In the 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, 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 made great strides in addressing threats to cetaceans, including by-catch, 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 International Convention for the Regulation of Whaling, which recognizes “the interest of the nations of the world in safeguarding for future generations the great natural resources represented by whale stocks.”

This document outlines some of the long standing, emerging, and proposed future conservation achievements of the IWC.
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 since the IWC’s call to range states and others to actively pursue all possible 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. However, at possibly fewer than 130 animals today, western gray whales are still failing to recover from the declines of previous whaling to the extent seen by many other whale populations worldwide. The situation remains grave, as the population includes probably fewer than 26 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.

However, 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 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) has become an excellent model of how independent scientists can work together with business and industry to minimize their impacts on conservation-dependent species.

In addition, the Government of Russia in 2011 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. There are presently two project expansions planned around Sakhalin that could severely impact the whales – a third platform at Sakhalin II adjacent to the shallow feeding area, and an additional platform to be constructed by Exxon this summer, adjacent to the offshore feeding area.

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.

VAQUITA

In 1978, the IUCN listed the vaquita as “vulnerable,” in 1990 as “endangered,” and in 1996 as “critically endangered.” In 2008, population estimates for this rapidly vanishing species were around only 245, and under the current bycatch rate, today the vaquita population is thought to be fewer than 200 individuals.
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 a strong 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 $30 million in a vaquita recovery plan. The Mexican Government’s plan includes technical assistance to fishermen willing to change to alternative vaquita-friendly fishing gear and methods, alternative 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 303 vessels were bought out and about 224 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, if a complete ban of gillnets throughout the vaquita’s range is declared and enforced.

**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 considerable 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.

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.

The Belgian Ministry of Environment produced a guide on ship strikes with whales. The guide, which is available in six languages, includes advice for mariners to reduce the risk of collisions with whales and provides a link to the ship strikes database. The main audiences for the guide are ship strikes contact points, whale stranding networks’ coordinators, and maritime authorities.
In September 2010, the IWC, in partnership with ACCOBAMS (Agreement on the Conservation of Cetaceans of 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 the work of a core group of IWC Contracting Parties 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.

Emerging

MARINE DEBRIS

Marine debris is quickly becoming one of the most pervasive pollution problems facing our oceans today, and is one of the newest standing agenda items of the Conservation Committee. Whether pieces of shiny plastic that resemble fish or stray fishing nets, marine debris is a significant threat to cetaceans, who may either ingest them or become entangled and drown.

The critical nature of marine debris is slowly being recognized, and the Honolulu Commitment (agreed in Honolulu, Hawaii in March 2010), solidifies the need for action. The Commitment, agreed by 440 participants from 38 countries including representatives from government and major industries, encouraged the sharing of best practices and transfer of knowledge on prevention, reduction and management of marine debris, and highlighted the need for collaborative partnerships to develop technical, legal, policy, community-based and economic/market-based solutions.

The IWC will be a key partner in this work, as the impacts of marine debris on cetaceans are severe and the knowledge of experts and Contracting Parties of the IWC can greatly contribute to further understanding of the impacts of marine debris on cetaceans, and to the development of appropriate solutions.

Future

OCEAN NOISE

All marine mammals, most fish species and even many invertebrates depend on sound to survive. Sound is particularly 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. 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 greatest 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. These goals could best be accomplished through an Ocean Noise Working Group established under the auspices of the Conservation Committee.

Since international law limits the scope of unilateral measures, it will be necessary for the relevant international organizations who are already working to address the issue, such as IWC, the International Maritime Organization (IMO), ACCOBAMS, ASCOBANS1 and the UN General Assembly, to work together to promote the development of international standards for marine noise.

CONCLUSION

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 by all Contracting Parties of the IWC. Cetacean 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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