

Sikhote-Alin Reserve Extension Project

Final Report To The
Save the Tiger Fund at the National Fish and Wildlife Foundation
Project 95-166-006
June 1999

By: Maurice Hornocker, Howard Quigley, Dale Miquelle
Hornocker Wildlife Institute
University of Idaho
P.O. Box 3246
Moscow, Idaho 83843
Phone: 208-885-6871
Fax: 208-885-2999
Email: hwi@uidaho.edu

Executive Summary

This project undertook to support the establishment of a 260 mile² addition to the most significant protected area for tigers in the Russian Far East, the Sikhote-Alin Biosphere Reserve. The Reserve is one of the flagship reserves of the Russian protected area system, but the configuration of its boundaries has left much of its wildlife unprotected and the ecological integrity of the area in question. These 260 mile² were added to the area of the Reserve in 1995 by government decree. Through the financial support provided by this grant, an infrastructure was put in place rapidly to support the extension of the reserve. This included the construction of cabins for patrolling guards, completion of a fuel depot with the local forestry agency, establishment of an administrative office, and purchase of a vehicle. These activities also allowed the expansion of conservation development activities in the local village through leveraging these reserve activities with the needs of the local community.

Introduction

This report summarizes the activities and accomplishments of the Sikhote-Alin Reserve Extension Project, made possible through a grant from the *Save the Tiger Fund* (grant STF-95-166-006). Also included below is the background information necessary to place this accomplishment in context for completion of the project. Tiger conservation, as practiced by the Siberian Tiger Project, must take a very broad-based environment into consideration to be successful. Some of this context is described below and makes the importance of the accomplishments of this Project more clearly recognized.

Background

The Russian Far East contains some of the highest biological diversity of any region in the northern temperate band of the earth (Miquelle et al. in prep). As such, it is in great need of attention from the world's conservation community; long-term planning for conservation and development must take place in the near future to prevent what could be a great loss of species richness. One mechanism by which this planning can be given a biological framework is through conservation planning oriented and focused on a large carnivore. Because of their ecological requirements, carnivore conservation planning must, by necessity, include large tracts of lands. These large tracts of land can provide for the conservation of many other species in the process. This so-called "umbrella effect" (Soule, 1986) can be an effective conservation tool, but the development of the conservation plan must be based on good science and credible information.

The Siberian tiger (*Panthera tigris altaica*) provides an ideal focus for conservation planning in the Russian Far East. The species requires large amounts of space, its populations are still relatively intact, along with its habitat, and it is a charismatic representative to draw attention to the conservation problems overall. That overall conservation planning prospectus – driven by tiger conservation – will incorporate a variety of aspects, from field science, and habitat assessments, to assessments of land use. Within the latter is incorporated an assessment of the role and effectiveness of protected areas. From this assessment came the activities of this reserve extension project. Still, we must begin with the status and prospectus for conservation of the tiger.

There are currently believed to be between 250 and 300 Siberian tigers in the wild, at least 90% of which reside in the Russian Far East, in the Primorye and Khabarovsk Provinces. In the long term, land use patterns in the region will determine the survival of this animal in its native habitat. Two components of land use will be equally important: (1) the development of sustainable resource extraction techniques that promote wildlife conservation and (2) the development of a secure system of protected areas. The Siberian Tiger Project, operated by the Hornocker Wildlife Institute in partnership with the Wildlife Conservation Society, has been conducting field research on the ecology of the Siberian tiger in the Russian Far East for the past seven years. The Project is applying data from the field study to the problem of land use planning for the region. These analyses have been published in a variety of formats (Miquelle et al. 1999)

and provided to the highest levels of Russian government, where they have been incorporated into tiger conservation plans. Within the core of the evaluation is a proposed corridor of tiger habitat that will be managed long-term for tiger conservation. This corridor is made up of protected areas and multiple use areas, within which we are constantly searching for ways to strengthen tiger conservation. The activities taken under this grant project have allowed us to take advantage of an opportunity to strengthen the protected area portion of the land use within the corridor.

Within Siberian tiger range in Russia, there are only three significant, federally protected areas (not counting the indigenous peoples' lands) of sufficient size for the protection of tigers, the Usurick, Lazovsk, and Sikhote-Alin Reserves (or Zapovedniks; Figure 1). Of these three, only the latter two have resident tiger populations of significant numbers. Sikhote-Alin Reserve is the largest of the three (about 1,300 miles²). In addition to this important feature, there are others that make it a natural focus for tiger conservation efforts: the Reserve has the best long-term, historical data base on its tiger population, which has increased and stabilized over the past twenty years (Smirnov and Miquelle 1999); it is situated in the center of current Siberian tiger range, site of Siberian Tiger Project operation, making this the best-understood subpopulation of Siberian tigers anywhere. In fact, it is likely the best understood tiger population anywhere.

These elements define the Sikhote-Alin Reserve as a cornerstone for long-term conservation planning for the Siberian tiger. This makes the integrity of the Reserve and its ecological connections with other conservation units an important aspect of conservation efforts.

The Sikhote-Alin Reserve had attempted for years to annex the Kolumbey River watershed on the west side of the reserve. The watershed is considered an important addition for establishing the ecological integrity of the reserve, and the protection of tigers. The upper section of the Kolumbey drainage has been protected within the boundaries of the Reserve since its establishment.

Reserve Extension Process and Activities

In the process of expanding a protected area, normally, the federal government must compensate local extraction operations (i.e., logging commercial hunters, etc.) for loss of income when land is turned over to reserves. However, in this case, the logging operation was considered in violation of standing regulations for logging in the area, and compensation was deemed unnecessary. On 4 April 1995, the chief administrator of the Red Army District (in which the area lies) signed a decree transferring 260 miles² to the Sikhote-Alin Reserve.

In 1994, the director of the Sikhote-Alin Reserve, Anatoly Astafiev, approached the Hornocker Wildlife Institute for assistance in funding the Kolumbey extension. All federal reserves and federal operations in general had been under severe financial pressure since the dissolution of the Soviet Union. Also, much like the National Parks system in the United States, budgets are submitted annually for approval by the central government; fiscal year 1995 budget did not include funding to support the extension of

the Reserve. In our discussions with Dr. Astafiev, we affirmed our support and requested exclusive rights to organize and coordinate funding. In late April of 1995, a proposal and budget were developed to establish the reserve's presence on the Kulombey side of the Reserve, by establishing cabins, supporting the necessary logistical support, etc.

Thus, support under this grant has not been for compensation expenses (due to the ruling by government officials), but for support and establishment of the Reserve's presence in the area, a site which is the most distant of any of the administration offices in the town of Terney. Without the support obtained for this project, this additional Reserve area would likely have encountered many difficulties, if not failed altogether. This support has also been a one-time only start-up grant and the continuing support for the area was the responsibility of the Reserve. This is likely the most significant addition to protected areas for Siberian tigers in more than 15 years.

Specifically, the grant has supported four activities essential for the success of the new protected area: construction of two cabins for guards, purchase of a vehicle, completion of a fuel depot (in cooperation with the forest department), and purchase of a house for administration headquarters. All of these activities have been completed and the extension is now supported through general Sikhote-Alin Reserve funding through its budget process. In addition, all logging in the extension area ceased in early 1999. This last extraction period was part of the agreement to transfer the land.

In addition to the direct activities supported under this grant, other activities were undertaken by the Hornocker Wildlife Institute to help in the overall success. Two additional grants were obtained to support activities in the village of Melnichnoye. This village is situated on the edge of the extension piece, and was highly impacted by the protected status imposed on the area. Through grants from the Liz Claiborne and Art Ortenberg Foundation, and the Turner Foundation, the Institute has funded environmental education, resource planning, anti-poaching, and resource marketing activities essential to conservation of the area.

Literature Cited

- Miquelle, D.G., W.T. Merrill, Y.M. Dunishenko, E.N. Smirnov, H.B. Quigley, D.G. Pikunov, and M.G. Hornocker. 1999. A Habitat Protection Plan for the Amur Tiger: Developing Political and Ecological Criteria for a Viable Land-Use Plan. Pages 273-295, in J. Seidensticker, S. Christie, P. Jackson, eds. *Riding the Tiger: Tiger Conservation in Human-Dominated Landscapes*. 383 pp.
- Smirnov, E.N., and D.G. Miquelle. 1999. Population Dynamics of the Amur Tiger in Sikhote-Alin Zapovednik, Russia. Pages 61-70, in J. Seidensticker, S. Christie, P. Jackson, eds. *Riding the Tiger: Tiger Conservation in Human-Dominated Landscapes*. 383 pp.

Figure 1. Primorye Province in the Russian Far East and the locations of the significant zapovedniks of the area.

