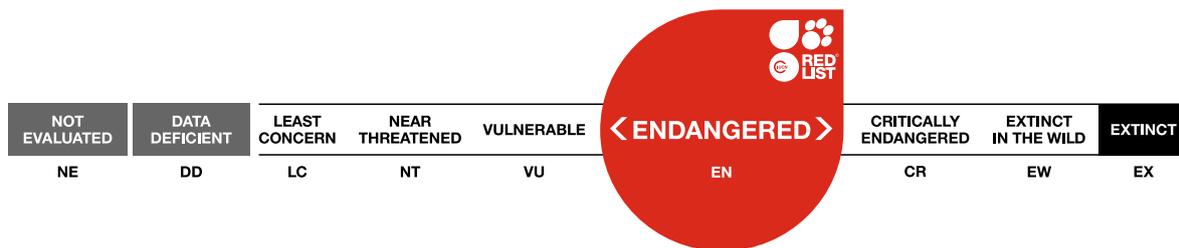




Medinilla anamalaiana

Assessment by: Devika, M.A. & Amitha Bachan, K.H.



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Citation: Devika, M.A. & Amitha Bachan, K.H. 2023. *Medinilla anamalaiana*. *The IUCN Red List of Threatened Species* 2023: e.T239579056A239579839. <https://dx.doi.org/10.2305/IUCN.UK.2023-1.RLTS.T239579056A239579839.en>

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Myrtales	Melastomataceae

Scientific Name: *Medinilla anamalaiana* Sasidh. & Sujanapal

Taxonomic Source(s):

POWO. 2023. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Available at: <http://powo.science.kew.org/>. (Accessed: 2023).

Identification Information:

Epiphytic subshrubs with quadrangular or subquadrangular sparingly branched fleshy branches. Stem 20-35 cm long, young shoots reddish-brown with ribbed fleshy leaves. Flower in horizontal rows on 1-2mm long peduncle. Flowers 4-merous, petals 5-7 x 4 mm, rose-pink, obliquely obovate.

Assessment Information

Red List Category & Criteria: Endangered D [ver 3.1](#)

Year Published: 2023

Date Assessed: September 5, 2023

Justification:

Medinilla anamalaiana is an epiphyte that grows on the canopy trees of tropical rain forests of the southern Western Ghats at elevations between 500–1,200 m. The species has an area of occupancy (AOO) 40 km² and extent of occurrence (EOO) of 8,772 km². There are eight subpopulations represented with 11 collection records within four ecoregion of southern Western Ghats. The species occurs in three protected areas. The largest subpopulation is within the Kerala part of the Anamalai landscape, encompassing the type locality. The population estimated for the species is between 200–500 mature individuals and with an abundance of two per ha. The degradation of the habitat is due to tea and coffee plantations, dams and selective extraction of canopy trees for plywood industries, and the areas are still prone to forest fire. The low abundance of the species and its association with climax rainforest trees indicates a narrow niche requirement. Hence, the species is assessed as Endangered (EN).

Geographic Range

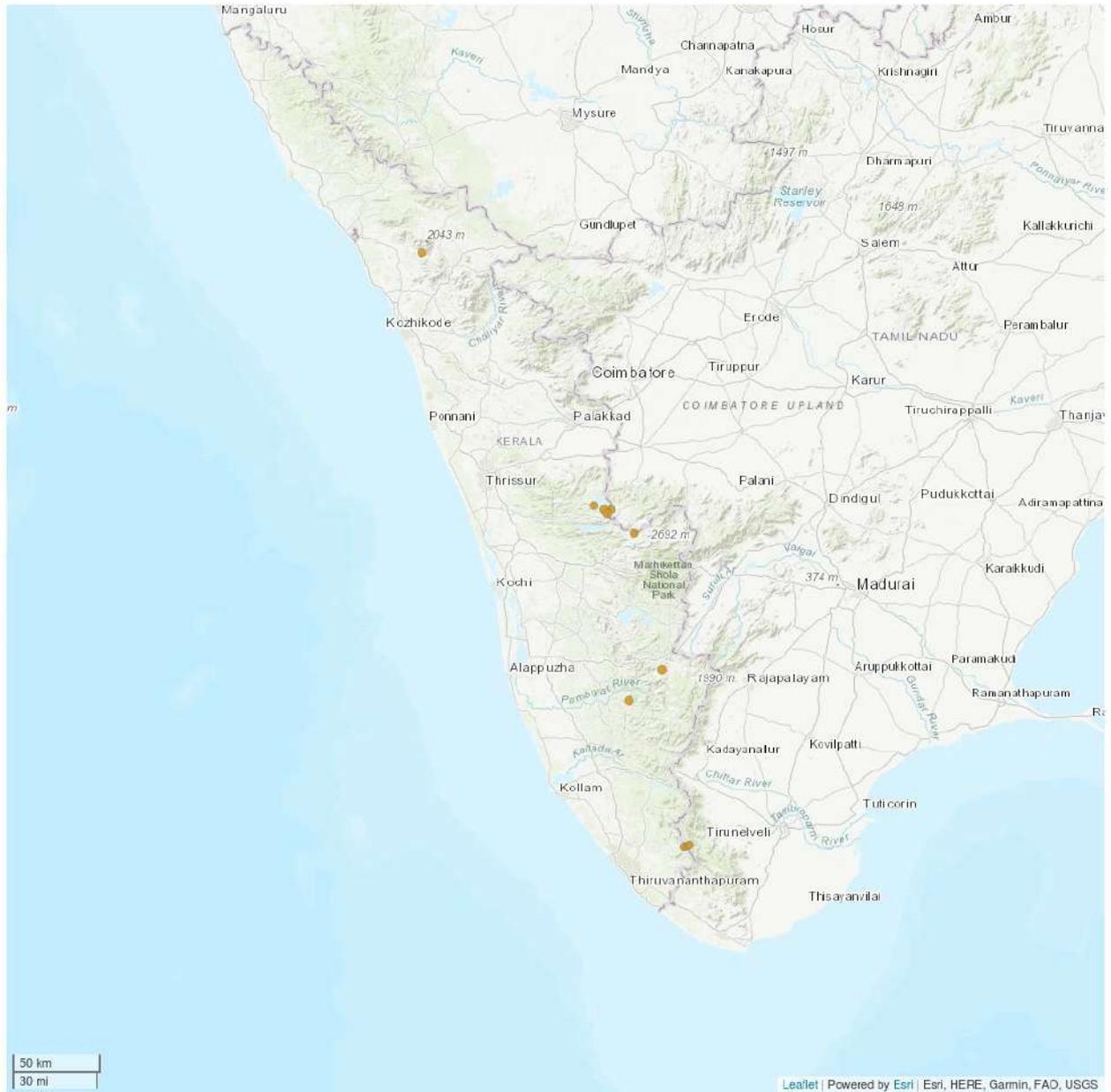
Range Description:

Medinilla anamalaiana is endemic to southern Western Ghats. India.

Country Occurrence:

Native, Extant (resident): India (Kerala, Tamil Nadu)

Distribution Map



Legend

■ EXTANT (RESIDENT)

Compiled by:

IUCN SSC WGPSG 2023



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

Population

Medinilla anamalaiana is an epiphytic shrub on rainforest canopy trees. The species has eight subpopulations represented with 11 collection records within four ecoregion of southern Western Ghats. The largest subpopulation is within the Kerala part of the Anamalai landscape, encompassing the type locality. The population estimated for the species is in between 200–500 mature individuals and the abundance of two per ha (Devika and Amitha Bachan 2023).

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Medinilla anamalaiana is an epiphytic subshrub that grows on canopy and sub canopy trees of tropical rainforests of southern Western Ghats between elevations of 500–1,200 m asl. The species is seen in isolated subpopulations and is very low in abundance. The associated tree species includes *Cryptocarya lawsonii*, *Gymnanthemum arborea*, *Reinwardtiodendron anamalaiense*, *Elaeocarpus glandulosus*, *Turpinia malabarica*, *Drypetes wightii*, *Palaquium ellipticum* and *Calophyllum polyanthum*. There is a decline in habitat due to anthropogenic actions such as tea-coffee plantations, dams and reservoirs and selection felling of old growth trees as part of forest timber operations (Devika and Amitha Bachan 2023).

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

There is no use and trade information regarding this species.

Threats (see Appendix for additional information)

The habitat had undergone large scale conversions for tea-coffee plantations and dams and reservoirs. The selective extraction of large trees for plywood and soft wood industries as part of forest management has had serious impact on the population due to the loss of canopy and subcanopy trees, the natural hosts of *Medinilla anamalaiana*. Forest fire incidence were observed in the habitat studied (Devika and Amitha Bachan 2023).

Conservation Actions (see Appendix for additional information)

The species was reported from three protected areas which includes Agasthyamalai biosphere reserve, Parambikulam Tiger reserve and Periyar Tiger Reserve. All the recorded subpopulations are prone to degradation. The restoration of the habitat quality, awareness and cite specific management plans for protection and species recovery are essential.

Credits

Assessor(s): Devika, M.A. & Amitha Bachan, K.H.

Reviewer(s): Hills, R.

Acknowledgements

The first author acknowledge the Rufford Foundation, UK.

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Sasidharan, N. and Sujanalal, P. 2005. The Genus *Medinilla* Gaudich. ex DC. (Melastomataceae) in Peninsular India. *Rheedea* 15(2): 103-112.

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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?
1. Forest -> 1.9. Forest - Subtropical/Tropical Moist Montane	Resident	Suitable	Yes

Plant and Fungal growth forms

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

Plant and Fungal growth forms
E. Epiphyte

Threats

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

Threat	Timing	Scope	Severity
2. Agriculture & aquaculture -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	Minority (<50%)	Slow, significant declines
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion	
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.3. Scale Unknown/Unrecorded	Ongoing	Minority (<50%)	Slow, significant declines
	Stresses:	1. Ecosystem stresses -> 1.1. Ecosystem conversion	
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.4. Unintentional effects: (large scale) [harvest]	Ongoing	Minority (<50%)	Slow, significant declines
	Stresses:	1. Ecosystem stresses -> 1.2. Ecosystem degradation	
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.2. Suppression in fire frequency/intensity	Ongoing	Minority (<50%)	Rapid declines
	Stresses:	2. Species Stresses -> 2.1. Species mortality	
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	Minority (<50%)	Slow, significant declines
	Stresses:	1. Ecosystem stresses -> 1.3. Indirect ecosystem effects	

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: Yes

Conservation Action in Place
Systematic monitoring scheme: No
In-place land/water protection
Conservation sites identified: Yes, over part of range
Percentage of population protected by PAs: 61-70
Area based regional management plan: No
Occurs in at least one protected area: Yes

Conservation Actions Needed

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

Conservation Action Needed	Notes
2. Land/water management -> 2.1. Site/area management	-
2. Land/water management -> 2.3. Habitat & natural process restoration	-
3. Species management -> 3.2. Species recovery	-
3. Species management -> 3.4. Ex-situ conservation -> 3.4.2. Genome resource bank	-
4. Education & awareness -> 4.3. Awareness & communications	-

Research Needed

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

Research Needed	Notes
1. Research -> 1.3. Life history & ecology	-
2. Conservation Planning -> 2.2. Area-based Management Plan	-
3. Monitoring -> 3.4. Habitat trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 40
Continuing decline in area of occupancy (AOO): No
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km ²): 8772
Continuing decline in extent of occurrence (EOO): No

Distribution
Extreme fluctuations in extent of occurrence (EOO): No
Number of Locations: 8
Lower elevation limit (m): 500
Upper elevation limit (m): 1,200
Population
Number of mature individuals: 200-500
No. of subpopulations: 8
No. of individuals in largest subpopulation: 80
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 20

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