



Census of the family malvaceae in Nandurbar district, Maharashtra

S K Tayade, S S Pathak*

Department of Botany, P. S. G. V. P. Mandal's S I Patil Arts, G B Patel Science and S T K V Sangh Commerce College, Shahada, Nandurbar, Maharashtra, India

Abstract

The present paper reports 37 species under 14 genera of Malvaceae from Nandurbar district of Maharashtra. *Hibiscus* is the largest genus with 10 species followed by *Abutilon* with six species followed by *Sida* with five species of the family Malvaceae. The members of the family include annual and perennial, 10 herbs, 25 shrubs and under-shrubs and 2 trees. Habit, phenology and frequency of occurrence of the taxa investigated along with their updated nomenclature are presented.

Keywords: Malvaceae Nandurbar district

Introduction

Nandurbar district is situated in Northern part of the state of Maharashtra bordering the state Gujrat and Madhya Pradesh. It is the most tribal district of Khandesh. As near about 70 % of population is of tribal peoples. The tribes inhabiting the district are Bhil, Pawara, Tadvi, Mavachi, Kokani. They are mainly dependent on forest products and living in Satpuda mountain. The family is composed of about 82 genera and 1500 species distributed over most of the earth. They are generally herb, shrub or trees, the vesture often lepidote or stellate, sap often mucilaginous, leaves simple, alternate, variously lobed, stipulate. Flowers hypogynous, pentamerous, regular, actinomorphic and bisexual, basically in cymes, calyx frequently subtended by an involucre called epicalyx. Petals 5, stamens very numerous, monadelphous, anther 1-celled, reniform. Ovary superior, 2-many loculed and carpelled and placentation axile. The fruits are mostly loculicidal capsules (Lawrence, 1951)^[4]. The present authors while working on Malvaceae, collected plant species and information and plants were identified by using various floras (Cook, 1958)^[1], (Singh, 2000, 2001)^[6, 7], (Patil, 2003)^[5].

Materials and methods

The plant materials were procured from various places like Toranmal, Amblibari, Leghapani and Kakarda which are hilly region of Satpuda mountain and Tehsils of Nandurbar

districts. The field work carried out in different seasons encompassing every nook and corner of the district. The data pertaining to botanical name, habit, flowering and fruiting period and occurrence were particularly noted during the study. Plants were identified by using, The Flora of Presidency of Bombay (Cook, 1958)^[1], Flora of Maharashtra State (Singh and Karthikeyan, 2000, 2001)^[6, 7], Flora of Dhule and Nandurbar Districts (Maharashtra), (Patil, 2003)^[5].

Results and discussion

In the present study, we noted 37 taxa under 14 genera of the family Malvaceae in Nandurbar district. *Hibiscus* is the dominant genera shows 10 species (Gavhale *et al* 2020)^[2], most of them are shrub and undershrub but *Hibiscus caesioides*, *Hibiscus lobatus* and *Hibiscus sabdariffa* are herbs. The genus *Abutilon* is represented by 6 species which are all shrubs and undershrub. Some members of the family Malvaceae are monospecies in the district, they are *Alecea rosea* L., *Florida vitifolia* L., *Kydia calycina* Roxb., *Malachra capitata* L., *Malvastrum coromandelianum* Cav., *Malvaviscus arboreus* L., *Pavonia zylanica* L. and *Urnea lobata* L. Thirty four taxa of the family exhibit particular seasonal blooming, on the other hand *Abelmoschus esulentus* L., *Hibiscus rosa sinensis* L. and *Thespesia populnea* L. are blooming throughout the year which are in habit of herb, large shrub and evergreen tree respectively.

Table 1: Enumeration of Malvaceae taxa

Sr. No.	Botanical Name	Habit	Flowering and Fruiting Period	Frequency occurrence
1.	<i>Abelmoschus esulentus</i> L.	Herb	More or less Throughout the year	Grown as vegetable
2.	<i>Abelmoschus ficulneus</i> L.	Herb	Aug. – Dec.	Occasional in waste places
3.	<i>Abelmoschus manihot</i> L.	Herb	Aug. – Jan.	Occasional on bands of fields
4.	<i>Abutilon bidentatum</i> Hochst.	Undershrub	Sept. – Dec.	Fairly common in waste places
5.	<i>Abutilon hirtum</i> Lamk.	Undershrub	Sept. – Dec.	Occasional
6.	<i>Abutilon indicum</i> L.	Undershrub	Oct. – Apr.	Common in wastelands, in field.
7.	<i>Abutilon pannosum</i> (G.Forst.)	Undershrub	Sep. - Feb.	Along road
8.	<i>Abutilon persicum</i> Burm. F.	Undershrub	Oct. – May	Rare in hilly tracts
9.	<i>Abutilon ramosum</i> (cav.) Guill	Undershrub	Oct. – Nov	Rare
10.	<i>Alecea rosea</i> L.	Shrub	Oct.- Dec.	Cultivated in garden for showy flowers
11.	<i>Florida vitifolia</i> L.	Undershrub	Aug. – Nov.	Occasional in forest undergrowth
12.	<i>Gossypium arboretum</i> L.	Shrub	Nov. – Apr.	Planted sometimes
13.	<i>Gossypium herbaceum</i> L.	Shrub	Oct. – Feb.	Cultivated for fibers

14.	<i>Gossypium hirsutum L.</i>	Shrub	Sept. – Jan.	Cultivated
15.	<i>Hibiscus caesius</i> Garcke	Herb	Sept. – Oct.	Occasional in open forest
16.	<i>Hibiscus cannabinus L.</i>	Shrub	Aug. – Dec.	Cultivated for fibers
17.	<i>Hibiscus lobatus</i> (Murr.) O. Ktze.	Herb	Aug. – Nov.	Occasional on wet rocky soil of wasteland
18.	<i>Hibiscus miracanthus L.</i>	Shrub	Aug. – Feb.	Common on gravelly slopes of hills
19.	<i>Hibiscus rosa sinensis L.</i>	Large Shrub	Throughout the year	Grown in garden
20.	<i>Hibiscus sabdariffa L.</i>	Herb	Aug. – Nov.	Cultivated in hilly parts of the district
21.	<i>Hibiscus schizopetalus</i> Hook.	Shrub	Round the year	Cultivated in the gardens
22.	<i>Hibiscus syriacus L.</i>	Shrub	Jun. – Apr.	Commonly cultivated in the garden
23.	<i>Hibiscus talbotti</i> (Rakshit)	Shrub	Sept. – Jan.	Along road
24.	<i>Hibiscus trionum L.</i>	Undershrub	Sept. – Jan	Found on bandhs
25.	<i>Kydia calycina</i> Roxb.	Medium Sized Tree	Oct. – Feb.	Rare in hilly forest tract
26.	<i>Malachra capitata L.</i>	Undershrub	Sep. - Feb.	Along roadsides
27.	<i>Malvastrum coromandelianum L.</i>	Herb	Aug. – Feb.	Common weed of garden
28.	<i>Malvaviscus arboreus</i> Cav.	Shrub	Nov.-Apr.	Grown in garden
29.	<i>Pavonia zeylanica L.</i>	Undershrub	Sept. – Nov.	In open fields
30.	<i>Sida acuta</i> Burm F.	Undershrub	Aug. – Feb	Common weed of garden
31.	<i>Sida cordata</i> Burm Borss.	Herb	July – Jan.	Common in wasteland
32.	<i>Sida mysorensis</i> Wigh& Arn	Herb	Sept. – Dec.	Occasional on bandhs of fields, waste places
33.	<i>Sida ovata</i> Forssk.	Undershrub	Oct.- Dec.	In open forest
34.	<i>Sida spinose L.</i>	Herb	Aug. – Dec.	Common weed of wasteland
35.	<i>Thespesia lampas</i> (Cav.) Dalz.	Tall undershrub	Aug. – Jan.	Occasional on hill slopes
36.	<i>Thespesia populnea L.</i>	Evergreen tree	Throughout the year	Occasionally planted
37.	<i>Urena lobate L.</i>	Undershrub	Sept. – Dec.	Throughout as forest undergrowth

References

1. Cooke T. Flora of the Presidency of Bombay (Repr. Ed.) Calcutta, India, 1958, 1-3.
2. Gavhale Manish, Haribhau Waghire, Mukul Barwant. Survey of family member of Kopargaon region Dist. Ahmednagar, Maharashtra, India Int. J. of Life Sciences, 2020;8(4):757-761.
3. Kshirsagar SR, Patil DA. Census of the family Papilionaceae in Jalgaon district (Maharashtra). Biojournal, 1997;9(1-2):17-20.
4. Lawrence GHM. Taxonomy of Vascular Plants (McMillan, New York., U.S.A), 1951.
5. Patil DA. Flora of Dhule and Nandurbar districts (Maharashtra) (Bishen singh Mahendra Pal Singh, Dehera Dun, India), 2003.
6. Singh NP, Karthikeyan S. Flora of Maharashtra State: Dicotyledon Vol I (Botanical Survey of India, Calcutta, India), 2000.
7. Singh NP, Karthikeyan S. Flora of Maharashtra State: Dicotyledon (Botanical Survey of India, Calcutta, India), 2001, 2.