

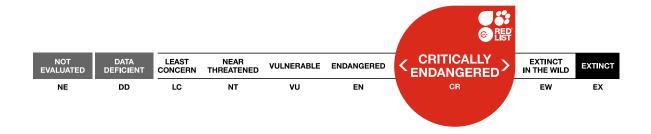
IUCN 2023: T222292291A222292498

Scope(s): Global Language: English



Syzygium ponmudianum, Ponmudinjara

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



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Citation: Devika, M.A. & Amitha Bachan, K.H. 2023. *Syzygium ponmudianum. The IUCN Red List of Threatened Species* 2023: e.T222292291A222292498. https://dx.doi.org/10.2305/IUCN.UK.2023-1.RLTS.T222292291A222292498.en

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Myrtales	Myrtaceae

Scientific Name: Syzygium ponmudianum A.K.Sreekala, Ramas., D.S.Pillai & Surendr.

Common Name(s):

Malayalam: Ponmudinjara

Taxonomic Source(s):

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

Identification Information:

Syzygium ponmudianum is glabrous tree with 15 m high. The species shows some morphological similarity with Syzygium benthamianum and Syzygium myhendrae but can be distinguished with the following characters. The stem is pinkish red when young and reddish brown when mature. Large sized acute leaf base with 22 -29 pairs of prominent secondary and intersecondary veins. Peduncle 3.6 cm and 4 angled; Pedicel absent. Deltoid persistent calyx lobes. Deep purple berries with ovate seeds. Flowering and fruiting period January - March (Sreekala et al. 2019).

Assessment Information

Red List Category & Criteria: Critically Endangered B1ab(iii)+2ab(iii); D ver 3.1

Year Published: 2023

Date Assessed: February 24, 2023

Justification:

Syzygium ponmudianum is a medium-sized evergreen tree growing up to 15 m high, found at c.920 m elevation in the Ponmudi hills of the Thiruvananthapuram district part of Agasthyamalai Biosphere Reserve, Kerala, India. The species is known from only one mature individual from the location hence it is a highly restricted species with an AOO of 4 km². The montane evergreen habitat in the region has limited potential areas and is under pressure from infrastructure development and intermittent forest fire as well as from the past decline in the habitat due to conversion for plantations. Hence the species is assessed as Critically Endangered.

Geographic Range

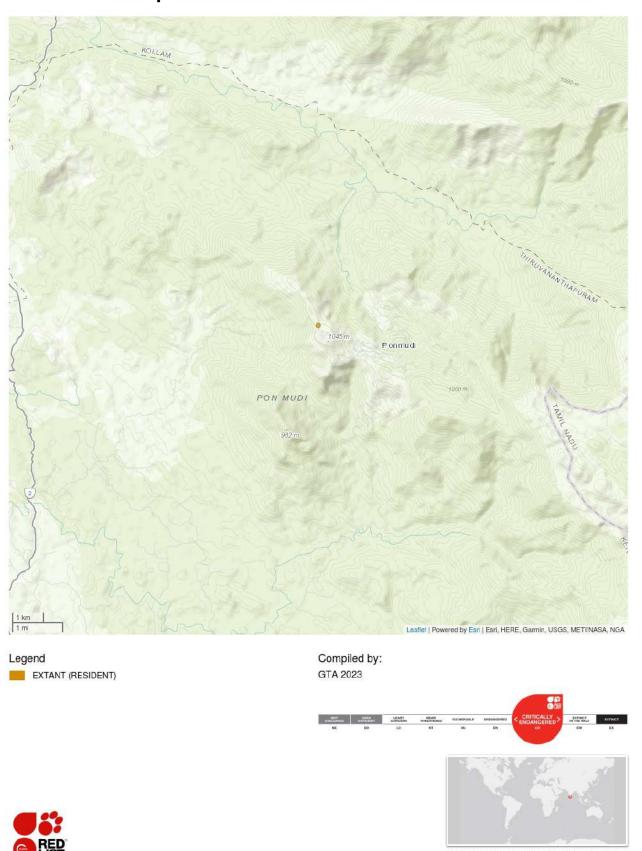
Range Description:

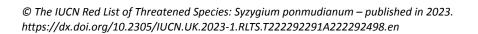
The species occurs in the Ponmudi hills of Agasthyamalai Biosphere Reserve, Kerala, India.

Country Occurrence:

Native, Extant (resident): India (Kerala)

Distribution Map





Population

The species is reported only from one location in the Ponmudi hills of Agasthyamalai Biosphere Reserve with one mature individual known (Sreekala *et al.* 2019). The habitat in the Ponmudi hills is fragmented and degraded due to plantations and infrastructural developments.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Syzygium ponmudianum is a medium sized evergreen tree that grows upto 15 m high in an elevation of 921 m in the montane evergreen habitat of the Ponmudi hills. The habitat is fragmented with plantations and infrastructure development. Frequent fire incidents are also reported from this region. The species is seen associated with *Ligustrum* sp, *Elaeocarpus* sp, *Litsea* sp, *Syzygium lanceolatum* and *Olea dioica*.

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 species is located in the Ponmudi hills of Agasthyamalai Biosphere Reserve. Conversion of the habitat for plantations in the past and infrastructure development for residential purposes are the major threats. Fire incidents have also been reported from the region.

Conservation Actions (see Appendix for additional information)

Syzygium ponmudianum is reported from the Ponmudi hills of the Thiruvananthapuram forest division part of Agasthyamalai Biosphere Reserve. Threats to the species such as past conversion for plantations, the frequent occurrence of fire and infrastructural development need to be addressed in the conservation plan. There is no species specific conservation or recovery plan in-place.

Credits

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

Reviewer(s): Beech, E.

Contributor(s): Sreekala, A.K.

Bibliography

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

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

Sreekala, A.K., Divya, S.P., Anjana, S. and Ramasubbu, S. 2019. A new species of *Syzygium* (Myrtaceae) from the Agasthyamalai Biosphere Reserve, Kerala, India. *Phytotaxa* 403(1): 066-070.

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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 -> 1.6. Forest - Subtropical/Tropical Moist Lowland	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
1. Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	Minority (<50%)	Slow, significant declines
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Past, likely to return	Minority (<50%)	Slow, significant declines
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.3. Trend Unknown/Unrecorded	Ongoing	Minority (<50%)	Slow, significant declines

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	
Conservation sites identified: Yes, over entire range	
Percentage of population protected by PAs: 81-90	
Area based regional management plan: No	
Occurs in at least one protected area: Yes	

Conservation Action in Place	
In-place species management	
Harvest management plan: No	
Successfully reintroduced or introduced benignly: No	
Subject to ex-situ conservation: No	
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
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	-
1. Research -> 1.5. Threats	-
2. Conservation Planning -> 2.1. Species Action/Recovery Plan	-
3. Monitoring -> 3.1. Population trends	-

Additional Data Fields

Distribution	
Estimated area of occupancy (AOO) (km²): 4	
Estimated extent of occurrence (EOO) (km²): 4	
Number of Locations: 1	
Lower elevation limit (m): 900	
Upper elevation limit (m): 950	

Population

Number of mature individuals: 1

No. of subpopulations: 1

All individuals in one subpopulation: Yes

No. of individuals in largest subpopulation: 1

Habitats and Ecology

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

Generation Length (years): 20

The IUCN Red List Partnership



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<u>Programme</u>, the <u>IUCN Species Survival Commission</u> (SSC) and <u>The IUCN Red List Partnership</u>.

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