7.0673

Vol. 47, pp. 83–86 March 8, 1934

PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

SMITHSONIAN INSTITUTION
APR 19 1935
NATIONAL MUSEUM

NEW SUBSPECIES OF THE AMERICAN ARCTIC HARE.

BY E. W. NELSON,
Research Associate, Smithsonian Institution.

In a revisionary study of the American Arctic hares, based upon a large amount of new material gathered by expeditions within comparatively recent years, I find three undescribed geographic subspecies and one having a preoccupied name requiring a change. For the opportunity to examine fine series of northern hares in the collections under their charge I take pleasure in acknowledging my indebtedness to Dr. R. M. Anderson, National Museum of Canada, Ottawa; Mr. C. M. B. Cadwalader and Mr. Wharton Huber, Academy of Natural Sciences, Philadelphia; Mr. H. E. Anthony, American Museum of Natural History, New York, and Mr. A. Avinoff, Carnegie Museum, Pittsburgh. I am also indebted to Dr. Morten P. Porsild, Danish Arctic Station, Disko, Greenland, for his friendly cooperation in securing series of specimens from southern and southwestern Greenland for the Biological Survey. These have been of prime importance in confirming relationships otherwise resting on assumption.

Lepus arcticus porsildi, subsp. nov.

Type.—From near Julianehaab, Greenland (60° 20′ N. lat.) U. S. National Museum no. 248723 adult (Biological Survey coll. no. 24637 x). Collected by Dr. M. P. Porsild, September 5, 1926.

Distribution.—Extreme southern Greenland; intergrading with *grœnlandicus* a few degrees northward along west coast; extinct on east coast.

General characters.—Differs from the other subspecies of Greenland hares by smaller size, well decurved upper incisors and ordinarily with four united capule-like bony covers to upward projecting roots of molariform teeth in lower, anterior part of orbit. Size near that of typical *arcticus*

of northern Baffin Island, upper incisors similarly decurved but slenderer, less strongly grooved; zygomatic arch heavier, pit-like depression on front of outer face of jugal deeper and extending farther forward nearer front angle of zygomatic process.

Color.—Winter pelage snowy white except small black ear-tips; summer pelage during July and most of August mainly white with pale, grizzly grayish over top and sides of head and body; outside front and anterior border inside of ears the same; at times these gray areas shaded with pale buffy, strongest on head and ears.

Remarks.—Unlike typical *arcticus* the present subspecies does not become definitely gray in summer. Its range is much restricted and specimens from Sukkertoppen and elsewhere to the northward along the west coast of Greenland show complete intergradation between *porsildi* and *grœnlandicus*.

No weights or measurements in the flesh of this subspecies are available.

Specimens examined.—19 skulls, 6 skins. From near Julianehaab, 60° 20′ N. latitude, 6 skins and skulls, 60° 42′ N. lat., 10 skulls; near Neria 61° 36′ N. lat. 3 skulls. All in U. S. National Museum.

Lepus arcticus persimilis, nom. nov.

Lepus variabilis hyperboreus Pedersen, Meddelelser om Grönland, vol. 77, pp. 363–373, 1930. Applied to hare of East Greenland. Name preoccupied by *Lepus hyperboreus* Pallas, Zoographia Rosso-Asiatica, vol. I, p. 152, 1831, applied to a species of *Ochotona* of eastern Siberia.[1]

Type.—From south side of Clavering Island, east Greenland, Academy of Natural Sciences, Philadelphia, no. 13461 adult. Collected by Harry Whitney, August 6, 1930.

Distribution.—Coastal margin and adjacent islands of eastern Greenland from south of Cape Dalton, approximately 68° north latitude, to extreme north end near North-East Foreland.

General characters.—Differs from its nearest relative *grœnlandicus* of western Greenland in larger size, slenderer, more extended premaxillae and longer protruding upper incisors, broader brain case and larger bullae.

Color.—Winter pelage, pure white except small black ear-tips. Type in summer pelage, nearly all white with top of head from front of eyes to base of ears and upper cheeks pale grizzled gray produced by grayish white tips of black hairs; front of outer ear and exposed part of inside of ear largely same as top of head, but appreciably tinged with dull buffy; ears with a subterminal white band and small black tips; top and sides of shoulders and back white with scattered fine black guard hairs; an irregular patch of grizzled grayish, remaining from summer pelage, extends for several inches along middle of back; the grizzled summer fur on top of head being replaced in two small areas by short, clear white, winter fur coming in; bristles on sides of nose white.

Remarks.—When Mr. Pedersen named the east Greenland hare, he gave a general account of the animal, but designated no type nor type locality.

[1] I desire to express my appreciation of the courtesy of Dr. Lee R. Dice, who brought this preoccupied name to my attention.

In view of the variations among the hares of Greenland, it appears desirable to have the present form more definitely allocated and in proposing a new name for it, I have established a type and type locality chosen from within the general area in which Pedersen made his observations.

Specimens examined.—8 skins with skulls (all in Academy of Natural Sciences, Philadelphia); from south side of Clavering Island, 4; Francis Joseph Fiord, 3; North Fiord, 1. All from middle east Greenland.

Lepus arcticus monstrabilis, subsp. nov.

Type.—From Buchanan Bay, Ellesmere Island, northern Canada. U. S. National Museum, no. 126169, ♂ adult. (Biological Survey collection no. 3923 x) collected by J. S. Warmbath, April 21, 1901.

Distribution.—All of Ellesmere and Devon Islands and probably Axel Heiberg Island.

General characters.—Largest of the farther northern hares, with most marked extension of the premaxillae and longest, most obliquely projecting upper incisors compared with *grœnlandicus* and *persimilis* which have these characters in lesser degree.

Color.—Adults remain white throughout the year with small black ear-tips; young, according to Captain Fielden, pale gray at birth but become white like adults before end of July, except black tips of ears and a wash of mouse gray down top of head to nose which persist later.

Remarke.—The type of *grœnlandicus* came from Robertson Bay, west Greenland, at no great distance diagonally across Smith Sound from Buchanan Bay, the type locality of *monstrabilis*, yet the two animals are plainly different as shown by the comparison of considerable series of specimens from the two coasts.

Specimens examined.—Total 28: Buchanan Bay, 6; Bache Peninsula, 1; Woodward Bay, 4; N. E. Grant Land, 10; Cape Sheridan, 5; Craig Harbor, and all preceding, from Ellesmere Island, 1; Dundas Harbor, south side Devon Island, 1.

Lepus arcticus andersoni, subsp. nov.

Type.—From Cape Barrow, Coronation Gulf, Northwest Territory, Canada. National Museum of Canada, Ottawa, no. 2858, ♀ adult. Skin and skull collected by Dr. R. M. Anderson, August 14, 1915.

Distribution.—Arctic drainage of Mackenzie, Northwest Territory, from Great Slave, Artillery and Aylmer lakes to the Arctic coast, and west along the coast to Franklin Bay, also on Victoria and Banks islands and to an unknown distance on mainland eastward of Coronation Gulf.

General characters.—Summer pelage grizzled dusky gray over entire upper parts, varying from rather pale to dark much as in *labradorius*, but averaging darker. Skull larger, more heavily proportioned.

Color of type.—Top and sides of head dull, grizzled gray similar to rump except top and sides of nose dull grayish buffy and area around eyes and chin dull whitish; ears mainly black slightly grizzled with fine rather thinly scattered whitish tips to hairs and strong white margin to posterior edge, short white subterminal marginal area near tip on anterior border; under

side of head, anterior part of neck all around and flanks dull blackish gray; top of back and entire rump grizzled, rather dark gray, palest on rump; tail, feet, and most of legs, except outside of thighs, white.

Measurements of type, in flesh.—Total length 678 mm.; tail 63 mm.; hindfoot 157 mm.

Remarks.—Although no weights are available, yet the measurements of the hares from the Coronation Gulf region of northern Canada, and their large, massive skulls indicate the possibility that they may be the heaviest of the eastern group of American Arctic hares.

Specimens examined.—28, from numerous localities within range outlined above.

CRANIAL MEASUREMENTS OF TYPES.

(in millimeters.)

	Greatest length.	Basilar length.	Diagonal length of nasals.	Greatest width of nasals near base.	Width of rostrum over premolars.	Depth of rostrum front of premolars.	Least interorbital breadth.	Parietal breadth.	Diameter of bullae across middle.	Length of molar series.
Lepus arcticus porsildi U. S. National Museum no 248723 ad. (Biological Survey collection no. 24637 x)	99.3	74.3	41.2	20.6	25	22.8	16.4	32.8	8.2	18.5
Lepus arcticus persimilis Academy of Natural Sciences, Philadelphia, no. 13461 ad	105.4	77.5	41	21	25.8	24.8	18	35.5	9	18.9
Lepus arcticus monstrabilis U. S. National Museum no. 126169 ad. (Biological Survey collection no. 3923 x)	107.3	78.9	40.9	20.8	25.8	25	16.4	35.1	9.2	18.5
Lepus arcticus andersoni National Museum of Canada, Ottawa, no. 2872 ♂ ad	103	78.3	43.3	24.6	28	24.9	17	35	8.5	17.4

Nelson, Edward William. 1934. "New subspecies of the American Arctic hare." *Proceedings of the Biological Society of Washington* 47, 83–86.

View This Item Online: https://www.biodiversitylibrary.org/item/107539
Permalink: https://www.biodiversitylibrary.org/partpdf/45020

Holding Institution
Smithsonian Libraries and Archives

Sponsored by
Biodiversity Heritage Library

Copyright & Reuse
Copyright Status: In copyright. Digitized with the permission of the rights holder.
Rights Holder: Biological Society of Washington
License: http://creativecommons.org/licenses/by-nc-sa/3.0/
Rights: https://biodiversitylibrary.org/permissions

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at https://www.biodiversitylibrary.org.

This file was generated 21 September 2023 at 21:30 UTC