LEPUS GLACIALIS.—LEACH.

POLAR HARE.

PLATE XXXII.—MALE. In summer pelage.

L. æstate dilute cinereus, hyeme niveus, pilis apice ad radicem albis; aurium apicibus nigris; vulpes magnitudine.

CHARACTERS.

As large as a fox; colour, in summer, light gray above; in winter, white, the hairs at that season being white from the roots. Tips of ears, black.

SYNONYMES.

WHITE HARES, Discoveries and Settlements of the English in America, from the reign of Henry VIII. to the close of that of Queen Elizabeth, quoted from Pinkerton's Voyages, vol. xii., p. 276.

ALPINE HARE, Philosophical Transactions, London, vol. lxvi., p. 375, An. 1777.

LEPUS TIMIDUS, Fabri., Fauna Groenlandica, p. 25.

VARYING HARE, Pennant, Arc. Zool., vol. i., p. 94.

WHITE HARE, Hearne's Journey, p. 382.

“ “ Cartwright's Journal, vol. ii., p. 75.

LEPUS GLACIALIS, Leach, Zool. Miscellany, 1814.

“ “ Ross's Voyage.

“ “ Captain Sabine's Suppl. Parry's 1st Voyage, p. 188.

“ “ Franklin's Journal, p. 664.

“ “ Richardson, Appendix to Parry's 2d Voyage, p. 321.

POLAR HARE, Harlan, Fauna, p. 194.

“ “ Godman, Nat. Hist., vol. ii., p. 162.

LEPUS GLACIALIS, Richardson, Fauna Boreali Americana, p. 221.

“ “ Bachman, Acad. Nat. Sciences, Phila., vol. vii., part 2.

DESCRIPTION.

This fine species is considerably larger than the English hare, (*L. timidus*.) Head, larger and longer than that of the European hare; forehead, more arched; body, long; nose, blunt; eyes, large; ears, long; whiskers, composed of a few stiff long hairs; legs, long; soles of feet, broad, thickly covered with hair concealing the nails, which are long,

Drawn on stone by R. Trembly

Polar Skunk

Drawn from Nature by J. J. Audubon, F.R.S.P.L.S.

Printed & Col^d by J. T. Bowen, Philad^a.

moderately broad, and somewhat arched. Tail, of moderate length, woolly at the roots, intermixed with longer hairs. The fur on the back is remarkably close and fine; that on the under surface is longer, and not quite so close.

COLOUR.

In winter, the Polar Hare is entirely white on every part of the body except the tips of the ears; the hairs are of the same colour to the roots. The ears are tipped with hairs of a brownish-black colour. In its summer dress, this species is of a grayish-brown colour on the whole of the head extending to the ears; ears, black, bordered with white on their outer margins; under parts of the neck, and the breast, dark bluish-gray; the whole of the back, light brownish-gray. The fur under the long hairs of the back is soft and woolly, and of a grayish-ash; the hairs interspersed among the fur are dark blue near the roots, then black, tipped with grayish-fawn colour; a few black and white hairs are interspersed throughout. The wool on the under surface is bluish-white, interspersed with long hairs of a slate colour; the hairs forming the whiskers are white and black, the former predominating. The inner sides of the fore-legs, thighs, and under surface of the tail, pure white; the hairs on the soles are yellowish-brown; nails, nearly black. According to RICHARDSON, "the irides are of a honey-yellow colour." The skin of this species appears to be nearly as tender as that of the Northern hare.

DIMENSIONS.

Specimen, obtained at Labrador.

Length of head and body	- - - - -	26 inches.
" from point of nose to ear	- - - - -	4½ do.
" of ear, measured posteriorly	- - - - -	4¾ do.
" tail (vertebræ)	- - - - -	1¾ do.
" tail, including fur	- - - - -	3½ do.
" whiskers	- - - - -	3 do.
" from wrist-joint to point of middle claw	- - - - -	3¾ do.
" " heel to middle claw	- - - - -	6½ do.

Weight, from 7 to 11 lbs.

These measurements were taken from the specimen after it had been stuffed. We are under the impression that it was a little longer in its recent state.

HABITS.

It is to the cold and inhospitable regions of the North, the rugged valleys

of Labrador, and the wild mountain-sides of that desolate land, or to the yet wilder and more sterile countries that extend from thence toward the west, that we must resort, to find the large and beautiful Hare we have now to describe; and if we advance even to the highest latitude man has ever reached, we shall still find the Polar Hare, though the mercury fall below zero, and huge snow-drifts impede our progress through the trackless waste.

Both Indians and trappers are occasionally relieved from almost certain starvation by the existence of this Hare, which is found throughout the whole range of country extending from the Eastern to the Western shores of Northern America, and includes nearly thirty-five degrees of latitude, from the extreme North to Newfoundland.

In various parts of this thinly inhabited and unproductive region, the Polar Hare, perhaps the finest of all the American hares, takes up its residence. It is covered in the long dark winter with a coat of warm fur, so dense that it cannot be penetrated by the rain, and which is an effectual protection from the intense cold of the rigorous climate.

Its changes of colour help to conceal it from the observation of its enemies; in summer it is nearly of the colour of the earth and the surrounding rocks, and in winter it assumes a snow-white coat. The changes it thus undergoes, correspond with the shortness of the summers and the length of the Arctic winters. In the New England States the *Northern* hare continues white for about five months, that being the usual duration of the winters there; but in the Arctic regions, where the summer lasts for about three months only, whilst the earth during the remainder of the year is covered with snow, were the Polar Hare not to become white till November, (the time when the Northern hare changes,) it would for two months be exposed to the keen eyes of its greatest destroyers, the golden eagle and the snowy owl, as its dark fur would be conspicuous on the snow; or were it to become brown in April, it would wear its summer dress long before the earth had thrown off its mantle of white, or a single bud had peeped through the snow.

The eye of the Polar Hare is adapted to the twilight that reigns during a considerable part of the year within the Arctic circle; in summer it avoids the glare of the almost continual day-light, seeking the shade of the little thickets of dwarfish trees that are scattered over the barren grounds, the woods that skirt the streams, or the shelter of some overhanging rock.

In addition to the circumstance that the eye of this Hare is well fitted for seeing with a very moderate light, it may be remarked that in winter the frequent and long continued luminous appearance of the heavens

caused by the aurora borealis, together with the brightness of the unsullied snow, afford a sufficient degree of light for it to proceed with its customary occupations.

During the summer this species is found on the borders of thickets, or in stony or rocky places. In winter it is often seen in the barren and open country, where only a few stunted shrubs and clumps of spruce fir (*Abies rubra*) afford it shelter, differing in this habit from the Northern hare, which confines itself to thick woods throughout the year, avoiding cleared fields and open ground.

Captain Ross says of the Polar Hare, "There is scarcely a spot in the Arctic regions, the most desolate and sterile that can be conceived, where this animal is not to be found, and that too, throughout the winter; nor does it seek to shelter itself from the inclemency of the weather by burrowing in the snow, but is found generally sitting solitarily under the lee of a large stone, where the snow drift as it passes along, seems in some measure to afford a protection from the bitterness of the blast that impels it, by collecting around and half burying the animal beneath it."

The food of this species varies with the season. HEARNE tells us that "in winter it feeds on long rye-grass and the tops of dwarf willows, but in summer it eats berries and different sorts of small herbage."

According to RICHARDSON, "it seeks the sides of the hills, where the wind prevents the snow from lodging deeply, and where even in the winter it can procure the berries of the Alpine arbutus, the bark of some dwarf willows, (*Salix*), or the evergreen leaves of the Labrador tea-plant," (*Ledum latifolium*.) Captain LYON, in his private journal, has noted that on the barren coast of Winter Island, the Hares went out on the ice to the ships, to feed on the tea-leaves thrown overboard by the sailors."

The Polar Hare is not a very shy or timid animal, but has on being approached much the same habits as the Northern hare. "It merely runs to a little distance, (says RICHARDSON,) and sits down, repeating this manœuvre as often as its pursuer comes nearly within gun-shot, until it is thoroughly scared by his perseverance, when it makes off. It is not difficult to get within bow-shot of it by walking round it and gradually contracting the circle—a method much practised by the Indians." HEARNE had previously made the same observations; he says also, "the middle of the day, if it be clear weather, is the best time to kill them in this manner, for before and after noon the sun's altitude being so small, makes a man's shadow so long on the snow as to frighten the Hare before he can approach near enough to kill it. The same may be said of deer when

on open plains, which are frequently more frightened at the long shadow than at the man himself."

All travellers concur in stating the flesh of this animal to be of a finer flavour than that of any of our other hares. We obtained one while at St. George's Bay, in Newfoundland, and all our party made a meal of it; we pronounced it delicious food.

A lady residing at that place informed us that she had domesticated the Polar Hare, and had reared some of them for food. She said that the flesh was fine-flavoured, and the animals easily tamed, and that she had only been induced to discontinue keeping them in consequence of their becoming troublesome, and destructive in her garden.

The Polar Hare is stated by RICHARDSON, on the authority of Indian hunters, to bring forth once in a year, and only three young at a litter. That owing to the short summer of the Arctic regions, it does not produce more than once annually, is no doubt true; but the number of young brought forth at a time, we are inclined to believe, was not correctly given by the Indian hunters.

CARTWRIGHT (see Jour., vol. ii., p. 76) killed a female of this species at Labrador on the 11th June, from which he took five young.

Capt. ROSS says, "a female killed by one of our party at Sheriff Harbour on the 7th of June, had four young in utero, perfectly mature, $5\frac{1}{2}$ inches long, and of a dark gray colour. In one shot at Igloolik, on the 2d June, six young were found, not quite so far advanced."

An intelligent farmer who had resided some years in Newfoundland, informed us that he had on several occasions counted the young of the Polar Hare, and had never found less than five, and often had taken seven from one nest. He considered the average number of young to each litter as six. FABRICIUS, alluding to the habits of this species as existing in Greenland, says, "They pair in April, and in the month of June produce eight young at a birth."

Some idea may be formed of the very short period this species continues in its summer colours, from the following remarks of different observers. In BEACHY'S Narrative, (p. 447,) is the following notice:—"May 5th. The party killed a white Hare, it was getting its summer coat." CARTWRIGHT killed one on the 11th June, and remarks that it was yet white. We obtained a specimen on the 15th August, 1833, and ascertained that the change from summer to winter colours had already commenced. There was a large spot, nearly a hand's breadth, of pure white on the back, extending nearly to the insertion of the tail; three or four white spots about an inch in diameter were also found on the sides.

Captain Ross states—"One taken by us on the 28th of June, a few days after its birth, soon became sufficiently tame to eat from our hands, and was allowed to run loose about the cabin. During the summer we fed it on such plants as the country produced, and stored up a quantity of grass and astragali for its winter consumption; but it preferred to share with us whatever our table could afford, and would enjoy peas-soup, plum-pudding, bread, barley-soup, sugar, rice, and even cheese, with us. It could not endure to be caressed, but was exceedingly fond of company, and would sit for hours listening to a conversation, which was no sooner ended than he would retire to his cabin; he was a continual source of amusement by his sagacity and playfulness." * * * "The fur of the Polar Hare is so exceedingly soft, that an Esquimaux woman spun some of its wool into a thread, and knitted several pairs of gloves, one pair of which, beautifully white, came into my possession. It resembled the Angola wool, but was still softer."

The specimen we procured in Newfoundland weighed seven and a half pounds; it was obtained on the 15th August, in the midst of summer, when all hares are lean. It was at a period of the year also, when in that island they are incessantly harassed by the troublesome moose-fly. Deer, hares, &c., and even men, suffer very much in consequence of their attacks. The Indians we saw there, although tempted by a high reward, refused to go in search of these Hares, from a dread of this persecuting insect; and our party, who had gone on a moose-hunt, were obliged by the inflammation succeeding the bites inflicted on them to return on the same day they started.

Dr. RICHARDSON sets down the weight of a full grown Polar Hare as varying according to its condition from seven to fourteen pounds.

In BEACHY's Narrative there is an account of a Polar Hare, killed on the 15th May, that weighed nearly twelve pounds; and HEARNE (see Journey, p. 383) says that, "in good condition many of them weigh from fourteen to fifteen pounds."

GEOGRAPHICAL DISTRIBUTION.

This species occupies a wide range in the northern portions of our continent; it extends from the shores of Baffin's Bay across the continent to Behring's Straits. It has been seen as far north as the North Georgian Islands, in latitude 75°. On the western portion of the American continent it has not been found further to the south than latitude 64°, but on the eastern coast it reaches much farther south. RICHARDSON has stated that its most southerly known habitat is in the neighbourhood of Fort

Churchill, on Hudson's Bay, which is in the 58th parallel of latitude, but remarks, that it may perhaps extend farther to the southward on the elevated ridges of the Rocky Mountains, or on the Eastern coast, in Labrador. We have ascertained that on the eastern coast of America it exists at least ten and a half degrees south of the latitude assigned to it above; as we procured our specimen at Newfoundland, in latitude $47\frac{1}{2}^{\circ}$, where it was quite common; and we have been informed that it also exists in the northern portions of Nova Scotia. To the north-east, it has found its way across Baffin's Bay, and exists in Greenland.

GENERAL REMARKS.

Although the Polar Hare was noticed at a very early period in the history of America, until recently it was considered identical with other species that have since been ascertained to differ from it. The writer of the History of Discoveries and Settlements of the English in America, from the reign of Henry VII. to the close of that of Queen Elizabeth, speaking of the animals at Churchill and Hudson's Bay, (see PINKERTON, Voy., vol. vii., p. 276,) says, "the hares grow white in winter, and recover their colour in spring; they have very large ears which are always black; their skins in winter are very pretty, of fine long hair which does not fall; so that they make very fine muffs."

There can be no doubt that the Polar Hare was here alluded to. PENNANT remarked that its size was greater than that of the varying hare, with which it had so long been considered identical. HEARNE, who observed it on our continent, and FABRICIUS, who obtained it in Greenland, regarded it as the varying hare. LEACH, in 1814, (Zoological Miscellany,) characterized it as a new species. It was subsequently noticed by SABINE, FRANKLIN, and RICHARDSON. As an evidence of how little was known of our American hares until very recently, we would refer to the fact that in the last *general* work on American quadrupeds by an American author, published by Dr. GODMAN in 1826, only two hares were admitted into our Fauna—*Lepus Americanus*, by which he referred to our gray rabbit, and *Lepus glacialis*, which together with *Lepus Virginianus* of HARLAN, he felt disposed to refer to *Lepus variabilis* of Europe, leaving us but one native species, and even to that applying a wrong name. We hope in this work to be able to present our readers with at least fourteen species of true hares, that exist in America north of the tropic of Cancer, all peculiar to this country.

In 1829 Dr RICHARDSON gave an excellent description, (Fauna Boreali Americana, p. 221,) removing every doubt as to *Lepus glacialis* being a

true species. In 1838, having obtained a specimen in summer pelage, the only one that as far as we have learned existed in any collection in our country, we were induced to describe it, (Journal Acad. Nat. Sciences, Philadelphia, vol. vii., p. 285.)

Audubon, John James and Bachman, John. 1851. "Lepus Glacialis, Polar Hare [Pl. XXXII, male in summer pelage]." *The quadrupeds of North America* 1, 242–249. <https://doi.org/10.5962/p.322470>.

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