

# Teminabuan

NGUTIPA006

Country: **New Guinea**

Administrative region: **Papua (Province)**

Central co-ordinates: **-1.44281 N, 132.02200 E**

## Qualifying IPA criteria

A(i), A(iii)

## IPA assessment rationale

There are two plant species endemic to the Teminabuan TIPA: the palm *Areca mandacanii* and ginger *Alpinia porphyrea*. This site has good examples of swamp forest and mangrove ecosystems, in addition to the limestone karst which has not been botanically surveyed and elsewhere in north-west New Guinea (for example Ayawasi) has been found to contain small-range endemic species.

## Site description

Teminabuan is on the eastern coast of the Bird's Head. The varied topography and geology of the area means that there are a range of habitat types present from mangroves and swamp forests to limestone karst and sandstone ridge forest. Rivers flow from ridges to the sea ensuring the area also supports a riverine flora. This TIPA encompasses the small town of Teminabuan with a population size of 19,491 at the 2020 census. This is the administrative capital of South Sorong regency. This area includes the Nature Recreation Park of Beriat that has protected status and is monitored by BKSDA, the government conservation agency. This small protected area covers little swamp forest habitat and no mangroves.

## Botanical significance

Two plant species are endemic to the Teminabuan TIPA: *Areca mandacanii* (Arecaceae) and *Alpinia porphyrea* (Zingiberaceae). The site is also likely to contain populations of lowland rainforest species which occur further west closer to Sorong. These Sorong populations are highly threatened by the expansion of the city and forest loss via oil palm and logging in the plain surrounding the city.

## Habitat and geology

The habitats occurring at the site are mangroves, swamp forest, limestone karst and sandstone ridge forest.

The site is mainly within two ecoregions: the Southern New Guinea

lowland swamp forest and New Guinea mangroves, however it borders Vogelkop-Aru lowland rainforest. The underlying geology is marl, siltstone, limestone and greywacke to marine sedimentary further inland (<https://portal.onegeology.org/OnegeologyGlobal/>).

## Conservation issues

Oil palm plantations have been established to the east and west of the site, and forest loss due to logging is visible along roads (Global Forest Watch 2024). The Southern New Guinea swamp forest ecoregion is predicted to lose species due to climate change irrespective of increased deforestation (Cámara-Leret et al. 2019). Other endemic species recorded at the site include: an endemic weevil *Pachyrhynchus faisali* (Bollino 2023), two freshwater crayfish *Cherax woworae* (Pakota et al. 2023) and *Cherax pulcher* (Widyasari et al. 2021), and the rainbowfish *Melanotaenia sembrae* (Nugraha et al. 2015).

## Site assessor(s)

### Assessed by:

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### Date of first assessment:

5th Jan 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>Areca mandacanii</i> <i>Heatubun</i>	A(i)	✓	✓	—	✓	—	Unknown
<i>Alpinia porphyrea</i> <i>R.M.Sm.</i>	A(iii)	✓	✓	—	✓	—	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

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
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Threats

THREAT	SEVERITY	TIMING
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Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
No management plan in place		—	—

Bibliography

Cámara-Leret, R., Raes, N., Roehrdanz, P., De Fretes, Y., Heatubun, C.D., Roebler, L., Schuiteman, A., Van Welzen, P.C & Hannah, L. 2019. Climate Change Threatens New Guinea’s Biocultural Heritage.. Science Advances, Vol 5

Global Forest Watch 2020. Global Forest Watch.

Bollino, M. 2023. About some Indonesian Pachyrhynchus Germar 1824 with description of a new species (Coleoptera, Curculionidae, Entiminae, Pachyrhynchini). Zootaxa, Vol 5527, page(s) 495-500

Pakota, J., Akmal, S.G., Blaha, M. and Kouba, A. 2023. **Cherax woworae, a new freshwater crayfish (Decapoda: Parastacidae) from Southwest Papua Province, Indonesia.** Zootaxa, Vol 5325, page(s) 582-592

Widyasari, F., Sayuti, M. and Salampessy, R.B.S. 2021. **Production, distribution and conservation analysis of Cherax crayfish endemic to Papua and West Papua Provinces, Indonesia..** Biodiversitas, Vol 22, page(s) 3271-3276

Rahman, Lokollo, F.F., Wawo, M., Lewerissa, Y.A., Hulopi, M., Ceanturi, A., Handayani, L.D., Zuhri, M.I., Effendi, H. and Wardiatno, Y. 2024. **Blue Carbon Potential of Mangrove Ecosystems and Its Management to Promote Climate Change Mitigation in Indonesia.** Jurnal Ilmu Kehutanan, Vol 18, page(s) 208-218

Kadarusman, N.M.F.I., Hubert, N., Avarre, J.C., Hadiaty, R.K., Slemouch, J., Carman, O., Sudarto, Ogistira, R. and Pouyaud, L. 2015. **Eight new species of Rainbowfishes (Melanotaeniidae) from the Birds Head Region, West Papua, Indonesia.** Cybium, Vol 39, page(s) 99-130