



Diversity of ornamental trees from Amravati city of West Vidarbha region

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Abstract

The present study deals with the diversity of ornamental trees from Amravati District of West Vidarbha region of Maharashtra. All these ornamental trees show diversity in their habitat, floral structure, flowering period, etc. In the present investigation, extensive field surveys were conducted in the different localities of Amravati district during 2005-2011 containing description, distribution, origin, vegetative and flowering period of 25 ornamental trees species from 19 families with their photographs and preserved as Herbaria.

Keywords: Diversity, Ornamental trees and Amravati city.

INTRODUCTION

Amravati is one of the district of West Vidarbha regions of Maharashtra, forms a part of Deccan Plateau. It lies between 20^o-32^o to 21^o-46^o North latitude and 76^o-37^o to 78^o-27^o East latitudes. The total area of Amravati district region is 12,210 sq. km. The district comprises 14 Tehsils. The Wardha River forms the entire eastern boundary of the district which comprises major hilly regions like Melghat (Satpuda). The total area under forest is 51,493,248 hectares, of which 55,790 hectares is unclassified & very little area of this region is utilized for cultivation of ornamental plant. The major ornamental gardens at Amravati University campus, Vidyabharti College, Horticulture College, Forest gardens at Chikhaldara, Kolkhach (Semadoh). There are about 45 Municipal gardens in the Amravati city which ranges in the area from 3000 to 10,000 Sq. feet. Apart from this majority of the houses in the district have its own house gardens.

Ornamental trees are a staple in landscapes as they are used for the purpose of beautification & adding interest with their colorful foliage or flowers (Vishnu Swarup, 1967 and Bose *et al.*, 2001). This region has a rich diversity of trees species with over more than 50 different trees varieties growing across the Amravati district. All these trees are grown as avenue trees while some are often grown as shade trees and fruit trees. Most of these ornamental trees are exotics and planted along roadside, botanical gardens, industrial area & in public gardens. These native & exotic trees are well adapted to the climatic conditions.

Gardening has been popular in India from ancient times. In ancient Indian literature, the cultivation of food & medicinal plants was known since 4000 years (Bailey, 1924). In the ancient Mediterranean civilization, gardens were prominent features of the grounds of temples & Palaces. Among the several kinds of flower

grown in the garden. Only a few are natives of India, these are cultivated as ornamentals (Bailey, 1914-1917).

These nurseries brought the ornamental plants of various categories from Bangalore, Calcutta, Pune etc. & planted in garden. One of the forest nursery is located at Chikhaldara & Semadoh. These private nurseries planted the various ornamentals like shade trees, shrub, annual & perennial herbs, climbers, Bulb, tuberous, foliage plants, hydrophytes, even some fruit yielding plants etc.

MATERIALS AND METHODS

In the present study, the plant specimens were collected during 2005-2011, by extensive field visit of various like Botanical Gardens of University Campus, Forest, Public Parks, Municipal corporation gardens & roadside from Amravati city. To obtain complete specimen i.e., flowering & fruiting stage, fragments & seasonal visits have been made to the garden. Field data has been noted in the field diary. A separate note on gardening is also given which includes the propagation methods & medicinal uses.

The collected plants were studied, described in details, in field diary & identified & classified up to the varieties & sub varieties level by using standard floras (Hooker, 1872-1897; Hooker, & Thomson, 1855; Cooke, 1901-1908; Naik, 1998; Singh *et al.*, 2000; Singh *et al.*, 2001; Dhore, 2002; Yadav and Sardesai, 2002). Plant specimens were deposited in Herbarium of Department of Botany, Shri Shivaji College, Akola.

RESULT AND DISCUSSION

The present study has revealed that, about 302 genera & 433 species belonging 97 families are listed, identified, classified upto varieties level. Out of these 433 species, we have identified & studied 38 species of ornamental trees with their origin, vegetative & floral characters, flowering period etc. In all almost ornamentals shows tremendous seasonal variations. This is due to change in climatic condition in our temperate dry region. As most of the trees are planted near road side, public garden, and industrial areas.

All these collected ornamental trees shows diversity in their habitat, floral structure, flowering period, etc. So, this paper describes 25 ornamental trees species belonging to 19 families with their distribution, origin, vegetative, floral structure & flowering period.

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Family wise arrangement of trees with vernacular names, origin, vegetative & floral characters

Family	Name of trees	Origin	Vegetative Characters	Floral Characters
Dilleniaceae	<i>Dillenia indica</i> L. (Mota-Karmal)	India	Evergreen, branches forming round, shady head with reddish bark, leaves simple.	Flower solitary, white, fragrant. Seed reniform. Fls.- June to oct.
Magnoliaceae	<i>Michelia champaca</i> L. (Son chapa)	India, Java	Evergreen tree, stem with grey bark, leaves simple, alternate.	Flower solitary, axillary, pale yellow to crimson, sweet scented. Fls.- April to November.
Annonaceae	<i>Polyalthia longifolia</i> Sonner. (Ashok)	Tropical Asia	Evergreen tall tree, with pendulous branches, leaves margin wavy.	Flower yellowish green, Berries black, ovoid. Fls.- March to July.
Malvaceae	<i>Thespesia populnea</i> L. (Paras pimpal)	Hawaii	Evergreen, medium size, tree covered with scales. Leaves deciduous, broadly ovate.	Flower solitary, axillary, corolla yellow. With dark purple center, turning to purplish or orange with age dark maroon center. Fls.- Feb. to Sept.
Bombacaceae	<i>Ceiba pentandra</i> L. (Pandhri Sawar,)	Central America	Tall, deciduous tree, leaves compound, digitate, leaflets 5-8.	Flowers creamy white or light pink, clustered in the leaf axil.
Rutaceae	<i>Murraya exotica</i> L. (Kunti)	Tropical America	Evergreen small tree, leaves imparipinnate, leaflets 3-7.	Flower in cyme, fragrant, fruit ovoid, reddish-purple. Fls. – June to October.
Simaroubaceae	<i>Simaroubia glauca</i> DC.	South America	Leaves pinnately compound leaflet 6-8 pairs, stiff, dark green above, pale green beneath.	Flower yellow to cream colour, in terminal racemes. Fls.- Nov. to March.
Papilionaceae	<i>Erythrina variegata</i> L. var. <i>picta</i> (Pangara)	Coast India, Malaysia	Leaves trifoliolate with stipels, black prickles, variegated by yellow stripes on main veins.	Flowers orange-red or bright red, Pod subcylindric. Fls.- Feb. to June.
	<i>Dalbergia sisoo</i> Roxb. (Sheesham)	India, Nepal.	Evergreen tree with grayish brown bark, leaves 3-5 foliate, ovate.	Flowers small, cream-white, in axillary panicle. Fls.- March to June.
Caesalpinaceae	<i>Bauhinia purpurea</i> L. (Kanchan)	India, Burma, & China.	Leaves roundish, divided in to two lobes.	Flower fragrant, in terminal & axillary Corymbose, purple, pod linear, flat. Fls.- October to December.
	<i>Cassia fistula</i> L. (Amaltas)	Tropical Asia	Medium size, deciduous tree, leaves long, leaflets 4-8 pairs.	Flower bright yellow, in lax racemes, Pod cylindrical. Fls.- March to July.
Mimosaceae	<i>Samanea saman</i> Jacq. (Rain-Tree, Saman)	Tropical America	Leaves bipinnate, leaflets 4-6 pairs	Flowers in long, peduncled globose heads, pale pink, pod oblong, black, pendent. Fls.- Sept. to December.
	<i>Albizia lebbek</i> (L.) Willd. (Shirish)	Tropical Asia	Large deciduous, fast growing tree, leaves bipinnate.	Flower fragrant, in globose umbellate head, dark red, pod oblong. Fls.- April to August.
Combretaceae	<i>Terminalia catappa</i> L. (Badam, Deshi badam)	Tropical Asia	Leaves crowded at the end of branches, rounded.	Flowers sessile in axillary spike, white or Yellowish green, fruit reddish-green, ovoid. Fls.- Feb. to oct.
Lythraceae	<i>Lagerstroemia speciosa</i> L. (Pride of India)	Tropical southern Asia	Stem with white bark, leaves small, alternate, elliptic.	Flower purple, in terminal tomentose panicle, capsule globose. Fls.- March to July.
Sapotaceae	<i>Mimusops elengi</i> L. (Bakul)	Ceylon & western peninsula	Evergreen, branches compact, leaves simple, alternate, elliptic - lanceolate.	Flowers fragrant, white, solitary or in clusters. Fls.- January to July.

Apocynaceae	<i>Plumeria alba</i> L. (Pandhara chapa)	Tropical America	Stem with milky latex, leaves simple, glossy, coraceous oblanceolate.	Flowers fragrant, in terminal peduncled , corymbs, white with yellowish throat. Fls.- Throughout the year.
	<i>Alstonia scholaris</i> (L.) R. Br. (Saptaparna)	India, China, Malaysia	A tall, evergreen tree with dark grey bark, branches whored, leaves 4-7 in whorls.	Flowers greenish white, in many flowered, paniced cymes. Fls.- Feb. to July.
Bignoniaceae	<i>Spathodia companulata</i> P. Beauv.	Tropical Africa	Evergreen or semideciduous, Leaves unipinnate, leaflet 3-19.	Flowers in dense racemes, orange-scarlet, capsule elongate, flat. Fls.-Sept. to April.
	<i>Tecoma stans</i> L.	West Indies	Small tree, leaves unipinnate, leaflets - 5-13.	Flowers often drooping, yellow, in large terminal, few-flowered corymbose racemes. Fls.- September to Feb.
	<i>Kigelia africana</i> Lamk.	Tropical Africa	Much branched tree, leaves unipinnate, leaflets 5-7 pairs.	Flower yellowish -purple, in terminal, pendent racemes. Fls.-May to August.
Proteaceae	<i>Grevillea robusta</i> A. (Silver oak)	Eastern Australia	Tall tree, robust, leaves fern like, 2-pinnatifid, shiny.	Flowers orange or turn towards greenish yellow, in sided showy racemes. Fls.-April to May.
Santalaceae	<i>Santalum album</i> L. (Chandan)	India, Indonesia	Small, Evergreen with drooping, branches, leaves unipinnate, leaflets 6-7 pairs.	Flowers brownish purple or pink, in terminal & axillary paniculate cymes. Fls.- September to Oct.
Euphorbiaceae	<i>Putranjiva roxburghii</i> Wall. (Putrajiv)	Tropical India & Ceylon.	Evergreen tree, leaves coriaceous, shining dark green above, paler beneath elliptic- oblong.	Flowers axillary, on short pedicels, crimish colour, Unisexual. Fls.- March to October.
Casuarinaceae	<i>Casuarina equisetifolia</i> J. R. & G. Saru.	North Australia	Branches modified in to cladodes, deciduous, grooved & ridged, Leaves reduced to scales, in whorls of 6-8.	Flowers small, unisexual, on long spike, fruit orbicular, winged , brown. Fls. – January to May.

REFERENCES

- [1] Bailey, L. H. 1914-1917. The standard Cyclopedia of Horticulture, 3 vols. New York (Reprint 1950).
- [2] Bailey, L. H. 1924. Manual of Cultivated Plants. McMillan & Co. New York.
- [3] Bose, T. K. Chowdhury, B. and Sharma S. P. 2001. Tropical Garden Plants (In Colour). Repr. Horticulture & Allied Publishers, Culcutta.
- [4] Cooke, T. 1901-1908. The Flora of the Presidency of Bombay London. 2 vols: Repr. edition, 1958, B. S. I. Calcutta.
- [5] Dhore M. A. 2002. "Flora of Amravati District with reference to the distribution of tree species". Amravati University, Amravati.
- [6] Hooker J. D. 1872-1897. The Flora of British India. London. 7-Vols. 1904.(Rrpr. ed. 1954- 1961. Kent.)
- [7] Hooker, J. D. & T. Thomson, 1855. Flora India. London Vol. 1.
- [8] Singhs, N. P. and Lakshminarsimhan, P. and S. Prasanna, Karthikeyan S. 2000. Flora of Maharashtra State. Dicotyledons. Vol. 2, BSI, Western Circle, Pune.
- [9] Singhs, N. P., Lakshminarsimhan, P., karthikeyan S. and S. Prasanna, 2001. Flora of Maharashtra State. Dicotyledons Vol. 1 BSI, Western Circle, Pune.
- [10] Naik, V. N. 1998. Flora of Marathwada Vol. I & II Amrut Prakashan, Aurangabad.
- [11] Vishnu Swarup. 1967. Gardens Flowers. National Book Trust, India.
- [12] Yadav S. R. and Sardesai M. M. 2002. Flora of Kolhapur District. Shivaji Univresity, Kolhapur.