Executive Summary

Over 90 marine mammal protected area (MMPA) researchers and managers as well as government and conservation group representatives from 19 countries convened in Puerto Vallarta, México, from 13-17 November 2016 for the Fourth International Conference on Marine Mammal Protected Areas (ICMMPA4). A primary focus of the conference was to explore the role of effective partnerships and planning strategies for managing and monitoring protected areas with marine mammals.

The conference theme "Forging Partnerships and Planning for Protection" provided an opportunity for the exchange of ideas and practices among participants from different disciplines. The goal of the conference was to enrich the knowledge and devise better tools for implementing cutting edge strategies and planning schemes aimed at increasing the effectiveness of marine mammal and marine mammal protected areas conservation. The exchange of ideas and experiences revealed potential improvements for marine mammal protected area conservation. It also highlighted the many success stories taking place showcasing in particular what México is doing to promote connectivity for the conservation of species in terrestrial and marine ecosystems. ICMMPA4 also generated discussions to develop new tools such as the creation of ocean safe corridors to protect humpback whales in Mexico, Costa Rica and Panama — an initiative born at ICMMPA4 in Puerto Vallarta.

During the conference, Mark Spalding, president of the Ocean Foundation, speaking for his own foundation as well as the International Fund for Animal Welfare and other partners, presented a formal proposal for the creation of continental scale networks of marine mammal protected areas for the conservation of marine mammals, as well as the description and potential designation of corridors for marine mammal "safe passage". This proposal was both supported and expanded by the ICMMPA4 participants suggesting two different protected passages, each spanning the two oceanic coasts of the North American Continent. This "pair of corridors" would span from the Northern to Southern Atlantic Oceans, (from Nova Scotia down the east coast of the United States through the Caribbean), as well as a parallel and simultaneous replication of the Atlantic corridor, along the Pacific Coast of the entire Western Hemisphere to connect the North and South Basins of the Pacific.

The conference was organized by the International Committee on Marine Mammal Protected Areas (ICMMPA) in collaboration with the Méxican Government Comisión Nacional de Áreas Naturales Protegidas (CONANP) and Ecología y Conservación de Ballenas, AC (Ecobac). Other organizations helping to sponsor the conference included the French Agence des aires marines protégées, the IUCN Marine Mammal Protected Areas Task Force, the U.S. Marine Mammal Commission, Whale and Dolphin Conservation, NOAA's Office of National Marine Sanctuaries, the World Animal Protection and Eulabor Institute.

Key Ideas, Opportunities and Recommendations that emerged from the panel and workshop discussions at ICMMPA4 included:

• Important Marine Mammal Areas (IMMAs) and their role on the high seas was a featured topic at ICMMPA4. Giuseppe Notarbartolo di Sciara, Mike Tetley and Simone Panigada, fresh from Chania, Greece, provided updates from the first IMMA

workshop. The first IMMA workshop selected 41 candidate IMMAs covering the habitats of Mediterranean marine mammal species. Additionally, new mapping tools for determining IMMA Areas of Interest (AOI) and for collating information on the distribution, densities and habitat of marine mammals were introduced in a "hands on workshop session". The session served as a testing ground for the Task Force to further refine the use of the tools such as QGIS, Google Earth and the on-line IMMA SeaSketch facility. Planning efforts are currently underway for a second IMMA Workshop, addressing marine mammal habitats in the Pacific Islands Region, to be held in Apia, Samoa, 27 to 31 March 2017.

• We have continued discussions begun at ICMMPA's inaugural meeting on how marine spatial planning (MSP) can lead to the establishment of MMPAs, and how marine mammal science can inform management both inside and outside those protected areas. At ICMMPA4, we focused the discussion on a specific sector which is driving much MSP around the world: renewable energy. Our panelists discussed the incorporation of marine mammal science in siting decisions for wind, wave, and other offshore renewable energy installations, as well as giving specifics on how data on marine mammals has resulted in the creation of areas off limits to energy development and/or has resulted in amending the energy development plans. We discussed the considerations that planners need to keep in mind when making decisions about allocating space for maritime uses like energy development. We also highlighted mechanisms for marine mammal conservationists to become engaged with planners so that marine mammal conservation concerns are addressed. We intend to create guidelines to promote the uptake of marine mammal information in MSP, covering four kinds of situations that exist worldwide: 1) areas with strong regulatory frameworks and planning capacity, where marine mammal information is readily available; 2) areas with strong regulatory frameworks and planning capacity that are marine mammal data poor; 3) areas still developing regulatory frameworks or with limited capacity but where marine mammal information is available; and finally 4) areas where regulatory frameworks and planning are limited and where marine mammal data are lacking.

• A featured topic at ICMMPA4 in a panel and workshop was identifying and securing sustainable sources of financing to support critical management and research needs for MMPAs. These sessions highlighted the challenges MMPAs face and what managers confront on a daily basis to effectively address their sites management goals. There was a sense and considerable interest from the participants at the conference in finding ways to make MMPAs more sustainably funded, and to increase capacity at the sites and within the MMPA community of practice to achieve this goal.

• The need for collaboration and international networking for entanglement response in North America was reinforced when a real entanglement (Puerto Vallarta's first for the season) was reported, interrupting a technical session during the last day of the workshop. The trilateral workshop convened by the IWC Entanglement Response Network and hosted by Comisión Nacional de Áreas Naturales Protegidas (CONANP) began during ICMMPA4 and continued for a few days after the conference concluded. The aim of the meeting was to develop working agreements to aid cooperation when dealing with entangled whales across national boundaries. Response leaders from Canada, the USA and México participated. Entanglement of whales in fishing gear and marine debris is a growing and global issue. The size and power of whales means these entanglements can be carried thousands of kilometers and across national boundaries. This size and power also means that entanglement response is dangerous. Safe, professional and coordinated entanglement response is needed for both whale and human safety. The workshop considered these issues and also the importance of information sharing between countries, in order to understand and prevent entanglements from occurring in the first place.

• The role of protected areas for river dolphin conservation in South America was discussed in plenary and recommendations were made to: (1) incorporate IMMAs criteria in freshwater ecosystems; (2) assess connectivity status in the Amazon and Orinoco basins with special attention to river dolphins; (3) foster mercury pollution assessments in aquatic ecosystems in the Amazon and Orinoco basins; and (4) request home range countries to nominate South America's river dolphins for International Whaling Commission Conservation Management Plan and other international fora tools (i.e. CMS, CBD).

The ICMMPA conferences will continue with a proposal being developed for consideration for ICMMPA5 to be held in Greece in April 2019.

Background on ICMMPA

In 2006, the International Committee on Marine Mammal Protected Areas (ICMMPA) (pronounced eye-COM-pa) was established as an informal group of international experts dedicated to the conservation of marine mammals and their habitats. Members of ICMMPA represent various geographic regions, as well as a wide range of expertise within the fields of marine mammal biology, ecology and the design and management of marine protected areas and other marine planning initiatives. Members include scientists, representatives of governmental agencies and NGOs.

Since its founding in 2006, ICMMPA has worked to promote marine mammal conservation through marine protected areas and other area-based management measures, informed by the best available science and to provide a mechanism by which the "community of practice" — comprised of managers, natural and social scientists, decision makers, and other stakeholders — could collaborate, share information and experiences, and disseminate knowledge and tools for establishing, monitoring, and managing MPAs. The primary activity of the Committee has been organizing periodic MMPA conferences. The four conferences to date have been held in Maui, Hawaii (2009), Fort de France, Martinique in the Caribbean (2011), Adelaide, Australia (2014) and the latest in Puerto Vallarta, México in November (2016).

Critical habitats for marine mammals range from the tropics to the poles, extending from shallow estuarine areas to the high seas. Despite this wide range of habitats, the threats to the vital activities of marine mammals are often remarkably similar including commercial fishing, resource extraction activities such as oil and gas, commercial shipping, and water and noise pollution. The application of marine protected areas (MPAs) as an effective conservation tool for marine mammals has been demonstrated in a number of areas. Worldwide, at least 700 marine and land-based protected areas (MPAs and PAs for marine mammals which we call MMPAs) have been specifically designated for, or contain populations of, marine mammals. Yet MMPAs often fall short of their mandate and considering the breadth of the ocean, they are poorly represented in the waters of most countries and on the high seas.

Steering and Program Committee, Fourth International Conference on Marine Mammal Protected Areas – ICMMPA4

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