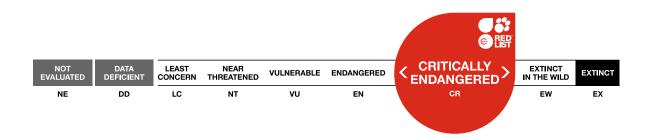


The IUCN Red List of Threatened Species™ ISSN 2307-8235 (online) IUCN 2023: T222291715A222292384 Scope(s): Global Language: English

# Syzygium agastyamalayanum

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### Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Myrtales	Myrtaceae

Scientific Name: Syzygium agastyamalayanum M.B.Viswan. & Manik.

#### Taxonomic Source(s):

POWO. 2021. Plants of the world. England Available at: http://powo.science.kew.org/. (Accessed: 31 agosto 2021).

#### **Identification Information:**

*Syzygium agasthyamalayanum* is a small tree up to 15 m high. Leaves obovate, acute at base. Prominent intramarginal vein with14 - 20 pairs of secondary veins. Petioles short, turgid. Sepals semi - circular; petals reniform - orbicular, obtuse at apex. Brown-punctate hypanthium. The berries are globose, pink to dark black and glabrous. Seed pale brown, solitary, subglobose. Flowering January - February. Fruiting March - April.

### **Assessment Information**

Red List Category & Criteria:	Critically Endangered B1ab(iii)+2ab(iii); D <u>ver 3.1</u>		
Year Published:	2023		
Date Assessed:	November 26, 2022		

#### Justification:

*Syzygium agasthyamalayanum* is a small tropical evergreen tree species having two small subpopulations in the Agasthyamalai hills of the Kalakkad Mundanthurai Tiger Reserve. The species occupies elevations between 900–1,700 m with the number of mature individuals limited to below 50 in severely fragmented subpopulations. The area of occupancy (AOO) and the extent of occurrence (EOO) of the species are 8 km<sup>2</sup> and there are two locations. The habitat is severely fragmented due to early conversion for commercial tea plantations and the reservoir. Hence, the species assessed here as Critically Endangered (CR).

### **Geographic Range**

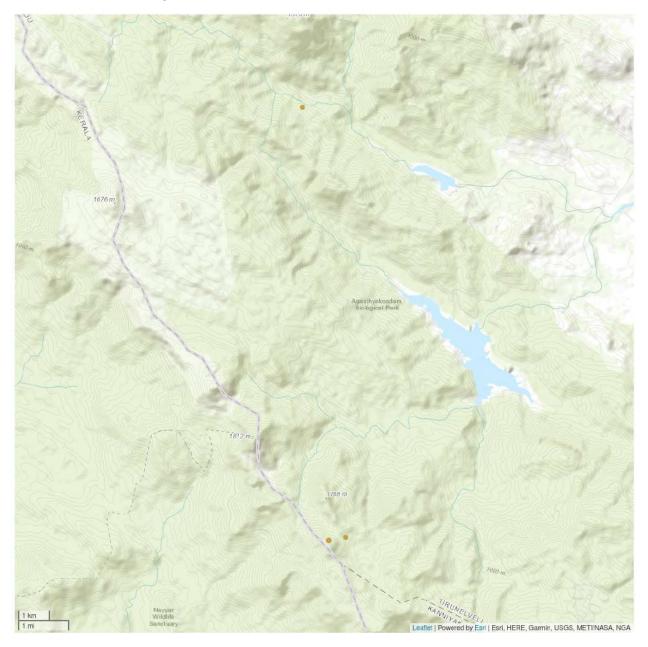
#### **Range Description:**

The species is endemic to southern Western Ghats.

#### **Country Occurrence:**

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

# **Distribution Map**



Legend EXTANT (RESIDENT)





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 agastyamalayanum* is reported only from two locations in the Kalakkad-Mundanthurai Tiger Reserve, Tamil Nadu State. The total number of mature individuals does not exceed 50 and the subpopulations are severely fragmented (Viswanathan and Manikandan 2008). **Current Population Trend:** Decreasing

#### Habitat and Ecology (see Appendix for additional information)

*Syzygium agastyamalayanum* is a small evergreen tree which occupies between 900–1,700 m elevation in the southern tropical wet evergreen forests. The habitat of the species has been subjected to degradation due to tea plantations and reservoirs. The degradation factors still exist even though it is part of Kalakkad Mundanthurai Tiger Reserve. The associated species are *Aglaia elaeagnoidea*, *Euphorbia vajravelui*, *Saprosma corymbosum*, *Syzygium tinnevelliensis*, *Syzygium stocksii* and *Vernonia travancorica*.

Systems: Terrestrial

#### Use and Trade (see Appendix for additional information)

There is no use and trade information for this species.

#### **Threats** (see Appendix for additional information)

The habitat of the species is fragmented with tea plantations and the Upper Kodayar dam reservoir.

#### **Conservation Actions** (see Appendix for additional information)

The species is a very restricted tropical evergreen tree species known only from two adjacent locations in the Agasthyamalai hills of the Kalakkad Mundanthurai Tiger Reserve. The habitat is fragmented with tea plantations and the reservoir. Species focused conservation and management is required.

## Credits

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

Reviewer(s): Fowler, K.

## Bibliography

IUCN. 2001. *IUCN Red List Categories and Criteria: Version 3.1.* Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK.

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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.

Viswanathan, M. B. and Manikandan, U. 2008. A new species of *Syzygium* (Myrtaceae) from the Kalakkad-Mundanthurai Tiger Reserve in Peninsular India. *Adansonia, sér. 3* 30(1): 113-118.

# Citation

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## **External Resources**

For <u>Supplementary Material</u>, and for <u>Images and External Links to Additional Information</u>, 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	
TS. Tree - small	

## 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	Majority (50-90%)	Rapid declines
7. Natural system modifications -> 7.2. Dams & water management/use -> 7.2.10. Large dams	Ongoing	Minority (<50%)	Slow, significant declines

## **Conservation Actions in Place**

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

onservation Action in Place	
In-place research and monitoring	
Action Recovery Plan: No	
Systematic monitoring scheme: No	
place land/water protection	
Percentage of population protected by PAs: 71-80	
Area based regional management plan: No	
Occurs in at least one protected area: Yes	
place species management	
Successfully reintroduced or introduced benignly: No	
Subject to ex-situ conservation: No	

 Conservation Action in Place

 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 -> 2.3. 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	-
2. Conservation Planning -> 2.1. Species Action/Recovery Plan	-
3. Monitoring -> 3.1. Population trends	-

# **Additional Data Fields**

Distribution		
Estimated area of occupancy (AOO) (km <sup>2</sup> ): 8		
Estimated extent of occurrence (EOO) (km <sup>2</sup> ): 8		
Number of Locations: 2		
Lower elevation limit (m): 900		
Upper elevation limit (m): 1,700		
Population		
Number of mature individuals: 49		
Population severely fragmented: Yes		
No. of subpopulations: 2		
No. of individuals in largest subpopulation: 30		

## Habitats and Ecology

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

Generation Length (years): 25

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