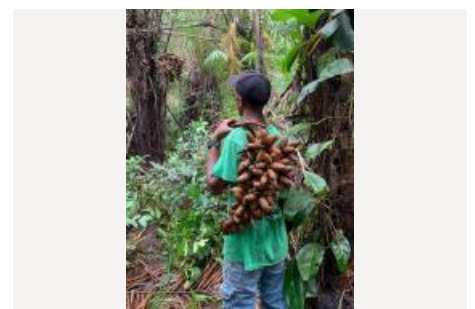
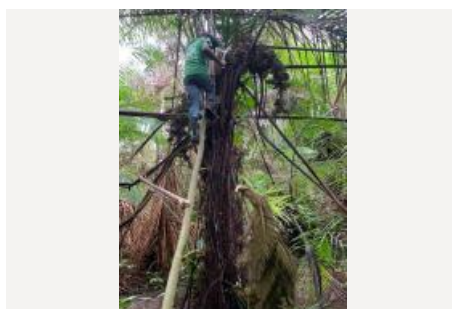
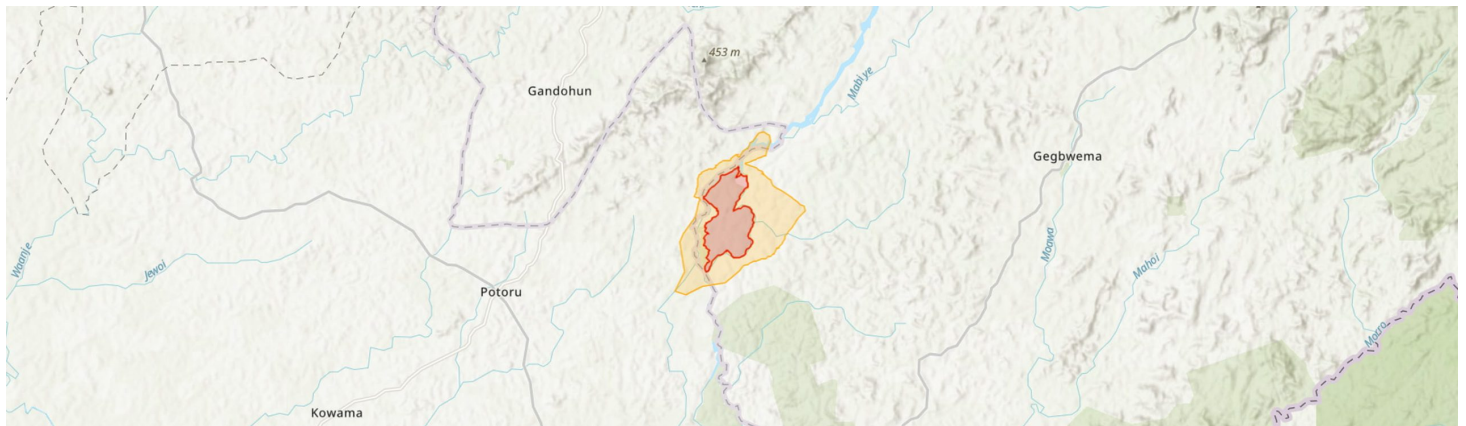


Tiwai Island

SIETIPA17



Country: **Sierra Leone**

Administrative region: **Southern (Province)**

Central co-ordinates: **7.54000 N, -11.35000 E**

Area: **30.6km²**

Qualifying IPA criteria

A(i), B(ii), C(iii)

IPA assessment rationale

The Tiwai Island IPA qualifies under the criteria A (i) as it contains twenty globally threatened species as well as B (ii) containing several species of significant conservation value. Additionally, the IPA qualifies under criteria C(iii). It is the largest inland island in the country and constitutes part of the intact remnant of the low moist tropical evergreen forest in Sierra Leone, a habitat that is nationally restricted. The region is a mosaic of gallery and swamp forest supporting high species diversity of over 700 plants, at least one of them, *Millettia leonensis*, is endemic to Sierra Leone.

Site description

The Tiwai Island Important Plant Area (IPA) contains a remnant of

the West African Tropical Rainforest (Saidu et al., 2022). It is situated on the border between the Kenema District in the Eastern Province and the Pujehun District in the Southern Province of Sierra Leone (Google Earth, 2025). According to the Tiwai Island Wildlife Sanctuary (TIWS, n.d.), the island is surrounded by eight communities in two chiefdoms: Mapuma, Ngjema, and Segbema in Koya Chiefdom (Kenema District), and Kambama, Sahun, Naihun, Jenneh, and Boma in Barri Chiefdom (Pujehun District). This site is situated approximately 15 km southwest of Potoru, about 300 km southeast of Freetown, and roughly 35 km from the Liberian border (Fimbel, 1994, Google earth, 2026).

Tiwai Island, the largest inland rainforest island in Sierra Leone, is located within the Moa River, a few km northwest of Gola West (Oates et al., 1990), covering approximately 12 km² (1,200 hectares; Saidu et al., 2022). The name Tiwai means "large island" in the Mende language. It was recognized in the late 1970s as a critical habitat for wildlife protection, and ecological research and the first community-led conservation commenced on Tiwai Island in the early 1980s (Oates et al., 1990). The humid tropical lowland ecosystem gets up to 3,200 mm of rainfall annually and is home to unique group of fauna, including the Olive Colobus (*Procolobus verus*) and the Pygmy Hippo (*Choeropsis liberiensis*) (Oates et al., 1990).

The island's vegetation is classified as tropical moist evergreen

forest with a mosaic of gallery forests, palm forests, and inland swamps (Holdridge 1947, Fimbel 1994). Tiwai lies within the Guinean Forests Biodiversity Hotspot, designated by Conservation International. Previous studies have estimated that the island hosts over 700 vascular plant species, approximately 20% of which are globally threatened, with several endemic to Sierra Leone (Oates, 1999). About 60% of the island consists of the mature forest (25 years old), while 30% is regenerating secondary forest as a result of historical anthropogenic agricultural operations that declined during the 1980s (Oates et al., 1990; Kolp et al., 2008).

Botanical significance

Tiwai Island represents one of the remaining sites of lowland evergreen forest in Sierra Leone, supporting more than 700 species of plants. A comprehensive botanical survey conducted in 2003 by the late Prof. Ake Assi and Prof. Aiah Lebbie documented 695 plant species, including 282 voucher specimen collections housed in the National Herbarium. The study identified 20 globally threatened species, 26 previously uncollected species in Sierra Leone, and 103 taxa yet to be assessed by the IUCN.

Notable globally threatened taxa include *Dactyladenia smeathmannii* (EN), *Dactyladenia hirsuta* (EN), *Eugenia liberiana* (EN), *Millettia leonensis* (EN), *Hemandradenia chevalieri* (EN), *Milicia regia* (VU), *Okoubaka aubrevillei* (EN), etc. The first Sierra Leonean records from Tiwai include *Cyperus blepharoleptos*, *Ruthalicia longipes*, *Combretum aphanopetalum*, *Vernonia conferta*, *Culcasia seretii*, and *Raphia mannii*. The rediscovery of *Tiliacora dinklagei*, last collected in 1944, further emphasizes the island’s urgent conservation and the need for continued research.

The island is dominated by widespread West African species such as *Monanthotaxis mannii*, *Heterotis rotundifolia*, *Piptadeniastrum africanum*, *Parinari excelsa*, and big lianas of *Landolphia hirtusa* of about 104 cm in diameter (Fanny Massally pers. obs.). Other common taxa include *Xylopia aethiopica*, *Anthostema senegalense*, *Osodendron altissimum*, *Nauclea latifolia*, *Alchornea cordifolia*, and *Uapaca guineensis*.

Habitat and geology

The dominant canopy tree species of the moist evergreen forest at Tiwai are *Heritiera utilis*, *Brachystegia leonensis*, and *Parinari excelsa*. Additional habitats include swamp forest, forest regrowth and secondary forest, and farm bush, which is often dominated by the invasive shrub *Chromolaena odorata* (Klop et al., 2010).

The island topology is at a low elevation of about 85 - 120 m above sea level with an average annual temperature of about 27°C. Annual rainfall average is about 3,000 mm, with a wet climate and a dry period lasting from December to March (Klop et al., 2010). In some specific habitats, rainfall can exceed 3,200 mm annually. The soils at Tiwai Island are highly sandy, strongly acidic, and have poor mineral

nutrients (Oates et al., 1990), typical of the West African humid tropical lowland forest zone.

Conservation issues

All protected area management in Sierra Leone including Tiwai island are overseen by the National protected Area Authority, which is the main governmental agency for protected areas in Sierra Leone. The Tiwai Island Wildlife Sanctuary is locally managed by the Tiwai Island Administrative Committee (TIAC), including representatives from the eight surrounding communities, the Environmental Foundation Agency (EFA), government agencies, Njala University, and conservation bodies essential for its protection. The sanctuary forms part of the UNESCO World Heritage site, as the Gola-Tiwai Complex, and is currently classified under the IUCN Category IV (habitat/species management area).

Even though few studies have reported anthropogenic pressures, including poaching, forest fragmentation, swamp modification for rice cultivation, deforestation, and agricultural expansion, in addition to climate change in the past (Saidu et al., 2022, Fanny Massally pers. obs.), there is no forest cover loss has been detected inside the Tiwai Island sanctuary between May 2024 and April 2025 (WFP, 2025)

Recent analysis highlights an ongoing decline in forest cover linked to charcoal production and farmland conversion in the Southern Province, particularly around the sanctuary (Stevens et al. 2025). Historically, similar land-use anthropogenic pressures in the 1970s led to the clearing of 30% of Tiwai’s original forest. To prevent recurrence of land degradation, management must ensure robust protection with community-led efforts, to ensure Tiwai’s continued protection.

Site assessor(s)

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Fanny Massally, Royal Botanic Gardens, Kew

Date of first assessment:

24th Apr 2025

Reviewed by:

Xander van der Burgt, The Royal Botanic Gardens Kew

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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>Dactyladenia hirsuta</i>	A(i)	✓	✓	✓	—	—	Scarce
<i>Anopyxis klaineana</i> (Pierre) Engl.	A(i)	✓	✓	✓	—	—	Unknown
<i>Berlinia occidentalis</i> Keay	A(i)	✓	✓	✓	—	—	Frequent
<i>Cola simiarum</i> Sprague ex Brenan & Keay	A(i)	✓	✓	✓	—	—	Frequent
<i>Didelotia afzelii</i> Taub.	A(i)	✓	✓	✓	—	—	Frequent
<i>Gilbertiodendron bilineatum</i> (Hutch. & Dalziel) J.Léonard	A(i)	✓	✓	✓	—	—	Scarce
<i>Hemandradenia chevalieri</i>	A(i)	✓	✓	✓	—	—	Scarce
<i>Milicia regia</i> (A.Chev.) C.C.Berg	A(i)	—	✓	✓	—	✓	Frequent
<i>Millettia leonensis</i> Hepper	A(i)	✓	✓	✓	—	✓	Scarce
<i>Millettia warneckeii</i> Harms	A(i)	✓	✓	✓	—	—	Scarce
<i>Okoubaka aubrevillei</i> Pellegr. & Normand	A(i)	—	✓	✓	—	—	Scarce
<i>Placodiscus oblongifolius</i>	A(i)	✓	✓	✓	—	—	Scarce
<i>Terminalia ivorensis</i> A.Chev.	A(i)	✓	✓	✓	—	✓	Frequent
<i>Tristemma involucratum</i> Benth.	A(i)	✓	✓	✓	—	—	Frequent
<i>Uvariadendron angustifolium</i>	A(i)	✓	✓	✓	—	✓	Scarce
<i>Aulacocalyx divergens</i> (Hutch. & Dalziel) Keay	A(i)	✓	✓	✓	—	✓	Unknown
<i>Dactyladenia smeathmannii</i> (Baill.) Prance & White	A(i)	✓	✓	✓	—	—	Unknown

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>Eugenia liberiana</i> <i>Amshoff</i>	A(i)	✓	✓	✓	—	—	Unknown
<i>Tessmannia</i> <i>baikiaeoides</i>	A(i)	✓	✓	✓	—	—	Scarce
<i>Aulacocalyx</i> <i>divergens</i> (Hutch. & Dalziel) Keay	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
Lowland Evergreen Forest	C(iii)	✓	✓	✓	

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Lowland Forest	—	Major
Forest - Subtropical/Tropical Swamp Forest	—	Minor
Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands [generally over 8 ha]	—	Minor
Wetlands (inland) - Permanent Rivers, Streams, Creeks [includes waterfalls]	—	Unknown

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Nature conservation	—	Major
Tourism / Recreation	—	Major
Harvesting of wild resources	—	Minor
Agriculture (aquatic)	—	Major
Agriculture (arable)	—	Minor

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Low	Ongoing - stable
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Low	Ongoing - stable

THREAT	SEVERITY	TIMING
Biological resource use - Hunting & collecting terrestrial animals - Motivation Unknown/Unrecorded	Low	Ongoing - stable
Biological resource use - Fishing & harvesting aquatic resources - Intentional use: subsistence/small scale (species being assessed is the target) [harvest]	Low	Ongoing - stable
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Low	Ongoing - stable
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Low	Ongoing - stable
Biological resource use - Hunting & collecting terrestrial animals - Motivation Unknown/Unrecorded	Low	Ongoing - stable
Biological resource use - Fishing & harvesting aquatic resources - Intentional use: subsistence/small scale (species being assessed is the target) [harvest]	Low	Ongoing - stable

Protected areas

PROTECTED AREA NAME	PROTECTED AREA TYPE	RELATIONSHIP WITH IPA	AREAL OVERLAP
Tiwai Island Wildlife Sanctuary	Wildlife Sanctuary	protected/conservation area overlaps with IPA	—
Gola-Tiwai Complex	UNESCO World Heritage Site	protected/conservation area overlaps with IPA	—

Management type

MANAGEMENT TYPE	DESCRIPTION	YEAR STARTED	YEAR FINISHED
Site management plan in place		—	—
Protected Area management plan in place		—	—

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