

ATLANTIC

SEAL HUNT

2001

MANAGEMENT PLAN



Fisheries and Oceans Pêches et Océans Canada

Canada

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THE 2001 ATLANTIC SEAL HUNT AT A GLANCE

On December 20, 2000 the Minister of Fisheries and Oceans, the Honourable Herb Dhaliwal, announced the management measures governing the 2001 Atlantic seal hunt as follows:

- the harp seal Total Allowable Catch (TAC) will remain at the 2000 level of 275,000 animals;
- the hooded seal TAC will also remain at the 2000 level of 10,000 animals;
- 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 (harp seal pups) and bluebacks (hooded seal pups).

The Minister decided to carryover the 2000 measures after considering last year's harp seal harvest (92,000 from a TAC of 275,000) and the continuing health and abundance of the seal population. These measures will remain in place until recommendations are received from the Eminent Panel on Seal Management established last year. The Panel is examining the state of science on seals, including methodologies for estimating populations and the magnitude of the hunt, as well as the impact of seals on commercial fish stocks such as cod. The work of the Panel will be an integral part of future seal management, in particular to ensure that this is based on the best possible science and to ensure a balance perspective on seal harvesting.

In the year 2001, DFO will also continue with a number of initiatives in order to add to the base of knowledge relating to seals. These include:

- study to increase the understanding of abundance, distribution, and the potential impact of seals on fish stocks; and
- amendments to the *Marine Mammal Regulations* based on the extensive consultations that took place in 1998 and 1999.

I. BACKGROUND

The Northwest Atlantic harp seal (*Pagophilus groenlandica*) is the most abundant of all seal species in Atlantic Canada and accounts for most of the harvest.

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 harp seals.

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.

The commercial hunt is now 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 2001.

Harp Seals

There are three populations of this abundant species, of which the northwest Atlantic stock off Canada is the largest. The others are the White Sea population and the Jan Mayen or Greenland Sea population.

Hooded Seals

There are two stocks, one that breeds in Canadian waters and one off Jan Mayen Island. However, there

may be some degree of exchange between these populations.

Apart from the commercial hunt, some seals of all species are taken in subsistence hunts in Labrador, northern Quebec and Nunavut. Some harp and hooded seals are 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 10,000 per year. In 2000, the Department of Fisheries and Oceans (DFO) issued 11,623 **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 2000						
PROVINCE	Professional	Assistant	Personal Use	TOTAL	# of Vessels >35'	
Newfoundland and Labrador	7,239	2,849	1,476	11,564	85	
Quebec	1,270	144	785	2,199	36	
Nova Scotia	103	1	—	104	-	
Prince Edward Island	6	11	_	17	4	
TOTAL	8,618	3,005	2,261	13,884	125	

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 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

The Northwest Atlantic breeding stock of harp seals summer in the Canadian Arctic and 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 Southward Migration

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 2000, because of poor ice conditions in the Gulf, about 90 per cent of the commercial hunt took place in the Front area, up from 1999 when the Front hunt accounted for 60 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.

Although the commercial sealing season starts on November 15, the majority of sealing occurs between early March and May. 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 2000, in an effort to improve the quality of the pelts by allowing the ragged-jacket harps to become more mature beaters before being harvested, the Canadian Sealers Association and the sealing industry requested that the season opening be delayed from March 20 to April 7 for harp seals in the Front. This request was granted and the season did not start until April 7, 2000. Following a very low harvest, the industry requested that the season be extended beyond May 15. Their request was granted and the season was closed on June 15, well before the TAC

was reached, because there was no longer any interest in the hunt.

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.

Ice Conditions in 2000

In Newfoundland, ice conditions could be classed as moderate; however, ice coverage was less than normal over the ocean surface in the areas of the Front and the Northern Gulf.

Ice coverage in early February extended as far south as Northern Bonavista Bay, but by early March, the coverage had shrunk to just east of Fogo Island. By early April, this coverage had shrunk even more between Twillingate and Cape John. The unusually long period of Northeast wind kept the ice from advancing any further to the east for the entire spring. As a result, much of the ice that would normally travel up the Straits of Belle Isle was forced into the Northern Gulf of St. Lawrence, and up along the Lower Quebec North Shore.

Ice conditions in the Gulf of St Lawrence were poorer than normal because of the warm fall, winter and spring. The high frequency of storms that moved through the Atlantic region also prevented any significant ice growth from occurring. In February, total ice cover was about normal, but the ice was likely less than half the usual thickness. However, during March, the ice cover had deteriorated quickly due to warm weather and storm activity. The year 2000 was the third year in a row in which poor ice conditions had been encountered and perhaps the worst of the last three years. Poor ice conditions are not a new phenomenon. In 1960, 1965, 1969, and 1981 poor ice conditions resulted in seals appearing off Prince Edward Island. During these years, conditions similar to March 2000 were observed. Between 1982 and 1997 ice conditions were good and no unusual warm winters occurred.

LANDINGS

Harp Seals

The nature of the present Atlantic coast commercial hunt for harp seals 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 estimated to be around 5.2 million.

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.

350,000 325,000 CATCHES --- TAC 300,000 275,000 250,000 225,000 200,000 175.000 150,000 125,000 100,000 75,000 50,000 25,000 0 1961-65 02-9961 1951-55 1956-60 1946-50 1971 1972 1974 1976 1976 2000 1977 1978 1979 1380 1381 1982 1983 1385 1386 286 器 8 8 89 **3**92 66 **3**34 392 88 397 88

Figure 2 Historical Harp Seal Landings (1946 to 2000)

* For the period 1946-1970 only 5-years averages are given.

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 244,522 animals.

In 2000, the harp seal TAC remained the same but weak markets and poor ice conditions resulted in a harvest of only 91,602 harp seals. This drop was



Figure 3 Recent Harp Seal Landings, 1983-2000

attributed to several factors, such as poor markets, high fuel prices and unfavourable ice conditions in the Gulf.

Market demand drives the price of seal pelts. DFO does not take into account the market situation when establishing the TAC. The TAC is a scientifically determined ceiling that represents the number of seals that may be taken without affecting the total population. The actual size of the harvest is determined by economics; which is the reason for the widely fluctuating harvests experienced in the last few years. (See Figure 3).

Greenland Harvest

Canada and Greenland both hunt harp seals from the same population (the northwest Atlantic stock). The Canadian and Greenland governments have been exchanging information on their respective hunts and have agreed to continue such exchanges with the intent of verifying harvest activities and strengthening conservation. Discussions are also underway with Greenland scientists on a possible joint satellite tagging program to better define seal movements and stock boundaries.

The annual catch of harp seals in Greenland has been increasing in recent years. The Greenland government has reported that in 1998, approximately 80,000 seals were taken. The 1999 Greenland harvest was approximately the same amount.

In 2000, the National Marine Mammal Peer Review Committee reviewed the population trajectories for Northwest Atlantic harp seals. For 2000, the replacement yield for harp seals was estimated to be in the order of 500,000, which is close to the current combined level of removals.

Hooded Seals

The hooded seal (*Cystophora cristata*) is a large species (200 kg to 400 kg) found in the northern Atlantic. In Atlantic Canada, 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.

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

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 2000, to conform to the policy enacted as a result of the recommendations of the Malouf Report, licence conditions prohibited the taking of blueback and whitecoat seals. The same prohibitions are in place for 2001.

The TAC has remained at 10,000 since 1998 but catches have been very low. For example, only 10 hooded seals were taken in 2000.

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.



Figure 4 Hooded Seal Landings, 1971-2000

The most recent data provided by the Greenland government on hooded seal catches shows 6,328 hooded seal catches for 1998 and 7,086 for the first nine months of 1999. Therefore, the combined hunt both in Canada and Greenland is 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 grey seal population in the northwest Atlantic was estimated to be 190,000. The herd on Sable Island was increasing at a rate of 13 per cent, or doubling every six years, while in the Gulf of St. Lawrence, the herd appeared to increase at a rate of around 3 per cent per year.

The last two population surveys in the Gulf of St. Lawrence show that pup production in that area is declining and has likely declined from 10,000 a few years ago to 7,000 now. Pup production apparently continues to increase on Sable Island. In 1999, an aerial survey was planned for that area but was not completed due to bad weather. The survey has now been rescheduled for January 2002.

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 grey seals remains difficult.

In 2000, sealers hunted 342 grey seals. The number of grey seals taken for commercial purposes in 1999 was 98 and 275 in 1998.

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 2000, 1,695 ringed seals (*Phoca hispida*) were taken in the subsistence hunt in Labrador. In 1999, this harvest was 772. In 1998, the number was 1,046 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 2000, sealers landed 63 bearded seals. In 1998 and 1999, sealers landed 58 and 61 respectively. No harbour seals have been harvested since 1997.

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.

In the past few years, inventories have been high and prices for seal pelts low. In 2001, these inventories have been reduced and there are indications that the market for seal pelts is more favourable for sealers, who can expect to receive higher prices than last year.

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. A wide variety of products in addition to the more traditional meat, fur and leather, are now being developed, such as protein concentrate, Omega-3 fatty acids and other fatty acids used as health food supplements.

In 2000, the Quebec sealing industry conducted a pilot project to market seal products to China. Pelt and oil products were well received and commercial production should begin in 2001.

Nunavut is also actively developing its own northern market for both local clients and tourists. By promoting fur products as attractive, 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)

As in 1999, the 2000 seal harvest was directed mostly for beaters (harp seals between 25 days and 13 months of age). This was due to a request from industry, as market conditions were stronger for these type of pelts. Due to high inventory of hood seal pelts, there was no market value for these seal pelts in 2000, and as a result, there was no directed harvest for hooded seals. Only 10 hooded seals were taken in 2000.

SEAL MEAT

Seal meat continues to present a major challenge for the sealing industry. The amount of seal meat landings for 2000 was extremely low, in part based on a more directed effort at the younger animals (beater). This resulted in less meat and very low prices for the meat. The industry acknowledges that a major initiative remains to effectively achieve full utilization of the entire animal. R&D initiatives are continuing, with some expectation that a market will be found.

In 1999, there was virtually no market for seal meat. The foreign market has been particularly affected by Asian currency difficulties.

SEAL OIL

The market for seal oil remains positive. Presently, a good percentage of seal oil is finding its way into areas other than the traditional marine and industrial oils. The industry is positive about this new development but is aware that more R&D is required to expand the range of products derived from seal oil. No data is available for 2000, but 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 2000, 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 has been was virtually no market for seal organs in the past two years.

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

With the reduction in prices for many seal products and reduced landings, the Industry estimated landed value for 2000 is in the order of \$6 million.

The total landed value of the 1999 seal hunt was less than the 1998 value of \$7.5 million.

However, 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 the Newfoundland Region, it is customary for DFO to consult with industry before the beginning of the sealing season. This year, because there was no

change to the management measures for the 2001 sealing season, no consultations took place.

In the Laurentian Region (Quebec), the *Conseil québécois de l'industrie du loup-marin*, an umbrella organization representing Aboriginal sealers, commercial sealers, and processors from various parts of Quebec, was replaced by a provincial advisory council *Table filière phoque*. This new organization has expanded its membership to include the processing sector. Informal consultations with the *Table filière phoque* were held early in 2001.

Consultations have taken place with the Nova Scotia Provincial Government and the North of Smokey Fishermen's Association concerning the continued development of the commercial harvest for Grey Seals in areas east of Cape Breton Island. This is the only commercial seal harvest in the Scotia Fundy area.

This year, DFO did not seek the views of interested parties in preparing this management plan because the Minister decided extend the 2000 management measures to 2001. As explained earlier, the Minister made this decision after considering last year's harp seal harvest (92,000 from a TAC of 275,000) and the continuing health and abundance of the seal population. The Minister announced that these measures will remain in place until recommendations are received from the Eminent Panel on Seal Management established last year.

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. No financial assistance program was offered in 2000 and none is planned for 2001.

IV. STOCK STATUS

PROSPECTS FOR 2001

Harp Seals

In April 2000, the *National Marine Mammal Review Committee* met in Ottawa to review the most recent information on the status of the northwest Atlantic harp seal population.

Attending the meeting were scientists from four international research institutes, a non-governmental environmental group, two individuals from the seal harvesting sector, as well as a number of DFO scientists from across the country.

In recent years, Canada's strategy has been to set its total allowable catch (TAC) based on an estimate of replacement yield.

The Committee agreed that the harp seal population has been stable at 5.2 million since 1996, which is the highest level since estimates have been available (1960).

Hooded Seals

Hooded seals are considerably less abundant than harp seals. The 1990 hooded seal population was estimated between 400,000 and 450,000. The TAC for hooded seals (10,000 seals) is considerably below the replacement yield, which is estimated to be between 24,000 and 34,000 animals, depending on the age composition of the 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. A decline in pup production was observed in the Gulf in 1997. Another survey in 1999 confirmed that Gulf grey seal pup production was no longer increasing and may have

declined since 1990. A new pup production survey is planned for 2002. 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 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 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 organizations. The 2001 plan was formulated in consideration of any environmental or habitat concerns.

SPECIES INTERACTIONS

Studies of predation by seals on fish in Atlantic Canada have focussed on the two most abundant seal species: harp seals and grey seals. Predation by harbour and hooded seals has also been estimated. Harp seals accounted for the largest amount of consumption, followed by hooded and grey seals.

Comprehensive estimates indicated that in 1996 harp seals consumed some 3 millions tonnes of food in the Atlantic Canada, whereas grey seals consumed roughly 314,000 tonnes. A high portion of the diet of both species was fish, with some invertebrate prey as well. The vast majority of fish prey were small forage fish. Commercial species made up only a small portion of their diet.

The three major species consumed by harp seals are capelin (1 million tonnes); sand lance (350,000 tonnes); and Arctic cod (177,000 tonnes).

The most recent estimates conducted in 1999 indicate that harp seals consume some 75,000 tonnes of Atlantic cod in the Canadian Atlantic. The estimates of Atlantic cod consumption by harp seals in the waters off Newfoundland are lower than the previous estimates. The primary reason for this change was improved information on the diet and seasonal movements of harp seals. New estimates are expected to be available in 2001.

For grey seals the main prey species was sandlance (133,000 tonnes). Grey seals also consumed an estimated 55,000 tonnes of Atlantic cod.

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.

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).

In 2000, laboratory analysis was done in order to interpret the aerial photos taken in the 1999 survey and data was incorporated into the existing body of knowledge on the dynamics of the harp seal population. This was reviewed at the Marine Mammal Peer Review Committee (MMPRC) meeting in April 2000.

DFO Science has been carrying out studies designed to estimate the amount of struck and loss that occurs. The results were also presented to the MMPRC in April 2000. 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.

In 2000, the NMMPRC reviewed the population trajectories for Northwest Atlantic harp seals. Based on the current estimates of catches in Greenland and catches in Canada, the number of seals killed but not recovered (struck and lost) and the number of seals caught as by-catch in the Newfoundland lumpfish fishery, the 2000 replacement yield for harp seals was estimated to be in the order of 500,000, which is close to the current level of removals.

V. MANAGEMENT OBJECTIVES

CONSERVATION, SUSTAINABILITY, AND HUNTING PRACTICES

DFO is committed to conservation and sustainability of the seal resource. Seals are a valuable natural resource that can be harvested wisely to provide economic benefits to coastal economies. Canada manages seals to provide for their long-term sustainable use. The harvest is based on conservation – it is not a cull. One objective is the maximum use of all parts of the animal.

The decision to carryover the 2000 management measures to 2001 takes into account recent scientific information and last year's harvest, which was only 92,000 (33%) of the TAC.

The existing management measures will remain in place until the Panel appointed last year makes its recommendations. The Panel is studying the current state of scientific knowledge and will provide advice on long-term strategies for the management of seal population in Atlantic Canada in time for the 2002 seal harvest.

LONG-TERM SUSTAINABLE USE

The 2001 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 continues to encourage the fullest possible use of each seal hunted. 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.

As a result of recommendations received from the Canadian Veterinary Medical Association (CVMA), regulatory amendments to improve hunting practices have been proposed. These regulatory requirements are being examined under regulatory review (see Part VI, Regulatory Review). DFO is aiming to have these regulatory amendments in place for the 2002 season.

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

Canada and Greenland hunt harp and hooded seals from the same populations. The Canadian and Greenland governments have been exchanging information on their respective hunts and have agreed to continue such exchanges with the intent of verifying harvest activities and strengthening conservation. For example, discussions are underway with Greenland scientists on a possible joint Satellite tagging program to better define movements and stock boundaries. (See also Part II, Landings.)

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 2001.

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. The Department of Foreign Affairs has the lead on this issue is presently developing a plan in an effort to open the U.S. market to sealing product opportunities.

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 2000, the Department launched 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, the Department of Foreign Affairs will continue to promote public education on the seal hunt on the international front.

Canadian Attitudes Toward the Seal Hunt

In 2000, Fisheries and Oceans Canada undertook a national survey of public attitudes toward the seal hunt. The survey was conducted by the Environics Research Group.

The objective of the survey was to provide the department and the Eminent Panel on Seal Management with an up-to-date view of public opinion across a range of sealing issues. Results of the survey indicate that, after being presented with arguments for and against the hunt, 53% of Canadians support the seal hunt. This support would increase if they had confidence that the hunt was being carried out in a humane, well-regulated and sustainable manner. That is an increase of eight percentage points since the last survey in 1992.

The complete report is available on the departmental seals website at

www.dfo-mpo.gc.ca/seal-phoque

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 2000, 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 before the market collapse in the early 1980s.

Again in 2001, an industry committee will be established to sub-allocate seals to various areas and

fleet sectors once the overall TAC had been established.

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.

VI. CURRENT MANAGEMENT ISSUES

REGULATORY REVIEW

The current regulations were enacted in 1993 to reflect the sealing policy announced by the Honourable Tom Siddon on December 30, 1987, which was based on the Malouf Commission Report.

Stakeholders have been asking for changes to the *Marine Mammal Regulations* to adapt them to the current conditions of the seal hunt. Since 1998, the department has consulted with over 80 groups, culminating with the Atlantic Sealing Regulatory Review Forum held in St. John's in May 1999. The purpose of the forum was to provide participants with opportunities to share their views and provide input on 14 specific regulatory proposals derived from

prior consultations and from submissions from interested parties. About 50 groups participated in the forum and/or provided written submissions. DFO is aiming to have these regulatory amendments in place for the 2002 sealing season.

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 2001 seal hunt.

These amendments improve the effectiveness and relevancy of the Regulations as they apply to sealing and provide consistency with sealing policies. Significant regulatory amendments include:

- 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;
- The extension of the application of existing gear restrictions to commercial sealing throughout Atlantic Canada;

These amendments are currently in the regulatory process and will be subject to prepublication in *Part I* of the *Canada Gazette*. At this time, the proposed amendments do not include controversial changes related to the whitecoat and blueback issues currently before the Supreme Court of Canada (R. v. Ward).

FORMATION OF AN EMINENT PANEL ON SEAL MANAGEMENT TO ADVISE THE MINISTER

In response to the 13th Report of the Standing Committee on Fisheries and Oceans (SCOFO) Minister Dhaliwal appointed a panel of eminent persons to evaluate the current state of scientific knowledge, and to provide advice on a long-term strategy for the management of seal populations in Atlantic Canada. (See Annex 6 – News Release and Terms of Reference).

The Eminent Panel on Seal Management is expected to provide a balanced and objective review of scientific information on seal populations, predatoryprey relationships, and to determine how this information can contribute to the development of management strategies.

From June 2000 to early 2001, the Panel consulted widely with a number of scientists, managers and various stakeholders. The Panel will provide a final report with recommendations in time for DFO to establish a multi-year management plan for 2002-2006.

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 transferring 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. No collector vessels were used in 2000, and none are planned for 2001.

VII. MANAGEMENT MEASURES FOR 2001

TOTAL ALLOWABLE CATCHES (TACS)

Harp Seals

The TAC for harp seals remains at 275,000 in 2001.

Hooded Seals

The TAC for hooded seals remains at 10,000 in 2001.

Grey Seals

As in 2000, 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.

Ringed Seals

The season from April 25 to November 30 will continue for the subsistence hunt of ringed seals in Labrador.

Other Seals

The numbers of bearded and harbour seals taken for subsistence purposes are small and no season is necessary.

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°N latitude and the Arctic (Sealing Areas 1 to 4 — see map in Annex 7) 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. As in 2000, 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. It is illegal for personal use licence holders 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. As 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. It is illegal for personal use licence holders to harvest bluebacks.

Grey Seals

As in 2000, the timing of the grey seal hunt will be controlled by condition of licence. The small commercial hunt near the Magdalen Islands will likely 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.

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 subarea 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 based on the length overall (LOA) of the vessels used. There is an allocation of 2,000 seals for personal use and a nominal allocation of 2,000 seals for the northern subsistence hunt. There may be some commercial by-products 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.

Ringed and 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 2001 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 hunting seals in Sealing Areas 1 to 4 for food purposes. They are also not required by Aboriginal people 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 2001.

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."

VIII. CONSERVATION AND PROTECTION ISSUES AND STRATEGIES FOR 2001

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 Coordinator:	Front Coordinator:
Roger Simon Magdalen Islands Tel: (418) 986-2095	Maurice O'Brian Newfoundland Tel: (709) 772-4836 or (709) 292-5168
Maritir	nes Region
Gary Weber Halifax, Nova Scotia Tel: (902) 426-9609	Stewart Manderson Moncton, New Brunswick Tel: (506) 851-7800

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.

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 2001 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 bycatches 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.

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.

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

TABLE 2: ENFORCEMENT PRIORITIES FOR 2000

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 Surêté du Québec to ensure an orderly hunt. This assistance could be important in avoiding potential confrontations between sealers and members of antisealing 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 1 – **M**ANAGEMENT **P**LAN **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 - 1991 TO 2000

Species	Year	Newfoundland Front/ Labrador	Newfoundland Gulf	Cape Breton/ N.S. / P.E.I.	Magdalen Islands	Quebec North Shore	Personal Use	Yearly Total
	1991	6,321						6,321
	1992	111	8					119
	1993	19	20					19
	1994	856	20					149
Hooded Seals	1996	25.712	42					25.754
	1997	7,024	34					7,058
	1998	10,144	4					10,148
	1999	182	6				13	201
	2000	10						10
	1991	43,129	3,630	166	1,200	4,440		52,565
	1992	58,244	3,907	137	2,/04	2,436		67,428
	1995	20,200	2,541	25	1,572	1 065		25,175
	1995	52,314	8 238	470	1 196	3 109		65 391
Harp Seals	1996	165.335	60,856	1.145	13,709	1.672		242.717
	1997	198,841	33,754	255	28,900	2,454		264,204
	1998	215,693	44,154	3,127	18,075	1,021		282,070
	1999	148,005	56,202	3,528	34,756	711	1,350	244,552
	2000	82,104	3,610		5,167		721	91,602
(Harbour, Bearded &	1991	1,770	1					1,771
Ringed) prior to 1993)	1992	1,127						1,127
	1004	41						41
	1994	90						90 27
	1995	58						27 58
Harbour Seals	1997	50						50
	1998							
	1999							
	2000							
	1993	1,005						1,005
	1994	1,581						1,581
	1995	1,384						1,384
Ringed Seals	1996	1 6 20						67U 1620
	1997	1,039						1,039
	1999	772						772
	2000	1,695						1,695
	1993	79						, 79
	1994	84						84
	1995	24						24
Bearded Seals	1996	45						45
	1997	118	9					127
	1998	50						56
	2000	63						63
	1993	03						0
	1994				40			40
	1995			7	357			364
Grev Seals	1996		40	33	59			132
Grey Seals	1997				72			72
	1998			69	206			275
	1999			98				98
	2000	E1 220	2 6 2 1	342	1 20.0	1 110		542
	1002	51,220	3,031	137	2 704	4,440	0	68 674
	1993	21 404	5,915 2 5⊿1	25	2,704	2,430	0	26 310
	1994	54,798	6.831	56	.370	1.065	0	63.120
	1995	54,669	8,239	477	1,553	3,109	0	68,047
i otal All Species	1996	191,820	60,938	1,178	13,768	1,672	0	269,376
	1997	207,622	33,797	255	28,972	2,454	0	273,100
	1998	226,939	44,158	3,196	18,281	1,021	0	293,595
	1999	149,019	56,209	3,626	34,756	711	1,363	245,684
	2000	83,872	3,610	342	5,167	0	721	93,712

ANNEX 4 – 2001 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	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	77,000	9 to 27
	CANADIAN TOTAL ALLOWABLE CATCH	275,000	ALL

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.

The 2,000 allocation for subsistence sealing in northern areas (Sealing Areas 1 to 4) is a nominal amount only – it is not a quota.

ANNEX 5 – NEWS RELEASE

News Release

December 20, 2000

DHALIWAL ANNOUNCES 2001 ATLANTIC SEAL MANAGEMENT MEASURES

OTTAWA—Herb Dhaliwal, Minister of Fisheries and Oceans, today announced that the Total Allowable Catch (TAC) for harp seals for the year 2001 will be maintained at the 1997-2000 level of 275,000. The decision takes into account recent scientific information and last year's harvest, which was only 92,000 (33%) of the TAC.

"Given last year's low harvest and the continuing health and abundance of the seal population, existing management measures will remain in place until I receive further advice from a Panel established last Spring," Mr. Dhaliwal said. "The work of the Panel will add to the valuable knowledge already accumulated through the many collaborative initiatives currently underway in the department."

In May 2000, Minister Dhaliwal appointed a Panel of eminent persons to provide advice on a long-term strategy for the management of seal populations. The Panel, which will provide its recommendations to the Minister in 2001, is examining the state of science on seals, including methodologies for estimating populations and the magnitude of the hunt, as well as the impact of seals on commercial fish stocks such as cod.

The most recent harp seal population estimate, based on an extensive survey conducted in 1999, places the population at around 5.2 million seals. This indicates that the seal population has remained steady at its highest levels since the 1970s when it was just under 2 million animals.

This survey also established the replacement harvest to be approximately 533,000. At this level of replacement harvest, the seal population would be expected to remain stable at current harvest levels. Assuming that the levels of bycatch and the Greenland harvest remain at their 1999 level, and accounting for animals struck and lost, the replacement yield for seals in 2000 in Atlantic Canada was 257,000. Given the low catch level in 2000, this year's harvest level is considered to be conservation-based.

The results of the recently completed population survey coupled with the recommendations from the Panel will contribute to the long-term management plan. Other factors that contribute to the department's knowledge include initiatives dealing with seal diets and ongoing studies related to the abundance, distribution and potential impact of seals on fish stocks.

The licence conditions put in place in 2000 to prohibit the harvest of whitecoats and bluebacks will remain in place for the 2001 season.

The Minister also announced that the hooded seal TAC will remain at the 1998-2000 level of 10,000 animals. As in the 2000 management plan, a small harvest of grey seals will be allowed in areas other than Sable Island.

For more information on the Panel, please see our news release titled: "Dhaliwal announces formation of eminent Panel on Seal Management" at

http://www.dfo-mpo.gc.ca/communic/newsrel/2000/hq14_e.htm

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ANNEX 6 – NEWS RELEASE

News Release

April 11, 2000

Dhaliwal announces formation of eminent Panel on Seal Management

OTTAWA -- The Honourable Herb Dhaliwal, Minister of Fisheries and Oceans, today announced the formation of an independent panel to evaluate the current state of scientific knowledge of the seal population in Atlantic Canada and to provide advice on a long-term strategy for its management. Dr. Ian Mclaren of Dalhousie University in Nova Scotia will chair the panel.

"I am pleased that one of Canada's top experts on marine mammals and science has agreed to chair the panel on seal management," said Minister Dhaliwal. "The work of this panel will add valuable knowledge to the many collaborative initiatives presently underway at DFO to actively manage the Canadian seal population."

The Department of Fisheries and Oceans (DFO) is fulfilling a commitment to create a panel on seal management in its November 1999 response to the Parliamentary Standing Committee on Fisheries and Oceans' report on seals. The panel will analyze the Committee's findings and provide recommendations on seal management strategies, including the evaluation of experimental harvests and experimental seal exclusion zones.

The mandate of the Panel will include the development of a harvesting plan for seal populations over a fiveyear period, taking into consideration:

- scientific methodologies for estimating seal populations;
- scientific methodologies for estimating the total magnitude of the hunt;
- the current state of knowledge about the diet of seals and the impact of seal consumption on cod and other commercial fish stocks; and,
- the optimum size of the harp seal population in terms of its interaction with the ecosystem and commercial fish stocks.

Three experts in the science and management field will join Dr. Mclaren to complete the membership on the panel. Names will be announced following the finalization of their participation in the next few weeks.

The Seal Panel is expected to issue its report by the fall of 2000, in order for DFO to consider its advice in the development of the seals management plan for 2001.

The backgrounder related to this announcement is available on the automated Fax-On-Demand service of Fisheries and Oceans. It is immediately retrievable -- to users with a touchtone phone and a fax machine -- 24 hours a day, 7 days a week.

To retrieve, dial 1-416-362-1447 and follow the voice prompts, or click on the link below.

NUMBER	BACKGROUNDER
<u>130</u>	Eminent Panel on Seal Management - Terms of Reference

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Backgrounder

Eminent Panel on Seal Management Terms of Reference

Introduction

Management of seal populations has elicited a wide range of public opinion in Canada for many years. Recently, the potential impact of seal predation on commercial fish stocks has stimulated public interest, while "traditional" issues such as appropriate harvest levels and harvesting young animals, continue to stir public debate.

In 1999, the Fisheries Resource Conservation Council (FRCC) and the Parliamentary Standing Committee on Fisheries and Oceans, considered the management of seal populations in their reports, including suggestions that seal populations be reduced to foster recovery of fish populations.

In response to these recommendations, the Minister of Fisheries and Oceans decided to establish a panel of eminent persons to provide advice on the best strategies for managing seal populations in Atlantic Canada. This Eminent Panel on Seal Management is expected to provide a balanced and objective review of scientific information on seal populations and predator-prey relationships, and to determine how this information can contribute to the development of management strategies.

Objectives

To evaluate the current state of scientific knowledge of the seal population in Atlantic Canada.

To develop a strategic harvesting plan for seal populations over a five-year period.

To provide advice on long-term strategies for seal population management.

Deliverables

The panel is expected to provide its final report by fall 2000, which includes a summary of conclusions and recommendations. It is also expected that the final report will include the following information:

- a brief description of the ecological context, marine waters and ecosystems of the north-west Atlantic in which seal populations live;
- a brief description of the life history and ecological characteristics of the major Atlantic seal species;
- an assessment of the available scientific information on dynamics of seal populations and the ecosystems of which they are a part, for example (but not restricted to):

- methods for estimating seal population abundance
- methods for estimating total mortality, in particular hunting mortality including unreported losses and information on the impact of the hunt on seal populations
- knowledge of the diet of seals and of the impact of seal predation on fish stocks
- the optimum size of seal populations in terms of their interaction with other components of the ecosystem
- if an optimum size of the seal population can be identified, advice on management strategies to attain such an optimum population size;
- advice on directions for improving scientific knowledge of seal populations' dynamics and the ecosystems of which they are a part, to ensure that the scientific basis for seal management is sound;
- advice on whether, and to what extent, seal exclusion zones or experimental culls would provide protection to vulnerable local populations of commercial fishes;
- an assessment of all sources of harvest mortality on Atlantic seal stocks including, but not restricted to, harvests inside and outside Canada, and mortality of animals struck and lost; and,
- advice on the most appropriate strategic directions for management of seal populations in the context of the above considerations and analyses, and in particular, for the next five years.

In preparing its report, the Panel may wish to consider:

- measures currently in force in Atlantic Canada to conserve and protect seal stocks, and to manage the harvesting of seals, including the adequacy of such measures, and necessary changes;
- the concerns of provinces, stakeholders and individuals and groups with a direct, indirect or declared interest in sealing in Atlantic Canada;
- positions taken by interest groups in Canada and abroad on sealing policies and activities in Atlantic Canada and the extent to which such positions can contribute to seal population management strategies; and,
- the implications of hunting seals for non-consumptive purposes (for example, protecting prey species) and the desirability of developing management strategies based on non-consumptive harvesting.

The report will be addressed to the Minister of Fisheries and Oceans Canada. Documents developed by the panel (working papers, meeting minutes, contract reports, etc.) will become the property of the Department of Fisheries and Oceans Canada. April 2000





