

Kaimana

NGUTIPA013



Country: **New Guinea**
Administrative region: **Papua (Province)**
Central co-ordinates: **-3.62588 N, 134.02782 E**
Area: **7161km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

A relatively intact coastal and karst ecosystem with a unique blend of vegetation types, showing transitions from saline to fresh water and from lowland to mid-montane habitats on limestone over short distances. The flora is poorly known but there are some endemic and/or endangered orchid species. The marine habitats are among the richest in the world, and protecting the habitats on land will also help to protect the marine environment.

Site description

The Kaimana IPA comprises most of the southern part of the Bird's Neck of western New Guinea. Flanking the Arafura Sea, it is delimited by Arguni Bay in the West and Triton Bay in the South. It is

a landscape of numerous bays and lagoons, with rugged karst ridges occupying most of the inland area. These ridges, up to 1640 m in elevation, form a parallel series running from northwest to southeast. The northern border of the IPA is mainly formed by a long valley running NW to SE.

Botanical significance

The area is poorly known botanically. Three recently described orchid species (*Dendrobium centrosepalum*, *D. taeniocaule* and *Taeniophyllum pyriforme*) are so far only recorded from this IPA. Two endangered (IUCN classification EN) slipper orchids are found here, although not exclusively so: *Paphiopedilum glanduliferum* (including its probable type locality, Triton Bay) and *P. papuanum*. There is a unique assemblage of coastal, riverine, and karst vegetations in close proximity with at present little or no human disturbance in many places. Intact transition zones from salt water to freshwater habitats, and from marshy lowland vegetation to densely forested ridges up to 1640 m elevation can be observed. The riverine forests are rich in epiphytes, including many orchids, ferns, and ant plants (*Rubiaceae*), and the clear water in the rivers between the hills is full of aquatic plants, including *Cryptocoryne* sp. Next to nothing is known about the flora at higher elevations, which will undoubtedly contain endemic species. The marine habitats in Triton Bay are among the most species-rich in the world.

Habitat and geology

There are extensive coastal habitats, including cliffs and mangrove / Nipa forests, swamp and riverine forests, densely forested hill slopes and ridges, as well as localised marshy areas, lakes, and some open vegetation on white-sand (the latter so far only known anecdotally). Several endemic species of rainbowfish have been described from the area, for example *Melanotaenia kamaka*, which is now a well-known aquarium fish. It is endemic to one lake in the Kaimana IPA. Geologically, the entire area can be termed a karst landscape and is part of the Lengguru fold and thrust belt.

Conservation issues

There is logging of lowland forest, so far mainly in coastal areas. The area has great potential for tourism, especially scuba diving. The coral reefs fringing the coast have close to world record numbers of fish species (Alan & Erdmann 2009). Development for tourism could cause damage to coastal vegetation, and destruction of inland vegetation could cause erosion and sedimentation issues, which could pose a threat to marine habitats.

Site assessor(s)

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Date of first assessment:

31st Oct 2025

IPA criterion A species

SPECIES	QUALIFYING SUB-CRITERION	≥ 1% OF GLOBAL POPULATION	≥ 5% OF NATIONAL POPULATION	1 OF 5 BEST SITES NATIONALLY	ENTIRE GLOBAL POPULATION	SOCIO-ECONOMICALLY IMPORTANT	ABUNDANCE AT SITE
<i>Dendrobium centrosepalum</i> Schuit., Juswara & Droissart	A(iii)	✓	✓	✓	✓	—	Unknown
<i>Dendrobium taeniocaulae</i> Schuit., Juswara & Droissart	A(iii)	✓	✓	✓	✓	—	Unknown
<i>Taeniophyllum pyriforme</i> Schuit., Juswara & Droissart	A(iii)	✓	✓	✓	✓	—	Unknown
<i>Paphiopedilum glanduliferum</i> (Blume) Stein	A(i)	✓	—	—	—	—	Unknown
<i>Paphiopedilum papuanum</i> (Ridl.) L.O.Williams	A(i)	✓	—	—	—	—	Unknown

IPA criterion C qualifying habitats

HABITAT	QUALIFYING SUB-CRITERION	≥ 5% OF NATIONAL RESOURCE	≥ 10% OF NATIONAL RESOURCE	1 OF 5 BEST SITES NATIONALLY	AREAL COVERAGE AT SITE
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General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Lowland Forest	—	Major
Forest - Subtropical/Tropical Swamp Forest	—	Minor
Marine Coastal/Supratidal - Coastal Caves/Karst	—	Minor
Marine Neritic (Submergent Nearshore Continental Shelf or Oceanic Island) - Coral Reef	—	Minor
Rocky Areas - Rocky Areas [e.g. inland cliffs, mountain peaks]	—	Major

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
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Threats

THREAT	SEVERITY	TIMING
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Bibliography

Allen, G.R. and Erdmann, M.V. 2009. **Reef fishes of the Bird's Head Peninsula, West Papua, Indonesia**. Check List, Vol 5(3), page(s) 587–628.