

# Important Marine Mammal Areas in the Pacific

Rochelle Constantine & Claire Garrigue  
IMMA Task Force Co-coordinators – Pacific Region



Marc Oremus photo



# Global IUCN Initiative – Important Marine Mammal Areas

Important Marine Mammal Areas (IMMAs) – [www.marinemammalhabitat.org](http://www.marinemammalhabitat.org)

“a discrete portion of habitat, important to marine mammal species, that has the potential to be delineated and managed for conservation”

- (1) the [specific vulnerability](#) of many marine mammals,
- (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 spatial protection measures, because they are more easily monitored than most other pelagic vertebrates,
- (4) the role of marine mammals as [umbrella species](#) which helps 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.

Input into MPA initiatives - [Ecologically or Biologically Significant Areas \(EBSAs\)](#) under the Convention on Biological Diversity (CBD), & [Key Biodiversity Areas \(KBAs\)](#)

<http://gobi.org/resources/webinars/introducing-important-marine-mammal-areas-a-new-tool-for-global-marine-mammal-and-biodiversity-conservation/>

# Global IUCN Initiative – Important Marine Mammal Areas

- Marine Mammal Task Force identifies key areas
- International peer-review of proposed areas – robust support required
- Designations: IMMA, cIMMA or AoI
- Inform strategic direction & management decisions around implementation of protection e.g.
  - regulation of activities
  - conservation management action/ policy
  - future focused decisions/ radical responsibility

[www.marinemammalhabitat.org](http://www.marinemammalhabitat.org)



Upcoming – Southeast Temperate & Tropical Pacific Ocean –  
November 2021

# Criteria – only need 1 to propose an IMMA

## **Criterion A – Species or Population Vulnerability**

*Contain habitat important for the survival and recovery of threatened and declining species.*

## **Criterion B – Distribution and Abundance**

### Sub-criterion B1 – Small and Resident Populations

*Supporting at least one resident population, containing an important proportion of that species or population, that are occupied consistently.*

### Sub-criterion B2 – Aggregations

*Areas with underlying qualities that support important concentrations of a species or population.*

## **Criterion C – Key Life Cycle Activities**

### Sub-criterion C1 – Reproductive Areas

### Sub-criterion C2 – Feeding Areas

### Sub-criterion C3 – Migration Routes

## **Criterion D – Special Attributes**

### Sub-criterion D1 – Distinctiveness

*Sustain populations with important genetic, behavioural or ecologically distinctive characteristics.*

### Sub-criterion D2 – Diversity

*Contain habitat that supports an important diversity of marine mammal species.*

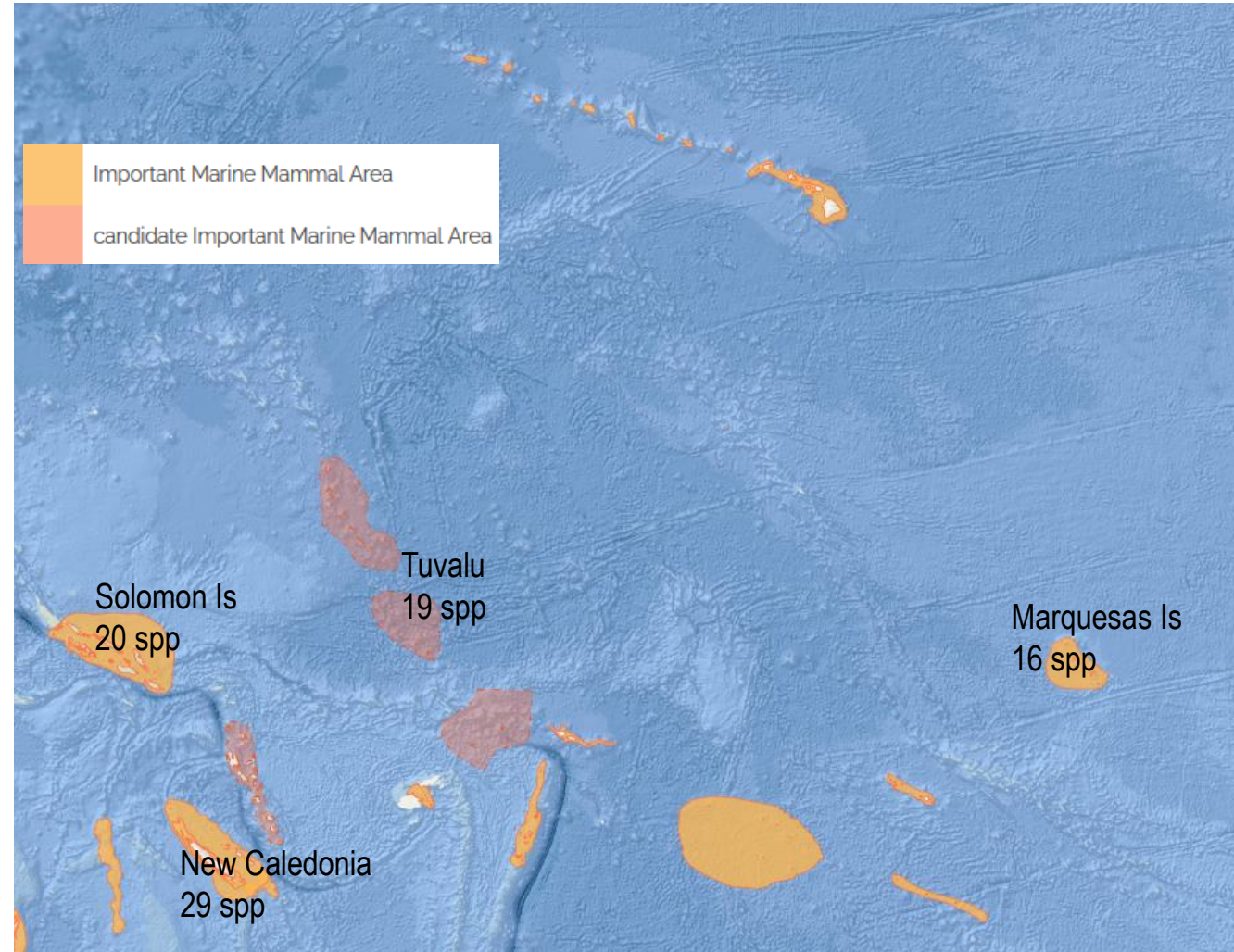
# Cetaceans of the Pacific

- Large, complex geographical region = vast expanse of habitat:
  - deep canyons, nearshore lagoons
  - year-round & seasonal habitat use
- 2006 Convention on Migratory Species (CMS) – SPREP MoU; IUCN designations; comprehensive Whales and Dolphins Action Plan (2013-2017) – now under revision
- Knowledge dominated by nearshore species – spinner dolphins, humpback whales, dugong, rough-toothed dolphins, bottlenose dolphins
- Only a few areas with focused research
- Important for tourism
- Universities, South Pacific Whale Research Consortium, NGOs



# Pacific Region Important Marine Mammal Areas

- 20 IMMAs, 4 cIMMAs & 20 AoIs designated in Pacific region – Workshop, Samoa 2017
  - funded through the GOBI/IKI project
- Most areas had 15+ known species
  - almost certainly more
- New Caledonia reflects research effort + diversity
- Can change IMMA status
  - Chesterfield – Bellona Reef Complex & Seamounts
- Different species key to designation of the IMMA
  - humpback whales & spinner dolphins common
  - killer whales & sperm whales (Bismarck Sea)
  - melon-headed whales & spinner dolphins (Marquesas)



# Main Solomon Islands IMMA

X

**Summary:** This IMMA encompasses coastal and offshore waters of the main group of the Solomon Islands. Overall, knowledge on marine mammal populations in the area remains scarce but dedicated surveys have highlighted an important diversity of species. This area is also one of the few known aggregations for Omura's whales in the region. Photo-identification and genetic data support the presence of small, resident, populations of coastal dolphins, that are genetically distinct from neighbouring populations. Dugongs are widely distributed within the IMMA and are considered Vulnerable on the IUCN Red List.

**Region:** Pacific Islands

**Criteria:** Criterion A - Species or Population Vulnerability; Criterion B - Distribution and Abundance; Criterion D - Special Attributes

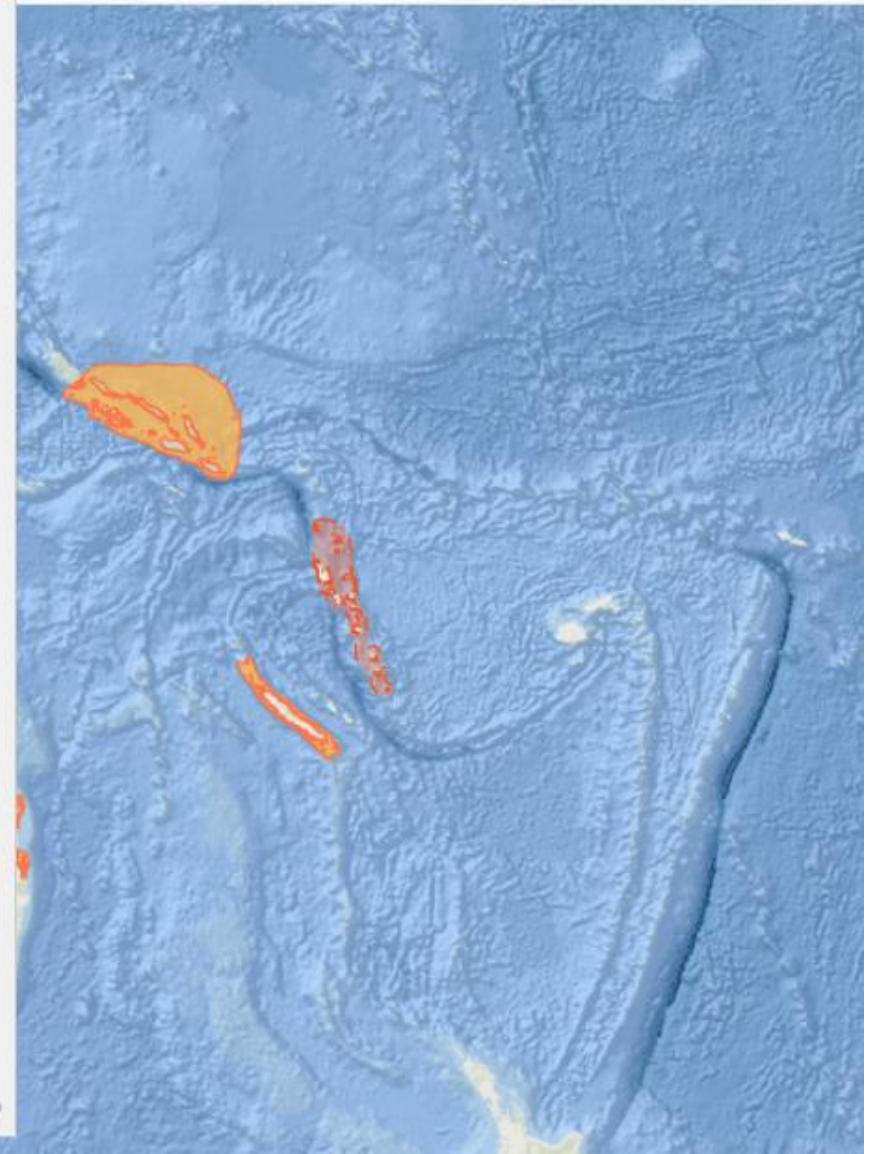
**Species:** *Tursiops aduncus*, *Stenella longirostris*, *Dugong dugon*, *Balaenoptera omurai*

[MORE INFO](#)

IMMAS

IMMA E-ATLAS

TASK FORCE



# Main Hawaiian Archipelago IMMA



**Summary:** Many areas throughout the Hawaiian Archipelago have already been designated as Biologically Important Areas (BIA) for different marine mammal species including common bottlenose dolphin, pygmy killer whale, false killer whale, spinner dolphin, and humpback whale. Individually many of these small, island-associated populations could contribute to equally as many IMMAs as important small and resident populations and important reproductive habitat for the humpback whales. As these important habitats overlap, and are already recognised individually as BIAs, one IMMA has been identified to encompass the important diversity of marine mammals throughout the area.

**Region:** Pacific Islands

**Criteria:** Criterion A - Species or Population Vulnerability; Criterion B - Distribution and Abundance; Criterion C - Key Life Cycle Activities; Criterion D - Special Attributes

**Species:** *Stenella longirostris*, *Tursiops truncatus*, *Feresa attenuata*, *Globicephala macrorhynchus*, *Kogia sima*, *Mesoplodon densirostris*, *Peponocephala electra*, *Stenella attenuata*, *Steno bredanensis*, *Ziphius cavirostris*, *Pseudorca crassidens*, *Megaptera novaeangliae*

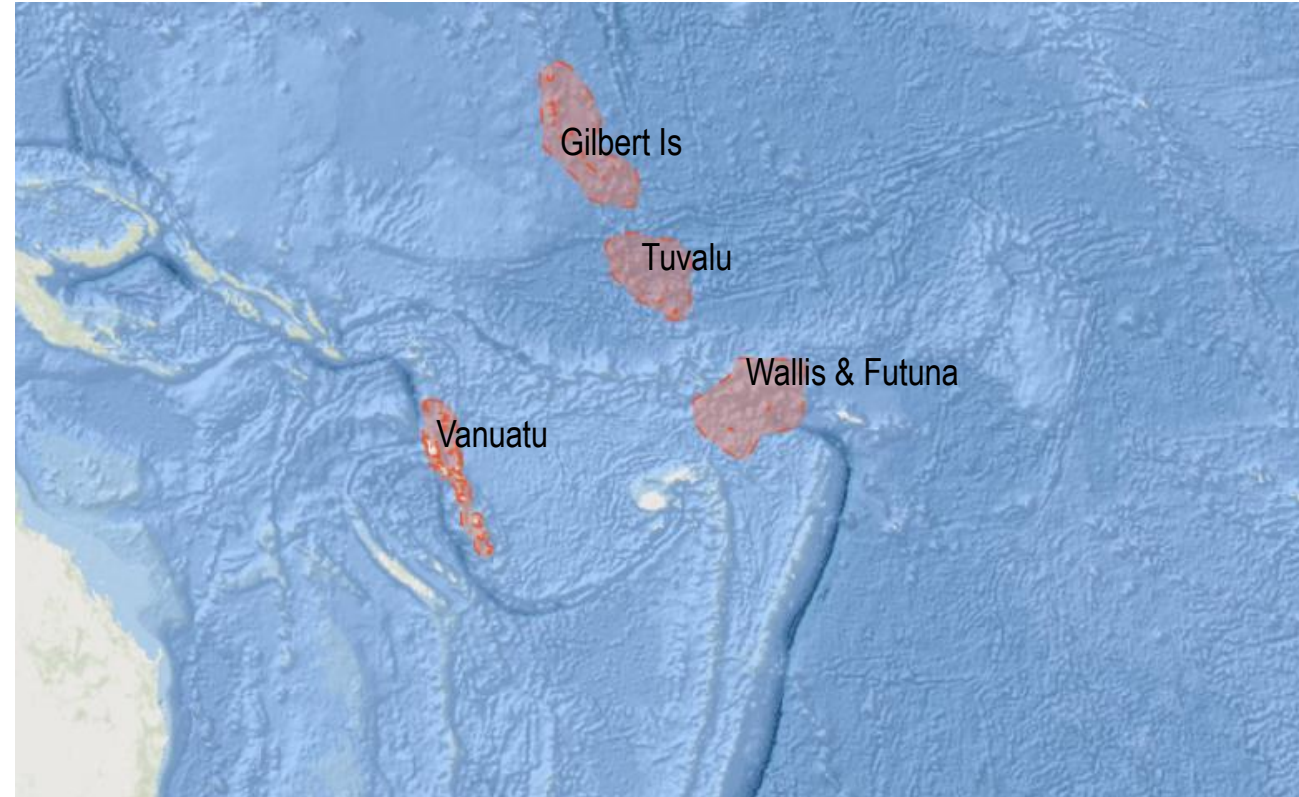




# Candidate IMMAs – with more info could be IMMAs

- 4 candidate IMMAs (cIMMA) declared  
Require more detailed information
- **Wallis & Futuna**
  - French REMMOA aerial survey
  - Mainly small dolphins & beaked whales
- **Gilbert Is & Tuvalu**
  - Comparable to Hawai'i in diversity despite paucity of surveys, beaked whales
- **Vanuatu**
  - Humpback whale breeding ground, important dugong habitat, no doubt high diversity but poorly surveyed

20 Areas of Interest (Aols) – reflects lack of knowledge



Research effort here = valuable investment  
Needs to be comprehensive & published

# Tuvalu cIMMA



**Summary:** The waters of Tuvalu (and Gilbert Islands) are reported to host 19 species of cetaceans. This includes a newly 're-discovered' species of beaked whale, *Mesoplodon hotaula*, identified from meat and bone of specimens taken for human consumption, as well as *Mesoplodon densirostris* and *Ziphius cavirostris*. The species diversity of Tuvalu (and the nearby Gilbert Islands) thus rivals that of Hawaiian waters (24 species) and the Eastern Tropical Pacific (17 species), despite a paucity of directed surveys. The cIMMA is delineated to include documented sightings and genetic sampling locations of at least 11 of these species. It extends across open ocean and includes near-shore resting habitat of spinner dolphins (*Stenella longirostris*).

**Region:** Pacific Islands

**Criteria:** Unconfirmed - Pending Assessment

**Species:** *Stenella longirostris*

**Status:** Unconfirmed - Pending Assessment

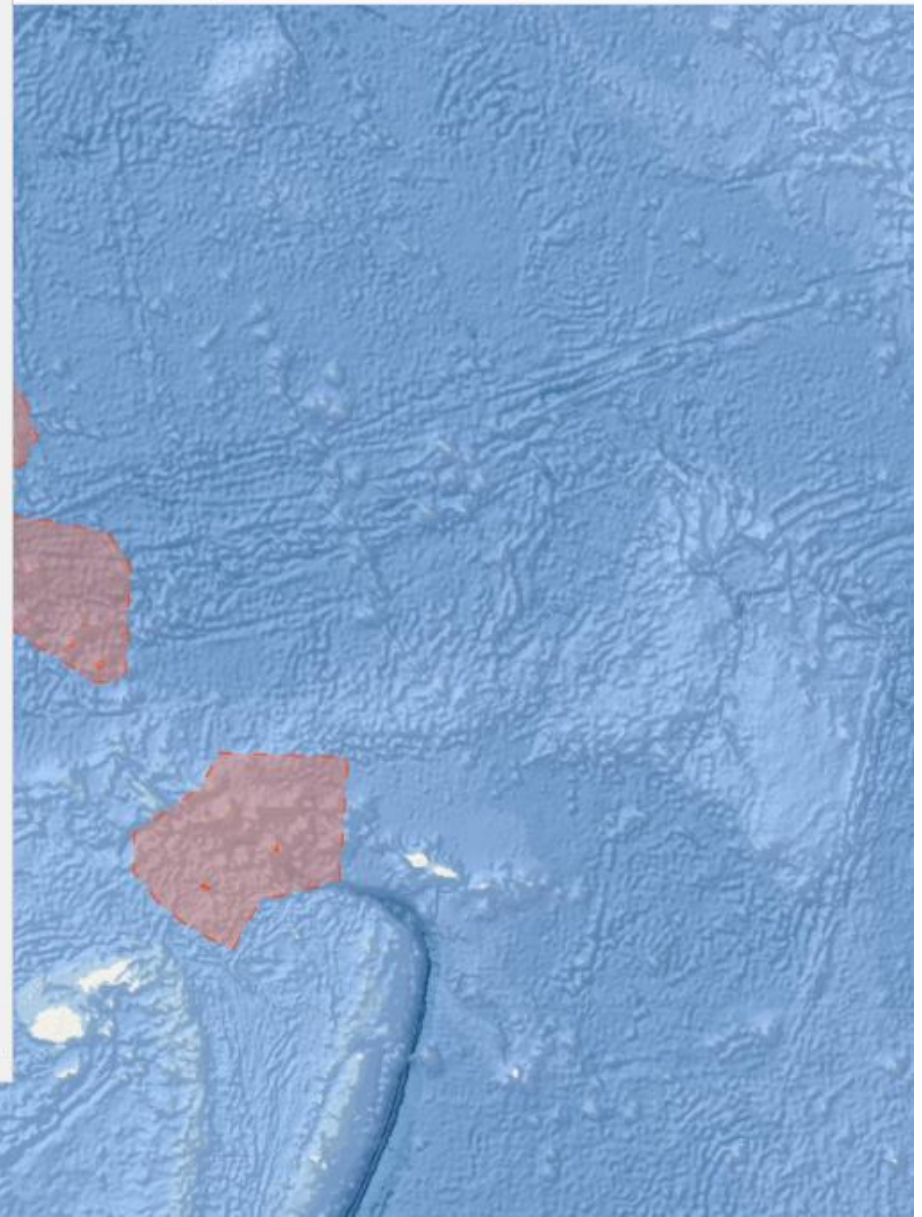
Detailed information on cIMMAs is unavailable pending their conversion to full IMMA status after review (see [Selection Process](#))

IMMAS

IMMA E-ATLAS

TASK FORCE

DOWN



# What can we do now?

Tere tohorā, tere tangata – where there are whales, there are people

Simple data collection:

- Location, species identity (photos to ID apps), number (min-best-max)
- Tour operators, ferry & fishing crew as data collectors?
- Platform to store & share data – open access
- Can move cIMMAs to IMMAs and Aols to IMMAs
- A little data can go a long way

IMMA linked to OBIS-SEAMAP; [seamap.env.duke.edu](http://seamap.env.duke.edu)

Many pathways to share & act  
eg SPREP, IUCN, CMS, IWC, FAO, EBSAs...



Marc Oremus photo

# Kia ora Merci Thank you

<https://www.pacificnatureconference.com/ird-claire-garrigue>

IMMA TASK FORCE CO-CORDINATORS

Claire Garrigue – [claire.garrigue@ird.fr](mailto:claire.garrigue@ird.fr)

Rochelle Constantine – [r.constantine@auckland.ac.nz](mailto:r.constantine@auckland.ac.nz)



Becky Lindsay University of Auckland photo