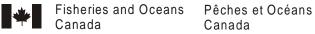


ATLANTIC

SEAL HUNT

2000

MANAGEMENT PLAN



Canada

Fisheries Management

Gestion des pêches



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THE 2000 ATLANTIC SEAL HUNT AT A GLANCE

The year 2000 is a "transition year" for the Atlantic seal hunt. Minister Dhaliwal announced the 2000 total allowable catch (TAC) for the year 2000 on December 21, 1999, as follows:

- the harp seal TAC will remain at the 1999 level of 275,000 animals;
- the hooded seal TAC will also remain at the 1999 level of 10,000;
- the harvest of a few hundred grey seals will be allowed in areas other than Sable Island; and
- a condition of licence will prohibit the harvest of whitecoats and blueback seals.

On November 5, 1999, the Department of Fisheries and Oceans (DFO) responded to the 13th Report of the Standing Committee on Fisheries and Oceans – the *Seal Report*. In that response, the Minister concurred with a major recommendation of the Committee to appoint of a panel of eminent persons to provide advice on a new long-term strategy for the management of seal populations. The panel is expected to provide its recommendations by the fall of 2000.

In the year 2000, DFO will also continue with a number of initiatives in order to add to the base of knowledge relating to seals. These include:

- studies designed to estimate the amount of seals struck but not recovered;
- studies related to abundance and distribution, and to the potential impact of seals on fish stocks; and
- a review of the Marine Mammal Regulations based on the extensive consultations that took place in 1998 and 1999. Consultations included more than 80 groups representing Aboriginal peoples, the sealing industry, provincial governments, and conservation and animal rights groups.

I. BACKGROUND

The Northwest Atlantic harp seal (*Pagophilus groenlandica*) is the most numerous of all seal species in Atlantic Canada and accounts for most of the harvest. The yearly seal hunt takes place in the two main breeding areas, found in the Gulf of St. Lawrence and the Front area off the coast of southern Labrador. (See Figure 1.)

Although harp seals have been hunted commercially since the 16th Century, the present day Atlantic coast commercial seal hunt took shape in the late 1980s after the collapse of the large-vessel hunt for whitecoat pelts.

In 1987, following the report of the Royal Commission on Seals and Sealing in Canada (the Malouf report), the Minister of Fisheries and Oceans announced prohibitions on:

- the use of vessels over 65 feet (19.8 metres) in length;
- the commercial hunt of whitecoats (harp seals that have not begun to moult, which occurs at about 10 to 14 days of age); and
- the commercial hunt of bluebacks (hooded seals that have not begun to moult, which occurs at about 15 to 16 months of age).

The Malouf Report also concluded that the seal hunt was a legitimate activity, and recommended it continue within the principles of sound management.

At present, the commercial hunt is typically carried out using longliners or small boats. Where there is solid ice and seals are close to shore, sealers may hunt on foot or using snowmobiles.

The commercial seal hunt provides important seasonal income and food to residents of small coastal communities where there have been fisheries closures and employment opportunities are limited.

Since 1995, a policy change allows residents adjacent to sealing areas throughout Newfoundland and Quebec to hunt up to six seals for their own use. Aboriginal peoples and non-Aboriginal coastal residents who reside north of 53°N latitude can continue to hunt seals for subsistence purposes without a licence.

II. OVERVIEW OF THE ATLANTIC SEAL HUNT

SPECIES HUNTED

Six species of seals — the harp, hooded, grey, ringed, bearded and harbour — are found off the Atlantic coast of Canada, although ringed and bearded seals are typically Arctic species. Of the six species, harp and hooded seals account for almost all the seals hunted commercially. A number of grey seals are also taken for commercial uses under licences issued for that purpose. This practice was extended to ringed seals in Labrador beginning in 1997, and will continue in 2000. Apart from the commercial hunt, some seals of all species are taken in subsistence hunts in Labrador and the Canadian Arctic; some harp and hooded seals are also taken for personal use by residents adjacent to sealing areas. Further details on recent landings are set out in Annex 3.

PARTICIPANTS

In recent years, commercial licences issued to sealers averaged 9,000 per year. In 1999, the Department of Fisheries and Oceans (DFO) issued 10,518 **commercial sealing licences**. Table 1 shows a breakdown by licence type and region. With few exceptions, licensed commercial sealers engage in fishing for other species or have economic ties to the fishing industry. Groundfish fishery closures have increased the relative importance of sealing as a source of livelihood.

TABLE 1 NUMBER OF SEAL LICENCES ISSUED IN 1999*						
PROVINCE	Professional	Assistant	Personal Use	TOTAL	# of Vessels	
Newfoundland and Labrador	5,939	3,105	1,652	10,696	185	
Quebec	1,146	142	355	1,643	30	
Nova Scotia	170	6	-	176	-	
Prince Edward Island	1	9	-	10	2	
TOTAL	7,256	3,262	2,007	12,525	217	

As noted above, residents of Labrador north of 53°N latitude do not need a licence to hunt seals for subsistence purposes.

Since 1995, **personal use sealing licences** have been issued to residents adjacent to sealing areas in Newfoundland and Labrador (south of 53°N latitude), the Quebec North Shore, the Gaspé

^{*} Preliminary data

Peninsula and the Magdalen Islands. These are areas hard-hit by the groundfish fishery closures. This type of licence allows the holder to take up to six seals for personal consumption.

LOCATION OF THE HUNT

Harp seals summer in the Canadian Arctic and along the west coast of Greenland. They begin their southward migration in early fall and by late November reach the southern Labrador coast. From here, about a third of the mature seals enter the Gulf of St. Lawrence and the rest migrate southwards along the east coast of Newfoundland.

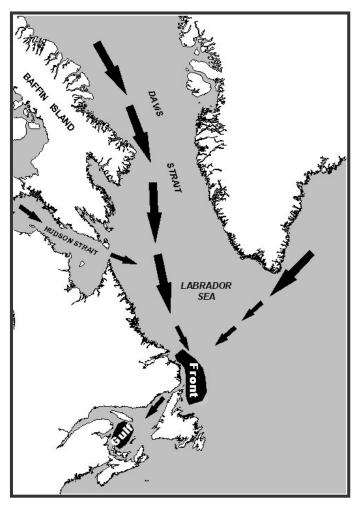


Figure 1: Harp Seal Migration patterns

Although the movement of ice floes and ice conditions often determine the degree of effort in any given area, the majority of the seal hunt occurs on the Front, off the north and east coasts of Newfoundland and off southern Labrador (see Figure 1 for seal migration patterns).

In 1999, about 60 per cent of the commercial hunt took place in the Front area, down from 1998 when the Front hunt accounted for 77 per cent of the harvest. See Annex 3 for a detailed list of seal landings by area and species for the past 10 years.

TIMEFRAME OF THE HUNT

The season for the commercial hunt of harp and hooded seals is from November 15 to May 15 as established in the *Marine Mammal Regulations*, although this can be altered by a Variation Order to deal with circumstances that may arise.

A Variation Order was issued in 1999 to extend the season to June 15 because the TAC had not been reached by the scheduled closing date. For the first time, the Canadian Sealers Association and industry asked DFO to close the harp seal harvest in the Front area from March 20 to April 7, 1999. They made this request to allow for a more mature harvest that resulted in improved quality of the pelts.

Although the commercial sealing season starts on November 15, the majority of sealing occurs between early March and May. In some years, early hunts occur in December and January off Labrador, off the Great Northern Peninsula of Newfoundland and along the Quebec North Shore. Depending on ice conditions and the presence of seals, sealing begins in earnest about the second week in March off the Magdalen Islands, and about the second week in April off Newfoundland. The timing of hunt activities in the Gulf of St. Lawrence depends largely on the movement of ice floes on which seals are located. The peak commercial hunt in this area is in March, although sealing does occur along the Quebec North Shore in January and February.

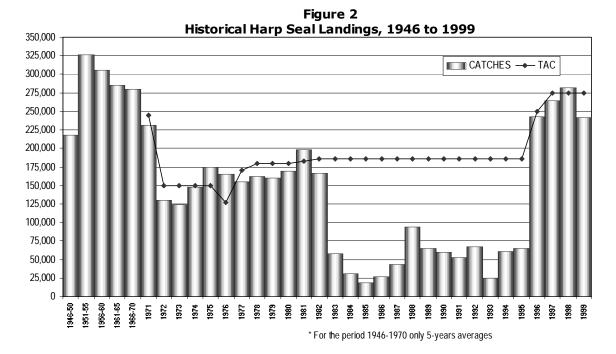
In 1999, sealing activity commenced along the southern ice edge in the Front area in northern Bonavista Bay around the first of February. The harvest at that time was directed mostly at **bedlamer harp seals** (immature harps with a spotted coat, more than one year old). Sealing activity in the Gulf commenced in late March. This harvest was directed at **beater harp seals** (fully moulted yearlings with a short silvery coat with dark spots along the side and back). The harp beater seal harvest in the Front area commenced on April 7 and peaked on April 10. As previously noted, the opening date was delayed at the request of the sealing industry to allow for a more mature harvest and higher quality pelts.

The season for the subsistence hunt of ringed seals in Labrador is from April 25 to November 30 as established in the *Marine Mammal Regulations*. The grey seal hunt is set by Variation Order to reflect the presence of seals and the hunt is further controlled by conditions set out in the licences given for this activity.

LANDINGS

Harp Seals

The nature of the present Atlantic coast commercial hunt for harp seals (*Pagophilus groenlandica*) took shape in the late 1980s after the collapse of the historic European markets for whitecoat and blueback pelts. From 1983 to 1995, the average annual harp seal harvest was 51,000 despite a TAC of 186,000 animals. As shown in Figure 2, the hunt levels for harp seals were much higher before the market collapsed. High catch levels reduced the population to a level of less than two million in the early 1970s. The harp seal population is now in the order of five million animals.

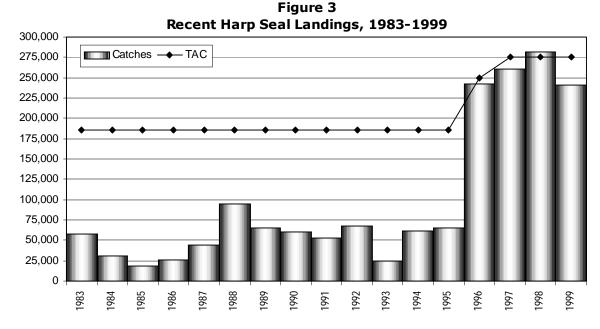


After 1995, the market for sealskins improved and in 1996, based upon new scientific information, the TAC for harp seals was raised to 250,000. The TAC was further increased to 275,000 in 1997, which was within the estimates of *replacement yield*. Replacement yield is the number of animals that can be taken in a given year without reducing the total population in the next year.

As shown in Figure 3, the 1998 hunt was the largest in recent years, with 282,070 harp seals taken against a TAC of 275,000. This was because the season was reopened to allow a limited commercial hunt in the Strait of Belle Isle and additional personal use hunting allowed to offset poor ice conditions that had constrained these hunts in past years.

In 1999, due to poor markets, sealers stopped harvesting before the TAC of 275,000 was reached. Harp seal catches amounted to 241,522.

Since 1996, harp seal catches have been far above those in the previous 10 years (see Figure 3).



In the early 1990s, the annual catch of harp seals in Greenland increased substantially. The Joint ICES/NAFO* Working Group on Harp and Hooded Seals reported that the total harvest of harp seals by Canada and Greenland was in the order of 317,000 animals in 1996 — exceeding the 1995 replacement yield of 287,000. In 1999, the National Marine Mammal Peer Review Committee reviewed the population trajectories for Northwest Atlantic harp seals. Based on the revised estimates of catches in Greenland and Canada, the 1999 replacement yield for harp seals was estimated to be 400,000, which is close to the current level of catches.

The Greenland government has recently provided DFO with updated information on their harp seal harvest as follows: 79,944 harp seals were harvested in 1996; 69,643 in 1997; and 65,350** in 1998. These figures are lower than the 84,000 predicted in 1998, which was based on the increasing trend in catches from 1975 to 1996.

Hooded Seals

The hooded seal (*Cystophora cristata*) is a large species (200 kg to 400 kg) found in the northern Atlantic. Most pups are born in March in Davis Strait and on the Front. Other hooded seals whelp in the Gulf of St. Lawrence but very little is known about the relationship between Gulf seals and those in the Front. Surveys conducted in 1990 and 1991 estimated that 80,000 pups were born in the Front as opposed to 2,000 in the Gulf of St. Lawrence.

^{*} International Council for the Exploration of the Seas / North Atlantic Fisheries Organization

^{**} Preliminary figure

Hooded seals normally make up only a minor part of the commercial and personal use hunts. See Figure 4 for recent hooded seal landings.

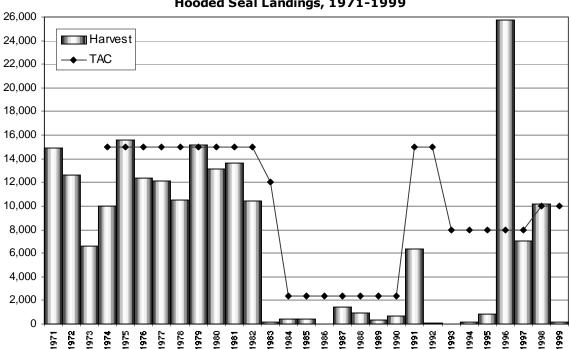


Figure 4: Hooded Seal Landings, 1971-1999

The TAC for hooded seals was 8,000 in recent years, but this was increased to 10,000 in 1998. The TAC is well below the replacement yield, estimated at between 24,000 and 34,000 in 1990, depending on the age of the animals hunted.

In 1996, 22,800 young hooded (blueback) seals were hunted and more than 100 charges were laid. Less than one per cent of licensed sealers were involved in this activity, which took place within a period of a few days. The matter went before the Courts and on December 14, 1999 the Newfoundland Court of Appeal struck down s. 27 of the *Marine Mammal Regulations* which makes it an offence to buy, sell or trade blueback seal pelts. In the year 2000, to conform to the policy enacted as a result of the recommendations of the Malouf Report, licence conditions will prohibit the taking of blueback and whitecoat seals.

In 1998, good conditions off northeast Newfoundland enabled sealers to take 10,148 hooded seals. The TAC for 1999 remained at 10,000. In 1999, although the TAC remained at 10,000, the market value was very low due to high inventory of hooded seal pelts. Consequently, only 201 hooded seals were harvested. The most recent estimate of the Greenland hunt of hooded seals is 9,896 (October 1998). Therefore, the combined hunts in Canada and Greenland are below the replacement yield.

Grey Seals

Grey seals (*Halichoerus grypus*) are found in the Gulf of St. Lawrence year-round. In the summer, they can be found in the estuary as far upriver as the Saguenay. Grey seals breed on Sable Island and on the ice floes in the southern Gulf from late December to early February. After breeding, they disperse, mainly to the Scotian Shelf, the Gulf of St. Lawrence and off the southern coast of Newfoundland.

In 1997, the number of newborn grey seal pups in the northwest Atlantic was estimated at around 35,000, of a total population of 190,000 grey seals. The herd on Sable Island is increasing at a rate of 13 per cent, or doubling every six years. In the Gulf of St. Lawrence, the herd appears to be increasing at a much lower rate, around 3 per cent.

Only small numbers of grey seals are hunted each year and a TAC has not been established. Sealing is limited to a small traditional commercial hunt in an area off the Magdalen Islands and to commercial hunts of small numbers of grey seals in other areas, except Sable Island where no commercial hunting is permitted.

Grey seals have more recoverable meat but markets remain poor. Grey seal pelts are much less valuable than harp seal pelts. With lower pelt demand and prices, marketing of these seals remains difficult.

In 1999, only 98 grey seals were taken for commercial purposes. In 1998, 206 grey seals were hunted by sealers from the Magdalen Islands and 69 by sealers from Cape Breton; 72 grey seals were landed the previous year.

The last time any significant numbers of grey seals were taken was before 1984, under a bounty program (1976–83) and a culling program (1967–83). The first program resulted in an average take of about 720 seals per year and the latter removed about 1,000 animals per year from the grey seal population.

Ringed Seals

In 1999, 772 ringed seals (*Phoca hispida*) were taken in the subsistence hunt in Labrador. This number compares to 1,046 harvested in 1998 and 1,639 in 1997. Ringed seals are also taken for subsistence purposes in Arctic Canada.

Other Seals

Small numbers of harbour (*Phoca vitulina*) and bearded seals (*Erignathus barbatus*) are taken each year in the subsistence hunt in northern Atlantic areas. In 1999, sealers landed 61 bearded seals and no harbour seals. In 1998, sealers landed 56 bearded seals with no harbour seals taken.

Total Landings

Annex 3 shows the Atlantic seal landings for the last 10 years by area and species.

III. MARKET OUTLOOK

Annual demand for Canadian seals is not likely to exceed 250,000 to 300,000 despite the growing demand for fur. Seal pelts drive the market and, while processors have stated that they will be buying pelts in 2000, they have not indicated how many because the recent Asian currency crisis has resulted in a stockpile of pelts. Potential markets in the U.S. remain closed due to restrictions in its *Marine Mammal Protection Act*.

The Government of Newfoundland and Labrador is more optimistic about the prospects for an expanded seal industry and it believes that over the next two to three years the industry could be worth up to \$100 million. A wide variety of products in addition to the more traditional meat, fur and leather, are now being offered, such as protein concentrate, Omega-3 fatty acids and other fatty acids used as health food supplements.

The Quebec sealing industry is confident that new markets for seal products will be found in China. In 2000, it plans to undertake a pilot project that would see the marketing of seal pelts, oil and meat to Chinese interests.

Nunavut is also actively developing its own northern market for both local clients and tourists. By promoting fur products as attractive and functional and linked to the traditional hunting culture, it hopes to create new local economic opportunities.

MARKET DEVELOPMENT

As a result of the government-wide review of priorities and activities in 1994, DFO is no longer involved in product support or promotion activities. Currently, DFO's interest in international business development activities is limited to market access issues such as seeking amendments to the U.S. *Marine Mammal Protection Act* (MMPA). Canada has formally asked what action the U.S. government is contemplating to bring the MMPA into conformity with international obligations. Canadian officials continue to seek a response. Canada will continue to pursue this issue and is considering all options, including recourse to dispute settlement. In the short term, Canada has begun discussions with U.S. authorities to facilitate temporary, non-commercial transfer across the border of items from Aboriginal communities for cultural or educational purposes, as allowed by the MMPA under limited circumstances.

SEAL PELTS (FUR AND LEATHER)

The 1999 seal harvest was directed mostly at beaters (harp seals between 25 days and 13 months of age) because of the higher price paid for these pelts. Due to high inventory of hooded seal pelts from previous years, there was no directed harvest for hooded seals. Despite a one-month extension of the sealing season (to June 15), the 1999 seal landings were significantly down from 1998. This drop probably reflects poor markets. The price for a prime harp seal beater pelt dropped from \$25 at the start of the season to \$15.

SEAL MEAT

In 1999, there was virtually no market for seal meat. The foreign market has been particularly affected by Asian currency difficulties. The Government of Newfoundland and Labrador reported that 1.5 million pounds of seal meat were processed in Newfoundland in 1999.

Sealers in many areas did not land carcasses in 1998 because of low prices for meat. DFO is examining this situation as part of regulatory review (see Part VI). Industry is exploring the potential of using meat as a nutritional supplement for humans as well as animals. Protein powder is one such possibility that could do much to increase the value of seal meat, as its use as animal feed has commanded relatively low prices of \$0.15 per pound or less. The industry continued to promote cuts of meat in Asia for human consumption.

Seal meat has been a traditional meal of coastal communities in Newfoundland and the Arctic for hundreds of years, but fuller use of the animal requires the development of new products and markets. DFO provided a meat subsidy of \$0.20 per pound in 1995 and 1996, with a total subsidy of \$1.4 million in 1996. The level of subsidy totalled \$650,000 in 1997, \$440,000 in 1998 and \$250,000 in 1999. This program has now ended and no meat subsidies will be offered in 2000.

A process to extract the protein and other nutrients from seal meat has been developed resulting in an almost pure powdered form of protein.

SEAL OIL

There has always been a market for seal oil in Europe as marine or industrial oil, but it has commanded relatively low prices. The seal processing industry continues to research and develop seal oil products in conjunction with the scientific community. Omega-3 Liposone skin cream is currently being developed and tested. The Government of Newfoundland and Labrador reported that close to 7.5 million pounds of blubber went into oil production in 1999.

SEAL FLIPPERS

There has always been a local market for a number of seal flippers In Newfoundland. In 1999, the value of this market was estimated at less than \$100,000. Markets would have to be found elsewhere, if flipper prices are to go up substantially.

SEAL ORGANS

There was virtually no market for seal organs in 1999.

In 1998, due to declining prices — \$15 to \$20 per unit, compared to \$70 to \$100 in previous years — only an estimated 20,000 organs were sold to processors.

VALUE OF THE HUNT

Based on figures from the Newfoundland Region, where the bulk of the hunt is landed and processed, the total landed value of the 1999 seal hunt is thought to be less than the 1998 value of \$7.5 million. As noted above, markets were poor in 1999 and neither the harp seal nor the hooded seal TACs were reached.

The processed value of seal products from the 1999 hunt has yet to be estimated, but it will probably be lower than in 1998. The Government of Newfoundland and Labrador reported a processed value of approximately \$20 million. Besides the economic benefits of the hunt, seals are an important source of nutrition, as well as a focus of social and cultural life for Aboriginal peoples and other residents of Atlantic Canada, Quebec and the Far North.

CONSULTATION

In November 1999, for the first time, an inter-regional meeting was held with industry stakeholders to discuss the upcoming sealing season. Representatives included the sealing industry, provincial governments and Aboriginal groups. In the Newfoundland Region, meetings were held with sealers in St. Anthony and Port au Choix.

All meetings were well attended and included representatives from the Canadian Sealers Association (CSA) and the Fish, Food and Allied Workers' Union (FFAWU). In addition, two teleconferences were held with the province, CSA and FFAWU.

In the Laurentian Region (Quebec), there were consultations with the *Conseil québécois de l'industrie du loup-marin*, an umbrella organization representing Aboriginal and commercial sealers, and processors from various parts of Quebec.

In the Maritimes, there were consultations with the North of Smokey Fishermen's Association, which represents the only active group of Aboriginal and commercial sealers in this region.

In preparing this management plan, DFO took into consideration the views of special interest parties, including Greenpeace, the International Marine Mammal Association and the International Fund for Animal Welfare.

Provincial officials were consulted on management measures at the regional level. Provincial opinions were also received as a result of exchanges at the ministerial level.

All views were considered in the development of the 2000 Management Plan and many were adopted. Further consultations were held with a wider array of interests in 1999, to review the regulations respecting sealing. The industry will also be consulted on future seal licensing policies and any in-season re-allocations of seals to different areas or sectors.

MANAGEMENT APPROACH

Since 1987, the seal hunt has been managed on a long-term, sustainable basis, with a view to facilitating the renewal of an industry badly damaged by trade barriers and animal rights activities. The replacement yield has been used as a benchmark for sustainability. As stated above, replacement yield is the number of animals that can be taken in a given year without reducing the total population in the next year.

The Malouf Report provided much of the guidance for our existing management approach, for example, the ban on the commercial hunt of whitecoats (harp seals) and bluebacks (hooded seals) and on the use of large vessels more than 65 feet long. The commercial hunt is now carried out largely from inshore boats owned and operated by coastal residents.

With a plentiful and sustainable seal resource hunted well below its TAC for many years, DFO has concentrated on improving and enforcing hunting practices and regulatory and licensing requirements. This approach has increased the proficiency of sealers in the quick and humane dispatch of seals as well as in the proper handling of the hunt.

The Malouf Report also recommended that assistance be provided to the industry following the collapse of seal markets in 1983. DFO and other federal and provincial government agencies have provided funding to support sealing associations, as well as market and product development projects. Since 1986, DFO has provided more than \$3 million for these purposes through the Atlantic Fisheries Adjustment Program and Grants and Contributions. The DFO assistance program ended in 1999, with \$250,000 in funding for the sealing industry. There will not be any DFO financial assistance program for the sealing industry in 2000.

IV. STOCK STATUS

PROSPECTS FOR 2000

Harp Seals

Following the most recent assessment of stock status at the National Marine Mammal Peer Review Committee in February 1999, the harp seal population is now estimated to be in the order of five million animals. Abundance is considered to be high, having more than doubled since the early 1970s, and has been stable or declining only slightly in the past several years. In 1999, DFO conducted a harp seal pup production survey. Data analysis takes time and the survey results will not be ready until March 2000, at which time they will be incorporated with other data into a new population assessment. The assessment will enable us to gauge the effects of increased hunting since 1994 and provide a basis for reviewing the harp seal TAC in 2001.

Hooded Seals

Hooded seals are considerably less abundant than harp seals. The 1990 hooded seal population was estimated at 400,000 to 450,000. The TAC for hooded seals (10,000 seals) is considerably below the replacement yield, which is estimated at 24,000 to 34,000 animals, depending on the age composition of any hunt.

Genetic work aimed at separating the distinct populations of hooded seals in the Canadian Atlantic region is underway, and satellite tagging of these animals has been undertaken. Discussions are also in progress with Greenland scientists to develop a more comprehensive tagging program to better define movements and stock boundaries.

Grey Seals

The 1993 grey seal population estimate was 144,000 (82,000 from the Sable Island rookery and 62,000 from the Gulf of St. Lawrence). Since the 1960s, the Sable Island grey seal population has been increasing at a rate of 13 per cent per year. Grey seals in the Gulf are estimated to be increasing at a rate of 3 per cent per year.

In 2000, a new pup production survey will be undertaken. New population and replacement yield estimates will be produced after results of the survey are available.

Ringed Seals

A study of Arctic ringed seals has confirmed the existence of several distinct groups of ringed seals. Based on growth data, along with the existence of geographic barriers, distinct population

boundaries can be defined (e.g., Hudson's Bay, Baffin Island/Davis Strait, Arctic Archipelago). The structure of the ringed seal population in Labrador is less well known.

In response to a suspected population decline, a sampling program for ringed seals has begun in Hudson's Bay in cooperation with the Nunavut Wildlife Management Board. Ringed seals are a critical prey item for polar bears in the North. Consequently, any proposal for a commercial harvest of this species would have to take into account the potential impact on polar bears. There are few detailed estimates of ringed seal abundance for Canadian populations. Hunting of ringed seals is currently done for subsistence only.

Other Seals

There are no reliable population estimates for harbour and bearded seals.

ENVIRONMENT AND HABITAT

DFO is responsible for managing the sustainable use of fisheries resources with conservation as the paramount consideration. The scope and nature of environmental effects are considered when developing management plans. Various management options are weighed against one another based on careful considerations of all information, including traditional knowledge, local knowledge and industry experience along with the best scientific information available from both DFO and external fisheries science. The 2000 plan was formulated in consideration of any environmental or habitat concerns.

SPECIES INTERACTIONS

Although Atlantic cod is not the major prey for seals, seals may be a significant source of cod mortality in some areas. Studies of predation by seals on fish in Atlantic Canada have focussed on the three most abundant seal species: harp, hooded and grey seals. In March 1999, the impact of seal predation on some commercial stocks was considered for the main fishing zones in Atlantic Canada. It is estimated that all species of seals annually consume about 142,000 tonnes of Atlantic cod in Canadian waters.

The Fisheries Resource Conservation Council (FRCC), some provincial fisheries ministers and the Standing Committee on Fisheries and Oceans have called for a large reduction in the seal herd because they are concerned about the impact of harp and grey seals on the rebuilding of groundfish stocks.

Most scientists do not believe that seal predation played a significant role in the collapse of groundfish stocks in the late 1980s and early 1990s. Many other factors, such as overfishing and poor environmental conditions, have been implicated in the groundfish collapses. However, recent assessments of cod stock status have concluded that seal predation may be a significant source of mortality in some areas since the moratoria in the groundfish fisheries were imposed.

Several kinds of information are used to estimate consumption of fish by seals: estimates of seal abundance, the energy requirements of individual seals, the seasonal distribution of different age groups of seals, and seasonal and temporal variations in the diet. Many factors affect the interpretation of such information; for example, some prey are digested faster than others or are not recognized in the samples, so that stomach contents may not accurately represent the seal's diet. As well, the amount of food a seal consumes varies with age, reproductive status and level of activity. Accordingly, although estimates of overall food consumption are considered reasonably accurate, they are subject to uncertainty.

Although seals are known to eat significant quantities of commercial species in some areas, and may be a significant source of mortality, information available at present does not allow us to say with certainty that reducing seal populations would lead to increased abundance of fish. Nevertheless, while definitive answers about the impact of seal predation on fish stocks may be elusive, research is continuing to improve our knowledge of the role of seals in their ecosystem.

RESEARCH

The Department of Fisheries and Oceans has maintained an active seal research program for many years. This program is aimed at better understanding population fluctuations and the factors that influence them, as well as the role of seals in marine ecosystems. About \$11 million has been invested in seal research since the early 1980s. Most of this funding was aimed at studies of abundance and population dynamics and of predation on fish by grey and harp seals.

Early in 1999, DFO scientists conducted an aerial survey of harp seal pups in Atlantic Canada. The pup production survey consisted of a three-step approach. The first step was to conduct extensive reconnaissance to locate all concentrations of whelping females. Beacons were installed on the ice where the herds were located in order to follow them as the ice drifted, using a helicopter and the ARGOS satellite system.

Then, at the peak of whelping, intensive aerial photography and visual surveys were carried out to produce, as accurately as possible, a count of the pup population. The use of high quality black-and-white photography allowed identification of harp seal pups, the type of ice the seals prefer and their distribution.

The final component consisted of on-ice investigations using a helicopter. Scientists estimated the proportion of females that gave birth on the day of the survey and the proportion of pups hidden under ice ridges that could not be detected in the aerial photos. In addition, the team evaluated the duration of the whelping period and monitored the pups' growth by making regular visits and tagging the pups in designated study areas.

Other aspects of the survey consisted of monitoring the health, growth and condition of seals and determining stock structure, diet and parasite loads. Additional projects studied the transfer of contaminants from females to pups, the impact of contaminants on immune system function, seasonal movements, diving activity and the measurement of heart rate as an indication of energy

expenditure. Scientists have also observed the hunt in order to collect data on the age composition of the harvest as well as on "struck and loss." In any harvest, animals may be killed but not recovered and therefore not included in the reported landings, a factor referred to as "struck and loss." These projects are carried out in collaboration with the University of Waterloo, Laval University, Memorial University of Newfoundland, the Norwegian Institute of Fisheries and Aquaculture, the Greenland Institute of Natural Resources and Aquaplann (Tromso, Norway).

Fieldwork is followed by months of laboratory analysis in order to interpret the aerial photos and incorporate new data into the existing body of knowledge on the dynamics of the harp seal population. Because data analysis takes time, the survey results will not be ready until the spring of 2000. The survey will enable DFO to gauge the effects of increased hunting since 1994 and provide a basis for reviewing the harp seal TAC.

DFO Science has been carrying out studies designed to estimate the amount of struck and loss that occurs. Preliminary results were presented to the Marine Mammal Peer Review Committee (MMPRC) in February 1999. The proportion of seals lost appears to be negligible for young animals killed by clubbing and relatively low for beater seals killed on the ice. However, a significant proportion of older seals taken in the water may be lost. Based on the data presented, the MMPRC felt that conservative estimates based upon a moderate rate of struck and loss are most appropriate. It should be noted that the vast majority of the Canadian harvest consists of young seals taken on the ice and that struck and loss rates for these animals are very low.

These estimates were used to determine population trajectories and replacement yields for harp seals at various levels of struck and loss.

V. MANAGEMENT OBJECTIVES

CONSERVATION/SUSTAINABILITY/HUNTING PRACTICES

The year 2000 represents a transition year for the seal hunt, so the management objectives remain unchanged from 1999. In view of the recommendations from SCOFO, the FRCC and others, outlined in Part VI, DFO will be setting up a panel of eminent persons to assist in the development of a long-term strategy for the management of seal populations and a review of management policy. Along with the updated population estimate for harp seals, this review will provide the basis for public consultations on a five-year management plan for the Atlantic seal hunt, to include Aboriginal groups, provinces, territories, the sealing industry and interest groups. The goal is to introduce a multi-year management plan for 2001-2005.

Once the harp seal population survey results are available, and in consultation with others, DFO will consider factors such as:

- seal interaction with other species;
- uncertainties in the analysis of seal-fish interactions;
- the impact of any changes on efforts to remove U.S. trade barriers;
- the impact of current seal marketing initiatives;
- the possibility of increased boycotts of Canadian products abroad; and
- the inclusion of the Greenland harvest in any overall harvest strategy.

LONG-TERM SUSTAINABLE USE

The 2000 Management Plan provides a management framework to support the long-term, sustainable commercial and subsistence hunt of seals on the Atlantic coast. This hunt provides sealers, Aboriginal peoples and northern residents of Atlantic Canada with an opportunity to use adult and self-reliant juvenile seals to provide economic benefits and food for their families and communities.

A MARKET-DRIVEN COMMERCIAL HUNT WITHIN CONSERVATION PARAMETERS

The commercial seal hunt takes place in response to market demands, subject to conservation parameters that ensure the sustainability of seal stocks.

FULL USE OF EACH ANIMAL HUNTED

The federal government will continue to encourage the fullest possible use of each seal hunted; however, no subsidies will be available from DFO for the year 2000. The objective of full use is also being explored under regulatory review (see Part VI, Regulatory Review).

HUMANE HUNTING PRACTICES

Section 8 of the *Marine Mammal Regulations* stipulates that persons can only dispatch marine mammals in a manner designed to do so quickly. Under these regulations, seals may be killed only by the use of high-powered rifles, shotguns firing slugs, clubs and hakapiks. Further requirements pertaining to the size, weight, muzzle velocity and gauge of weapon are specified in subsection 28(1) of the regulations.

Licensing policy, which requires a commercial sealer to work under an experienced sealer for two years to obtain a professional licence, augments the regulatory requirements. Sealers are also encouraged to take a training course on proper hunting techniques, product preparation and handling. Personal use sealers must have a hunter's capability certificate or big game licence and attend mandatory training sessions before a licence can be issued.

The regulatory requirements, including training prerequisites, are being examined under regulatory review (see Part VI, Regulatory Review). DFO is aiming to have these regulatory amendments in place for the 2001 season.

As a result of recommendations received from the Canadian Veterinary Medical Association (CVMA), regulatory amendments to improve hunting practices are being considered. For sealers using hakapiks or clubs, a requirement that sealers manually check the skull or administer a blinking reflex test before proceeding to hit another seal is proposed. Sealers using firearms would also be required to check the skull or administer a blinking reflex test before skinning or bleeding the seal.

CVMA veterinary experts produced these recommendations following observation of hunting activity in 1998 and 1999. The CVMA was also involved in observing the hunt a number of years ago. Their observation of hunting activity helps to ensure that it is being carried out as humanely as possible.

INTERNATIONAL CONSIDERATIONS

Greenland Hunt

The Canadian and Greenland governments have been discussing their respective hunts and have agreed to continue sharing information as they are hunting seals from the same herds. (See also Part II, Landings and Part IV, Stock Status.)

Trade and Trade Barriers

Markets in Asia have been key to expanding international markets, but Asian currency problems have caused marketing difficulties in the past two years. These problems may continue in 2000.

Aboriginal and sealing industry interests would like the United States to remove the prohibition on the import of seal products under its *Marine Mammal Protection Act* (MMPA). This prohibition has been in place since 1972 and the act is currently under review. In April 1999, the former Minister of Fisheries and Oceans raised the issue with a key U.S. Senator during a visit to Washington. Canadian officials have formally communicated Canada's concerns to the U.S. Administration, and intend to take advantage of the current MMPA re-authorization process in the U.S. Congress to reiterate Canada's position. The Department of Foreign Affairs and International Trade (DFAIT) has the lead in dealing with international trade issues.

Campaigns and Public Information

Some animal rights groups raise funds through media and mail-out campaigns based on graphic depictions of the seal hunt. They also make effective use of websites to present their views on the hunt.

The sealing industry is responsible for communicating its position and representing its interests. Industry groups, such as the Canadian Sealers Association, have played an important role in offering an alternative perspective on the seal hunt to the media and others. The CSA operates a website (www.sealers.nf.ca) to provide an industry perspective on the seal hunt.

The federal government continues to provide factual and up-to-date information on the seal hunt to diplomatic posts and to foreign and domestic media, businesses, government representatives and citizens. Information is provided in news releases, fact sheets and backgrounders and through DFO's website (www.dfo-mpo.gc.ca). In preparation for the 2000 season, the Department will launch a new section on its website specifically dedicated to seals to ensure that information on the seal hunt is current and easily accessible.

In addition, DFAIT will continue to promote public education on the seal hunt on the international front.

DOMESTIC CONSIDERATIONS

Equitable Allocation

DFO ensures that all sealers are allocated a minimum share of the TAC of harp seals, based on their traditional reliance on seals and recognizing the importance of this industry to residents of coastal communities adjacent to the major sealing areas. The land-based, small-vessel hunt undertaken by these sealers has been the cornerstone of the industry for the last decade.

DFO will maintain the present sealing opportunities for Aboriginal peoples, residents of the Far North and residents adjacent to traditional sealing areas. DFO will also be supportive of Aboriginal efforts to hunt seals commercially. As in 1999, a relatively large allocation for Labrador will allow for greater Aboriginal involvement in commercial sealing. There is a small allocation of 2,000 harp seals for the Canadian Arctic, as sealing for this species has been limited in recent years. DFO is mindful that there may be opportunities for a commercial harp seal hunt in the Canadian Arctic and will discuss allocations and re-allocations as opportunities arise. The Canadian Arctic hunt may have accounted for up to 5,000 harp seals prior to the market collapse in the early 1980s.

In 1999, during consultations held within the Newfoundland Region, industry representatives requested the establishment of a mechanism to sub-allocate seals to various areas and fleet sectors once the overall TAC had been established. A committee was subsequently put in place in February 1999.

At the inter-regional industry consultation on seals held in November 1999, it was agreed that the re-allocation mechanism used in 1999 worked very well and the same approach would continue for 2000. Furthermore, it was agreed to form an inter-regional committee to deal with re-allocation and opening/closing date issues affecting both the Gulf and the Front.

Good Sealing Practices

To ensure that seals are handled and processed so as to provide high-quality products, as well as dispatched quickly and humanely, licensing policy requires a form of apprenticeship before a commercial sealer can obtain a professional licence. As well, personal use sealing licences will not be issued to any person who did not have a licence, a valid hunter's capability certificate or big game licence the previous year, and who has not attended a mandatory training session.

DFO works closely with the sealing industry to help develop and provide information sessions on methods of hunting, handling and processing to ensure high standards for Canadian seal products. To this end, DFO has been supportive of the establishment of industry councils in Newfoundland and Labrador and Quebec.

At the 1999 Atlantic Sealing Regulatory Review Forum there was general agreement to move forward with a regulatory amendment that would make a training program a prerequisite for all sealing licences and encourage the professionalization of commercial sealers.

The Quebec and Nova Scotia sealing industries are working with the CSA to create an Atlantic-wide training program with regional variations.

VI. CURRENT MANAGEMENT ISSUES

REPORT OF THE STANDING COMMITTEE ON FISHERIES AND OCEANS — THE SEAL REPORT

In June 1999, the Standing Committee on Fisheries and Oceans (SCOFO) issued the *Seal Report,* which put forward 15 recommendations on the management of seal populations and the seal hunt. In November 1999, the government issued its response to the SCOFO recommendations.

The SCOFO report and the departmental response are available on the Fisheries and Oceans website at www.dfo-mpo.gc.ca

DFO accepted the majority of the Committee's recommendations and included a plan of action for those that fall under the domain of the department. For the recommendations that fall under other federal authority, DFO will work with the agencies involved. In many instances, work is already underway.

An important feature of the response to the recommendations is the formation of a **Seal Panel**. According to Minister Dhaliwal, "The Panel will provide a useful, fresh and independent look at important questions, such as the current state of scientific knowledge and how to formulate a long-term strategy for managing seal populations." Reporting to the Minister of Fisheries and Oceans, the panel will consider the Committee's findings and report by the fall of 2000 so that their advice can be considered in the development of a five-year seals management plan for 2001-2005.

THE FISHERIES RESOURCE CONSERVATION COUNCIL REPORT

On May 6, 1999, the Fisheries Resource Conservation Council (FRCC) released a report entitled "1999 Conservation Requirements for the Gulf of St. Lawrence Groundfish Stocks and Cod Stocks in Divisions 2GH and 3Ps". Chapter 2 of the report addressed the issue of predation by growing herds of harp, grey and hooded seals on stocks of groundfish, particularly cod.

In its report, the Council stated that populations of harp, grey and hooded seals together kill more cod than any other factor affecting Canadian stocks north of Halifax. The Council stated its conviction that seals are impeding the recovery of cod stocks and concluded with a recommendation to "reduce the seal herds by up to 50% of their current population levels in specific areas and use such reductions as the basis for scientific study and adaptive management."

REGULATORY REVIEW

The current *Marine Mammal Regulations* were consolidated in 1993. To improve their effectiveness and relevancy, changes are required to adapt them to current conditions of the harvest. DFO is aiming to have these regulatory amendments in place for the 2001 sealing season.

The review process included extensive consultations on 14 prospective changes to the regulations. Over 80 groups with a continuing and active interest in sealing were consulted, including representatives of Aboriginal groups, conservation and animal rights groups, special interest groups, fishing and sealing industry groups, and provincial governments. The consultations culminated with a public forum held in Newfoundland in May 1999, in which about 50 groups participated.

Although Aboriginal groups have always been part of the consultations, it should be noted that the regulations do not apply to harvests managed under land claims agreements.

The proposed amendments do not affect the conduct of the 2000 seal hunt. Significant regulatory amendments that may be made as a result of consultations include:

- Expanding the definition of whitecoat to include the whitecoat stage of all seal species, not just harp seals;
- A prohibition on the hunting of all whitecoats with exclusions to respect land claims agreements and hunting for food, social and ceremonial purposes by Aboriginal peoples;
- The establishment of separate licences for commercial and personal use sealing;
- The establishment of licences and licence prerequisites to allow the killing of nuisance seals;
- Amendments to hunting methods to establish a clearer determination of death before bleeding and skinning;
- A requirement to land either the pelt or carcass of seals taken by commercial or personal use sealers with an exclusion for the non-lethal harvest of seal hair;
- The extension of the application of existing gear restrictions to commercial sealing throughout Atlantic Canada;
- A change in the gear restrictions to allow the non-lethal harvest of hair;
- The establishment of a licence for vessels longer than 65 feet to collect seals from other vessels; and
- Administrative changes to update and improve the regulations.

There is substantial support from industry and others to remove the prohibition on the sale of blueback seals. Because of the potential ramifications of this change, the department has separated

out this element of the proposals and is consulting with other departments on the impact and advisability of proceeding with any change to the existing policy and regulations. Further consultations will also be undertaken on the proposed regulatory amendment that would prohibit the use of large vessels directly involved in the seal hunt.

CALLS FOR A CULL OF SEAL POPULATIONS

There are concerns about the impacts of harp and grey seals on the depleted stocks of groundfish. Many persons have called for a cull, i.e., the killing of seals for the express purpose of reducing the populations. The department is not considering a cull at this time. Rather, it is awaiting the recommendations of the Seal Panel on a new long-term strategy for the management of seal populations. It is expected that the Panel's recommendations will be available in the fall of 2000.

FORMATION OF AN EMINENT PANEL TO ADVISE THE MINISTER

Following the recommendation of the Standing Committee on Fisheries and Oceans, the Minister has agreed to establish a panel of eminent persons to review the available scientific information and provide advice on long-term harvesting and management strategies for seal populations.

It is anticipated that the panel will begin its work early in 2000. Terms of reference for the panel will include:

- reviewing scientific information on seal populations and the ecosystems of which they are part, including methods for estimating population abundance and mortality and knowledge of impact of seal predation on stocks; and
- advising on the most appropriate strategic directions for management of seal populations in light of the available scientific information.

Use of Large Vessels (Over 65 feet in Length)

There has been some interest in the possible use of large vessels as platforms to assist the existing small vessel hunt. Although current government policy does not permit sealing directly from large vessels, there is no policy against the use of a large vessel to collect, transport and process seals hunted by small vessels and as a possible safe haven during bad weather. These vessels are commonly referred to as "collector vessels."

It should be stressed that under no conditions can collector vessels be used to hunt seals.

Seal hunting refers to any activity that takes place on the hunting ground, including:

- the act of hunting, killing and skinning seals;
- handling and transporting raw seal skins and carcasses from the place where the animals are killed to land or to the point of sale (collector vessel); and

• transporting hunters from land to the hunting ground and from the hunting ground to land.

The crew of the collector vessel must limit its activities to transfering seals from the harvest location onto the boat. However, some activities may take place on the collector vessel, including primary processing of products, such as the cleaning and preparation of meat.

In 1999, a collector vessel was used to collect about 25,000 harp seals from sealers in the southern Gulf of St. Lawrence. The collector vessel took on about 25,000 pelts that would have ordinarily been off-loaded on the Magdalen Islands before being shipped to a processor in Newfoundland. Some sealers from Newfoundland saw this as unfair competition. They complained that the season for harvesting beater seals in the west coast of Newfoundland (Sealing Areas 10-14) had closed before the harvest could get underway because of the presence of the collector vessel.

VII. MANAGEMENT MEASURES FOR 2000

TOTAL ALLOWABLE CATCHES (TACS)

Harp Seals

The TAC for harp seals remains at 275,000 in 2000.

Hooded Seals

The TAC for hooded seals remains at 10,000 in 2000.

Grey Seals

As in 1999, sealers will still be able to take a few hundred grey seals in the traditional hunt off the Magdalen Islands and in small-scale hunts in areas other than Sable Island. Proposals for an expanded grey seal hunt may be considered in-season based on the merits of the proposal and new population estimates.

Ringed Seals

A limited commercial hunt of ringed seals (2,000) will be authorized again in 2000, through the issuance of sealing licences to Labrador residents for that purpose. Any commercial hunt of ringed seals in other areas of the Canadian Arctic is not dealt with in this plan.

Subsistence Catches

The subsistence hunt of small numbers of harp, hooded, grey, ringed, bearded and harbour seals will continue. Any subsistence hunt of seals in areas other than Atlantic Canada is not dealt with in this plan, although an allocation of harp seals is made for the hunt in the Canadian Arctic.

HUNT LOCATION AND TIMING

Residents of Labrador north of $53^{\circ}N$ latitude and the Arctic (Sealing Areas 1 to 4 — see map in Annex 4) can hunt seals of any species at any time of the year for subsistence purposes, except as specified for ringed seals below. Aboriginal persons can also hunt seals throughout the year for food, social and ceremonial purposes.

Harp Seals

The commercial hunt will continue in traditional sealing areas on the Front (Sealing Areas 5 to 8) and in the Gulf (sealing areas 9 to 16, 20, 22, 26 and 27). The season is from November 15 to May

15. Regional Directors General may alter the seasons (close times) by publicly issuing Variation Orders. A condition of licence will prohibit the taking of whitecoats.

The personal use hunt will be off Newfoundland, Labrador south of 53°N latitude and off Quebec's North Shore, the Gaspé Peninsula and the Magdalen Islands. The seasons will be the same as the commercial seasons and will be established by the period of validity on licences until seasons can be included in the regulations. Again in 2000, a condition of licence will make it illegal to take whitecoats.

Hooded Seals

The commercial season will remain from November 15 to May 15 in Sealing Areas 4 to 7 and 12. Regional Directors General may alter the seasons (close times) by publicly issuing Variation Orders. Sealing Areas 8 to 11 and 13 to 33 are areas where hooded seals have not been hunted and they will remain closed. In 2000, a condition of licence will prohibit the taking of young hooded seals (bluebacks).

Personal use licences may allow hooded seals to be taken in areas where the commercial season is open. As noted above, the personal use season will be established by period of validity until seasons are included in the regulations. As in 1999, the harvest of bluebacks will be prohibited.

Grey Seals

As in 1999, the timing of the grey seal hunt will be controlled by condition of licence. The small commercial hunt near the Magdalen Islands will probably occur in January and February and other grey seal hunts will be approved on a case-by-case basis. There is no personal use hunt for grey seals.

Ringed and Other Seals

The season from April 25 to November 30 will continue for the subsistence hunt of ringed seals in Labrador. The numbers of bearded and harbour seals taken for subsistence purposes are small and no season is necessary. An experimental commercial hunt of ringed seals may take place in Labrador in 2000 with the season established as a condition of licence. There is no personal use hunt for ringed and other species of seals.

ALLOCATIONS

Harp Seals

The overall TAC of harp seals is subdivided into commercial sealing allocations applicable to different areas (see Annex 4 and attached maps), a personal use allocation for all areas and a subsistence allocation for northern communities.

Seals hunted by sealers licensed in an area or sub-area will be counted against the allocation for that area or sub-area regardless of the area in which they are taken.

There are commercial allocations of 271,000 harp seals. In some areas, they are further allocated on the basis of the length overall (LOA) of the vessels used. There are allocations of 2,000 seals each for personal use and the northern subsistence hunt. There may be some commercial byproducts of the northern subsistence hunt such as pelts and handicrafts.

Affected stakeholder groups will be consulted on any in-season re-allocations or sub-allocations among sectors or areas. Committees have been established for these purposes.

Hooded Seals

The TAC of 10,000 hooded seals is for sealing in the Front, is not allocated among the various hunters, and applies to commercial and subsistence sealers in the aggregate. There is no hooded seal hunt in the Gulf.

Other Seals

There are no TACs or allocations of other species of seals. Conditions of licence are used to limit the commercial hunt of grey seals to a small number. Licences will also be used to control any commercial hunt of ringed seals. There are no allocations for ringed, harbour or bearded seals taken in the subsistence hunt.

OTHER PLAN ELEMENTS

As well as the TACs, seasons and allocations noted above, the 2000 Management Plan includes the elements noted below. The *Marine Mammal Regulations* and the *Seal Licensing Policy for Eastern Canada* are used to manage many of these elements.

MAJOR ELEMENTS

Whitecoats (harp seal pups) and bluebacks (young hooded seals) may not be hunted.

Persons may not hunt adult seals in breeding or whelping patches.

Land-based sealers with or without small vessels (65 feet and less in length) will do the hunting, although vessels beyond that length may be considered for use to collect, transport and prepare hunted seals from small vessels and as safe havens for sealers in bad weather.

DFO will continue to enforce regulatory requirements for the firearms, ammunition, clubs and hakapiks used in sealing to ensure the right tools are used properly for the quick and humane dispatch of animals.

SPECIFIC LICENSING ELEMENTS

Licences are not required by Labrador residents north of 53°N latitude who are hunting seals in Sealing Areas 1 to 4 for food purposes. They are also not required by Aboriginal people who are hunting for food, social or ceremonial purposes and who are not the beneficiaries of a claims agreement.

Professional commercial sealing licences may be issued only to full-time or bona fide fishers registered with DFO who:

- a) held a professional sealing licence the previous year; or
- b) have participated in the seal hunt during the previous two years as the holder of an assistant sealing licence.

Assistant sealing licences may be issued only to registered fishers who are in possession of written confirmation, from a professional sealer, to the effect that the assistant sealer will be hunting seals under the supervision of the professional sealer during the sealing season.

Personal use sealing licences, allowing the hunt of up to six seals a year for personal consumption, may be issued only to residents who:

- a) live adjacent to established sealing areas throughout Newfoundland, in Labrador south of 53°N latitude, on Quebec's North Shore, the Gaspé Peninsula and the Magdalen Islands;
 and
- b) held a personal use sealing licence in the previous year; or
- c) hold a valid provincial hunting licence for big game or a hunter's capability certificate to demonstrate their proficiency with firearms* and have attended a mandatory information session on regulations, safety and the proper handling of hunted seals.

Special sealing licences may be issued for small-scale projects to hunt seals in 2000.

The use of firearms to hunt seals near communities or areas of fishing activity may be controlled by condition of licence to ensure public safety and an orderly hunt. In Newfoundland, the 2000 licence condition on firearm states: "While fishing and attempting to fish for seals, you are not permitted to possess a rifle that produces a muzzle velocity of less than 1,800 feet per second and/or a muzzle energy of less than 1,100 foot pounds."

^{*} Applicants from the Magdalen Islands need not meet the requirements for firearms proficiency if they are using a club in accordance with the traditional hunting practices in that area.

VIII. CONSERVATION AND PROTECTION ISSUES AND STRATEGIES FOR 2000

The major emphasis of DFO's Conservation and Protection strategies will be on monitoring catches, ensuring humane hunting practices and enforcing the prohibition on the harvest of whitecoat and blueback seals.

ORGANIZATION

The following DFO staff will be responsible for the operational coordination of the hunt:

Gulf Coordinators Roger Simon Vincent Malouin

Magdalen Islands Gaspé, Quebec (418) 986-2095 (418) 368-5559

Front Coordinator Doug Butt

Newfoundland

(709) 772-4836 or (709) 292-5168

Maritimes Region Scotia-Fundy Fisheries Gulf Fisheries

Jerry Conway Stewart Manderson
Halifax, Nova Scotia Moncton, New Brunswick

(902) 426-9609 (506) 851-7800

MANDATE

Their mandate is to coordinate enforcement operations in the various areas of Atlantic Canada.

OBJECTIVES

DFO will seek the effective application of legislation, policies and directives related to:

- quotas;
- licensing;
- the prohibition on harvesting of whitecoats and bluebacks;
- hunting methods (humane hunting and instruments);
- observation permits; and
- communications.

QUOTAS/QUOTA MONITORING

Sealers will be required to maintain logbooks and hail (report orally) seal harvests daily for vessels greater than 35 feet in overall length. These reports and hunt estimates made by fishery officers will be compiled, by species, zone and vessel class, in weekly quota reports. For vessels less than 35 feet in overall length and land-based sealers, fishery officers will provide hunt estimates based on community reports, plant statistics, weekly reports and/or checks of landings. In Newfoundland, weekly reports will be compiled based on species, area and vessel class.

ENFORCEMENT/REGULATIONS

The enforcement objectives for 2000 will be to seek overall compliance with regulations and to ensure the maintenance of effective quota monitoring. Priority will be given to enforcing regulations pertaining to proper hunting techniques, the accurate reporting of landings and quota compliance, monitoring by-catches of seals in other fisheries and ensuring that whitecoats and bluebacks are not hunted for commercial purposes. The department will also promote the fullest possible use of each animal harvested.

TABLE 2: ENFORCEMENT PRIORITIES FOR 2000						
Priority	Regulation	Strategy				
Monitor hunt and enforce regulations	Sections 8, 28(2) and 29 (1) of the Marine Mammal Regulations	aerial surveillanceon-site inspectionsobserver coverage				
Maintain accurate reporting of landings and quota compliance	Section 22 of the Fishery (General) Regulations	in-port inspectionsobserver coverageon-site inspections				
Monitor by-catches of seals	Section 5 of the Marine Mammal Regulations and Section 33 of the Fishery (General) Regulations	in-port inspectionsobserver coverageon-site inspections				
Ensure that no whitecoats or bluebacks are harvested	Licence condition	 aerial surveillance on-site inspections in-port inspections observer coverage 				

ENFORCEMENT STRATEGY

The enforcement program will be based on the utilization of air/surface platforms, as well as on the deployment of fishery officers and observers.

AIR SURVEILLANCE

Commencing in mid-February, fixed-wing aerial patrols will be conducted to determine the location of seals and sealing vessels. If necessary, the frequency of patrols will be increased during the season. Helicopter patrols will be conducted in both the Gulf and Front areas as required. An additional helicopter may be added in the Gulf area.

AT-SEA SURVEILLANCE

During peak harvest activity, one patrol vessel, with four to six fishery officers, will be dedicated to at-sea surveillance in the Newfoundland Region. Fishery officers will conduct at-sea boardings to ensure compliance with the *Marine Mammal Regulations*, with particular emphasis on hunting methods. Fishery officers may also be deployed directly on sealing vessels and randomly moved to various vessels throughout the fleet.

In both the Newfoundland Region and the Magdalen Islands area, Canadian Coast Guard vessels will be called upon for assistance if required to transport fishery officers to the hunt.

OBSERVERS

Commencing in late February, independent observers will be deployed to the seal hunt in the Newfoundland Region as required.

OTHER PATROL/SURVEILLANCE ACTIVITY

Fishery officers will conduct coastal patrols, dockside checks and quota monitoring.

ROYAL CANADIAN MOUNTED POLICE/OTHER ASSISTANCE

The RCMP will be available, upon request, should situations arise where assistance is required in both the Front and Gulf areas. As required, DFO will participate in joint patrols with the RCMP and the Quebec Surêté to ensure an orderly hunt. This assistance could be important in avoiding potential confrontations between sealers and members of anti-sealing groups.

MONITORING OF ENFORCEMENT OPERATIONAL PLAN

Weekly conference calls will be conducted to monitor the implementation and effectiveness of the operational plan. If required, in-season adjustments will be made to the plan.

ANNEX I — MANAGEMENT PLAN EVALUATION CRITERIA

- Sustainable hunt within the TAC
- Adherence to regulations
- Fullest possible use product sales
- Number of participants throughout season
- Economic benefits
- Consultations with stakeholders

ANNEX 2 — CONSERVATION AND PROTECTION PLAN EVALUATION CRITERIA

- Compliance with overall TAC
- Compliance with quota and allocations
- Compliance with blueback/whitecoat prohibition
- Number of incidents
- Number of warnings issued
- Number of charges laid
- Penalties
- Feedback from sealing industry
- Feedback from fishery officers
- Feedback from public

ANNEX 3 – SEAL LANDINGS BY AREA AND SPECIES — 1990 TO 1999

Species	Year	Newfoundland Front/ Labrador	Newfoundland Gulf	Cape Breton/ N.S. / P.E.I.	Magdalen Islands	Quebec North Shore	Personal Use	Yearly Total
	1990	636						636
	1991	6,321						6,321
	1992	111	8					119
	1993	19						19
Hooded Seals	1994	129	20					149
nooueu Seais	1995	856	1					857
	1996	25,712	42					25,754
	1997	7,024	34					7,058
	1998	10,144	4					10,148
	1999	182	6		.=.		13	201
	1990	54,630	2,997	1	451	1,961		60,040
	1991	43,129	3,630	166	1,200	4,440		52,565
	1992	58,244	3,907	137	2,704	2,436		67,428
	1993	20,260	2,541	25	1,572	777		25,175
Harp Seals	1994	52,914	6,811	56	330	1,065		61,176
-	1995	52,378	8,238	470	1,196	3,109		65,391
	1996 1997	165,335	60,856	1,145 255	13,709	1,672		242,717
	1997	198,841 215,693	33,754 44,154	3,127	28,900 18,075	2,454 1,021		264,204 282,070
	1998						1 250	
Other Seals	1999	148,005 1,821	53,172	3,528	34,756	711	1,350	241,522 1,821
(Harbour, Bearded &	1990	1,770	1					1,771
Ringed) prior to 1993)	1992	1,770	1					1,771
Kingcu) phor to 1773)	1993	41						41
	1994	90						90
	1995	27						27
Harbour Seals	1996	58						58
naibour bouib	1997	30						0
	1998							0
	1999							0
	1993	1,005						1,005
	1994	1,581						1,581
	1995	1,384						1,384
Ringed Seals	1996	670						670
	1997	1,639						1,639
	1998	1,046						1,046
	1999	772						772
	1993	79						79
	1994	84						84
	1995	24						24
Bearded Seals	1996	45						45
	1997	118	9					127
	1998	56						56
	1999	60	1					61
	1993							0
	1994				40			40
	1995			7	357			364
Grey Seals	1996		40	33	59			132
	1997				72			72
	1998			69	206			275
	1999		2.00=	98	45.	1.051		98
	1990	57,087	2,997	1	451	1,961		62,497
	1991	51,220	3,631	166	1,200	4,440		60,657
	1992	59,482	3,915	137	2,704			68,674
Total All	1993	21,404	2,541	25	1,572	777		26,319
Total All	1994 1995	54,798 54,660	6,831	56 477	370	1,065		63,120
Species	1995	54,669	8,239	477	1,553	3,109		68,047
	1996	191,820	60,938	1,178 255	13,768			269,376
	1997	207,622 226,939	33,797 44,158		28,972 18,281	2,454 1,021		273,100 293,595
	1998	149,019	53,179		18,281 34,756		1,363	
	1000	143,019	33,179	3,626	34,/30	/11	1,303	242,034

ANNEX 4 — 2000 HARP SEAL ALLOCATIONS

General Area/	Category of Sealing	Allocation	Sealing Area(s)
Northern Areas	Subsistence Sealing	2,000	1 to 4
Labrador	Commercial	10,000	4
All Areas	Personal Use Sealing	2,000	5 to 20
Front Area	Commercial		
Front Area	- Vessels less than 35 feet	64,000	5 to 8
Front Area	- Vessels 35 to 65 feet	120,000	5 to 8
FRONT	TOTAL - COMMERCIAL	184,000	4 to 8
Gulf	Vessels less than 35 feet (May 1 to May 15)	7,000	
Gulf	Gulf — vessels less than 35 feet	20,000	9 to 27
Gulf	Gulf -— vessels 35 feet to 65 feet	50,000	9 to 27
GULF	TOTAL — COMMERCIAL	77,000	9 to 27
	CANADIAN TOTAL ALLOWABLE CATCH	275,000	ALL

NOTE: For the purpose of the allocations set out in this table, sealers that obtain access to the seals without the use of a vessel shall be considered as sealers on vessels less than 35 feet.

ANNEX 5 — Maps

