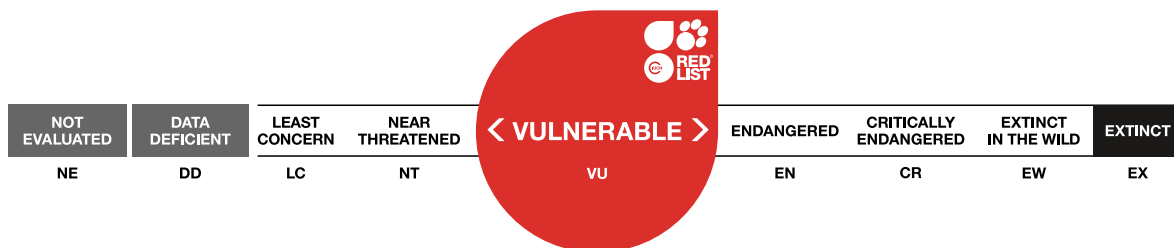


Siphonochilus kilimanensis

Assessment by: Datizua, C.



View on www.iucnredlist.org

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Liliopsida	Zingiberales	Zingiberaceae

Scientific Name: *Siphonochilus kilimanensis* (Gagnep.) B.L.Burt

Synonym(s):

- *Cienkowskiella kilimanensis* (Gagnep.) Y.K.Kam
- *Kaempferia ceciliae* N.E.Br.
- *Kaempferia kilimanensis* Gagnep.

Taxonomic Source(s):

Board of Trustees, RBG Kew. 2020. Plants of the World Online Portal. Richmond, UK Available at: <http://www.plantsoftheworldonline.org>.

Assessment Information

Red List Category & Criteria: Vulnerable B2ab(ii,iii) [ver 3.1](#)

Year Published: 2020

Date Assessed: December 6, 2019

Justification:

Siphonochilus kilimanensis is endemic to central coastal Mozambique, known mostly from Sofala and Zambezia Provinces, but also recorded in two sites from Nampula Province. It has an area of occupancy (AOO) of 52 km² and extent of occurrence (EOO) of 44,973 km², with 10-12 locations. There is no quantitative information about population for this taxon so far, but according to J. Burrows pers. obs., many of the extensive habitats (wetlands) between Beira and Quelimane are still holding good populations of this species. There are 15 known records, of which most are old (1960s or earlier), however there are also recent records from Sofala and Zambezia Provinces (dating from 2006–2016). This perennial herb with an underground rhizome is known to occur in seasonally flooded grasslands or wooded grassland on sandy or black alluvial soils near the coast and its may be ecologically fire resistant. It is threatened today due to the habitat loss related to the expansion of human settlements and agriculture (mainly clearing for cultivation of rice and sweet potatoes).

The most threatened locations are from Angoche and Maganja da Costa districts and localities from Dondo district. *Siphonochilus kilimanensis* is not being conserved anywhere so far, although one of the locations occurs in Coutada 12, which since January 2018 has been managed by Gorongosa National Park (www.gorongosa.org 2018). Note that there is also a uncertainty if Gorongosa National Park has already taken over or will take over the area around the lower Chinizua River (south of Coutada 12) which holds extensive grassy wetlands very suitable for this plant. As a result, it has been assessed as Vulnerable (VU) B2ab(ii,iii).

Geographic Range

Range Description:

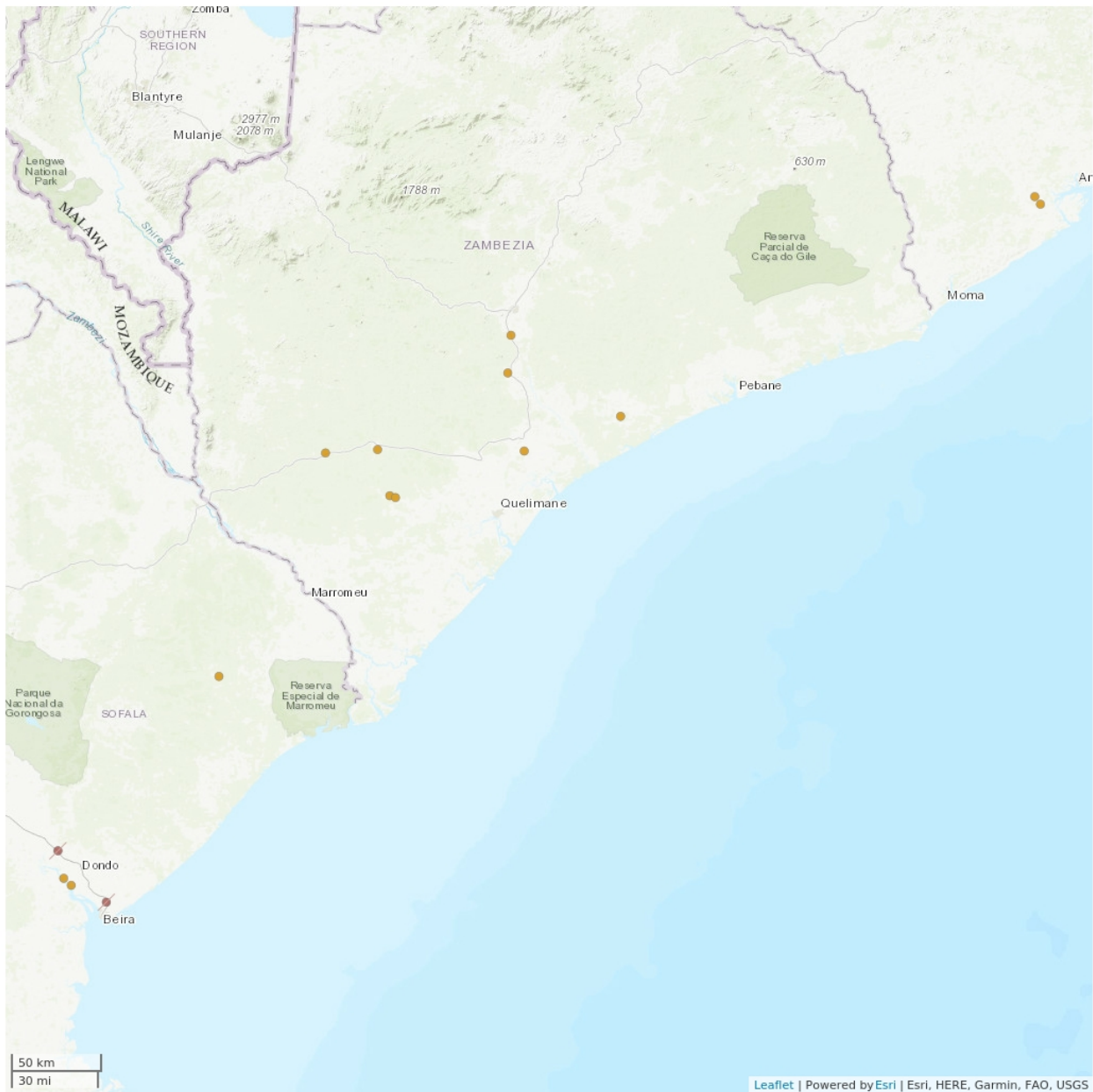
Siphonochilus kilimanensis is a perennial herb endemic to central coastal Mozambique, known mostly from Sofala and Zambezia Provinces, but also recorded in two sites near Angoche village (Nampula Province), one record by *Torre & Correia #17297* and other by *Torre & Paiva #11531*, which date from 1968 and 1964. In Sofala there are three occurrence localities and the most recent is from Nhago Camp in Coutada 12 (Cheringoma plain) by *Wursten #1557* (dating from 2016). There are eight localities in Zambezia, of which the two most recent are from Mopeia district (*Rulkens #73117*) dating from 2015 and the other recorded in Nicoadala district (*Burrows & Burrows #9703*) dating from 2006. Populations of this species has encountered a couple of times in many of the extensive wetlands between Beira and Quelimane by *J. Burrows & S. Burrows*.

Excluding two localities where it is probably now extinct, it has an estimated extent of occurrence (EOO) of 44,972 km² and area of occupancy (AOO) of 52 km².

Country Occurrence:

Native, Extant (resident): Mozambique

Distribution Map



Legend

- EXTANT (RESIDENT)
- POSSIBLY EXTINCT

Compiled by:

RBG, Kew 2019



The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.



Population

The species is known from one subpopulation in Angoche district (Nampula province), approximately six in Zambezia province and a further two subpopulations from Coutada 12-Cheringoma plain and Dondo district in Sofala province. However, exact information about population size or population ecology is unknown for this taxon so far, although many of the extensive habitats between Beira and Quelimane are still holding good populations of this species, according to J. Burrows pers. obs.

It is known from 14 herbarium specimen collections and one observation record, dating from 1899 to 2016. Most records are very old, dating from the 1960s, or earlier (Dondo District dating from 1899 and 1923, Mopeia District dating from 1904). Fortunately there are also three recent records from Sofala and Zambezia Provinces (extensive area along wetlands between Beira and Quelimane), one from Coutada 12 (Cheringoma plain) (dating from 2016), Mopeia district dating from 2015 and the last from Nicoadala district dating from 2006.

Current Population Trend: Unknown

Habitat and Ecology (see Appendix for additional information)

Siphonochilus kilimanensis is a terrestrial, perennial herb with an underground rhizome and mauve-pink flowers, known from seasonally flooded grasslands, sometimes with shrubs, on sandy or black alluvial soils near the coast (Lock 2010) and at 5–139 m elevation. Additionally, according to data on herbarium specimens, it grows in savanna (wooded grassland) with *Pteleopsis* sp., *Annona senegalensis*, sedges, *Pandanus* sp. and stands of *Philippia*. It has been recorded growing in small colonies.

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

The information of use and trade for this perennial herb is unknown. However, as for most of the species of the genus *Siphonochilus*, it is also believed that *Siphonochilus kilimanensis* likely has medicinal uses (Hartzell 2011).

Threats (see Appendix for additional information)

Most localities are seriously threatened due to the land use transformation related to the expansion of human settlements, transformation of wetland habitats to agriculture. And because this species is a pyrophytic geophyte, fire does not represent a threat, although this plant occurs in vulnerable habitats to frequent fires.

Several locations have probably disappeared around Beira and Quelimane, although also many of the extensive wetlands still containing populations of this species and are currently in healthy conditions. Note: these wetlands are seem to be threatened by clearing for cultivation of rice and sweet potatoes (J. Burrows pers. obs.).

The most threatened localities are from Angoche, Maganja da Costa districts and two localities from Dondo district. It is probably extinct near Mafambisse and at Manga. The record from near Mafambisse is exactly in the operation area of the Mafambisse sugar factory and plantation, and in Manga the

suitable habitat seems to have been cleared due to urbanization development.

Conservation Actions (see Appendix for additional information)

There are no specific conservation measures or management plans for this species, although Coutada 12 is being managed by Gorongosa National Park since January 2018 (www.gorongosa.org 2018), so it is likely to be protected here. But even with that, there is no certainty that Gorongosa National Park has already taken over or will take over the area around the lower Chinizua River (south of Coutada 12) which holds extensive grassy wetlands very suitable for *Siphonochilus kilimanensis*.

Credits

Assessor(s):	Datizua, C.
Reviewer(s):	Burrows, J.E.
Contributor(s):	Rokni, S.
Partner(s) and Institution(s):	IUCN SSC Southern African Plant Specialist Group & Royal Botanic Gardens, Kew

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External Resources

For [Supplementary Material](#), and for [Images and External Links to Additional Information](#), please see the Red List website.

Appendix

Habitats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Habitat	Season	Suitability	Major Importance?
2. Savanna -> 2.2. Savanna - Moist	Resident	Suitable	Yes
3. Shrubland -> 3.6. Shrubland - Subtropical/Tropical Moist	Resident	Suitable	Yes
4. Grassland -> 4.6. Grassland - Subtropical/Tropical Seasonally Wet/Flooded	Resident	Suitable	Yes

Plant Growth Forms

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Plant Growth Form
GE. Geophyte

Threats

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Threat	Timing	Scope	Severity	Impact Score
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Minority (50%)	Slow, significant declines	Low impact: 5
1. Residential & commercial development -> 1.2. Commercial & industrial areas	Unknown	Minority (50%)	Unknown	Unknown
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.1. Shifting agriculture	Ongoing	Whole (>90%)	Slow, significant declines	Medium impact: 7
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	Minority (50%)	Rapid declines	Medium impact: 6
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion 2. Species Stresses -> 2.1. Species mortality		
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Unknown	Minority (50%)	Unknown	Unknown

Conservation Actions in Place

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Action in Place
In-place land/water protection
Occurs in at least one protected area: Yes

Conservation Actions Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Conservation Action Needed
1. Land/water protection -> 1.2. Resource & habitat protection
2. Land/water management -> 2.1. Site/area management

Research Needed

(<http://www.iucnredlist.org/technical-documents/classification-schemes>)

Research Needed
1. Research -> 1.2. Population size, distribution & trends
1. Research -> 1.3. Life history & ecology
1. Research -> 1.5. Threats
3. Monitoring -> 3.1. Population trends
3. Monitoring -> 3.4. Habitat trends

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 52
Continuing decline in area of occupancy (AOO): Yes
Estimated extent of occurrence (EOO) (km ²): 44973
Continuing decline in extent of occurrence (EOO): Unknown
Number of Locations: 10
Continuing decline in number of locations: Unknown
Lower elevation limit (m): 5
Upper elevation limit (m): 139
Population
Continuing decline of mature individuals: Unknown

Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes

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