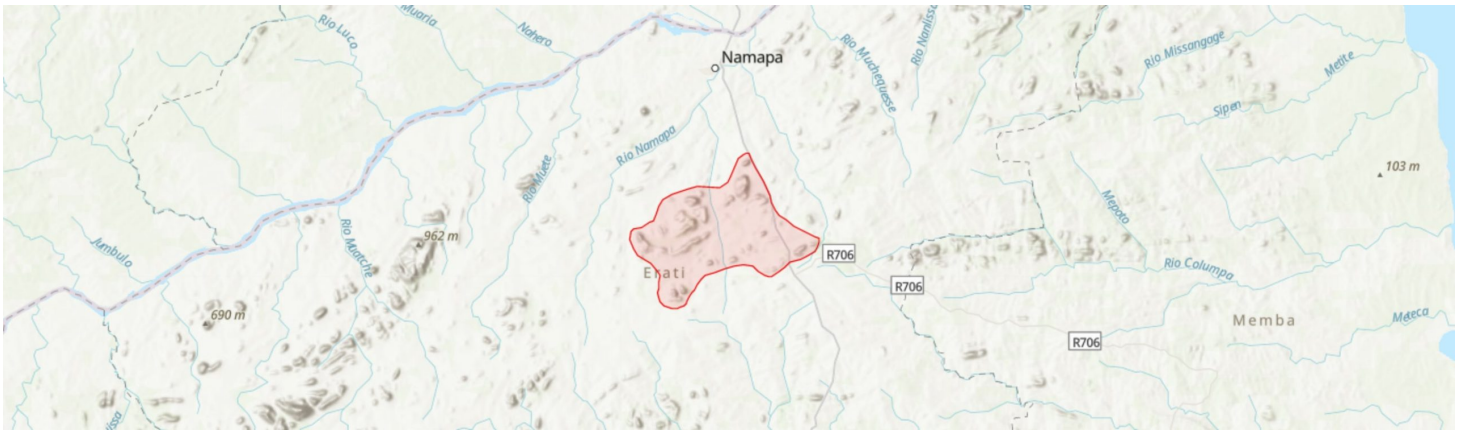
Eráti

MOZTIPA008



Country: **Mozambique**
Administrative region: **Nampula (Province)**
Central co-ordinates: **-13.84000 N, 39.85300 E**
Area: **174km²**

Qualifying IPA criteria

A(i), A(iii), A(iv)

IPA assessment rationale

The inselbergs of Eráti qualify as an IPA under criterion A, as they are inferred to contain important populations of four threatened species under criterion A(i): Allophylus torrei (EN), Croton kilwae (EN), Coffea zanguebariae (VU) and Indigofera pseudomoniliformis (VU); it is the only site within Mozambique's IPA network for the foremost and lattermost of these species. The site also qualifies under criterion A(iii) on the basis of being the only known locality for Momordica mossambica (DD) and Rotheca sansibarensis var. eratensis, and under criterion A(iv) as it is one of fewer than five sites known globally for Pavetta micropunctata.

Site description

The Eráti IPA comprises a series of lowland granitic inselbergs in Eráti District of northern Nampula Province which support an interesting woodland flora with a number of highly localised plant species. The site is intersected by the main N1 road between the towns of Namapa and Alua, ca. 15 – 30 km south of the Lúrio River. As such, this is amongst the most accessible group of a diffuse belt of inselbergs across northern Nampula to the south of the Lúrio. Most of these peaks have not been botanised and further surveys of this highly under-explored region are likely to reveal other key inselberg sites in northern Nampula Province, which could either result in the expansion of the Eráti IPA or recognition of further IPAs in this region.

Botanical significance

Despite its proximity to the N1 road and ease of access, the Eráti hills are under-explored botanically. However, surveys by Antonio Rocha da Torre and Jorge Paiva in the 1960s, mainly on Mount Cheovi (Geovi) in the northeast of the IPA, revealed the presence of a number of range-restricted and threatened species amongst the woodland and rock flora for which this site is considered to be of high importance. Of particular note is the presence of Allophylus torrei (EN). This small tree or shrub is restricted to inselberg woodlands in Cabo Delgado and Nampula Provinces, and Eráti is one of only four known locations for this species (Darbyshire et al. 2019). Other noteworthy inselberg woodland species here include the shrublet Indigofera pseudomoniliformis (VU), endemic to northern Mozambique; the wild "Ibo coffee" Coffea zanguebariae (VU); and the shrub Croton kilwae (EN) which was noted to be frequent on the small inselbergs around Alua in the southeast of the IPA during recent surveys there (Ernst Schmidt, pers. comm. 2020). This IPA is also the only known locality for Rotheca sansibarensis var. eratensis, a local variety of this widespread species. A species of Cola collected from along a watercourse on Mount Cheovi (Torre & Paiva #9874) has been provisionally identified as C. discoglypremnophylla (EN) but Lawrence & Cheek (2019) note that fertile material is needed from the Mozambique sites in order to confirm its presence there - whatever its identity proves to be, it is likely that this Cola will be a further species of conservation concern. Elsewhere, the only known locality for the recently described miombo woodland liana Momordica mossambica (DD) falls within the eastern boundary of the site (Schaefer 2009), but its continued presence here requires confirmation given the widespread loss of miombo along the N1 road corridor. Similarly, the little-known shrub Pavetta micropunctata was recorded from dense woodland on

damp black clay-humus soils at the foot of Mount Cheovi (Torre & Paiva #9887). This latter species has yet to be assessed on the IUCN Red List but is highly likely to be globally threatened.
Given the low level of botanical coverage to date, it is highly likely that other rare and range-restricted species will be uncovered within the Eráti IPA in the future. For example, the type collection of Syncolostemon namapensis (Balsinhas & Marrime #335) was made in 1961 from the base of "Serra Malala" which is understood to be a part of the inselberg chain to the west of Namapa, only ca. 15 km from the Eráti IPA. This species is otherwise known only from Tunduru in Tanzania, and is likely to be globally threatened.

Habitat and geology

This site comprises a series of low-lying inselbergs derived from deposits of the middle to upper Proterozoic, with surficial geology including granites and gneisses (Instituto Nacional de Geológia 1987). The climate of the region is classified as mainly semi-arid and dry sub-humid with average annual rainfall ranging from 800 – 1,200 mm (WCS et al. 2021). The vegetation of the IPA has not been documented in any detail, but the predominant habitat in the lowlands is miombo woodland of the Nampula Granite Escarpment Miombo type of Lötter et al. (in prep.), dominated by a number of Brachystegia spp. and Julbernardia globiflora. Sheltered areas amongst the inselberg cliffs and gulleys support a more densely wooded vegetation, corresponding to the Northern Inselberg Woodland and Forest of Lötter et al. (in prep.), with important species including Sterculia spp. and Millettia stuhlmannii as well as miombo taxa. The more open rocky slopes support a xerophytic plant community including a range of succulent taxa, but this has not been documented within the Eráti IPA.

Conservation issues

This site is not currently protected and no biodiversity management is in place. The majority of the IPA is included within the Eráti Key Biodiversity Area on the basis of the important population of Allophylus torrei (WCS et al. 2021); the IPA boundary is slightly larger to include the hills near Alua that have a sizable population of Croton kilwae.
The main general threat in this region is agricultural expansion, although this is less impactful on the rocky slopes than in the miombo woodlands of the intervening lowlands (WCS et al. 2021). Analysis of historical satellite imagery reveals some losses of woody vegetation around the inselbergs within the past 25 years (Darbyshire et al. 2019), but considerable areas of natural vegetation remain that should support the rare and threatened species. A plausible threat to this habitat is an increased frequency of fires encroaching into the gulleys and slopes from neighbouring agricultural areas where it is used as a means of land clearance.

Site assessor(s)

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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
Allophylus torrei Exell & Mend.	A(i)	✓	✓	✓	–	–	Unknown
Croton kilwae Radcl.-Sm.	A(i)	✓	✓	✓	–	–	Common
Coffea zanguebariae Lour.	A(i)	–	–	✓	–	✓	Unknown
Indigofera pseudomoniliformis Schrire	A(i)	✓	✓	✓	–	–	Unknown
Pavetta micropunctata Bridson	A(iv)	✓	✓	✓	–	–	Unknown
Momordica mosambica H.Schaef.	A(iii)	✓	✓	✓	✓	–	Unknown
Rotheca sansibarensis (Gürke) Steane & Mabb. subsp. sansibarensis var. eratensis (R.Fern.) R.Fern.	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

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Savanna - Moist Savanna	–	Major
Rocky Areas - Rocky Areas [e.g. inland cliffs, mountain peaks]	–	Major
Shrubland - Subtropical/Tropical Moist Shrubland	–	Major

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (arable)	–	Minor

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Harvesting of wild resources	–	Unknown

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Medium	Ongoing - trend unknown
Agriculture & aquaculture - Annual & perennial non-timber crops - Shifting agriculture	Medium	Ongoing - trend unknown
Biological resource use - Logging & wood harvesting	Unknown	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Increase in fire frequency/intensity	Unknown	Ongoing - trend unknown

Conservation designation

DESIGNATION NAME	PROTECTED AREA	RELATIONSHIP WITH IPA	AREAL OVERLAP
Eráti	Key Biodiversity Area	IPA encompasses protected/conservation area	–

Management type

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

Bibliography

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