

Polar bear management in Canada 1997–2000

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Since the Twelfth Working Meeting of the IUCN/SSC Polar Bear Specialist Group in 1997, several changes in the management of polar bears in Canada have occurred. The most significant of these was the division of the former Northwest Territories into two new jurisdictions on 1 April 1999. The western jurisdiction is still named the Northwest Territories whereas the eastern jurisdiction is named Nunavut. A summary of the regulations covering polar bear management in Canada, as of 31 December 2000, is presented in Table 2. Changes made prior to 1997 are outlined in the management reports included in the proceedings of previous working meetings of the IUCN/SSC Polar Bear Specialist Group.

The Federal-Provincial Technical and Administrative Committees for Polar Bear Research and Management (PBTC and PBAC respectively) representing the Federal Government, three territories (Northwest Territories, Nunavut and the Yukon Territory), and four provinces (Manitoba, Newfoundland and Labrador, Ontario and Québec), continued to meet annually to discuss research results and to make management recommendations. In recent years, representatives of the Inuvialuit Game Council (IGC), Nunavut Wildlife Management Board (NWMB), Makivik Corporation and the Labrador Inuit Association (LIA) have been invited to participate as members on both the PBTC and PBAC.

Status report on polar bear populations within and shared by Canada

The status of Canada's 14 polar bear populations (Fig. 2, Table 3) is determined by the number of individuals in the population, the rates of birth and death, and the rate at which animals are harvested. Population boundaries were initially proposed based on barriers to movements, reconnaissance surveys, traditional knowledge, and partly on management considerations (Taylor and Lee 1995). Past revisions to the initial boundaries have occurred following reviews of the movements of individuals determined from mark-recapture studies, mark-kill data, and VHF and satellite telemetry. The current boundaries were established by the PBTC in 1996 (Lunn *et al.* 1998).

Polar bear kills by jurisdiction

The quota of polar bears taken by each jurisdiction is based on recommendations by the Federal-Provincial Committees. Table 4 summarises the annual quotas and numbers of polar bears killed each season from 1996–97 through 1999–00 and the recommended quotas for 2000–01.

Table 2. Summary of regulations covering polar bear management in Canada as of 31 December 2000.

CATEGORY	JURISDICTION						
	Manitoba	Newfoundland	Northwest Territories	Nunavut	Ontario	Québec	Yukon
Hunting	Closed	Reviewed annually: hunting permitted Feb-Jun in portion of Labrador north of Cape Harrison	Season varies between Polar Bear Management Areas: longest 1 Oct-31 May; shortest 1 Jan-31 May	Season varies between Polar Bear Management Areas: longest 1 Aug-31 May; shortest 1 Jan-31 May	Closed	No sport hunting	1 Oct-31 May in GMZI only
Who can hunt	A person who possesses a Ministerial permit	Licences distributed by Labrador Inuit Association	A person who possesses a tag. Tags are distributed by the HTCs	A person who possesses a tag. Tags are distributed by the HTOs	Permissible kill by Treaty Indians	Inuit and Indians	Inuit only who are issued polar bear tags
Quota	27 (19 on loan to Nunavut; 8 retained for the Polar Bear Alert Program)	6	By settlement: 2000-01 quota is 103 (97 + 6 administered on behalf of the Yukon)	By settlement: 2000-01 quota is 395	Permissible kill of 30 (by restricting sales over 30)	None	6 (all of which are administered by the NWT)
Females and cubs protected by law	Yes	Females accompanied by cubs-of-the-year may not be taken	Yes, cub defined by hide length	Yes	No	Yes	Yes
Bears in dens protected by law	Yes	Yes	Yes, also protects bears constructing dens	Yes, also includes bears constructing dens	No	Yes	Yes
Proof of origin of untanned bear	Documented proof	Documented proof (no seal on hide implemented to date)	Tag on hide and export permit	Tag on hide and export permit	Seal on hide, proof of origin required on imported hides	Seal on hide	Seal on hide, kill monitored by export permit
Export permit required and cost (out of province or territory of origin)	Required: no cost	Required No cost	Required: no cost. There is a \$750.00 Trophy Fee for non-residents and non-resident aliens	Required: no cost. There is a \$750.00 Trophy Fee for non-residents and non-resident aliens	Required: no cost	Required: no cost	Required: no cost
Export permit out of Canada	Required by CITES for all polar bears or parts thereof exported out of Canada; obtained in Province or Territory exporting from						
Scientific Licences	Discretion of Minister	Discretion of Minister	Discretion of Director, Wildlife and Fisheries	Discretion of Superintendent of Wildlife	Discretion of District Manager	Discretion of Minister	Discretion of Director, Field Services Branch

Table 2. Summary of regulations covering polar bear management in Canada as of 31 December 2000 (continued).

CATEGORY	JURISDICTION						
	Manitoba	Newfoundland	Northwest Territories	Nunavut	Ontario	Québec	Yukon
Selling of hide by hunter	Subject to conditions of Ministerial permit	Yes, must be taken legally	Yes, must have tag attached	Yes, must have tag attached	Must be sealed by Ministry staff	Must be sealed; fee 5% of average value of last 2 years	Permit required from Conservation Officer
Basis of Regulation	The Wildlife Act; reclassified as protected species in 1991	Wildlife Act, Chapter W-8 of The Revised Statutes of Newfoundland, 1990; classified as big game	Wildlife Act and Regulations; 1960 Order in Council (Endangered Species)	Wildlife Act and Regulations	Fish and Wildlife Conservation Act, 1997 (Statutes of Ontario, 1997 Chapter 41)	Wildlife Conservation and Management Act 1983; Order in Council 3234-1971; Bill 28-1978 (James Bay Agreement)	Wildlife Act 1981; Wildlife Regulations
Fur Dealer Authority	\$25.00 general \$25.00 travelling	Fur Dealer's Licence: no cost	\$200.00 Fur Dealer's Licence for first year, \$100.00 each year after	\$200.00 Fur Dealer's Licence for first year, \$100.00 each year after	\$28.00 licence	\$335.00 licence	\$25.00 Resident \$300.00 Non-resident \$5.00 Agent \$25.00 Non-resident restricted
Taxidermy	\$30.00 licence	Yes, must be taken legally; legislation under review	\$100.00 Taxidermist Licence for first year, \$50 for each year after	\$100.00 Taxidermist Licence for first year, \$50 for each year after	See Tanner's Authority	See Tanner's Authority	\$25.00 Resident Licence \$30.00 Non-resident Licence
Tanner's Authority	\$30.00 licence	No legislation at present	\$100.00 Tanner's Licence for first year, \$50.00 each year after	\$100.00 Tanner's Licence for first year, \$50.00 each year after	Fish and Wildlife Conservation Act, 1997 (\$28.00 licence)	\$256.00 Tanner's Licence	\$2.00 Resident \$10.00 Non-resident
Live Animal Capture	Ministerial permit required	Ministerial permit required	\$5.00 licence to capture live wildlife	\$5.00 licence to capture live wildlife	District Manager	Ministerial permit	Free Wildlife Research Permit, \$5.00 fee for capture of live wildlife
Live Animal Export	Ministerial permit	Ministerial permit required	Licence to Export Live Wildlife, \$3000.00/polar bear	Licence to Export Live Wildlife, \$3000.00/polar bear	District Manager	Ministerial permit	Special permit

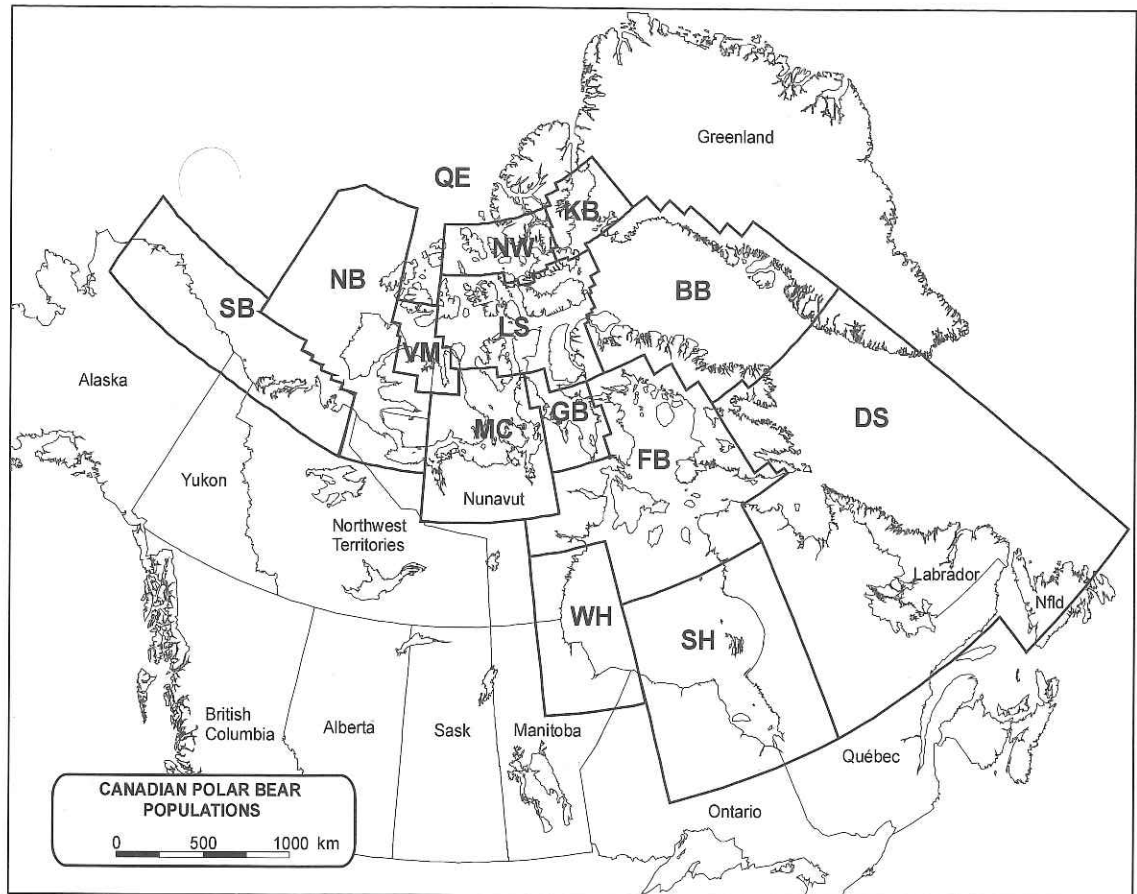


Fig. 2. Canadian polar bear populations as of 31 December 2000. BB: Baffin Bay; DS: Davis Strait; FB: Foxy Basin; GB: Gulf of Boothia; KB: Kane Basin; LS: Lancaster Sound; MC: M'Clintock Channel; NB: Northern Beaufort Sea; NW: Norwegian Bay; QE: Queen Elizabeth Islands; SB: Southern Beaufort Sea; SH: Southern Hudson Bay; VM: Viscount Melville Sound; WH: Western Hudson Bay.

Management changes and reports

Provincial and Territorial Jurisdictions

Manitoba

Polar Bear Quota

The current sustainable harvest of the Western Hudson Bay population is estimated to be 55 bears, which is divided between Nunavut (28) and Manitoba (27). To comply with the goals of the International Agreement on the Conservation of Polar Bears, Manitoba has legislated that the polar bear is a protected species. The Manitoba quota is to be used for polar bear control in and around the Churchill townsite. Based on the average number of bears removed annually, including all bears killed by Manitoba Conservation staff, sent to zoos, and accidental deaths while immobilized, Manitoba commits eight tags to the Polar Bear Alert Program. The balance of Manitoba's quota (19) is loaned to and administered by the Government of

Nunavut on the understanding that all or part of the quota will be returned to Manitoba at their request.

In June 1999, a draft Memorandum of Understanding (MOU) was developed between the Governments of Canada (for Parks Canada), Manitoba, and Nunavut, in consultation with the NWMB, Keewatin Wildlife Federation, and local Hunters' and Trappers' Organizations (HTOs). The primary objective of this inter-jurisdictional MOU is to formalize the allocation of the quota at a government-to-government level. One of the issues currently being discussed, as part of the agreement, is the application of a restricted hunting zone for sport hunters in Nunavut. The intent of this initiative is to avoid the presence of sport hunters in the 'Marine Area east of Manitoba' as described under the Nunavut Land Claim. Any mortalities occurring within Wapusk National Park, including defense kills and research related, would be included in the Manitoba quota. Further consultation is continuing in Nunavut communities. Once completed, the MOU will be brought forward for approval and implementation.

Table 3. Current status of Canadian polar bear populations incorporating harvest statistics from 1995-96 to 1999-00, including kills reported in Alaska and Greenland. The % female statistic excludes bears of unknown sex.

Population	Estimate	Reliability ¹	5-year average (95-96 to 99-00)			3-year average (97-98 to 99-00)			Current year (99-00)			Status ³ (5yr/3yr/1yr)
			Kill	% female	Sustainable harvest ²	Kill	% female	Sustainable harvest	Kill	% female	Sustainable harvest	
BB ⁴	2200	fair	138.8	35.6	92.6	146.7	36.7	90.0	135	39.3	84.1	(-/-)
DS ⁴	1400	fair	66.8	37.6	55.8	73.3	39.8	52.7	81	41.3	50.9	(-/-)
FB	2300	good	89.8	35.7	96.6	84.3	36.5	94.4	95	36.8	93.6	(+ / + / 0)
GB ⁵	900	poor	36.6	39.9	33.8	36.0	37.0	36.5	33	39.4	34.3	(- / 0 / 0)
KB ⁴	200	good	10.0	32.0	9.0	9.7	27.6	9.0	10	30.0	9.0	(- / -)
LS ⁵	1700	good	76.2	24.5	76.6	75.0	24.4	76.6	75	25.3	76.6	(0 / 0 / 0)
MC ⁶	240	good	24.4	26.2	10.8	22.7	26.5	10.8	22	27.3	10.8	(- / -)
NB	1200	good	31.8	32.7	54.1	34.3	35.0	51.5	43	25.6	54.1	(+ / + / +)
NW ⁵	100	fair	3.8	31.6	4.5	3.7	27.3	4.5	4	25.0	4.5	(+ / + / +)
QE	200	none	0.0	0.0	0.0	0.0	0.0	0.0	0		0.0	
SB	1800	good	50.4	32.9	81.1	44.3	31.1	81.1	46	27.9	81.1	(+ / + / +)
SH	1000	fair	45.4	36.2	41.4	45.0	37.9	39.6	46	43.5	34.5	(- / -)
VM	230	good							4	25.0	4.0	(/ 0)
WH	1200	good	49.2	34.7	51.9	51.7	33.8	53.3	53	35.8	50.2	(+ / 0 / -)
Total	14670		623.2		608.2	626.7		599.5	647		587.6	

¹ Good: minimum capture bias, acceptable precision; fair: capture bias, precision uncertain; poor: considerable uncertainty, bias and/or few data; none: no information available

² Except for the VM population, sustainable harvest is based on the population estimate (N) for the area, estimated rates of birth and death, and the harvest sex ratio (Taylor *et al.* 1987):

$$\text{Sustainable harvest} = \frac{(N \times 0.015)}{\text{Proportion of harvest that was female}}$$

The proportion of the harvest that was female is the greater of the actual value or 0.33. Unpublished modeling indicates a sex ratio of two males to one female is sustainable, although the mean age and abundance of males will be reduced at maximum sustainable yield. Harvest data (Lee and Taylor, 1994) indicate that selection of males can be achieved. A 5-year voluntary moratorium on harvesting bears in VM ended with the 1998-99 season. The rate of sustained yield of this population is lower than other populations because of lower cub and yearling survival and lower recruitment. In 1999-2000, an allowable quota of four bears began, with the expectation that only males would be killed. However, a kill of one female per year is allowed.

³ Population status designation is conditional on the harvest continuing at the same level with the same sex ratio: + under harvest; - over harvest; 0 no change (kill within 5% of the sustainable harvest)

⁴ Greenland harvest information for 1999-2000 is based on 1994-1998 average measured during full calendar years; data for 1999-2000 are incomplete

⁵ Populations harvested with a flexible quota system (see Appendix 1 in Lunn *et al.* 1998)

⁶ Harvests in MC from 1995-96 through 1999-2000 were within quota limits, but the population estimate was retroactively reduced from 700 to 240 after the 1999-2000 season, based on new information

Table 4. Quotas¹ and known numbers of polar bears killed² in Canada, 1996–97 through 1999–00.

	Man. ³	Nfld.	NWT ³	Nunavut ⁴	Ont. ⁵	Qué. ⁶	Yukon ⁷	Total
1996–97 Quota	8	4	525	—	30	62	6	635
Killed	7	5	467	—	2	47	1	529
Captured/zoos	2	0	0	—	0	0	0	2
1997–98 Quota	8	4	503	—	30	62	6	613
Killed	8	6	416	—	8	33	0	471
Captured/zoos	0	0	0	—	0	0	0	0
1998–99 Quota	8	6	93	404	30	62	6	609
Killed	1	5	61	376	3	36	0	482
Captured/zoos	0	0	0	0	0	0	0	0
1999–00 Quota	8	6	93	419	30	62	6	624
Killed	5	7	57	405	3	53	0	530
Captured/zoos	0	0	0	0	0	0	0	0
2000–01 Quota	8	6	97	395	30	62	6	604

¹ Management year extends from 1 July to 30 June the following year. Numbers may change as more information is received from the communities

² All known kills, including quota and sport-hunt kills, problem kills, illegal kills, and bears that die while being handled by scientists

³ Through the end of the 1997/98 season, 19 of the Manitoba quota of 27 for the Western Hudson Bay population were administered by the NWT and all kills under this loaned quota included in the NWT total. Nunavut began reporting this loaned quota in their summaries in 1998/99

⁴ On 1 April 1999, two independent jurisdictions were created from the former Northwest Territories: Nunavut and the Northwest Territories. Nunavut began reporting quotas and harvest statistics in 1998/99

⁵ Permissible kill

⁶ The total allowable kill in Québec is controlled through agreements with Natives; length of hunting season is adjusted and only certain sex- and age-categories can be taken

⁷ Yukon quota is administered by the NWT but kills are included in the Yukon total

Polar Bear Alert Program

The annual Polar Bear Alert Program for the Churchill townsite and surrounding area continues each autumn. The objectives of this program are to (1) ensure the safety of people and the protection of property from damage by polar bears and (2) ensure that bears are not unnecessarily harassed or killed. Program highlights are summarised in Table 5.

Protection of Denning Habitat

With the establishment of Wapusk National Park in 1996 and the transfer of land from the provincial crown to the federal crown completed in March 1998, the majority of the maternity denning habitat in Manitoba is now protected by Parks Canada. Maternity denning habitat outside of Wapusk National Park remains under Manitoba jurisdiction and occurs in the Cape Tatnam and Cape Churchill Wildlife Management Areas. Both of these WMAs have management plans under development that will control access to maternity denning areas.

Newfoundland

No changes in the management of polar bears have occurred since the last meeting of the Specialist Group.

Northwest Territories

Polar Bear Quotas

With the division of the former NWT into two jurisdictions, the “new” NWT now harvests from three populations; Northern Beaufort Sea (NB), Southern Beaufort Sea (SB), and Viscount Melville Sound (VM). All three are shared, with either Alaska or Nunavut. All polar bear harvest in the NWT occurs within the Inuvialuit Settlement Region. Successful hunters are required to provide information about the hunt and submit proof of sex, the lower jaw or a premolar, and tags/tattoos when present to the Department of Resources, Wildlife, and Economic Development (DRWED). At the end of each quota year, DRWED produces posters that show the

Table 5. Manitoba Polar Bear Control Program 1997–2000.

	1997	1998	1999	2000
Occurrences ¹	159	170	197	147
Bears captured	103	105	87	59
Bears killed by Department personnel	2	0	1	0
Bears killed by public	3	1	2	2
Handling deaths	3	0	2	1
Natural deaths	3	0	0	1
Bears sent to zoos	0	0	0	0

¹ All bears reported to or observed by Manitoba Conservation staff in the Churchill control zone and peripheral area

distribution of the harvest, the total number and sex of bears taken annually by each community, and the total number and sex of bears taken annually from each population during the previous five years. These posters are sent to the local Hunters' and Trappers' Committees and presented to IGC and the Wildlife Management Advisory Council (WMAC (NWT)). A report, "Summary of Harvest Data for Species Under Quota in the Inuvialuit Settlement Region", is produced annually by DRWED for WMAC (NWT). The information in this document is reviewed by WMAC (NWT) to ensure that the annual polar bear harvest was sustainable. After consultations with IGC, WMAC (NWT) makes recommendations for any management changes, including quotas, to the Minister of DRWED.

Status of Management Agreements

In June 1999, a workshop was held in Inuvik to update the polar bear management agreements for the SB, NB, and VM populations. Representatives from the Hunters and Trappers Committees/Organizations/Associations, WMAC (NWT), NWMB, DRWED, Nunavut Department of Sustainable Development (DSD), Canadian Wildlife Service, and Parks Canada attended the workshop. The objectives were to revise the text of the agreements, review and agree on quotas and boundaries, agree on the system for setting quotas, and draft new agreements.

After the workshop, new agreements for all three populations were drafted and distributed for comment. Another workshop is planned for 2001 to finalize the agreements.

Human-Polar Bear Conflicts and Bear Safety Program

The current management agreements require that all bears killed as a result of human activity be accounted for in the annual quota. The number of problem bear kills each year is small and has generally been by local

residents (three kills between 1 July 1995 and 30 June 2000). However, with the increase in oil and gas exploration in the area, the DRWED is developing a bear safety awareness program to be delivered upon request.

A preliminary analysis of recorded problem bear kills between 1972 to 1999 showed that 82% of bears killed (where age was determined, n=44) were younger than five years old. The database records problem bears that were killed during encounters. Encounters that did not result in the death of a bear were not always reported or recorded. DRWED now enters all reported encounters into a database but more public education is required to ensure that everyone reports bear encounters to DRWED.

Nunavut

Status of Management Agreements

Memoranda of Understanding (MOU) between communities and the Government of Nunavut are in effect for all polar bear populations. These documents specify quotas and other aspects of harvest management. Except for those communities that harvest from the Davis Strait population, all others have signed MOUs that are based on a flexible quota system (see Appendix 1 in Lunn *et al.* 1998). The Davis Strait communities continue with a single-tag, either sex system because they regarded both the population estimate and harvest as conservative, and felt the sex ratio of the pooled harvest has not been a problem. Therefore, they did not feel that a flexible quota system was currently needed.

Human-Polar Bear Conflicts

Polar bears continue to cause difficulties for some communities by destroying food caches and outpost camps. Because the MOUs require that all bears killed by human activity be included in the annual quota, these encounters have subsequently affected some community quotas and decreased the opportunity for a regular

harvest. The need for a Nunavut bear safety program has been recognized; program options are being considered.

Ontario

On 1 January 1999, Ontario's new Fish and Wildlife Conservation Act (FWCA) [Statutes of Ontario, 1997 Chapter 41] replaced the Game and Fish Act. Under the FWCA, polar bears are prescribed as furbearing mammals by regulation (Ont. Reg. 669/98). There is no open season for polar bears, however, authorization is given to some native trappers, in possession of a valid trapping license, to harvest limited numbers of polar bears. No person may sell the pelt of any furbearing mammal killed during the closed season unless the person has a license to sell a pelt of any furbearing mammal killed during the closed season. In the case of polar bear, a native trapper in possession of a polar bear must be the holder of a seal authorizing the sale. This seal is obtainable from the Ontario Ministry of Natural Resources (OMNR). As the season is always closed, a native trapper requires authorization from OMNR to sell any polar bear pelt.

Under the FWCA, hides of other fur-bearers are no longer required to be sealed, although mandatory season and harvest reports are required for all harvested furbearers. Any person buying or selling a furbearing mammal must be licenced, must record the transaction and must report acquisition and disposition of all furbearing mammals. The Nishnawbe-Aski Nation (NAN) and Grand Council Treaty #3 are authorized to issue and sell their own trapping licences. NAN and Grand Council Treaty #3's policy follows OMNR's in that trappers who are issued NAN or Grand Council Treaty #3 trapping licenses must submit mandatory season and harvest reports. The native organizations will then pass on this information to OMNR for collation. Tracking of the harvest of polar bears may be improved under the new mandatory reporting requirement.

In January 1999, the Committee on the Status of Species at Risk in Ontario (COSSARO) listed the polar bear as 'Vulnerable'.

Québec

In accordance with the law on hunting and fishing rights in the James Bay and Northern Québec Agreement, the polar bear harvest is restricted to native people to protect their traditional rights as recognized by the Governments of Québec and Canada. The law makes provision for guaranteed harvest levels that can be taken as long as the principle of conservation is respected. Guaranteed harvest levels were established based on observed polar bear harvest between 1976-1980 and have been agreed

to by both Inuit and Cree. The current harvest levels appear to be sustainable and, thus, agree with the principle of conservation.

Following discussions on the 'Polar Bear Tactical Plan' with native organizations, it was agreed that the Provincial Government would not impose additional hunting regulations to those already accepted by native organizations after the negotiation of an agreement on implementing a hunting season (September-May), on the protection of females with cubs, and on the prohibition of the hunting of polar bears in their summer refuge.

A good harvest-monitoring program is in place and the harvest statistics for all the Québec communities over the past seven years have been recently summarized.

Yukon Territory

No changes in the management of polar bears have occurred since the last meeting of the Specialist Group. The quota of six continues to be administered by the NWT.

Management Boards and User Groups

Inuvialuit Game Council

In March 2000, an updated "Inuvialuit-Inupiat Polar Bear Management Agreement in the Southern Beaufort Sea" was signed in Inuvik, NWT, replacing the first agreement signed in January 1988. Two committees were set up under the agreements to ensure annual review of harvest data, research results, and management recommendations: (1) the Joint Commissioners, consisting of two representatives designated by each of the IGC and North Slope Borough Fish and Game Management Committee, and (2) a Technical Advisory Committee, appointed by the Joint Commission. Each year, the Technical Committee has been responsible for providing an annual report, on behalf of the Inupiat and Inuvialuit, to account for the way in which the quota was taken and other matters of concern or interest.

At the Inuvialuit-Inupiat meeting in April 1997, it was agreed that the total quota for the Southern Beaufort Sea population could be raised from 77 to 80 and divided equally between Alaska and Canada. The decision was based on the calculation of a sustainable harvest of 81 for a population of 1800 bears, providing the harvest of females does not exceed one-third of the quota. In July 1997, it was agreed to allocate the 40th Inuvialuit tag to Inuvik. Significant changes to the new agreement were this quota increase, an increase of the season length in Canada, and a commitment to review the

agreement at least every 10 years. The agreement continues to protect females with cubs or yearlings and bears in or constructing dens.

Although the Polar Bear Management Agreement for the Southern Beaufort Sea (NWT) has not been amended, the WMAC (NWT) has advised that it wishes to continue using the Polar Bear Management Agreements as a vehicle for polar bear management. Amendments to the NWT SB, NB, and VM polar bear management agreements are underway (see NWT Status of Management Agreement section).

Nunavik (northern Québec)

Under the James Bay and northern Québec Agreement (JBNQA) of 1975, the taking of polar bears is restricted to aboriginals, to protect the traditional subsistence harvesting rights of northern Québec natives. In law, provisions have been made to ensure the Inuit of Nunavik have exclusive access to an agreed minimum level of harvest (Guaranteed Harvest Level – GHL) subject to the principles of conservation. Set at 62 polar bears per year for the entire region, this level of harvest is based on the recorded subsistence take between 1976–80. While the GHL is not linked to a specific management zone, the greatest numbers of bears are killed in Management Zone SH on the Hudson Bay coast. Although the Government of Québec retains the right to institute conservation measures, this has not been considered necessary to date.

Nunavik harvests polar bears from the Davis Strait, Foxe Basin, and Southern Hudson Bay populations. The Société de la Faune et des Parcs du Québec (Government of Québec) is responsible for the monitoring and collecting of harvest data and requires that native hunters planning to sell polar bear hides obtain a tag from them. Although some hides are retained for personal use, this is rare because most bears are hunted for meat and the cash gained from the sale of the hide. Therefore, the number of tags requested is considered a good estimate of harvest numbers. Hunters are also requested to provide data on the location, date, sex, and age class of kills, and to collect the head, for which they are reimbursed. A tooth is sent to the Nunavut Department of Sustainable Development for age determination.

Management resolutions protecting females with cubs and bears in dens were passed in 1984 by the native hunters' organization, Anguwigak. These resolutions were subsequently ratified by the Nunavik Hunting Fishing and Trapping Association (HFTA), which replaced Anguwigak, and reaffirmed in 1997. Although resolutions passed by the HFTA on management issues are not legally binding, hunters are expected to abide by them through general consensus.

The Inuit of Nunavik continue to express a willingness to consider establishing harvest quotas for polar bears in northern Québec, similar to what has been suggested by the PBTC and previous inter-jurisdictional co-management agreements. They also support population studies to ensure that the eventual harvest quota is established within sustainable limits.

Nunavut Wildlife Management Board

The Nunavut Wildlife Management Board (NWMB) is a co-management board established under the Nunavut Land Claim Agreement. The NWMB is a co-management board and an Institution of Public Government, with members appointed by both Inuit organizations and Government. The NWMB is the main instrument of wildlife management, including polar bears, within the Nunavut Settlement Area (NSA) and has the responsibility for setting quotas and non-quota limitations (e.g., hunting seasons, methods of harvest), approving management plans, and approving designation of endangered species. Ultimate approval of NWMB decisions relating to polar bears rests with the Nunavut Minister of Sustainable Development. However, the Minister may only reject or modify an NWMB decision on the basis that the decision (1) interfered with Inuit harvesting rights, (2) creates a concern with respect to species conservation, or (3) results in a public health or safety concern.

Agencies and Committees

Parks Canada

Parks Canada was established as an agency of the federal government (from the Department of Canadian Heritage) by the *Parks Canada Agency Act* (1998) on 1 April 1999. The Agency is responsible for the management of Canada's system of protected heritage areas, including national park and national historic sites. Parks Canada's mandate to maintain or restore the ecological integrity of the parks is based on the existing policy document, *Parks Canada Guiding Principles and Operational Procedures* (1993), and was strengthened in the *Canada National Parks Act* (2000). There are currently six existing and three proposed National Parks that contain polar bears: Ivvavik in the Yukon; Aulavik in the NWT; Auyuittuq, Quttinirpaaq and Sirmilik (established in 2000) in Nunavut; and, Wapusk in Manitoba. Negotiations are underway to establish new national parks around Wager Bay and on North Bathurst Island in Nunavut. A feasibility study for the proposed national park in the Torngat Mountains in Labrador has been completed and accepted by the federal government, the government of Newfoundland and Labrador and the Labrador Inuit Association.

Polar bear management plans have been prepared for both Auyuittuq and Quttinirpaaq National Parks; both are currently awaiting approval. There are no major management initiatives for polar bears in Aulavik, Auyuittuq, Ivvavik, Quttinirpaaq or Sirmilik National Parks. Wapusk National Park is currently finalizing the first park management plan and in 1998 commissioned a contract report assessing the risk of polar bears to different categories of park visitors.

Parks Canada's interest in conservation of polar bears and their habitat comes from the mandate of ecological integrity, but the agency also has a duty to visitors to reasonably minimize the exposure to risk from polar bears. Since most visitors to national parks in the Arctic are experienced and self-sufficient, this is generally met by providing them with information on polar bears and ways to minimize potential conflicts. All visitors to these parks are required to register with park staff. In most of the arctic National Parks, the probability of interactions between polar bears and people is very low because of generally low bear density in those areas, and most use by visitors is at times of the year when polar bears are absent. On 5 September 2000, a hiker in Auyuittuq National Park was slightly injured by a polar bear biting through his tent. To date, this is the only injury by a polar bear in a national park and no polar bears have been killed in defense of life or property. However, polar bear and visitor use overlap in Wapusk and Sirmilik National Parks, which may necessitate appropriate management measures in order to avoid conflicts there. The issue of the possession of a firearm by a visitor, for personal protection, remains unresolved. A new set of regulations to accompany the *National Parks Act* is being drafted, and will address who may carry a firearm and under what circumstances. A regulatory impact assessment of these regulations is required, and this process should ensure that these decisions reflect adequate stakeholder input.

Polar bear viewing by helicopter or large-tired tundra vehicles is popular in and around Wapusk National Park. While most of this activity is concentrated at Cape Churchill, access to the maternity denning area is an emerging issue. Currently, one guiding company is permitted by the *Federal-Provincial Agreement for Wapusk National Park* (1996) to operate in this area. This company uses tracked vehicles and snowmachines to bring tourists and photographers into the denning area to view family groups emerging from their dens and returning to the sea ice. Although this activity is not regulated or monitored, the subjective impressions of park staff, pilots and biologists are that the number of parties and the distance travelled into the denning area have increased since 1997. The effects of this on the behaviour, condition or survival of bears is not known.

Committee on the Status of Endangered Wildlife in Canada (COSEWIC)

COSEWIC assigns national status to species at risk in Canada. It is a committee of representatives from federal, provincial, territorial, and private agencies, as well as independent experts. COSEWIC designated the polar bear as "Not At Risk" in 1986, which was upgraded to "Vulnerable" in 1991. No change in status was recommended in an updated status report for polar bears submitted to the COSEWIC Mammal Subcommittee in summer 1998 (Stirling and Taylor 1999). In April 1999, COSEWIC again listed the polar bear as "Vulnerable".

Species designations were recently changed, with the former category "Vulnerable" being replaced by the category "Special Concern". Consequently, COSEWIC currently lists the polar bear as a species of "Special Concern".

Federal Government

CITES

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (1973) (CITES) has been in effect since July 1975. Polar bears are included in Appendix II to the Convention ('all species which although not necessarily now threatened with extinction, may become so unless trade in specimens of such species is subject to strict regulation to avoid utilisation incompatible with their survival').

Since July 1975, a permanent record of all polar bears, hides, or any other products legally exported from or imported to Canada has been maintained by the Federal Government through the issue of permits. Data for 1975–1995 were included in the management reports prepared for the previous four IUCN Working Meetings. The 1996–1998 data are summarised in Table 6.

Canada Endangered Species Protection Act (CESPA)

At the last meeting of the IUCN Polar Bear Specialist Group it was reported that the Minister of the Environment had recently introduced (31 October 1996) the *Canada Endangered Species Protection Act, Bill C-65* in the House of Commons of Canada. The Act was to be the federal cornerstone of a National Accord between the federal, provincial and territorial governments, and was intended to prevent Canadian wildlife species from becoming extirpated or extinct and to provide for the recovery of those that are extirpated, endangered or threatened as a result of human activity.

Table 6. Number of permits issued and number of live polar bears and polar bear parts legally exported from Canada, 1 January 1996 to 31 December 1998 (Canadian Wildlife Service CITES unpublished data)¹.

	1996		1997		1998		Total	
	Permits	Parts	Permits	Parts	Permits	Parts	Permits	Parts
Live polar bears ²	1	2	1	2	2	2	4	6
Polar bear hides ³	139	339	254	467	189	323	582	1129
Skulls/jaws/teeth	10	13	106	111	67	71	183	195
Claws	0	0	1	4	1	1	2	5
Bones	3	3	9	10	8	8	20	21
Biological specimens	8	631	5	845	0	0	13	1476

¹ Data for 1999 and 2000 not available

² Sent to zoos

³ Includes some hides as head mounts and some as whole mounts

CESPA never became law because *Bill C-65* died on the Order Paper upon the dissolution of the 35th Parliament in April 1997.

Species at Risk Act (SARA)

On 11 April 2000, the *Species at Risk Act, Bill C-33* was introduced and given First Reading in the House of Commons but died on the Order Paper upon dissolution of the 36th Parliament in October 2000. This bill was to be the first federal piece of legislation dealing with the listing, protection and recovery of endangered species and other species at risk within federal jurisdiction.

SARA was one part of a three-pronged federal strategy to protect species at risk, the other two components being stewardship and incentive programs, and the federal/provincial/territorial *Accord for the Protection of Species at Risk*. The bill would create a legislative base for the scientific body that assesses the status of species at risk in Canada. It would prohibit the killing of extirpated, endangered or threatened species and the

destruction of their residences, and it would provide authority to prohibit the destruction of the critical habitat of a listed wildlife species anywhere in Canada. The listing of a species at risk would lead to automatic recovery planning and action plans. The bill would provide emergency authority to protect species in imminent danger, including emergency authority to prohibit the destruction of the critical habitat of such species. Funding and incentives for stewardship and conservation action would be available, and the bill would enable the payment of compensation where it was determined to be necessary. SARA was similar in many respects to its predecessor, *Bill C-65* (CESPA), but with a number of significant differences. The bills varied in their scope and in their approach to the exercise of federal jurisdiction in the area of species protection.

The re-elected government re-introduced the *Species at Risk Act, Bill C-5* on 2 February 2001. Proclamation is expected by the end of 2001.

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