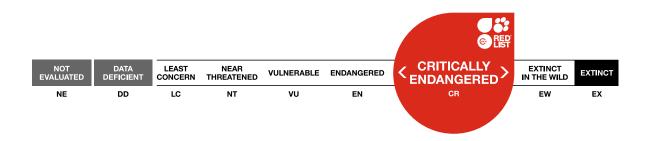


The IUCN Red List of Threatened Species™ ISSN 2307-8235 (online) IUCN 2023: T222291660A222292347 Scope(s): Global Language: English

Syzygium sasidharanii

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



View on www.iucnredlist.org

Citation: Devika, M.A. & Amitha Bachan, K.H. 2023. *Syzygium sasidharanii. The IUCN Red List of Threatened Species* 2023: e.T222291660A222292347. <u>https://dx.doi.org/10.2305/IUCN.UK.2023-1.RLTS.T222291660A222292347.en</u>

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Myrtales	Myrtaceae

Scientific Name: Syzygium sasidharanii Sujanapal

Synonym(s):

• Syzygium chemunjianum Shareef, E.S.S.Kumar & P.E.Roy

Taxonomic Source(s):

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

Taxonomic Notes:

Syzygium sasidharanii was published (Sujanapal *et al.* 2013) based on their collection from Druryi rock region of Agasthyamalai hills during 2006. The *Syzygium chemunjianum* published (Shareef *et al.* 2013) based on their collection from the adjacent Chemunji hills during 2012 was found to be the same taxon and the latter became a synonym of *Syzygium sasidharanii*.

Identification Information:

Syzygium sasidharanii is a small evergreen tree species up to 7 m high. The species is characterised with reddish-brown coloured young shoots and greyish bark, dark brownish-red blaze. Leaves are coriaceous and odourless, inflorescence in terminal cymose panicles. Flower buds are dark brown. The globose yellow fruits are without depression at apex. Flowering October–March.

Assessment Information

Red List Category & Criteria:	Critically Endangered C2a(i) ver 3.1		
Year Published:	2023		
Date Assessed:	November 26, 2022		

Justification:

Syzygium sasidharanii is a small evergreen tree up to 7 m high, known only from the Agasthyamalai hills of southern Western Ghats. The species has a very restricted distribution and is reported from four nearby locations in which the largest subpopulation, consisting of 25 individuals, is located in Chemunji hills. The total population size is ca. 75. The montane evergreen habitat of the species is fragmented with grassy patches and it occupies an elevation between 1,100–1,450 m. This species has an area of occupancy (AOO) of 16 km² and an extent of occurrence (EOO) of 92 km². The habitat is prone to frequent forest fires and one of its locations, in the Pongalappara region, is being degraded due to human disturbance during the pilgrimage to Agasthyarkoodam. Even though four of its locations are in a protected area, there are no species specific conservation actions in place. The species is assessed as Critically Endangered (CR).

Geographic Range

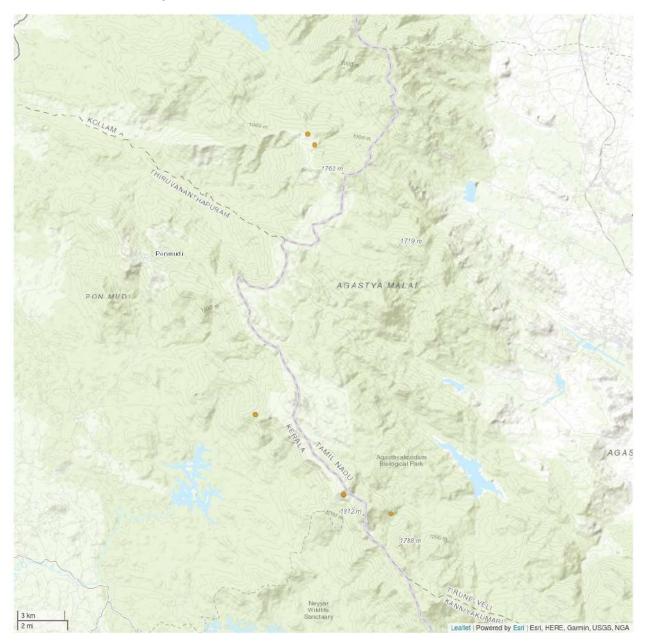
Range Description:

The species is endemic to the southern Western Ghats.

Country Occurrence:

Native, Extant (resident): India (Kerala)

Distribution Map



Legend EXTANT (RESIDENT)





Population

Syzygium sasidharanii is a very restricted tree species known from the Agasthyamalai hills of Western Ghats with four nearby collection locations such as Druryi rock, Pandimotta, Chemunji hills and Pongalappara. The largest subpopulation is in the Chemunji hills and the total number of mature individuals is ca. 75. These subpopulations are fragmented with grassy patches.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Syzygium sasidharanii is an evergreen tree up to 7 m tall which occupies elevations between 1,100–1,430 m in the tropical montane evergreen forest of the Agasthyamalai hills in the Western Ghats. The four locations are fragmented with grassy patches. Fairly good flowering and fruiting with few seedlings were observed in three of its subpopulations. The associated species are *Eugenia thwaitesii, Cullenia exarillata, Salacia agasthiamalana, Pittosporum neelgherrense* and *Syzygium parameswaranii* (Sujanapal *et al.* 2013, Shareef *et al.* 2013).

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 montane evergreen forest habitat of this species is fragmented with grassy patches and prone to forest fires. One of the four locations is degrading due to exposure to the pilgrimage to Agasthyarkoodam and a few mature individuals were reported fallen and damaged (Sujanapal *et al.* 2013).

Conservation Actions (see Appendix for additional information)

Syzygium sasidharanii is reported from four locations in Agasthyamalai landscape of southern Western Ghats. All these locations are part of Agasthyamalai Biosphere Reserve. No species specific management plans are in place. Conservation efforts need to be taken to protect the species habitat and population from its major threats.

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.

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

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Shareef, S.M., Santhosh Kumar E.S. and Roy P.E. 2013. A new species of *Syzygium* (Myrtaceae) from Kerala, India. *Phytotaxa* 129(1): 34–38.

Sujanapal, P., Robi, A.J., Udayan, P.S. and Dantus, K.J. 2013. *Syzygium sasidharanii* sp. nov. (Myrtaceae) – A new species with edible fruits from Agasthyamala Hills of Western Ghats, India. *International Journal of Advanced Research* 1(5): 44-48.

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
6. Human intrusions & disturbance -> 6.1. Recreational activities	Ongoing	Minority (<50%)	Slow, significant declines
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.1. Increase in fire frequency/intensity	Ongoing	Majority (50-90%)	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
Percentage of population protected by PAs: 91-100
Area based regional management plan: No
Occurs in at least one protected area: Yes
Invasive species control or prevention: No
In-place species management
Harvest management plan: No

Conservation Action in Place
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
2. Land/water management -> 2.1. Site/area management	-
2. Land/water management -> 2.3. Habitat & natural process restoration	-

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	-
3. Monitoring -> 3.4. Habitat trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km ²): 16
Estimated extent of occurrence (EOO) (km ²): 92
Number of Locations: 4
Lower elevation limit (m): 1,100
Upper elevation limit (m): 1,450
Population
Number of mature individuals: 75
Continuing decline of mature individuals: Yes

Population

No. of subpopulations: 4

No. of individuals in largest subpopulation: 25

Habitats and Ecology

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

Generation Length (years): 15

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