

km² productive ground). There was pronounced variation in annual rates of fecundity (9.0 - 73.3%), mortality (1.5 - 25.7% of the population) and dispersal (0 - 25.1% of the population). The annual rate of increase (r) fluctuated between +43 and -47%. Mortality (of calves and adults) accounted for 46% of total annual losses and was a major factor limiting numbers: the principal single cause of variation in r , however, was variation in the annual birth rate. It is suggested that reproductive failure was caused by resorption of fetuses induced by acute starvation. Ninety percent of all natural mortality occurred in the second half of winter; 83% of all deaths were due to starvation. Calves suffered higher mean rates of mortality than both males and females aged ≥ 1 yr (35.8, 15.8 and 9.3% per annum, respectively). Reindeer were fat in autumn (TDF=17% total body weight in adult females) and lean in late winter but survival was probably influenced principally by the supply of food in winter rather than the extent of fattening in summer. A model of a reindeer's energy balance showed that despite large autumn reserves of fat and muscle, a non-pregnant, adult female would normally have to meet not less than 75% of her daily energy requirements in winter by feeding. Survival also appeared to be influenced by reindeers' ability to process food efficiently; the molariform teeth of reindeer which starved to death were more worn than those of animals of the same age which were shot. Winters with heavy mortality were invariably followed by low rates of calving in spring and neither the birth rate nor the rate of mortality was significantly density-dependent across years. Evidently effects of grazing on plant biomass in winter were overridden by the effects of random variation in the weather. It seems that food shortage in winter can arise in several ways: through low production of forage in summer, through reduced availability of forage due to snow and ice and through increased competition. There was no evidence that weather conditions were exceptional in years when numbers declined. It is suggested that periodic die-offs and subsequent low calving are an integral part of the ecology of Svalbard reindeer. The population may be susceptible to effects of weather because it has reached equilibrium with the winter food supply. This contrasts with a previous suggestion that severe winter weather might keep populations of Svalbard reindeer below ecological carrying capacity.

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Forskningsnytt

Finland bygger reinforsøksstasjon

Etter lengre tids planlegging er det nå besluttet at finsk reindrift skal få sin forsøksstasjon. Det var opprinnelig bestemt at den skulle plasseres nær Rovaniemi. Denne beslutning er nå omgjort og stasjonen skal ligge ved Ivalo. Byggestart blir, om alt går vel, i 1989 og den skal stå ferdig et år senere. Vi kan kanskje håpe på innvielse i 1990?

Dimensjonene er betydelige. Stasjonen får ca. 900 m² gulvareal og det blir laget innhegninger over ca. 200 ha. Prisen anslås til noe over 10 mill. FIM.

Av personale skal det, når planen er oppfylt, være i alt 17 personer. Herav vil det være 5 forskere: Veterinær, «spesialforsker», reinbeiteforsker samt en som skal dekke reindriftsteknologi og endelig en på økonomisiden.

The new reindeer research station in Finland

After a long planning time, it is now decided to build a reindeer research station in Finland. The station will be situated near Ivalo in Lapland, the northernmost county in Finland. Hopefully it will be completed within 1990.

The floor space will be approximately 900 m² and enclosures will cover more than 200 hectares. Completed, the staff will go up to 17, including 5 research officers who will cover different fields.