

## Reindeer on Prins Karls Forland, Svalbard

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Gjertz, I. 1995: Reindeer on Prins Karls Forland, Svalbard 1995. *Polar Research* 14(1), 87–88.

Svalbard reindeer were exterminated on the island of Prins Karls Forland just after the turn of the last century. In July 1994, after a period of 90 years, reindeer were again observed on the island.

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The Svalbard subspecies of reindeer (*Rangifer tarandus platyrhynchus*) is only found in the Svalbard archipelago. When the archipelago was discovered, around year 1600, reindeer were abundant throughout much of the ice-free parts of Svalbard (Lønø 1959). Since then, excessive hunting reduced the numbers and distribution dramatically. According to Wollebæk (1926) hunting drove the reindeer from the easily accessible western coast of Spitsbergen, while they were still abundant on the northern and eastern coasts of Spitsbergen as well as on Barentsøya and Edgøya. The original size of the reindeer population is not known, but Norderhaug (1969) roughly estimated it to be 6000–7000, a figure which must be unrealistically low as Øritsland & Alendal (1985) have shown that there probably were 11,000 reindeer in Svalbard in 1980, a time when large tracts of former reindeer habitat had not been recognised.

Though reindeer could be found throughout large parts of Svalbard, they were not abundant in all areas. Kongsfjorden apparently had numerous animals, while the animals were less abundant on Prins Karls Forland and in southern Spitsbergen. (Lønø 1959). According to Wollebæk (1926), reindeer were exterminated along the western coasts north of Isfjorden north to Krossfjorden, and on Prins Karls Forland; in addition Lønø (1959) states that in the Kongsfjorden–Krossfjorden area this may have been as early as in 1861. Reindeer in Svalbard were totally protected in 1925, but large scale poaching is known to have been common for many decades since then.

On Prins Karls Forland reindeer were apparently exterminated before 1926 (Wollebæk 1926). According to Bruce (1908), who mapped Prins Karls Forland just after the turn of the century, reindeer were occasionally found on the island. In 1906 Bruce (1907) saw two reindeer at the northern end of the island. Further south on the island there were two groups of overwintering trappers in 1907. The leader of one of these groups kept a detailed diary in which all game caught or seen were registered (Pedersen 1908); however, no mention is made of reindeer. This suggests that reindeer must have been scarce.

After the reports of Bruce (1907), I have found no observations of reindeer on Prins Karls Forland in the literature or trappers' diaries from the island. This suggests that the reindeer were exterminated on the island around 1907. Since reindeer were rare or also exterminated along the western coast of Spitsbergen from Kongsfjorden to Daudmannsøyra, there was no local source to restock Prins Karls Forland.

In 1978, fifteen reindeer were re-introduced to Brøggerhalvøya, in Kongsfjorden, as part of an ecological experiment. By 1993 there were close to 400 reindeer in the Kongsfjorden area (N. A. Øritsland, biologist Norsk Polarinstitutt, personal commun.). The following winter a large part of these animals either perished or moved out of the area.

In 1984 and 1985 a total of 12 reindeer were introduced to Daudmannsøyra, on the northern side of the mouth of Isfjorden (E. Persen, conservation officer for Svalbard, Sysselmannen, per-

sonal commun.). These animals have slowly increased and in 1994 numbered at least 60–70 (H. Lund, trapper, personal commun.). In the winter of 1994 reindeer could be found in the mountains along the whole coast from Daudmannsøyra to Kongsfjorden. Hans Lund, who has a trapping station in the area, claims that there was a marked increase of animals in 1994. This observed increase may therefore be partly explained by the altered situation in Kongsfjorden.

In July 1994, I hiked on Prins Karls Forland, from the northern shore of Richardlaguna around the northern tip of the island and down the western coast to Salpynten, the southernmost tip of the island. This trip lasted for six days and I saw two reindeer on the island and signs of more animals, despite the fact that the weather was particularly bad most of the time, with dense fog and little or no visibility. On the northern tip of the island there were fresh tracks of one small reindeer. No animals were sighted, but this may have been due to the dense fog that prevailed in the area. This area was characterised by rich vegetation due to the large bird cliffs and offers excellent grazing opportunities. No reindeer or tracks were seen until Tvihyrningen, roughly 50 km further south. Here two large adult males were observed grazing on thick layers of lichens. Based on observations of tracks and faecal matter, it can be assumed that the reindeer had been in the area for some time, but the faecal matter did not appear to be from winter, i.e. loose pellets. In addition, Tvihyrningen has a large bird cliff and is therefore richer in vegetation than most of the surrounding areas. The large valley, just south of Tvihyrningen and connecting the western and eastern coasts of the island, was not inspected. No more signs of reindeer were observed before Salfjellet, the southernmost part of the island, 30 km further south. Here several fresh tracks were observed.

Norsk Polarinstitutt and Sysselmannen (the Governor of Svalbard) have been conducting biological surveys at Prins Karls Forland more or less annually since 1985, and hitherto no reindeer have been observed. The observations of reindeer

presented here are probably the first on Prins Karls Forland in 87 years. It is not known if the animals walked across the ice from Spitsbergen, or swam. As stated earlier reindeer have been re-introduced into two areas on the western coast of Spitsbergen; they are now found more or less continuously along the entire coast between these two areas. Part of Prins Karls Forland has a rich vegetation and offers excellent grazing for reindeer. These areas had not been grazed for 90 years, and it has probably just been a matter of time before reindeer from Spitsbergen, notably the Kongsfjorden area, would move out to this large island situated merely 15 km from Brøggerhalvøya.

My observations indicate that a minimum of three reindeer were present on the island in July 1994, probably more. According to Øritsland & Alendal (1985), chances that the introduction of three or four reindeer would lead to the development of viable populations are slight. The introduction of eight animals, however, would significantly increase the chances of an increase to such a population. As the number of reindeer on the island is unknown, it remains to be seen whether the present recolonisation of Prins Karls Forland will be successful.

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