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***Arctic Wildlife Sketches - Walrus Of The
Northwest Territories
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WALRUS

OF THE NORTHWEST TERRITORIES



Leahar Duhlike

WALRUS

OF THE NORTHWEST TERRITORIES

Odobenus rosmarus

One of the more remarkable animals of the north is the walrus. Once regarded by the Inuit as having a mixture of supernatural powers and human attributes, the walrus has also found its way into the folklore of other peoples. With its massive bulk and sabre-like tusks, it presents a curious yet forbidding sight.

Walrus belong to the same order as seals and sea lions. All three are called "pinnipeds," which refers to their webbed, fin-like feet. But though there are many species of seals and sea lions in the world, there is only one species of walrus, which is composed of two subspecies, the Atlantic walrus and the Pacific walrus. The latter is found off the shores of

eastern Russia and Alaska, and tends to be somewhat more robust and have larger tusks than the Atlantic walrus, which occurs in the arctic waters of eastern Canada, Greenland, Norway, and western Russia.

Historically the Atlantic walrus was found in Canada as far south as the Gulf of St. Lawrence, Cape Breton Island, Sable Island, and the southern coast of Nova Scotia to the Bay of Fundy. It was also found in most parts of Hudson Bay and well into James Bay. By the mid 1800's it had been eradicated in areas south of Labrador and most areas south of Whale Cove on the west side of Hudson Bay.

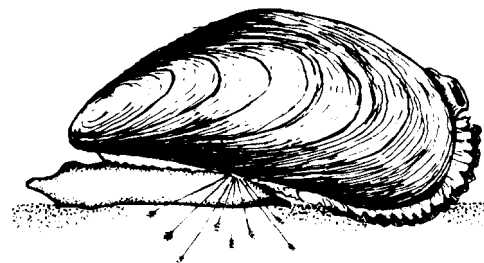
Description

The adult male walrus may attain a length of 3.6 m and a weight of 1400 kg, becoming considerably more massive in the neck and chest area than the female, which grows to 3.0 m and 900 kg. Their bodies are rather bulky with numerous folds and wrinkles, and a sparse covering of light brown hair, which is moulted every summer and gradually lost in old age. The skin is generally a medium cinnamon to light grey color with older animals becoming increasingly lighter. The head is comparatively small, with a blunt snout and a set of whiskers or vibrissae 10-12 cm long. One of the most distinguishing features of the walrus is the large canine teeth, or tusks, which protrude from the upper jaw. They can reach a length of 60 cm and a basal girth in excess of 26 cm. Both sexes are equipped with tusks, but those of the males tend to be longer and heavier.

Since sea water conducts heat about twenty times faster than air, marine mammals must be well insulated to prevent critical heat loss. A thick tough hide and a thick layer of blubber protect walrus from the cold arctic seas. Walrus also have a special thermo-regulation system. When an animal is warm, its blood is shunted to the outer skin and blubber, allowing it to cool off. When immersed in water, the blood is kept from the skin and blubber, thereby conserving vital body heat.

Food

The vibrissae or whiskers of the walrus are used to sense food organisms on the sea bottom. Through oral suction they remove the siphons and feet of clams and mussels, and extract the soft bodies of snails from their shells. Their principal prey are bivalve molluscs (*Astarte*, *Serrzpes*, *Mya*, *Saxicava*, and *Cardium* spp.) but walrus also take various sea worms, crabs, snails, squid, fish and other benthic organisms in lesser quantities if their preferred food is sparse. On occasion walrus are also known to feed on seals, which they have either killed or found dead. However, this behavior, according to Inuit, is more characteristic of older, rogue males.



Ashley Terns, inhouse

Habits

Despite popular belief, walrus do not use their tusks to dig up clams. Their primary role appears to be social, much like antlers on caribou, a signal of social rank. The larger the tusks and body, the higher the animal usually is in the hierarchy. This is especially important in summer haul-out or sunning areas (called *uglit*) to obtain the preferred spots. Tusks are used by both males and females in aggressive displays and to defend themselves and their calves. In addition, they are used to create breathing holes in the ice, and to assist in hauling themselves onto the ice.

Locomotion on land and ice is very ungainly, consisting of a shuffling, humping motion. As a result walrus are seldom found far from the water. There they are very agile for their size, attaining speeds of up to 10 km/hr. They may travel considerable distances from land or ice and on occasion have even been found asleep in the water.

Gregarious when hauled out, their land *uglit* can exceed several hundred animals. On ice pans groups tend to be smaller, although many groups may be present in the same area. When hauled out, walrus can be rather noisy, making a grunt-like "oogh" sound which is audible for a considerable distance.

Their sight is poorly developed, resulting in their depending mainly on smell and hearing to detect danger.



Range of the walrus in Canada

Reproduction

Sexual maturity first occurs at 4 years of age in females and 6 in males. The males are polygamous and may form loose harems during the breeding season of April and May. The average length of gestation is 376 days, with calving occurring sometime between April and early May. A single calf is born on the ice and accompanies the female for up to 3 years. Young walrus are completely dependent

on milk throughout the first year and are not weaned until the latter part of the second year. Females will breed every other year once mature; however, they tend to become less fertile in their later years.

Migration

As winter sets in and the waters start to freeze, some walrus in northern Baffin Bay are thought to follow the open pack-



Walrus haul out on land or ice where they rest in densely packed groups

ice south to wintering grounds along the eastern shores of Davis Strait. Other walrus overwinter in the various recurring polynyas around Devon Island and on the eastern side of Ellesmere Island. Large areas of Foxt Basin stay open throughout the winter and walrus may be found floating on the open pack-ice or at the edge of the forming land-fast ice. These areas, as well as similar places around Southampton Island, Cumberland Sound and the mouth of Frobisher Bay, stay open the entire winter. Some migration is also thought to occur through Hudson Strait to areas at the southeast tip of Baffin Island. Walrus, however, are limited in their movements by access to suitable feeding grounds, which generally must be in areas of less than 100 meters of water, the limit of their diving ability. Although they are able to create breathing holes in up to 20 cm of ice with little problem, they prefer not to, moving along as the land-fast and pack ice forms.

Mortality

Natural mortality is thought to be fairly low, polar bears and killer whales being their only natural enemies. Even after a walrus has been dispatched, dining on it is not an easy task. The hide is so tough that

polar bears must resort to chewing a hole in it to get to the softer organs and flesh inside, leaving behind a hollow bag of skin when they have finished.

Young animals are the most susceptible to predation. They may also be trampled if a herd is startled and stampedes into the water, and are more likely to experience other forms of mortality including exposure, neglect, trauma, and infectious diseases. On occasion walrus also freeze or starve to death as a result of their breathing holes freezing over. The life expectancy of the walrus is not known with certainty. The oldest known Atlantic walrus was 28 years, while the oldest known Pacific walrus was 33 years.

Parasites

Parasites do not seem to infect walrus to any great extent. The vibrissae and skin folds are often infested with small lice, but usually not in great numbers and they do not appear to cause any serious discomfort. The parasite which causes trichinosis is occasionally found in the walrus and may cause severe illness and

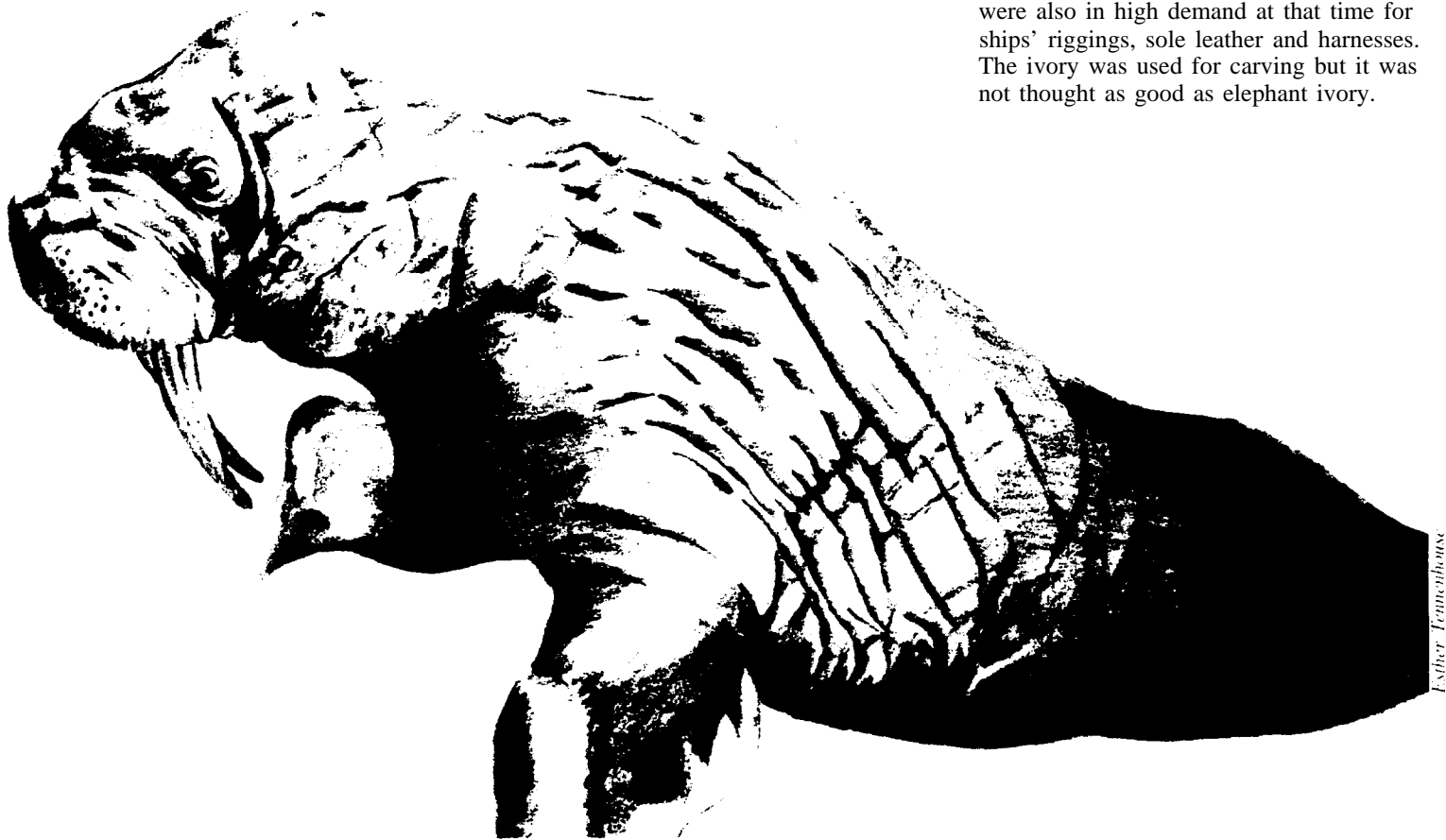


even death on occasion if infected uncooked meat should be eaten by man or other animals. Cooking the meat well destroys the infectious cysts.

Utilization

The walrus has been utilized by native groups for many centuries. Their early primitive weapons kept them from taking large numbers, with some of those obtained likely being carcasses picked up on beaches. At that time the animal was fully utilized for tools, lashings, boats, shelter, and food.

With the coming of the white man and the resulting demise of the larger whales in many areas, smaller whales such as beluga and narwhal as well as the walrus were sought for their oil. Walrus hides were also in high demand at that time for ships' riggings, sole leather and harnesses. The ivory was used for carving but it was not thought as good as elephant ivory.



Unrestricted hunting continued until 1928 when under the Fisheries Act regulations were passed prohibiting walrus hunting in the area of Baffin Island and Hudson Bay, except for food by Inuit. In 1931 this was amended by setting quotas of 7 per year for Inuit with dependents, and 4 per year for white people and Inuit without dependents. At the same time the export of walrus hides was prohibited altogether, while tusks had to be carved in some fashion to be sold outside the Northwest Territories. In international waters walrus were still taken commercially by Norwegians in Davis Strait until 1952.

Presently the Walrus Protection Regulations, under the authority of the federal Fisheries Act, state that an Inuk (or Indian) may annually hunt up to 4 walrus for himself, his family and his dogs. **Anyone else must have a licence. Four communities, however, have annual quotas for the taking of walrus. These are Coral Harbour (60), Sanikiluaq (10), Arctic Bay (10), and Clyde River (20). Only Inuit and Indians may barter or trade walrus meat and the meat may not leave the Northwest Territories or from those parts of Quebec or Newfoundland north of 55° north latitude without a permit. Any part of a walrus other than the meat (tusks, for example) may be transported out of the Northwest Territories provided a marine mammal export permit is obtained.**

Today the Atlantic walrus is still actively hunted by Inuit from snowmobiles,

canoes and even longliners. In some areas it **remains an important** source of food for men and dogs. Sometimes the animal is deboned and cut into large slabs which are then tied into bags with the skin side out. These bags are then buried in pebble beaches and aged for future consumption.

Management

The responsibility for managing walrus rests with the federal Department of Fisheries and Oceans. One of the Department's present concerns is reducing wastage. This usually occurs when walrus are hunted only for the ivory, but may also happen when animals are not harvested properly. It is easy to wound an animal severely with rifle fire and have it die before it can be retrieved. Hunters should therefore harpoon a walrus **after** it has been wounded. A large float attached to the head of the harpoon by means of a line will keep the animal afloat after it has been killed. Getting close to a wounded walrus, however, can be dangerous, as they have been known to attack boats and pierce the hulls with their tusks.

The Department of Fisheries and Oceans has been monitoring hunts in the area of Igloolik and Loks Land (southeast of Frobisher Bay) and plans to begin doing so in northern Hudson Bay. Monitoring in **Igloolik** was done in conjunction with a 4-year research program which concluded in 1984, and involved

the collection of length and girth measurements, tissue and organ samples, lower jaws for ageing, and blood for stock identification. The Canadian Wildlife Service has also undertaken some walrus studies, mainly behavioral work in conjunction with polar bear studies in the Devon Island area.

Though the range of the walrus has decreased significantly in historic times, the species is not considered threatened or endangered. An integral part of the north, as are caribou and polar bear, the walrus must be studied and managed properly for future generations. It will take the efforts of all of us to ensure their continued survival.

Lothar Dahlke
Frobisher Bay,
1984

Series editor:
Ed Hall

Further Reading

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Clem Williams

The larger the tusks and body, the higher the animal usually is in the hierarchy.



Polar bears occasionally prey on young walrus.



Terry Rebizant

Ed Hall

Walrus have been known to attack boats and pierce the hulls with their tusks.



From Harcomb

The walrus is a popular subject with Inuit carvers. (Carving by Kapik Kolola, Lake Harbour. Photo courtesy of Northern Images, Yellowknife.)



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