

## CRITICALLY ENDANGERED SPECIES FROM SATPUDA MOUNTAIN RANGES IN NANDURBAR AND DHULE DISTRICTS OF MAHARASHTRA

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### ABSTRACT

The present study was undertaken to explore the rich and under explored areas of Satpuda mountain ranges in Dhule and Nandurbar districts. During the exploration of study area we collected ten flowering plant species which are critically endangered.

### INTRODUCTION

The forest of study area mainly belongs to tropical dry deciduous type (Champion and Seth.1968). Species introduction and extinction are two major biodiversity crises of current millennium (Baharul et.al.2010) When death rate exceeds birth for prolonged duration and species may become endangered and eventually extinct. Many species are facing pressure due to anthropogenic or natural activities. Anthropogenic activities and continuous development due to human activities causes extinction of many important plant species which seriously threatened the ecosystem.

The districts of Dhule and Nandurbar are part of West Khandesh and are treated botanically as distinct part by Hooker and Thompson (1855). Some important contributions to the flora and vegetation of Dhule and Nandurbar are of Karnik (1955,1956, 1957,1961, 1966), Moghe (1957), Mahabale and Karnik (1958) and Jain and Deshpande (1964). Extensive botanical explorations have been carried out (Varghese, *et al.*, 1990) in Dhule district and Garud(1999) in Toranmal area. Patil (1990) reported 86 species from Dhule, Recently (Patil, 2003) published "Flora of Dhule and Nandurbar districts" excluding grasses. The literature review reveals that no detailed account of rare, endangered, threatened and endemic species of flowering plants is available for present study area except ( Yadav et.al.1997, Garud et.al. 1999).

The following is the list of plant species of flowering plants recorded as critically endangered from Satpuda mountain ranges in Nandurbar and Dhule districts of Maharashtra. A taxon is critically endangered when it is facing an extremely high risk of extinction in the wild in the immediate future.Following are the taxa come under this category:

S.N.	Genus	Species	Critically Endangered (CR)
1	<i>Abutilon</i>	<i>ranadei</i>	CR
2	<i>Ceropegia</i>	<i>oculata</i>	CR
3	<i>Cochlospermum</i>	<i>religiosum</i>	CR
4	<i>Eulophia</i>	<i>herbacea</i>	CR
5	<i>Eulophia</i>	<i>ramentacea</i>	CR
6	<i>Holostemma</i>	<i>annulare</i>	CR
7	<i>Macaranga</i>	<i>peltata</i>	CR
8	<i>Plumbago</i>	<i>zeylanica</i>	CR
9	<i>Pterospermum</i>	<i>acerifolium</i>	CR
10	<i>Schrebera</i>	<i>swietenoides</i>	CR

**Abutilon ranadei** Woodr. et Stapf. (Malvaceae)

An undershrub .

Fl. & Frts. : Nov.-Jan.

Distri. : Rare, in open forest. Nimbari.

World Distri. : Indian

**Ceropegia oculata** Hook.( **Asclepiadaceae**)

Herbs, twining; stems sparingly branched, slightly swollen at nodes.

Fl. & Frts. : July-November.

Distri. : Occasional in dry deciduous forest. Pimplibari.

World Distri. : Indian

**Cochlospermum religiosum** (L.) Alst. ( **Cochlospermaceae**)

A small deciduous tree.Flowers bright yellow.

Fl. & Frts. : February-April.

Distri. : In the forest Kalapani-Toranmal,

World Distri. : Indo-Malayan

**Eulophia herbacea** Lindl. ( **Orchidaceae**)

Pseudobulbs, tuberous, ovoid to broadly conical, markings transverse, circular. Flowers in lax racemes, greenish – white.

Fl. : July.

Frts. : Not observed.

Distri. : Rare. Toranmal.

World Distri. : Indian.

Ecological notes: Rare in occurrence but gregarious in patches

**Eulophia ramentacea** Lindl. ex Wight ( Orchidaceae)

Ground orchid Pseudobulbs shortly pyramidal or irregularly 3-cornerecl. Flowers pale maroon with yellow tinge in lax racemes. Capsules drooping, obovoid-

Fl. & Frts. : December-March.

Distri. : Rare, Toranmal.

World Distri. : Indian.

**Holostemma annulare** (Roxb.) K. Schum (Asclepiadaceae)

Twining shrubs.

Fls. : June-October.

Frts. : September-October.

Distri. : Occasional on hill slopes and on small trees. Nimbari, Jugadi.

World Distri. : Indo-Burmese-Chin

**Macaranga peltata** (Roxb.) Muell.-Arg (Euphorbiaceae )

A small or middle-sized tree; bark dark grey

Fl. & Frts. : June-December.

Distri. : Occasional on hill slopes and open places. Debramal, Bardi.

World Distri. : Indian

Ecological notes: Very rare tree only few species are seen in dense forests.

**Plumbago zeylanica** L. (Plumbaginaceae)

Undershrubs, perennial, erect or scandent.

Fl. & Frts. : March-December.

Distri. : Frequent on hill slopes, tops and open forest. Morjhari, Roshmal.

World Distri. : India

**Pterospermum acerifolium** (L.) Willd. ( Sterculiaceae)

A large tree. Flowers fragrant white.

Fl. & Frts. : December-May.

Distri. : Occasional on hill slopes and hedges. Hunda.

World Distri. : Tropical-Asian.

**Schrebera swietenoides** Roxb (Oleaceae)

Trees 10 m tall

Fl. & Frts. : April - June.

Distri. : Occasional in dry deciduous forest. Kakadmal, Domkhedi.

World Distri. : Indo-Burmese.

**REFERENCES**

- Baharul Choudhari & M. Latif Khan (2010).** Conservation and management of endangere plant species: a case study from North india, *Bioremediation, biodiversity bioavailability @2010 Global Science Books*
- Champion, H.G. & Seth, S.K. (1968).** *A revised survey of the forest types of India*, GOI Press, Delhi.
- Garud, B.D. (1999).** *Studies on the flora of Toranmal*, Dhule District in Maharashtra state, Part I & II, Ph.D. Thesis, North Maharashtra University, Jalgaon.
- Garud, B.D., S.S. Yadav and Mathew Varghese. (1999).** Further contribution to the rare, endangered, threatened and endemic species of flowering plants in Maharashtra State. *Geobios new report*, 18, 91-94
- Hooker, J.D. & Thomson, T. (1855).** *Flora Indica*, London
- Jain, S.K. & Deshpande, U.R. (1964).** Observations on the vegetation of Khandesh (Maharashtra). *Proc. Nat. Acad. Sci. India*, 34(3): 322-33
- Karnik, C.R. (1955).** A contribution to the biogeographical studies of Khandesh with special reference to Satpuda Ranges. *Bombay Geogr. Mag.*, 1: 65-72.
- Karnik, C.R. (1956).** The flora of Tapti Valley, *Bombay Geog. Mag.* 4: 61-68.
- Karnik, C.R. (1957).** Presence of the African flora elements in the forest flora of Khandesh (Bombay state), *Bombay Geog. Mag.* 5: 47-51.
- Karnik, C.R. (1961).** Ecology of Eastern Satpuras *J. Biol. Sci.*, 4: 25-31.
- Karnik, C.R. (1966).** Some medicinal plants from Satpura mountains. *Indian Forester*, 62: 173-183.
- Mahabale, T.S. & Karnik, C.R. (1958).** Ecology of Satpura forests, Bombay state, India, *Jour. Univ. Bombay*, 26(5): 33-49.
- Moghe, M.A. (1957).** *A contribution to the ecology of the Satpura Hill*, Betul Dist. C.P.A. Booklet published at Saraswati Printing Press, Nagpur.
- Patil, D.A. (1990).** Exotic elements in the flora of Dhule district (Maharashtra). *Jour. Econ. Taxo. Bot.* 14(3): 721-724.

**Patil, D.A. (2003).** *Flora of Dhule and Nandurbar Districts* (Maharashtra). Bishen Singh Mahendra Pal Singh, Dehradun.

**Yadav, S.S., Mathew Varghese and Garud B.D. (1997).** Rare, endangered, threatened and endemic species of flowering plants in Maharashtra State. *Geobios new report*, 16, 5-11

**Varghese, M.; Shah, G.L. & Inamdar, J.A. (1990).** Rare or little known plants of Maharashtra state collected from Dhulia district forests. *Jour. Econ. Tax. Bot.* 14(3): 641-645.