

Impacts of Gray Wolf (*Canis lupus* Linnaeus 1758) on Wildlife and Domestic Animals in Great Gobi Strictly Protected Area Sector 'B' and Coordination of the Issues

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Introduction

The gray wolf is a member of the Canidae family. It is adapted to different ecological conditions and lives in a wide range of habitats and geographical locations throughout the world. In recent years the species has been hunted in large numbers in some European countries, and its numbers have dramatically decreased. In some places it is threatened with extinction. Wolves are widespread throughout Mongolia from the taiga to the desert zone. Depending on specific features of each natural zone, two types of gray wolf differing in appearance and body size are distributed throughout the country. One is dark grey, larger and is found in forests and mountainous regions, the other is light grey, smaller and found in the steppe and Gobi regions to the south.

The gray wolf plays a "cleaning" role within the ecosystem eating the oldest and weakest individuals and feeding on carrion. Wolves may help to (1) prevent wild species from contact with potential infectious diseases and (2) keep the balance of herd structure and numbers among hoofed animals. In comparison to other carnivores, numbers and distribution of the gray wolf can drastically increase within short periods of time and high wolf numbers may adversely impact livestock and game species.

Great Gobi Strictly Protected Area (SPA) is of international conservation significance. During recent years, vast areas in the Gobi region have been overgrazed. As a result the ecosystem is degraded and some plant and animal species have decreased - some of them are even threatened with extinction. Therefore, the conservation and research of rare species and the reintroduction of endangered species in south Altai and Djungarian Gobi region is necessary. Since 1992 the reintroduction of takhi (*Equus przewalskii*) has

been successfully implemented, with assistance from Germany, Austria and Switzerland. Between 1990 and 1993 several comprehensive ecological studies were conducted in the Djungarian Gobi where the ancestors of takhi once lived. However, there is still a lack of information on predators. Grazing and movement of wildlife and livestock along the few available water points in Djungarian Gobi provide favorable conditions for predators such as the wolf.

To ensure the protection of habitat and favourable conditions for breeding of hoofed animals in the area, comprehensive studies on species habitat requirements and their interrelations within the ecosystem should be carried out. Simultaneously, there must be studies on the ecological impacts of predators on distributions, habitat use and population dynamics of a reintroduced species, particularly at the beginning of the reintroduction when they have no instinct to protect themselves and others in the herds from carnivores like wolves.

Aims

Main objectives of the study were to conduct surveys on the impacts of gray wolf on populations of wild species such as khulan (*Equus hemionus*) and black-tailed gazelle (*Gazella subgutturosa*) as well as on domestic livestock and to properly determine people's knowledge and attitude towards wolves. To achieve these aims the following actions were proposed:

- Determine distribution, movement areas, numbers and density of wolves in the "B" zone of Great Gobi SPA and identify percentage hunted
- Find wolf dens in the area and enter their locations in a GIS to produce a distribution map of the species
- With the help of interviews of residents of the "B" zone of Great Gobi SPA determine attitudes towards wolves
- Determine the total number of livestock within the area, document their movements, as well as