Kaimana, West Papua IMMA

Summary, continued.

bottlenose dolphin, *Tursiops aduncus*, ‘Least Concern’ Bryde’s whale, *Balaenoptera edeni* and ‘Vulnerable’ Dugong. The Kaimana Region represents one of only three known locations in West Papua where Australian humpback dolphins have been confirmed. Australian humpback dolphins have not been recorded from any other area within the North East Indian Ocean and South East Asian Seas region. At least four other marine mammals have been confirmed to occur within the Kaimana IMMA, with more species (i.e. Australian snubfin dolphin) likely to be recorded with future dedicated survey effort.

Description

Kaimana is located in south-western West Papua, Indonesia and is part of the Raja Ampat Marine Protected Area (MPA) Network and Bird’s Head Seascape. This region is also located within the epi-centre of the Coral Triangle, an area of exceptional coral reef and marine biodiversity, which is a high conservation priority (White et al., 2014). The Kaimana IMMA consists of a variety of habitats, such as extensive riverine/coastal/estuarine mangroves in Arguni Bay and coral islands and deep narrow oceanic passages in the Iris and Namatotte Straits of Triton Bay. The Ceram Sea Canyon (2000 m depth) is also in close proximity to Triton Bay.

In 2008, the Kaimana government and traditional leaders declared a 597,000 ha multiple-use MPA that covers all of Kaimana waters out to four miles from shore (IUCN Management Category VI). The conservation decree, which was strongly facilitated by the Indonesian Ministry of Marine Affairs and
Based on studies conducted on other Australian humpback dolphin populations, and known threats along the West Papua coastline (i.e. bycatch in fisheries, habitat degradation from LNG developments and mangrove conversion), it is likely that Australian humpback dolphin populations in West Papua are small and declining, with particularly important aggregations of Australian humpback dolphins in Arguni Bay. Six marine mammal species were confirmed to occur in the Kaimana Region after only nine days of surveys. Many more marine mammal species (i.e. Australian snubfin dolphin, *Orcaella heinsohni*) are likely to be recorded with future dedicated survey effort.

### Criterion A: Species or Population Vulnerability

The Australian humpback dolphin and dugong are listed as 'Vulnerable' by the IUCN, and considered to be declining throughout their range (Parra et al. 2017; Marsh and Sobtzick, 2015). The major threats are known to be habitat loss and degradation, by-catch in fisheries, water pollution, underwater noise, floods and cumulative threats (Parra et al. 2017). West Papua represents the northwest extent of Australian humpback dolphins’ known distribution, with the species confirmed to occur in three locations in West Papua: Mayalibit Bay, Bintuni Bay and Kaimana Region. These regions comprise extensive mangrove, estuarine and coastal habitat particularly important for their survival. Arguni Bay within the Kaimana Region is notably important, as it consists of extensive riverine/estuarine/coastal habitats. These habitats are subsequently important for the survival of Australian humpback dolphins and dugong in the region.
**Criterion B: Distribution and Abundance**

**Sub-criterion B2: Aggregations**

There are no known population or residency estimates for Australian humpback dolphins in the Kaimana Region. However, based on other known populations in northern Australia and southern Papua New Guinea, it is likely that the Australian humpback dolphin population in Arguni Bay is relatively small and resident (Parra et al., 2018; Beasley et al., 2013, 2015). Kaimana is one of only three regions in West Papua where Australian humpback dolphins have been sighted, with no other Australian humpback dolphin sightings known for the region. As a result of the habitat characteristics throughout Kaimana, it is proposed that aggregations of Australian humpback dolphins in this region represent an important concentration for this species. Kahn (2009) considered the population of Bryde's whales in Triton Bay to be small and resident. Although there was limited justification for this statement based on nine survey days, there is undoubtedly an important aggregation of Bryde's whales in the Kaimana Region, particularly between Bityara and Triton Bays via the Namatote Strait.

**Supporting Information**


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