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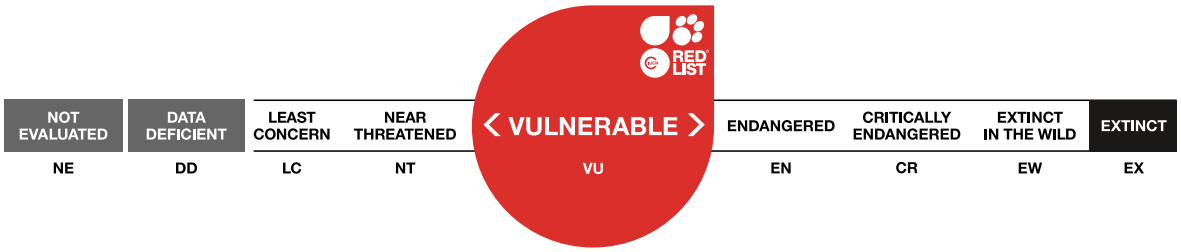
Scope(s): Global
Language: English

Impatiens parasitica

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



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Taxonomy

Kingdom	Phylum	Class	Order	Family
Plantae	Tracheophyta	Magnoliopsida	Ericales	Balsaminaceae

Scientific Name: *Impatiens parasitica* Bedd.

Taxonomic Source(s):

POWO. 2023. Plants of the World Online. Facilitated by the Royal Botanic Gardens, Kew. Available at: http://powo.science.kew.org/. (Accessed: 2023).
Sasidharan, N. 2022. Eflora Kerala. Thrissur : Eflora of Kerala. Available at: http://www.eflorakerala.com/. (Accessed: 12/11/2022).

Identification Information:

Succulent epiphytic herbs, stem fleshy with prominent leafscars. Leaves to 4 x 2.5 cm, ovate crenate, acute at apex, rounded at the base; petiole to 2 cm. Cymes 2-4-flowered, axillary; clustered at apex; flowers scarlet red up to 2 cm long, sepals green, acute; wings 2-lobed, lower lobe larger, flat, enter into the spur of the lip, red; standard petal greenish.

Assessment Information

Red List Category & Criteria: Vulnerable A2c ver 3.1

Year Published: 2024

Date Assessed: February 3, 2024

Justification:

Impatiens parasitica is an epiphytic succulent perennial herb seen attached to branches of the canopy trees with ample moss growth in the tropical high-elevation evergreen and mountain Shola forests of the southern Western Ghats between 1,000–2,400 m asl. The area of occupancy (AOO) is 112 km^2, and the extent of occurrence (EOO) is 9,793 km^2. The species has 21 subpopulations restricted to four high-altitude landscapes of the southern Western Ghats, such as Munnar, Annamalais, Nilgiris, and Periyar. The estimated number of mature individuals is ~40,000 and is seen attached to trees such as *Heritiera papilio, Palaquium ellipticum, Cullenia exarillata, Litsea stocksii, Cryptocarya lawsonii,* and *Dysoxylum binectariferum*. There has been a suspected 30% reduction in population due to decline in the habitat in the past three generations, and threats are still continuing. Hence, the species is assessed as Vulnerable A2c.

Geographic Range

Range Description:

Impatiens parasitica is endemic to southern Western Ghats mountains of South West India.

Country Occurrence:

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

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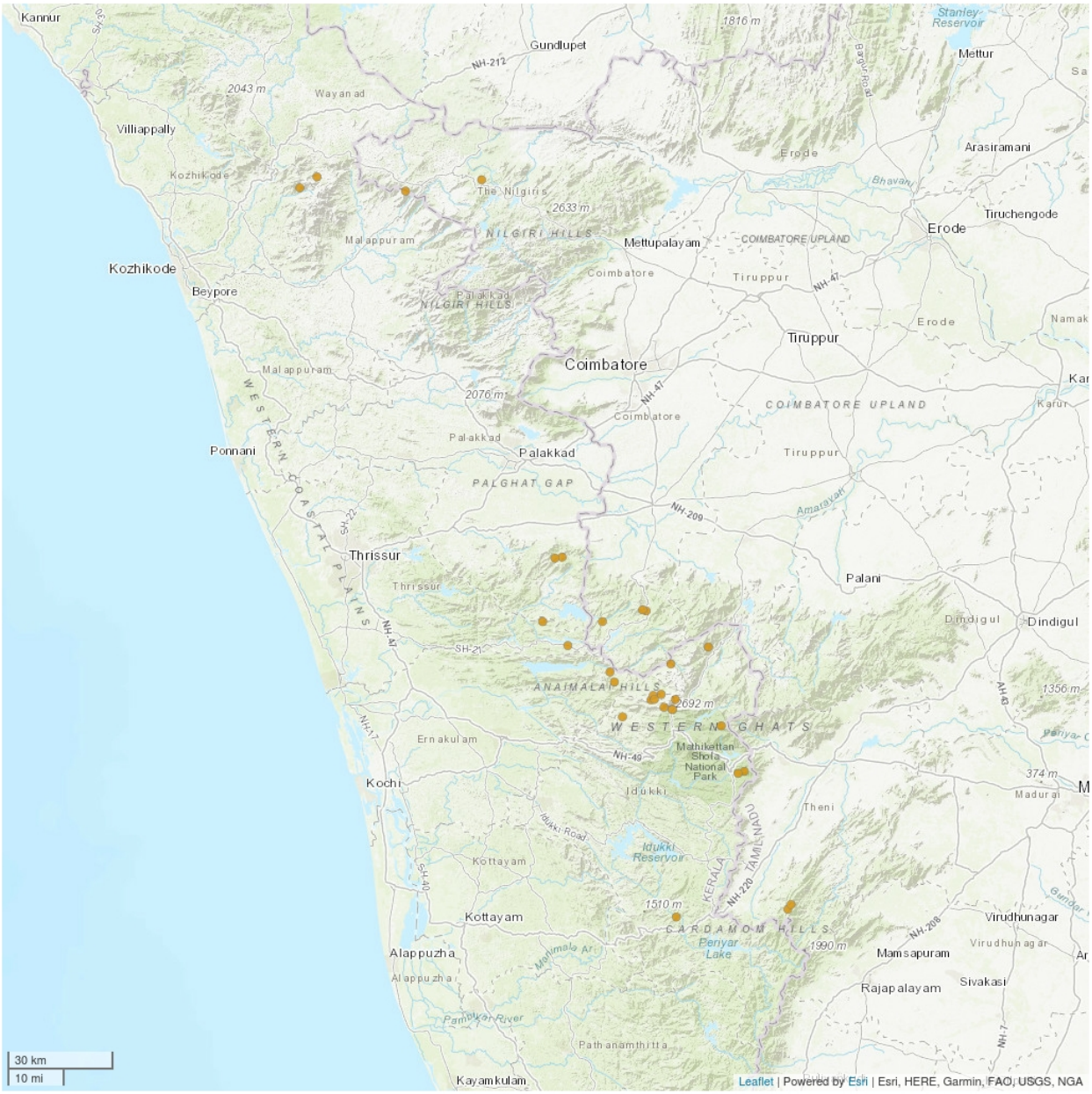
Distribution Map



Legend

EXTANT (RESIDENT)

Compiled by:

Devika M.A. 2024

The boundaries and names shown and the designations used on this map do not imply any official endorsement, acceptance or opinion by IUCN.

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Population

Impatiens parasitica is an epiphytic succulent herb seen attached to bark of the canopy trees of the tropical high elevation evergreen and mountain Shola forests of the southern Western Ghats in South West India at an elevation of 1,000–2,200m. There are 21 subpopulations in four high elevation landscapes of the southern Western Ghats. Most subpopulations are in the Munnar landscape (11 subpopulations), followed by Annamalai landscape (five), Nilgiris (three) and Periyar (two). The estimated population is <40,000 mature individuals estimated from the known 21 subpopulations (Devika and Amitha Bachan 2023). The high altitude habitats were reclaimed for tea, eucalyptus and Black Wattle plantations (Amitha Bachan and Devika 2021, Sasmitha 2021). The remaining habitats were also affected with timber extraction, dams and reservoirs and forest plantations. There has been a suspected 30% reduction in population over the last three generations due to habitat loss. The habitat decline is still continuing for timber extraction, infrastructure and urban projects.

Current Population Trend: Decreasing

Habitat and Ecology (see Appendix for additional information)

Impatiens parasitica is an epiphytic succulent perennial herb seen attached to branches of the canopy trees, sometimes barks, or rarely on moist rocks with ample moss growth in the tropical high-elevation evergreen and mountain Shola forests of the southern Western Ghats. The preferred habitat of the species is mountain evergreen forests, which are seen up to an elevation of 2,400 m (Eravikulam National Park, Devika and Amitha Bachan 2023). The species is also seen at an elevation of 1,000 m with evergreen forest habitat (Amitha Bachan 2010) or pseudo-shola formations at 1,100–1,400 m (Nelliyamathies, Devika and Amitha Bachan 2023), and the most preferred habitat range is 1,400–2,200 m. The species is seen attached to trees such as *Heritiera papilio, Palaquium ellipticum, Cullenia exarillata, Litsea stocksii, Cryptocarya lawsonii*, and *Dysoxylum binectariferum* (Devika and Amitha Bachan 2023).

Systems: Terrestrial

Use and Trade (see Appendix for additional information)

No use and trade information is available for the species.

Threats (see Appendix for additional information)

The habitats are cleared mainly for tea and monoculture plantations, forest plantations, urbanization, infrastructure development and forest fire.

Conservation Actions (see Appendix for additional information)

There are no species or habitat specific conservation plans. Only 30% of the population are within protected areas. The species occurs in three protected areas.

Credits

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

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Reviewer(s): Watve, A.

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Ravichandran, V. and Karupuswamy, S. 2016. Check list of endemic flowering plants of Western Ghats from Megamalai Wildlife Sanctuary, Tamilnadu, India. *Journal of Biological Records* e0042016: 36-51.

Sasmitha, R., Iqshanullah, M.A. and Arunachalam, R. 2021. Ecosystem Changes in Shola Forest-Grassland Mosaic of the Nilgiri Biosphere Reserve (NBR). In: S. Sarvajayakesavalu (ed.), *Environmental Issues and Sustainable Development*, pp. 389.

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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
E. Epiphyte
F. Forb or Herb

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 -> 2.1. Annual & perennial non-timber crops -> 2.1.3. Agro-industry farming	Ongoing	Minority (<50%)	Slow, significant declines
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.2. Agro-industry plantations	Ongoing	Minority (<50%)	Slow, significant declines
2. Agriculture & aquaculture -> 2.2. Wood & pulp plantations -> 2.2.3. Scale Unknown/Unrecorded	Ongoing	Minority (<50%)	Slow, significant declines
5. Biological resource use -> 5.3. Logging & wood harvesting -> 5.3.4. Unintentional effects: (large scale) [harvest]	Ongoing	Minority (<50%)	Slow, significant declines
7. Natural system modifications -> 7.1. Fire & fire suppression -> 7.1.2. Supression in fire frequency/intensity	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

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Conservation Action in Place
In-place land/water protection
Percentage of population protected by PAs: 21-30
Area based regional management plan: No
Occurs in at least one protected area: Yes

Conservation Actions Needed

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

Conservation Action Needed	Notes
1. Land/water protection -> 1.1. Site/area protection	-
2. Land/water management -> 2.1. Site/area management	-
2. Land/water management -> 2.3. Habitat & natural process restoration	-
4. Education & awareness -> 4.3. Awareness & communications	-

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	-
1. Research -> 1.5. Threats	-
2. Conservation Planning -> 2.1. Species Action/Recovery Plan	-
2. Conservation Planning -> 2.2. Area-based Management Plan	-
3. Monitoring -> 3.4. Habitat trends	-

Additional Data Fields

Distribution
Estimated area of occupancy (AOO) (km²): 112
Continuing decline in area of occupancy (AOO): Yes
Extreme fluctuations in area of occupancy (AOO): No
Estimated extent of occurrence (EOO) (km²): 9793
Continuing decline in extent of occurrence (EOO): Unknown
Extreme fluctuations in extent of occurrence (EOO): No

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Distribution
Number of Locations: 21
Continuing decline in number of locations: Yes
Extreme fluctuations in the number of locations: No
Lower elevation limit (m): 1,000
Upper elevation limit (m): 2,000
Population
Number of mature individuals: 40,000
Habitats and Ecology
Continuing decline in area, extent and/or quality of habitat: Yes
Generation Length (years): 10

The IUCN Red List Partnership

The IUCN Red List of Threatened Species™ is produced and managed by the IUCN Global Species Programme, the IUCN Species Survival Commission (SSC) and The IUCN Red List Partnership.

The IUCN Red List Partners are: ABQ BioPark; Arizona State University; BirdLife International; Botanic Gardens Conservation International; Conservation International; Missouri Botanical Garden; NatureServe; Re:wild; Royal Botanic Gardens, Kew; Sapienza University of Rome; Senckenberg Society for Nature Research; Texas A&M University; and Zoological Society of London.