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# PROTECTION AND CONSERVATION OF MARINE MAMMALS IN CANADA: A CASE FOR LEGISLATIVE REFORM

*M.L. Campbell and V.G. Thomas* \*

## I. INTRODUCTION

The twentieth century was the century of modern whaling, as new technologies allowed whalers to exploit enormous numbers of whales from all oceans for processing into various products for industry and trade.<sup>1</sup> Seals and sirenians (manatees and dugongs) were also heavily exploited in the 1900s, adversely affecting the populations of certain species.<sup>2</sup> On entering the twenty-first century, numerous governments and organizations,<sup>3</sup> and much of the general public now regard marine

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1. See Ray Gambell, *The International Whaling Commission and the Contemporary Whaling Debate*, in CONSERVATION AND MANAGEMENT OF MARINE MAMMALS 179, 180 (John R. Twiss Jr. & Randall R. Reeves eds., 1999).

2. Seal Conservation Society Pinniped Information Pages, available at <http://www.pinnipeds.fsnet.co.uk/> (last visited Apr. 8, 2002). For example, the Hawaiian monk seal, *Monachus schauinslandi*, the northern fur seal, *Callorhinus ursinus*, the southern fur seal, *Arctocephalus forsteri*, and the northern elephant seal, *Mirounga angustirostris*. *Id*

3. For example, New Zealand's Department of Conservation, Environment Australia, the U.S. Departments of Commerce and the Interior, the International Fund for Animal Welfare, and the Humane Society of the United States.

mammals, especially cetaceans, as having aesthetic and economic importance as well as intrinsic value outside the realm of exploitation.<sup>4</sup> During the past decade, general awareness of the need to study the natural world at the ecosystem level has heightened,<sup>5</sup> and it is recognized that threats to the survival of marine mammals go beyond that of commercial exploitation. Potential threats include habitat degradation, noise and chemical pollution, accidental strikes by ships, and incidental catch by commercial fisheries.<sup>6</sup> Strategies for resolving these problems include the creation of marine protected areas to protect critical habitat, international cooperation in the development of conservation programs, and an increase in biological research to enhance management. The formulation of strong conservation policies and legislation at the national level is necessary to provide guidance for the implementation of these potential solutions.

There is precedence at the international level for the types of protection needed. One example is the global moratorium on commercial whaling initiated in 1982 and implemented in 1986 by the International Whaling Commission (IWC).<sup>7</sup> Despite the moratorium, however, a number of large

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4. See Donald C. Baur, Michael J. Bean, & Michael L. Gosliner, *The Laws Governing Marine Mammal Conservation in the United States*, in CONSERVATION AND MANAGEMENT OF MARINE MAMMALS 48 (John R. Twiss Jr. & Randall R. Reeves eds., 1999); see also David M. Lavigne, Victor B. Scheffer, & Stephen R. Kellert, *The Evolution of North American Attitudes Toward Marine Mammals*, in CONSERVATION AND MANAGEMENT OF MARINE MAMMALS 10 (John R. Twiss Jr. & Randall Reeves eds., 1999); see also Martin W. Cawthorn, *The Changing Face of New Zealand's Whaling Policy* from Whaling and Anti-Whaling Movement, (1999) available at [http://www.pos.to/~luna/whale/gen\\_nz.html](http://www.pos.to/~luna/whale/gen_nz.html) (last visited Sept. 17, 2001).

5. See generally ECOLOGICAL INTEGRITY AND THE MANAGEMENT OF ECOSYSTEMS (Stephen J. Woodley, James J. Kay, & George Francis eds., 1993); James J. Kay, *The Ecosystem Approach, Ecosystems as Complex Systems and State of the Environment Reporting*, prepared for North American Commission for Environmental Cooperation, State of the North American Ecosystem Meeting in Montreal, Canada (Dec. 8–10, 1994), available at <http://www.fes.uwaterloo.ca/u/jjkay/pubs/nac/index.html> (last visited Sept. 17, 2001); see also RESOURCE AND ENVIRONMENTAL MANAGEMENT IN CANADA (Bruce Mitchell ed., 1997).

6. See generally Randall R. Reeves, Stephen Leatherwood, & IUCN/SSC Cetacean Specialist Group, DOLPHINS, PORPOISES AND WHALES: 1994–1998 ACTION PLAN FOR THE CONSERVATION OF CETACEANS (1994), available at <http://www.iucn.org/themes/ssc/pubs/dolphins.htm> (last visited Apr. 10, 2002); see also Gary K. Meffe, William F. Perrin, & Paul K. Dayton, *Marine Mammal Conservation: Guiding Principles and Their Implementation*, in CONSERVATION AND MANAGEMENT OF MARINE MAMMALS 437 (John R. Twiss Jr. & Randall R. Reeves eds., 1999); see also New Zealand Department of Conservation, *Marine Mammals in New Zealand*, available at <http://www.doc.govt.nz/conservation/001-Plants-and-Animals/003-Marine-Mammals> (last visited Mar. 2, 2002).

7. The IWC is the management body set up as a result of the 1946 International Convention for the Regulation of Whaling [hereinafter ICRW]. See ICRW, Dec. 2, 1946, 161 U.N.T.S. 72.

whale species, including the right, *Eubalaena glacialis*; bowhead, *Balaena mysticetus*; blue, *Balaenoptera musculus*; sperm, *Physeter macrocephalus*; and humpback, *Megaptera novaeangliae*, are still considered endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC),<sup>8</sup> the U.S. Division of Endangered Species,<sup>9</sup> and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).<sup>10</sup> International whale sanctuaries were declared by a large majority of IWC members; for example, in 1979, in the Indian Ocean to 55°S latitude; and in 1994 in the waters of the Southern Hemisphere, south of 40°S latitude.<sup>11</sup> The prohibition against commercial whaling activities in these waters illustrates strong international support for the protection of whales.<sup>12</sup> Since the declaration of the International Convention for the Regulation of Whaling (ICRW)<sup>13</sup> in 1946, other international environmental conventions have been established. Several of these conventions have had implications for marine mammals and have set the stage for global conservation activities, including the United Nations Convention on the Law of the Sea (UNCLOS),<sup>14</sup> the United Nations Conference on Environment and Development Agenda 21 action plan,<sup>15</sup> the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention),<sup>16</sup> CITES, and the Convention on Biological Diversity (CBD).<sup>17</sup>

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8. COMMITTEE ON THE STATUS OF ENDANGERED WILDLIFE IN CANADA, CANADIAN SPECIES AT RISK (Nov. 2001), available at [http://www.cosewic.gc.ca/pdf/English/Full\\_List\\_Species\\_e.pdf](http://www.cosewic.gc.ca/pdf/English/Full_List_Species_e.pdf) (last visited Apr. 12, 2002) [hereinafter COSEWIC].

9. U.S. FISH AND WILDLIFE SERVICE, DIVISION OF ENDANGERED SPECIES, U.S. LISTED MAMMAL SPECIES PROFILES 2, (Jan. 31, 2002), available at <http://endangered.fws.gov/mammals2.html> (last visited Sept. 13, 2001).

10. Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, Appendix I & II, 27 U.S.T. 1087, T.I.A.S. No. 8249, 993 U.N.T.S. 243, ELR Stat. 40336, available at <http://www.chrisnet1.force9.CO.UK/texts/cites12.htm> (last visited Sept. 10, 2001).

11. GAMBELL, *supra* note 1, at 191–92.

12. See GAMBELL, *supra* note 1, at 191–93.

13. ICRW, *supra* note 7.

14. United Nations Convention on the Law of the Sea, Dec. 2, 1982, U.N. Doc. A/CONF.62/122 [hereinafter UNCLOS].

15. United Nations Conference on Environment and Development, Agenda 21, 31 I.L.M. 814 (1992) [hereinafter UNCED].

16. Convention on the Conservation of Migratory Species of Wild Animals, June 23, 1979, 19 I.L.M. 15, available at [http://www.wcmc.org.UK/cms/cms\\_conv.htm](http://www.wcmc.org.UK/cms/cms_conv.htm). (last visited Sept. 10, 2001).

17. Convention on Biological Diversity, 5 June 1992, U.N.Doc. A/CONF.151/26, 31 I.L.M. 818, available at <http://www.chrisnet1.force9/co.UK/texts/cbd.htm> (last visited Sept. 10, 2001) [hereinafter CBD].

While some nations have enacted legislation and taken policy stands on the protection and conservation of marine mammals, national legislative protection for marine mammals is far from universal. Canada, a nation normally recognized for its strong environmental and natural heritage initiatives, largely views marine mammals<sup>18</sup> as a resource to be exploited. Canada was a signatory to the ICRW and a member of the International Whaling Commission (IWC), but in 1982 withdrew its membership stating it no longer had an interest in whaling.<sup>19</sup> However, aboriginal whaling in Canada continues with annual takes of approximately seven hundred beluga, *Delphinapterus leucas*; and three hundred narwhal, *Monodon monoceros*, respectively.<sup>20</sup> Since 1991, there has been a renewed interest in bowhead hunting in the western Arctic by native communities after some sixty years of not hunting this species.<sup>21</sup> In 1996, after a twenty year pause, communities in the eastern Arctic also resumed bowhead whaling.<sup>22</sup> The eastern bowhead stock is considered highly endangered—less than five hundred are thought to remain—and the international community has responded strongly to this problem.<sup>23</sup> Walrus, *Odobenus rosmarus*, and up to ten species of seal can be taken by aboriginal peoples in Canada; harp, *Pagophilus groenlandicus*; and hooded seals, *Cystophora cristata*; are all hunted commercially by non-aboriginals.<sup>24</sup> Canada has maintained a firm pro-commercial sealing policy,<sup>25</sup> which has strengthened over the years despite public and international opposition. Currently, there are no comprehensive conservation programs or initiatives for marine mammals, and no deliberate legislative or policy commitments for their protection.

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18. Although polar bears, *Ursus maritimus*, are marine mammals, they are excluded from this paper. In this study, the term 'marine mammal' refers to cetaceans, pinnipeds, and sirenians. Polar bears are protected separately through the 1973 Agreement on the Conservation of Polar Bears, which was signed by Canada, Denmark (for Greenland), Norway, the Soviet Union, and the United States. *Id.*

19. IWC Resolution 1996-1, available at <http://eelink.net/~asilwildlife/48iwc.pdf> (last visited Sept. 10, 2001).

20. Dan Goodman, *Land Claim Agreements and the Management of Whaling in the Canadian Arctic* (1996), available at <http://www.highnorth.no/Library/Policies/National/la-cl-ag.htm> (last visited Sept. 10, 2001).

21. *Id.*

22. *Id.*

23. IWC, *supra* note 19; Lavigne et al., *supra* note 4, at 14.

24. See Marine Mammal Regulations, SOR/93-56 (1993) (Can.).

25. Fisheries and Oceans Canada, *Anderson Announces 1999 Atlantic Seal Management Measures NR-HQ-99-1E* (1999), available at [http://www.dfo-mpo.gc.ca/communic/newsrel/1999/hq01\\_e.htm](http://www.dfo-mpo.gc.ca/communic/newsrel/1999/hq01_e.htm) (last visited Sept. 10, 2001); FISHERIES AND OCEANS CANADA, ATLANTIC SEAL HUNT 2000 MANAGEMENT PLAN (1999), available at <http://www.dfo-mpo.gc.ca/seal-phoque/reports/MgtPlan2000/index.htm> (last visited Sept. 29, 2001) [hereinafter ATLANTIC SEAL HUNT 2000 MANAGEMENT PLAN].

Under the Canadian system, marine mammals and other marine animals are included in the definition of “fish” in the Fisheries Act.<sup>26</sup> The definition of “fish” first appeared in the Fisheries Act in 1927.<sup>27</sup> Despite numerous amendments of the Fisheries Act,<sup>28</sup> this biologically invalid definition has been retained.<sup>29</sup>

Because of the lack of a comprehensive conservation framework, and the biologically inaccurate classification of marine mammals as “fish,” marine mammal management has suffered. Marine mammals should not be defined as “fish,” and arguments against this definition can be made on the basis of science, values, and management.

The great biological differences between these two taxa, at both the physiological and behavioural levels, lead necessarily to different management requirements. Societal attitudes toward fish and marine mammals are different, and they are valued in different ways for different reasons.<sup>30</sup> For example, fish is a primary food resource that represents a major basis of revenue, and a significant contribution to the economies of many communities. Marine mammals have intrinsic value, non-consumptive tourism value, and cultural/subsistence value for numerous Aboriginal communities, but limited commercial exploitation value.<sup>31</sup> A program designed to manage the exploitation of one will not address the conservation issues of the other. In Canada, Fisheries and Oceans Canada, the administrative body for ocean and ocean resource issues, is focused primarily on conserving diverse fish stocks for industry.<sup>32</sup> Thus, absent an economic rationale as the driving force for the conservation of marine mammals, such industry concerns will necessarily take precedence over domestic conservation concerns. International treaties often lack provisions for seals because it is assumed that their conservation is a domestic issue,

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26. Fisheries Act, R.S.C., ch. F-14, § 2 (1985) (Can.).

27. An Act respecting Fisheries and Fishing, R.S.C., ch. 73, § 2(a) (1927) (Can.).

28. R.S.C., ch. F-14 (1970); R.S.C., ch. 35, § 1(1) (1977); R.S.C., ch. F-14, § 2 (1985); R.S.C., ch. 1, § 2(b) (1991).

29. It is worth noting that Carl Linnaeus, a Swedish naturalist first recognized that marine mammals were biologically separate from fish in 1758.

30. See David M. Lavigne, Does Canada Need a Marine Mammal Act? (1991) (unpublished paper on file with the *Ocean and Coastal Law Journal*).

31. Clive Southey, *The Newfoundland Commercial Seal Hunt: An Economic Analysis of Costs and Benefits* (1997) (report prepared in the Department of Economics at the University of Guelph and on file with the *Ocean and Coastal Law Journal*). There are few markets for seal products within or outside of Canada, and up until the end of 1999 the seal hunt was subsidized by the Canadian government. Some argue that it is this subsidy that has kept the industry from collapsing. *Id.*

32. Fisheries and Oceans Canada, *Stewards of Canada's Waters*, available at [www.dfo-mpo.gc.ca/communic/scw-gcc\\_e.htm](http://www.dfo-mpo.gc.ca/communic/scw-gcc_e.htm) (last visited Nov. 27, 2001).

even though many are highly migratory.<sup>33</sup> Thus, domestic legislation is particularly important for the reason that seals normally reside within coastal waters and the Exclusive Economic Zone (EEZ) of a nation. For the above reasons, special legislation for marine mammals is warranted as the basis for enhanced management and protection.

The United States, Australia, and New Zealand have enacted legislation for the protection of marine mammals that is separate from the legislation pertaining to fisheries,<sup>34</sup> and each nation has deliberately avoided considering them as fish. For example, the now repealed 1952 Australian Fisheries Act<sup>35</sup> explicitly excluded all cetaceans from the definition of "fish," and by 1991, under the Australian Fisheries Management Act, all marine mammals were excluded from the definition.<sup>36</sup> Canada's continued adherence to this definition has been detrimental because it defines the way government, including fisheries and wildlife managers, perceive marine mammals, and influences the way humans use marine mammals in Canada.

This article examines the limitations existing within Canada's policy and legislative initiatives for the conservation and protection of marine mammals, as compared with other selected nations. The United States, Australia, and New Zealand are the jurisdictions chosen for comparison, because these nations possess the most advanced marine mammal legislation, regulations, and programs in the world, and because they are similar to Canada in terms of commitment to the environment and conservation. International conventions relating to marine mammals were reviewed, and special emphasis was placed on Canada's obligations under these conventions.

The main components integral to effective marine mammal conservation in those jurisdictions were used to mold a revised framework to increase marine mammal protection in Canada, and to further enhance the Canadian legislative and regulatory structure. Recommendations stemming

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33. Personal communication between authors and David M. Lavigne, International Marine Mammal Association, Guelph, Ontario, Canada. (July 4, 2000).

34. 16 U.S.C. §§ 1361–1407 (2002); Environment Protection and Biodiversity Conservation Act, 1999 (Austl.), available at <http://scaleplus.law.gov.au/html/pesteact/3/3295/top.htm> (last visited Mar. 30, 2002); Marine Mammals Protection Acts, 1978–1995 (N.Z.), available at <http://rangi.knowledge-basket.co.nz/gpacts/reprint/text/1995/an/018.html> (last visited Sept. 29, 2001) [hereinafter NZMMPA].

35. Fisheries Act, § 4(1) (1952) (Austl.) *repealed* (on file with the *Ocean and Coastal Law Journal*).

36. Fisheries Act, § 4(1) (1991) (Austl.), available at <http://scaletext.law.gov.au/html/pasteact/0/420/0/PA000080.htm> (last visited Mar. 20, 2002).

from this framework fit both the current legislative structure and an ecosystem approach to marine conservation under Canada's Oceans Act.<sup>37</sup>

## II. COMPARISON OF INITIATIVES AMONG JURISDICTIONS

Canada's initiatives in institutional structure, legislation, and conservation programs<sup>38</sup> were compared to the initiatives of the other jurisdictions in this study. These areas were selected because they cover the broad spectrum of aspects relevant to the protection and conservation of marine mammals, ranging from governance to management.

### A. Institutional Framework

Canada is the only jurisdiction where responsibility for marine mammals is delegated to a single department preoccupied with commercial fisheries, Fisheries and Oceans Canada, despite an earlier recommendation from the Royal Commission on Seals and the Sealing Industry in Canada that a separate infrastructure within this department should have been established to deal with Pacific and Atlantic seals.<sup>39</sup>

In the United States, authority over conservation of marine animals is shared between the Secretary of the Interior and the Secretary of Commerce under the Marine Mammal Protection Act<sup>40</sup> (USMMPA).<sup>41</sup> Within these federal departments, responsibility for marine mammal programs is delegated, respectively, to both the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). Most marine mammals, cetaceans, and pinnipeds, are managed by NMFS, which further delegates responsibility to the Office of Protected Resources.<sup>42</sup> Within the

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37. Oceans Act, S.C., ch. 31, (1996) (Can.), *available at* <http://laws.justice.gc.ca/en/1996/31/Index.html> (last visited Mar. 31, 2002).

38. In this paper the term "conservation" refers to the act of protecting a species from declining in population, or working toward the recovery of a species whose population has already declined. The term "conservation program" refers to a comprehensive program that entails ecosystem processes, including population abundance and distribution, life history, habitat, environmental changes, and food web interactions.

39. REPORT OF THE ROYAL COMMISSION ON SEALS AND THE SEALING INDUSTRY IN CANADA v.1, at 61 (1986) (noting within Recommendation 41 that the new section should include the protection of seals, management of any utilization of seals, and the interaction of seals with fisheries) [hereinafter ROYAL COMMISSION].

40. 16 U.S.C. §§ 1361–1407 (2002) [hereinafter USMMPA].

41. *See id.* § 1362.

42. NAT'L OCEANIC & ATMOSPHERIC ADMIN., NAT'L MARINE FISHERIES SERV., *Overview of the Marine Mammal Program*, *available at* [http://www.nmfs.noaa.gov/prot\\_res/overview/mm.html](http://www.nmfs.noaa.gov/prot_res/overview/mm.html) (last visited Mar. 15, 2002) [hereinafter NOAA Overview].



Office of Protected Resources are three additional divisions dealing with issues of biodiversity, endangered marine species, and marine mammal conservation.<sup>43</sup> The Marine Mammal Conservation Division administers protection, conservation and recovery programs, and develops the policies and regulations for NMFS in the implementation of the USMMPA.<sup>44</sup> Despite the fact that a fisheries service is given responsibility for implementation of the USMMPA, it is a specialized office and division of this service that develops the programs and carries out research on marine mammals.

In Australia and New Zealand, authority over marine mammals has been transferred to environment or conservation departments and is removed from fisheries concerns. For the first eight years after the enactment of New Zealand's Marine Mammals Protection Act (NZMMPA),<sup>45</sup> authority for implementing and enforcing the NZMMPA was with the Ministry of Agriculture and Fisheries (MAF).<sup>46</sup> In 1987, the Department of Conservation (DOC) was formed and administration of the NZMMPA was shifted to that department.<sup>47</sup> Under MAF, conservation of marine mammals was given a low priority primarily because of the economic and industry-based need for coastal and offshore fisheries stock assessments,<sup>48</sup> which drained funds as well as human resources. When responsibility was passed to DOC, marine mammal research initiatives and conservation issues became more prominent, and funding in this area increased.<sup>49</sup> Because DOC has a strong conservation mandate, it has been able to take a more protectionist approach than could MAF. In addition, DOC does not suffer from the conflict of interest inherent in agencies that must simultaneously protect marine mammals and manage fisheries for economic benefit.<sup>50</sup>

In contrast, Fisheries and Oceans Canada is divided into a headquarters office and six regional offices.<sup>51</sup> No governmental sub-agencies have been

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43. *See id.*

44. *Id.*

45. Marine Mammals Protection Acts, 1978–1995.

46. The Ministry of Agriculture and Fisheries is now known as the Ministry of Fisheries. *See* <http://www.maf.govt.nz/mafnet/profile/businesses/history.html> (last visited Apr. 5, 2002).

47. *See generally* Department of Conservation, *available at* [www.doc.govt.nz/About-DOC/002~Legislation/index.asp](http://www.doc.govt.nz/About-DOC/002~Legislation/index.asp) (last visited Mar. 30, 2002).

48. Elisabeth Slooten & Stephen M. Dawson, *Conservation of Marine Mammals in New Zealand*, 2 PAC. CONSERVATION BIOLOGY 64 (1995).

49. *Id.*

50. *Id.*

51. FISHERIES & OCEANS CANADA, REGIONS, *available at* [http://www.dfo-mpo.gc.ca/regions\\_e.htm](http://www.dfo-mpo.gc.ca/regions_e.htm) (last visited Apr. 12, 2002).

set up to address specific concerns surrounding other marine species, especially marine mammals. There is no clear departmental policy that states whether marine mammal management and conservation issues are the responsibility of the regions or headquarters, although most of the regional offices are working on some, if not comprehensive, research related to marine mammals. Top priority in all regions is research and management of the commercial fisheries. Fisheries and Oceans Canada gives lower priority to conservation and protection of marine mammal populations, unless there is an economic interest associated with them, and then the philosophy behind the conservation is one of maximum use (*e.g.* harp seal harvest).<sup>52</sup>

The multi-tiered institutional structure in the United States has developed in response to the legislative requirements of the USMMPA and its strong prohibitions. This structure has responded successfully to the particular concerns surrounding marine mammal conservation, as have the jurisdictions where fisheries interests are completely separate from marine mammal interests. This illustrates that separate departments for the management of fish and marine mammals are not necessary for the effective conservation of marine mammals, but it does suggest that sub-agencies with different mandates within the larger governing agency *are* a requirement. Otherwise, economic commercial interests overshadow non-consumptive conservation interests.<sup>53</sup>

### *B. A Comparison of Legislative Initiatives*

Canada has no legal instruments in place for the explicit, deliberate, conservation of marine mammals, and thus there are no statutory principles governing conservation efforts or marine mammal harvesting. Because marine mammals are defined legally, but inaccurately, as “fish,” their specific ecological concerns tend to be lost amidst concerns about the sustainability of the larger Canadian commercial fishery. The Marine Mammal Regulations,<sup>54</sup> promulgated under the Fisheries Act<sup>55</sup> in 1993, were designed to regulate the commercial seal and aboriginal seal and whale harvests.<sup>56</sup> The regulations do not include requirements, or criteria,

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52. See FISHERIES AND OCEANS CANADA, *Mandate*, available at [http://www.dfo-mpo.gc.ca/dfo-mpo/mandat\\_e.htm](http://www.dfo-mpo.gc.ca/dfo-mpo/mandat_e.htm) (last visited Apr. 12, 2002). See also ATLANTIC SEAL HUNT 2000 MANAGEMENT PLAN, *supra* note 26.

53. Slooten & Dawson, *supra* note 48, at 64.

54. Marine Mammal Regulations, SOR/93-56, (1993) (Can.).

55. Fisheries Act, R.S.C., ch. F-14 (1985) (Can.).

56. Marine Mammal Regulations, *supra* note 54, at Application.

for determining at what levels harvest is sustainable in the long-term, let alone a definition of the term 'marine mammal.' Thus, no research programs have been designed or implemented to determine the extent of confounding effects of various conservation problems, such as habitat loss, pollution, and incidental by-catch in the fisheries industry. These regulations serve to protect the sealing industry, rather than serving to protect seals and other marine mammals.<sup>57</sup> No developments have been made in the area of research or policy, despite the recommendation made by the Royal Commission that seal management policies be supported by a comprehensive research program that addresses all issues relevant to seals and sealing in Canada.<sup>58</sup>

In contrast, the USMMPA has always contained requirements for programs to be set up to determine issues of conservation at the individual species, population, and ecosystem levels. The USMMPA contains a critical provision that establishes a general ban on the taking<sup>59</sup> of marine mammals in U.S. waters, as well as by U.S. vessels in foreign waters or on the high seas.<sup>60</sup> There are certain exceptions to this ban, which include, *inter alia*, the taking of marine mammals by permit for scientific purposes, predator control, public display, and photography.<sup>61</sup>

The United States' Endangered Species Act of 1973<sup>62</sup> (ESA) establishes an even stronger definition of 'take' than the USMMPA by adding a prohibition on activities that 'harm' marine mammals listed as endangered under the ESA.<sup>63</sup> The U.S. Supreme Court has further ruled that 'harm' can be extended to the degradation or disruption of wildlife habitat that results in injury or death.<sup>64</sup> The ESA works in conjunction with the USMMPA for the protection of marine mammals, and the ESA directs that, in the case of conflict between the ESA and the USMMPA, whichever Act provides for the strictest protection in a given situation shall apply.<sup>65</sup> The broad provisions of the USMMPA are also reinforced by more species-specific federal acts such as the Dolphin Protection Consumer Information

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57. Susan L. Waters, *Non-Consumptive Utilisation of Marine Mammals in Canada: International and National Regulation*, in *CANADIAN OCEAN LAW AND POLICY* 141, 156 (David VanderZwaag ed. 1992).

58. ROYAL COMMISSION, *supra* note 39, at 61.

59. 16 U.S.C. § 1362(13). 'Take,' under the USMMPA, is defined as "to harass, hunt, capture, collect, or kill, or attempt to harass, hunt, capture or kill any marine mammal." *Id.*

60. *Id.* at § 1372(a)(1).

61. *Id.* at § 1371(a)(1).

62. 16 U.S.C. §§ 1531-1544 (1973).

63. *Id.* at § 1532(19).

64. *Babbitt v. Sweet Home*, 515 U.S. 687 (1995).

65. 16 U.S.C. at § 1543.

Act of 1990<sup>66</sup> and the International Dolphin Conservation Program Act of 1997.<sup>67</sup> These two additional statutes provide further strong legislative support for protection. While these dual pieces of legislation are intended to protect marine mammals, marine mammals are not the only species protected by multiple statutes under U.S. federal law, as is illustrated by the different laws protecting bald eagles in the United States.<sup>68</sup> This multiple statute approach ensures that the degree of protection intended for a particular species is the degree of protection realized.

Although Canada does not have a federal endangered species act, a draft Species at Risk Act<sup>69</sup> (SARA) was introduced to the House of Commons in February 2001. If passed SARA will be co-administered by Environment Canada (terrestrial species), Parks Canada (species on National Park land), and Fisheries and Oceans Canada (aquatic species).<sup>70</sup> SARA will help Canada meet some of its obligations under the CBD.<sup>71</sup> Endangered species legislation alone, however, will not be sufficient to protect all marine mammal species in Canada, because such legislation does not provide for research programs, population assessments, and monitoring of species not currently at risk. If research and monitoring is undertaken for all species under an additional guiding piece of legislation, the system of management could become more anticipatory rather than reactive. Thus, as evidenced by the United States' dual legislation model with the USMMPA and the ESA, multiple pieces of legislation concerning the protection of marine mammals would be beneficial for Canada.

Similar to the USMMPA, the NZMMPA places a general prohibition on the following: the taking of marine mammals, the holding of marine mammals in captivity, and the import of marine mammals or their products without a permit.<sup>72</sup> However, permits are granted at the Minister's discretion, and the conditions for granting a permit are broad.<sup>73</sup> The NZMMPA does not provide for the setting up of conservation programs in

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66. Dolphin Protection Consumer Information Act, P.L. 101-627 101<sup>st</sup> Cong., 104 Stat. 4465 (1990) (codified at 16 U.S.C. § 1385 (2001)).

67. International Dolphin Conservation Program Act, P.L. 105-42 105<sup>th</sup> Cong., 111 Stat. 1122 (1997) (codified at 16 U.S.C. § 1385 (2001)).

68. Vernon G. Thomas, *Why the U.S. and Canada Aren't Adopting Nontoxic Shot and Fishing Sinkers*, 7 INTL ENVTL AFF. 364, 367 (1995).

69. Bill C-5, An Act respecting the protection of wildlife species at risk in Canada, 1<sup>st</sup> Sess. 37<sup>th</sup> Parl. 49 Elizabeth II (2001), available at [http://www.parl.gc.ca/37/1/paribus/chambus/house/bills/government/C-5/C-5\\_1/C-5\\_cover-E.html](http://www.parl.gc.ca/37/1/paribus/chambus/house/bills/government/C-5/C-5_1/C-5_cover-E.html) (last visited Apr. 2, 2002).

70. *Id.* at § 2 (a-c); § 7(1).

71. CBD, *supra* note 17.

72. NZMMPA, *supra* note 34, at § 4(1), (2).

73. *Id.* at § 7.

the imperative manner set forth in the USMMPA, but does authorize the development of conservation management strategies.<sup>74</sup>

Although Australia's legislative requirements for programs have not always been as clearly laid out as in the USMMPA, Australia does have a strong commitment from Environment Australia and the federal government to establish programs and to perform research for marine mammal conservation.<sup>75</sup> Australia's Environment Protection and Biodiversity Conservation Act of 1999<sup>76</sup> (EPBCA) was the result of the consolidation of five environmental statutes into one legislative document.<sup>77</sup> This consolidation provided a national framework for environmental protection and the conservation of biodiversity in order to fulfil obligations under the CBD. The EPBCA uses principles of ecologically sustainable development and cooperative, integrated management of the environment.<sup>78</sup> Accordingly, under the EPBCA it is an offense to take, trade, keep, move or interfere with a cetacean in the Australian Whale Sanctuary,<sup>79</sup> and it is also an offense to take any action which results in the death or injury of a cetacean.<sup>80</sup> Other marine mammals are dealt with in a section of the EPBCA entitled "Marine Species," and the provisions are similar to those listed for cetaceans.<sup>81</sup> Under the EPBCA, there is also a permit system for taking a listed marine species.<sup>82</sup> The EPBCA contains strong prohibitions against the taking of species listed as endangered.<sup>83</sup> Authority for the list

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74. *Id.* at § 3(C).

75. See <http://www.oceans.gov.au/> (last visited Apr. 2, 2002) (explaining how Environment Australia has released an Oceans Policy that sets forth a framework for integrated and ecosystem-based management and planning for ocean resources, which includes marine mammals and their habitat); <http://www.ea.gov.au/coasts/species/cetaceans/actionplan/pubs/whaleplan.pdf> (last visited Apr. 28, 2002) (highlighting Environment Australia's Action Plan for Australian cetaceans); <http://www.erin.gov.au/coasts/species/seals/pubs/ausseals.pdf> (last visited Apr. 28, 2002) (listing Environment Australia's Action Plan for Australian seals).

76. Environment Protection and Biodiversity Conservation Act, 1999 (Austl.), available at <http://scaleplus.law.gov.au> (last visited Apr. 28, 2002) [hereinafter EPBCA].

77. These five statutes included the Whale Protection Act of 1980, the Endangered Species Protection Act of 1992, the National Parks and Wildlife Conservation Act of 1975, the Environment Protection (Impact of Proposals) Act of 1974, and the World Heritage Properties Conservation Act 1983, (Department of the Parliamentary Library, *Environment Protection and Biodiversity Conservation Bill 1998*, Bills Digest No. 135 (1998-99)).

78. EPBCA, *supra* note 76.

79. *Id.* at 229. The Whale Sanctuary was legislated within the EPBCA and comprises the waters of the Australian EEZ. *Id.* at 225.

80. *Id.* at § 229.

81. *Id.* at § 254.

82. *Id.* at § 258.

83. *Id.* at § 196.

rests with the Minister, upon advice from the Threatened Species Scientific Committee, and punishment for contravention of the EPBCA is substantial.<sup>84</sup>

Canada is the only jurisdiction under study with an integrated statute governing its oceans—the Oceans Act of 1996<sup>85</sup> (OA). Although marine mammals are not specifically addressed by the OA, it does set up an overarching framework for ocean management that includes the conservation of marine mammals.<sup>86</sup> For example, the OA requires Fisheries and Oceans Canada to prepare, in collaboration with a number of stakeholders, a national oceans management strategy.<sup>87</sup> This oceans management strategy plan is to utilize the principles of sustainable development, integrated management, and the precautionary approach.<sup>88</sup> Fisheries and Oceans Canada has started this process, and has released a discussion paper for public consultation.<sup>89</sup> In addition, the OA sets up a process whereby the department can create a network of Marine Protected Areas (MPAs).<sup>90</sup> To date, seven areas have been nominated as pilot areas by Fisheries and Oceans Canada, but none has yet been officially established. Establishment of MPAs is crucial, because attempts to protect and conserve a marine mammal species without protecting the habitat on which a marine mammal

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84. *Id.* at §§ 189, 196.

85. Oceans Act, ch. 31, 1996 S.C. (Can.).

86. *See id.* [hereinafter OA].

87. *Id.* at § 29.

88. *Id.* at § 30. The precautionary approach has been adopted from the principles set forth in the 1992 Rio Declaration on Environment and Development (UNCED). Principle 15 of UNCED requires States to widely apply the precautionary approach, and requires that where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. *Rio Declaration on Environment and Development*, U.N. Conference on Environment and Development, Principle 15 (1992), available at <http://www.unep.org/Documents/Default.asp?DocumentID=78&Article%20ID=1163> (last visited Apr. 28, 2002). The precautionary approach has been interpreted in a variety of ways, including as a rationale for stopping all development and use, to slowing, altering or re-evaluating development or use because of possible future environmental harm or past degradation. This paper advocates that the precautionary approach should be employed by Canada to reevaluate its approach to marine mammal legislation and the possible future harms to marine mammals that may exist.

89. DEPARTMENT OF FISHERIES AND OCEANS, TOWARD CANADA'S OCEAN STRATEGY, DISCUSSION PAPER (1998), available at [http://www.mar.dfo-mpo.gc.ca/science/OceansAct/eng/oceans\\_strategy-e.html](http://www.mar.dfo-mpo.gc.ca/science/OceansAct/eng/oceans_strategy-e.html) (last visited Apr. 8, 2002). The Department of Fisheries and Oceans is now officially known as Fisheries and Oceans Canada, however, 'DFO' is still a commonly used term by both the public and government employees.

90. Oceans Act, *supra* note 85, at § 35.

depends would be futile. This concept was understood and built into the USMMPA.<sup>91</sup>

Currently, the main organization working towards a network of MPAs in Canada is Parks Canada under its national system plan.<sup>92</sup> Unlike Fisheries and Oceans Canada, Parks Canada can afford to have a much more protectionist philosophy, because its mandated interests are not driven, overtly, by industry. Establishment of MPAs in Canada, by both departments, is still in its infancy,<sup>93</sup> and so far only approximately 4,200 km<sup>2</sup> have been set aside by Parks Canada under the National Parks Act<sup>94</sup> (NPA). This figure is very low when compared to the United States where just over 46,000 km<sup>2</sup> are protected,<sup>95</sup> to New Zealand where approximately 13,000 km<sup>2</sup> are protected,<sup>96</sup> and to Australia where over 500,000 km<sup>2</sup> of their national waters are protected.<sup>97</sup> Additionally, the southern half of New Zealand's EEZ is a whale sanctuary, and Australia's entire EEZ has been designated a whale sanctuary through national legislation.

The preamble to the OA states: "WHEREAS Canada holds that conservation, based on an ecosystem approach, is of fundamental importance to maintaining biological diversity and productivity in the marine environment . . ."<sup>98</sup> An ecosystem approach involves, *inter alia*, the consideration of issues and concerns of various stakeholders at different spatial and temporal scales; the consideration of ecological, economic, and socio-cultural perspectives; and consideration of the principles of integration and cooperation. This may be achieved through an adaptive approach

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91. USMMPA, *supra* note 40, § 1361.

92. *National Marine Conservation Areas System Plan* (2001), available at <http://parkscanada.pch.gc.ca/nmca/nmca/index.html> (last visited Apr. 28, 2002). Under this plan, MPAs are termed National Marine Conservation Areas, but for convenience in this paper, the initiatives of both jurisdictions are termed MPAs. *Id.*

93. The National Parks Act has historically been the legislative tool used for establishing National Marine Conservation Areas, however, a new piece of legislation was passed by the House of Commons in November 2001, but has not yet received Royal Assent. Bill C-10, An Act respecting the National Marine Conservation Areas, 1st Sess. 37th Parl. 49 Elizabeth II (Nov. 27, 2001), available at [http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-10/C-10\\_3/C-10\\_cover-E.html](http://www.parl.gc.ca/37/1/parlbus/chambus/house/bills/government/C-10/C-10_3/C-10_cover-E.html) (last visited Apr. 8, 2002).

94. An Act respecting the National Parks of Canada, ch. 32, 2000 S.C. B-27 (Can.).

95. See NATIONAL OCEAN SERVICE, MARINE SANCTUARIES LISTING, available at <http://www.sanctuaries.nos.noaa.gov/oms/oms.html> (last visited Apr. 8, 2002).

96. See DEPARTMENT OF CONSERVATION, MARINE RESERVES LISTING, available at <http://www.doc.govt.nz/Conservation/Marine-and-Coastal/Marine-Reserves/index.asp> (last visited Apr. 8, 2002).

97. See ENVIRONMENT AUSTRALIA COASTS AND OCEANS, MARINE PROTECTED AREAS LISTING, available at <http://www.ea.gov.au/coasts/mpa/commonwealth.html#mpa> (last visited Apr. 8, 2002).

98. Oceans Act, *supra* note 85, at Preamble.

to management.<sup>99</sup> Following an ecosystem approach to conservation requires the recognition by Fisheries and Oceans Canada that marine mammals are an important part of the marine ecosystem. Because these principles are noted in the preamble to the OA, they arguably have no legal weight. The provisions within the OA's Preamble would be much stronger if they were placed within the main body of the OA. However, the preamble does reflect on the intent of the OA, and when considered with the other management principles that have legal weight within the OA, the Preamble reflects Fisheries and Oceans Canada's evolution away from a body concerned predominantly with resource use and consumption. The ecosystem-based framework set up in the OA sets up the case for the inclusion of marine mammals in integrated ocean management.

### C. Conservation Programs

In Canada there are no comprehensive programs at the governmental level for the broad conservation of marine mammals. Fisheries and Oceans Canada acts as the regulator of the commercial sealing industry to aid in maximizing market potential and profit. The initiative to protect essential fish habitat has been set up to apply to habitats that sustain commercial, recreational, or Native fishing activities of benefit to Canadians, and are applied as required, rather than everywhere fish are found.<sup>100</sup> Critics may argue that the strict policies for the protection of fish habitats will indirectly benefit the habitats of marine mammals. Although this may be the case where marine mammals happen to depend on a similar habitat as fished species, there is a basic difference in philosophy between protecting populations or species for the benefit of the ecosystem, biodiversity, or

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99. Michelle Boyle, *An Adaptive Ecosystem Approach to Monitoring: Developing Policy Performance Indicators for Ontario Ministry of Natural Resources* (1998) (unpublished master's thesis, University of Waterloo, on file with author). Using an ecosystem approach does not mean conserving only the structure and function of the ecosystem without regard to the integrity of the components. It does mean that in management decisions about certain species, other components of the system (e.g. marine mammal population dynamics) are considered not only in terms of natural removal or human exploitation and the corresponding biological replacement, but also in relation to all other relevant aspects including habitat degradation, pollution, and other human-caused factors causing mortality. The ecosystem approach also means that humans manage and regulate their interactions with the system. *Id.* See generally Thomas D. Nudds, *Adaptive Management and the Conservation of Biodiversity*, in PRACTICAL APPROACHES TO THE CONSERVATION OF BIOLOGICAL DIVERSITY 179-93 (Richard K. Baydack, Henry Campa, & Johnathon B. Haufler eds., 1999).

100. See DEPARTMENT OF FISHERIES AND OCEANS, A FEDERAL PERSPECTIVE ON FISH HABITAT MANAGEMENT Ch.1.2 (1986) (on file with author).



aesthetics, and achieving that protection indirectly through other concerns. In the latter case, any protection that may occur is achieved through chance rather than reliable scientific information regarding habitat requirements and life history. Individual measures or management schemes for harvested marine mammals occur, but are not part of an overall, comprehensive conservation program for *all* species. A conservation program should not be limited to research and management of exploited species. It should also recognize the importance of studying non-exploited species to ensure their long-term survival. A good conservation program would consider a species' value, not just in terms of its economic potential, but also as a valuable component of the ecosystem. Thus, the system in Canada for the conservation of marine mammals is *ad hoc* in its approach, and this can lead to inconsistent management and inadequate protection for some species.

Fisheries and Oceans Canada participates in co-management schemes with aboriginal managers to regulate subsistence takes of marine mammals.<sup>101</sup> The development of government policy on aboriginal whaling in the North is determined primarily under the terms of three land claim agreements,<sup>102</sup> while continuing to be regulated under the Marine Mammal Regulations.<sup>103</sup> The Ministry supports and encourages the co-management of whaling between itself and the beneficiaries of these agreements. Several committees, including the Fisheries Joint Management Committee, the Inuvialuit/Alaska Beluga Management Committee, and the Nunavut Wildlife Management Board have been established for the purposes of sharing management responsibilities.<sup>104</sup> These committees conduct harvest monitoring programs; examine regional abundance, distribution, and movement of whales; and develop management harvest plans for certain species.<sup>105</sup> A Memorandum of Understanding exists between Canada and Greenland for the conservation of narwhal and beluga whales that provides

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101. Goodman, *supra* note 20.

102. James Bay and Northern Quebec Native Claims Settlement Act of 1976, *available at* <http://lois.justice.gc.ca/en/J-0-3> (last visited Apr. 28, 2002); the Inuvialuit Final Agreement of 1984, *available at* [http://www.ainc-inac.gc.ca/pr/agr/inu/wesar\\_e.html](http://www.ainc-inac.gc.ca/pr/agr/inu/wesar_e.html) (last visited Apr. 28, 2002); and the Nunavut Agreement of 1993, *available at* [http://www.ainc-inac.gc.ca/pr/agr/nunavut/index\\_e.html](http://www.ainc-inac.gc.ca/pr/agr/nunavut/index_e.html) (last visited Apr. 28, 2002).

103. Goodman, *supra* note 20.

104. *Id.*

105. *See* Fisheries Joint Management Committee, *available at* <http://www.fjmc.ca/Whats%20here.htm> (last visited Apr. 8, 2002); *see also* Inuvialuit/Alaska Beluga Committee, *available at* <http://www.state.ak.us/adfg/wildlife/mm/bh.htm> (last visited Apr. 28, 2002); *see also* Nunavut Wildlife Management Board, *available at* <http://www.nwmb.com/english/work/index.html> (last visited Apr. 8, 2002).

a basis for co-management at a bilateral level.<sup>106</sup> However, there is no parallel agreement between these two nations for the conservation of the common population of harp seals. Commentators have advocated for such an agreement to allow for a coordinated management of this species consistent with the precautionary principle.<sup>107</sup>

Although these co-management initiatives are important, and may contribute to an overall conservation program, they are currently piecemeal without coordination under a larger system of governance. Whaling also takes place by aboriginals not party to the three federal land claim agreements. The process for the cooperative management for these groups, however, has not been clearly defined.<sup>108</sup> Although complex, the marine mammal legislation and conservation programs could be developed consistently with both aboriginal constitutional rights<sup>109</sup> and the aboriginal way of life, as aboriginal subsistence use of marine mammals can occur in tandem with species conservation. By way of example, the United States has a strong national conservation policy and program in place for the protection of marine mammals in the USMMPA, and yet Alaskan natives maintain a substantial subsistence hunt.<sup>110</sup> Conservation and subsistence use can coexist, if based on a strong policy from both levels of government, and a commitment from both sides for integrated management.<sup>111</sup>

Canada has rich marine mammal diversity, and consequently, a correspondingly large responsibility to adequately protect and conserve these species. At least thirty-six cetacean species, and eleven pinniped species inhabit Canadian waters.<sup>112</sup> A number of these have been listed as endangered, threatened or vulnerable by COSEWIC.<sup>113</sup> Because the protection of biodiversity is a high international and national priority,<sup>114</sup> it

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106. Memorandum of Understanding between the Department of Fisheries and Oceans of the Government of Canada and the Ministry of Fisheries and Industry of the Greenland Home Rule Government on the Conservation and Management of Narwhal and Beluga (executed Dec. 7, 1989 in Copenhagen, Denmark) (on file with the *Ocean and Coastal Law Journal*).

107. D.W. Johnston et al., *An Evaluation of Management Objectives for Canada's Commercial Harp Seal Hunt, 1996-1998*, 14 CONSERV. BIOL. 729, 736 (2000).

108. Goodman, *supra* note 20.

109. Rights of the Aboriginal Peoples of Canada Act, ch. 11, § 35 (1982) (Can.).

110. Gambell, *supra* note 1, at 188-89.

111. Baur et al., *supra* note 4, at 81-82.

112. Lavigne, *supra* note 30, at Annex 1.

113. COSEWIC, *supra* note 8, at 7-14.

114. Evidenced by the number of nations that have signed and ratified the CBD and Canada's national biodiversity strategy; *see also* BIODIVERSITY CONVENTION OFFICE, MINISTRY OF THE ENVIRONMENT, CANADA BIODIVERSITY STRATEGY: CANADA'S RESPONSE TO THE CONVENTION ON BIOLOGICAL DIVERSITY (1995) [hereinafter BIODIVERSITY

is surprising that Canada has no comprehensive programs to study population status, the effects of habitat degradation, and other threats to marine mammals. In Australia, population inventories are a statutory requirement under the EPBCA,<sup>115</sup> and a part of Australia's commitment to the CBD and its own biodiversity strategy.<sup>116</sup> In Canada, certain stock assessments are undertaken to define quotas for the commercially harvested species, such as the harp seal.<sup>117</sup> Native management councils carry out abundance surveys of certain beluga stocks, but there is no survey carried out by Canadian authorities of the endangered Arctic bowhead population.<sup>118</sup> Such approaches will remain *ad hoc* without the guidance of a governing structure. With regard to both the species harvested for subsistence, and those not harvested at all, it would be difficult to determine the integrity of a species' population at this time due to the lack of information on synergistic effects of pollution, habitat degradation, ship collisions, and by-catch in the fisheries industry.

The incidental by-catch of marine mammals through the commercial fishing industry has been recognized as a conservation issue worldwide.<sup>119</sup> Recent studies have determined that more reliable data on incidental catches from all regions, including a process for continuous monitoring, are necessary to adequately evaluate the magnitude of impacts on pinniped and cetacean populations.<sup>120</sup> All of the jurisdictions under study, except Canada, have addressed the problem of by-catch through various statutes, and have made commitments to monitoring and minimizing the effects of by-catch.<sup>121</sup> Although implementation status varies in each jurisdiction,

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CONSERVATION OFFICE].

115. EPBCA, *supra* note 77, at cl. 172.

116. See generally Biodiversity Group, *The National Strategy for the Conservation of Australia's Biological Diversity* (1996), available at <http://www.ea.gov.au/biodiversity/publications/strategy/index.html> (last visited Sept. 29, 2001).

117. See ATLANTIC SEAL HUNT 2000 MANAGEMENT PLAN, *supra* note 25.

118. See Wildlife Management Advisory Council, *Wildlife Population Status Reports: Bowhead Whale (Balaena mysticetus)* (Nov. 1998), available at <http://www.taiga.net/wmac/researchplan/reports/bowhead.html> (last visited Sept. 29, 2001).

119. See generally Slooten & Dawson, *supra* note 48; see also INTERNATIONAL WHALING COMMISSION SCIENTIFIC COMMITTEE, GILLNETS AND CETACEANS, Special Issue 15 (W.F. Perrin et al. eds., 1994); see also Simon P. Northridge & Robert J. Hofman, *Marine Mammal Interactions with Fisheries*, in CONSERVATION AND MANAGEMENT OF MARINE MAMMALS 99 (John R. Twiss & Randall R. Reeves ed., 1999).

120. See THOMAS H. WOODLEY, & DAVID M. LAVIGNE, INCIDENTAL CAPTURE OF PINNIPEDS IN COMMERCIAL FISHING GEAR (INTERNATIONAL MARINE MAMMAL ASSOCIATION, INC. TECH. REP. NO. 91-01) (1991); see also Y. Morizur et al., *Incidental Catches of Marine Mammals in Pelagic Trawl Fisheries of the Northeast Atlantic*, 41 FISH. RES. 297, 297-98 (1999).

121. In the USMMPA, the United States can be seen as making a commitment toward

these national policies reflect a strong commitment toward addressing by-catch concerns.

*D. A Summary of Legislative Approaches  
to Marine Mammal Conservation*

The Canadian system can be described as being reactive rather than proactive. The study and conservation of marine mammals is concentrated primarily on species that are harvested and is aimed at ensuring maximum economic benefit. The system is not designed to study or anticipate potential population or ecosystem problems. In contrast, the U.S. legislation is proactive because conservation programs are *required* by legislation, and these programs are designed to detect problems at an early stage over a wide range of aspects, including population abundance and distribution, and habitat degradation. These programs are carried out by NMFS and the FWS, in consultation with the *independent* scientific body, the Marine Mammal Commission. This is a statutory body formed under the USMMPA.

In stark contrast, the Fisheries Act in Canada is discretionary with regard to marine mammal conservation, since rather than *requiring* action by the Minister, it allows the Minister to decide *if* action will be taken.<sup>122</sup> Because there is no guidance from the law, resources can be exploited without the full consideration of advice from the scientific community or the general public. However, an imperative tone is present throughout the USMMPA, such that the Secretary is *required* to take certain actions, and adhere to certain prohibitions, rather than being able to make discretionary decisions.<sup>123</sup> Thus, not only is the taking of marine mammals by humans regulated through the USMMPA,<sup>124</sup> which amounts to passive conservation, but the imperative tone makes the USMMPA a more powerful tool because it requires humans to work actively toward marine mammal conservation.

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working to obtain zero mortality for marine mammals within commercial fisheries operations. In Australia, the Fisheries Management Act of 1991 provides the legislative backing for reducing by-catch, and the Department of Agriculture, Fisheries and Forestry Australia (AFFA) includes in its policy objectives a commitment to reduce by-catch and to work cooperatively toward achieving this goal. In New Zealand, management plans set out the maximum allowable fishing related mortality, and this is regulated under the Fisheries Act of 1996. Also, codes of practice have been set up for certain fisheries in response to by-catch issues. In each of these jurisdictions, except Canada, the use of large-scale driftnets, which causes large numbers of marine mammal deaths, have been banned.

122. Fisheries Act, *supra* note 26.

123. USMMPA, 16 U.S.C. §§ 1371–89, 1412, 1421.

124. *See id.* §§ 1371–75.

This includes the requirement to undertake stock assessments for all marine mammal species,<sup>125</sup> take reduction plans to minimize marine mammal by-catch in the fishing industry,<sup>126</sup> and the requirement that the Marine Mammal Commission consult with the Committee of Scientific Advisors on Marine Mammals before making recommendations to government.<sup>127</sup>

Australia's EPBCA is very strong with regard to the conservation of cetaceans, and its related policy and program initiatives place Australia as a world leader in whale protection. The EPBCA is strong because, similar to the USMMPA, the tone is imperative, rather than discretionary.<sup>128</sup> But whereas the USMMPA is aimed more at general conservation, the EPBCA is specific and more preservationist in its approach regarding the protection of marine mammals.<sup>129</sup> The EPBCA may be easier to implement than the USMMPA, because it is less complex and more specific. Thus, this type of model, although it does not provide for the broad protection of the ecosystem in the same way as the USMMPA, may be more attractive to jurisdictions working toward the enactment of national marine mammal legislation.<sup>130</sup> Advocates of marine mammal harvest may deem this model less attractive because of its protectionistic approach.

Another significant power desirable in a well-drafted act for the protection of marine mammals and wildlife in general, is its ability to withstand a legal challenge. If the principles of a statute cannot be upheld by a court of law, it is not serving its intended purpose and may indicate a flaw in design. The strength of the USMMPA is illustrated in the numerous court cases that have been brought in which the USMMPA withstood legal challenge.<sup>131</sup> Built into the USMMPA is a requirement for public comment in management decisions.<sup>132</sup> Public comment is a significant strength in the system because the public is given the statutory right to voice concerns over, or support for, impending decisions.

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125. See *id.* § 1386.

126. See *id.* § 1387(f).

127. See *id.* § 1403(c).

128. EPBCA, *supra* note 76, cl. 172, 207A, 251, 269, 269A.

129. See EPBCA, *supra* note 76. For example, the EPBCA has specific sections devoted to the Great Barrier Reef Marine Protected Area and the Australian Whale Sanctuary, which requires detailed bioregional plans, surveys for cetaceans, threatened species, migratory species, and listed marine species, and lists those necessary parts for proper recovery and abatement plans. *Id.*

130. PATRICIA BIRNIE, LEGAL MEASURES FOR THE CONSERVATION OF MARINE MAMMALS 141 (1982).

131. See generally, Baur et al., *supra* note 4, at 48–81; see also Marc A. Yaggi, *United States v. Hayashi: Taking Aim at the Marine Mammal Protection Act*, 14 PACE ENV. LAW REV. 418, 418–20 (1996).

132. 16 U.S.C. § 1383(b).

The USMMPA is prescient in nature not only because it applies to waters beyond the United States, and activities by U.S. vessels everywhere, but also because it has recognized from its inception that marine mammals cannot be managed in isolation without considering the ecosystem in which they live and, more specifically, the habitat they depend upon.<sup>133</sup> In addition, the Pelly Amendment of the Fisherman's Protective Act<sup>134</sup> gives the President of the United States the power to threaten or impose trade sanctions against those nations not adhering to international conservation agreements for marine mammals.<sup>135</sup> The Fisherman's Protective Act has been used to send messages to other nations that international conservation agreements are to be taken seriously, and to promote cooperation from other nations.<sup>136</sup> For example, the United States threatened Canada with such trade sanctions over the 1996 eastern-Arctic bowhead hunt to make it clear that the United States does not agree with Canada's decision to refuse to comply with the IWC's whale conservation measures.<sup>137</sup> The message the Fisherman's Protective Act sends to non-compliant nations is clear. However, the ability to impose trade sanctions may be weakened by provisions of the World Trade Organization (WTO) and the Fisherman's Protective Act's requirement to comply with provisions of the WTO international trade agreement.

The NZMMPA also protects marine mammals from exploitation both within and outside of New Zealand waters, and applies to New Zealand citizens everywhere.<sup>138</sup> A weakness in the NZMMPA is that, unlike the USMMPA, it lacks an overarching management scheme.

### III. INTERNATIONAL CONVENTIONS RELATED TO MARINE MAMMALS

Many marine mammal species are considered endangered or vulnerable worldwide. Many are also migratory, and depend on habitats found in the jurisdictions of different nations. The effects of pollution, by-catch in fisheries operations, and habitat degradation on the long-term stability of populations is not known. Due to these issues, and because oceans and their resources are considered a global, cooperative responsibility of the

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133. *See id.* § 1372(a).

134. Fishermen's Protective Act of 1967, 22 U.S.C. § 1978 (2001).

135. *Id.*

136. *See* Steve Charnovitz, *Environmental Trade Sanctions and the GATT: An Analysis of the Pelly Amendment on Foreign Environmental Practices*, 9 AM. U. J. INT'L L. & POL'Y 751 (1994).

137. Ted L. McDorman, *Canada and Whaling: An Analysis of Article 65 of the Law of the Sea Convention*, 29 OCEAN DEV. & INT'L L. 179 (1998).

138. NZMMPA, *supra* note 34, at ch. 1.

United Nations, there is a further responsibility for individual nations to enter into international agreements for the protection of the marine environment, and specifically, marine mammals. Thus, several conventions relating to marine mammals have been developed.

*A. The International Convention for the Regulation  
of Whaling (ICRW)*

The original purpose of the ICRW was to provide for the "proper" conservation of whales and to "make possible the orderly development of the whaling industry."<sup>139</sup> Critics contend that the International Whaling Commission (IWC) is not acting in accordance with the intent of the ICRW and has become an anti-whaling body, influenced by politics rather than science.<sup>140</sup> However, societal values have changed since the ICRW's drafting in 1946, and now many nations are concentrating on non-consumptive uses of marine mammals, especially ecotourism.<sup>141</sup> Proponents of the whaling industry purport that commercial hunting is sustainable, and claim that the IWC cannot justify its moratorium on whaling.<sup>142</sup> However, given that commercial hunting is not necessarily the biggest present threat to whale populations and that not enough is currently known in many cases about the synergistic effects of the combined threats of pollution and fisheries interactions, let alone the biology of many species, the IWC can be said to be following the precautionary principle in maintaining the global moratorium.

Australia and New Zealand, both former whaling nations, are presently strong anti-whaling voices at the IWC, and both believe that even if it were scientifically shown that commercial whaling could be sustainable, they would not support it on moral and ethical grounds.<sup>143</sup> While the United States is committed to the continuance of a ban on commercial whaling, it strongly supports native subsistence whaling, in accordance with IWC guidelines.<sup>144</sup> A substantial subsistence hunt is carried out in Alaskan waters.<sup>145</sup> Aboriginal whaling is one of the most controversial issues on the

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139. ICRW, *supra* note 7, at Preamble.

140. See William Aron et al., *Flouting the Convention*, ATL MONTHLY, May 1999, at 22-24.

141. Lavigne et al., *supra* note 4, at 18.

142. Aron, *supra* note 140, at 24-25.

143. NATIONAL TASK FORCE ON WHALING, A UNIVERSAL METAPHOR: AUSTRALIA'S OPPOSITION TO COMMERCIAL WHALING, at Ch. 2 (1997); see also Cawthorn, *supra* note 4.

144. Message to the Congress on Canadian Whaling Activities, 33 WEEKLY COMP. PRES. DOC. 7 (Feb. 10, 1997).

145. Gambell, *supra* note 1, at 187.

IWC agenda.<sup>146</sup> Although Canada has withdrawn from the ICRW, it retains observer status at annual meetings, and Canadian scientists contribute to the work of the IWC's Scientific Committee.<sup>147</sup> However, with the recent resumption of aboriginal bowhead whaling in the north-eastern Arctic, Canada has been chastised by the IWC. In 1996, the IWC passed a resolution expressing concern about the renewed license to hunt the endangered Davis Strait/Hudson Bay bowhead, and encouraged Canada to rejoin the IWC if they maintained a continued interest in whaling; Canada has stated that it has no intention of returning to the IWC.<sup>148</sup> Pursuant to the Pelly Amendment to the Fisherman's Protective Act of 1967, the United States retaliated by threatening trade sanctions against Canada for not complying with an international conservation program by refusing to rejoin the IWC.<sup>149</sup>

*B. United Nations Convention on the Law of the Sea  
(UNCLOS)<sup>150</sup>*

Canada has signed, but not yet ratified UNCLOS, while Australia and New Zealand have both ratified the convention.<sup>151</sup> Although a signature to the convention does not impose legal obligations, it does create a good faith obligation to cooperate with the intent of the convention.<sup>152</sup>

The primary provision within UNCLOS regarding marine mammals is Article 65.<sup>153</sup> The wording of Article 65, based on a 1979 U.S. proposal,<sup>154</sup> states:

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146. PETER J. STOETT, *THE INTERNATIONAL POLITICS OF WHALING* 117 (1997).

147. Goodman, *supra* note 20, at 8.

148. Cassandra Phillips, *Discussions at the International Whaling Commission*, 26 ENVTL POL'Y & L. 215, 216 (1996). Canada left the IWC in 1982. *Id.* Canada has since advised the United States that it has no intention of returning to the IWC. Message to the Congress on Whaling Activities, 33 WEEKLY COMP. PRES. DOC. 7 (Feb. 10, 1997).

149. *See* Message to the Congress on Canadian Whaling Activities, 33 WEEKLY COMP. PRES. DOC. 7 (Feb. 10, 1997). Further, the United States has stated that Canada is in contravention of Article 65 of UNCLOS by not cooperating with the appropriate conservation organization. *Id.*

150. United Nations Convention on the Law of the Sea, Dec. 10, 1982, 21 I.L.M. 1261 (entered into force Jul. 28, 1994) [hereinafter UNCLOS].

151. A complete listing of ratifications, accessions, and successions to UNCLOS is available at [http://www.un.org/Depts/los/convention\\_agreements/convention\\_agreements.htm](http://www.un.org/Depts/los/convention_agreements/convention_agreements.htm) (last visited Apr. 18, 2002).

152. SIMON LYSTER, *INTERNATIONAL WILDLIFE LAW* 5 (Grotius Publications Ltd. 1985).

153. UNCLOS, *supra* note 150, at 1202. Article 120 extends the provisions of Article 65 to the conservation and management of marine mammals on the high seas. *Id.* at 1291.

154. McDorman, *supra* note 137, at 181.



Nothing in this Part restricts the right of a coastal State or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part. States shall cooperate with a view to the conservation of marine mammals and in the case of cetaceans shall in particular work through the appropriate international organizations for their conservation, management and study.<sup>155</sup>

A detailed analysis of Article 65 is important because the wording is vague and subject to multiple interpretations.<sup>156</sup> Use of the word "shall" in Article 65 places an explicit obligation on states to work through the appropriate international organization in all decisions affecting conservation. It does not allow a state to decide unilaterally when "working through" would be helpful for the conservation of a particular stock. However, the term "appropriate international organization" is not defined.<sup>157</sup> The United States interprets this term to mean the IWC,<sup>158</sup> while Canada interprets it to mean any international organization it decides upon, or the scientific body of such an organization.<sup>159</sup> Critics have described Canada's interpretations as defeating the objectives of Article 65.<sup>160</sup> With regard to the Arctic bowhead hunt, Canada has stated that it regards the IWC or the IWC Scientific Committee as the appropriate organization and asserts that it is fulfilling this obligation by contributing to the research of the Scientific Committee.<sup>161</sup> However, the IWC as a whole does not endorse such a hunt.<sup>162</sup> Others still have gone back to the ICRW text and pointed out that the convention applies to "all waters." Since no other whale organization has the international scope of the IWC, this reaffirms the intent of Article 65 that the IWC is the only "appropriate" organization.<sup>163</sup>

Similarly, the phrase "work through" is not intuitively clear from the text of UNCLOS. While there is a duty to cooperate, the extent of this duty is subject to interpretation. "Work through" could be interpreted to mean

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155. UNCLOS, *supra* note 150, at 1282.

156. See McDorman, *supra* note 137, at 179.

157. See UNCLOS, *supra* note 150, at 1282.

158. See Message to the Congress, *supra* note 144.

159. See Goodman, *supra* note 20. The government of Canada believes it meets Article 65 obligations by working within the Scientific Committee of the IWC. *Id.*

160. See *id.*

161. See McDorman, *supra* note 137, at 179.

162. See *id.*

163. GREENPEACE INTERNATIONAL, CETACEANS RECEIVE SPECIAL TREATMENT IN INTERNATIONAL LAW (1994).

either membership in the organization or participation in the organization. Canada opines that merely participating in the Scientific Committee fulfills its obligation.<sup>164</sup> This has been criticized as “reducing the ‘work through’ obligation to mere consultation,” which contravenes the good faith intent of Article 65.<sup>165</sup>

While the first sentence of Article 65 authorizes coastal states or international organizations to provide for stricter conservation measures than provided in Part V of UNCLOS, it does not require that states or organizations do so. Thus, the IWC has the discretion to impose stricter provisions than the ICRW may require.

### C. Agenda 21

The action plan, Agenda 21, was developed from the United Nations Conference on the Environment and Development (UNCED),<sup>166</sup> and builds on the premise that we need to take “a balanced and integrated approach to environment and development questions.”<sup>167</sup> Chapter 17 of Agenda 21 deals explicitly with ocean conservation and requires states to commit to the conservation of marine species under national jurisdiction.<sup>168</sup> This includes maintaining or restoring populations at “levels that can produce the maximum sustainable yield . . . taking into consideration relationships among species.”<sup>169</sup> Agenda 21 both encourages and promotes sustainable use, which could be interpreted by some to mean commercial, consumptive use. However, for whales, maximum sustainable yield (MSY) is thought to be between sixty and eighty percent of the *original* populations.<sup>170</sup> If these numbers are valid, then the IWC’s current moratorium on whaling is justified within the parameters of Agenda 21. Other requirements listed to achieve the obligations under Agenda 21 include the “development and use of selective fishing gear and practices” that reduce and “minimize by-catch of non-target species,” which implicitly includes marine mammals, and the protection and restoration of endangered marine species.<sup>171</sup> Thus, the Canadian government has not fulfilled its obligations under Agenda 21,

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164. McDorman, *supra* note 137, at 183.

165. *Id.*

166. *Report of the United Nations Conference on the Environment and Development*, U.N. Doc. A/CONF.151/26 (Vol. I) (1992) [hereinafter UNCED]. This conference is commonly known as the Rio Declaration. *Id.*

167. *Id.* at Preamble.

168. UNCED, *supra* note 166, at ch. 17.74 [hereinafter Agenda 21].

169. *Id.* at ch. 17.74(c).

170. GREENPEACE INTERNATIONAL, *supra* note 163.

171. Agenda 21, *supra* note 168, at ch. 17.74(a).

because Canada has no federal endangered species act and no national programs for reducing marine mammal by-catch within its fisheries.

Agenda 21 reiterates almost verbatim the wording of Article 65 of UNCLOS.<sup>172</sup> While Article 65 does not make clear which international organization is appropriate, Agenda 21 removes that doubt, stating that “[s]tates recognize: [t]he responsibility of the International Whaling Commission for the conservation and management of whale stocks and the regulation of whaling pursuant to the 1946 International Convention for the Regulation of Whaling.”<sup>173</sup>

#### D. *The Convention on Biological Diversity*<sup>174</sup>

Canada, Australia, New Zealand, and the United States have signed the Convention on Biological Diversity (CBD), but it has only been ratified by Canada, Australia, and New Zealand.<sup>175</sup> Canada, Australia and New Zealand have established national strategies for the protection and conservation of genetic, species, and ecosystem biodiversity. Australia’s EPBCA is a comprehensive, consolidated piece of modern legislation to aid in the protection and conservation of biodiversity, and includes comprehensive sections and provisions for cetaceans and other marine species.<sup>176</sup> Canada’s national biodiversity strategy focuses on terrestrial animals, avifauna, and fish species.<sup>177</sup> Noticeably lacking in Canada’s strategy is any mention of the protection of marine mammal biodiversity.

The CBD requires each party to the convention to develop national strategies, plans or programs, or to adapt existing ones for the conservation and sustainable use of biodiversity.<sup>178</sup> The CBD also suggests that, where possible and appropriate, initiatives should be integrated into relevant sectoral or cross-sectoral plans, programs, and policies.<sup>179</sup> Although not explicitly stated, it can be inferred as Australia has done, that plans, policies, and programs should include provisions for marine mammals, as they are an important social and biological contributions to the overall biodiversity of the marine environment. The Canadian Report of the

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172. *Id.* at ch. 17.75.

173. *Id.* at ch. 17.61.

174. CBD, *supra* note 17.

175. Parties to the Convention on Biological Diversity/Cartegena Protocol on Biosafety, available at <http://www.biodiv.org/world/parties.asp> (listing parties to the CBD) (last visited Apr. 6, 2002).

176. EPBCA, *supra* note 76, at § 225–66.

177. BIODIVERSITY CONVENTION OFFICE, *supra* note 114.

178. CBD, *supra* note 17, at Article 6.

179. *Id.*

Commissioner of the Environment and Sustainable Development criticized the Canadian government for being slow to make commitments to the 1995 national biodiversity strategy, and thus the provisions of the international convention.<sup>180</sup>

#### IV. RECOMMENDATIONS FOR LEGISLATIVE REFORM IN CANADA

The lack of guiding legislation and the current institutional structure are impeding the development of a framework for the conservation of marine mammals in Canada. Arguments that Canada is not fulfilling its 'good faith' obligations under Article 65 of UNCLOS, Agenda 21, and the CBD have been put forward.<sup>181</sup> However, obligations under international agreements have not yet been enough to cause Canada to renew its approach to marine mammal conservation. The following section outlines how the Canadian government could move toward establishing a comprehensive, enhanced system for the conservation of marine mammals.

The political climate in Canada surrounding marine mammals is influenced by the complexity of aboriginal hunting rights in Canada, in addition to the importance of the seal hunt and commercial fisheries industry to some native and coastal communities.<sup>182</sup> It is uncertain how aboriginal peoples would view new federal legislation for marine mammal conservation. For example, in the past, aboriginal peoples have been staunchly opposed to Canada potentially rejoining the IWC.<sup>183</sup> However, the concerns of aboriginal peoples need not be polarized from conservation concerns. Both perspectives can be adequately addressed within a carefully crafted piece of legislation cognizant of the fact that due to aboriginal constitutional rights, the federal government cannot effectively and harmoniously implement management without aboriginal support.<sup>184</sup> The political climate is also shaped by the importance the government places on the fisheries industry and seals. For example, harp, hooded, and grey seals, *Halichoerus grypus*, are often seen as competitors, rather than valuable

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180. See generally 1998 REPORT OF THE COMMISSIONER OF THE ENVIRONMENT AND SUSTAINABLE DEVELOPMENT, Ch. 4 (Can.), available at <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/menue.html> (last visited Apr. 16, 2002).

181. See generally McDorman, *supra* note 137.

182. David Lavigne, *Rights and Wrongs*, BBC WILDLIFE, Nov. 1997, at 40; see also Debora MacKenzie, *Seals to the Slaughter*, NEW SCIENTIST, Mar. 16, 1996, at 36.

183. Goodman, *supra* note 20, at 9.

184. CAN. CONST. pt. II. Under the Canadian Constitution, wildlife cannot be owned. Although the land where wildlife occurs belongs to aboriginals under particular land claim agreements, they do not have unilateral, legal authority over the wildlife itself. See *id.*

members of the ecosystem.<sup>185</sup> The government's current priority regarding ocean resources is development for industry use.

Various academics, scientists, and non-governmental organizations (NGOs) have been arguing, unsuccessfully, for a marine mammal act similar to that of the United States for many years.<sup>186</sup> Such an act would complement the USMMPA, and would enable Canada to fulfill its obligations under various international treaties. A marine mammal act would provide marine mammals with specifically-tailored legislation and regulations reflecting the large diversity and conservation requirements of marine mammals inhabiting Canada's three oceans. However, since the 1970s, Canada has enacted few laws to conserve its native flora and fauna, especially laws relating to a specific taxon, such as marine mammals. While a new Canadian marine mammal act is a conceivable option, it would likely continue to be unsuccessful given the current political climate and the government's reluctance to enact species-specific legislation. Moreover, it could contradict the intent of the OA.

The OA already allows for management and conservation of *all* inhabitants of Canada's oceans. The OA is modern legislation, which includes new principles of management that have not yet been embraced in other Canadian acts, such as the Fisheries Act or the Canada Wildlife Act.<sup>187</sup> The OA requires that a national oceans management strategy plan be developed using the principles of sustainable development, integrated management, and the precautionary approach. In general, the OA sets a new direction for Fisheries and Oceans Canada, and a new, separate act drafted solely for the protection of marine mammals could be counter-intuitive to the OA. The framework has been established within the OA that lends itself to the creation of a new section to the OA that protects marine mammal biodiversity. The following recommendations for legislative reform fit into the existing Canadian legislative system, and are derived from the legislation of the other jurisdictions.

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185. FISHERIES RESOURCE CONSERVATION COUNCIL, CONSERVATION COME ABOARD: 1996 CONSERVATION REQUIREMENTS FOR ATLANTIC GROUND FISH 2.2.3 (1995), available at <http://www.dfo-mpo.gc.ca/FRCC/conserv/conmain.htm> (last visited Apr. 6, 2002).

186. See Lavigne, *supra* note 30.

187. An Act respecting Wildlife in Canada, R.S.C., ch. W-9, (1985) (Can.). The Canada Wildlife Act is administered by the Department of the Environment and, although marine species are implicitly covered by the Canada Wildlife Act, issues surrounding aquatic species are deferred to Fisheries and Oceans Canada. *Id.*

### A. *The Main Components of a Revised OA*

Before the OA could gain legal priority as the act protecting marine mammals, an amendment to the Fisheries Act would be required. The definition of fish within the Fisheries Act would have to be amended to exclude its application to marine mammals. A new part to the Fisheries Act should explicitly indicate that marine mammals are excluded from the definition of fish. This would be consistent with other jurisdictions. The New Zealand Fisheries Act of 1983<sup>188</sup> (NZFA) specifies the classes of fish the NZFA applies to, and the Australian Fisheries Management Act of 1991 (AFMA) explicitly excludes marine mammals from the definition of fish.<sup>189</sup> The Marine Mammal Regulations presently existing under the Fisheries Act would have to be repealed, and instead promulgated under the OA.

A section within the OA dealing with biodiversity would have to include provisions for the protection of all marine species not covered by other legislation, and thus would include not only marine mammals, but other marine animals and marine plants. For the purposes of this paper only components relating to marine mammals are presented. The recommendations presented below are broad, and are not intended to cover every fine detail, or to suggest specific legislative wording. As these recommendations were designed to fit into the existing OA, each would also be valid if incorporated into a new marine mammal act.

#### **Recommendation 1**

- An independent advisory and scientific research body should be established, similar to the U.S. Marine Mammal Commission, to advise and oversee research programs relating to marine mammal conservation.
- Population assessments and continued monitoring should be required in the new legislation for all marine mammal species found in Canadian waters, and such legislation should state the amount of time for population assessments to be completed as is required under Australian legislation. The advisory body should help set up these programs, as well as other programs, to study the habitat requirements of marine mammal populations and the integrity of their existing habitats.

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188. Fisheries Act 1983–1990 (N.Z.) (by Parliamentary Counsel).

189. *See supra* note 36.

### Justification for Recommendation 1

- Because of the complex political situation in Canada regarding marine mammals, there needs to be accountability to an outside body to ensure that fisheries interests are not taking precedence over marine mammal conservation interests. This is successfully accomplished in the United States through the activities of the Marine Mammal Commission. Such a statutory body in Canada could provide a similar service. Setting up a framework and requirement for research programs within the legislation, rather than leaving them to the discretion of the Minister, also increases accountability.
- The Canadian government was advised to carry out regular monitoring of all seal stocks by the Royal Commission in their 1986 report.<sup>190</sup> The Commission also recommended that comprehensive research programs be designed to address all relevant issues, and that this information be used to adapt sealing management policies.<sup>191</sup> These recommendations have not been acted upon in the intervening fourteen years.

### Recommendation 2

- There should be provisions for species recovery plans under an amended OA for endangered or threatened migratory marine mammals not covered under the federal government's proposed SARA. This overlap is necessary because, although SARA requires recovery plans for native endangered and threatened wildlife, this requirement is not currently *explicitly* extended to migratory species. Recovery plans could be undertaken through an endangered marine mammal species program, authorizing on-going monitoring of species' population status. Both recovery plans and monitoring are required under Australia's EPBCA,<sup>192</sup> and the USMMPA also requires that recovery plans be undertaken.<sup>193</sup>

### Justification for Recommendation 2

- It was established earlier that multiple provisions in legislation can be beneficial for wildlife conservation. This technique is widely used throughout U.S. federal law, and is positively illustrated in the legislative overlap for endangered species between the USMMPA and the ESA.

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190. ROYAL COMMISSION, *supra* note 39, at 40.

191. *Id.* at 61.

192. EPBCA, *supra* note 76, at §§ 267–84. *See id.* at §§ 171–74.

193. 16 U.S.C. § 1533(f).

**Recommendation 3**

- The OA amendments should require that regulations be promulgated, and that these regulations include such practical provisions as which species can be legally taken, closure times, total allowable catches (TACs), and open hunting areas, all of which would be applicable to both commercial and subsistence hunters. Yearly harvest levels should be set according to the information provided in conservation and management plans, and should be subject to approval by the advisory body.

**Justification for Recommendation 3**

- This would provide a legislative basis for ensuring that quotas are set using reliable, updated information according to consistent criteria. The current criteria and methodology in Canada are inadequate to meet Fisheries and Oceans Canada's mandate to make management decisions according to the precautionary approach.<sup>194</sup>

**Recommendation 4**

- The commercial exploitation of any seal species should be subject to approval by the independent advisory body. If approval were granted, the terms of the hunt would be subject to a conservation plan, which would be developed by the advisory body, or scientific committee reporting to that body. This plan should include detailed, up-to-date stock assessments, including population abundance and distribution information, and should consider multiple ecosystem effects on seals, such as habitat degradation, pollution, and other mortality data (human-caused and otherwise), before being approved.
- The subsistence harvesting of any marine mammal species should also be subject to the preparation of a conservation plan to help ensure species protection, as well as, sustainable resource use and management.
- A general conservation plan should be completed for all marine mammal species inhabiting or migrating through Canadian waters that are not covered by a commercial or subsistence hunting plan.

**Justification for Recommendation 4**

- Currently, stock assessments are not carried out consistently for commercially exploited species, or for most subsistence harvested species. There is no systematic method in place for determining how

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194. D.W. Johnston et al., *supra* note 107, at 734–35.



specific populations are absorbing annual commercial or subsistence harvests at this time based upon all sources of natural and human-caused mortality<sup>195</sup>

- The status of all marine mammal populations, and associated threats, should be documented in a general conservation plan to assist in biodiversity protection under obligations to the CBD.

### **Recommendation 5**

- Management plans should be required in the new legislation for all species and populations that have been approved for commercial harvests under a conservation plan. These management plans would require annual approval and be subject to recommendations by the independent advisory body. Yearly TACs should be calculated based not only on those animals landed, but also those struck and lost through commercial harvest and mortality due to other activities such as incidental catch in commercial fisheries.<sup>196</sup>

### **Justification for Recommendation 5**

- Currently, Fisheries and Oceans Canada develops yearly management plans for the Atlantic seal hunt,<sup>197</sup> but this is not a legislative requirement and the plans are developed in-house without any requirement for outside approval or consultation. Consultation with the independent advisory body would help to balance any bias that may be present in the absence of such consultation.
- Provisions for determining TACs should be legislated and set according to the precautionary principle as defined in the OA and should be based on ecosystem-scale information, not simply on replacement yield, which is a single variable biological population model. Certain scholars argue that the current approach to harp seal management does not follow the principles of the precautionary approach.<sup>198</sup> Human-caused mortality currently exceeds replacement yield by a factor of up to 5.9, and because of this, the population is likely declining.<sup>199</sup>

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195. *Id.* at 734.

196. David M. Lavigne, *Estimating Total Kill of Northwest Atlantic Harp Seals, 1994–1998*, 15 MARINE MAMMAL SCI. 871 (1999) (stating that to rely solely on landings underestimates the total number of animals removed annually).

197. ATLANTIC SEAL HUNT 2000 MANAGEMENT PLAN, *supra* note 25.

198. D.W. Johnston et al., *supra* note 107, at 729.

199. *Id.*

**Recommendation 6**

- A legislative requirement should be promulgated for Fisheries and Oceans Canada to establish co-management schemes with all aboriginal managers for the study of the marine mammal populations subject to aboriginal hunting and for the effective management of marine mammal populations on the northern coasts and arctic regions. This should include provisions for harvest management plans to be developed for all areas where subsistence hunting occurs.
- In keeping with the principles of the OA, Fisheries and Oceans Canada should be authorized to enter into cooperative agreements with other federal and provincial ministries for the integrated management of marine resources.

**Justification for Recommendation 6**

- Fisheries and Oceans Canada already participates in co-management schemes in areas subject to land claim agreements, but this should be extended to all areas where aboriginal hunting of marine mammals occurs. Moreover, aboriginal peoples should be given legislative ground to participate actively in research and management decisions surrounding the use of marine mammals.
- Inter-agency cooperation under the auspices of the OA is already occurring with regard to MPAs between Canadian Heritage (Parks Canada) and Fisheries and Oceans Canada.<sup>200</sup> This precedent of cooperation over MPAs could be potentially extended to other aspects of marine mammal conservation, such as endangered marine mammal protection.

**Recommendation 7**

- A clear prohibition on the commercial hunting of all cetaceans in Canada should be formally proclaimed as in the USMMPA, the NZMMPA, and the Australian EPBCA. This prohibition could be framed so as not to affect aboriginal subsistence hunting rights as guaranteed in the Canadian Constitution and under land claim

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200. DEPARTMENT OF FISHERIES AND OCEANS, WORKING TOGETHER FOR MARINE PROTECTED AREAS: A NATIONAL APPROACH (1998), available at <http://www.dfo-mpo.gc.ca/oceanscanada/newenglish/library/wtogether/wtogeth.htm> (last visited Apr. 29, 2002).

agreements.<sup>201</sup> However, subsistence hunts should be carried out and managed in a sustainable manner.

### **Justification for Recommendation 7**

- Although whales are not currently hunted commercially in Canada, this prohibition would prevent the resurgence of a commercial hunt in the future if the IWC global moratorium on whaling were lifted, and would more clearly define Canada's position on commercial whaling. It would also serve to increase the degree of management efficiency between Canada and the United States where migratory species are shared between jurisdictions. Aboriginal hunting should not affect the conservation status of a population, and where possible, Fisheries and Oceans Canada should work with affected communities to ensure that any restrictions do not affect the ability of communities to meet their nutritional and cultural needs.
- To facilitate the prohibition on commercial whaling, an independent survey determining public attitudes and values regarding the protection and conservation of marine mammals, through legislation and other programs, should be undertaken and used to formulate policy. A report of the Royal Commission put forward a similar recommendation to use information gathered on public attitudes toward sealing to formulate management policies.<sup>202</sup> A recent survey undertaken by the Humane Society of the United States, revealed that seventy percent of those surveyed opposed commercial whaling, while ninety percent support the protection of marine mammals over the demands of the fishing industry.<sup>203</sup> However, the U.S. does not allow commercial marine mammal harvesting by non-natives. Thus, these figures could be higher than comparable figures for Canada, reflecting attitudes from the Atlantic communities.

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201. The IWC has limited the meaning of aboriginal subsistence whaling and use to local consumption to help communities meet their nutritional, subsistence, and cultural requirements. Items that are by-products of subsistence can be traded. See G.P. DONOVAN, INTERNATIONAL WHALING COMMISSION, INTERNATIONAL WHALING COMMISSION AND ABORIGINAL/SUBSISTENCE WHALING: APRIL 1979 TO JULY 1981, SPECIAL ISSUE 4, 79 (1982).

202. ROYAL COMMISSION, *supra* note 39, at 58.

203. Press Release, Naomi A. Rose, Marine Mammal Scientist, The Humane Society of the United States, Study Reveals American Perceptions of Marine Mammals (June 21, 1999) (discussing Stephen R. Kellert, *American Perceptions of Marine Mammals and their Management* (1999)), available at <http://whale.wheelock.edu/archives/info99/0069.html> (last visited Apr. 29, 2002).

**Recommendation 8**

- The taking of any marine mammal for scientific purposes should require a permit under the revised OA. Granting of permits should be made by the Minister on approval from the advisory body, after a required public comment period, and should be granted only where the research contributes to the conservation of the species.

**Justification for Recommendation 8**

- Requiring a permit for scientific purposes and the pronouncement of narrow criterion for allowable takes would allow for a strict system of monitoring the number of animals taken for conservation research. This also would not allow for animals to be taken for 'scientific purposes,' when that is not the real intention of the take, as can be seen within the Japanese scientific whaling program under the IWC. Currently, taking marine mammals for scientific research is regulated under the Fishery (General) Regulations,<sup>204</sup> and a licence is required. However, licences are granted at the complete discretion of the Minister.

**Recommendation 9**

- Marine mammal watching and tourism activities should be regulated through new legislation. New legislation should set out rules for tour operators, including how close vessels can get to a marine mammal, boat speed, boat size, the maximum number of boats in an area at once, and the maximum number of boats that may engage in whale-watching activities per season.

**Justification for Recommendation 9**

- Marine mammal tourism in Canada has increased drastically in size and value in the past fifteen years, and has remained essentially unregulated.<sup>205</sup> The whale-watching industry is now worth \$100 million to the province of British Columbia alone.<sup>206</sup> With this increase, however, concerns have been raised regarding potential harassment in the form of, *inter alia*, noise pollution, boat strikes, and changes in behavior and feeding patterns of whales. Fisheries and Oceans Canada recently announced plans to draft regulations to protect whales from commer-

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204. Fishery (General) Regulations, SOR/93-53 P.C., 1993-186 (Feb. 4 1993).

205. Kim Lunman, *Ottawa Aims to Save Whales From Those Who Love Them: Proposed Rules Would Restrict Whale-Watching Industry*, THE GLOBE AND MAIL, June 24, 2000, at A1. See also Lavigne et al., *supra* note 4, at 17.

206. Lunman, *supra* note 205, at A4.

cial whale-watching operations by imposing certain rules on tour operators.<sup>207</sup> These regulations will be proposed under the Fisheries Act. If amendments to the OA are undertaken, as recommended, the whale-watching regulations would be transferred to the OA.

### Recommendation 10

- A program to determine the extent and effects of marine mammal by-catch in the fisheries industry should be set up under the OA. This should be undertaken in cooperation with the fishing industry. Provisions added to the Fisheries Act should require fishers to report all incidental take, similar to New Zealand law;<sup>208</sup> could require that fishing methods and gear be appropriate for the species being fished; and could also require that efforts be made to minimize the incidental catch of marine mammals, similar to the USMMPA.<sup>209</sup> On-board, observer censuses, set up by the independent advisory body should also be undertaken to further effectuate these efforts.

### Justification for Recommendation 10

- Incidental by-catch is a serious threat to marine mammal conservation and not enough catch information is collected globally in order to make reasonable inferences as to long-term effects of by-catch. Since effects of by-catch are not fully understood, Canada should apply the precautionary principle by carrying out research on selective fishing gear and by conducting yearly censuses on by-catch. Government incentives to use such selective gear would make the approach more appealing to those within the industry.<sup>210</sup> All of the other jurisdictions under study here are beginning to require that this information be gathered and analyzed. Canada should not be the exception. In addition, the Royal Commission in 1986 recommended that the Canadian government work to decrease the amount of plastic marine debris found in the ocean and further conduct studies on the use of modified, selective fishing gear to decrease the hazards to marine mammals.<sup>211</sup>

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207. *Id.*

208. NZMMPA, *supra* note 34, at § 16. *See also* Fisheries Act of 1996 § 15 088 (N.Z.). The NZMMPA requires that fishers report accidental deaths and injuries and the Fisheries Act requires adherence to fishing-related mortality levels as set out in a population management plan. *Id.*

209. *See* 16 U.S.C. § 1387.

210. Slooten & Dawson, *supra* note 48, at 74.

211. ROYAL COMMISSION, *supra* note 39, at 56.

### *B. The Institutional Structure of a Revised OA*

Implementation of many of these legislative changes would prove difficult under the existing structure of Fisheries and Oceans Canada. The establishment of sub-agencies within Fisheries and Oceans Canada, similar to the United States model, is recommended. To this end, a Marine Mammal Conservation Division should be set up to effectuate the various programs set out in the recommendations. The Royal Commission recommended in 1986 that to make management more effective, responsibility for seals should be transferred to a "section of the Department of Fisheries and Oceans [*sic*] separate from those directly concerned with fisheries."<sup>212</sup> This would alleviate the conflict of interest that would arise if the main branch of Fisheries and Oceans Canada, whose top priority is management of commercial fisheries, were to continue responsibility for marine mammal conservation. Creation of a MPA Division would enhance administration of marine protected areas established under the OA and would facilitate the development of management plans and policies regarding these MPAs. The MPA Division could work cooperatively with Parks Canada in the development and implementation of a national MPA strategy. The Canadian government has even suggested that the creation of a new institutional arrangement and the integration of existing management would be beneficial.<sup>213</sup> A publication of the Canadian government notes that coordination among government departments, agencies and advisory bodies is important to promote integrated management, as required under the OA, and that new institutional arrangements could further facilitate this integration.<sup>214</sup>

## V. CONCLUSION

The absence of comprehensive conservation programs for the protection of Canada's marine mammals relates to the reluctance of the federal system of governance to establish programs or work towards new legislation. Conservation of marine mammals is compromised by the absence of appropriate legislation, but without the necessary political commitment, it will be difficult to envisage the passing of new legislation.

The continued definition of marine mammals as fish under the Fisheries Act is an impediment that makes little sense both biologically and for management purposes and only perpetuates the belief that marine

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212. *Id.* at 61.

213. DEPARTMENT OF FISHERIES AND OCEANS, *supra* note 89, at 13.

214. *Id.*

mammals are sufficiently legislated in Canada. A change in philosophy is required and the strong conservation principles and provisions laid out in the OA represent a way to guide this change.

The above-noted recommendations will require substantive changes in institutional structure of Fisheries and Oceans Canada. The recommendations will necessitate fiscal reworking and cooperation from other ministries, such as Canadian Heritage and Environment Canada. A final recommendation would be that the government host a series of workshops involving relevant stakeholders, including scientists, NGOs, members of industry, and aboriginal managers to achieve an integrated ecosystem-based solution as required under the OA.<sup>215</sup> Canada needs to follow the initiatives of the United States, Australia, and New Zealand by promulgating specific legislation for the protection and conservation of marine mammals, and also work toward implementing domestically its obligations under international agreements relating to marine mammals.

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215. Lavigne, *supra* note 30, at 3.