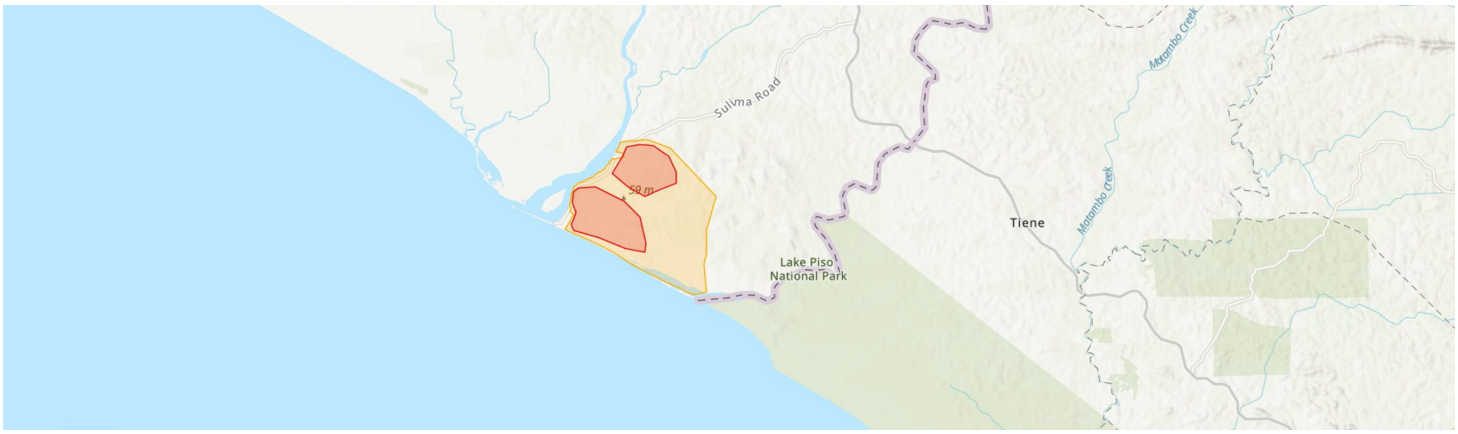
Sulima

SIETIPA06



Country: **Sierra Leone**
Administrative region: **Southern (Province)**
Central co-ordinates: **6.96486 N, -11.57110 E**
Area: **57km²**

Qualifying IPA criteria

A(i), C(iii)

IPA assessment rationale

This IPA qualifies under criterion A(i) as it contains significant populations of two threatened species. It also triggers criterion C(iii) for containing the nationally threatened costal park savanna with endemic Habropetalum dawei species, which is in the only endemic genus in the country.

Site description

The Sulima IPA is situated on the southern coast of Sierra Leone, approximately 10 km from the Liberian border. It is named after the nearby coastal town of Sulima, located at the mouth of the Moa River where it flows into the Atlantic Ocean. The site contains areas of primary forest (Turubanova et al. 2018) and is one of only two known localities for Habropetalum dawei, a species of exceptional conservation importance. Habropetalum is the sole genus endemic to Sierra Leone, making it a flagship species for national plant conservation.

Botanical significance

This site contains the only recently confirmed habitat for the Endangered endemic plant Habropetalum dawei, a scrambling woody shrub or liana and grows up to 20 metres tall into the canopy (Airy Shaw 1951). This plant belongs to a distinct lineage of plants of the family Diconophyllaceae, which contains three monotypic genera. H. dawei is on the borderline Evolutionarily Distinct and Globally Endangered (EDGE) list, i.e. is threatened species with an EDGE score above the median in 80% of the trees (F. Forest pers. comms. 2025). It is known locally as Sangi in Mende and Jului in Vai. Its distribution is highly localised to approx. a 40km stretch of coastline, though it may be locally dominant within suitable habitat. H. dawei shows preference for flooded scrub and forested habitats on old beach sand substrates, but demonstrates resilience in disturbed areas through its ability to resprout from woody rootstock (Airy Shaw 1951, Svahnström et al. 2023), with its restricted distribution likely attributable to large fruits with low dispersal capacity. The site also supports Fegimanra acuminatissima (VU), a rare shrub or tree recorded in coastal park savanna in Sierra Leone and Liberia.

Additional white sand coastal species of botanical significance may occur in the area, though further botanical surveys are needed for confirmation, with notable target species including Eugenia liberiana (EN), a near-endemic tree not recorded in Sierra Leone since 1932, and Eulophia distans (CR in draft), an endemic orchid adapted to sandy substrates. Several species currently known only from Liberia possess suitable habitat within the IPA and may be discovered through further botanical surveys, including Trichoscypha laxissima (EN) from lowland sandy forests, Englerodendron libassum (CR), and Dinklageodoxa scandens (not assessed), highlighting the potential for significant botanical discoveries that could further enhance the conservation importance of this remarkable coastal ecosystem.

Habitat and geology

The Sulima IPA encompasses a diverse range of habitats. The site features several distinct vegetation types including coastal park savanna, mangrove swamps, riverine forest, and coastal thickets (Cole 1968), with large freshwater lake swamps occurring behind coastal dunes. The coastal park savanna represents a distinctive mosaic of tree savanna established on sandy flats characterized by white sandy substrates, supporting dominant species such as Chrysobalanus spp., Parinari macrophylla, and Terminalia scutifera. Coastal dune thickets form dense tangles of climbers and shrubs including Glyphaea brevis and Ximenia americana (Cole 1968). Mangrove swamps are found along the Moa River and its tributaries, and are dominated by Rhizophora racemosa. Farmbush areas at the site support secondary vegetation composed of Elaeis guineensis, Neocarya macrophylla, Parinari excelsa, and various grass species. The geological foundation of these varied habitats consists primarily of sandy coastal deposits and alluvial sediments that have been shaped by marine and fluvial processes.

Conservation issues

The Sulima IPA faces several significant conservation challenges that threaten its biodiversity and ecological integrity, including deforestation for timber extraction and agricultural expansion, particularly for palm oil cultivation, slash-and-burn agricultural practices that alter floristic composition through fire regimes, and habitat conversion for rice farming, urban expansion, and road construction (Martin and Burgess 2022). Additional threats include pollution from human settlements and upstream activities, with an absence of proper waste management services in the region, as well as potential climate change impacts such as rising sea levels and increased salinity levels affecting terrestrial vegetation. The Habropetalum dawei populations, for which this site serves as the primary habitat, face particular conservation concerns as the species is restricted to a small stretch of habitat, with most of its known global distribution confined to this IPA. While the plant exhibits resilience by resprouting from woody rootstock in disturbed areas and can be observed over long stretches of suitable habitat, the persistent disturbance regime prevents regular flowering, with local communities in Sulima, Juring, and Kuranko reporting that they have not observed this species in flower. H. dawei holds considerable value for local communities, serving as construction material particularly for rope-making in daily tasks, as a traditional fish stunning agent due to its alkaloid properties, and as a source of Habropetaline A, a natural metabolite with demonstrated antimalarial activity against Plasmodium falciparum (Bringmann et al., 2003). The conservation of habitat at this site is critical for the continued persistence of H. dawei, as the species' restricted distribution, vulnerability to disturbance, and significant cultural and potential pharmaceutical value make maintaining the ecological integrity of this IPA essential for both biodiversity conservation and the preservation of traditional knowledge systems that depend on this species.

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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
Habropetalum dawei (Huchinson & Dalziel) Airy Shaw	A(i)	✓	✓	✓	–	✓	Abundant
Fegimanra acuminatissima Keay	A(i)	✓	✓	✓	–	–	Occasional
Haplormosia monophylla (Harms) Harms	A(i)	–	–	–	–	–	

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
Coastal Park Savanna	C(iii)	✓	✓	✓	

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Lowland Forest	–	
Forest - Subtropical/Tropical Mangrove Forest Vegetation Above High Tide Level	–	
Grassland - Subtropical/Tropical Seasonally Wet/Flooded Lowland Grassland	–	
Wetlands (inland) - Permanent Rivers, Streams, Creeks [includes waterfalls]	–	

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (pastoral)	–	
Harvesting of wild resources	–	

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Medium	Ongoing - stable
Climate change & severe weather	Low	Future - inferred threat

THREAT	SEVERITY	TIMING
Biological resource use - Hunting & collecting terrestrial animals	Medium	Ongoing - increasing
Pollution - Domestic & urban waste water	Low	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Medium	Ongoing - trend unknown
Biological resource use - Gathering terrestrial plants - Intentional use (species being assessed is the target)	Medium	Ongoing - trend unknown

Bibliography

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Airy Shaw, H. K. 1951. **On the Dioncophyllaceae, a remarkable new family of flowering plants.** Kew Bulletin, Vol 6, page(s) 327-347

Svahnström, V., Paradis, A.-H. & Bidault, E 2023. **Habropetalum dawei.** The IUCN Red List of Threatened Species

Turubanova, S., Potapov, P.V., Tyukavina, A. & Hansen, M.C 2018. **Ongoing primary forest loss in Brazil, Democratic Republic of the Congo, and Indonesia.** Environmental Research Letters, Vol 13(7)

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