

Pitipalena Añihué IMMA

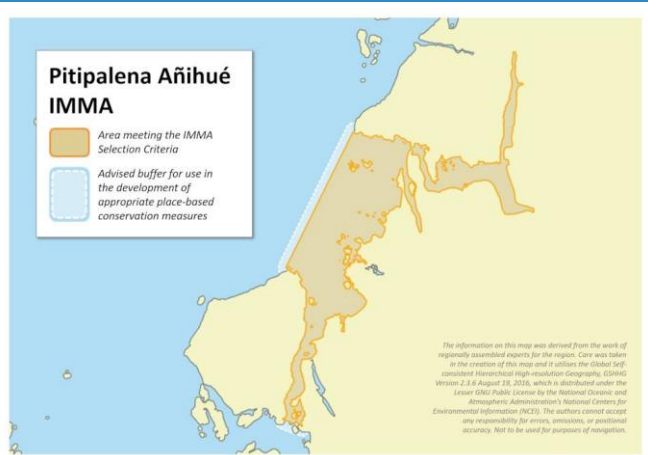
Description:

The IMMA includes coastline that offers diverse habitats including sandy beaches, rocky shores, small islets, and inland waterways as well as extensive tidal flats in the estuary. The habitat supports a small population of Chilean dolphins (*Cephalorhynchus eutropia*) in the Pitipalena Estuary and the adjacent coast, and is also home to Peale's dolphins (*Lagenorhynchus australis*). River and marine otters co-occur along the coast (Sanino & Meza, 2016) with South American sea lions and South American fur seals also regularly observed, particularly on the islets offshore the Palena River. There is only one small permanent human settlement, Raúl Marín Balmaceda, in the Pitipalena Estuary. The IMMA has the same boundaries as the multiple-use MPA Pitipalena Añihué.

Pitipalena Añihué is located inside the Westwind Drift EBSA established mostly for large baleen whales but also for its diversity in marine mammal species.

Criterion A: Species or Population Vulnerability

Chilean dolphins (*Cephalorhynchus eutropia*) are endemic to south-central and southern Chile and are listed as Near Threatened on the IUCN Red List (Heinrich & Reeves, 2017). Range-wide abundance is not known, but the species is thought to number in the low thousands which, if confirmed, would meet the criteria for Vulnerable status (Heinrich & Reeves, 2017). Chilean dolphins in the southern fjord region are considered genetically distinct from those along the open coast to the north of Chiloé (Pérez-Alvarez et al., 2015). The exact genetic boundary remains unclear due to a 500 km gap in sampling locations.



Area Size

224 km²

Qualifying Species and Criteria

Chilean dolphin – *Cephalorhynchus eutropia*

Criterion A; B (1)

Peale's dolphin – *Lagenorhynchus australis*

Criterion B (2)

Summary

The Pitipalena Añihué IMMA includes the sheltered and semi-enclosed Pitipalena Estuary, the entrance to the Buta Palena river, and the more exposed coast of Añihué and the Refugio Channel to the west. This area matches the multiple-use MPA Pitipalena Añihué. A small population of around 50 Chilean dolphins (*Cephalorhynchus eutropia*) inhabits the estuary and adjacent waterways. The sheltered shallow area inside the Pitipalena estuary seems to be particularly important for calving and nursing. Peale's dolphins (*Lagenorhynchus australis*) are seen regularly within the estuary as well as along the coast to Añihué, with over 60 individuals resighted over multiple seasons. Both river and marine otters co-occur along the coast with South American sea lions and South American fur seals also regularly observed.

The Pitipalena Añihué population falls within this sampling gap.

Criterion B: Distribution and Abundance

Sub-criterion B1: Small and Resident Populations

Chilean dolphins have been observed over multiple years inside the Pitipalena Estuary and adjacent coastline including the sandy shores of the Buta Palena river and the narrow embayment of Añihué (Boldt Corvalán, 2016; Heinrich & Espinosa-Miranda, 2019; Heinrich, 2021). They have also been observed entering the Buta Palena river sometimes moving at least several kilometres upstream. Dedicated cetacean surveys have been limited but reports from local people and short-term research projects support the notion that the Chilean dolphins are resident in this area. Local people report seeing Chilean dolphins inside the Pitipalena Estuary throughout the year. Year-round residency and strong site fidelity seem to be typical features of small, localised populations of Chilean dolphins elsewhere where extensive multi-year studies have been undertaken (Heinrich et al., 2019; Heinrich pers. obs.).

The local population was estimated to consist of 46 (95% C.I. 37-58) adult individuals in February 2018, with at least 4 newborns and 3 calves also present (Heinrich & Espinosa-Miranda, 2019; Heinrich, 2021). All sightings of newborns were within the protected and very shallow waters of the Pitipalena Estuary. Resighting rates of photo-identified individuals were high during a month-long survey period in 2018, indicating at least short-term site fidelity. There are only a few sightings of Chilean dolphins within the areas 100km to the north and south of the IMMA (Hucke-Gaete et al., 2022) suggesting that the IMMA constitutes important habitat for this local population at least during the summer-autumn months (when

most surveys were conducted).

Sub-criterion B2: Aggregations

Peale's dolphins *Lagenorhynchus australis* are also seen frequently inside the Pitipalena Estuary and along the sandy shores to Añihué and into Canal Refugio (Boldt Corvalán, 2016; Heinrich, 2021). A long-term study off Añihué identified 68 individuals, many of which were resighted across multiple seasons and years suggesting some degree of site fidelity (Sanino & Yañez, 2012). Peale's dolphin calves are rarely seen in the area (Sanino & Yañez, 2012; Boldt Corvalán, 2016; Heinrich pers. obs during photo ID surveys, Feb 2018) indicating that the population's range must extend beyond the currently surveyed area. Although Peale's dolphins occur along the coastline to the north and south as well as more offshore into the Golfo Corcovado, the IMMA contains the only documented area of their continued, year-round and regular presence in this wider region.

Supporting Information

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