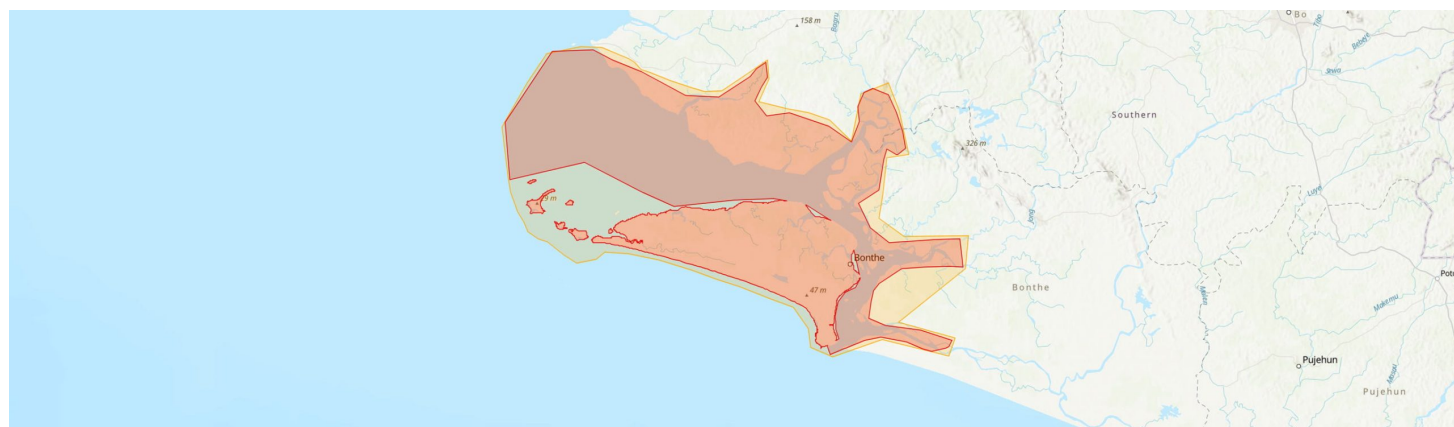


# Sherbro Island and archipelagos

SIETIPA14



Country: **Sierra Leone**

Administrative region: **Southern (Province)**

Central co-ordinates: **7.50000 N, -12.70000 E**

Area: **3073.3km<sup>2</sup>**

marine protected areas in Sierra Leone and is approximately 283.54 km<sup>2</sup>.

## Qualifying IPA criteria

A(i), A(iv), C(i)

## IPA assessment rationale

The Sherbro Island and archipelagos IPA qualify under Criterion A(i) as they hold nationally significant populations of a species that triggers A(i) *Eugenia liberiana*, as well as another range restricted plant that would likely be threatened triggering A(iv). Its also triggers criterion C(i) due to presence of the threatened seagrass meadow habitat found in turtle island of this IPA.

## Site description

The Sherbro Island and Archipelagos Important Plant Area (IPA) is located in Bonthe District, Southern Province, Sierra Leone, along the southwestern coast. The IPA encompasses Sherbro Island, the Turtle Islands archipelago, and the Sherbro River Estuaries (SRE), forming a mixture of coastal estuarine habitats with high ecological significance.

Sherbro Island is the largest landmass within the IPA and spans approx. 620 km<sup>2</sup>. It is about 51 km long and 24 km wide and is bordered by an extensive network of estuaries to the north and east, with the Atlantic Ocean forming its southern and western boundaries. The Turtle Islands lie offshore to the west, surrounding the main island with other archipelagos, such as the York Island throughout the SRE. The Sherbro River Estuary is one of the four

## Botanical significance

The Sherbro Island and archipelagos IPA is home to a unique assemblage of plant species adapted to its coastal, estuarine, sandy, and saline environments. Although botanical collections were made during the colonial period by Garrett and Deighton, and there are few recent botanical survey, a comprehensive botanical surveys is required to document plant diversity across the IPA, especially on Sherbro Island. The IPA is the type locality for *Macropodiella garrettii* (Podostemaceae; Garrett s.n., 1893). However, the precise waterfall habitat required by Podostemaceae has not yet been traced within this IPA and must be targeted. *Eulophia distans* which is endemic to Sierra Leone has also been recorded in this IPA.

The IPA also holds nationally significant populations of the rare coastal species *Eugenia liberiana* (EN), which is known in Sierra Leone from only a single confirmed collection within this IPA. Additionally, the Critically Endangered *Eriostema arenicola* (CR), recorded from the Turtle Islands, is confirmed within the IPA and may possibly occur on Sherbro Island as well. Vulnerable tree species *Copalifera salikounda* (VU) and *Haplomorsia monophylla* (VU) have been recorded at the site; however, these species do not meet thresholds to qualify as IPA priority species.

Due to the island's 'Coastal Park Savanna' habitat (Cole 1968), additional rare or threatened species are likely to occur, including *Fegimanra acuminatissima* (VU) and potentially species new to science (Jongkind & Breteler, 2020). Economic tree species recorded within this IPA include but are not limited to, *Neocarya macrophylla*, *Dodonaea viscosa*, *Terminalia albida*, *Diospyros elliotii*, *Philoxerus vermicularis*, *Ipomoea stolonifera*, *Ipomoea pes-caprae*, and *Triumfetta tomentosa* (Zebedee & Sainge, 2021).

## Habitat and geology

The IPA supports diverse habitats such as coastal, estuarine, and terrestrial habitats. The Sherbro Island forms part of the Guinean mangrove ecoregion with the most pristine mangrove swamps in West Africa (Anthony, 2004; Olson et al., 2001) and is characterized by coastal thicket, mangroves, freshwater swamps, 'coastal park savanna,' and forest.

Mangrove vegetation dominates the coastal and estuarine areas, with species such as *Avicennia nitida* (Black Mangrove) on mudflats inundated by medium to high tides. Along better-drained estuarine banks, *Rhizophora racemosa* commonly occurs in association with *Avicennia* (Johnson & Johnson, 2012). The dominant mangrove species are *R. racemosa*, *R. mangle* and *A. germinans*. *Laguncularia racemosa* and *R. harrissonii* (Anthony, 2004). Other widespread mangrove species like *Conocarpus erectus* is sometimes found where tidal flooding is limited to the highest spring tides (Anthony, 2004), and forests surrounding coastal lagoons may contain characteristic woody species like *Cassipourea barteri*, *Chrysobalanus icaco* subsp. *icaco*, *Dalbergia ecastaphyllum* and *Phoenix reclinata* (Jongkind & Breteler, 2020). In places, this transitional zone consists of poorly drained freshwater grasslands of *Eleocharis dulcis*, sometimes mixed with *Eichornia natans* and *Nymphoides indica*. The island includes approx. 315 km<sup>2</sup> of 'Coastal Park Savanna' habitat on old beach sand (Cole, 1968) and retains patches of primary forest vegetation along its northern edge (Protected Planet, 2024).

The IPA receives an annual rainfall of up to 4,000 mm, and a rainy season from March to September (Zebedee & Sainge, 2021). The temperature is 24 degrees in August, 28 degrees in March and can go up to 40 degrees due to heat waves (Trzaska et al., 2017). Geologically, Sherbro Island and the archipelagos are flat areas that extends into a continental shelf with a gentle gradient, primarily consisting of alluvial and marine sediments (Anthony, 2004). These sediments form sandy soils in the island's interior and silty mudflats along its coastline.

The region rests on the Bullom Group of soils, deposited during the Tertiary to Quaternary Holocene period, comprising poorly consolidated marine and estuarine sediments characterized by compacted, cohesive silts and clay (Egbenda et al., 2015; Zebedee & Sainge, 2021).

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## Conservation issues

Sherbro Island, as part of the IPA, is under concession for a proposed large-scale urban development project called Sherbro Island City in 2025, and this development could significantly impact local habitats and plant life with poor management. The National Protected Area Authority does not manage the Sherbro Island. However, the SRE is administratively governed by the Bonthe Municipal Council and Bonthe and Moyamba District Councils.

The Coastal Park Savanna habitat within the IPA, characterized by sandy substrates is unsuitable for agriculture, and currently experiences relatively limited human disturbance.

Rice cultivation does not affect this IPA as in other parts of West Africa, where large areas of mangroves have been deforested (Anthony, 2004). However, they still experience substantial pressures from extraction of fuel wood, land degradation, coastal erosion, and intensive fishing practices (Johnson & Johnson, 2012). Additionally, this IPA is vulnerable to loss of coastal plain areas due to flooding and erosion associated with climatic change and sea-level rise (Anthony, 2004).

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## Site assessor(s)

Gabriella Hoban, Royal Botanic Gardens, Kew

Fanny Massally, Royal Botanic Gardens, Kew

### Date of first assessment:

1st Apr 2025

### Reviewed by:

Xander van der Burgt, The Royal Botanic Gardens Kew

Martin Cheek, 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>Eugenia liberiana</i><br><i>Amshoff</i>                         | A(i)                     | ✓                         | ✓                           | ✓                            | —                        | —                            | Unknown           |
| <i>Macropodiella garrettii</i> (C. H. Wright)<br><i>C. Cusset</i>  | A(iv)                    | ✓                         | ✓                           | ✓                            | —                        | —                            | Unknown           |
| <i>Eriosema arenicola</i> (Verdc.)<br><i>Maesen &amp; Wieringa</i> | 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 |
|------------------|--------------------------|---------------------------|----------------------------|------------------------------|------------------------|
| Seagrass Meadows | C(i)                     | ✓                         | ✓                          | ✓                            |                        |

General site habitats

| GENERAL SITE HABITAT                                                                           | PERCENT COVERAGE | IMPORTANCE |
|------------------------------------------------------------------------------------------------|------------------|------------|
| Forest - Subtropical/Tropical Mangrove Forest Vegetation Above High Tide Level                 | —                |            |
| Forest - Subtropical/Tropical Swamp Forest                                                     | —                |            |
| Savanna - Moist Savanna                                                                        | —                |            |
| Shrubland - Subtropical/Tropical Moist Shrubland                                               | —                |            |
| Wetlands (inland) - Permanent Rivers, Streams, Creeks [includes waterfalls]                    | —                |            |
| Marine Neritic (Submergent Nearshore Continental Shelf or Oceanic Island) - Subtidal Sandy-Mud | —                |            |
| Marine Neritic (Submergent Nearshore Continental Shelf or Oceanic Island) - Estuaries          | —                |            |
| Marine Coastal/Supratidal - Coastal Sand Dunes                                                 | —                |            |
| Marine Coastal/Supratidal - Coastal Brackish/Saline Lagoons/Marine Lakes                       | —                |            |

Land use types

| LAND USE TYPE         | PERCENT COVERAGE | IMPORTANCE |
|-----------------------|------------------|------------|
| Nature conservation   | —                |            |
| Agriculture (arable)  | —                |            |
| Agriculture (aquatic) | —                |            |

| LAND USE TYPE          | PERCENT COVERAGE | IMPORTANCE |
|------------------------|------------------|------------|
| Tourism / Recreation   | —                |            |
| Industrial development | —                |            |

## Threats

| THREAT | SEVERITY | TIMING |
|--------|----------|--------|
|--------|----------|--------|

## Protected areas

| PROTECTED AREA NAME   | PROTECTED AREA TYPE     | RELATIONSHIP WITH IPA                       | AREAL OVERLAP |
|-----------------------|-------------------------|---------------------------------------------|---------------|
| Bonthe Mangrove Swamp | National Nature Reserve | IPA encompasses protected/conservation area | —             |

## Management type

| MANAGEMENT TYPE                         | DESCRIPTION            | YEAR STARTED | YEAR FINISHED |
|-----------------------------------------|------------------------|--------------|---------------|
| No management plan in place             | Sherbro Island         | —            | —             |
| Protected Area management plan in place | Sherbro Island Eutuary | —            | —             |

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