First IMMA Regional Workshop for the Mediterranean

Chania, Greece, 24-28 October 2016

FINAL REPORT of the WORKSHOP

Contents

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Executive summary[1]

From 24 to 28 October 2016, the first IMMA Regional Workshop for the Mediterranean was held in Chania (Island of Crete, Greece) with the primary objective to identify and delineate Important Marine Mammal Areas — IMMAs. These discrete areas — important for one or more marine mammal species — aim to have the potential to be managed for conservation. Starting with initial Areas of Interest (AoI) submitted before and during the meeting, 41 candidate IMMAs (cIMMAs) were identified and proposed through an expert-based process utilizing selection criteria. These criteria were devised by the IUCN Joint SSC/WCPA Marine Mammal Protected Areas Task Force (MMPA Task Force, or the Task Force), in consultation with the marine mammal science and conservation community. This first IMMA Regional Workshop intended to help provide strategic direction and conservation priorities to the development of area-based marine mammal conservation within the Mediterranean region. Work included an initial review of the potential conservation concerns across the region, as well as recommendations on how to address such concerns using IMMAs and other appropriate conservation tools.

The workshop was organised by the MMPA Task Force and supported by the MAVA Foundation. The Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS) collaborated with the Task Force as a partner, and contributed to the organisation along with the Tethys Research Institute, which acted as the main organising Institution. The workshop was attended by 34 expert participants (Annex I) from 17 countries including Albania, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Morocco, Slovenia, Spain, Syria, Tunisia, Turkey and the United Kingdom. In addition, the Environment & Resources Authority of Malta, Duke University and UNEP's World Conservation Monitoring Centre (UNEP-WCMC) attended as observers.

Several research institutes, operating in the Mediterranean region, were represented at the workshop. These included experts from the academic sector (Omar Mukhtar University, Libya; Faculty of Fisheries, Istanbul University, Turkey; Natural History Museum of Crete, Greece), national institutions (National Institute of Marine Sciences and Technologies, Tunisia; National Centre for Marine Sciences-CNRSL, Lebanon; Biodiversity and Protected Area Directorate, Albania; Department of Fisheries and Marine Research, Cyprus; The Syrian Society for Conservation of Wildlife, Syria) as well as researchers from non-profit research organisations (Alnilam Research and Conservation, Spain; Blue World Institute of Marine Research and Conservation, Croatia; CIRCE: Conservation Information and Research on Cetaceans, Spain; EcoOcéan Institut, France; Morigenos, Slovenia; Oceanomare Delphis Onlus, Italy; Pelagos Cetacean Research Institute, Greece; Tethys Research Institute, Italy) and professionals from marine environmental companies and associations (WWF Greece; Association de Gestion Intégrée des Ressources, Morocco; Environics, Environment and Development Advisors SAE, Egypt; SUBMON Marine Environmental Services, Spain).

At the close of the workshop, the MMPA Task Force described the steps towards the identification of a 'Transboundary Managed Area' in the Strait of Sicily. The area has high conservation value in terms of marine biodiversity but is also affected by several anthropogenic threats and needs to be managed in order to preserve its biodiversity.

Some 41 cIMMAs and 37 AoI were identified by workshop participants, and the experts agreed to propose all 41 using the evidence collected through the cIMMA standard form. The next step was to send the selected cIMMAs to the independent review panel — comprised of Randall R. Reeves, Philip S. Hammond and Robert L. Brownell, Jr., with Reeves as chair — to assess whether the criteria were applied correctly and to verify that the supporting evidence was sufficient to support each cIMMA. When a cIMMA is approved as an IMMA, the boundaries and a summary of the supporting evidence are then made available on the Task Force website. The AoI identified can be used to assist with highlighting reference areas for further marine mammal research and monitoring, which will help build an evidence base on which future cIMMAs may be proposed.

[1] This summary covers the work of the First IMMA Workshop held in Chania, Greece, in Oct. 2016, as well as the subsequent results of the independent review panel with the tally of IMMAs and AoI made public in July 2017 and reported in Annex VIII.

Following the workshop, the independent review panel examined the cIMMA submissions. Their decisions were finalised in July 2017. In total, 26 IMMAs were accepted for full status by the review panel, after receipt of revisions or additional information that was required before their confirmation as IMMAs meeting the IUCN Task Force criteria. Five cIMMAs, determined as not meeting the standard at this time, were considered to show substantive evidence of their merit as cIMMAs and could be assessed later by an interim Task Force regional working group for the Mediterranean; these remain as cIMMAs. Four other cIMMAs were determined to have insufficient evidence at this time to be considered as either IMMAs or interim cIMMAs. Two of these four have been merged with existing Areas of Interest (AoI) while the other two become new AoI, joining the working list of 37 AoI to make a total of 39 AoI for the Mediterranean Region. These 39 AoI, given further monitoring and survey effort, may be able to be reassessed as cIMMAs in a future IMMA expert identification workshop.

Following is the list of 26 areas awarded IMMA status and five areas with approved cIMMA status:

26 IMMAs

- Akamas and Chrysochou Bay IMMA
- Akrotiri IMMA
- Alborán Corridor IMMA
- Alborán Deep IMMA
- Alborán Sea IMMA
- Balearic Islands Shelf and Slope IMMA
- Campanian and Pontino Archipelagos IMMA
- Central Aegean Sea IMMA
- Chios and Turkish Coast IMMA
- Cilician Basin IMMA
- Coastal Shelf Waters of the Southeast Levantine Sea IMMA
- Gulf of Ambracia IMMA
- Gulf of Corinth IMMA
- Hellenic Trench IMMA
- Ionian Archipelago IMMA
- Kélibia IMMA
- Lampedusa IMMA
- North Western Mediterranean Sea, Slope, and Canyon System IMMA
- Northern Adriatic IMMA
- Northern Coast of Cyprus IMMA
- Northern Coast and Islands of the Thracian Sea IMMA
- Northern Sporades IMMA
- Shelf of the Gulf of Lion IMMA
- Straits of Gibraltar and Gulf of Cadiz IMMA
- Waters of Ischia and Ventotene IMMA
- Western Ligurian Sea and Genoa Canyon IMMA

5 cIMMAs

- Central South Coastal Adriatic Sea cIMMA
- Central Tyrrhenian Sea cIMMA
- East Sicily and Strait of Messina cIMMA
- North East Ionian Sea cIMMA
- Waters Surrounding the Maltese Islands cIMMA

See Annex VIII for more information and the complete list of IMMAs, cIMMAs and AoI in the Mediterranean. More information is available in the IMMA e-Atlas at http://www.marinemammalhabitat.org/imma-eatlas.

Introduction and background

The IUCN Joint SSC/WCPA Marine Mammal Protected Areas Task Force[2] was created in 2013 by the International Committee on Marine Mammal Protected Areas (ICMMPA), the International Union for Conservation of Nature's (IUCN) World Commission on Protected Areas (WCPA) Marine Vice Chair, and members of the IUCN Species Survival Commission (SSC), to help support a global profile for the role of marine mammals in protected areas. The MMPA Task Force aims to provide a stronger voice for the MMPA constituency within the IUCN. The goal of the Task Force is to facilitate mechanisms to encourage collaboration, sharing of information and experience, accessing and disseminating knowledge and tools for establishing, monitoring, and managing MMPAs. The Task Force promotes effective spatial solutions and best practices for marine mammal conservation within MMPAs.

For the period 2016-2021, the MMPA Task Force is rolling out a tool to apply criteria to begin to identify a worldwide network of Important Marine Mammal Areas (IMMAs) and to enhance their protection. Regional expert workshops are being organised in six large marine regions, beginning with the Mediterranean, followed by the Pacific Islands (2017), North East Indian Ocean and South East Asian Seas (2018), Western Indian Ocean and Arabian Seas (2019), Australia-New Zealand and South East Indian Ocean (2020), and South East Tropical and Temperate Pacific Ocean (2021).

Important Marine Mammal Areas — referred to as 'IMMAs' — are defined as discrete portions of habitat, important to marine mammal species, that have the potential to be delineated and managed for conservation. IMMAs may merit place-based protection and/or monitoring, or simply reveal additional zoning opportunities within existing MPAs. By pointing to the presence of marine areas of particular ecological value, IMMAs will serve the function of promoting the conservation of a much wider spectrum of species, biodiversity and ecosystems, well beyond the specific scope of conserving marine mammals. The location of IMMAs can help to identify marine areas valuable in terms of biodiversity during the process of Marine Spatial Planning (MSP). IMMAs can also become an effective way of building institutional capacity at the international and national levels to make substantial contributions to the global marine conservation agenda. Marine mammals are indicators of ocean ecosystem health and thus will support the Convention on Biological Diversity (CBD) marine portfolio and descriptions of Ecologically or Biologically Significant Areas (EBSAs) as well as to the IUCN standard for the identification of Key Biodiversity Areas (KBAs).

[2] www.marinemammalhabitat.org

Minutes of the workshop

IMMA Workshop Day 1 – 24 October 2016

The meeting was opened 24 October at 3:00 pm in the Panorama Hotel Conference Hall by the IUCN MMPA Task Force Co-chair, Giuseppe Notarbartolo di Sciara. He welcomed all the workshop participants assembled. A welcoming address was also offered by Maÿlis Salivas of the ACCOBAMS Secretariat, on behalf of Florence Descroix-Comanducci, Executive Secretary. Notarbartolo di Sciara read a document sent by Mr. Khalil Attia, Director of RAC/SPA, wishing a fruitful meeting to all the participants; presented the Task Force and acknowledged the IMMA Coordinator Michael Tetley for the thorough preparation of the scientific part of the meeting; thanked the Tethys Research Institute and ACCOBAMS for the great support provided in the workshop organisation; thanked the MAVA Foundation for the generous financial support to the IMMA initiative in the Mediterranean Region; acknowledged Task Force members present at the meeting, Simone Panigada and Kristin Kaschner. Erich Hoyt, Task Force Co-chair, who was unable to attend, was also acknowledged for his contribution to the development of the IMMA process. All the meeting attendees were then requested to introduce themselves and briefly describe the personal field of research and their expertise, in relation to the workshop topic.

After the participants spoke, Notarbartolo di Sciara provided an overview of the origin of the IMMA concept within the MMPA Task Force and explained the rationale for developing the IMMAs as a conservation tool for monitoring and protecting species, biodiversity and ecosystems. The main points covered (1) the specific vulnerability of many marine mammal species, (2) the fact that marine mammals have been overlooked by many national efforts to create MPAs, (3) the role of marine mammals as indicators to support the identification of MPAs and other spatial protection measures, as they are more easily monitored than most other pelagic vertebrates, (4) the role of marine mammals as umbrella species which help ensure that a properly designed conservation plan will be beneficial to the broader ecosystem, and (5) the role of marine mammals as flagship species representing powerful political and public levers for the conservation of less popular or well-known organisms, communities or habitats.

Notarbartolo di Sciara agreed to act as Chair of the workshop. A number of participants offered to act as meeting rapporteurs, and Carmen Mifsud, Léa David, Caterina Lanfredi, Margherita Zanardelli and Tim Lewis undertook the task of collating the minutes. The agenda of the meeting was presented by Simone Panigada (Annex II) and adopted by participants.

The Chair proposed to subdivide the working sessions between plenary sessions and small working groups, to follow species and regional criteria to maximise the participants' expertise.

The general outline of the workshop programme consisted of:

- a reading session of the IMMA documents including an IMMA Guidance Document and a list of candidate IMMAs (cIMMAs);
- a plenary session to introduce the IMMA selection criteria, to present the AoI, to elect the subgroup facilitators and discuss the proposed candidate IMMAs (cIMMA);
- multiple working group sessions to identify the cIMMA both on a Mediterranean species and a subregional basis.

To aid in the efficient running of the workshop, participants were provided with a number of resources. These included:

- the IMMA Guidance Document (Guidance documentation of the IMMA selection criteria and process);
- candidate IMMA submission forms (in Microsoft Word and Excel format);
- an inventory of Knowledge for the IMMA Workshop Region;
- the Areas of Interest (AoI) summary report;

- the IMMA SeaSketch Online Facility; and
- on hand instruction on the use of ArcMap, QGIS, and Google Earth.

The workshop organisers created a joint Dropbox space for the workshop in which the above materials were made available for download. The Chair invited all the attendees to spend the rest of the afternoon reading the documents provided on the dedicated Dropbox folder 'Chania- IMMA-Regional Workshop'.

The reading session ended at 7.00 pm.

At the end of the first day of the workshop, an ice-breaker cocktail was organised for all participants, to facilitate the cohesion of the group and establish personal contacts between scientists from different nations. This was followed by dinner.

IMMA Workshop Day 2, 3, and 4 – 25-27 October 2016

During the second day of the meeting, IMMA Co-ordinator Tetley provided an overview of the IMMA concept and outlined the specific objectives of the meeting and the follow-up process:

- The main objective of the workshop is the identification of cIMMAs for the Mediterranean Region. This can be achieved through an expert-based process to collate and assess evidence against a set of selection criteria. After the workshop, an independent panel will review and accept or reject the cIMMAs.
- An IMMA is an area identified as important for a marine mammal population or subpopulation. IMMAs are an advisory expert-based classification. They have no legal standing as MPAs but are intended to be used in conservation planning by governments, intergovernmental organisations, conservation groups, and the general public.
- The purpose of identifying IMMAs is to attract the attention of policy- and decision-makers to the opportunity or need to ensure the favourable conservation status of marine mammals in specific areas through the implementation of suitable management measures. Of course, this can include an MPA designation. However, IMMAs *per se* are a knowledge product identified by science, which are meant to be devoid of political considerations and any management implications. The objective of an independent IMMA process is to provide advice on marine mammal conservation priorities in an area-based context to assist in national and international conservation efforts including the identification of Ecologically or Biologically Significant Areas (EBSAs) under the Convention on Biological Diversity (CBD), and Key Biodiversity Areas (KBAs) through the IUCN standard.

Next, Tetley introduced the IMMA selection criteria and the three-stage process:

Stage 1 – Nomination of initial Areas of Interest (AoI): 72 AoI were proposed by experts via a dedicated online system (SeaSketch) and were summarised in an Areas of Interest (AoI) report. This document was provided to regional experts in order to evaluate the submitted AoI, as well as existing marine mammal place-based conservation measures. Participants attending the workshop were also encouraged by the IMMA Coordinator to submit additional AoI by the end of the first day (resulting in 78 AoI).

Stage 2 – Development of candidate IMMAs (cIMMAs): participants were invited to use their regional knowledge to develop cIMMAs, based upon their review of AoI submitted in advance or proposed during the workshop.

Four categories of main criteria and seven of sub-criteria to select the cIMMA were described:

Criterion A – Species or Population Vulnerability (based on the IUCN Red List Status)

Criterion B – Distribution and Abundance

Sub-criterion B(i) – Small and Resident Populations: Areas supporting at least one resident population, containing an important proportion of that species or population, that are occupied consistently.

Sub-criterion B(ii) – Aggregations: Areas with underlying qualities that support important concentrations of a species or population.

Criterion C – Key Life Cycle Activities: Areas containing habitat important for the survival and recovery of threatened and declining species.

Sub-criterion C(i) – Reproductive Areas: Areas that are important for a species or population to mate, give birth, and/or care for young until weaning.

Sub-criterion C(ii) – Feeding Areas: Areas and conditions that provide an important nutritional base on which a species or population depends.

Sub-criterion C(iii) – Migration Routes: Areas used for important migration or other movements, often connecting distinct life-cycle areas or the different parts of the year-round range of a non-migratory population.

Criterion D – Special Attributes

Sub-criterion D(i) – Distinctiveness: Areas which sustain populations with important genetic, behavioural or ecologically distinctive characteristics.

Sub-criterion D(ii) – Diversity: Areas containing habitat that supports an important diversity of marine mammal species.

Stage 3 – Final review and IMMA status qualification: an independent panel chaired by Randall R. Reeves, IUCN Cetacean Specialist Group Chair, will review the cIMMAs, and using an online system will decide whether they are accepted as IMMAs.

The workshop participants discussed all the criteria presented. Notarbartolo di Sciara underlined the scientific evidence showing that Mediterranean cetaceans differ genetically from their conspecifics living in the North Atlantic Ocean. The participants agreed to adopt Sub-criterion D(i) describing distinctiveness for all the Mediterranean species.

Tetley described the methodology for an adequate delineation of a cIMMA area boundary: IMMA boundaries are based on spatially stable information supported by direct empirical evidence (i.e., directly observed by experts) or derived through analytical processes (i.e., modelled by experts). Thus, they should, where possible, incorporate the presence of spatially stable habitats (e.g., submerged banks, sea grass beds, continental slopes, seamounts) or consistent environmental conditions (e.g., persistent sea fronts, upwellings) when attempting to define an initial cIMMA boundary. There is no predefined limit for the minimum or maximum size for an IMMA. In practice, most boundaries will need to be large enough to adequately contain the desired extent of evidence necessary to fulfil the IMMA selection criteria. In many cases, cIMMA identification will be triggered by multiple species which serve to qualify the identification of the IMMA through the selection criteria, either individually or through the identification of important areas of species diversity.

Finally, Tetley presented the template form (cIMMA_standardform_MSE.xlsx) which will be used to submit the agreed cIMMAs to the independent review panel (see Annex VII — Contents of cIMMA submission form).

The template form: (a) identifies the proposed boundaries, (b) provides a thorough rationale based upon the IMMA criteria, (c) summarises and provides access to the supporting evidence and (d) identifies any existing conservation measures within the areas proposed.

The workshop continued with a plenary session consisting of background presentations to introduce participants to information that would assist in the identification of cIMMAs.

Five presentations, delivered at the workshop, are summarised below and, in greater detail, in Annex III.

Background Presentations

Caterina Lanfredi (Tethys Research Institute) presented a summary of the work conducted with Léa David (ACCOBAMS/ EcoOcéan Institut) on the development of a region-wide inventory of relevant knowledge about Mediterranean marine mammal ecology. This inventory was compiled based on both expert opinion using the Data Appraisal Form (DAF) sent in advance and a survey of the published, peer-reviewed literature. The results obtained through the analysis of the DAFs received from 24 experts revealed that the Tyrrhenian Sea, Alborán Sea and Algero-Provençal Basin were the subregions with the highest level of information derived from systematic marine mammal research programmes; the subregions with the lowest levels proved to be the Aegean and Levantine Seas. The literature survey consisted of an analysis of approximately 200 peer-reviewed papers published between 1990 and 2016 focusing on ecological aspects (occurrence, distribution, abundance and trends, habitat use, genetics). As reported through expert opinion, most of the available literature came from work on the northern side of the basin, compared to the scarce research effort in the southern and eastern areas of the Mediterranean Sea.

Kristin Kaschner (University of Freiburg) presented a pilot study on the definition of an objective and standardised methodology to assess the relative importance of sites during the process of identifying candidate Important Marine Mammal Areas (cIMMA). Kaschner's work focuses on a global approach to marine mammal science and conservation. The main point of the study is to test the ability of certain metrics (called niche model baseline indicators, NMBI) that can be derived from globally available data sets. NMBIs were obtained by calculating surrogate densities using outputs from environmental niche models predicting relative probability of species occurrence (AquaMaps, www.aquamaps.org). These surrogates were then summarised for different biogeographical subregions within the focal area. The NMBIs for different biogeographic subregions were subsequently assessed against the advised numerical thresholds for criteria A, Bii and Dii. This approach requires a framework based on clearly defined global reference points and reasonable boundaries to assess the relative importance of sites for marine mammal conservation. NMBIs highlight biogeographic regions potentially meeting numerical thresholds (based on those in the IUCN standard for KBAs). This methodology provides a useful starting point for the development of a conceptual framework and reference points for a systematic assessment of the relative importance of sites in the IMMA process.

Léa David (ACCOBAMS) presented the 'Cetacean Critical Habitat' (CCH) identification process developed by ACCOBAMS. CCH signifies 'those parts of a cetacean's range that are essential for day-to-day well-being and survival, as well as for maintaining a healthy population growth rate.' The concept of cetacean critical habitat and its definition were adopted through Annex I of ACCOBAMS Resolution 3.22. Criteria to identify sites containing cetacean critical habitat may include: 'areas used by cetaceans for feeding, breeding, calving, nursing and social behaviour; migration routes and corridors and related resting areas; areas with seasonal concentrations of cetacean species; areas of importance to cetacean prey; natural processes that support continued productivity of cetacean foraging species (upwellings, fronts); topographic structures favourable for enhancing foraging opportunities for cetacean species (canyons, seamounts).' Based on these criteria, 22 CCHs have been identified and can be used as a support tool to identify IMMAs in the Mediterranean Sea.

Laura Mannocci (Duke University) presented a gap analysis for the Mediterranean region based on the analysis of the available shipboard and aerial surveys effort which followed a distance sampling protocol (about 33,000 Km of survey tracks). The aim of the analysis was the identification of gaps in survey coverage in geographic, temporal and environmental space, to help prioritise future surveys and guide the development of habitat-based density models. The analysis suggests that future surveys should be prioritised: Year-round in the Levantine Sea; non-summer months in the Strait of Sicily/Tunisian Plateau/Gulf of Sirte, Ionian Sea, Central Mediterranean, the Adriatic Sea and the Aegean Sea; winter and early spring in the Algero-Provençal Basin; March and November in the Tyrrhenian Sea and Ligurian Sea. A basin-wide synoptic survey conducted in summer would help fill data gaps in the eastern Mediterranean and collect data with a consistent methodology across the basin. However, a single summertime basin-wide survey won't be sufficient to fill data gaps in non-summer months.

Corinne Martin (UNEP-WCMC) presented the World Database on Protected Areas (WDPA). The WDPA is a global authoritative database on terrestrial and marine protected areas and has been developed through a joint initiative between the United Nations Environment Programme (UNEP) and IUCN. The database is compiled and managed by the UNEP World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with governments and non-governmental organisations. Set up in 1959, the WDPA (latest release, October 2016) contains approximately 230,000 records from 245 countries and 18,300 records from territories with a marine component. It includes data on the Mediterranean Sea which can be used as tool for the development of IMMAs.

Following the presentations, Tetley invited all the speakers for a plenary discussion and a question and answer session that focused on the use of a global modelling approach as a support tool for determining the cIMMAs and potential Areas of Interest (AoI) at the regional scale.

In addition, the discussion considered the following points:

- How do we determine the percentage of the species' population if an assessment of the total population is unavailable?
- Since all the Mediterranean species are genetically distinct, the percentage of estimated population needs to be referred to the Mediterranean population only.
- Though useful for informing AoI investigation, care must be taken when applying findings from analyses at the global to the regional scale. There were some mismatches in the AoI identified using the global NMBI approach and the AoI submitted by Mediterranean experts.
- To improve the model prediction, it may be necessary in future to include, or validate, regional information into the NMBI.

In the afternoon, Tetley presented in detail the list of AoI developed from existing areas (18 CCHs, 11 CBD EBSAs, 1 KBA, 13 MPAs), 26 online workshop participant submission proposals, 9 public submissions and the new AoI proposed during the first day of the workshop (including Campanian and Pontino archipelagos, Golfe du Lion and Maresme Canyon). In addition, he identified the geographic boundaries of the eight Mediterranean subregions — Alborán Sea, Algero-Provençal Basin, Tyrrhenian Sea, Adriatic Sea, Strait of Sicily/Tunisian Plateau/Gulf of Sirte, Ionian Sea, Aegean Sea and Levantine Sea.

Ana Cañadas and Draško Holcer volunteered to summarise the information in an Excel spreadsheet to facilitate the sorting of the AoI by subregion, species and IMMA criteria. The IMMA Coordinator agreed with the request and prepared the excel file to be uploaded in the Dropbox folder on day 3.

Following the identification of cIMMA subgroups and their facilitators, the workshop continued to identify the cIMMAs, first on a Mediterranean species basis (workshop day 3) and then, based on the results by species, on a Mediterranean IMMA subregion basis (workshop day 4) (see Annex IV for the list of subgroups).

The species considered were those represented by workshop participants, and only included species represented by populations known to occur regularly in the Mediterranean. Some species were considered together in the same working group – as much as possible following ecological criteria. The groups were broken down as follows:

Group A: Risso's dolphin, Cuvier's beaked whale, sperm whale (all day, day 3);

Group B: Common bottlenose dolphin, short-beaked common dolphin (all day, day 3);

Group C: Mediterranean monk seal (morning session, day 3);

Group D: Striped dolphin, fin whale (afternoon session, day 3);

Group E: Rough-toothed dolphin, Black Sea harbour porpoise (afternoon session, day 3);

Group F: Killer whale (evening, day 2);

Group G: Long-finned pilot whale (evening, day 2).

In the evening, the IMMA Coordinator presented to all the group facilitators a step-by-step procedure to follow within every group to identify the cIMMAs and to fill in the relevant forms:

Step 1 - Sort the AoI by species/IMMA region (Excel file);

Step 2 - Ask the experts for new proposals;

Step 3 - Create a list of AoI;

Step 4 - Plot on GIS or Google Earth the proposed AoI;

Step 5 - Review the proposed AoI as a function of the IMMA criteria;

Step 6 - Draw the boundary of the cIMMA;

Step 7 - Fill in the cIMMA standard form;

Step 8 - Submit the cIMMA.

At the end of day 4 (27 October), a total of 41 cIMMAs and 37 AoI were submitted to the IMMA Coordinator through the 'cIMMA standard form' (see Annex V and VI for lists of cIMMAs and AoI approved by the workshop).

IMMA Workshop Day 5 – 28 October 2016

During the plenary session, the IMMA Coordinator presented the 41 cIMMAs and 37 AoI identified in the previous four days by workshop participants. The experts agreed to propose the 41 cIMMAs based on the best evidence available.

The next step will be to send the selected cIMMAs to the review panel — comprised of Randall R. Reeves, Philip S. Hammond and Robert L. Brownell, Jr., with Reeves as chair — who will assess whether the criteria were applied correctly and verify that the supporting evidence was sufficient to support each cIMMA. If a cIMMA is approved, the boundaries and a summary of the supporting evidence will be made available on the Task Force website. The AoI identified will be used to assist with highlighting reference areas for further marine mammal research and monitoring, which will help build an evidence base on which future cIMMAs may be proposed.

The workshop continued with several presentations to summarise the existing scientific gaps and needs for further elaboration in describing areas that meet the IMMA criteria.

Corinne Martin (UNEP-WCMC) talked about the potential use of the cIMMAs, once they are approved. This tool can be incorporated into a wider landscape of mapped conservation tools (KBA, EBSA, MPA) and will contribute to the achievement of global CBD targets (Aichi target 11) (for more information, see Annex III.)

Simone Panigada from the Task Force described the level of potential conservation concern resulting from the assessments of anthropogenic activities provided by the experts through the DAF and through the literature review of scientific papers. As expected, each of the Mediterranean subregions has threats that cause concern to the long-term survival of a species or population of marine mammals. The areas with higher levels of measurable threats are the Strait of Sicily/Tunisian Plateau/Gulf of Sirte, the Tyrrhenian Sea, the Alborán Sea and Ionian Sea.

Georgios Paximadis (WWF-Greece) presented the MEDTRENDS Project which aims to investigate and map the probable integrated scenarios of maritime economic growth in Mediterranean EU countries, up to 2030. The findings will support the identification of Good Environmental Status as requested by the Marine Strategy Framework Directive and help to achieve global CBD targets.

The co-chair of the Task Force Giuseppe Notarbartolo di Sciara then described the steps towards the identification of a 'Transboundary Managed Area' in the Strait of Sicily. The area has a high conservation

value in terms of marine biodiversity but is also affected by several anthropogenic threats and needs to be managed in order to preserve its biodiversity.

Close of the workshop

In closing the workshop, the Chair congratulated the workshop participants for their hard work and collaboration throughout the week. He expressed his great gratitude to the MAVA Foundation for its generous financial support, and also to the various other sponsors who have supported the Task Force over the past three years, leading to this first workshop, including Animal Welfare Institute (AWI), Eulabor Institute, and Pacific Life Foundation. He highly commended the able leadership and dedication of the IMMA Coordinator, the technical support team for their excellent scientific and technical support, and all the rapporteurs who contributed to the report preparation. In addition, the SeaSketch team at the Marine Science Institute at the University of California Santa Barbara (UCSB) were thanked for the use of the IMMA SeaSketch Online Facility used to assist the workshop participants. The IUCN MMPA Task Force members along with the observers were instrumental in achieving the successful workshop conclusion. All the workshop participants expressed their appreciation to the Task Force for its outstanding logistical support and warm hospitality, including the high standard of accommodation and travel logistics.

To celebrate a fruitful week both in terms of scientific work and also in bringing together a friendly group of Mediterranean researchers, the workshop organisers offered a dinner to all participants in a typical Cretan restaurant.

Annexes

I. List of participants with affiliation and country
II. Workshop agenda
III. Summary of presentations
IV. List of subgroups and facilitators
V. List of cIMMAs selected by workshop participants
VI. List of AoI collected during the workshop
VII. Contents of cIMMA submission form
VIII. Results of the independent review panel on cIMMAs

Annex I – List of participants

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Annex II – Workshop agenda

Day 1 – 24 October 2016

08:30 – 1500	Arrival in Chania
15:00 – 16:30	Introduction to the IMMA Regional Workshop for the Mediterranean
	Welcoming addresses: ACCOBAMS Secretariat, Ms Maÿlis Salivas, on behalf of Mrs. Florence Descroix-Comanducci, Executive Secretary
	Presentation by MMPA Task Force Co-chair Giuseppe Notarbartolo di Sciara
	Participant introductions, adoption of the agenda, explanation of the programme
16:30 – 19:00	Reading session
19:30 – 22:00	Icebreaker drink and dinner

Day 2 – 25 October 2016

09:00 – 10:30	Introductory session on IMMA selection criteria and process
	Presentation by IMMA Coordinator Mike Tetley
	Question and answer session
	Plenary discussion
10:30 – 11:00	Coffee break
11:00 – 13:00	Information to assist the identification of cIMMAs Presentations: Caterina Lanfredi – Tethys (Summary of data appraisal forms and Inventory of knowledge) Kristin Kaschner – University of Freiburg (Global modelling approach for cIMMA areas of interest) Léa David – ACCOBAMS (Critical Cetacean Habitats) Laura Mannocci – Duke University (Mediterranean Gap Analysis) Corinne Martin – UNEP-WCMC (World Database on Protected Areas)
	Plenary discussion
13:00 – 14:30	Lunch
14:30 – 16:00	Areas of Interest (AoI) for cIMMAs
	Presentation by Mike Tetley (Summary of AoI from existing areas and on-line proposals)
	Plenary discussion
16:00 – 16:30	Coffee break
16:30 – 18:30	Formulation of draft cIMMA list
	Assignment of cIMMA subgroups and rapporteurs Facilitated group discussions on cIMMA options Plenary discussion
18:30	Workshop Chair's daily round-up
20:00 – 22:00	Dinner

Day 3 – 26 October 2016

09:00 – 10:30 cIMMA drafting session 1
Facilitated group discussions
10:30 – 11:00 Coffee break
11:00 – 12:30 cIMMA drafting session 2
Facilitated group discussions
12:30 – 14:30 Lunch
14:30 – 16:00 Draft cIMMA reporting and feedback session 1
Short presentations by group rapporteurs
Plenary discussion
16:00 – 16:30 Coffee break
16:30 – 18:00 cIMMA drafting session 3
Facilitated group discussions
18:00 Workshop Chair's daily round-up
20:00 – 22:00 Dinner

Day 4 – 27 October 2016

09:00 – 10:00 Draft cIMMA reporting and feedback session 2
Short Presentations by group rapporteurs
Plenary discussion
10:00 – 10:30 Coffee break
10:30 – 12:30 cIMMA drafting session 4
Facilitated group discussions
12:30 – 14:30 Lunch
14:30 – 16:00 cIMMA drafting session 5
Facilitated group discussions
16:00 – 16:30 Coffee break
16:30 – 17:30 Draft cIMMA reporting and feedback session 3
Short Presentations by group rapporteurs
Plenary Discussion
17:30 – 18:30 cIMMA drafting session 6
Facilitated group Discussions
18:30 Workshop Chair's daily round-up
20:00 – 22:00 Dinner

Day 5 – 28 October 2016

09:00 – 10:30 Agreement on cIMMA list and next steps for review (Simone Panigada, Mike Tetley)
Question and answer session

	Plenary discussion
10:30 – 11:00	Coffee Break
11:00 – 12:30	Discussion on the effective uses of IMMAs in the region (Giuseppe Notarbartolo di Sciara, Corinne Martin)
	Plenary discussion
12:30 – 14:30	Lunch
14:30 – 16:00	Discussion on the conservation concerns for IMMAs in the region (Simone Panigada, Léa David)
	Plenary discussion
16:00 – 16:30	Coffee break
16:30 – 18:30	Recommendations for the effective uses of IMMAs (Giuseppe Notarbartolo di Sciara)
	Plenary Discussion
18:30	Final round-up by Giuseppe Notarbartolo di Sciara
20:00 – 22:00	Dinner

Annex III — Summaries of presentations

Caterina Lanfredi – Tethys Research Institute
Inventory of Knowledge for the Mediterranean Region

One objective of the IMMA project is to provide an overall regional portrait of areas of ecological value in the Mediterranean through the selection of IMMAs. To achieve this objective, a region-wide inventory of relevant ecological knowledge about Mediterranean marine mammal ecology has been developed. This region-wide inventory was compiled considering both expert opinion and a survey of the published, peer-reviewed literature. An assessment from twenty-four experts operating in each of the eight Mediterranean subregions (Alborán Sea, Algero-Provençal Basin, Tyrrhenian Sea, Adriatic Sea, Strait of Sicily/Tunisian Plateau/Gulf of Sirte, Ionian Sea, Aegean Sea, Levantine Sea) and for each of the Mediterranean species has been obtained through a Data Appraisal Form.

Based on expert opinion, the Tyrrhenian Sea, the Alborán Sea and the Algero-Provençal Basin appear to be the subregions with the highest level of information derived from systematic methods of marine mammal data collection, while the subregions with the lowest levels are the Aegean Sea and Levantine Sea. However, every subregion had areas where no information was available especially in the south of the region. This reflects the insufficient level of monitoring in the southern and southeastern areas of the Mediterranean Sea. Concerning Mediterranean species, common bottlenose dolphin (*Tursiops truncatus*) and striped dolphin (*Stenella coeruleoalba*) are the only species with higher levels of information across all the Mediterranean Sea. Information about the Mediterranean monk seal (*Monachus monachus*) and the rough-toothed dolphin (*Steno bredanensis*) was found only in the eastern part of the Mediterranean. The killer whale (*Orcinus orca*) is absent from most of the Mediterranean, with a high level of information occurring only in the Alborán Sea, where the species is regularly monitored in the Strait of Gibraltar. The Strait of Sicily/Tunisian Plateau/Gulf of Sirte is the only subregion where unquantified scarce information is available for the sperm whale (*Physeter macrocephalus*), while for the fin whale (*Balaenoptera physalus*), Cuvier's beaked whale (*Ziphius cavirostris*) and long-finned pilot whale (*Globicephala melas*) the more eastern part of the Mediterranean Sea presents a low degree of evidence. Systematic information about the short-beaked common dolphin (*Delphinus delphis*) mainly occurs in the Alborán, Tyrrhenian, Adriatic and Ionian seas. The Aegean Sea is the only subregion where a high level of information is available for Black Sea harbour porpoise (*Phocoena p. relicta*). Finally, Risso's dolphin (*Grampus griseus*) data included the Algero-Provençal Basin and the Aegean, Ionian and Tyrrhenian seas.

In order to improve the region-wide inventory of relevant ecological knowledge, a list of about 200 peer-reviewed papers published between 1990 and 2016 was assembled. Effort has been dedicated to collect mainly papers concerning ecological aspects focusing on occurrence, distribution, abundance and trends, habitat use and genetics. In order to compare the amount of knowledge available in every subregion, specific information has been extracted from each scientific paper (i.e., topic, location, target species, population estimates, etc.) Based on the analysis of the literature, respectively the Algero-Provençal Basin, Ionian Sea, Alborán Sea, Adriatic Sea and Tyrrhenian Sea are the five subregions with the most literature. Accordingly, in these regions the papers published cover a wider variety of ecological aspects for most of the present species. The Strait of Sicily/Tunisian Plateau/Gulf of Sirte, Aegean Sea, and Levantine Sea are the areas where most of the knowledge is reported in term of occurrence and to a lesser extent in terms of population estimate and trend or habitat preference. As reported by expert opinion, generally most of the available literature refers to the northern side of the basin, reflecting the scarce research efforts in the southern areas of the Mediterranean Sea.

Léa David – ACCOBAMS CCH Coordinator
ACCOBAMS Critical Cetacean Habitat (CCH)

According to the ACCOBAMS Conservation Plan (Annex 2 to the Agreement), Parties shall endeavour to establish and manage specially protected areas corresponding to the areas which serve as the habitats of

cetaceans. In this context, the Parties and the Scientific Committee of ACCOBAMS have been engaged for some years, to identify Cetacean Critical Habitats. Cetacean critical habitat (CCH) refers to those parts of a cetacean's range that are essential for day-to-day well-being and survival, as well as for maintaining a healthy population growth rate' (Hoyt 2011). For the purposes of the current work, the concept of cetacean critical habitat and its definition have been adopted from ACCOBAMS Resolution 3.22, Annex I.

'Criteria to identify sites containing cetacean critical habitat may include:

- Areas used by cetaceans for feeding, breeding, calving, nursing and social behaviour;
- Migration routes and corridors and related resting areas;
- Areas where there are seasonal concentrations of cetacean species;
- Areas of importance to cetacean prey;
- Natural processes that support continued productivity of cetacean foraging species (upwellings, fronts, etc.);
- Topographic structures favourable for enhancing foraging opportunities for cetacean species (canyons, seamounts).'

The concept of 'critical habitat' is commonly referred to in the context of MPAs and a number of suggestions and definitions for this exist (e.g., breeding areas; feeding areas; migratory corridors etc.). However, in the context of cetacean conservation and management it is important also to incorporate the concept of actual and potential threats at the population level, as well as human activities, into consideration of what is 'critical' and appropriate for consideration as an MPA.

To date, 22 CCHs have been adopted by ACCOBAMS Parties:

- 10 CCH for the common dolphin and other cetaceans,
- 5 CCH for the bottlenose dolphin,
- 1 CCH for the sperm whale,
- 3 CCH for diversity of various cetacean species, and
- 3 CCH for Black Sea cetaceans.

During the Joint RAC/SPA – GFCM – ACCOBAMS Meetings in June 2015 in Gammarth, Tunisia, it was decided to promote the threat-based management approach. For that reason, comprehensive spatial information on cetacean critical habitats, human activities and threats is being sought for the whole ACCOBAMS area. Another recommendation issued from this meeting was to consider the list of ACCOBAMS Cetacean Critical Habitats in the process of identifying Important Marine Mammal Areas in the Mediterranean Sea.

The current workshop will allow the updating of the CCH map which will then be proposed for adoption during the ACCOBAMS MOP in November 2016. It will provide guidance to Parties for the creation of appropriate conservation areas for cetaceans.

Laura Mannocci – Duke University, Geospatial Ecology Lab
Mediterranean Survey Gap Analysis

The coverage of line-transect surveys to estimate the abundance/density of cetaceans has been highly heterogeneous in the Mediterranean Sea. Our objective was to identify survey gaps in geographic, temporal and environmental space to help prioritise future surveys and guide the development of habitat-based density models at the basin scale. As part of a large collaborative effort, we aggregated over 300,000 km^2 of visual line-transect surveys that followed a distance sampling protocol (i.e., allowing the estimation of density). The survey effort was mostly concentrated in the Algero-Provençal basin, the Tyrrhenian Sea/eastern Ligurian Sea and the Alborán Sea, while it was very sparse in the Levantine Sea, the Ionian Sea/Central Mediterranean and the Strait of Sicily/Tunisian Plateau/Gulf of Sirte. Most of the survey effort was implemented in the summer months. Our analysis of survey coverage of the environmental space showed that the Levantine Sea, the Ionian Sea/Central Mediterranean and the Strait of Sicily/Tunisian Plateau/Gulf of Sirte have unique environmental conditions (notably higher sea surface temperature and

lower primary productivity); therefore, it would not be appropriate to 'fill' geographic gaps in these areas by extrapolating models developed in well surveyed areas. A basin-wide synoptic survey conducted in summer would be extremely useful for collecting data with a consistent methodology across the basin and would fill data gaps in the eastern Mediterranean. However, a single, summer basin-wide survey won't be sufficient to fill data gaps in non-summer months. Until more surveys are conducted in the eastern Mediterranean, basin-wide density estimation would only be possible with very simple models based on a reduced number of covariates well-sampled by surveys.

Corinne Martin – UNEP World Conservation Monitoring Centre (UNEP-WCMC)
World Database on Protected Areas

The World Database on Protected Areas (WDPA) is a global authoritative database on terrestrial and marine protected areas. It is a joint initiative between the United Nations Environment Programme (UNEP) and the International Union for Conservation of Nature (IUCN). It is compiled and managed by UNEP World Conservation Monitoring Centre (UNEP-WCMC) in collaboration with governments and non-governmental organisations. Set up in 1959, the WDPA in its present form is mandated by the United Nations. This mandate has been reiterated by several decisions from the CBD Conference of the Parties, and the database is used to track progress against Aichi Target 11 of the UN Strategic Plan for Biodiversity. To be labelled as a 'protected area' in the WDPA, an area needs to follow one of two definitions (Dudley 2008 or Article 2 of the CBD). The latest October 2016 release of the WDPA has approximately 230,000 records from 245 countries and territories, 18,300 with a marine component. It is a massive undertaking to keep this global database up to date as more protected areas get designated. In recent years, the data has been cleaned up to ensure consistency across records. The WDPA manual represents a resource for any user of the WDPA; it can be viewed and downloaded in geographic format on Protected Planet (www.protectedplanet.net).

Kristin Kaschner – University of Freiburg
Methods and data availability for establishing global reference points for assessing the relative importance of sites

The goal of this pilot study was to support the MMPA Task Force in the development of an objective and standardised methodology to assess the relative importance of sites during the process of identifying candidate Important Marine Mammal Area (cIMMA) during regional workshops over the next five years. We derived some global reference points for assessing the relative importance of a given focal area for a given species to avoid biases towards data rich species and/or areas. Similarly, we wanted to test the ability of certain metrics (which we have called niche model baseline indicators, NMBI) that can be derived from globally available data sets. The goal is to flag potential Areas of Interest (AoI) prior to regional workshops to support experts preparing for regional workshops. Proposed global reference points include metrics describing the quantity and quality of available habitat within focal areas for different species. Similarly, we derived ball park ranges of global minimum densities using size of maximum range extents and core areas combined with coarse species-specific estimates of global population sizes (orders of magnitude). This reference point could also be used for comparison with regionally observed densities to assess the relative importance of regions for different species. Proposed NMBIs were primarily developed to help experts test the quantitative assessment of sites against criteria Bii (aggregations) and Dii (diversity) using the advised numerical thresholds. NMBIs were obtained by calculating surrogate densities using outputs from environmental niche models predicting relative probability of species occurrence (in this case AquaMaps, www.aquamaps). These surrogates were then summarised for different biogeographical subregions within the focal area. NMBIs for different biogeographic subregions were subsequently assessed against advised numerical thresholds of criteria A, Bii and Dii. On this basis, we then categorized subregions for the different species with respect to the likelihood of a subregion representing or containing potential AoI and visualized this in the form of maps. Preliminary results for the Mediterranean provided support for the ability of global reference points to highlight the relative importance of focal areas to species (e.g., monk seals, *Monachus monachus* — habitat quantity and quality and striped dolphin, *Stenella coeruleoalba* -

densities). By comparing potential AoI derived from NMBI with submitted cIMMAs from the Mediterranean workshop, we will attempt to validate and improve the approach in the future. The methodology provides a useful starting point for the development of a conceptual framework and reference points for a systematic assessment of the relative importance of sites in the IMMA process.

Corinne Martin – UNEP World Conservation Monitoring Centre (UNEP-WCMC)
Effective uses of IMMAs in the Mediterranean region

This presentation aimed to support a discussion around 'the effective uses of IMMAs in the Mediterranean region'. Now that candidate Important Marine Mammal Areas (cIMMAs) have been mapped and justification documents drafted, it is a good time to look ahead toward the next steps, and considerations. First, the candidate IMMAs must go through peer-review, and be declared as IMMAs, and then the process will be repeated in other regions of the world. Metadata are 'data about data'; data without metadata are meaningless. Using UNEP-WCMC's standard metadata format as a framework, selected issues are presented that include: dataset citation and impact, communicating the strengths and weaknesses of a dataset, identifying the potential users of a dataset, dataset curation, and licensing. Finally, IMMAs need to be considered in the context of the existing area-based tools, designations and measures such as IUCN Key Biodiversity Areas and CBD EBSAs, among others. This would help ensure that IMMAs contribute to an established global indicator to track progress against the Aichi Biodiversity Targets of the UN Strategic Plan for Biodiversity.

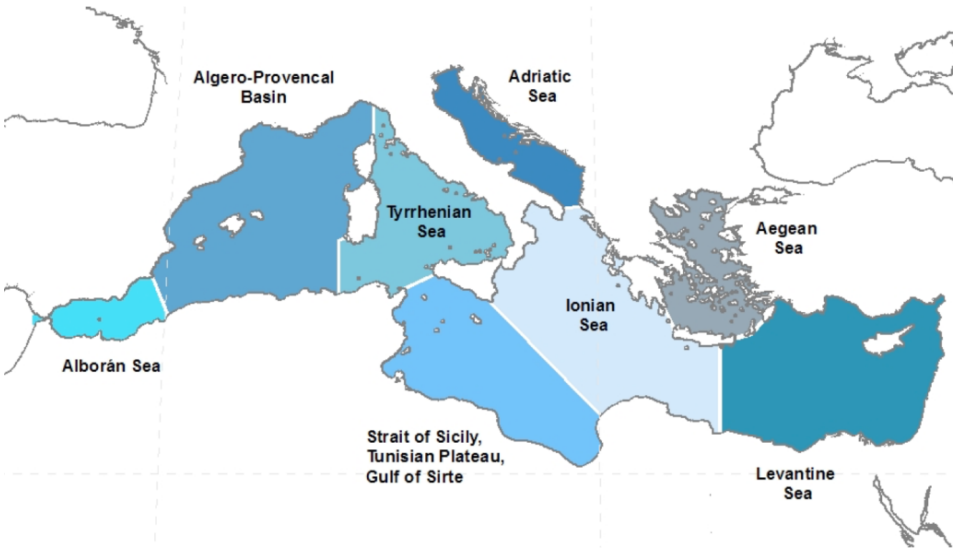
Annex IV – List of subgroups and group facilitators

Species Groups

	Species	English name	Current IUCN status	Group facilitator
1	*Monachus monachus*	Mediterranean monk seal	Endangered	Vangelis Paravas
2	*Balaenoptera physalus*	fin whale	Vulnerable	Margherita Zanardelli
3	*Physeter macrocephalus*	sperm whale	Endangered	Alexandros Frantzis
4	*Ziphius cavirostris*	Cuvier's beaked whale	Data Deficient	Ana Cañadas
5	*Delphinus delphis*	short-beaked common dolphin	Endangered	Daniela Silvia Pace
6	*Globicephala melas*	long-finned pilot whale	Data Deficient	Pauline Gauffier
7	*Grampus griseus*	Risso's dolphin	Data Deficient	Caterina Lanfredi
8	*Orcinus orca*	killer whale	Not assessed	Pauline Gauffier
9	*Stenella coeruleoalba*	striped dolphin	Vulnerable	Simone Panigada
10	*Steno bredanensis*	rough-toothed dolphin	Not assessed	Ayaka Öztürk
11	*Tursiops truncatus*	common bottlenose dolphin	Vulnerable	Joan Gonzalvo
12	*Phocoena p. relicta*	Black Sea harbour porpoise	Endangered	Ayaka Öztürk

Subregional Groups

	Subregion	Group facilitator
1	Alborán Sea/Strait of Gibraltar	Ana Cañadas
2	Algero-Provençal Basin	Léa David
3	Tyrrhenian Sea/eastern Ligurian Sea	Daniela Silvia Pace
4	Adriatic Sea	Draško Holcer
5	Strait of Sicily/Tunisian Plateau/Gulf of Sirte	Simone Panigada
6	Ionian Sea/Central Mediterranean	Joan Gonzalvo
7	Aegean Sea	George Paximadis
8	Levantine Sea	Ayaka Öztürk



Annex V — List of cIMMAs selected by workshop participants

41 candidate Important Marine Mammal Areas (cIMMAs) were identified by the experts attending the IMMA Regional Workshop for the Mediterranean. These were used to compile standard submissions for IMMA status for inspection by the independent review panel. Therefore, subject to that review, the below cIMMA locations may change. The accepted IMMAs and a summary of the supporting rationale will be made available via the MMPA Task Force website and other Task Force publications. The titles of the cIMMA submissions are listed below:

Tyrrhenian Sea [TYRR]

- Central Tyrrhenian Sea
- Campanian and Pontino Archipelagos
- Coastal Waters of Ischia
- Waters of Ischia and Ventotene
- East Sicily and Strait of Messina

Algero-Provencal Basin [ALPR]

- Balearic Islands and Shelf
- Balearic Islands Shelf and Slope
- North Western Mediterranean Slope and Canyon system
- Western Ligurian Sea and Genoa Canyon
- North West Mediterranean Sea and Slope
- Shelf of the Gulf of Lion

Alborán Sea [ALBO]

- Alborán Deep
- Alborán Corridor
- Contiguous Alborán Zone
- Straits of Gibraltar and Adjacent Western Area

Adriatic Sea [ADRI]

- Gulf of Trieste and Adjacent Waters
- Northern Adriatic coastal *Tursiops*
- Wider Northern Adriatic *Tursiops*
- Central South Adriatic Coastal *Tursiops*
- Southern Adriatic and Ionian Sea

Aegean Sea [AEGE]

- Thracian Sea
- Northern Sporades
- Chios and Turkish Coast
- Central Aegean
- Myrtoon Sea

Ionian Sea/Central Mediterranean [IONI]

- North East Ionian Sea
- Ionian Islands
- Inner Ionian Sea Archipelago and Adjacent Waters
- Gulf of Ambracia
- Gulf of Corinth
- Hellenic Trench

Levantine Sea [LEVA]

- Northern Coast of Cyprus
- Cilician Basin
- Akamas and Chrysochou Bay
- Akrotiri
- Coastal shelf of Israeli Mediterranean Coastline
- The shallow shelf of the southern Israeli Coastline and Gaza strip

Strait of Sicily/Tunisian Plateau/Gulf of Sirte [STPS]

- Kélibia
- Lampedusa
- Coastal Waters of Lampedusa Island
- Waters surrounding the Maltese Islands

Annex VI — List of AoI collected during the workshop

37 Areas of Interest (AoI) were identified by experts attending the IMMA Regional Workshop for the Mediterranean. It was considered that these sites necessitated a continual AoI status after the workshop due to the present paucity of evidence suitable for identification as candidate IMMA (cIMMA) at the time of the workshop. These sites consisted of (1) AoI originally submitted to the MMPA Task Force prior to the workshop and (2) those AoI which were additionally identified by experts over the course of the workshop in light of new information and knowledge presented. It was considered important to retain the AoI status so that these areas could be used to facilitate of focus future monitoring and research activities on marine mammals in the region. This enhanced activity could provide additional evidence for such AoI to be reconsidered as candidates during future iterations of the IMMA identification process and Regional Expert Workshops. It is envisaged that the AoI listed below, and any supporting rationale, will be highlighted in the future on the MMPA Task Force website and other Task Force publications. The titles of the proposed AoI are listed below:

Tyrrhenian Sea [TYRR]

- Tuscan Archipelago
- Tiber River Estuary
- Messina Strait
- Orosei Gulf
- Caprera Canyon
- Egadi Islands

Algero-Provencal Basin [ALPR]

- Contiguous Western Mediterranean
- Gulf of Lion and Canyon
- Gulf of Vera

Alborán Sea [ALBO]

- Al Hoceima

Adriatic Sea [ADRI]

- Southern Adriatic
- Kvarner Area

Aegean Sea [AEGE]

- Kythira and Antikythira
- Coastal Areas and Waters of Crete
- Thracian Sea and Northern Aegean
- Northern Dodecanese
- Entrance of Canakkale Strait
- Karaburun

Ionian Sea/Central Mediterranean [IONI]

- Al-Kouf National Park and Adjacent Area
- Gulf of Bomba
- Herodotus Trench and Seamount
- Gulf of Bomba to Marsa Matrouh

Levantine Sea [LEVA]

- South Eastern Levantine Sea for Risso's dolphin
- Central Eastern Levantine area for Rough-toothed dolphin
- Antalya Bay
- Antalya Canyon
- Nile Delta Fan
- Sallum
- Damietta
- Al-Bassit
- Latakia Ibn Hani
- Rawchy of Beirut
- Rosh Hanikra
- Lebanese Coast *Tursiops* Area

Strait of Sicily/Tunisian Plateau/Gulf of Sirte [STPS]

- Gulf of Gabès
- Bay of Bizerte
- Lampedusa Adjacent Waters

Annex VII — Contents of cIMMA submission form

This list of questions is intended to be used to assist participants of the IMMA Regional Workshop to draft their cIMMA submissions. Please complete where possible all those which may be relevant to any area considered suitable for cIMMA submission.

Part 1: cIMMA Description

- Title/Name of the area
- Points of Contact for Submission (names, affiliations, title, contact details)
- Abstract (100-word summary of the submission)
- Introduction (feature type(s) present, geographic description, depth range, oceanography, general information data reported, availability of models)
- Location (Indicate the geographic location of the area/feature and the underlying rationale for boundary selection. This should include reference to a location map shown on page 11 of this form in the space provided, and the total size of the area in km2. It should state if the area is within or outside national jurisdiction, or straddling both.)
- Description of the species and features which qualify as IMMA (information about the characteristics of the feature to be proposed, e.g. in terms of species, population and underlying physical description (water column feature, benthic feature, or both) and then refer to the data/information that is available to support the proposal and whether models are available in the absence of data. This needs to be supported where possible with maps, models, reference to analysis, or the level of research in the area)

Part 2: Criterion A – Species or Population Vulnerability

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Criterion A

Part 3: Criterion B - Sub-criterion Bi – Small and Resident Populations

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Bii

Part 4: Criterion B - Sub-criterion Bii – Aggregations

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Bii

Part 5: Criterion C - Sub-criterion Ci – Reproductive Areas

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Ci

Part 6: Criterion C - Sub-criterion Cii – Feeding Areas

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Cii

Part 7: Criterion C - Sub-criterion Ciii – Migration Routes

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Ciii

Part 8: Criterion D - Sub-criterion Di – Distinctiveness

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)
- Additional notes on the cIMMA submission on Sub-criterion Di

Part 9: Criterion D - Sub-criterion Di – Diversity

- Explanation for cIMMA Assessment (including rational for feature selection and description of feature and condition)
- Declaration of Confidence in Evidence Available (including information on data gathered, gaps in knowledge, reliability, age of information and any known biases)

- Additional notes on the cIMMA submission on Sub-criterion Dii

Part 10: Numerical Threshold Benchmarks

- Complete threshold benchmarks table where appropriate (including estimates of population abundance or percentage of population size)

Part 11: Species Description

- Complete the Species List table where appropriate (including IUCN or other source for threatened or declining status information)
- Species condition and future outlook of the proposed area (Description of the current condition of the area and species present– are they static, declining, improving, what are the particular vulnerabilities? Any planned research/programmes/investigations?)

Part 12: Maps and Figures

- Maps and Supporting Figures (Showing the boundary or area of the candidate IMMA and any relevant supplementary contextual information supporting IMMA classification)

Part 13: References

- References (Relevant documents and publications, including URL where available; relevant data sets, including where these are located; information pertaining to relevant audio/visual material, video, models, etc.)

Annex VIII — Results of the independent review panel on cIMMAs

This Annex, added to the Preliminary Report in July 2017, describes the output of the independent review of candidate IMMAs (cIMMAs) submitted in Chania in October 2016. It also presents a screenshot of the information on the accepted IMMAs contained in the IUCN SSC/WCPA Marine Mammal Protected Areas Task Force IMMA e-Atlas available at www.marinemammalhabitat.org/imma-eatlas.

In total 26 IMMAs were accepted for full status by the review panel, after receipt of revisions or additional information that was required before their confirmation as IMMAs meeting the IUCN Task Force criteria. Five cIMMAs were determined as not meeting the standard at this time but were considered to show substantive evidence of their merit as cIMMAs and could be assessed later by an interim Task Force regional working group for the Mediterranean; these remain as cIMMAs. Four other cIMMAs were determined to have insufficient evidence at this time to be considered as either IMMAs or interim cIMMAs. Two of these four have been merged with existing Areas of Interest (AoI) while the other two become new AoI, joining the working list of 37 AoI to make a total of 39 AoI for the Mediterranean Region. These 39 AoI, given further monitoring and survey effort, may be able to be reassessed as cIMMAs in a future IMMA expert identification workshop. Note that in some cases below, the names have changed from Annex V and VI, as area boundaries have been modified as a result of the review, and certain multiple cIMMAs were combined to form one.

The current (July 2017) list of IMMAs, cIMMAs, and AoI for the Mediterranean Region is as follows:

26 IMMAs

- Akamas and Chrysochou Bay IMMA
- Akrotiri IMMA
- Alborán Corridor IMMA
- Alborán Deep IMMA
- Alborán Sea IMMA
- Balearic Islands Shelf and Slope IMMA
- Campanian and Pontino Archipelagos IMMA
- Central Aegean Sea IMMA
- Chios and Turkish Coast IMMA
- Cilician Basin IMMA
- Coastal Shelf Waters of the Southeast Levantine Sea IMMA
- Gulf of Ambracia IMMA
- Gulf of Corinth IMMA
- Hellenic Trench IMMA
- Ionian Archipelago IMMA
- Kélibia IMMA
- Lampedusa IMMA
- North Western Mediterranean Sea, Slope, and Canyon System IMMA
- Northern Adriatic IMMA
- Northern Coast of Cyprus IMMA
- Northern Coast and Islands of the Thracian Sea IMMA
- Northern Sporades IMMA
- Shelf of the Gulf of Lion IMMA
- Straits of Gibraltar and Gulf of Cadiz IMMA
- Waters of Ischia and Ventotene IMMA
- Western Ligurian Sea and Genoa Canyon IMMA

5 cIMMAs

- Central South Coastal Adriatic Sea cIMMA
- Central Tyrrhenian Sea cIMMA
- East Sicily and Strait of Messina cIMMA
- North East Ionian Sea cIMMA
- Waters Surrounding the Maltese Islands cIMMA

39 AoI

- Al Hoceima
- Al-Bassit
- Al-Kouf and Adjacent Area
- Antalya Bay
- Antalya Canyon
- Balearic Islands and Shelf
- Bay of Bizerte
- Caprera Canyon
- Central Eastern Levantine Sea
- Coastal Area and Waters of Crete
- Contiguous Western Mediterranean
- Damietta
- Egadi Islands
- Entrance of Çanakkale Strait
- Gulf of Bomba

- Gulf of Bomba to Marsa Matrouh
- Gulf of Gabès
- Gulf of Lion Canyon System
- Gulf of Vera
- Herodotus Trench and Seamount
- Istria Kvarner
- Karaburun
- Kythira and Antikythira
- Lampedusa Adjacent Area
- Latakia Ibn Hani
- Lebanese Coast
- Myrtoon Sea
- Nile Delta Fan
- Northern Dodecanese
- Orosei Gulf
- Rawchy of Beirut
- Rosh Hanikra
- Sallum
- South East Levantine Sea
- Southern Adriatic
- Strait of Messina
- Thracian Sea and North Aegean
- Tiber River Estuary
- Tuscan Archipelago

The resulting IMMAs and interim cIMMAs are now displayed within the Task Force IMMA e-Atlas along with summary descriptions (www.marinemammalhabitat.org/imma-eatlas). Soon, each IMMA will be linked to dedicated portfolio pages supporting information, maps, and links to downloadable Fact Sheets. The AoI will be added to the e-Atlas in future with the help of the regional experts.