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Review of shark legislation in Canada as a conservation tool

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ABSTRACT

Sharks are threatened from overfishing due to their life cycle biology, and unsustainably high catch rates to supply fins for shark fin soup. Canada, a leader in shark conservation uses numerous legislative tools to help conserve sharks. These tools include international treaty obligations under the Northeastern Atlantic Fisheries Organization [NAFO] and the International Commission for the Conservation of Atlantic Tuna [ICCAT], as well as national and provincial legislation including the Fisheries Act, Pacific and Atlantic Fisheries Regulations, and Coastal Fisheries Protection Act. Through the use of these legislative tools Canada has successfully banned shark finning in its waters, and implemented closed seasons, gear restrictions, and species restrictions to help manage shark populations. However, Canada still allows the sale of shark fin products locally, and allows the exportation of shark fins internationally. In order for Canada to maintain its leadership status Canada must increase legislative protection of sharks by following international best practices, and ban the sale and exportation of shark fin products. This would ensure that Canada does not play a role in global supply or demand of shark fins. Doing so would strengthen Canada's position as a leader in shark conservation, and improve the legislation currently used as a conservation tool.

1. Introduction

Sharks are currently threatened from overfishing[1,2,3] caused by high demand for fins from Asian markets for shark fin soup.[4,5,6] This high demand led to an estimated 97–267 million sharks being killed in 2010, as calculated by Boris Worm, et al., at Dalhousie University.[7] This rate causes worry as many shark populations are currently in decline,[8,9] and sharks are vulnerable to population decline from overfishing.[10]

Sharks evolved 400–450 million years ago[11,12] and are one of the oldest extant vertebrate taxonomic groups in the world.[13] Sharks have had great evolutionary success and are found in all oceans. Their evolutionary diversity and established time in the ocean has led many shark species to become apex predators[14,15] maintaining ecosystem balance. Other species of sharks are scavengers, feeding on dead, sick or otherwise weaker animals, also playing an important role maintaining ecosystem health.[16] The

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[1] Worm, Boris, Davis, Brendal, Kettemer, Lisa, Ward-Paige, Christine A., Chapman, Demian, Heithaus, Micheal R., Kessel, Steven T., Gruber, Samuel H., Global catches, exploitation rates, and rebuilding options for sharks. Marine Policy, vol. 40, 2013, p. 194 [31].

[2] Herndon, Andrew, Gallucci, Vincent F., DeMaster, Douglas, Burke, William, The case for an international commission for the conservation and management of sharks (ICCMS). Marine Policy, vol. 34, 2010, p. 1239 [14].

[3] Brendal, Davis, Boris, Worm, The international plan of action for sharks: how does national implementation measure up? Marine Policy, vol. 38, 2013, p. 312 [10].

[4] Erika, Techera, Natalie, Klein, Fragmented Governance: reconciling legal strategies for shark conservation and management. Marine Policy. vol. 35, 2011, p. 73 [25].

[5] Herndon, *supra* note 2, at 1240.

[6] Boris et al., *supra* note 1 at 194.

[7] *Ibid* at 197.

[8] Davis and Worm, *supra* note 3.

[9] Techera, *supra* note 4 at 73.

[10] Nicholas K Dulvy, Julia K Baum, Shelly Clarke, Leonard J.V. Compagno, Enric Cortes, Andres Domingo, Sonja Fordham, Sarah Fowler, Malcolm P. Francis, Claudine Gibson, Jimmy Martinez, John A Musick, Alen Soldo, John D. Stevens and Sarah Valenti, "You can swim but you can't hide: the global status and conservation of oceanic pelagic sharks and rays" (2008) 18 Aquatic Conservation: Marine and Freshwater Ecosystems. 459 at 460 [11].

[11] Techera, *supra* note 4 at 73.

[12] Worm et al., *supra* note 1 at 194.

[13] *Ibid* at 194.

[14] *Ibid* at 73.

[15] Aurelie Cosandey, Godin, Boris, Worm, Keeping the Lead: How to strengthen Shark conservation in Canada. Marine Policy, vol. 34, 2010, p. 995 [13].

[16] Techera, supra note 4 at 73.

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loss of sharks from our oceans would have unpredictable consequences, as the loss of apex predators and scavengers causes ecosystem disruption.[17,18]

Sharks are severely threatened by overfishing because of their life cycle biology.[19] Sharks are slow to reach sexual maturity, have long gestation periods, only produce a few offspring at a time and live long lives.[20,21,22] This makes them susceptible to overharvesting, like marine mammals or turtles.[23,24] The loss of one animal can have a large impact on the population through the loss of future offspring.[25] In 2009, the International Union for the Conservation of Nature (IUCN) stated that 32% of pelagic shark species are at risk of extinction from over-fishing.[26] Additionally the IUCN lists over half of the shark species found in Atlantic Canada as threatened, vulnerable or, endangered, and all are considered vulnerable to extinction.[27]

Numerous countries and international organizations are using legislative and management tools to protect sharks. Canada is currently considered a leader in shark conservation,[28] however there is room for improvement. Canada has banned shark fining in its waters[29] and restricted commercial and recreational shark fishing.[30,31,32] However, Canada still allows shark fins and shark fin products to be sold.[33] In order for Canada to improve its shark conservation and maintain its leadership status Canada must update its legislation to reflect international best practices, and should ban the sale of shark fins locally, and exportation of shark fins internationally to counter shark finning from a supply and demand angle.

2. Review of Canada's Legislation

2.1. International shark conservation initiatives Canada partakes in

Sharks are protected through numerous international organizations. Some of theses bodies have been given authority in Canada through treaty obligations and legislation. The United Nations Food and Agriculture Association, created the International Plan of Action for Sharks [IPOA-Sharks] in 1999.[34] The IPOA-Sharks is a voluntary framework, which asks countries to manage and conserve sharks in their waters through the creation of a National Plan of Action for Sharks [NPOA-Sharks]. The United Nations asks that the NPOA-Sharks prioritizes conservation and proper management. The NPOA-Sharks should monitor catch and by-catch numbers, protect critical habitat, and monitor local and migratory populations. Furthermore the plan should be updated every four years to improve management by keeping the NPOA up to date.[35]

Canada elected to join this front, and created an NPOA-Sharks in 2007.[36] Canada's NPOA-Sharks relies heavily on the precautionary approach and ecosystems management for improving conservation. Canada's NPOA-Sharks provides background information on sharks found in Canadian waters and lists the legislation that governs them. The NPOA-Sharks also outlines Canada's plans to increase reporting for shark by-catch, and increase public education about sharks.[37]

The NPOA-Sharks successfully addresses most of the criteria mandated by the UN, but has room for improvement. Davis and Worm write that Canada's NPOA-Sharks does not address or promote using the compete shark carcass, or reducing shark by-catch (another factor inhibiting shark survival). Furthermore Canada did not updated its plan in 2011 after the recommended four years suggested by the UN, and are criticized for this as well.[38]

Other international shark conservation efforts can be seen with CITES. CITES—the [8] creates a trade ban. Member countries who chose to join CITES sign agreements to restrict the trade of CITES protected species.[39] In 2002 CITES protected Basking, Whale and White Sharks.[40] In September 2014 five additional species, Oceanic White Tips, Scalloped Hammerhead, Great Hammerhead, Smooth Hammerhead and Porbeagle Sharks, were added to the list, increasing the number of protected shark species [41,42]

Canada gave CITES authority through WAPRITA—The Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act.[43] WAPRITA currently protects any animal listed by CITES from international and interprovincial trade under s.6 and s.8.[44] WAPRITA/CITES is beneficial for shark conservation because it reduces demand and therefore catch of protected species by making them worthless in a legal economy. However this can also have negative effects. By reducing the global supply of shark fins black market prices could increase, which in turn could motivate poachers. Furthermore WAPRITA does not address catch or by-catch of its protected species, leaving additional gaps in its protection.

The International Commission for the Conservation of Atlantic Tuna [ICCAT] also concerns itself with shark conservation, and in 2004 banned shark finning.[45] ICCAT's regulations state that shark fins must not weigh more than 5% of the shark bodies found on

[17] Worm et al., supra note 1 at 201.
[18] Godin, supra note 14 at 995.
[19] Herndon, et al., supra note 2 at 1239.
[20] *Ibid* at 1239.
[21] Techera, *supra* note 4 at 73.
[22] Dulvy, et al., *supra* note 10 at 360.
[23] Herndon, et al., *supra* note 2 at 1239.
[24] Worm, et al., *supra* note 1 at 194.
[25] Herndon, et al., *supra* note 2 at 1239.
[26] IUCN, Third of open ocean sharks threatened with extinction. IUCN International News Release, 25th June, 2009. Online IUCN: http://www.iucn.org/?3362/Third-of-open-ocean-sharks-threatened-with-extinction [15].
[27] Davis and Worm, *supra* note 3 at 312.
[28] Godin *supra* note 15 at 34.
[29] Worm et al., *supra* note 1 at 194.
[30] Species at Risk Act, SC 2002, c 29. [SARA] [24]
[31] Pacific Fisheries Regulations, 1993, SOR/93-54. [PFR] [22].
[32] Atlantic Fisheries Regulations, 1985, SOR/86-21. [AFR] [2].
[33] Davis and Worm, *supra* note 3 at 314.
[34] United Nations Food and Agriculture Association, *International Plan of Action for Sharks*, United Nations: Rome, Italy, 1999 [26].
[35] *Ibid.*
[36] Communications Branch, Fisheries and Oceans Canada. *National Plan of Action for the Conservation and Management of Sharks*, (Government Canada, 2007). Online: http://www.dfo-mpo.gc.ca/npoa-pan/npoa-pan/npoa-sharks_e.pdf [Canada NPOA-Sharks] [7].
[37] *Ibid.*
[38] Davis and Worm, *supra* note 3 at 313.
[39] "What is CITES" online: http://www.cites.org/eng/disc/what.php [28].
[40] Convention on International Trade in Endangered Species of Wild Fauna and Flora, *Text of the Convention Appendices*, Appendix II. (Switzerland:Convention on International Trade in Endangered Species of Wild Fauna and Flora) [8].
[41] *Ibid*.
[42] Juan Carlos Vasquez CITES Getting Ready for Sharks and Rays. Convention on International Trade in Endangered Species of Wild Fauna and Flora 14 September, 2013. Online CITES: http://www.cites.org/eng/news/pr/2013/20130914_shark_ray.php [27].
[43] Wild Animal and Plant Protection and Regulation of International and Interprovincial Trade Act, SC 1992, c 52 [29].
[44] *Ibid* at S.6 and S.8.
[45] International Commission for the Conservation of Atlantic Tuna, Recommendation by ICCAT Concerning the conservation of sharks caught in association with fisheries management by ICCAT International Commission for Conservation of Atlantic Tuna (October 2004). Online: http://www.iccat.es/Documents%5CRecs%5Ccompendiopdf-e%5C2004-10-e.pdf [16].