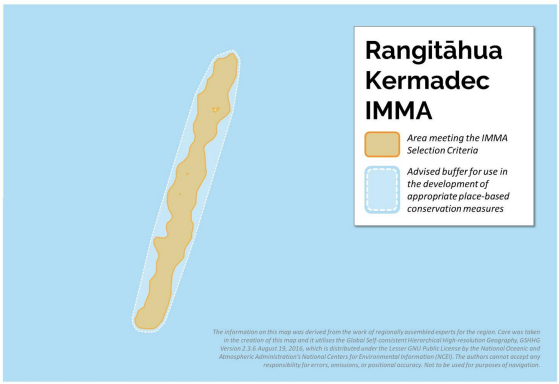

Area Size

22,011km^2

Qualifying Species and Criteria

Humpback whale – *Megaptera novaeangliae*

Criterion A, B2, C3

Common bottlenose dolphin – *Tursiops truncatus*

Criterion B2

Marine Mammal Diversity

Physeter macrocephalus, Balaenoptera musculus, Orcinus orca, Delphinus delphis

Summary

The Rangitāhua Kermadec IMMA lies on a volcanic ridge in deep trench waters, influenced by cool and warm currents but not highly productive waters. The small islands are 800–1,000 km northeast of the North Island of New Zealand. All of the islands are surrounded by a 12nm Marine Protected Area so they are protected from fishing. Oceania humpback whales pass through the central South Pacific Ocean on their southern migration ~September-November (e.g., Brown 2010, Gibson 2013). Raoul Island is the southernmost land mass where Oceania humpback whales stop for short periods (typically 4-5 days) to rest and socialise before continuing to their Southern Ocean feeding grounds (Riekkola et al. 2018, Owen et al. 2019)..

Rangitāhua Kermadec IMMA

Summary cont….

Common bottlenose dolphins are found year-round at Raoul Island in groups of ~15-20 individuals including all age and sex classes (Duffy et al. 2015, Clark et al. 2017). They have also been reported from other areas within this IMMA (Duffy et al. 2015, Clark et al. 2017).

Sperm whales are found year-round feeding in the deep Canyon waters. Other species such as migratory baleen whales (pygmy blue, southern right and sei whales), and ocean-roaming species (false killer whales, pilot whales, killer whales, Fraser's dolphin, beaked whales and pygmy/dwarf sperm whales) have all been reported in Kermadec waters.

Rangitāhua was important to Pacific voyagers, and humpback whales are prominent in the narratives of Ngāti Kuri (the people of these islands), with song and travelling featuring from a time before humpback whales were hunted to near extinction (Grose et al. 2020). These narratives are now being revitalised with the recovery of some whale populations.

Criterion A: Species or Population Vulnerability

Globally humpback whales are listed on the Red List

Figure 1 – Humpback whales and common bottlenose dolphins together. Photo credit: Ngāti Kuri and University of Auckland

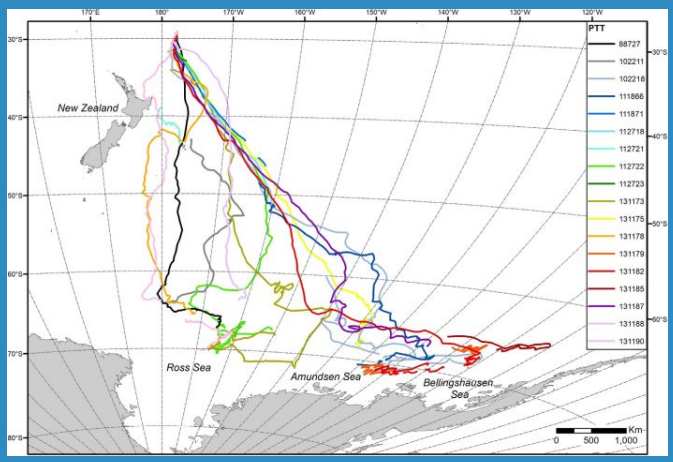

Figure 2 – Migration path of whales tagged at Raoul Island showing whales stay close to the Kermadec Island chain before dispersing as they migrate to the Southern Ocean. (From Riekkola et al. 2018.)

as Least Concern. However, the Oceania subpopulation of multiple breeding ground origins is Red-Listed as Endangered by the IUCN. This subpopulation is recovering from whaling more slowly than other populations (IWC, 2015). Humpback whales from several different Oceania breeding grounds migrate through Kermadec Rangitāhua waters on the way to their Southern Ocean feeding grounds (Riekkola et al. 2018).

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

This IMMA represents an important stopover place for Oceania humpback whales approximately 1,600 km south of their breeding rounds (Gibson 2013, Riekkola et al. 2018). Single-day surveys in 2008 estimated ~50 whales but more recently these numbers have increased to estimates of 150+ whales per day at Raoul Island (Gibson 2013, Riekkola et al. 2018, Clark et al. 2017). Whilst some whales migrate past, some, including mother-calf pairs, stay for periods of 4-5 days resting and socialising,. Although the Kermadec Islands are considered part of the migration path, whales continue to sing. Song from different breeding ground subpopulations has been recorded with evidence of cultural transmission of song between whales at Raoul Island (Owen et al. 2019). There is a year-round aggregation of common bottlenose dolphins at Raoul Island with frequent resightings from a catalogue of 71 individuals over a four-year period (Clark et al. 2017). A total of 142 common bottlenose dolphins have been photo-identified from the Kermadec region with no evidence to date of interchange between individuals from different islands (Clark et al. 2017).

Criterion C: Key Life Cycle Activities
Sub-Criterion C3: Migration Routes

The Rangitāhua Kermadec region is the southernmost landmass that humpback whales pass as they migrate from Oceania to Antarctica with whales travelling through a narrow path between islands (Riekkola et al. 2018). Only a few whales pass mainland New Zealand on their southern migration (Garrigue et al. 2015) highlighting the Kermadec region as an important route before whales disperse widely travelling to different Southern Ocean feeding grounds (Riekkola et al. 2018, Riekkola et al. 2019). There are occasional sightings of whales migrating north, but this region is not considered an important northern migration route.

Supporting Information

Baker, C.S., Boren, L., Childerhouse, S., Constantine, R., van Helden, A., Lundquist, D., Rayment, W., Rolfe, J.R. 2019. Conservation status of New Zealand marine mammals, 2019. New Zealand Threat Classification Series 29. Department of Conservation, Wellington, New Zealand, pp 18

Figure 1 – Humpback whale fluke. Photo credit: Ngāti Kuri and University of Auckland

Brown, N. 2010. Raoul Island Whale Survey 2010. Unpublished Report; Department of Conservation, New Zealand, pp 29.

Clark, M.P., Trnski, T., Constantine, R., Aguirre, J.D., Barker, J., Betty, E., Bowden, D.A., Connell, A., Duffy,C., George, S., Hannam, S., Liggins, L., Middleton, C., Mills, S., Pallentin, A., Riekkola, L., Sampey, A., Sewell, M., Spong, K., Stewart, A., Struthers, C., van Oosterom , L. 2017. Biodiversity of the Kermadec Islands and offshore waters of the Kermadec Ridge: report of a coastal, marine mammal and deep-sea survey (TAN1612). New Zealand Aquatic Environment and Biodiversity Report No. 179. Ministry for Primary Industries, New Zealand, pp 95.

Duffy, C., Baker, C.S., Constantine, R. 2015. 'Observation and identification of marine mammals during two recent expeditions to the Kermadec Islands, New Zealand'. Bulletin of the Auckland Museum 20: 501-510

Garrigue, C., Clapham, P.J., Geyer, Y., Kennedy, A.S., Zerbini, A.N. 2015. 'Satellite tracking reveals novel migratory patterns and the importance of seamounts for endangered South Pacific humpback whales'. Royal Society Open Science 2: 150489

Gibson, T.. 2013. Raoul Island Whale Survey 2013. Unpublished Report; Department of Conservation, New Zealand, pp 22.

Grose SO, Pendleton L, Leathers A, Cornish A and Waitai S (2020) Climate change will re-draw the map for marine megafauna and the people who depend on them. Front. Mar. Sci. 7:547. doi:10.3389/fmars.2020.00547

International Whaling Commission, 2015. Report of the sub-committee on other Southern Hemisphere whale stocks Annex H. International Whaling Commission IWC/66/Rep01, San Diego, USA 22 May–3 June 2015, pp. 38.

Owen, C., Rendell, L., Constantine, R., Noad, M.J., Allen, J., Andrews, O., Garrigue, C., Poole, M.M., Donnelly, D., Hauser, N., Garland, E.C. 2019. 'Migratory convergence facilitates cultural transmission of humpback whale song'. Royal Society Open Science 6: 190337

Riekkola, L., Zerbini, A.N., Andrews, O., Andrews-Goff, V., Baker, C.S., Chandler, D., Childerhouse, S., Clapham, P., Dodemont, R., Donnelly, D., Friedlaender, A., Gallego, R., Garrigue, C., Ivashchenko, Y., Jarman, S., Lindsay, R., Pallin, L., Robbins, J., Steel, D., Tremlett, J., Vindenes, S., Constantine, R. 2018. 'Application of a multi-disciplinary approach to reveal population structure and Southern Ocean feeding grounds of humpback whales'. Ecological Indicators 89: 455-465

Riekkola, L., Andrews-Goff, V., Friedlaender, A., Constantine, R., Zerbini, A.N. 2019. 'Environmental drivers of humpback whale foraging behavior in the remote Southern Ocean'. Journal of Experimental Marine Biology and Ecology 517: 1-12

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PDF made available for download at: https://www.marinemammalhabitat.org/portfolio-item/rangitahua-kermadec/