

Wild reindeer of the Kamchatka Peninsula – past, present, and future

Vladimir Mosolov

Kronotsky State Biosphere Reserve, Elizovo, Kamchatka, Russia.

Abstract: A unique subspecies of wild reindeer (*Rangifer tarandus phylarchus* Hollister) that is endemic to the Kamchatka Peninsula has been declining in number since the 1950s due to commercial hunting, increasing industrial development and competition with domestic reindeer. The largest remaining herd of wild reindeer occurs in the Kronotsky Reserve in northeastern Kamchatka, and the reserve is now critical to the preservation of this subspecies of reindeer.

Key words: commercial hunting, industrial development, Kronotsky Reserve, *Rangifer*

Rangifer, Special Issue No. 9, 385–386

Introduction

The Kamchatka Peninsula of the Russian Far East is inhabited by a subspecies of wild reindeer (*Rangifer tarandus phylarchus* Hollister) which is unique to the area. These animals are the largest subspecies of *Rangifer*, and are adapted to local climatic conditions. The area is dominated by volcanoes, and summer pastures are moist and highly productive. Snow is often very deep in winter and lingers late into summer. The wild reindeer population of the peninsula has been declining since the 1950s, and biologists are concerned about its continued well-being.

Population size

During the 1960s there were an estimated 12,000 wild reindeer on the peninsula and the ranges of individual herds overlapped (Vershinin, 1972; Vershinin *et al.*, 1975). By 1970 the population had declined considerably, and occurred primarily in 3 non-overlapping herds (Fig. 1). Range size continued to become more restricted until 1980, but has not changed appreciably since then (Fig. 1). The total population declined through 1990 and has now stabilized as the Eastern herd increases and the other 2 herds continue to decline (Table 1).

Prior to the mid-1970s, the Southern herd prospered, and contained about 3,000 reindeer (Phili, 1973). During the early 1970s the herd was reduced by heavy commercial hunting. In 1985 commercial hunting was prohibited, but exploration, highway construction, and construction of geothermal stations for electricity production began and made the winter ranges of the herd more accessible. The herd

continued to decline, and is in danger of being eliminated.

Until 1980, the range of the Northeastern herd was largely unaffected by human activity, but the winter ranges of the herd were also used for reindeer husbandry. A population decline began during the 1970s, and has continued to the present, although the rate of decline has slowed.

The Eastern herd is the healthiest of the 3 herds in Kamchatka because all of its summer range and some of its winter range is in the Kronotsky Reserve, which is closed to hunting and the grazing of domestic reindeer. However, particularly when snow is deep, the Eastern herd moves out of the reserve onto adjacent ranges where domestic reindeer herding occurs. Herders are intolerant of the wild reindeer because they compete for winter range with domestic reindeer and their animals may be led away by the wild ones.

Table 1. Number of wild reindeer in Kamchatka, 1975–1992.

Herd	Number of animals ^a						
	1975	1980	1983	1985	1987	1990	1992
Southern	3,300	1,450	800	550	300	220	150
Eastern	2,000	880	1,000	1,360	1,700	1,900	2,500
North-eastern	3,000	2,100	1,700	1,150	900	650	450
Total	8,300	4,430	3,500	3,060	2,900	2,770	3,100

^a Estimated through aerial surveys.

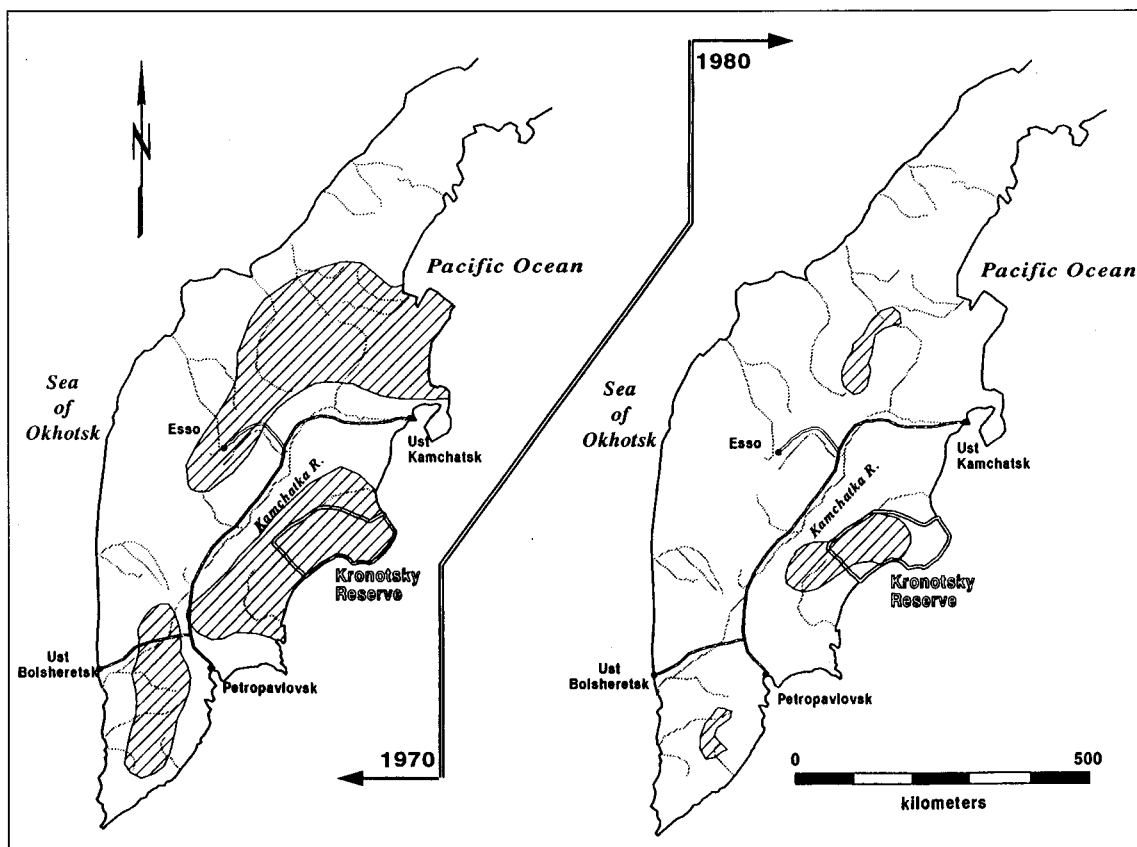


Fig. 1. Distribution of Kamchatka wild reindeer in 1970 and 1980.

Population conservation

The Kronotsky Reserve plays a critical role in the conservation of this subspecies of wild reindeer. However, even the relatively large reserve does not contain sufficient winter range and cooperative agreements, monitoring of herd movements and increased communication with adjacent reindeer herders is necessary.

Acknowledgements

I thank N. Naurzbaeva and P. Valkenburg for translating and rewriting this paper, and the International Science Foundation of New York for providing financial support. We are also grateful for financial and technical support from the Alaska Department of Fish and Game and the organizing committee of the Sixth North American Caribou Workshop.

References

- Phili, V. I.** 1973. Aspects of the ecology of wild reindeer in the Southern Kamchatka. Pages 179-185 in: *Regional Studies Reports (Kraevedicheskie Zapiski)*; Vol. IV. Petropavlovsk-Kamchatskii.
- Vershinin, A. A.** 1972. Numbers and distribution of wild ungulates in Kamchatka area. Pages 109-127 in: *Game Biology (Okhotovedenie)*; Vol. 1. Moscow, Timber Industry (Lesnaia Promyshlennost).
- _____, **Vetkin, P. S., Phili, V. I. & Kaimenov, A. D.** 1975. Wild Reindeer in Kamchatka. Pages 215-222 in: E. E. Syroechkovskii (ed.). *Wild Reindeer in USSR (Dikii Severnyi Olen v SSSR)*. Proceedings of the First Interdepartmental Conference on the Preservation and Rational Use of Wild Reindeer. Moscow, Soviet Russia (Sovetskaia Rossija).