CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

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INTERNATIONAL TRADE OF POLAR BEAR FROM CANADA

1. This document has been submitted by Canada in relation to amendment proposal CoP16 Prop. 3 on *Ursus maritimus* (the polar bear).*

2. CITES Parties are invited to review the current facts on international trade in polar bears from Canada.

* *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat or the United Nations Environment Programme concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

Polar Bear and CITES

Summary

Polar bear does not meet the criteria for listing on Appendix I

- Polar bear does not have a small population or a restricted area of distribution, and there is insufficient scientific evidence to support the conclusion that population decline will be greater than 50% in the next three polar bear generations
- Trade is not detrimental to the species

Canada's robust and integrated management of polar bear means Appendix II is appropriate

- Canada is home to 16,000 polar bears
- Harvest of polar bears is strictly controlled, monitored annually, and adjusted as needed for sustainable use
- Non-detriment findings for polar bear are made carefully, with trade restrictions if needed

There is no conservation benefit to polar bear from an Appendix I listing

- Canada coordinates conservation through the network of polar bear managers, science experts, Aboriginal peoples and CITES authorities
- Polar bear conservation, including harvest and trade, is integrally linked with Aboriginal subsistence and culture
- Canada has enhanced monitoring and is active in research
- Canada works actively with the range states on polar bear conservation
- Canada's monitoring of its polar bear population ensures signals of decline would be observed early and addressed

The current proposal on polar bear provides no new evidence, since CoP15, to merit an Appendix I listing

Polar bear does not meet the criteria for listing on Appendix I

The biological criteria for determining if a species is “threatened with extinction” are contained within Resolution Conference 9.24 (Rev. CoP15). For a species to qualify under the biological criteria, it must meet one of three biological criteria. The first of these requires that the species exist in a small wild population (e.g., fewer than 5,000 individuals). The second of these requires the species to occur in a restricted area of distribution (no specific thresholds are provided as guidance). The third biological criterion for listing on Appendix I is met if a species has experienced or is experiencing a marked decline in the population size in the wild, or if such a marked decline is inferred or projected based on a decrease in the area or quality of habitat, the levels or patterns of exploitation, a high vulnerability to either intrinsic or extrinsic factors or a decreasing recruitment.

Biological Criteria for Listing on Appendix I

Polar bear clearly does not meet the first two biological criteria as the polar bear has a population size of an estimated 20,000 to 25,000 individuals (Obbard et al., 2010) and a vast circumpolar area of distribution.

The third biological criterion for listing on Appendix I is met if a species is projected or inferred to experience a marked decline in the population size in the wild. For the polar bear to qualify for Appendix I under this criterion, there would need to be a projected population decline of polar bears at a rate of 50% or greater over 10 years or 3 generations, whichever is longer. For polar bears, generation time is 12-15 years (depending on the source of information; Hutchings & Festa-Bianchet, 2009), thus 36-45 years is the relevant timeframe.

As a side note, Annex 5 of Resolution Conf. 9.24 defines “marked decline” as a percentage decline of 50% or more in the *last* 10 years or 3 generations, whichever is the longer (italics added). It does not provide guidance on projection of a marked decline into the future, although the presumption is that a future marked decline is one that is not currently evident but reasonably expected to occur in the future to the same degree (e.g. 50%). At best, the interpretation and use of “projected marked decline” in a CITES context is ambiguous.

Sea ice loss has been identified as a key threat to the polar bear (Stirling & Derocher, 2012). The observed and predicted rate of sea ice loss is the basis for the assertion that the polar bear meets biological criteria for Appendix I. The extent of sea ice coverage in the Arctic is indeed shrinking and is projected to shrink more in the future (Maslowski et al., 2012). However, the relationship between sea ice loss and polar bear declines is subject to uncertainty. It is very difficult to project a decline of 50% or greater in total polar bear population size in the next 36-45 years based on predicted declines in sea ice with any level of confidence.

IUCN has assessed the global status of polar bear as “Vulnerable” on the IUCN Red List based on a projected rate of population decline of greater than 30% but less than 50% (Schliebe et al., 2008). This rate of decline would not meet the CITES Appendix I biological criteria. In their rationale to support the status category assigned to polar bear, IUCN indicates that there is little doubt that polar bears will have a reduced area of occupancy, extent of occurrence and habitat quality in the future. However, they go on to state that there is no direct relationship between these measures and the abundance of polar bears, and conclude that it is fair to suspect population reduction of greater than 30% but not as high as 50%.

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC), the independent body of experts responsible for species assessment, also has assessed the status of polar bear in Canada (COSEWIC, 2008). In their assessment it is understood that polar bears are dependent on sea ice and that sea ice is declining. However, COSEWIC considered that the numerical response of polar bears to sea ice loss is not known with enough certainty to reasonably predict, with any scientific rigour, a rate of decline in polar bears that might occur.

From these data and analyses, it is clear that there is insufficient scientific evidence to support the conclusion that population declines will be greater than or equal to 50% in the next three polar bear generations.

Trade Criteria for Listing on Appendix I

An Appendix I species is one that is, or may be, affected by trade. By definition, "affected by trade" means that the species is known to be in international trade *and* that trade has or may have a detrimental impact on the status of the species[1].

Polar bear is known to be in international trade with trade consisting of thousands of specimens annually. However, the vast majority of these specimens are scientific samples, such as hair or blood samples obtained from live, sedated bears, which cannot be equated to numbers of individual bears. Other items in trade include trophies and hides for commercial sale. It is this trade that best correlates to the numbers of bears in international trade.

Bears in International Trade – Understanding the Data

Canada arrives at an estimate of 313 polar bears in international trade from Canada by taking the average over five years of the number of bodies, skins, and trophies from the Comparative Tabulations Reports from the UNEP-WCMC CITES trade database and from Canada's permit database for more recent years (2010 and 2011).

The UNEP-WCMC guide to using the CITES Trade Database (Version 7 October 2010) stresses that the output can be easily misinterpreted if one is not familiar with it and explains the various ways inaccuracies can result. The comparative tabulations report is the type of output from the CITES trade database that more accurately describes trade. For example, using UNEP-WCMC Gross Export Data for 2001-2010 would inaccurately suggest 539 polar bears were in trade annually from Canada.

An estimated two percent (1.96 %) of Canada's polar bear population, that is, 313 out of 16,000 bears (2011 population estimate for Canada), enters international trade annually (Figure 1). This is based on an estimated average number of bears exported from Canada between 2007 and 2011.

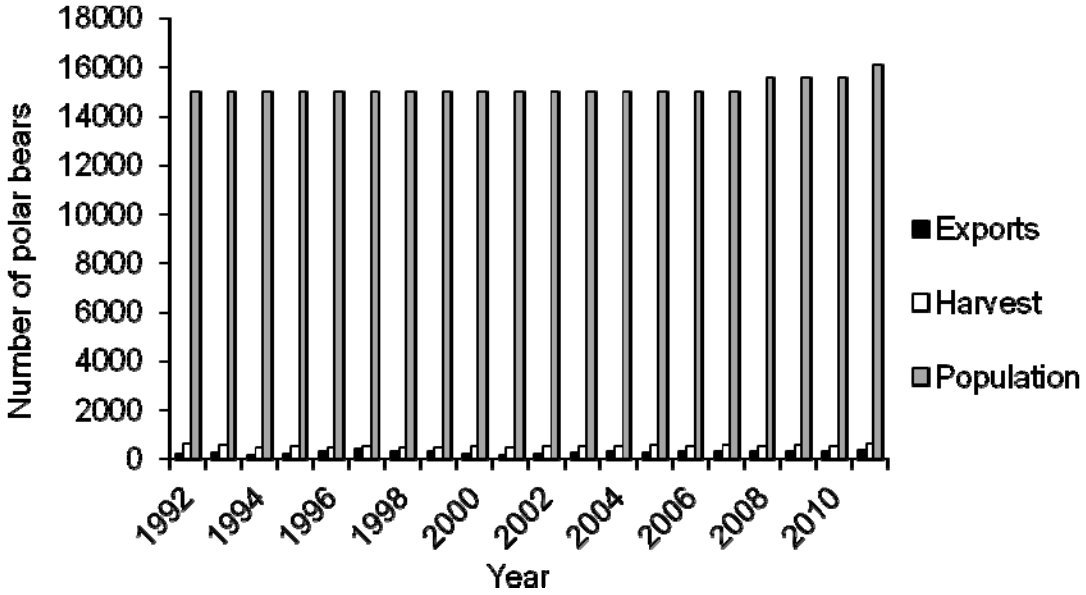

Figure 1. Polar bear exports, harvest, and population in Canada.

Sources: CITES export data based on skins, bodies, and trophies derived from the UNEP-WCMC CITES Trade Database - Comparative Tabulation Reports for 1992-2009 (accessed November 2012), and from Canada's CITES Permit Database for 2010 and 2011; Harvest data for 1992-2008 are from Proceedings of the IUCN/SSC Polar Bear Specialist Group (Obbard et al., 2010); Harvest data for 2009-2011 from the Polar Bear Technical Committee; Population estimates for 1992-2007 are from the 2002 and 2008 COSEWIC reports (COSEWIC, 2002, 2008); Population estimates for 2008-2011 were obtained from the Polar Bear Technical Committee.

A system of sustainable harvest management has been in place in Canada since the late 1970s. Harvest quotas are established by the government of the jurisdiction, with wildlife management boards involving Aboriginal peoples as well as federal/provincial/territorial representatives for the purpose of long-term conservation. Quotas include all human caused mortalities: subsistence harvest, non-resident hunting, known

[1] *Res. Conf. 9.24 Rev. CoP15 Annex 5, definition of "is or may be affected by trade".*

illegal take, and take in defence of life and property. Mandatory reporting of all take to jurisdictional conservation officers is required. There is little evidence of illegal or undocumented harvest in Canada.

Trade of polar bear within Canada is monitored via jurisdictional export permits, and international trade is monitored via the CITES permitting system. Compliance and quality of reporting of harvest is high, because jurisdictions have a shared interest to ensure long-term, sustainable harvest of the species. The management system and quota-setting processes allow continual adjustment to meet the goals of conservation and, importantly, community safety where needed (see Clark et al., 2012 for a review of polar bear-human conflicts). The management measures that have existed for decades are both functional and successful in Canada's arctic region, and ensure that international trade is not detrimental to the status of the species in Canada.

International trade of polar bear takes place strictly within harvest quotas. While there appears to be recent increase in demand for polar bear products, quotas are not affected by commercial international trade. International trade is consistently well below harvest (Figure 2).

Given the management system in place for polar bear as well as the current CITES trade provisions, international trade does not have a detrimental impact on the status of the species.

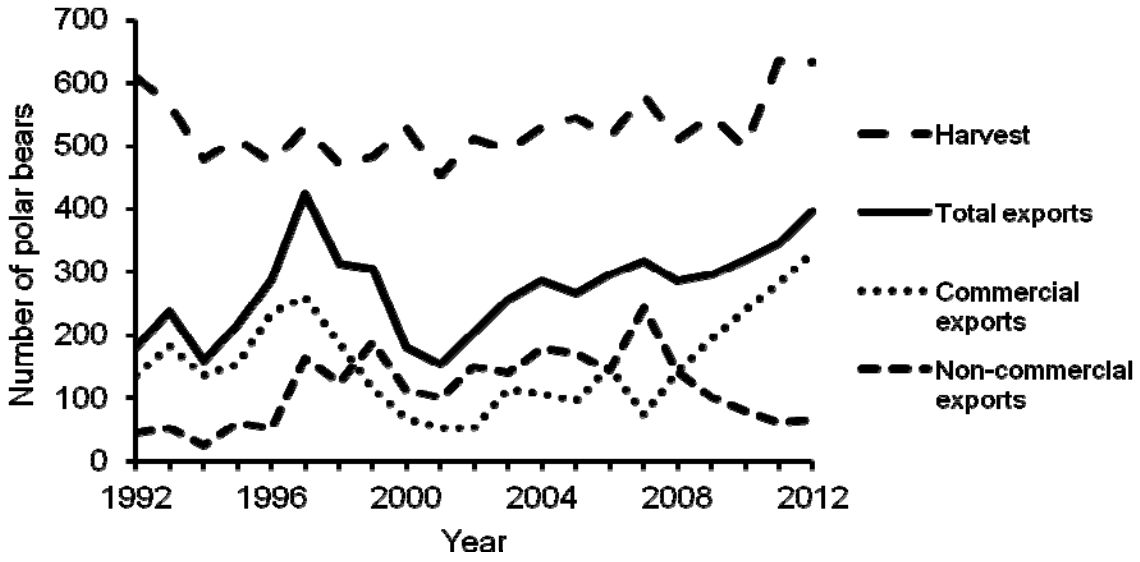

Figure 2. Number of polar bears harvested in Canada and exported from Canada 1992-2012.

Sources: Harvest data for 1992-2008 from Proceedings of the IUCN/SSC Polar Bear Specialist Group; Harvest data for 2009-2012 from the Polar Bear Technical Committee; CITES export data based on skins, bodies, and trophies from the UNEP-WCMC CITES Trade Database – Comparative Tabulation Reports for 1992-2009 (accessed November 2012) and from the Canadian Permit Database for 2010-Nov 28, 2012.

Canada's robust management of polar bear means Appendix II is appropriate

Canada is home to an estimated 16,000 polar bears, which is approximately two-thirds of the world's total estimated population of 20,000 to 25,000 individuals. The overall population size has varied little over the past several decades.

The Canadian population is managed according to 13 management units of which three are shared with Greenland and one with the United States. The management units were established for practical purposes to facilitate coordination of management for subsistence use by a number of northern Aboriginal communities. While often called "subpopulations", these management units do not meet the CITES definition of subpopulations as "geographically or otherwise distinct groups in the population between which there is limited genetic exchange" as described in Annex 5 of Resolution Conf. 9.24 (Rev. CoP15). Management units are not true biological subpopulations (Paetkau et al., 1999).

Canada takes its responsibilities to issue non-detriment findings for Appendix II species very seriously. International trade of polar bear is monitored on an ongoing basis, in consideration of all harvest, all trade, trends within management units, and the vulnerabilities of the species. The Scientific Authority in Canada carefully examines the polar bear management decisions and Canada can and has used a trade ban to ensure that products entering the international trade market are a result of sustainable harvest. The Appendix II listing reinforces cooperative networks that ensure sustainable harvest.

Canadian Management and Harvest Controls

Polar bear is harvested by Aboriginal peoples in Canada for subsistence, including economic benefits for Arctic communities through sale of hides and, in some regions, through sport hunting. Harvest of polar bears within Canada is strictly controlled, monitored annually, and adjusted by jurisdictions on an ongoing basis.

All Polar Bear in International Trade from Canada are from Subsistence Harvest

Aboriginal peoples have an exclusive right, through land claims agreements, to hunt polar bear for subsistence and cultural reasons. Land claims agreements are land, resource and administrative agreements, recognized under Canada's Constitution, between the federal, provincial or territorial governments and an Aboriginal group. These constitutionally-protected agreements define the nature of the nation-to-nation and government-to-government relationships and provide all parties with certainty regarding land and resource management rights. Wildlife Management Boards are bodies established under land claims agreements and are comprised of Aboriginal peoples as well as federal, provincial or territorial representatives. The Boards make recommendations on polar bear management and research to the appropriate provincial or territorial government for consideration and final decision.

Harvest is controlled through a carefully assessed quota system involving local communities, wildlife management boards, and provincial, territorial and federal governments. Scientific data (based on mark-recapture studies, population viability analyses (modelling), and aerial surveys), as well as harvest data and Aboriginal Traditional Knowledge, are used to determine the status of bears within management units on an ongoing basis to help ensure that quotas are appropriate. The system strives to continually maintain viable populations while maintaining safety and access to polar bears for subsistence use and economic benefits for Arctic communities.

Quotas are allocated exclusively to Aboriginal peoples and include all known human-caused mortalities including defence of life and property. Illegal harvest of polar bear is extremely rare in Canada. Meeting demands of other markets, whether international or domestic, is not a consideration when establishing quotas. Compliance and quality of reporting of harvest is high, because jurisdictions have a shared interest to ensure long-term, sustainable harvest of the species.

The majority of harvest in Canada occurs in Nunavut and the Northwest Territories where Aboriginal people must possess a government issued hunting tag in order to harvest a polar bear. Hunting permits and quota tags are used to determine the number of animals harvested per year in each jurisdiction. The tag must be attached to the polar bear hide. Information is collected on each animal that is harvested. This ensures that the quota is respected and monitored. Furthermore, the tag system also provides the data to ensure the legality of international trade. Mandatory reporting of all human caused mortalities to jurisdictional conservation officers is required.

Present Aboriginal harvests of polar bears in Canada are sustainable with an overall harvest level of 3.75% of the Canadian polar bear population.

Governance of Polar Bear in Canada

Canada is a federation and Canada's legal framework derives from British common law.

The Crown owns all wildlife and legislative authority for wildlife management is divided among federal and provincial governments and the three territories.

Provinces and territories have jurisdiction over natural resources, including wildlife.

The federal government has jurisdiction over inter-jurisdictional and international issues.

Inuit have self-government through devolution of governance from the federal government by way of land claim agreements that are recognized by Canada's Constitution.

Wildlife Management Boards, comprised of Aboriginal peoples and government representatives, are established under land claims agreements to make recommendations which are provided to provincial, territorial, and federal ministers as appropriate for consideration and finalization.

Federal inter-jurisdictional coordination on specific issues is carried out as needed to help with consensus-building and to coordinate engagement of many stakeholders.

The federal CITES Scientific Authority provides non-detriment finding assessment through ongoing monitoring of harvest management and trade.

Cooperation and coordination among governments and governing bodies is integral to wildlife management in Canada. With respect to polar bear, there are two especially important supporting committees:

Polar Bear Administrative Committee (PBAC, formed in 1969)

- Directors responsible for wildlife management in their jurisdictions, representatives of Wildlife Management Boards and Inuit organizations
- Coordinates all aspects of management
- Meet twice annually

Polar Bear Technical Committee (PBTC, established in 1970)

- Provincial/territorial scientists and other experts including Inuit representatives
- Provides advice based on science and Aboriginal Traditional Knowledge to PBAC
- Meet annually to provide annual assessments on status of polar bears in all 13 management units

There is no conservation benefit to polar bear from an Appendix I listing

CITES exists as a regulatory mechanism to prevent extinction of species affected by international trade. Although it is certain that climate change is impacting or will impact the polar bear's habitat, increasing international trade restrictions will not mitigate the climate-change impacts affecting the polar bear. At worst, an Appendix I listing would provide the *appearance* of conservation action without actually addressing the underlying threats to the species. The best approach to the conservation of polar bear is to address threats directly across all ranges states while ensuring that continued polar bear harvest management is sustainable.

Role of Trade in Conservation

Community-based wildlife management of species and the sharing of wildlife products play important role in defining Aboriginal culture in Canada. Aboriginal peoples benefit from the harvest of polar bear for hides, meat, traditional activities and benefit from the income generated from trophy hunts and the selling of hides (Wenzel, 2011); thus, there is great interest and support in maintaining a sustainable population of this valuable species. Income from these activities is a significant source of cash for northern Aboriginal peoples, as the local economy is largely based on barter. Money helps Inuit purchase hunting supplies, food, and other necessities. Income-generating subsistence activities are integral to food security and cultural traditions in Northern Canada. The Canadian government respects the right of the Aboriginal peoples to harvest polar bears, within sustainable levels. Keeping an economic link between wildlife and local populations is an important component of sound conservation.

Canadian Action for Polar Bear Conservation

Canada is undertaking several actions to ensure continued sustainable harvest of polar bear and to address the threat of climate change.

The polar bear is listed as a species of Special Concern under Canada's *Species at Risk Act* (SARA), our domestic legislation designed to conserve and protect wildlife in Canada. A federal management plan is now under development in accordance with the Special Concern listing. Canada has developed a National Polar Bear Conservation Strategy (2011) through its Polar Bear Administrative Committee (PBAC) with support of the Polar Bear Technical Committee (PBTC), which includes strategies to address threats, a process to enhance inter-jurisdictional coordination, and guidelines for harvest management. The national strategy will form the basis for the SARA management plan.

Examples of Current Research in Canada

Scientific samples are provided by hunters and this helps research on many topics:

- Aboriginal Traditional Knowledge of den distribution
- Modelling of denning habitat
- Offshore habitat use
- Genetic delineation of polar bears in Canada
- Contaminants and diet
- Bear movement in relation to sea ice change
- Study of Aboriginal Traditional Knowledge in several eastern and western Arctic regions

Canadian and international scientists are involved in extensive research to better understand the effects of climate change on polar bears. As monitoring a large carnivore that covers vast areas of the Canadian Arctic is complex, multi-year planning is coordinated across Canada through the PBAC, based on advice from the PBTC, and is targeted to areas of potential conservation concern. Canada currently contributes approximately $1.7 million (CAD, approximately equivalent to USD)/year towards surveys of polar bear management units. In recent years, Canada has intensified monitoring efforts and by 2018 there will be up-to-date population estimates for all 13 of Canada's management units. Findings will be integrated on an ongoing basis towards monitoring status and trends and to ensure that harvest is sustainable.

International Action for Polar Bear Conservation

Canada is involved in numerous national and international committees and bilateral/multilateral agreements for the conservation and the management of polar bear.

Canada, along with all other range states (United States, Greenland (Denmark), Norway and the former Union of Soviet Socialist Republics (Russia)), is a signatory to the 1973 *International Agreement on the Conservation of Polar Bears*.

There has been increased engagement and interaction among polar bear range states since 2009. In particular, significant progress has been made on the development of a Circumpolar Action Plan for polar bear - the first circumpolar plan by the range states. Canada hosted the Polar Bear Range State meeting in Nunavut in 2011, which was the first meeting of the range states to be held within the polar bear range. The circumpolar action plan is ideally positioned to comprehensively address all threats to polar bear. The IUCN/SSC Polar Bear Specialist Group was appointed as scientific advisor to the range states. Continued, active and collaborative involvement by all range states in conservation actions for polar bear will continue to benefit the species.

Since 1988 a user-to-user agreement has been in place between the Inupiat of the United States and the Inuvialuit of Canada for management of the shared Southern Beaufort Sea management unit.

In May 2008 Canada and the United States signed the *Memorandum of Understanding Between Environment Canada and the United States Department of the Interior for the Conservation and Management of Shared Polar Bear Populations* to collaborate on polar bear issues, to further the consideration of Aboriginal Traditional Knowledge, and to promote consistent methods for polar bear population modeling, data capture and research.

In October 2009, Canada, Nunavut and Greenland signed the *Memorandum of Understanding between the Government of Canada, the Government of Nunavut, and the Government of Greenland for the Conservation and Management of Polar Bear Populations* to provide a framework for the cooperative management, including the coordination of recommendations for hunting quotas, of the shared polar bear management units of Kane Basin and Baffin Bay.

The current proposal on polar bear provides no new evidence, since CoP15, to merit an Appendix I listing

CITES Parties decided in 2010 polar bears do not meet criteria for Appendix I based on the information provided in the CoP15 proposal submitted by the United States. Organizations and experts also concluded that polar bear did not meet the biological criteria.

The argument in the United States CoP16 proposal for meeting the biological criteria for CITES Appendix I is worded slightly differently but is essentially the same as before:

"Based on the information available on polar bear habitat (i.e., the current, inferred or projected effects of various factors, including climate change, on the area or quality of habitat will lead to a marked decline in the population size in the wild), the United States has determined that the polar bear meets the biological criteria for Appendix I".

The CoP16 proposal includes information on recent sea ice levels, information on the conservation status of management units (from PBSG 2010; Obbard et al., 2010), and updated trade data. The proposal has also been updated with additional peer-reviewed technical publications documenting a decrease in sea ice and a decrease in polar bear measures of health (biological parameters). In fact, Canada has been involved in some of this research.

The CoP16 proposal does not, however, provide compelling evidence to substantiate a claim of a projected decline of over 50% of the global polar bear population in the next three polar bear generations, which is the basis of the claim. The extent of the ability to relate predicted declines in habitat to declines in polar bear populations is still uncertain. Finally, the proposal does not provide reasonable evidence that the species is "threatened with extinction" due to international trade. There is no need to consider another Appendix I proposal in the absence of new information. The polar bear still does not meet the biological and trade criteria for listing on Appendix I under CITES.

Polar bear conservation can best be achieved with strong national management and collaboration among polar bear range states.

Polar bear conservation would benefit most from the following support by the international community:

- Collaboration and coordination among range states to address all threats
- Enhanced monitoring throughout the polar bear range
- Adherence to ongoing commitments made under national and international agreements
- Recognition of the connection between Aboriginal peoples and polar bear conservation. Polar bear conservation and management that engages Inuit is essential for successful and effective conservation action

Where to Find Information on Polar Bear

IUCN/SSC Polar Bear Specialist Group (http://pbsg.npolar.no/en/)

Canada's Species at Risk website (http://www.sararegistry.gc.ca/document/default_e.cfm?documentID=1635)

Canada's Polar Bear Administrative Committee (PBAC) (http://www.polarbearcanada.ca/)

Canada's CITES Non Detriment Finding Report (http://www.ec.gc.ca/cites/default.asp?lang=En&n=A3CDEAD8-1)

TRAFFIC report "Icon on Ice: International Trade and Management of Polar Bears"

(http://www.traffic.org/species-reports/traffic_species_mammals69.pdf)

Polar Bears International (http://www.polarbearsinternational.org/about-polar-bears/what-scientists-say/what-pbis-position-cites-uplisting-polar-bears)

World Wildlife Fund (http://www.wwf.ca/conservation/species/polarbears/)

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