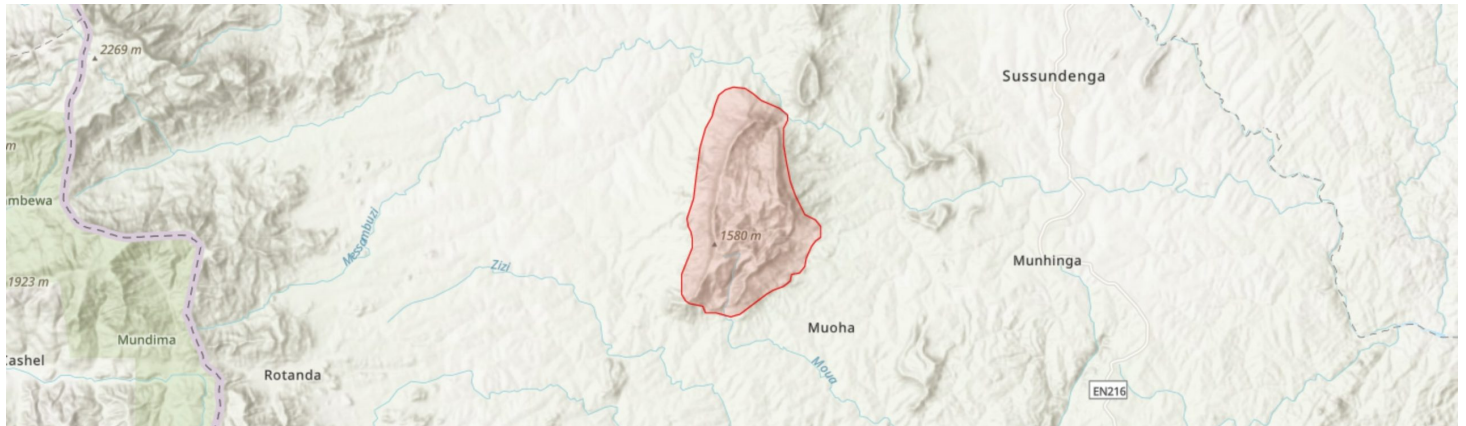


Serra Mocuta

MOZTIPA015



Country: **Mozambique**

Administrative region: **Manica (Province)**

Central co-ordinates: **-19.46191 N, 33.13061 E**

Area: **62km²**

Qualifying IPA criteria

A(i), C(iii)

IPA assessment rationale

Serra Mocuta qualifies as an Important Plant Area under criterion A(i), supporting populations of two globally threatened species, *Raphionacme pulchella* (EN) and *Gutenbergia westii* (VU). The site also qualifies under criterion C(iii), having significant areas of medium altitude moist forest, which is a nationally restricted and threatened habitat. It also contains areas of montane grassland, a further criterion C(iii) habitat, but is not considered to be among the best five sites nationally for that habitat.

Site description

Serra Mocuta is a mountain in Sussundenga District of Manica Province, situated ca. 20 km north of the Chimanimani Mountains and 15 km west of Sussundenga town. It lies at the southernmost end of a series of mountain ridges extending north to Garuzo Forest [MOZTIPA014] and is part of the wider Chimanimani-Nyanga (Sub-) Centre of Plant Endemism (Darbyshire et al. 2019) that straddles the border between Mozambique and Zimbabwe. The mountain forms an oval crater ca. 7 km long by 4 km wide, reaching an elevation of 1,573 m on the southwest edge. The IPA includes the whole of the crater and parts of the outer slopes down to ca. 700 m elevation, covering an area of approximately 62 km². The site is not formally protected at present but supports a range of intact habitats.

Botanical significance

Significant areas of medium altitude moist forest, montane grassland and montane scrubland vegetation can be found at Serra Mocuta; these habitats are restricted and threatened in Mozambique and support a number of rare plant taxa. This site is likely to be of global importance for the globally threatened *Raphionacme pulchella*, which is assessed as Endangered (Osborne et al. 2019a). Quartzite rock habitat at Serra Mocuta supports the threatened perennial herb *Gutenbergia westii* (VU) in one of its few known localities away from the Chimanimani Mountains, and the shrub *Tephrosia chimanimaniana* (LC) which is otherwise known only from the high Chimanimani. A highly range-restricted endemic aloe, *Aloe cannellii* (LC), also occurs on the steep quartzite cliffs here - although not currently considered to be threatened, it is known from only two sites globally and continued integrity of its favoured habitat at this IPA site is critical for this species' continued survival (Osborne et al. 2019b). Other Chimanimani quartzite near-endemics recorded here are *Asclepias cucullata* subsp. *scabrifolia* and *Wahlenbergia subaphylla* subsp. *scoparia*. The range-restricted epiphytic or lithophytic herb *Streptocarpus michelmoriei*, provisionally assessed as Near Threatened (I. Darbyshire, unpubl. data), is recorded here, whilst the areas of moist forest support two currently undescribed and highly range-restricted species: *Diospyros* sp. 2 of Flora Zambesiaca and *Rytigynia* sp. E of Flora Zambesiaca, the latter of which is known only from a single collection (T. Müller & T. Gordon #1785) from this site (White 1983; Bridson 1998). Serra Mocuta is not well-studied botanically and other interesting plant species are likely to occur here, potentially including other species that are otherwise restricted to the Chimanimani quartzites. Botanical collections from this site date mainly from the 1960s and 1970s and no recent expeditions are known to have occurred - there is therefore an urgent need to conduct a thorough botanical survey of the site in order to confirm the continued presence of the species of high conservation interest and to fully inventory the flora.

Habitat and geology

The landscape at Serra Mocuta consists predominantly of rugged quartzite outcrops and undulating land on a red soil, likely derived from schist (Google Earth Pro 2021), as found in the Chimanimani Mountains (Timberlake et al. 2016). The Chimanimani quartzites are derived from sandstones of the Frontier Series of the Umkondo Group, dating to the Proterozoic eon ca. 1,875 mya (Timberlake et al. 2016) of which Serra Mocuta can be considered an outlier. Quartzite outcrops occur around the edge of the crater and throughout the more rugged, southern part of the site. On shallow soils on the quartzite, open woodland, montane scrub vegetation and montane grassland occur. Based on notes from botanical collections made in the 1960s and 1970s (e.g., A. Marques & A. Pereira #995, 1006; A. Sarmento et al. #1219; G.V. Pope & W.M. Biegel #3521) the woodlands are dominated by *Brachystegia* spp., including *B. tamarindoides* subsp. *microphylla*, and/or *Uapaca sansibarica*, with other tree species of note include *Cussonia* sp. and *Parinari curatellifolia*.

Within the crater there is an undulating landscape of moist forest, dense scrub, and grassland, with grassland occurring mostly on raised areas and moist forest occurring in depressions and along drainage gullies. The species composition of these habitats has not been documented to our knowledge, but they are likely to be similar to those of the Chimanimani Mountains [MOZTIPA003 & 006] at comparable elevations. The outer slopes of the crater are covered mostly by woodland vegetation though some moist forest occurs in sheltered gullies.

Conservation issues

Little information is available concerning the current conservation issues faced at Serra Mocuta. Some grazing has been recorded (Osborne et al. 2019a) and previous fires in the grasslands are visible on satellite imagery (Google Earth Pro 2021). On the outer slopes towards the base of the crater, there has been some considerable clearance for agriculture, and fires have spread into the woodland from the agricultural land below. However, vegetation on much of the upper slopes and crater appears to be largely intact. An emerging threat is the continuing spread of the invasive shrub *Vernonanthura polyanthes* in Sussendenga District (J. Massunde, pers. comm. 2021); in the nearby Chimanimani foothills this species has invaded large swathes of land following burning, outcompeting the natural vegetation.

Site assessor(s)

Assessed by:

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Iain Darbyshire, Royal Botanic Gardens, Kew

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>Raphionacme pulchella</i> Venter & R.L.Verh.	A(i)	✓	✓	✓	—	—	Unknown
<i>Gutenbergia westii</i> (Wild) Wild & G.V.Pope	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)	—	—	✓	
Montane Grassland	C(iii)	—	—	—	

General site habitats

GENERAL SITE HABITAT	PERCENT COVERAGE	IMPORTANCE
Forest - Subtropical/Tropical Moist Montane Forest	—	Major
Shrubland - Subtropical/Tropical High Altitude Shrubland	—	Major
Grassland - Subtropical/Tropical High Altitude Grassland	—	Major
Savanna - Moist Savanna	—	Major

Land use types

LAND USE TYPE	PERCENT COVERAGE	IMPORTANCE
Agriculture (arable)	—	Minor
Agriculture (pastoral)	—	Minor

Threats

THREAT	SEVERITY	TIMING
Agriculture & aquaculture - Livestock farming & ranching - Small-holder grazing, ranching or farming	Unknown	Ongoing - trend unknown
Agriculture & aquaculture - Annual & perennial non-timber crops - Small-holder farming	Low	Ongoing - trend unknown
Natural system modifications - Fire & fire suppression - Trend Unknown/Unrecorded	Unknown	Ongoing - trend unknown

THREAT	SEVERITY	TIMING
Invasive & other problematic species, genes & diseases - Invasive non-native/alien species/diseases	Unknown	Ongoing - trend unknown

Management type

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

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