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Polar Bear Management in Alaska

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INTRODUCTION

In the brief period since 1972, there have been major changes in polar bear, *Ursus maritimus*, management practices and authority in Alaska. This paper discusses past and present programs and what may happen in the future.

Polar bear management authority was vested in the Federal Government before Alaska became a state in 1959. The State of Alaska then had management authority until 1972, when control was returned to the Federal Government under provisions of the Marine Mammal Protection Act of 1972. There have been four eras of hunting under these two jurisdictions: native subsistence hunting, guided hunting with aircraft, guided hunting from the ground, and hunting under the Marine Mammal Protection Act of 1972.

NATIVE SUBSISTENCE HUNTING

Polar bears traditionally have been important in the subsistence economy of Alaskan Eskimos. Meat was used for food and skins for robes and clothing. Skins could be sold and bartered, an exchange that became especially important after commercial whaling began in the 1850s. Polar bears had a cultural significance; Eskimo ceremonies and dances were related to the harvest of bears, and a hunter's prestige was enhanced considerably by his success in taking bears. Alaskan Eskimos most commonly took bears when they came ashore to feed on beach carrion after freezeup in the fall. Hunters used dog teams for transportation, and most often hunted on foot. Occasionally trained dogs were used to bring bears to bay. Bears were also killed throughout the winter and spring, often while Eskimos were seal hunting and whaling. They were taken to a limited extent in the summer when walrus and bearded seals were hunted along the edge of the ice pack from boats. Harvests were greatest in years when heavy ice drifted close to shore early in the fall. The estimated annual harvests for 1925-53, based on records of skins shipped from Alaska, averaged 120 bears (Brooks & Lentfer 1966).

GUIDED HUNTING WITH AIRCRAFT

Trophy hunting of polar bears with aircraft began in the late 1940s. Most hunters took bears with the aid of a relatively few pilot-guides operating mainly from six coastal Eskimo villages. Bears were hunted from February to May when their tracks could be followed and light aircraft could be landed on the sea ice. Most often two planes flew together, and when a bear was located, the plane with the hunter was landed, and the bear was driven to him with the other plane. The skin was taken as a trophy and the meat was usually left on the ice. Males formed 70 to 80 percent of the harvest because young and females with young

were protected, and hunters often selected the larger animals, which were males. The average annual kill during the first decade of airplane hunting (1951-60) was estimated to be 150 bears (Brooks & Lentfer 1966); the average annual kill for the second decade (1961-72) rose to 260 (Lentfer 1973).

Native harvests decreased to about 25 percent of previous levels during the period when airplanes were used for hunting. This was partly because Eskimos were hunting less as they were changing from a subsistence toward a cash economy and partly because hunting with airplanes reduced the number of bears close to villages used as bases for hunting with planes. There was still an incentive for Natives to hunt, however, because hides not taken with the aid of aircraft could be sold. The annual Native kill averaged 13 percent of the total harvest for 1961-72 (Lentfer 1973).

State hunting regulations became more restrictive as pilot-guides becames more efficient in taking bears and more people desired to hunt. Restrictions designed to limit harvests included seasons, bag limits, a permit system, limitation on the number of hunts individual guides could participate in each year, and complete protection for young and females with young.

As the demand for skins increased, both by trophy hunters and as a saleable item, some guides started taking bears illegally. Because these were not entered in harvest statistics there was a possibility of overharvest. The Alaska Department of Fish and Game, after close scrutiny of all aspects of polar bear guiding and hunting with aircraft, recommended to Alaska's game regulatory body, the Board of Fish and Game, that hunting polar bears with aircraft not be allowed after 30 June 1972. The recommendations pointed out that hunting with aircraft could be replaced by the much more acceptable method of hunting from the ground, and that illegal hunting with aircraft and a possible overharvest could not be controlled without a complete ban on hunting with aircraft. Public opinion in Alaska, the other states, and throughout the world strongly favored that hunting of polar bears with aircraft be stopped.

GUIDED HUNTING FROM THE GROUND

As a replacement for hunting with aircraft, the Alaska Board of Fish and Game adopted regulations effective 1 July 1972 to promote recreational hunting from the ground. Natives with dog teams and snow-machines were encouraged to start guiding trophy hunters. The regulations permitted hunting during late fall, winter and spring after pregnant females were in winter dens. Hunting pressure, degree of success and the total harvest were anticipated to be much lower than when aircraft were used, but most hunters that participated in a ground hunt would obtain a more aesthetically satisfying and memorable experience than from an airplane hunt. Hunters would be less selective, and would take a higher ratio of females. However, with the reduced hunting pressure, the total number of females harvested would be smaller.

From an economic standpoint, guided hunting from the ground could benefit Arctic coastal villages more than hunting with planes because guide fees would remain in the villages. Because the new regulations were in effect only from 1 July to 21 December 1972, when they were superseded by the Federal Marine Mammal Protection Act of 1972, the recreational ground hunting program did not become established.

HUNTING UNDER MARINE MAMMAL PROTECTION ACT OF 1972.

Polar bears, although not generally considered marine mammals, were nonetheless included in the more than 20 bills and resolutions introduced in the United States Congress in 1971 and 1972 for protection of ocean mammals. The general feeling among legislators, including Senator F. R. Harris of Oklahoma, Representative D. Pryor of Arkansas, and Senator H. A. Williams, Jr. of New Jersey, who introduced original ocean mammal protection bills, was that marine mammals should be completely protected without provision for management programs and utilization. Preservationist organizations, well represented in Washington, D.C., exerted considerable influence to have all hunting of marine mammals, including polar bears, stopped. The Marine Mammal Protection Act of 1972 (Public Law 92-522), as passed, placed a moratorium of unspecified length on the hunting of all marine mammals. Compromises reached before passage exempted Alaska Natives from provisions of the moratorium and provided for waivers of the moratorium and management programs under certain conditions.

The Department of Commerce is responsible for implementing the Act for certain species and the Department of Interior for the others, including polar bear. Regulations pertaining to polar bears are included in Interior Department regulations for the entire Act (U.S. Department of Interior, 1974).

The Act allows Alaskan coastal Eskimos to take polar bears at any time for subsistence or to obtain skins for manufacture into traditional items of handicraft or clothing without restrictions on the number, sex, age, or method of taking, other than that waste shall not occur. Current regulations providing for subsistence are more liberal than the previous State regulations which allowed subsistence hunters to take only three bears a year and did not permit taking of young and females with young. State regulations had also allowed any Alaskan resident to hunt for subsistence, rather than only Natives.

Allowing young and females with young to be taken is not in accordance with recommendations of the International Polar Bear Specialist Group that young and females with young be protected throughout their range. It also causes Alaskan Natives to question the credibility of game regulations and managing agencies. The Alaska Department of Fish and Game for a number of years said that it was necessary from a conservation standpoint to protect young and females with young. The Act now allows these bears to be hunted by Natives. One might argue that before and during part of the aircraft hunting era, Natives took bears without restriction and in greater numbers than today probably without harm to the population. The two periods are not comparable, however, because oil and gas development along Alaska's north coast could now be disturbing bears in denning areas and lowering productivity. If so, it is necessary to fully protect young and females with young.

The Marine Mammal Act prohibits interstate commerce in skins taken by Natives. Regulations to implement the Act, however, prohibit all transfer and sale of skins to non-Natives by Natives. Also, as an aid in controlling traffic in hides, a regulation published 25 February 1974 requires tanneries to be registered before they can tan polar bear skins. Thus far only one tannery has asked to be registered and has not yet received final approval. Few or no Natives have started manufacturing traditional Native articles for sale from polar bear skins. Because of this and because skins cannot be sold or transferred to non-Natives or yet tanned commercially, some have been handled poorly, others have spoiled, and some now in storage may also spoil. Skins from bears taken in the future may also be wasted.

The Marine Mammal Act has sharply reduced the number of bears harvested. Seven were taken in 1973, and 40-50 were taken in 1974. The number of bears along the Alaskan coast increased during the winter of 1973-74, possibly because the Marine Mammal Act had sharply reduced harvests for two seasons. Some residents are now concerned that polar bears may become numerous enough to develop into a nuisance or hazard in some areas. The Marine Mammal Act has also affected the United States polar bear research program, both beneficially and adversely. Increased research funds are now available, but the involved procedures for issuing a permit required for research have caused delays and caused preservationist groups to attempt to have research stopped through court action.

INTERNATIONAL ASPECTS

Management agencies in other countries are concerned that passage of the Marine Mammal Act could generate support for similar acts in their countries. They feel they now have the authority and the ability to effectively manage their bears without the constraints imposed by legislation similar to the Marine Mammal Act.

There are also international aspects of polar bear management not related to the Marine Mammal Act. Polar bears occur on the high seas and cross international boundaries necessitating international agreements for research and management. The International Union for Conservation of Nature, with technical assistance from the affiliated Polar Bear Specialist Group, was instrumental in drafting an international agreement. Representatives from the five polar bear nations, Canada, Denmark, Norway, the USSR and the United States, met at Oslo, Norway, in November 1973, to prepare a final draft of the agreement. This Agreement on Conservation of Polar Bears was signed by four of the delegations at the conclusion of the Oslo Conference; the fifth nation has since signed it. The agreement becomes effective when ratified by three of the five nations.

The agreement is based on the premise that polar bear nations have the ability to manage populations occurring on and adjacent to their coasts. It creates a *de facto* 'high seas' sanctuary for bears by not allowing them to be taken with aircraft, large motorized boats, or in areas where they have not been taken by traditional means in the past. The agreement states that nations shall protect ecosystems of which polar bears are a part and emphasizes the need for protection of habitat components such as denning and feeding areas and migration routes. The agreement also states that countries shall conduct national research, coordinate management and research for populations that occur in more than one area of national jurisdiction, and exchange research results and harvest data. Resolutions appended to the agreement state that delegates to the conference favor establishment of an international hide marking system to control traffic in illegal hides, protection of cubs and females with cubs, and prohibition of hunting in denning areas when bears are moving into these areas or are in dens. The agreement allows hunting as it was conducted in 1973. In the United States, the management program that was in effect immediately preceding the Marine Mammal Act could be reinstated; i.e. recreational and subsistence hunting from the ground.

FUTURE

One of four actions could provide needed protection to young and females with

young: (1) new legislation could be enacted in response to the resolution of the Oslo conference which calls for protection of cubs and females with cubs; (2) the Marine Mammal Act could be amended; (3) the moratorium could be waived, and a management program with appropriate restrictions put into effect; (4) polar bears could be declared depleted under a certain provision of the Act and restrictions then applied to Native taking. Polar bears cannot be considered depleted from a biological standpoint nor, in my opinion, can they be declared depleted according to definitions in the Act. Furthermore, an arbitrary designation of polar bears as depleted might weaken support for declaring other species depleted, threatened or endangered when there is a real need to do so.

Polar bears are a renewable resource, and certain numbers can be harvested without jeopardizing populations. Subsistence and recreational hunting from the ground are uses acceptable to large segments of the hunting and even the non-hunting public. The Marine Mammal Act provides for waivers of moratoriums and enactment of State management programs compatible with the Act. The State of Alaska has applied for management authority for species it formerly managed, including polar bears in territorial waters. Alaska's proposed management plan is basically the same as the management program in effect after airplane hunting was stopped and before the Marine Mammal Act was enacted; i.e. recreational and subsistence hunting from the ground. The application and management proposal will be reviewed by the public, the Department of the Interior, and the Marine Mammal Commission and its Scientific Advisory Committee created by the Act. Preservationist groups are expected to strongly oppose waiver of the moratorium and return of management authority to the State. The final outcome is difficult to predict. In my opinion, the State of Alaska is the logical managing authority for bears along its coast and the Federal Government should remain involved because of international agreements covering animals that cross international boundaries or occur in international waters.

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