

Conservation: The Past, Present and "Future of the IWC"

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Introduction

In the almost seven decades since its inception, the International Whaling Commission (IWC) has continually evolved. In addition to regulating the whaling operations of its 89 Member Nations, the IWC has grown into one of the preeminent bodies for cetacean science and research, including comprehensive assessments of whale stocks, development of the Revised Management Procedure (RMP), establishment of whale sanctuaries, and development of standards for whale watching operations. It has worked to fill the information void beyond that of the great whales, by conducting work on small cetaceans as well. The IWC has also made great strides in addressing threats to the conservation of cetacean stocks beyond that of whaling, including bycatch, ship strikes, climate change and pollution. *This* is the "Future of the IWC": a multilateral environmental agreement focused on the conservation of the world's cetaceans, ensuring that fully recovered populations of all cetacean species occupy their historic range and fulfill their role in maintaining the integrity of ocean ecosystems.

In 2003, at its 55th Annual Meeting, the IWC voted to establish a Conservation Committee with the adoption of Resolution 2003-1, "The Berlin Initiative on Strengthening the Conservation Agenda of the International Whaling Commission." The establishment of the Conservation Committee is fully consistent with the first objective of the International Convention for the Regulation of Whaling, namely "recognizing the interest of the nations of the world in safeguarding for future generations the great natural resources represented by whale stocks", as well as with the overwhelming part of the work devoted by the Commission to that objective during the previous 25 years. Much has been achieved; see below some examples of the IWC's conservation achievements of the past, present and future.

Long Standing: Western North Pacific Gray Whales

Since 2001, the IWC has adopted three Resolutions on the Western North Pacific gray whale, making recommendations to mitigate the impacts of bycatch, and oil and gas development on this critically endangered whale near its feeding grounds off Sakhalin Island in the Russian Far East.

In 2001, the Scientific Committee reported that the population was at less than 100 whales with only 12 adult females bearing calves. Since that time, and following the IWC's call to range states and others to actively pursue all practicable actions to eliminate anthropogenic mortality and to minimize anthropogenic disturbances in the migration corridor and on their breeding and feeding grounds, the population of Western gray whales appears to have increased.

In 2005, the IWC further called upon "all organizations, range states, authorities, scientists and other stakeholders concerned with developments in the waters around Sakhalin Island to support the efforts to develop a framework for collaborative research, monitoring and mitigation efforts between oil companies, independent experts, national programs and authorities and the IWC and other intergovernmental organizations, and that they share all relevant data collected." However, the situation remains grave, as the

population includes probably fewer than 30 reproductive females, and one population model found that a hypothesized additional death of just one female whale per year could drive the population to extinction before 2050.

Whilst the Western gray whale remains critically endangered, several measures have been undertaken to minimize risk of extinction – in part driven by the international attention to the issue generated by the IWC and others. In one of the largest oil and gas operations in the vicinity of Western gray whale feeding

habitat (Sakhalin II) a major pipeline was rerouted to avoid the feeding area, and the company is contractually obliged to adhere to the recommendations of a body of biologists, convened by the International Union for the Conservation of Nature (IUCN), who provide scientific advice and recommendations on the company's operations in terms of their impact on Western gray whales (the Western Gray Whale Advisory Panel, WGWAP). The WGWAP has become an excellent model of how



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independent scientists can work together with business and industry to minimize their impacts on conservation-dependent species.

In addition, the Government of Russia recently imposed a regulation that will require developers in a new oil exploration block to conduct activities only from late November to late May, when the whales are away from their summer feeding grounds. However, the new regulation applies to only one section of the waters surrounding Sakhalin Island, while numerous companies have active projects in other areas close to the whales' feeding habitat.

Clearly, IWC efforts and pressure over the last decade have benefited the Western gray whale, but just as clearly, more needs to be done to ensure their recovery and a sustained engagement from the IWC will continue to be required.

Long Standing: Vaquita

In 1978, the IUCN listed the vaquita as "vulnerable," in 1990 as "endangered," and in 1996 as "critically endangered." Today, population estimates for this rapidly vanishing species are around only 245.

Since 1991, the Scientific Committee has recommended decisive action to eliminate vaquita bycatch and prevent extinction and the Mexican government has responded strongly. It established the Upper Gulf of California and Colorado River Delta Biosphere Reserve, established a gillnet-free vaquita refuge, and implemented an acoustic monitoring program.

To build on these efforts, the IWC agreed to a resolution (2007-5) at IWC59 to encourage even stronger action. In 2008, the Scientific Committee noted that if the current mortality due to bycatch continued, it was likely that the vaquita would be extinct within five years or less. It recommended the immediate removal of all gillnets from the upper Gulf of California and encouraged the international community to assist the Government of Mexico in this task. From 2006 to 2011, the Mexican Government has invested over USD \$50 million in a vaquita recovery plan. The Mexican Government's plan includes technical assistance to fishermen willing to change to alterative vaquita-friendly fishing gear and methods, alterative livelihood opportunities for fishermen who surrendered their gear and licenses, compensation to all fishermen in the Upper Gulf for respecting the vaquita refuge, as well as science and enforcement. To date, about 250 vessels have been bought out and about 160 have changed their fishing gear.

The vaquita continues to teeter on the brink of extinction, but it is *not* extinct. Thanks to the extraordinary efforts of the Government of Mexico, with the support of government and non-government partners, a future for the vaquita may now be possible.

Present: Ship Strikes

In 2005, the Conservation Committee agreed to initiate work to make progress on the issue of whales being killed or injured by ship strikes. Ship strikes are a growing threat to whale populations across the globe, and can also cause significant damage to vessels and injury to passengers. To address this problem, the IWC has established the Ship Strikes Working Group, which is making significant progress in quantifying the problem and developing mitigation measures.

Collisions are not only an issue for individual whales, but can also be a serious problem at the population level when the number of collisions is so high that it affects the population's status. In order to understand the full impact of ship strikes, robust information is needed on the number of animals struck in a population and the total number of animals in the population. This, combined with information on cetacean habitat use and vessel routes, informs priority setting for effective mitigation measures.



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To fill the information gap on ship strikes, the IWC developed a standardized global database of collisions between vessels and whales. The objective of the database is to obtain more accurate estimates of the incidence of mortality and injuries, to help detect trends over time, to allow better modeling of risk factors (e.g. vessel type, speed, size), and to identify high risk or unsuspected problem areas. Much work has been done to raise awareness of the database and its utility, and as of 2010, the Ship Strikes Summary Data Table contained over 1,000 entries.

In September 2010, the IWC, in partnership with ACCOBAMS (Agreement on the Conservation of Cetaceans in the Black Sea Mediterranean Sea and Contiguous Atlantic Area), held a ship strikes workshop. The workshop developed a two-year work plan for consideration by the IWC, ACCOBAMS, the International Maritime Organization (IMO) and others. It also developed scientific and conservation recommendations, highlighting six areas as priorities for collecting data to allow improved risk assessments and mitigation of ship strikes, as well as recommendations to improve reporting of ship strikes

Perhaps most notably, ship strikes are now part of IMO's work program, thanks to a core group of IWC Members at the 57th Marine Environment Protection Committee (MEPC) meeting in 2008. At the 58th MEPC meeting, a guidance document was presented by the United States which proposed a number of ship strike reduction measures including amendments to traffic separation schemes, creation of areas to be avoided, speed reduction, mandatory ship reporting systems, onboard observers, notices to mariners and detection systems.

Additionally, IMO development of a mandatory code for ships operating in polar waters (the "Polar Code") provides an important opportunity to minimize the risk of ship strikes in two of the most important habitats for cetaceans worldwide - the Arctic and the Antarctic.

Future: Ocean Noise

All marine mammals, most fish species and even many invertebrates depend on sound to survive. Sound is so important in the ocean because vision is limited in the darkness of the deep sea where sound travels fast, far, and efficiently. Whale noises have been known to be heard hundreds - even thousands - of miles from their source.

Underwater noise pollution, introduced into the ocean as a byproduct of shipping, industrial activities such as seismic testing during oil exploration, marine construction or military activities, is showing signs of damaging the hearing of marine animals as well as disrupting migratory routes, feeding and breeding grounds that are key to their survival.

Hearing loss in marine animals is categorized as temporary or permanent, but because of the crucial role sound plays – particularly for cetaceans – even a temporary loss can prove extremely dangerous.

This "fog" of anthropogenic noise is making critical behaviors – like navigating, finding food, finding a mate, and avoiding predators – more difficult, if not impossible. Industrial sounds can "mask" or drown out the sounds animals use to communicate or avoid danger. Because cetaceans have such complex and sensitive hearing, they are particularly at risk.

It is likely that in future it will become necessary to implement noise standards for seagoing vessels, as is already the case for road vehicles and aircraft. Since international law limits the scope of unilateral measures, it will be necessary for the relevant international organizations, such as IWC, IMO and the International Organization for Standardization (ISO), to work together to promote the development of international standards for marine noise.

The Scientific Committee has recently begun to address anthropogenic noise, as has the IMO, but the Conservation Committee could further that work by developing recommendations for how the IWC might focus on the sources of noise of most potential impact on cetaceans, in terms of frequency, intensity, location, timing and other factors, and to ensure that the specific vulnerabilities of cetaceans are taken into account in the development of approaches to monitor and limit marine noise. The Conservation Committee could also facilitate development of best practices for mitigating, if not eliminating, impacts.

Conclusion

This paper highlights just a few of the many conservation issues on which the IWC is driving important outcomes, through its Scientific Committee, Conservation Committee and the Commission itself. Other important work includes whale watching, bycatch, pollution, climate change, small cetacean conservation and the development of Conservation and Management Plans for particularly threatened species. Conservation work continues to grow in the IWC, and the last intersessional period has been particularly active, with several major workshops on conservation issues, including a whale watching workshop, a joint IWC-ACCOBAMS ship strikes workshop and a workshop on the impacts of climate change on small cetaceans. Plans are also underway for a workshop on anthropogenic impacts on cetaceans in the Arctic.

The cetaceans of the world, from the tiny vaquita to the great blue whale, face a raft of current and future threats. Addressing these threats and ensuring a viable future for these animals are aspirations that can be shared



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by all Member Nations of the IWC. Conservation benefits people and communities who depend on cetaceans for their livelihoods or for subsistence purposes; it benefits the marine ecosystem; and it benefits the whales, dolphins and porpoises that play crucial roles in those ecosystems... *This* is the "Future of the IWC."

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