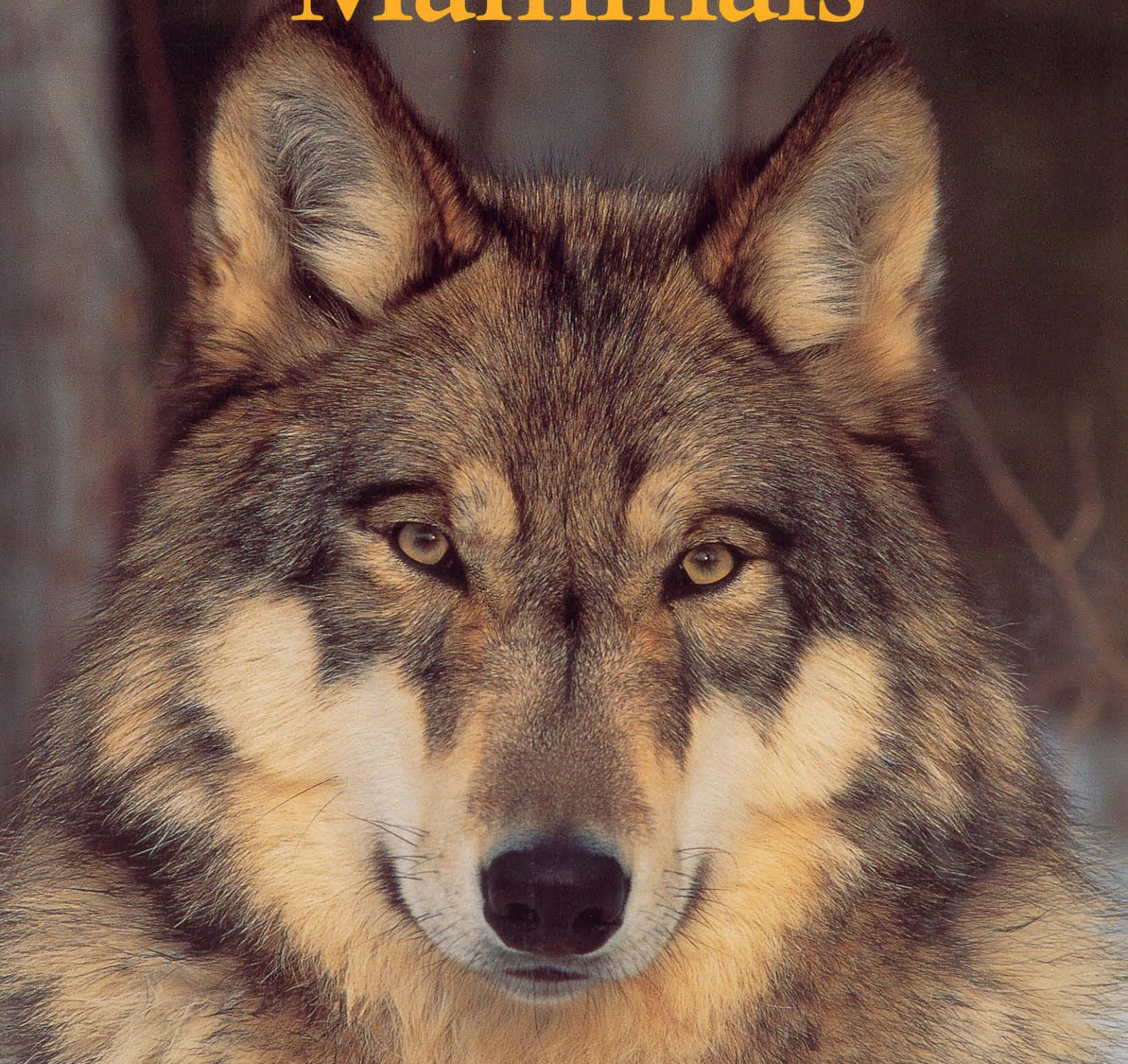


The Smithsonian Book of
**North American
Mammals**



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Arctic hare | *Lepus arcticus*

The arctic hare primarily occurs at elevations from sea level to 900 meters. In Canada it is found north of the tree line, as far north as northern Ellesmere Island, Northwest Territories, and also on the rock-strewn plateaus and mountains of eastern Newfoundland. In Greenland it is common in most of the ice-free coastal region. It also occurs on tiny islands off Greenland that are accessible when ice is present, and frequently is found on ice 3–5 kilometers from land. Fossil remains have been found on Banks Island, Northwest Territories, in northern Greenland, and in Alaska.

This beautiful hare moves by a series of four-legged hops, each hop carrying it about 1.2 meters. When disturbed, it stands erect on its hind legs, forefeet tucked close to its body,



Lepus arcticus

and hops about until the source of danger is located. It can run up to 64 kilometers per hour, and can easily swim across small streams. Throughout winter, it makes trails, often on slopes that are exposed to strong winds that remove most of the snow from the sparse vegetation.



Although usually solitary, arctic hares may form groups of 100–300 individuals. When resting, these hares usually sit near rocks, dozing or asleep, sheltered from wind, and if possible warmed by the sun. Often, two or more rest together. In winter, an arctic hare may protect itself from extreme cold by burrowing into snow, but typically it uses only a depression in the snow or the lee of a rock for shelter. Dens consist of a tunnel and a terminal chamber.

Arctic hares always face up a slope; to go lower on the slope, the hare runs down, then turns to face up-slope again. It paws away snow with the front feet only, digging in one place for awhile, then moving to another before exhausting the supply of lichens or willow twigs it has uncovered. If the snow is soft or thin, it reaches the food by scraping the snow with the nose or forelegs. When the snow has a hard crust, it stamps on the crust with the forelegs to make a hole; pieces of snow are then pushed aside with the nose. The sound made when an arctic hare beats or drums against the snow crust in search of food is similar to that of a distant drum roll.

The large feet are padded with a heavy brush of hair. The claws are well-adapted to digging through snow. Its highly modified incisors are used to feed on small, snow-covered Arctic plants. The arctic hare changes color with the seasons. Its winter pelage is long and soft. During the molt to summer pelage, it removes loose tufts of hair by rolling in the snow, often leaving loose tufts of hair scattered on the ground or clinging to vegetation. The upperparts are gray in summer in southern subspecies and white in the others. In winter, all arctic hares are white, except for the black tips of the ears.

Mating usually occurs in April and May. The gestation period is about 53 days. Young are born in a nest, which usually is placed in a well-sheltered place under or between rocks. The nest is lined with dry grass, moss, and fur from the mother. One litter of two to eight young (average is five) is born each year. During the first 2–3 days after the birth of the litter, the mother does not leave the young. When danger approaches, the young hares slink into hiding places among stones. Their

gray color and habit of remaining motionless make them difficult to see. The young first leave the mother at an age of 2–3 weeks, about the time their coats turn white. Weaning occurs several weeks later, when the young are about 8–9 weeks old. Until then, the female nurses them at average intervals of 18–20 hours. The duration of each nursing bout is 1–4 minutes. When nursing, the female typically sits upright, with ears erect, eyes open, hind feet spread wide under her haunches, her front legs fully extended and her front feet rather far apart.

The arctic hare is widely distributed in tundra regions of northern Canada and Greenland. Conditions are more favorable for it farther north; its populations are larger there, it is larger in size, and its fur is much finer than in more southern populations. It is highly adapted to cold and barren habitat. Throughout most of the range, it spends the summer north of the tree limit, but in winter it may penetrate more than 160 kilometers into the timber belt. It may be rare for years in a locality, then suddenly become common.

Woody plants are the basic year-round food. The arctic hare eats mosses, lichens, berries, and buds, bark, roots, and young blooms of willows; other foods are mountain sorrel and various kinds of grasses. It displays great diversity in summer diet, but mainly feeds on willows and grasses. Willows are the main species consumed in all seasons and make up 95 percent of the winter diet.

The arctic hare may be an important competitor of muskoxen and caribou in the winter, when all three species feed on willows. Except during years when lemmings are scarce, there is no significant predation on adult hares; arctic hares can outrun gray wolves and arctic foxes. The agility of the arctic hare protects it so well that camouflage is of little importance during the short Arctic summer. However, young arctic hares often are hunted by red and arctic foxes, weasels, snowy owls, gyrfalcons, and rough-legged hawks. Parasites include protozoans, nematodes, lice, and an extraordinary number of fleas. *T. L. Best*

Size

No sexual dimorphism
Total length: 558–633 (606) mm
Length of tail: 45–100 (67) mm
Weight: 2,500–6,800 (4,400) g

Identification

Throughout most of its range, the arctic hare is the only species of hare present. Compared with *L. americanus*, which shares a portion of its range in Canada, the fur of *L. arcticus* is white all the way to the base. Compared with *L. timidus*, which occupies similar habitats in northern Europe and Asia, *L. arcticus* is paler and more grayish (less brownish) in summer pelage.

Recent Synonyms

Lepus glacialis

Other Common Names

Labrador hare, polar hare, Greenland hare, American arctic hare, Canadian arctic hare, alpine hare, oo-ka-lik, ka-choh, ukkulirk, ookalik, okollik

Status

Common

Subspecies

Lepus arcticus andersoni, north-central Canada
Lepus arcticus arcticus, northern Baffin Island and vicinity, Canada

Lepus arcticus bangsii, Labrador and Newfoundland, Canada

Lepus arcticus banksicola, Banks Island, Canada
Lepus arcticus groenlandicus, northern Greenland

Lepus arcticus hubbardi, Prince Patrick Island, Canada

Lepus arcticus labradorius, northeastern Canada
Lepus arcticus monstabilis, northernmost Canada

Lepus arcticus porsildi, southern Greenland

References

Mammalian Species 457; Parker, 1977