs for damage compensation should be consistent across all Austrian states with the same premiums for killed sheep, destroyed bee hives and other damages. The programs do not necessarily need to be operated by the same institutions, such as the state governments. A suggestion by the bear management plan team is to standardize all insurance programs. Support of the hunting associations should not be jeopardized in doing so, and the well

functioning systems in Styria and Carinthia should be maintained, but modified to achieve the goal of having the same insurance program in all states.

Lack of communication between states or even agencies within states has been a problem, as the high bear damage situation of 1994 illustrated. Styria did not issue a kill permit for a problem bear that was causing problems in the border zone to Lower Austria, which had issued permits in the affected counties. As the offending bear crossed the border from Lower Austria into Styria, it could not be removed. A council of representatives from all states, who would be authorized to make a mandatory decision for their state in consensus with the other states, could solve the lack of cooperation.

To be effective in bear management and monitoring of the bear population, Austria needs a centralized data base for all bear damages and bear observations. The above mentioned council of representatives could serve as liaison to each state for providing the data. The future bear management plan of Austria should avoid mistakes that have been observed in Norway. A clear formulation of goals and objectives to avoid misinterpretation should be a priority.