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Perspective | Important Marine Mammal Areas come of age: Identified sites are now leading to real protections

By Erich Hoyt

Editor's note: Erich Hoyt is co-chair of the IUCN Marine Mammal Protected Areas Task Force with Giuseppe Notarbartolo di Sciara.

For the past four years, a core group of the IUCN Marine Mammal Protected Areas Task Force has dedicated its time to launching a new tool leading to MPAs and other spatial conservation solutions. Called Important Marine Mammal Areas (IMMAs), this tool highlights areas that are important for one or more marine mammal species, and which have the potential to be managed for conservation.

IMMAs are modeled after Important Bird and Biodiversity Areas (IBAs) but with criteria specially tailored to marine mammal species. Marine mammals, of course, include 90 species of whales, dolphins and porpoises; 35 species of seals and sea lions; plus sea otters, manatees, the dugong, and the polar bear. These popular megafauna — champion swimmers and divers tethered to the surface by their need to breathe air — are ideal indicators of the biodiversity and health of the vast ocean.

Part of our job has been pulling together intensive week-long international workshops with groups of 20-40 scientists at a time, who bring their expertise and knowledge to the task of defining candidate IMMAs (cIMMAs) in a particular region. These cIMMAs are then formatted for an independent review panel. After a lot of back and forth, the panel approves some of the candidate sites as full IMMAs, and these are then placed on the IMMA e-Atlas. (The cIMMAs that lack sufficient evidence to support one or more IMMA criteria typically acquire the lesser status of Areas of Interest, or AoI, while a few may remain as cIMMAs if they are close to approval.)

In August 2020, the Task Force wrapped up the sixth regional workshop, which covered Australia, New Zealand, and the Southeast Indian Ocean. (The workshop was held in Perth in February, just before lockdown.) From 45 cIMMAs, following the independent review, 31 have now been approved as IMMAs for resident Australian and New Zealand species, many of them endemics or placed in one of the IUCN threatened categories.[1] In addition to the Australia-New Zealand work, 13 IMMAs in the Southern Ocean around Antarctica also passed peer review in August.[2]

In total, 159 IMMAs now cover the e-Atlas across most of the southern hemisphere and parts of the northern hemisphere — equal to one-third of the global ocean. In addition, 24 areas remain as cIMMAs and 130 are listed as AoI. Both cIMMAs and AoI are useful for monitoring and conducting further research, potentially leading to their becoming future IMMAs.

Implementing IMMAs

The IMMA tool is worth little if it is not used. As of early 2020, the Task Force had received 78 requests for IMMA shapefiles and metadata, which hints at the potential conservation value to a wide range of users around the world, including governments, intergovernmental organizations, NGOs, industry, the wider ocean-focused scientific community, and the general public.

We are pleased to report that IMMAs are already leading to conservation results:

- The creation of IMMAs has helped shape MPA proposals in Vietnam and Bangladesh, e.g., contributing to the declaration in June 2019 of the Nijhum Dwip MPA and National Park in Bangladesh. The Task Force's expert international scientists and the robustness of the IMMA process lent authority to those proposing the MPAs, giving both specific boundaries and attention to the species used for IMMA identification.
- In November 2019, the Task Force co-chairs traveled to Mozambique to see the recently approved Bazaruto Archipelago to Inhambane Bay IMMA, and to talk to government officials and stakeholders. This IMMA is a biodiverse haven for the last viable East African population of dugong, as well as endangered Indian Ocean humpback dolphins and humpback whales. A South African energy and chemical company, SASOL Limited, held rights to explore and develop two ocean blocks in the middle of the IMMA. However, after our visit to Mozambique, and following media coverage and appeals to government and SASOL, the company returned the blocks to the government. We now hope that the Mozambique government will facilitate expansion of its existing Bazaruto Archipelago National Park to include the full IMMA.
- In 2019, the US Navy adopted IMMAs as areas where low frequency sonar use would be curtailed to avoid killing vulnerable whale species. There is more information here.
- The International Whaling Commission has agreed to use IMMAs and shipping traffic data to examine and address the threat to cetaceans from ship collisions.

In addition to the above, the Task Force has forged agreements with the UN Convention on Migratory Species and Convention on Biological Diversity — and held discussions with the International Maritime Organization — to utilize IMMAs in conservation planning.

Future plans for IMMAs

Under our current arrangement as part of the Global Ocean Biodiversity Initiative (GOBI-IKI project), our Task Force has one more IMMA workshop region to examine, covering the southeastern temperate to tropical Pacific, from Mexico to Chile. That workshop has been postponed due to COVID-19 but we hope to hold it in Costa Rica in 2021. We are now raising additional funds to map the 10 regions across the northern hemisphere plus the South Atlantic. We hope to accomplish this in the next five years, conferring a 10-year cycle to the entire IMMA identification process.

It will then be necessary to return and update regions as marine mammal research continues to expand into new areas, particularly on the high seas. We are hopeful that new techniques for studying areas beyond national jurisdiction — satellite identification of whales, wave gliders that can listen remotely to marine mammals, and remote passive acoustic recorders, among other devices — can greatly add to our knowledge of which areas are important for marine mammals, and to provide indicators for biodiversity conservation.

Footnotes

[1] The Australia-New Zealand work and most of the previous regional efforts were sponsored by the German International Climate Initiative (IKI) through the Global Ocean Biodiversity Initiative (GOBI).

[2] The Southern Ocean work around Antarctica was sponsored largely by the French Biodiversity Agency through the IUCN Global and Polar Marine Programme.

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The official IMMA brochure is downloadable here. A recent scientific paper on the role of scientists as advocates in IMMA and MPA processes is here.
