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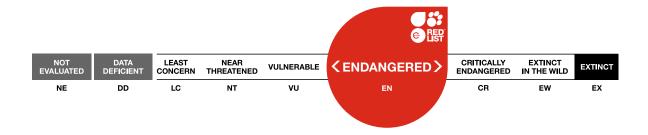
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Ficus beddomei, Chela

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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Rosales	Moraceae

Scientific Name: Ficus beddomei King

Synonym(s):

• Ficus rama-varmae Bourd.

Common Name(s):

• Malayalam: Chela, Thavittaal

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).

Assessment Information

Red List Category & Criteria: Endangered A2c ver 3.1

Year Published: 2023

Date Assessed: February 20, 2022

Justification:

Ficus beddomei is a large evergreen tree occurs in the canopy of moist forest and found scattered in the Western Ghats and other hills of Peninsular India with an extent of occurrence (EOO) of 190,561 km² and area of occupancy (AOO) of 60 km². The records indicate only 15 locations in eight ecoregions and with an estimated number of mature individuals less than 2,500. The estimated density of the species is 0.009 and abundance of 1 from systematic sampling of one of the ecoregions (Amitha Bachan et al. 2019). There has been habitat loss of 40–60% over three generations, with a similar rate of population reduction inferred. The major threats have been the conversion of habitat for plantations, agriculture, dams and reservoirs and developmental projects. The selective felling of canopy trees along with targeted felling of large fig trees for feeding captive elephants during timber operations in the Western Ghats is another important threat to the species. The species is assessed Endangered. The ecological role of the species in filling the canopy gaps in moist forest is important, and it is an important nutrient supplier to the birds and mammals. Raising awareness, studies into the species and species recovery and ecorestoration actions are recommended.

Geographic Range

Range Description:

This species is scattered in forest hills of Peninsular India with an altitude of 200–1,200 m.

Country Occurrence:

Native, Extant (resident): India (Andhra Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu)

Distribution Map





Compiled by: GTA 2023





Population

The records of *Ficus beddomei* shows its distribution in 15 scattered locations in Peninsular India along forested hills. Thirteen are in eight ecoregions of Western Ghats, one in Kolli hills, Tamil Nadu, and one in Chittoor, Andhra Pradesh. A systematic sampling in one of its stronghold habitat in the Vazhachal Sholayar forest of Anamalai part of Western Ghats estimated a density of 0.009 and abundance of 1 for the species (Amitha Bachan *et al.* 2019). The degradation of potential habitat is 40–60% in its distribution range, and a similar population reduction is inferred. The species is one of the worst affected since it is a canopy tree of the moist forest in the Western Ghats.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Ficus beddomei is an evergreen tree to 30 m high in low to medium elevation forest canopy endemic to Peninsular India. It initially establishes as an epiphyte strangling over aged tall trees or rocks and later the species reaches the canopy.

Systems: Terrestrial

Use and Trade

Ficus beddomei had been felled to feed captive elephants during the colonial and post-colonial natural forest conversion period in Anamalai, along with other large fig trees.

Threats (see Appendix for additional information)

Major threats are the large scale conversion of wet evergreen forest prior to the 1980s in South India, clearing for development projects, selective felling of large old growth trees for plywood industries and the subsequent impact of fragmentation on its habitat.

Conservation Actions (see Appendix for additional information)

The species seems scattered at few locations in wet evergreen forest as a large canopy tree, sometimes as a strangler. The ecological function of *Ficus beddomei* and similar large strangling figs in maintaining canopy gaps is significant (Amitha Bachan *et al.* 2019).

Credits

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

Reviewer(s): Hills, R.

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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	
TL. Tree - large	

Use and Trade

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

End Use	Local	National	International
2. Food - animal	Yes	Yes	No

Threats

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

Threat	Timing	Scope	Severity
1. Residential & commercial development -> 1.1. Housing & urban areas	Ongoing	Minority (<50%)	Causing/could cause fluctuations
Residential & commercial development -> 1.2. Commercial & industrial areas	Past, unlikely to return	Majority (50-90%)	Rapid declines
Residential & commercial development -> 1.3. Tourism & recreation areas	Ongoing	Majority (50-90%)	Slow, significant declines
3. Energy production & mining -> 3.2. Mining & quarrying	Ongoing	Minority (<50%)	Slow, significant declines
4. Transportation & service corridors -> 4.1. Roads & railroads	Ongoing	Minority (<50%)	Slow, significant declines
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.4. Unintentional effects: (large scale) [harvest]	Past, unlikely to return	Majority (50-90%)	Rapid 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: 11-20
Occurs in at least one protected area: Yes
In-place education
Subject to recent education and awareness programmes: Yes

Conservation Actions Needed

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

Conservation Action Needed	Notes
1. Land/water protection -> 1.2. Resource & habitat protection	-
2. Land/water management -> 2.3. Habitat & natural process restoration	-
4. Education & awareness -> 4.3. Awareness & communications	-
5. Law & policy -> 5.1. Legislation -> 5.1.3. Sub-national level	-

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	-
3. Monitoring -> 3.4. Habitat trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 60
Estimated extent of occurrence (EOO) (km²): 190561
Number of Locations: 15
Lower elevation limit (m): 200
Upper elevation limit (m): 1,200

Population

Number of mature individuals: 2,000

Continuing decline of mature individuals: Yes

Population severely fragmented: Unknown

No. of subpopulations: 13

All individuals in one subpopulation: Unknown

Habitats and Ecology

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

Generation Length (years): 50

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