

Arctic Fox Study - Cape Dorset - Baffin Island  
1957

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Field studies in the Foxe Peninsula area were conducted from March 21 to May 21. The objectives were to collect data on: (1) general life history - body measurements, distribution, food habits, winter to summer moult, parasites and disease, (2) male and female reproductive activity; (3) potential reproduction; and (4) general observations on other species. A comprehensive report will be submitted after the completion of the laboratory studies.

On March 17, the writer arrived in Moosonee from Ottawa. The flight to Cape Dorset was made on March 21 on a DC-3 aircraft operated by Austin Airways. Six persons including Hudson Bay Company personnel and a Welfare Teacher were flown to Puvungnituk and Cape Dorset with a landing at Port Harrison. From April 1 to May 16, six field trips by dogteam accompanied by Eskimo guides, totalling 970 miles, were made as follows: from a Cape Dorset to the Great Plain of the Koukdjuak to Ikeraksak, ~~Sed~~ from Ikeraksak to the mouth of the Kommanik River, to Cape Dorset, to north of Shubuk Inlet, to the mouth of the Kommanik River and to Cape Dorset. On May 21, the writer flew from Cape Dorset to Port Harrison, and on the following day from Port Harrison to Kapuskasing, Ontario, refueling at Great Whale River and arriving in Ottawa on May 23.

The base camp was located at Ikeraksak, about 53 miles Northeast of Cape Dorset. This location was selected because the Eskimos there have the reputation of being the best travellers and trappers in the Cape Dorset area. The success of the field studies was mainly because of their co-operation, interest and assistance.

The Arctic fox population was lower in 1956-57 than in 1955-56 although an increase had been predicted by the Hudson's Bay Company. About 93 of the total catch of about 200 foxes had been trapped up to the latter part of March 1957. Reports from other areas indicated that the fox population was low throughout the Eastern and Western Arctic. During the study 40 fox specimens were collected.

The results of some of the observations are presented below:

1. Body measurements of foxes taken on Baffin Island were slightly larger than those taken on Banks Island, shown in parenthesis. The mean body length, tail length and weight of male and female foxes were: males - 856mm (843); 318 mm (308); 611b (5.8); females, 816 mm (810), 293 (298) and 5.2 lb (5.0), respectively.
2. Few foxes were trapped in the interior of Foxe Peninsula. Most of them were trapped inland along the northern coast.
3. The number of traps per fox varied from 16 to 74.
4. Food habit studies have not been completed.
5. The winter to summer moult commenced in early April. Summer pelage was first observed about the ears, face and legs of specimens taken in mid-May. Pelts taken throughout April were still in nearly prime condition. ✓
6. Examination of the viscera for internal parasites has not been completed. No evidence of disease was reported or observed, although a number of dogs died at the Eskimo winter camps. One dog specimen was shipped for examination to the Animal Diseases Research Institute, Hull, Quebec. A report, dated May 28, disclosed that no Negri bodies were present. Histological sections of the lungs, liver, heart, kidneys and intestines were made. Interpretation of these sections was precluded because of advanced autolytic changes in the tissues.

7. Histological sections of fox testes and ovaries are being prepared at the University of Ottawa.

8. Macroscopic examination of the uteri failed to reveal obvious implantations. Histological sections will be prepared of uteri which appear to contain implantations as shown from an examination of the ovary.

Other species observed included: arctic hare, collared lemming, tundra wolf, polar bear, barren-ground caribou, walrus, ringed and bearded seals.

No large concentrations of Arctic hares were observed in the Foxe Peninsula similar to those which occur on Banks Island and islands of the high Arctic. Five animals were observed between Andrew Gordon Bay and Bowman Bay. A number of these rodents were trapped on the traplines of the Kommanik River and Shukbuk areas.

Few lemmings or tracks were observed throughout the study. Only one trapped specimen was taken in a fox trap. An increase in the number of snowy owls was reported; five were seen. The apparent increase in the snowy owl population may signify an increase in the lemming population. Observations in the late summer and autumn would confirm this supposition.

One cream-coloured wolf was seen on May 3 near Ekuttooyouak Lake. The presence of this animal in the Foxe Peninsula surprised the Eskimos who have not seen a wolf for a number of years.

One female polar bear and cub were shot by the Eskimo guide on April 7 at the mouth of the Bluegoose River. No polar bears were taken at Cape Dorset during the study.

A total of 101 caribou were seen from April 6 to 8 in the area from the Aukpar River to the Great Plains of the Koukdjuak. The animals consisted mainly of adult cows accompanied by rising-yearlings and other age-classes. A few groups were aged and sexed as follows: six adult females and four rising-yearlings; seven adult bulls and one yearling; nine adult females, two 2- or 3-year-old bulls,

and two rising yearlings. Opportunities to age and sex the groups was limited because the excited dogs frightened the animals.

In September 1956, large numbers of scattered groups of caribou were reported north of the Koukdjuak River and Netchelling Lake. An undetermined number of caribou travelled south to Amadjuak and Mingo Lakes, and continued towards Iparark Lake, the western extremity of their winter movements. From January to March, about 200 caribou were killed in the area between Iperark Lake and the Aukpar River. During February and March, the caribou moved eastward, crossing the Aukpar River near Kokittowa Hill, and continuing north and northeast across the Bluegoose River and the Great Plain of the Koukdjuak towards the Koukdjuak River and Netchilling Lake.

Five of the six adult female caribou were pregnant. A cursory autopsy was conducted on five animals, three adult females, one 2-year-old bull and one male rising yearling. The three females were in good condition with a adipose tissue in the mesenteries and around the rectum, and with a layer of fat over the rump. A Cysticercus sp. was found in one of the livers. The rising yearling and young bull had no rump fat and little mesenteric fat. All animals were infected with warble fly larvae (<sup>*Oedemagena*</sup> Hypoderma sp.). One adult female had 50 to 60 larvae and the rising yearling bull was heavy infested with larvae.

Walrus were reported in small groups along the floe-edge near Cape Dorset. Two animals were taken by Eskimos about March 20 and April 10.

Ringed and bearded seals were scarce along the floe-edge throughout the winter and spring. Along the southern coast of Baffin Island Eskimos suffered from the scarcity of seal meat for their own use and for dog food. The meat scarcity was offset by a limited supply of caribou meat

during the critical winter months. On March 24, four hunters hunted along the floe-edge, 6 miles from Cape Dorset, killing only two small ringed seals. This was a common story throughout March and April until May. At Ikeraksak two Eskimos hunted in the Shukbuk getting 18 ringed seals. Sealing at open water in May was reported excellent by the Eskimos at Cape Dorset.

