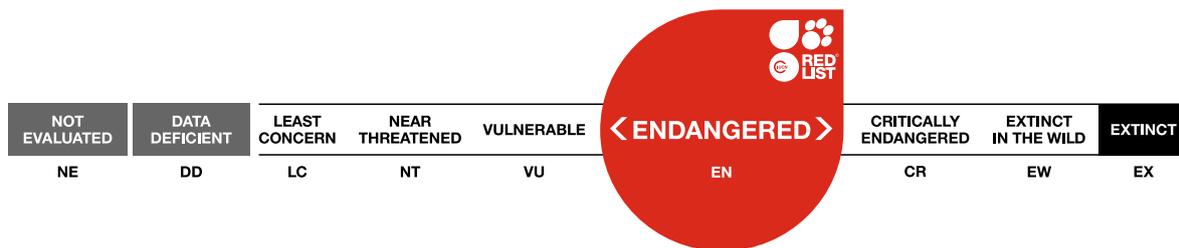




Syzygium calophyllifolium, Neerodum

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 calophyllifolium* (Wight) Walp.

Synonym(s):

- *Eugenia calophyllifolia* Wight

Common Name(s):

- Malayalam: Neerodum

Taxonomic Source(s):

WCVP. 2021. World Checklist of Vascular Plants, version 2.0. Facilitated by the Royal Botanic Gardens, Kew. Available at: <http://wcvp.science.kew.org/>. (Accessed: 28 January 2021).

Sankara Rao, K., Raja K Swamy, Deepak Kumar, Arun Singh R. and K. Gopalakrishna Bhat. 2019. Flora of Peninsular India. [http://peninsula.ces.iisc.ac.in/plants.php?name=Syzygium calophyllifolium](http://peninsula.ces.iisc.ac.in/plants.php?name=Syzygium%20calophyllifolium). .

Identification Information:

Syzygium calophyllifolium is a medium sized evergreen tree up to 20 m high with rough bark and pink blaze, seen in evergreen to montane forest. Leaves are glabrous, coriaceous, obovate or suborbicular, with close parallel secondary nerves similar to *Calophyllum* blade is 2-5 x 1.5-3 cm. Flowers white, terminally corymbose. Peduncle 4 angled. Fruit berry, oblong obovoid dark purple. Flowering and fruiting February - May.

Assessment Information

Red List Category & Criteria: Endangered C2a(i) [ver 3.1](#)

Year Published: 2023

Date Assessed: October 4, 2022

Justification:

Syzygium calophyllifolium is an evergreen tree up to 20 m high, restricted to montane shola evergreen forest of South India and Sri Lanka. The present area of occupancy (AOO) is 56 km² and the extent of occurrence (EOO) is 313,596 km². There are 13 known locations and two *ex situ* conservation areas. The largest subpopulations are in Agasthyamalai and Nilgiri landscapes of Western Ghats with 72% of the population. The maximum size of the largest subpopulation is between 75–100 mature individuals, and the overall population size is less than 700 mature individuals. The species is distributed chiefly in 1,500–2,300 m elevations, with few exceptions. Large scale conversion and fragmentation of montane shola forest in its habitat range for tea, eucalyptus, wattle tree and infrastructure development are the major reason for degradation and fragmentation of the habitat. The species assessed here as Endangered.

Geographic Range

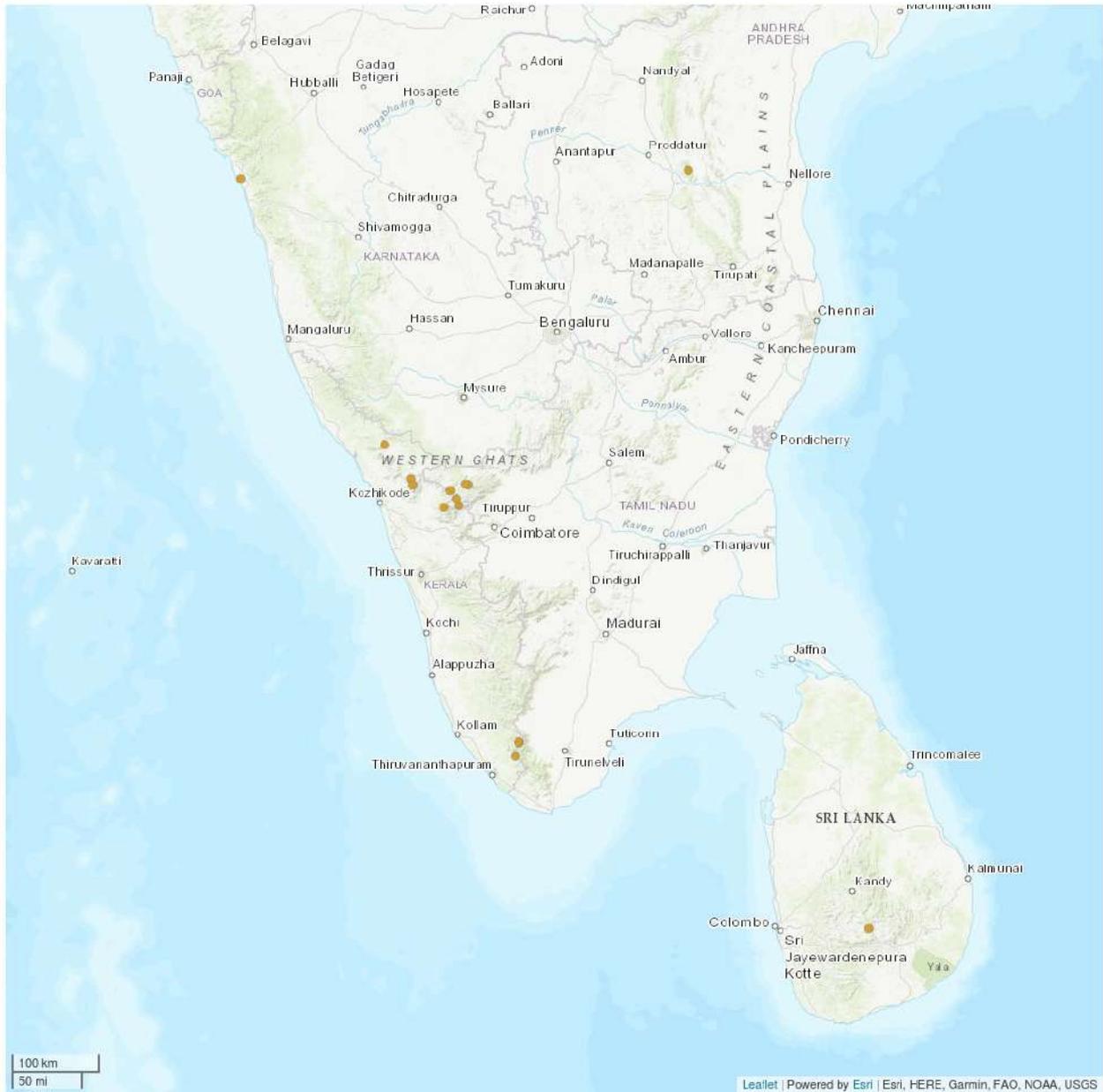
Range Description:

The species is distributed in Western Ghats, Eastern Ghats and Sri Lanka.

Country Occurrence:

Native, Extant (resident): India (Andhra Pradesh, Goa, Karnataka, Kerala, Tamil Nadu); Sri Lanka

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 calophyllifolium has 13 subpopulations in the wild. The species is restricted to five landscapes with montane evergreen habitat. The maximum size of the largest subpopulation is between 75–100 mature individuals, and the overall population size is less than 700 mature individuals.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Syzygium calophyllifolium is an evergreen tree seen within the montane shola forest habitat in South India and Sri Lanka. It is chiefly distributed in an altitude between 1,000–2,300 with few exceptions. This species is known to occur in 13 locations within five landscapes in South India and Sri Lanka. Nilgiri and Agasthyamalai biosphere reserves are the important habitats for 72% of its population. The species is seen associated with *Rhododendron nilagiricum*, *Rhodomyrtus tomentosa*, *Syzygium cumini* and *Syzygium tamilnadensis*.

Systems: Terrestrial

Use and Trade

The fruits are edible according to the tribal community in the Western Ghats. A study indicates it has some antioxidant properties (Najar *et al.* 2019). The species is not regularly or commercially harvested and used.

Threats (see Appendix for additional information)

The degradation and fragmentation of tropical montane shola forest habitat is the main threat of the species. The habitat had been converted in large scale for tea and eucalyptus plantations during the colonial time and the spread of wattle trees planted as afforestation programme during the 1970s to 90s. The development of associated townships and infrastructure resulted in heavy degradation and fragmentation. The spread of wattle trees as a weed and regeneration retardation by the spread of *Lantana camera* in Nilgiri region is another threat.

Conservation Actions (see Appendix for additional information)

There are no species specific conservation action plans in place. Four out of 13 wild locations are within protected areas, two individuals are in *ex situ* conservation sites. Protection and management of shola forest habitat in one of its localities, the Nilgiri biosphere reserve, is in place.

Credits

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

Reviewer(s): Beech, E.

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IUCN. 2023. The IUCN Red List of Threatened Species. Version 2023-1. Available at: www.iucnredlist.org. (Accessed: 11 December 2023).

Najar, U.I.N., Puyravaud, J-P. and Davidar, P. 2019. Shola tree regeneration is lower under *Lantana camara* L. thickets in the upper Nilgiris plateau, India. *Journal of Threatened Taxa* 11(12): 14562-14568.

Sathyanarayanan, S., Chandran, R., Thankarajan, S., Abrahamse, H. and Thangaraj, P. 2018. Phytochemical composition, antioxidant and anti-bacterial activity of *Syzygium calophyllifolium* Walp. fruit. *J Food Sci Technol* 341–350.

Shareef, S.M. and Santhosh Kumar, E.S. 2020. Census of *Syzygium* Gaertn. (Myrtaceae) in India. *Abrahamia: An International journal of plant science* 6(2): 90-107.

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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 |
|-------------------------------|
| TL. Tree - large |

Use and Trade

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

| End Use | Local | National | International |
|-----------------|-------|----------|---------------|
| 1. Food - human | Yes | No | No |

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 | Majority (50-90%) | Slow, significant declines |
| 8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Lantana camara) | Ongoing | - | - |
| 8. Invasive and other problematic species, genes & diseases -> 8.1. Invasive non-native/alien species/diseases -> 8.1.2. Named species (Acacia mearnsii) | 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 |

| |
|--|
| Conservation Action in Place |
| Systematic monitoring scheme: No |
| In-place land/water protection |
| Percentage of population protected by PAs: 41-50 |
| Area based regional management plan: No |
| Occurs in at least one protected area: Yes |
| Invasive species control or prevention: Yes |
| In-place species management |
| Harvest management plan: No |
| Subject to ex-situ conservation: Yes |
| In-place education |
| Subject to recent education and awareness programmes: No |
| Included in international legislation: No |
| Subject to any international management / trade controls: No |

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 -> 2.2. Invasive/problematic species control | - |
| 2. Land/water management -> 2.3. Habitat & natural process restoration | - |
| 3. Species management -> 3.2. Species recovery | - |

Research Needed

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

| Research Needed | Notes |
|---|-------|
| 1. Research -> 1.2. Population size, distribution & trends | - |
| 1. Research -> 1.3. Life history & ecology | - |
| 2. Conservation Planning -> 2.1. Species Action/Recovery Plan | - |

Additional Data Fields

| |
|---|
| Distribution |
| Estimated area of occupancy (AOO) (km ²): 56 |
| Estimated extent of occurrence (EOO) (km ²): 313596 |
| Number of Locations: 13 |
| Lower elevation limit (m): 700 |
| Upper elevation limit (m): 2,300 |
| Population |
| Number of mature individuals: 700 |
| Continuing decline of mature individuals: Yes |
| No. of subpopulations: 13 |
| No. of individuals in largest subpopulation: 75 |
| Habitats and Ecology |
| Continuing decline in area, extent and/or quality of habitat: Yes |
| Generation Length (years): 25 |

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