

# Waters of New Caledonia and Loyalty Islands IMMA

## Criterion A: Species or Population Vulnerability

Historical and opportunistic data on sperm whales (*Physeter macrocephalus*) show that they are present year-round in the area with no evidence of seasonal variation in their habitat preference in the oceanic waters close to the barrier reef (Poupon and Garrigue, 2011). Sperm whales are classified as Vulnerable on the IUCN red list. The group of humpback whales (*Megaptera novaeangliae*) migrating to New Caledonia belong to the subpopulation of Oceania which is classified as Endangered by IUCN (Childerhouse et al., 2009).

## Criterion D: Special Attributes Sub-criterion D2: Diversity

The Remmoa large aerial survey covered 40,500 km of transects over 544,000 km<sup>2</sup> (40% of the EEZ) of oceanic waters surrounding the main Island and Loyalty Islands between October to December 2014 (Fig. 1) (Van Canneyt et al., 2016; Laran et al., 2016). The diversity, in number of species or taxa observed during this survey was high with 19 cetacean species recorded (Laran et al., 2016). Laran et al. (2016) calculated the following abundance estimates (uncorrected for bias) during the survey for the entire area : 9,800 individuals (CI 95% 2,000 – 49,000) for pantropical spotted and spinner dolphins; 9,000 individuals (CI 95% 3,300 – 24,600) for common bottlenose dolphins (and possible unidentified rough-toothed or Fraser's dolphins); 7,500 individuals (CI 95% 1,300 – 44,200) for melon-headed whales and possible pygmy killer whales; 2,000 individuals for Risso's dolphins (CI 95% 300 – 4,400); 8,200 individuals (CI 95% 3,700 – 18,400) for short-finned pilot whales (a possible false killer whales); 3,000 beaked whales (CI 95% 1,300 – 7,800) and about 800 individuals (CI 95% 200- 3,000) respectively for kogiidae and for sperm whales.



### Area Size

155,056 km<sup>2</sup>

### Qualifying Species and Criteria

Sperm Whale – *Physeter macrocephalus*

Criterion A

Humpback Whale – *Megaptera novaeangliae*

Criterion A

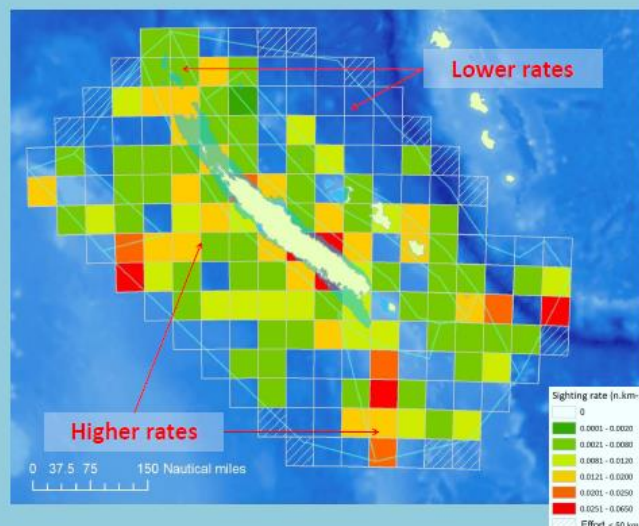
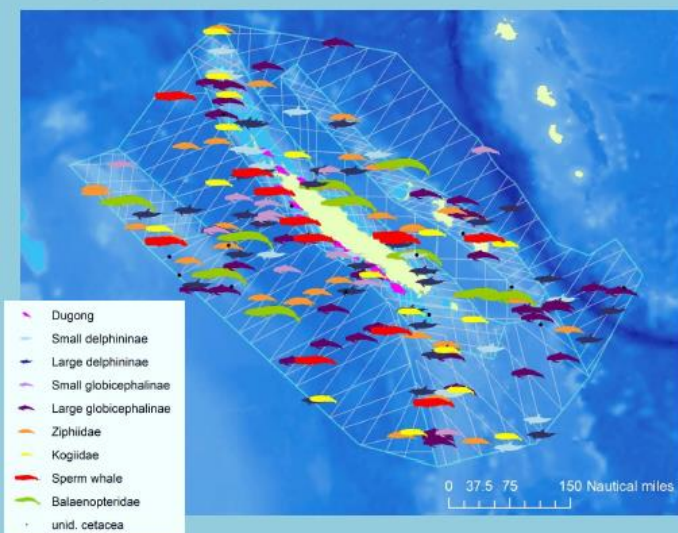
### Marine Mammal Diversity (D2)

*Ziphius cavirostris*, *Indopacetus pacificus*,  
*Globicephala macrorhynchus*, *Tursiops truncatus*,  
*Kogia sima*, *Kogia breviceps*, *Grampus griseus*,  
*Balaenoptera omurai*, *Stenella attenuata*,  
*Mesoplodon densirostris*, *Peponocephala electra*,  
*Stenella longirostris*, *Balaenoptera musculus*  
*brevicauda*, *Balaenoptera bonaerensis*, *Feresa*  
*attenuata*, *Pseudorca crassidens*, *Balaenoptera*  
*borealis*, *Orcinus orca*, *Physeter macrocephalus*,  
*Megaptera novaeangliae*

### Summary

This IMMA is located within the "Natural Park of the Coral Sea", which covers most of the Exclusive Economic Zone of New Caledonia. It encompasses oceanic waters east and south of the main island up to the Loyalty Islands. The IMMA includes shallow banks, slopes, seamounts, and abyssal plains. The waters of New Caledonia and Loyalty Island boast an impressive diversity, with 19 marine mammal species (including the Omura's whale) recorded within the IMMA during aerial surveys.

## Diversity and distribution



## Species composition

All deep diver species account for a third all sightings.

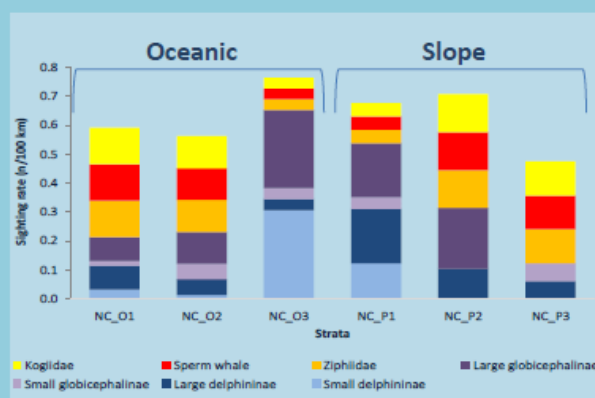
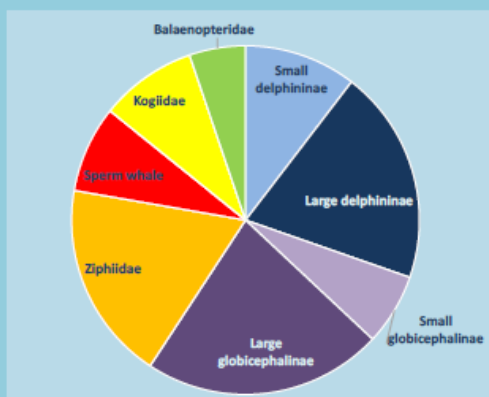


Figure 1: (Top) Diversity and distribution of sightings collected on effort during REMMOA surveys and encounter rate of sightings/km. (Bottom) Taxonomic composition of sightings during REMMOA survey in New Caledonia and details by bathymetric strata. From: Van Canneyt et al., 2016.

## Supporting Information

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**MARINE MAMMAL PROTECTED AREAS TASK FORCE**

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