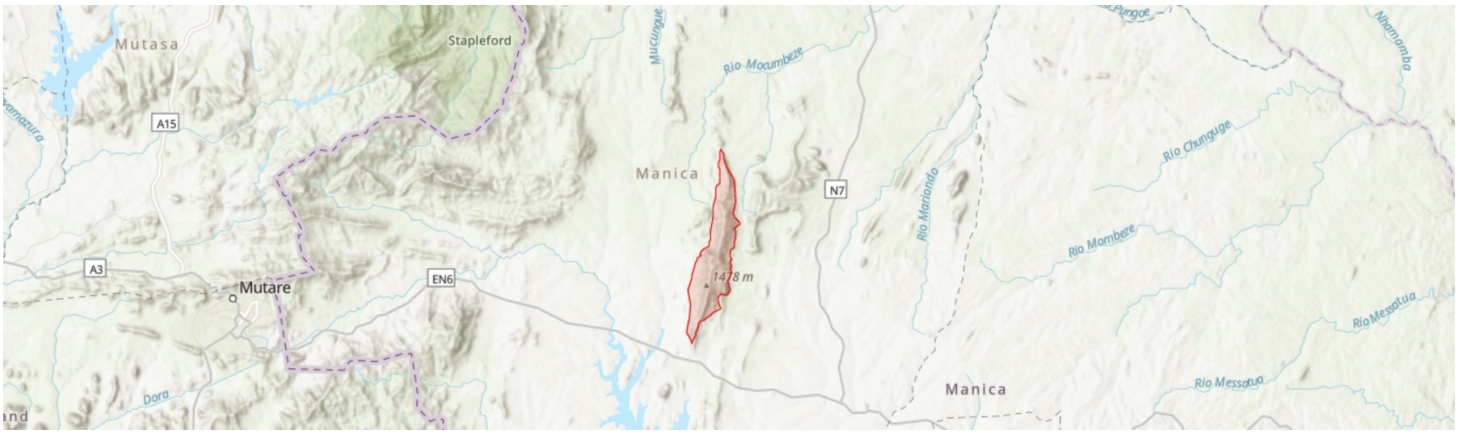
Serra Garuzo

MOZTIPA014



Country: **Mozambique**
Administrative region: **Manica (Province)**
Central co-ordinates: **-18.91859 N, 33.15576 E**
Area: **51km²**

Qualifying IPA criteria

A(i)

IPA assessment rationale

Serra Garuzo qualifies as an IPA under criterion A(i), supporting two globally threatened species: Tannodia swynnertonii (VU) and Encephalartos manikensis (VU). There is a large and healthy population of the latter species for which Garuzo is the only site within Mozambique's IPA network. The site also supports significant areas of Medium Altitude Moist Forest, a restricted and nationally threatened habitat, but is not considered to be among the best five sites nationally for that habitat and so Serra Garuzo does not qualify under criterion C(iii).

Site description

Serra Garuzo is a mountain ridge in Manica Province, to the east of Manica town and north of Bandula, straddling Manica and Vanduzi Districts. The ridge runs north-south for approximately 20 km, arising from a plain at ca. 700 m elevation and reaching a peak of just under 1,500 m. Numerous stream gullies run-off the ridge to the east and west. The IPA includes the whole length of the mountain ridge, up to 4 km wide and covering an area of approximately 50 km2. The site is not formally protected and the slopes on either side of the ridge are managed by different communities.

Botanical significance

The Serra Garuzo IPA lies within the Chimanimani-Nyanga Highlands (Sub-) Centre of Plant Endemism (Darbyshire et al. 2019). Significant areas of medium altitude moist forest can be found at this site, though this habitat has become fragmented, particularly on the east side of the ridge. Medium altitude moist forest is a species-rich but restricted and threatened habitat in Mozambique. At Garuzo, the forest supports the threatened tree species Tannodia swynnertonii (VU) at one of only two known sites nationally, and the understorey herb Cyathula divulsa (VU) at its only known site in Mozambique. Species near-endemic to Mozambique, notably the forest tree Maranthes goetzeniana (NT; Timberlake et al. 2018) and the understorey shrub Pavetta comostyla var. inyangensis, also occur. The forest is not well-studied botanically and other interesting species are likely to occur here; one taxon of note is an undescribed species of Sansevieria (T. Rulkens, pers. comm. 2019). Garuzo is particularly noteworthy for supporting a healthy population of the threatened cycad Encephalartos manikensis (VU), which is found in open rocky sites and at forest margins. This cycad is known from only a few sites in Mozambique and Zimbabwe and is threatened by the illegal collection of wild plants for use in horticulture (Donaldson 2010). Other species of note in rocky areas and associated woodland at Garuzo are Aeschynomene sp. B of Flora Zambesiaca at its only known site (Verdcourt 2000), Huernia volkartii var. repens for which Garuzo is one of only four known sites globally, and the Chimanimani-Nyanga Highlands endemic Plectranthus chimanimanensis (LC).

Habitat and geology

The north-south montane ridge of Serra Garuzo is a part of the Frontier (Fronteira) Formation of the Precambrian Gairezi Group, comprising mica schists and quartzites; this formation has not been dated precisely (Instituto Nacional de Geológia 1987; Manhica

2012).
The medium altitude moist forest on the mountain slopes reaches a canopy height of 25 – 30 m, with large trees including Strombosia scheffleri, Myrianthus holstii, Vepris bachmannii and Zanthoxylum gilletii. The forest understorey includes both bare patches and areas of dense shrubs with Acanthaceae and Rubiaceae species often dominating. On the top of the ridge, montane grassland and rocky areas provide habitat for diverse herbs, shrubs, succulents and grasses; Loudetia simplex is locally dominant in the grassland whilst the more open slopes hold patches of the sedge Coleochloa setifera. Conspicuous succulents include Aloe cameronii and A. chabaudii. Patches of low miombo (Brachystegia) woodland are also found here and extend down the western slopes of the ridge. There is a greater extent of woody vegetation remaining on the western slopes than the eastern slopes, including both forest and woodland. Stream gullies in the mountain slopes provide further habitat diversity at this site, along gradients of slope and soil moisture.

Conservation issues

The Serra Garuzo IPA is not currently protected or included within any conservation schemes. The following information on threats was gathered during fieldwork on the east side of the ridge in 2018 (Osborne & Matimele 2018). On the east side of the Garuzo ridge, much of the forest has been cleared for subsistence agriculture including cultivation of maize and yams (Colocasia esculenta). Remaining forest patches are healthy with only low levels of disturbance from selective timber cutting for local use. Some previously cultivated areas on the slopes have been recently abandoned following the prohibition of cultivation there by the government administrator (Chefe do Posto) in Vanduzi. Several dense patches of the invasive shrub Vernonanthura polyanthes were recorded on a rocky slope at ca. 1,350 m elevation. This shrub was originally introduced into Mozambique from South America as a nectar source for bees. It is a potential threat to the montane grassland and shrubland vegetation as it can form dense stands on disturbed and open ground.

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
Encephalartos manikensis (Gilliland) Gilliland	A(i)	✓	✓	✓	–	✓	Frequent
Tannodia swynnertonii (S.Moore) Prain	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
Medium Altitude Moist Forest 900-1400 m	C(iii)	–	–	–	

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Montane Forest	–	Major
Savanna - Moist Savanna	–	Minor
Grassland - Subtropical/Tropical High Altitude Grassland	–	Minor
Rocky Areas - Rocky Areas [e.g. inland cliffs, mountain peaks]	–	Minor

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (arable)	–	Major
Harvesting of wild resources	–	Minor

Threats

THREAT	SEVERITY	TIMING
Invasive & other problematic species, genes & diseases - Invasive non-native/alien species/diseases	Medium	Ongoing - increasing
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	High	Ongoing - trend unknown
Biological resource use - Logging & wood harvesting	Medium	Ongoing - trend unknown

Management type

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

Bibliography

Osborne, J. & Matimele, H. 2018 (Unpublished report). **Manica Highlands: Garuzo Forest, Tsetserra and Serra Choa.** Mozambique TIPAs Fieldwork Summary Report

Timberlake, J., Matimele, H.A., Alves, M.T., Banze, A., Chelene, I., Darbyshire, I., Datizua, C., De Sousa, C., Langa, C., Mtshali, H., Mucaleque, P.A., Odorico, D., Osborne, J., Rokni, S., Viegas, A. & Vilanculos, A. 2018. **Maranthes goetzeniana.** The IUCN Red List of Threatened Species 2018

Donaldson, J.S. 2010. **Encephalartos manikensis. The IUCN Red List of Threatened Species 2010: e.T41919A10596129..**