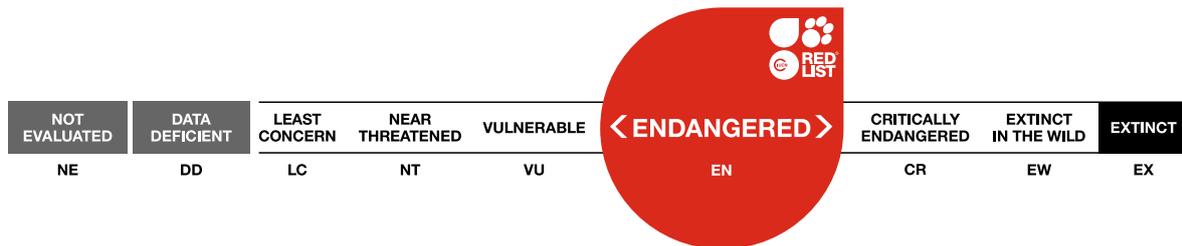




Syzygium parameswaranii

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Myrtales	Myrtaceae

Scientific Name: *Syzygium parameswaranii* M.Mohanan & A.N.Henry

Synonym(s):

- *Syzygium sriganesanii* K.Ravik. & V.Lakshm.

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).

Karuppusamy, S. and Ravichandran, V. 2016. On the identity and nomenclature of *Syzygium sriganesanii* K. Ravik. & V. Lakshm. (Myrtaceae) in southern Western Ghats, India. *Journal of Biological Records* e0072016: 65-72.

Identification Information:

The *Syzygium parameswaranii* is a tree up to 20 m high, bark smooth, grey, branchlets quadrangular. Leaves ovate to oblong-elliptic, 3-8 X 1.4-5 cm, glabrous, subsessile. Flowers are terminal trichasial corymbose; calyx tube yellowish green, sepal and petals four each. Stamen pale pink to white. Berry obconical when young and dumbbell-shaped at mature, depressed at both ends, orange-yellow when ripe. Flowering and fruiting period usually from January - November.

Assessment Information

Red List Category & Criteria: Endangered B1ab(iii,v)+2ab(iii,v); C2a(i) [ver 3.1](#)

Year Published: 2023

Date Assessed: August 28, 2022

Justification:

Syzygium parameswaranii is endemic to Megamalai, Periyar and Agasthyamalai landscapes of the southern Western Ghats in India. It is seen in montane shola evergreen forest undergrowth as a small tree up to 6 m high, seen within a narrow altitude range between 1,200–1,800 m. The species is very restricted within four locations, even though it has multiple collection records. The estimated area of occupancy (AOO) is 44 km² and the extent of occurrence (EOO) is 659 km². There are four locations. The habitat had been converted for tea plantations and a dam, so it is experiencing continuing decline. The remaining habitat is under the three important protected areas within Kerala and Tamil Nadu region. A 75–93% reduction in the reproduction due to insect infestation has been reported. The estimated number of mature individuals is less than 250 with 100 in its largest subpopulation at Megamalai. Hence, the species is assessed here as Endangered.

Previously Published Red List Assessments

[1998 – Endangered \(EN\)](#)

Geographic Range

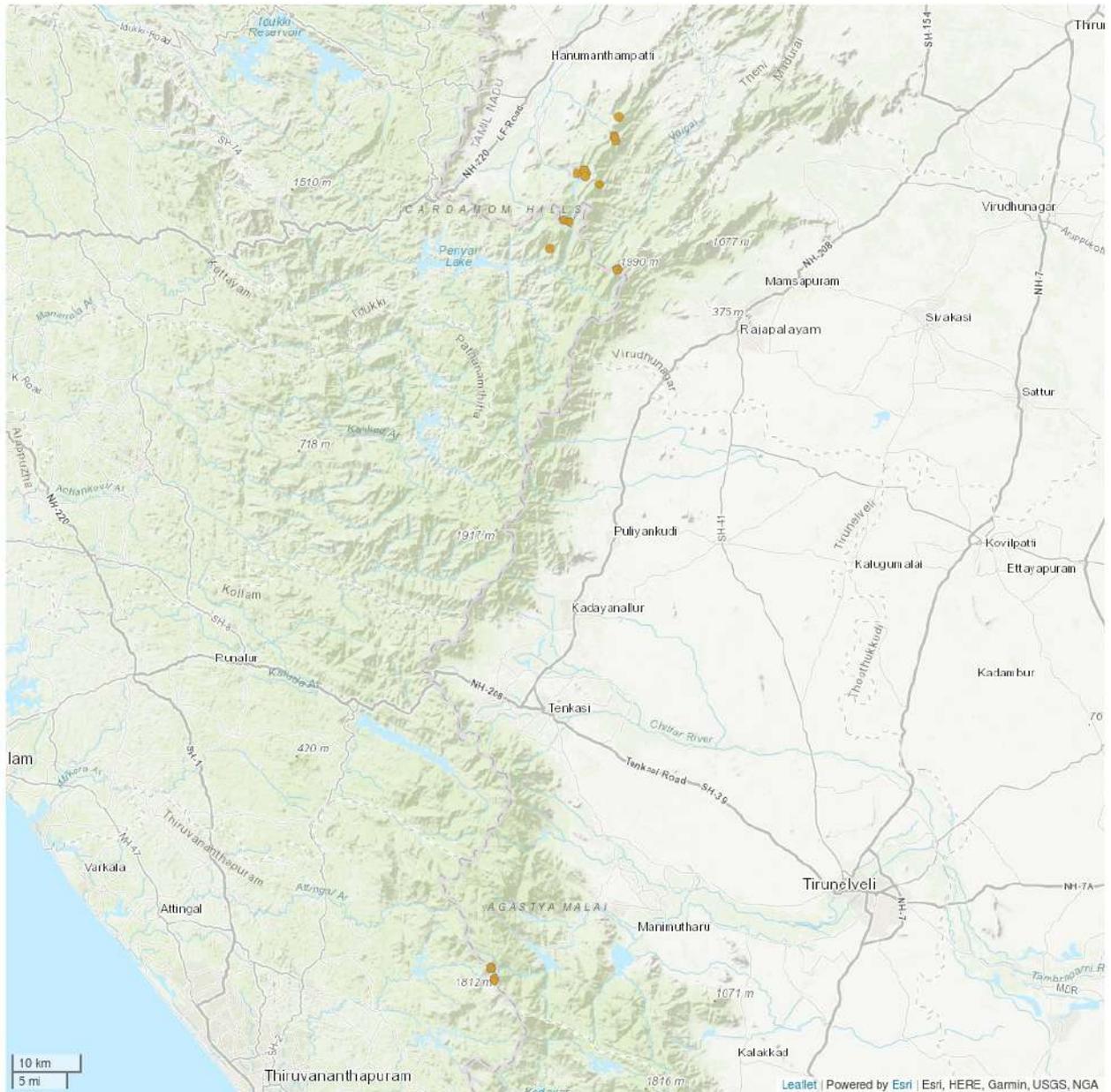
Range Description:

This species occurs in southern Western Ghats, India.

Country Occurrence:

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

Distribution Map



Legend

■ EXTANT (RESIDENT)

Compiled by:

GTA 2022



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

Population

Syzygium parameswaranii reported from four locations in three adjacent landscapes in the Southern Western Ghats within a narrow range of altitude between 1,200–1,800 m. It has 31 collection records within the very restricted distribution range and the estimated number of mature individuals is less than 250 with 100 in its largest subpopulation at Megamalai. The current population trend is unknown, but the area had been converted for tea plantations and dams. There is a 75–95% reduction in reproduction rate due to infestation of *Anselmella kerrichi* on flowers and fruits (Athira and Ramasubbu 2020). It is not known exactly to what extent this will affect population numbers in the future.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Syzygium parameswaranii is restricted to tropical montane evergreen forest of the Agasthyamalai, Periyar and Megamalai landscape in between 1,200–1,800 m elevation. It is a small tree up to 6 m high in the montane shola forest patches. The associated species are *Elaeocarpus munroi*, *Maesa indica*, *Nothapodytes nimmoniana*, *Syzygium* spp. and *Litsea* spp.

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

No use and trade information is available.

Threats (see Appendix for additional information)

Syzygium parameswaranii is restricted to a narrow range 1,200–1,800 m in four locations of three landscapes in the southern Western Ghats. The area is fragmented with tea plantations and dams. Infestation of an insect *Anselmella kerrichi* is reported to reduce the reproduction rate by 75–93% (Athira and Raju 2020).

Conservation Actions (see Appendix for additional information)

The species lacks site specific conservation and management plans, population information and monitoring even though distributed in three important protected areas including the Agasthyamalai biosphere reserve. Mature individuals have been located in all the four locations and studies on reproduction reduction due to insect infection have been reported.

Credits

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

Reviewer(s): Beech, E.

Bibliography

Athira, R. and Raju, R. 2020. *Anselmella kerrichi* – A new pest on the reproductive reduction of an Endangered tree (*Syzygium parameswaranii*) of semi-evergreen Forests of the Western Ghats, India. *Trees, Forests and People* 2: 100017.

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Jomy, A. and Sasidharan, N. 2015. Floristic and ethnobotanical studies of Periyar tiger reserve. Botany, University of Calicut.

Karuppusamy, S. and Ravichandran, V. 2016. On the identity and nomenclature of *Syzygium sriganesanii* K. Ravik. & V. Lakshm. (Myrtaceae) in southern Western Ghats, India. *Journal of Biological Records* e0072016: 65-72.

Mohanam, M. and Henry, A.N. 1987. *Syzygium parameswaranii* (Myrtaceae) – A new species from Southern India. *Journal of Bombay Natural History Society* 84: 408-409.

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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	No

Plant and Fungal growth forms

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

Plant and Fungal growth forms
TS. Tree - small

Threats

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

Threat	Timing	Scope	Severity
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Ongoing	Minority (<50%)	Rapid declines
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	Minority (<50%)	Slow, significant declines
8. Invasive and other problematic species, genes & diseases -> 8.2. Problematic native species/diseases -> 8.2.1. Unspecified species	Ongoing	-	-

Conservation Actions in Place

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

Conservation Action in Place
In-place research and monitoring
Action Recovery Plan: No
Systematic monitoring scheme: No
In-place land/water protection
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	-

Research Needed

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

Research Needed	Notes
1. Research -> 1.2. Population size, distribution & trends	-
2. Conservation Planning -> 2.1. Species Action/Recovery Plan	-
2. Conservation Planning -> 2.2. Area-based Management Plan	-
3. Monitoring -> 3.1. Population trends	-
3. Monitoring -> 3.4. Habitat trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 44
Estimated extent of occurrence (EOO) (km ²): 659
Number of Locations: 4
Lower elevation limit (m): 1,200
Upper elevation limit (m): 1,800
Population
Number of mature individuals: 250
Continuing decline of mature individuals: Yes
No. of subpopulations: 4
All individuals in one subpopulation: No
No. of individuals in largest subpopulation: 100

Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 25

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