

ence in flavor is apparently not a matter of age or sex. Musk oxen are gregarious, going in flocks of 20 or 30, or rarely as many as 80 or 100, and are said to be very sheeplike in their habits. Although the legs are so short, they run with speed and can climb steep slopes and clamber over rocks with remarkable agility. The young are produced, one at a time, at the end of May or early in June, and the rutting season is in September. The food of the musk ox is grass, moss, lichens, and tender shoots of willow and pine. They are themselves an important item in the larder of the Eskimos and of Arctic explorers. The writings of these explorers contain the best accounts of the animal, whose young have now and then been brought alive to Europe. Consult: Julius Schiött, *Musk Oxen in Captivity* (Washington, 1904); Caspar Whitney and others, *Musk Ox, Bison, Sheep, and Goat* (New York, 1904); J. A. Allen, "Ontogenetic and Other Variations in Muskoxen, with a Systematic Review of the Muskox Group, Recent and Extinct," in *American Museum of Natural History, Memoir*, vol. i (N. S., New York, 1913). See Plate of WILD SHEEP AND MUSK OX with the article SHEEP.

MUSK OX. The musk ox (*Ovibos moschatus*), although approaching cattle in size, is really quite as closely allied to the sheep. It undoubtedly belongs in the family Bovidae and is perhaps entitled to have a subfamily division to itself. The genus contains only the single species, at present confined to Arctic America, but formerly ranging over the northern United States as far south as Kentucky and over northern Asia and Europe also, as is shown by the bones found in the Pleistocene deposits of those regions. Its southern limit is gradually retreating northward, and there can be little doubt that the number of musk oxen is steadily declining. The name "musk ox" or "musk sheep" refers to a peculiar musky odor, the origin of which seems to be in doubt; apparently, however, there is no special gland, as in the musk deer and other musky mammals. The legs are short and stout, so that the animal is somewhat lower than a small ox, which it otherwise resembles in size and shape. The hair is amber brown, woolly, and long; thick, matted, and curly on the shoulders, giving the appearance there of a hump; elsewhere it is straight and hangs down so as to conceal the short tail and upper half of the legs. The wool has been spun into fabrics said to be extremely soft. The hoofs are remarkable in being asymmetrical, the outer half being rounded, while the inner is pointed; the sole of the foot is hairy. The head is inclined to be massive, especially in old males, where the horns have extremely broad bases. The latter are elegantly curved, first obliquely downward and backward by the side of the head and then upward and forward. The ears are so small as to be concealed by the hair, and the muffle is hairy, as in sheep and goats. The flesh is coarse-grained, but of variable quality, some individuals being tender and of good flavor, while others are tough and so musky as to be uneatable. Curiously enough, the differ-