

blankets the ground for most of the year is thin. Therefore the snow melts quickly with the advent of warm weather and consequently there is more time for plant growth than would be the case if the snow were deep. More plant growth means more food for the primary consumers, herbivores, which are situated low-down toward the broad base of the food-pyramid. Furthermore, the large herbivore, the caribou, more easily finds its natural winter food --lichens, mosses and other plants--beneath a thin, rather than a thick, blanket of snow. Also the muskox, before it was exterminated in northern Alaska, may have benefited from the thinness of the cover of snow in the same way that is postulated for the caribou but to an even greater degree.

It is noteworthy that there are no species of mammals occurring only on the Arctic Slope itself or in the immediately adjoining oceans.

Of the land mammals only the white fox, Arctic hare, collared lemming and muskox (extirpated in 1858 in Alaska) are confined to the Arctic Life-zone. Of the marine mammals only six live exclusively in Arctic seas.

The land mammals of the Arctic Slope, as would be expected, are adapted, probably by means of natural selection, to live in a cold climate. All have a thick coat of fur in winter to conserve body-heat. The marmot and ground squirrel hibernate in winter and the grizzly bear becomes inactive. Many others in winter seek protection under the snow or in spaces between boulders. The species that remain on top of the snow in winter have remarkably thick coats of hair. The hairs are long, silky, larger at the distal than at the proximal ends, and are strong enough to withstand buffeting by the wind. Also there is a dense growth of underfur. Furred foot-soles protect against the cold and give traction on ice as seemingly do the seasonally enlarged claws of the collared lemming. Reduction in size of ears and tail and increase