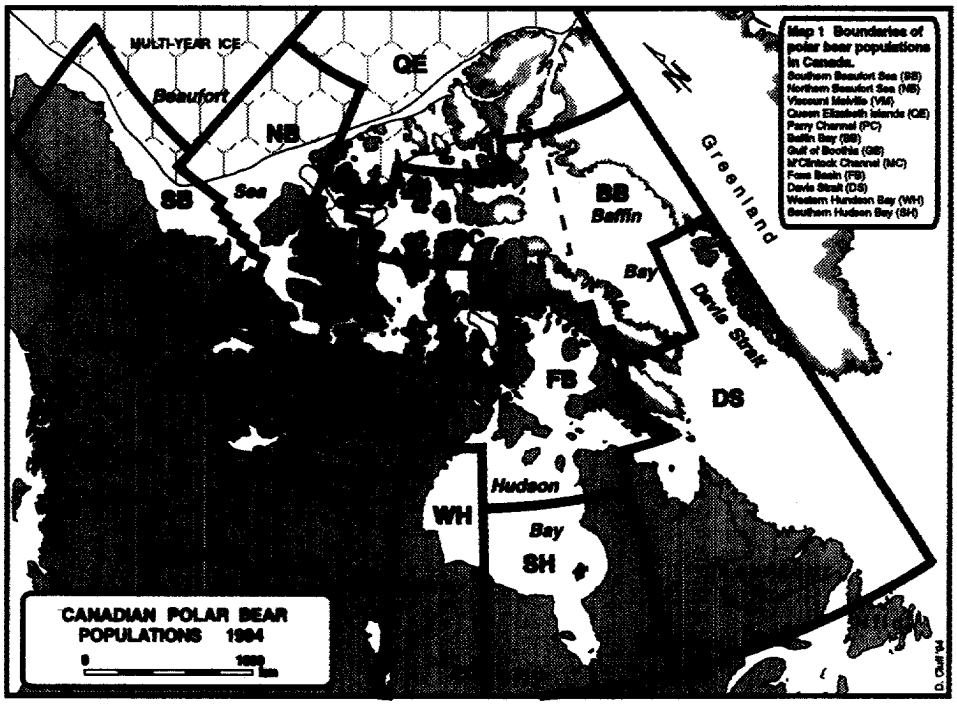

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The language in the Amendments refers to an ''affected population stock'' in the singular, and raises the issue of whether the Service needs to make the findings on one population for the whole of Canada or on the 12 populations under which Canada has been managing polar bears for over 20 years. In considering the following information, the Service has decided to treat the 12 Canadian populations as population stocks under the MMPA and make the proposed findings on that basis.

Congressman Jack Fields, during the House of Representatives floor debate for the 1994 Amendments, clarified that ''the term 'population stock' as defined in the MMPA means a group of marine mammals of the same species in a common spatial arrangement and is used in the bill to refer to these subpopulations and management units which reflect Canada's management regime'' (140 Cong. Rec. H2725, April 26, 1994).

For many marine species, there have been difficulties in defining stocks consistently under the MMPA. This particularly became apparent when the Service and the National Marine Fisheries Service (NMFS) under the 1994 Amendments were tasked with conducting stock assessments to determine the number of animals that may be removed from a population by human-caused mortality. Dr. Barbara Taylor (1995) in a NMFS administrative report pointed out that although the definition of population remains illusive, it can be critical to good management. She asserted that ''population stock'' in the MMPA has both a biological and management meaning. Two populations should be managed separately if interchange is low as there are potentially strong negative effects of treating large areas as single populations when mortality is concentrated in small areas. Dr. Taylor also suggested that ''maintaining the range of a species meets the MMPA objective of maintaining marine mammals as significantly functioning elements of their ecosystems.'' Canada's management program for polar bear recognizes 12 discrete populations with a set quota for human caused mortality specific to each population. Harvest data and scientific research have provided information to show that interchange between populations is low and human caused mortality is concentrated within localized areas. Therefore, the management of polar bears in Canada as discrete populations is consistent with the term ''population stock'' as used in the MMPA and ensures the maintenance of the polar bear throughout its range in Canada.

The GNWT wrote the Service that Canada's ''stocks'' of polar bears are termed ''populations''. This designation is based on increasing knowledge on the movement of polar bears. Boundaries of polar bear populations in Canada were initially based on geographic features using reconnaissance surveys. Over time, the boundaries have been confirmed and refined through scientific research on the movement of polar bears (e.g., mark-recapture, mark-kill harvest data, radio tracking, and satellite telemetry), local knowledge of bear movements, and physical factors affecting movements, such as ice formation and location of polynyas (e.g., areas where ice consistently breaks up and creates open water or areas where ice is refrozen at intervals during the winter). The research and accumulation of other information are ongoing. For example, the recently collected satellite telemetry data are being analyzed to redetermine the population boundaries for the Parry Channel/Baffin Bay population (GNWT).

Canada shares some polar bear populations with Greenland and Alaska. Northeastern Canada shares three populations (Queen Elizabeth Island, Baffin Bay/Parry Channel, and Davis Strait) with Greenland with the extent of exchange between Canada and Greenland as yet unclear. Northwestern Canada shares the Southern Beaufort Sea population with northern Alaska, with extensive east-west movements of polar bears between Canada and the United States.

Reproduction and Survival

Polar bears are intimately associated with Arctic ice. Due to unpredictability in the structure of Arctic sea ice and associated availability of food, it is