MARINE MAMMAL
PROTECTED AREAS
TASK FORCE
IUCN · SSC · WCPA

IMMA Regional Workshop
GUIDANCE ON COMPLETING THE
IMMA AREA TEMPLATE

IMMA

This template is to be used for a) the submission of both preliminary Areas of Interest (pAoI) before a workshop or b) candidate IMMAs (cIMMAs) during a workshop.

If the area becomes an approved IMMA following consideration at an expert workshop and subsequent peer review, the information entered in this template will be published on the IMMA website and in IMMA Fact Sheets.

This template is divided into seven sections all of which must be completed:

Section 1. Heading

　1.1. Name of Area

　1.2. Point(s) of Contact

Section 2. Tables

　2.1. Qualifying Species Table

　2.2. Supporting Species Table

Section 3. Criteria

Section 4. Rationale for Boundary Delineation

Section 5. Description of Habitat

Section 6. Summary

Section 7. References and Other Supporting Literature

HAVE YOU INCLUDED A FILE WITH A MAP?

Please include an ESRI shapefile, Google Earth (.kml or .kmz), or a JPG image file showing a polygon of the proposed area as part of your proposal.

The IMMA Secretariat will then use the file to produce: a) a simple boundary map using a standardised format, to be included it in this document, and b) an associated file to be used in the workshop process.

A pAoI proposal without a map file cannot be accepted

The template also contains an Annex to include supporting figures, additional maps, and images. These considerably strengthen a proposal and assist reviewers.

The following pages contain guidance on how to complete each section of the template. For a more detailed description of the IMMA process and each criterion, please see The IMMA Handbook.

Section 1. Heading

1.1. Name of Area

Provide a short, descriptive, geographically identifiable, memorable name for the pAoI/cIMMA.

Remember that the pAoI/cIMMA name will likely become the IMMA name, subject to review.

Recommendations:

- Use the name of geographic or oceanographic features of the habitat in the name (e.g. bay, estuary, gulf, shelf, island, archipelago, ecosystem, upwelling, slope, convergence, seasonal habitat); these should be given in English, as this is the working language of the IMMA e-Atlas and IMMA database.
- Insofar as possible, use local names connected to the area, e.g., deriving from traditional use, and these can be given in the local language, especially if these names are commonly used;
- Coastal locations without a defining oceanographic feature can be named using the two places that define the extent, e.g. 'Dingle to Mizen Head IMMA'.
- The name is capitalised, e.g., 'Ross Sea Ecosystem IMMA'.

Cautions:

- Avoid generalised and easily confused names such as 'Southern Australia Coast IMMA'. Instead, use a name that refers to distinctive features of the area that best represent its uniqueness and importance.
- Avoid including the name of the nation or province in which the area is located.
- Avoid including the name(s) of qualifying species for which the area is identified.

Examples of recommended names:

- Balearic Islands Shelf and Slope IMMA
- San Jose Canyon and Adjacent Shelf IMMA
- Aldabra Atoll IMMA
- Amsterdam Island, Saint Paul Complex and Associated Waters IMMA
- Tikapa Moana Te Moananui a Toi Hauraki IMMA
- Toliara, St. Augustine Canyon and Anakao IMMA

1.2. Point(s) of Contact

Please list all parties who were involved in the drafting of the Area - these are for internal use only, for correspondence between the secretariat and those who drafted the area and will not be published:

- Name, Affiliation/Organization, Contact Email
- Name, Affiliation/Organization, Contact Email
- Name, Affiliation/Organization, Contact Email

Section 2. Species Tables

2.1. Qualifying species table (Table 1)

Include in this table only Qualifying Species, i.e., species that trigger one or more criteria.

There is no upper limit to the number of Qualifying Species in an area.

ID	Scientific Name	Common Name	Subpopulation Name	IUCN Red List Status	Criteria							
					A	B1	B2	C1	C2	C3	D1	D2
1												
2												
3												

- Scientific name:
  - Species are listed in the table in alphabetical order based on the initial letter of the genus.
  - Taxonomic authorities for scientific names are not required and should be avoided.
  - Please follow the list of marine mammals officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy.
- Common names (as listed in the Committee on Taxonomy species list) do not have the initial letter capitalised unless they are the first word in a sentence or following a full stop (e.g., 'fin whale' in a sentence or 'Fin whale' at the beginning of a sentence, or they are proper names (, e.g., 'North Atlantic right whale' or 'Sowerby's beaked whale'). See the spelling of common names officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy.
- Subpopulation name: enter name only if listed as a subpopulation in the list of marine mammals officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy. There is no need to give the population a local name if it is not internationally recognised as such.
- IUCN Red List Status: use the category's acronym (CR, EN, VU, NT, LC, DD, NE) based on the latest available assessment, as listed in the IUCN Red List website).
- Criteria: mark with an 'x' (lower case) any criterion triggered by the species, based on the justifications given in Section 3. Where D2 (Diversity) is applied, the species list may be long.

2.2. Supporting Species table (Table 2)

Include in this table only Supporting Species, i.e., all marine mammal species that are regularly or predictably using habitat included in the area, but are not listed in Table 1 because no IMMA criterion is available to list them as Qualifying Species (e.g., for a dearth of available information). Do not include vagrants that have accidentally occurred in the area.

ID	Scientific Name	Common Name	Subpopulation Name	IUCN Red List status
1				
2				
3				

- Scientific name:
  - Species are listed in the table in alphabetical order based on the initial letter of the genus.
  - Taxonomic authorities for scientific names are not required and should be avoided.
  - Please follow the list of marine mammals officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy.
- Common names (as listed in the Committee on Taxonomy species list) do not have the initial letter capitalised unless they are the first word in a sentence or following a full stop (e.g., 'fin whale' in a sentence or 'Fin whale' at the beginning of a sentence, or they are proper names (, e.g., 'North Atlantic right whale' or 'Sowerby's beaked whale'). See the spelling of common names officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy
- Subpopulation name: enter name only if listed as a subpopulation in the list of marine mammals officially recognised by the Society for Marine Mammalogy's Committee on Taxonomy. There is no need to give the population a local name if it is not internationally recognised as such.
- IUCN Red List Status: use the category's acronym (CR, EN, VU, NT, LC, DD, NE) based on the latest available assessment, as listed in the IUCN Red List website).

Section 3. IMMA Criteria

This is the most important part of the template

Triage alert: if time is short, make sure you write up this section first. Remember, this text is the crucial element that allows IMMA users to understand which species may require protection or mitigation from anthropogenic threats.

Examine what is known about each species that occurs regularly in the area and decide whether any IMMA criteria could be well justified for that species.

Sources you can use in your justification: information from peer-reviewed journal articles is preferable; however, if such articles are not available, you can also refer to reports from reputable sources, preferably those that can be publicly accessed. In some cases, the provision of raw data with explanatory commentary, graphs or other processing, can be sufficient to defend a criterion.

To be viable, a proposal only needs to ensure that at least one criterion is met for one species in the area (with the exception of Criterion A, which must be associated with another criterion – see below). You can, of course, select more criteria to apply to that single species – but you don't have to; do so only if you have very strong evidence that all the criteria apply and can be justified.

In many cases, your pAoI/cIMMA will appear to support more than one Qualifying Species. List all the species that trigger one or more criteria as Qualifying Species, both in Table 1 and in the justification(s) in this section. Each Qualifying Species may trigger its own criterion (e.g., an area may support common bottlenose dolphins because it contains a small and resident population of that species, and humpback whales because it contains a feeding ground for that species); in other cases, the same criterion will apply to more than one species. However, please do not fall into the trap of thinking that a proposal will be 'better' because multiple species and criteria are listed. Choose those species and criteria that are strongly supported by empirical evidence in your area and focus on making sure these are well justified with the appropriate available sources.

3.1. Criterion A – Species or Population Vulnerability

First, determine if the species, subspecies or population at hand is listed as threatened (i.e., under category CR, EN or VU) in IUCN's Global or in exceptional cases regional or national (e.g., Mediterranean and European assessed Red List[1]).

This is a straightforward step, and you don't need to think further if the listing exists.

But remember, Criterion A must be associated with another criterion to trigger a cIMMA proposal: the animals need to be associated with the area by some ecological function in addition to being threatened for the identification of an IMMA to make sense. There may be exceptional, very rare cases in which you wish to identify an IMMA for a threatened species – qualifying for Criterion A – but for which you are unable to find any other applicable criterion. The concerning conservation status of that species could warrant an exceptional procedure in such cases, and the identification of that particular IMMA on the sole basis of Criterion A could be accepted, but only after consultation with the IMMA Secretariat and the Review Panel.

Sample paragraphs that you can use as models to fill Section 3.1.

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[1] "In some instances, in addition to the IUCN global Red List, it may be appropriate to consider a threatened status assigned under other regional or national threat-listing bodies. These instances, however, should be exceptional and subject to critical evaluation by relevant experts during workshops as well as scrutiny during the expert review." (IUCN Marine Mammal Protected Areas Task Force 2024).

- If there is only one threatened Qualifying Species in the area:

  The only Qualifying Species within the area that is considered threatened with extinction according to the IUCN Red List is the vaquita, which is assessed as Critically Endangered (Rojas Bracho et al. 2022).

- If there are two or more threatened Qualifying Species in the area:

  Two Qualifying Species considered threatened with extinction according to the global IUCN Red List regularly occur in this area. The fin whale (Cooke 2018) and sperm whale (Taylor et al. 2008) are both listed as Vulnerable on the Red List globally, and in the Mediterranean region they are both evaluated as Endangered subpopulations (fin whale: Panigada et al. 2021, and sperm whale: Pirotta et al. 2021).

There is a <u>word limit of **200 words** per species</u> in this subsection.

You can then proceed to include the species in Table 1 and mark appropriately the Criterion A column:

ID	Scientific Name	Common Name	Subpopulation Name	IUCN Red List Status	Criteria							
					A	B1	B2	C1	C2	C3	D1	D2
1	*Balaenoptera physalus*	fin whale	Global Mediterranean	VU EN	x							
2	*Physeter macrocephalus*	sperm whale	Global Mediterranean	VU EN	x							

3.2. Criterion B1 – Small and Resident Populations

Does that habitat support a species that is present in the area in a resident, small, or isolated population?

Criterion B1 applies to areas that contain resident populations of a species, where the area is occupied consistently, and the population is small.

Some populations of marine mammals are numerically small and occupy small or discrete areas in relation to the species' global distribution.

Note that there is no specific quantification of 'small' in the context of this criterion; it is applied taking into consideration and relative to the global distribution and abundance of the species being evaluated.

These characteristics make such populations important, and may also make them vulnerable and therefore provide a rationale for IMMA status.

Sample paragraph that you can use as a model to complete Section 3.2:

> ***The area sustains at least four small resident populations of Indo-Pacific bottlenose dolphins. Mark–recapture analyses based on photo-identification surveys conducted between 2009 and 2014 estimated the local population as 71 (95% CI = 60.2-84.0) individuals in Reunion with 90% of individuals resighted between years (Smith et al. 2017). Similar studies conducted between 2008 and 2010 resulted in an estimate of 58***

individuals (95% CI 54.31–63.38) in Mauritius with a resight rate between years of 67% indicating that most animals are long-term residents (Swift et al. 2014). Genetic analysis conducted using samples from Reunion, Mauritius, NW Madagascar and Mayotte demonstrated high and significant differentiation at both mitochondrial and nuclear levels, indicating restricted gene flow among the small resident populations of these species between islands (Smith et al. 2017).

There is a <u>word limit of **200 words** per species</u> in this subsection.

You can then proceed to include the species in Table 1 and place an 'x' in the Criterion B1 column.

<u>Important note</u>: listing and citing the evidence for a species under Criterion B1 in a cIMMA proposal will make it unnecessary to include Criteria C1 and C2 for the same species (as a 'small and resident population' will necessarily require both feeding and breeding habitat within the cIMMA).

3.3. Criterion B2 – Aggregations

If there is evidence that the habitat supports an important aggregation or high density of a species of marine mammal, Criterion B2 can be triggered. Most marine mammal species are wide-ranging and capable of movement over great distances. Some areas, because of their intrinsic attributes, support important aggregations of marine mammals and, as such, are potential candidates for IMMA status. This criterion might apply to a single species, or to several species.

The regularity or predictability of such aggregations must be known or at least presumed to the best of the available knowledge, linked to the underlying qualities of the concerned habitat, and noted in the justification. Details on the seasonality of occurrence of such aggregations are also important. Finally, approximate numbers (or at least an order of magnitude) of the individuals composing the aggregation is highly desirable. It is important to demonstrate that the numbers, densities, or aggregations are higher within the proposed area than in surrounding areas.

Sample paragraphs that you can use as models to complete Section 3.3:

- *Systematic boat-based surveys have been conducted across the region since 2007, and the waters of the IMMA consistently record the highest concentrations of False Killer Whales in the entire region. This species is reported at densities of >3 per km^2 throughout the year but with peaks in August and September (Anchor et al. 2015). Group sizes reported in the IMMA range from 15 to more than 500, which is significantly higher than in other nearby areas. The high densities are thought to be due to the high currents in this area caused by the bathymetry and indented coastline (Line et al. 2020).*

or

- *Several species of small and medium-sized delphinids (spinner dolphins, pantropical spotted dolphins, false killer whales and short-finned pilot whales) have been observed to aggregate in high numbers ($15\text{-}35*10^2$ individuals/km^2) in the area during aerial surveys conducted during the austral summer (Van Canneyt et al. 2020). The underlying reason(s) for such aggregations are still unclear but are likely to be linked to strong onshore winds that create localised upwelling.*

There is a word limit of **200 words** per species in this subsection.

You can then proceed to include the species in Table 1 by inserting an 'x' in the Criterion B2 column.

3.4. Criterion C1 – Reproductive Areas

An area can be identified under Criterion C1 if there is evidence that it is (seasonally) important for a species or population to mate, give birth, and/or care for young before weaning. Reproductive areas are considered important to the health and long-term survival of species and populations whose life history strategies involve distinct areas and times for reproductive activities.

Marine mammal reproductive areas include specific sites or systems that provide favourable conditions for giving birth and caring for young immediately after birth, and habitat that is used annually as haul-out by pinnipeds for giving birth, nursing young and/or mating.

Note that an anecdotal sighting of a mother accompanied by her calf is insufficient to trigger Criterion C1. Similarly, the observation of juveniles or calves in an area is also insufficient to meet Criterion C1, as groups with calves or juveniles may simply be passing through an area rather than relying on it for specific activities related to reproduction. Evidence should be provided on the regular and/or predictable occurrence of reproductive activities, such as mating (and behaviours related to mating, such as whale song), giving birth, or nursing young supported by information that the area is more important than adjacent areas.

Sample paragraphs that you can use as models to fill Section 3.4:

- ***A total of 906 interviews were carried out in the Andaman and Nicobar Islands (Sivakumar and Nair 2013), of which 44% of respondents had sighted dugongs, with a total of 247 encounters reported. Of these, 24% were mother-calf pairs (Sivakumar and Nair 2013), showing that the IMMA is an important reproductive area. Solitary individuals made up 60% of the observations. Dugong calves have been found stranded in this region (www.marinemammals.in).***

or

- ***The population of subantarctic fur seals on Amsterdam Island was almost completely depleted during the whaling era with less than 100 individuals being left in 1956 (Paulian 1964). This population increased to 30,500 adults by 1982 (Roux 1978). A good marker of the health of the population can be found in the annual pup production, which was 6.334 pups in 1982, 6.414 pups in 1993 (Guinet et al. 1994), and the latest count in 2018 gives a figure of 4.748 Subantarctic fur seal pups. Pups are counted annually by the scientists of the Polar Program 109 (CNRS CEBC UMR7372, France).***

There is a word limit of **200 words** per species in this subsection.

Remember that there will be no need to use Criterion C1 if you have triggered Criterion B1 to identify this area.

You can then proceed to include the species in Table 1 and enter an 'x' in the Criterion C1 column.

3.5. Criterion C2 – Feeding Areas

An area can be identified under Criterion C2 if there is evidence that it provides an important nutritional base for a marine mammal species or population, which depends on it.

Feeding areas used regularly and intensively, though sometimes seasonally, by marine mammals could be characterised by biological productivity generally (e.g., places where oceanic features drive processes supporting important biological productivity including upwellings; places where bathymetric features and the hydrodynamic processes around them act to concentrate prey for marine mammals; places where river mouths and larger estuarine habitats can promote the stable presence of prey aggregations through terrestrial run-off, warm water plumes, or glacial meltwater) or by the abundance and ready availability of particular nutritional resources. These may result from processes that concentrate prey or promote healthy, abundant vegetation, which is accessible to sirenian species and where they can forage undisturbed.

In order for an area to trigger Criterion C2, evidence should be provided of the regular and/or predictable occurrence of feeding by marine mammals in the area, including direct observations of feeding animals and defecation episodes, or faecal, stomach content or stable isotope analyses that directly tie consumed prey to the IMMA.

Sample paragraphs that you can use as models to fill Section 3.5:

- *Spinner dolphins and pantropical spotted dolphins are regularly observed feeding in the San José Canyon, which serves as a conduit for the transport of deep, nutrient-rich waters to the continental shelf waters. A high percentage of spinner dolphin groups (70%) have been observed feeding, while only 20% of pantropical spotted dolphin groups were involved in this activity (Fernandez-Arcaya et al. 2017; Santora et al. 2018).*

or

- *The area includes an important feeding ground for southern right whales that breed along the coast of Argentina, Uruguay and Brazil (Best et al. 1993, Rowntree et al. 2001, Ott et al. 2011, IWC 2012, Nijs and Rowntree 2017). Groups are regularly observed lunge-feeding and surface skimming, and necropsies of stranded individuals showed the main diet species to be xxxx xxxx (Xxxx xxxxx) and yyyy yyyy (Yyyy yyyyy) (Santos et al. 2020).*

Remember that there will be no need to use Criterion C2 if you have triggered Criterion B1 to identify this area.

There is a word limit of **200 words** per species in this subsection.

You can then proceed to include the species in Table 1 and place an 'x' in the Criterion C2 column.

3.6. Criterion C3 – Migration Routes

Criterion C3 is triggered where an area is used for migration or other movements of a species, often connecting distinct areas where feeding (C2) or breeding (C1) take place.

Migration routes and associated transit areas used regularly and intensively by travelling marine mammals are considered important for the long-term survival of species and populations. These include corridors, bottlenecks, straits, stepping stones and rest areas which are used regularly for long-distance movements, or other movements important to the species.

This criterion may also apply to significant seasonal movements as a species moves to different parts of the year-round range of a non-migratory population, however it is important to show that the movement is not localised and that the distances involved are substantial.

Important Note: Where an IMMA is identified on the basis of criterion C3 alone, it will be tagged as a 'Migratory Corridor' or 'MIMMA' and shown on the e-Atlas in a different shade than other multi-species and multi-criteria IMMAs, even if they include C3 as a criterion. This is because migratory corridors are typically used only seasonally and are very large, and therefore, they need to be displayed slightly differently to users.

Sample paragraphs that you can use as models to fill Section 3.6:

- *The IMMA encompasses the main migratory corridor of the western South Atlantic humpback whale population as determined by satellite tracking data (Zerbini et al. 2006; 2011; Bedriñana-Romano et al. 2022). The data are based on 22 adult (judged by their relatively large size) humpback whales of both sexes that were tagged on the main breeding ground in Abrolhos Bank and tracked between 2003 and 2019 for 40-275 days (Bedriñana-Romano et al. 2022). The IMMA boundaries encompass the satellite tracks of 20 out of 22 individuals that were tagged and tracked during their entire southbound migration. The IMMA connects another IMMA in Abrolhos Bank, Brazil which is a major known breeding area for this species, to the Scotia Arc IMMA which represents the main feeding grounds of western South Atlantic humpback whales (Zerbini et al. 2006; Engel and Martin 2009; Reisinger et al. 2020; Bedriñana et al. 2022).*

- *The Kerch Strait is a migration corridor connecting the Sea of Azov and the Black Sea. Every spring the Azov anchovy and other fish species migrate to the productive feeding areas of the Sea of Azov and return to the Black Sea in autumn. The presence of the migratory harbour porpoises was recorded during boat and coastal visual observations, passive acoustic monitoring with a C-POD detector and monitoring of stranding porpoises in 2007-2012 (Savenko et al. 2013; Vishnyakova et al. 2013). It was shown the seasonal migration of harbour porpoises correlated with water temperature changes, their north-to-south gradient and the occurrence of aggregations of anchovy (Engraulis encrasicolus) and sand smelts (Atherina spp.). Autumn migration lasted between October and November, and spring migration lasted between March and April. During the peaks of migration the aggregations of the harbour porpoises reached a few thousand individuals.*

There is a word limit of **200 words** per species in this subsection.

You can then proceed to include the species in Table 1 and place an 'x' in the Criterion C3 column.

3.7. Criterion D1 – Distinctiveness

Criterion D1 is triggered in an area where a marine mammal population has notable genetic, behavioural or ecological distinctive characteristics.

Certain marine mammal populations, due to their geographic isolation or adaptation to particular types of habitats, have characteristics that are peculiar, and rare in comparison to other populations. Such characteristics can include genetic distinctiveness, distinct morphology, or rare or unusual behaviour (e.g., culturally transmitted behaviour) or ecological linkages. Habitats that in some way support or encourage these characteristics are regarded as important.

Sample paragraphs that you can use as models to fill Section 3.7:

- *Based on mtDNA control region haplotypes and nuclear microsatellites, melon-headed whales from Palmyra Atoll were differentiated from all other sampled populations in the central Pacific and from most other sampled populations (Martien et al. 2017). There is high confidence in this assessment of differentiation because of the large number of samples from Palmyra (n=56).*

or

- *In the Karadag and Opug IMMA, the Black Sea bottlenose dolphins have distinct external morphology: a high prevalence of partially white (piebald) individuals. A total of 11% of photo-identified bottlenose dolphins in this area are piebald, which is the highest reported percentage in a local population of Tursiops. Several partially white dolphins were repeatedly recorded during photo ID surveys for several years each, including one fully white animal, which was regularly observed in the Sudak region between 2007 and 2013 (Gladilina et al. 2012; Gladilina et al. 2019). In addition, in the eastern part of cIMMA, several (ca. 10) individuals demonstrate beaching during foraging, a rare behaviour for* Tursiops *in general and unique for the Black Sea region (Gladilina 2018): this hunting type is shared by several photo-identified individuals seen in the same area during several consecutive years.*

There is a word limit of **200 words** per species in this subsection.

You can then proceed to include the species in Table 1 and mark appropriately the Criterion D1 column.

3.8. Criterion D2 – Diversity

Criterion D2 is triggered in an area containing habitat that supports an important diversity of marine mammal species.

Care must be taken to ensure that the area contains core habitat for the species being considered, to avoid situations where only peripheral portions of many species' ranges happen to overlap; simple range maps can often be misleading (Williams et al. 2014). Species used to satisfy Criterion D2 should occur regularly within the IMMA; those that occurred historically but no longer occur, vagrants, single species records, or strandings of species that normally occur in habitat outside the IMMA boundary should not be used to satisfy this criterion.

The threshold number of species for the attribution of the D2 criterion in any particular region is based on the average species richness across the region <u>The regional threshold is determined by the IMMA Secretariat in consultation with the review panel prior to each workshop</u>.[2]

Sample paragraph that you can use as models to fill Section 3.8:

Thirteen cetacean species have been recorded in the Pemba Channel, including* Delphinus delphis tropicalis, Globicephala macrocephalus, Grampus griseus, Kogia breviceps, Lagenodelphis hosei, Megaptera novaeangliae, Mesoplodon densirostris, Pseudorca crassidens, Sousa plumbea, Stenella attenuata, Stenella longirostris, Tursiops aduncus *and* Tursiops truncatus. *In an evaluation of the entire coast of Tanzania, the Pemba Channel had the highest cetacean relative abundance and relative diversity of any other location in the country (Braulik et al. 2017).

There is a <u>word limit of **200 words**</u> in this subsection.

You can then proceed to include the species in Table 1 and mark appropriately the Criterion D2 column. By listing a species in Table 1 under Criterion D2, that species becomes a Qualifying Species even if it only triggers Criterion D2. Note that marking an "x" under Criterion D2 in Table 1, all qualifying species in the table are shown as triggering that criterion.

Section 4. Rationale for Boundary Delineation

Please provide a short description of the features used for defining the boundary of the proposed area.

<u>Use:</u>

- Geomorphological features of the habitat such as depth-contours, continental shelf limits, canyons, seamounts, coastal features (e.g., estuaries, river mouths) that support the habitat of the species. These features, supported by direct observations (sightings data) are the most appropriate for the purpose.
- Dynamic features, (fronts, upwellings, productivity patches, or other aggregations of prey) supported by direct observations.

<u>Avoid:</u>

- Straight lines.
- Following political designations such as borders of countries or marine areas.
- Model results extrapolated form other areas and not validated by direct observations.

For coastal areas indicate the names of the geographic locations (e.g. capes, bays) selected as the limits of the area boundaries.

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[2] Five is the minimum number of species necessary in any region to qualify an area under the Diversity criterion. Therefore, in regions that host <5 marine mammal species, e.g., the Black Sea (3 species) or the Caspian Sea (1 species), Criterion D2 is inapplicable.

Please, include in the Annex section any figures, images, or maps from published or unpublished papers that can support the rationale for boundary delineation (e.g. maps displaying sightings or tracking data, density models, habitat maps).

Sample paragraphs that you can use as models to fill Section 4:

The area includes the shelf waters west of the Outer Hebrides and extends from Butt of Lewis southwards to the Stanton Banks. Offshore boundaries follow the 200m isobath. The area encompasses the gray seals foraging sites as derived from distribution models based on tracking data (Carter et al. 2022 see Figure 2 in the Annex section).

or

The area boundaries include the waters deeper than 2000 meters of the Bay of Biscay and is delineated to encompass the core area of the fin whale density surface model (considering values greater than 0.075 individuals/km²) derived from data collected during the large-scale survey SCANS-III (Lacey et al. 2022 see Figure 2 in the Annex section).

There is a word limit of **200 words** in this subsection.

Section 5. Description of Habitat

Although a description of the habitat used by marine mammals in an IMMA is not included in the e-Atlas, it is still important to provide a condensed description of the essence of such habitat because this is what IMMAs really are, and what reviewers will need to know in order to best evaluate how the species fit in the proposed area. Furthermore, the description of a cIMMA habitat will be included in the corresponding Fact Sheet, which will be added as a downloadable PDF from the e-Atlas.

There is a word limit of **200 words** in this section.

The section should be composed of the following sentences (in this order):

1. One sentence about location.
2. One sentence about its geography.
3. One to four sentences about the type of habitat encompassed by the area (type of habitat, bathymetry, oceanography).
4. One to two sentences about other designations existing in the area (EBSAs, MPAs, ISRAs, KBAs, PSSAs, etc.).
5. Optional: any other information providing relevant background.

Note that the elements listed above coincide with some of the elements required for the Summary (see next section), which, however, can be written here in slightly greater detail. This should significantly facilitate the drafting of the template.

Example:

1. The Osa Peninsula cIMMA is located along the west coast of Costa Rica.
2. It extends up to a maximum of 72 km from the coast, and borders on the coast and the entrance to Gulfo Dulce.

3. The area includes continental shelf and deep waters, with depths ranging from the coast to the 1,500m isobath (the outer limit of the area). The shelf becomes progressively narrower southward along the western coast of the Peninsula at the edge of the Cocos' Ridge, which acts as a barrier influencing the local hydrography promoting stability (Lizano 2008). Climatic conditions are characterised by a bimodal regime of precipitation. During the rainy season (June-October), salinity levels in the water column fluctuate by the increased flow of rivers and creeks along a coast lined by humid tropical rainforest (Morales-Ramírez et al. 2015).
4. The area includes Drake Bay and the Caño Island Biological Reserve. It is also contained within an "Area To Be Avoided" declared by the Costa Rican government to mitigate whale ship strikes, and the EBSA "Corredor Marino del Pacifico Oriental Tropical".

Result (175 words): The Osa Peninsula cIMMA is located along the west coast of Costa Rica. It extends into the ocean by a maximum of 72 km and borders on the coast and the entrance to Gulfo Dulce. The area includes continental shelf and deep waters, with depths ranging from the coast to the 1,500m isobath (the outer limit of the area). The shelf becomes progressively narrower southward along the western coast of the Peninsula at the edge of the Cocos' Ridge, which acts as a barrier influencing the local hydrography promoting stability (Lizano 2008). Climatic conditions are characterised by a bimodal regime of precipitation. During the rainy season (June-October), salinity levels in the water column fluctuate by the increased flow of rivers and creeks along a coast lined by humid tropical rainforests (Morales-Ramírez et al. 2015). The area includes Drake Bay and the Caño Island Biological Reserve. It is also contained within an "Area To Be Avoided" declared by the Costa Rican government to mitigate whale ship strikes, and the EBSA "Corredor Marino del Pacifico Oriental Tropical".

Section 6. Summary

Summaries are the external face of every IMMA and are what users of the e-Atlas see in a pop-up box when they click on any IMMA.

Like the abstract of a peer-reviewed journal article, the summary should aim to encompass the most salient points of the IMMA. Try to imagine what a government agency responsible for marine mammal management or an industry stakeholder considering some form of potentially impacting activity would need to know at a glance to understand the value of this IMMA to marine mammals and to ocean conservation.

There is a word limit of **200 words** in this section.

The section should be composed of the following sentences (in this order):

Example:

General statement of location	The Osa Peninsula cIMMA[3] is located along the west coast of Costa Rica.

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[3] Exactly replicate the cIMMA name here.

Key geographical features	It extends into the ocean by a maximum of 72 km and borders on the continental coast and the entrance to Gulfo Dulce.
Key ecological features	The area includes continental shelf and deep waters, with depths ranging down to the 1,500m isobath (the outer limit of the area).
Reference to existing designations	The area includes Drake Bay and the Caño Island Biological Reserve. It is also comprised within an "Area To Be Avoided" declared by the Costa Rican government to mitigate whale ship strikes, and the EBSA "Corredor Marino del Pacifico Oriental tropical".
Mention species criterion A	Within this area there are: threatened species (North Pacific humpback whale, *Megaptera novaeangliae kuzira*[4]),
Mention species Criterion C1[5]	breeding grounds (e.g., southern humpback whale, *Megaptera novaeangliae*),
Mention species Criterion C2	feeding areas (e.g., Central American spinner dolphin, *Stenella longirostris centroamericana,* coastal pantropical spotted dolphin, *Stenella attenuata graffmani*),
Mention species Criterion D2	and the area sustains a high diversity of marine mammals (15 species).

Result (150 words): The Osa Peninsula cIMMA is located along the west coast of Costa Rica. It extends into the ocean by a maximum of 72 km and borders on the continental coast and the entrance to Gulfo Dulce. The area includes continental shelf and deep waters, with depths ranging down to the 1,500m isobath (the outer limit of the area). The area includes Drake Bay and the Caño Island Biological Reserve. It is also comprised within an "Area To Be Avoided" declared by the Costa Rican government to mitigate whale ship strikes, and the EBSA "Corredor Marino del Pacifico Oriental tropical". Within this area there are: threatened species (North Pacific humpback whale, *Megaptera novaeangliae kuzira*), breeding grounds (e.g., southern humpback whale, *Megaptera novaeangliae*), feeding areas (e.g., Central American spinner dolphin, *Stenella longirostris centroamericana,* coastal pantropical spotted dolphin, *Stenella attenuata graffmani*), and the area sustains a high diversity of marine mammals (15 species).

Section 7. References and Other Supporting Literature

Please find below a range of examples for the most common types of cited references using the 'Harvard System', and a complete list is in the IUCN Inhouse Style Manual:

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[4] In all cases, list species with "e.g.," if it is one of many (you don't have to list them all); without "e.g.," if it is the only one satisfying that particular criterion.
[5] List whatever criteria apply, on a case-by-case basis. This is just an example.

- Book:

    Pomeroy, R.S., Park, J.E. and Watson, L.M. 2004. How is your MPA doing? A Guidebook of Natural and Social Indicators for Evaluating Marine Protected Areas Management Effectiveness. Gland, Switzerland and Cambridge, UK: IUCN. pp.81– 109. New York: Churchill Livingstone.

- Chapter or extract from a book:

    Margarey, M.E. 1988. 'Examination of the Cervical and Thoracic Spine'. In: R. Grant (ed.) Physical Therapy of the Cervical and Thoracic Spine, pp.81– 109. New York: Churchill Livingstone.

- Multi-volume works if all volumes of a work have the same title:

    Iza, A. and Aguilar, G. eds. 2009. Biological Diversity in Central America. Volume 1. Gland, Switzerland: IUCN. N.B. If citing the whole multi-volume work, note that the total number of volumes should be included after the title rather than the number of the actual volume used.

- Multi-volume works each volume has a separate title:

    Iza, A. 2009. Forests. Volume 1, Biological Diversity in Central America, Alejandro Iza y Grethel Aguilar (eds.). Gland, Switzerland: IUCN.

- Articles from periodicals or journals (issues, volumes):

    Rips, L.J., Shoben, E.J. and Smith, E.E. 1973. 'Semantic Distance and the Verification of Semantic Relations'. Journal of Verbal Learning and Verbal Behaviour, 12:1– 20.

- Articles from online periodicals or journals:

    Rips, L.J., Shoben, E.J. and Smith, E.E. 1973. 'Semantic Distance and the Verification of Semantic Relations'. Journal of Verbal Learning and Verbal Behaviour, 12:1– 20 [online]. Available at: DOI or URL (Accessed: 1 January 2017)

- Unpublished or soon-to-be-published works:

    McNeely, J. In press. The politics of biodiversity: a reader. Gland, Switzerland: IUCN.

    McNeely, J. Forthcoming. The politics of biodiversity: a reader. Gland, Switzerland: IUCN.

N.B. Conventions for citing unpublished or forthcoming publications vary. If a book has been accepted for publication this should be noted as 'In press'. When a book has not yet been accepted for publication this should be noted as 'Forthcoming'. The above citation presumes that the forthcoming book will be published by IUCN in Gland, Switzerland. When the publisher is unknown, only the author and title will figure in the citation.

Annex. Supporting Figures, Maps and Images.

Please provide any figures, images, graphs or maps for inclusion in the IMMA submission, either by pasting directly into the document or by pasting a URL link to the Figure. These may be taken from published papers or unpublished material.

Provide a legend describing each figure.

Add the photographer to be credited to any images.

These materials strengthen the area submissions considerably.

The material will not be displayed in the online portfolio but can be used in the downloadable IMMA Brochures.

References

IUCN Marine Mammal Protected Areas Task Force. 2024. The IMMA Handbook. Version: March 2024. 67 p.

Williams R., Grand J., Hooker S.K., Buckland S.T., Reeves R.R., Rojas-Bracho L., Sandilands D., Kaschner K. 2014. Prioritizing global marine mammal habitats using density maps in place of range maps. Ecography 37:212-220. https://doi.org/10.1111/j.1600-0587.2013.00479.x