

# Austral Archipelago IMMA

## Description

The Austral archipelago IMMA is nestled within the French Polynesia national marine mammal sanctuary and includes the coastal waters of Rimatara, Rurutu, Tubuai and Raivavae Islands. During the austral winter, this area is host to some of the highest concentrations of humpback whales in all of French Polynesia (Gannier, 2004; Poole et al., 2014). The islands are all volcanic and are separated from each other by an average of roughly 200 km. Humpback whales in the IMMA are primarily concentrated along the coastline or near the reef edge (when a barrier reef is present) (Gannier, 2004), yet sightings also occur out to the 2000 m depth contour and throughout the stretches of water between the islands. The diversity and density of marine mammal species in the Austral archipelago appear to be relatively low compared to other archipelagos of French Polynesia (Laran et al. 2012). However, several species other than humpback whales are confirmed to occur there, including sperm whales, spinner dolphins, common bottlenose dolphins and unidentified beaked whales.

## Criterion A: Species or Population Vulnerability

The humpback whales that visit the Austral Islands, are a part of the larger Oceania humpback whale subpopulation that is classified as Endangered on the IUCN Red List. The Oceania-wide abundance estimate was 4329 (CV = 0.12, CI 3345-5313) whales in 2003 (Constantine et al., 2012) and models suggest that this subpopulation is recovering at a slower rate than other humpback whale populations (Jackson et al., 2007).

## Criterion B: Distribution and Abundance Sub-criterion B2: Aggregations

The nearshore waters of the Austral Archipelago are critical places where humpback whales aggregate for breeding during the winter months. Encounter rates of humpback whales around the Austral archipelago



## Area Size

32,291 km<sup>2</sup>

## Qualifying Species and Criteria

Humpback whale – *Megaptera novaeangliae*

Criteria A, B2, C1

## Marine Mammal Diversity

*Megaptera novaeangliae*, *Physeter macrocephalus*,  
*Stenella longirostris*, *Tursiops truncatus*, *Ziphius  
cavirostris*, *Mesoplodon densirostris*, *Stenella  
attenuata*, *Steno bredanensis*

## Summary

The Austral Islands are the southernmost archipelago in French Polynesia. Humpback whales from the Oceania subpopulation, classified by IUCN as Endangered, regularly aggregate around at least four of the archipelago islands (Rimatara, Rurutu, Tubuai, and Raivavae) during the austral winter. Humpback whale group encounter rates are higher around these islands than in any other part of French Polynesia (except for the Windward Islands) and the area has all the characteristics of being an important humpback whale reproductive area. Genetics and photo-ID studies suggest that humpback whales that frequent the Austral Islands are largely separate from those that occur elsewhere in the region. The whales are primarily found close to the shore or to the fringing barrier reef, yet they move between and among islands, each separated by approximately 200km. Therefore, the IMMA includes the coastal waters of each island as well as the stretches of water that connect them.

are amongst the highest in French Polynesia, suggesting that this aggregation may constitute a considerable proportion of the subpopulation. The Islands are an important area for all sex- and age-classes (Fig. 1) (Gannier, 2004; Poole et al., 2014).

## Criterion C: Key Life Cycle Activities

### Sub-criterion C1: Reproductive Areas

The Austral islands form critical annual winter calving and mating habitat for humpback whales (Gannier, 2004; Poole et al., 2014; Poole, 1993).

## Supporting Information

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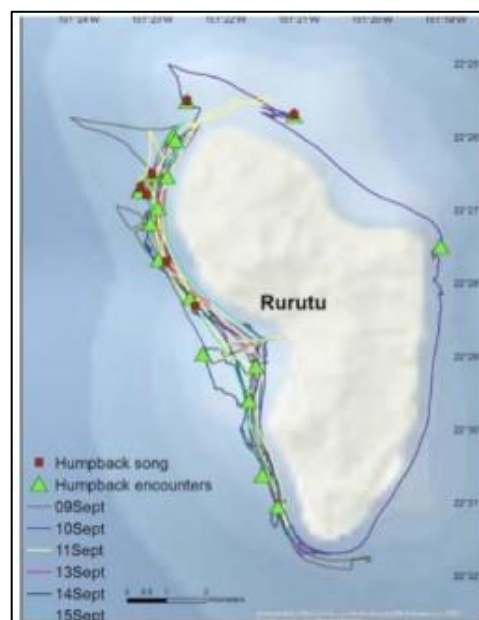
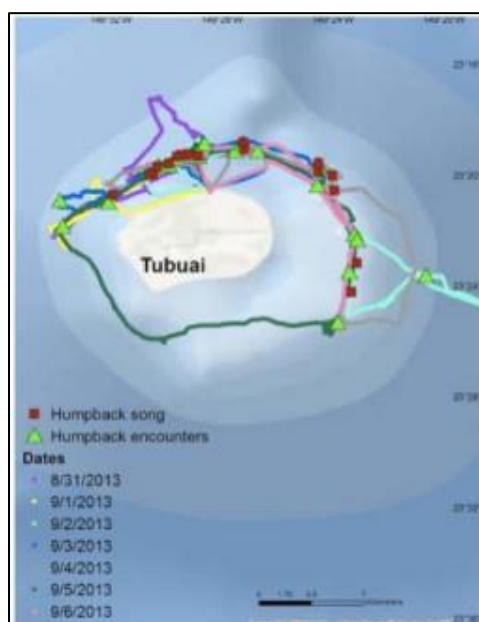
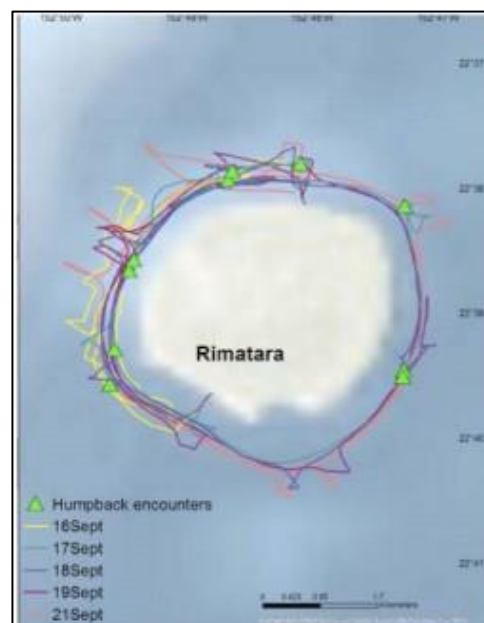


Figure 1: Vessel survey tracklines and humpback whale sightings, plus locations of song recordings at each island within the Austral Archipelago IMMA. Adapted from Poole et al., 2014.

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