

Southern Bali Peninsula and Adjacent Slope IMMA

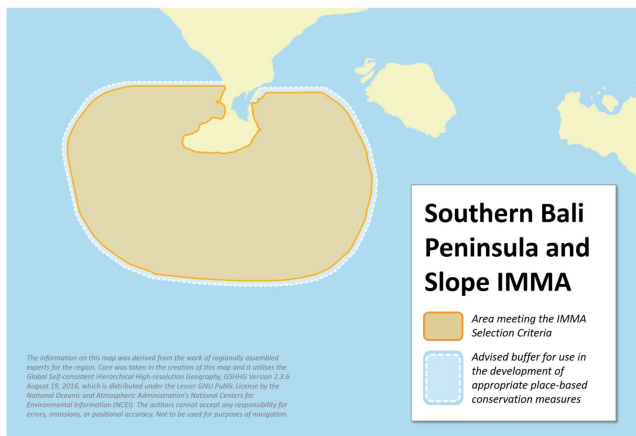
Summary, continued.

longirostris) are often sighted feeding and aggregating above the south-eastern parts of the canyon. Fourteen other cetacean species have been observed (including *Physeter macrocephalus*, *Grampus griseus*, *Lagenodelphis hosei*, *Megaptera novaeangliae*, *Orcinus orca*, and *Balaenoptera musculus*).

Description

The Southern Bali Peninsula IMMA is flanked on the eastern and western parts by canyons. Seasonal upwelling occurs at the south-western section around the canyon perimeter and the steep bathymetric gradient. The Indonesia through-flow that passes from the Pacific Ocean to the Indian Ocean through east Bali and southern Bali and the seasonal upwelling (June–October) may likely contribute to the diversity of cetaceans in the IMMA, with 18 species recorded in total. Many sightings have been observed around the edge of the continental shelves, thus bathymetry and other oceanographic features may indeed be the main predictors for cetacean diversity in this area.

The IMMA meets Criteria B2 (aggregation) and C2 (feeding) for the observed feeding of Bryde's whales and spinner dolphins and the aggregation of sperm whales and spinner dolphins. The IMMA also meets Criterion D2 (diversity) due to the total of 18 cetacean species observed in the area (Mustika et al., 2021; Kahn, pers.comm).



Area Size

2 239 km²

Qualifying Species and Criteria

Bryde's whale – *Balaenoptera edeni*

Criterion C (2)

Spinner dolphin – *Stenella longirostris*

Criterion C (2)

Marine Mammal Diversity

Criterion D (2)

Balaenoptera edeni, *Physeter macrocephalus*,
Stenella longirostris, *Balaenoptera musculus*,
Feresa attenuata, *Globicephala macrorhynchus*,
Grampus griseus, *Lagenodelphis hosei*,
Megaptera novaeangliae, *Orcinus orca*,
Pseudorca crassidens, *Stenella attenuata*,
Steno bredanensis, *Tursiops truncatus*

Summary

The IMMA is flanked on both the eastern and western parts of the Peninsula by steep bathymetric gradients and undersea canyons. Seasonal upwelling exists in the southwestern section around the canyon perimeter and the steep bathymetry gradients. The bathymetry steeply drops from 200 m to 1,000 m in just 5 km. Bryde's whale (*Balaenoptera edeni*) have been observed feeding at the south-western extent of the bathymetric slope. Spinner dolphins (*Stenella*



Figure 1: A Bryde's whale (*Balaenoptera edeni*) in south Bali. Photo: Putu Liza Mustika @ Conservation International Indonesia

Criterion C: Key Life Cycle Activities Sub-Criterion C2: Feeding Areas

Bryde's whales (*Balaenoptera edeni*) have been observed feeding at the southwestern edges of the sloping bathymetry gradient around the Bali Peninsula (Mustika et al., 2021). Spinner dolphins (*Stenella longirostris*) have often been sighted feeding above the south-eastern canyon systems.



Figure 2: A Bryde's whale (*Balaenoptera edeni*) feeding in south Bali. Photo: Putu Liza Mustika @ Conservation International Indonesia

Criterion D: Special Attributes Sub-criterion D2: Diversity

The IMMA hosts at least 18 cetacean species regularly observed within the area from the limited surveys undertaken to date (Mustika et al., 2021), including *Balaenoptera edeni* and *Stenella longirostris*, *Balaenoptera musculus*, *Feresa attenuata*, *Globicephala macrorhynchus*, *Grampus griseus*, *Lagenodelphis hosei*, *Megaptera novaeangliae*, *Orcinus orca*, *Pseudorca crassidens*, *Stenella attenuata*, *Steno bredanensis* and *Tursiops truncatus*

Supporting Information

Kahn, B. 2018. Personal communication.

Kadarisman, H.P. 2018. Personal communication.

Mustika, P.L.K., Williams, R., Kadarisman, H.P., Purba, A.O., Maharta, I.P.R.F., Rahmadani, D. & Dewantama,

I.M.I. (2021). A rapid assessment of the marine megafauna biodiversity around South Bali, Indonesia. *Frontiers in Marine Science*, 8, 606998.

Acknowledgements

We would like to thank the participants of the 2018 IMMA Regional Expert Workshop for the identification of IMMAs in the Northeast Indian Ocean and Southeast Asian Seas region. Funding for the identification of this IMMA was provided by the Global Ocean Biodiversity Initiative funded by the German government's International Climate Initiative (IKI). Support was also provided by Whale and Dolphin Conservation and the Tethys Research Institute.



**MARINE MAMMAL
PROTECTED AREAS
TASK FORCE**





Supported by:



Federal Ministry for the
Environment, Nature Conservation,
Building and Nuclear Safety

based on a decision of the German Bundestag



Suggested Citation: IUCN-MMPATF (2022) Southern Bali Peninsula and Adjacent Slope IMMA Factsheet. IUCN Joint SSC/WCPA Marine Mammal Protected Areas Task Force, 2022.

PDF made available for download at
<https://www.marinemammalhabitat.org/portfolio-item/southern-bali-peninsula-slope/>