



## TREE FLORA OF NASHIK CITY (MAHARASHTRA)

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### ABSTRACT

The present communication gives an account of arboreal plants of Nashik city (Maharashtra). The tree flora of the city comprises 150 angiospermic species belonging to 122 genera and 48 families. The Gymnosperms are poorly represented by three species which are monogeneric belonging to three families. The number of indigenous and exotic taxa is 91 and 62 respectively. The floristic information of the tree flora of Nashik city is now available for the first time with this publication.

**Key words:** Tree flora, Nashik city, Exotic flora.

### INTRODUCTION

In Nashik city a fairly good number of trees have been planted in the last few decades and the newly developed trees became graceful elements in the city's landscape. Most of these trees are exotic and hence does not put on the record of traditional floras (Dalziel and Gibson, 1861; Cook, T., 1967; Lakshminarasimhan and Sharma, 1991; Talbot, 1909-1911; and District Gazetteers.). Considering the common man's interest to know about these plants and their scientific names, we have undertaken the survey of tree species in Nashik city.

### GEOGRAPHY AND CLIMATE

The Nashik city is located on latitude  $19^{\circ} 33'$  and on longitude  $73^{\circ} 16'$ , covering an area of 259.13 Sq. Km. It is situated on the bank of river Godavari which passes about 20 Km across the city. The climate is of monsoon type. April and May are hottest (Max  $46^{\circ}\text{C}$  and Min  $24^{\circ}\text{C}$ ). December-February are cold months (Max  $29.5^{\circ}\text{C}$  and Min  $5.5^{\circ}\text{C}$ ). The maximum humidity is 90-95% during

monsoon and 20-25% during summer. The annual rainfall varies between 550 mm to 620 mm. (Source- Meteorological Department, Pune).

### MATERIAL AND METHODS

In Nashik city a fairly good number of trees have been planted in the last few decades and the newly developed trees became graceful elements in the city's landscape. Most of these trees are exotic and hence does not put on the record of traditional floras (Dalziel and Gibson, 1861; Cook, T., 1967; Lakshminarasimhan and Sharma, 1991; Talbot, 1909-1911; and District Gazetteers.). Considering the common man's interest to know about these plants and their scientific names, we have undertaken the survey of tree species in Nashik city.

### RESULTS AND DISCUSSION

The work embodied in this communication is the result of two years collection of plants from different localities in Nashik city. The tree cover is

fairly good, representing 150 Angiospermic species and 3 species of Gymnosperms. The monocots and gymnosperms are poorly represented in the flora.

A fairly good number of exotic tree species were reported in the area due to their introduction in the past 2-3 decades by Municipal Corporation, social forestry department, nursery and industry owners etc. On the other hand many indigenous trees have been depleted due to increasing urbanization. In our opinion, this is the main reason to the increased number of exotic taxa. Most of the exotic trees have been acclimatized well and increased the greenery and beauty of the city. It is observed that some of the trees have provided shelter for birds and insect pollinators while few produce allergic pollens. We do not know the effects of the new introductions

over native vegetation yet. The data presented in this work are original and first hand. It is hoped that it will contribute in preparation of flora of Nashik district.

### ENUMERATION

In the following enumeration list, the families have been arranged according to Bentham and Hooker's system of classification (1862-83) with some modifications particularly in splitting of families as proposed by Hutchinson (1956). The correct, up-to-date name, local name if any, flower colour, flowering and fruiting time for each species have been provided.

**Table 1**

Name of the Family and plant species	Local Name	Flower Colour	Flowering and Fruiting Period
<b>DICOTYLEDONS</b>			
<b>DILLENIACEAE</b>			
<i>Dillenia indica</i> L.	Motha Karmal	Whitish	June-Sept.
<b>MAGNOLIACEAE</b>			
* <i>Magnolia grandifolia</i> L.	Kavthi Chapha	Greenish Yellow	April-Sept.
<i>Michelia champaka</i> L.	Son Chafa	Yellow	April-May
<b>ANNONACEAE</b>			
* <i>Annona muricata</i> L.	Hanumanphal	Green	April- Oct.
* <i>A. reticulata</i> L.	Ramphal	Greenish yellow	July-Nov.
* <i>A. squamosa</i> L.	Sitaphal	Green	March-Aug. , April-Dec.
* <i>Polyalthia longifolia</i> Thw.	Ashoka	Yellowish green	Feb.-March.July- Aug.
<b>BIXACEAE</b>			
* <i>Bixa orellana</i> L.	Shendri	White pinkish	July-Nov.
<b>COCHLOSPERMACEAE</b>			
<i>Cochlospermum religiosum</i> (L) Alston	Ganeri	Golden yellow	Feb-April. March- July
<b>FLACOURTIACEAE</b>			
<i>Hydnocarpus pentandra</i> ( Bach-Ham)Oken- Allg.	Kadu kavath	Brown	March- Aug.
<b>CLUSIACEAE</b>			
<i>Garcinia indica</i> Choisy.	Ratamba	Purple	Nov. –Feb.April-May
<i>Mesua ferrea</i> L.	Nagkesar	White	Feb-AprilMay-Jan.
<b>MALVACEAE</b>			
* <i>Thespesia populnea</i> (L.) Soland ex	Bhendi	Yellow	Through out year

Correa.			
<b>BOMBACACEAE</b>			
<i>Adansonia digitata</i> L.	Gorakh chinch	White	May- Oct.
<i>Bombax ceiba</i> L.	Katesavar	Redish	Jan- March April-May
* <i>Ceiba pentandra</i> (L) Gaerth	Kapok	White	Dec.- Jan.March-April
<b>GERANIACEAE</b>			
<i>Averrhoa carambola</i> L.	Karmal	Purple	July-Aug.
<b>STERCULIACEAE</b>			
* <i>Kleinhovia hospita</i> L.	Guest tree	Pink	July- Dec.
<i>Pterospermum acerifolium</i> (L.) Willd.	Kanakchampa	White	Dec.-June
<i>Sterculia foetida</i> L.	Panchpal	Reddish	March- June
<b>TILIACEAE</b>			
<i>Erinocarpus nimmonii</i> , Grah ex Dalz.	Varing	Yellow	Sept.-Dec.
<b>ELAEOCARPACEAE</b>			
<i>Elaeocarpus augustitolius</i> , Bl.	Rudraksh	White	May-June,Nov.-Dec.
* <i>Muntingia calabura</i> , L.	Cherry	White	Through out year
<b>RUTACEAE</b>			
<i>Aegle marmelos</i> , Correa	Bel	Greenish white	March-July
<i>Atalantia racemosa</i> , Wight	Makad limbu	White	Sept.-June
<i>Citrus aurantifolia</i> (Christon & Panz.) Swingle.	Limbu	White	Through out year
<i>Limonia elephantum</i> ( Correa) Panigrahi	Kavath	Palegreen	Feb.-March,Oct.-Nov.
<i>Murra exotica</i> L.	Kunti	Yellowish white	June-Jan.
<b>SIMAROUBACEAE</b>			
<i>Ailanthus excelsa</i> , Roxb.	Maharukh	Greenish	Jan.-July
<b>BURESERACEAE</b>			
<i>Boswellia serrata</i> , Roxb.	Salai	White	Feb.-April,May-June
<b>MELIACEAE</b>			
<i>Aphanamixis polystachya</i> (Wall.) Park.	Rohitak	Yellow white	July-Sept.
<i>Azadirachta indica</i> A. Juss.	Kadulimb	Crème	March-April,June-Aug.
<i>Chukrasia tabularis</i> A. Juss.	Lal- devdar	White	Feb.-May
* <i>Khaya snegalensis</i> ( Desr.) A. Juss.			June-Sept.
* <i>Melia azedarach</i> L.	Bakam	White	July-Aug.
<i>Switenia macrophylla</i> King.	-----	Cream white	March May.
<b>RHAMNACEAE</b>			
<i>Ziziphus mauratiana</i> Lamk.	Bor	Greenish yellow	April-Oct.,Oct.-March
<b>SAPINDACEAE</b>			
<i>Sapindus emarginatus</i> Vahl.	Ritha	White	Oct.-Dec.,Feb.-May
<b>ANACARDIACEAE</b>			
* <i>Anacardium occidentale</i> L.	Kaju	Yellow	Dec.-April, March.-June
<i>Mangifera indica</i> L.	Amba	Greenish yellow	Jan.-March, April-July
<i>Semecarpus anacardium</i> L.	Bhilava	Greenish yellow	Jan.-Sept.

<i>Lannea coromandelica</i> ( Houtt) Merr.	Modhal	Yellowish green	Feb.- April.,May- July
<b>MORINGACEAE</b>			
<i>Moringa oleifera</i> Lamk.	Shevga	White	Jan.- March, April-Jan.
<b>FABACEAE</b>			
<i>Butea monosperma</i> (Lam) Taub.	Palas	Orange red	Feb.-March,May- June
<i>Dalbergia sissoo</i> Roxb.	Shisav	Yellowish white	March- Nov.
<i>Erythrina stricta</i> Roxb.	Pangara		Jan.-May
<i>E. variegata</i> L.	Pangara	Red	Jan.- June
* <i>Gillricidia sepium</i> (Jacq.) Kunth exWalp	Giripushpa	Pinkish white	Feb.-March
<i>Milletia ovalifolia</i> kurz.		Reddish	March-April
<i>Ougeinia oojeinensis</i> ( Roxb.) Hochr.	Tiwas		March-June
<i>Pongamia pinnata</i> (L.) Pierre	Karanj	White	April-June, March- May
<i>Pterocapus marsupium</i> Roxb.	Bibla, Bija	Yellow	May- Aug., Dec.-March
<i>Sesbania grandiflora</i> (L.) Poir	Hadga	White	
<b>CAESALPINIACEAE</b>			
<i>Bauhinia blakeana</i> Dunn	Orchid Tree	Yellow	Dec.-March
<i>B. purpurea</i> L.	Raktakanchan	Pink, Rosy	Oct-Jan.
<i>B. variegata</i> L.	Kanchan	Pink	Feb.-April, May-June
<i>Cassia fistula</i> L.	Bahava	Bright yellow	March-June
* <i>C. grandis</i> L.F.		Pink	March-June
* <i>C. javanica</i> L.	Java cassia	Pink	May-June
<i>C. renigera</i> Wall. ex. Bth.	Burmese cassia		Oct.- March
* <i>C. siamea</i> Lam.	Kashid	Yellow	Aug.-June
<i>C. surattensis</i> , Burn	Tarwat	Bright yellow	Jan.-June
* <i>Delonix regia</i> (Boj. Ex. Hook.) Raf.	Gulmohar	Reddish orange	April-Sept.
* <i>Peltophorum africanus</i> Sond.		Yellow	Sept.-Nov.
* <i>P. pterocapus</i> (DC) Baker ex. K. Heyne.	SonMohar	Golden yellow	Jan.- June
<i>Saraca asoka</i> ( Roxb.) Wilde,	Ashok	Orange yellow	Jan.-June
* <i>Tamarindus indica</i> L.	Chinch	Cream Yellow	May-June, March-April
<b>MIMOSACEAE</b>			
* <i>Acacia auriculiformis</i> A. cumm. Ex. Bth.	Australian Babhul	Yellow	Aug.-March
<i>Acacia catechu</i> (L.F.) Willd,	Khair	Greenish white	July-Feb.
<i>A. farnesiana</i> (L.) Willd.	Deo Babhual		
<i>A. melanoxylon</i> R.Br.		Cream colored	Dec.- June
<i>A. nilotica</i> (L.) Del Subsp. indica, (Benth) Brenan,	Babhul	Golden yellow	June-Sept., Dec. Jan.
* <i>Albizia lebbeck</i> (L.) Benth.	Shirish	White	April-May, Sept.-Oct.
<i>Leucaena leucocephala</i> (Lam.) De. Wit.	Subabhul	Creame	Sept.-Oct.
* <i>Parkia biglandulosa</i> Wight & Arn.	Chenduphal	Whitish yellow	Dec.-May
* <i>Pithocellobium dulce</i> (Roxb.) Bth.	Vilayatichinch	Yellow , white	Jan.-June

<i>Prosopis cineraria</i> (L.) Druce.	Shami	Yellow	Nov.-April
<i>P. juliflora</i> (Sw.) DC.	Vadibabhul	Paleyellow	Feb.- May
* <i>Samania saman</i> ( Jacq.) Merr.,	Rain Tree	Pink	March-July
<b>COMBRETACEAE</b>			
<i>Anogeissus latifolia</i> ( Roxb. Ex. Ge.) Wall.	Dhawada	Whitish yellow	March-Nov.
<i>Terminalia bellirica</i> ( Gaerth). Roxb.	Behada	Yellowish brown	March-Nov.
* <i>T. catappa</i> L.	Jangali Badam	Yellowish green	April-Oct.
<i>T. chebula</i> (Gaerth.) Retz.	Hirda	Whitish	March-May Nov.-March
<i>T. cuneata</i> Roth.	Arjun Sadada	Yellowish	Feb.-Nov.
<b>MYRTACEAE</b>			
* <i>Callistemon citrinus</i> (Curtis) Skeels.	Bottle brush	Crimson red	Throughout the year
* <i>Eucalyptus citriodora</i> Hook	Nilgiri	White	April-Aug.
* <i>E. terreticornis</i> Sm.	Nilgiri	Cream	Sept.-May
* <i>Psidium guava</i> L	Peru	Cream	April-July, Dec.-Feb.
<i>Syzygium aromaticum</i> (L.) Merr. and Perry	Lawang	Purple	Feb.-April
<i>S. cumini</i> (L,) Skeels.	Jambhul	Greenish white	March-May, June-Aug.
<b>PUNICACEAE</b>			
<i>Punica granatum</i> L.	Dalimb	Orange Red	Aug. Nov.
<b>LECYTHIDACEAE</b>			
* <i>Couroupita guianensis</i> , Abul.	Kailaspati	Yellowish	Sept.-Nov.
* <i>Gustavia augusta</i> L.		Pink white	April- Aug.
<b>MELASTOMATACEAE</b>			
<i>Memecylon umbellatum</i> Burm. F.	Anjan	Bluish	Jan.- April
<b>LYTHRACEAE</b>			
<i>Lagerstroemia reginae</i> Roxb.	Jarul ,Taman	Pink	April- June, Nov.-Jan.
<b>RUBIACEAE</b>			
<i>Anthocephalus cadamba</i> Mig.	Cadamba	Greeish white	May –July, Dec.-March
<i>Haldina cordifolia</i> ( Roxb.) Ridsd.	Haladu	Yellow	June-Aug., April-June
<i>Hymenodictylon orixense</i> (Roxb.) Mahb.	Bhorsal	Greenish	April-Sep.
<i>Mitragyna parviflora</i> ( Roxb.) Korth.	Kalam	Greenish yellow	Through out the year
<i>Morinda citrifolia</i> L.	Bartondi	White	Aug.- March
<b>SAPOTACEAE</b>			
<i>Madhuca indica</i> J.F. Gmel.	Mahuva	Cream	Feb.- April, June-Aug.
* <i>Manilkara hexandra</i> ( Roxb.) Dubard.	Khirni	Pale yellow	Nov.- Feb. April- July
* <i>M. zapota</i> (L.) Van Royen,	Chiku	White	Through out the year
* <i>Mimusops elengi</i> L.	Bakul	Cream	Feb.-April, Feb.-June
<b>EBENACEAE</b>			
<i>Diospyros melanoxylon</i> Roxb.	Temburni	Yellow	April-June

<b>OLEACEAE</b>			
<i>Nyctanthes arbor tristis</i> L.	Parijatak	Orange	Aug.- Octo.,Nov.-Feb.
<b>APOCYNACEAE</b>			
<i>Alstonia scolaris</i> R.Br.	Satvin	Greenish white	Dec.-March,May-July
* <i>Plumeria alba</i> L.	Pandhara chapha	Cream	May- Sept.
* <i>P. acuminata</i> Ait..	Chapha	White / Red	March- Sept.
<b>BORAGINACEAE</b>			
<i>Cordia dichotoma</i> Forst. F.	Bhokar	White	Feb.-June
<i>Ehretia laevis</i> Roxb.	Ajan Vruksha	White	March-July
<b>SOLANACEAE</b>			
* <i>Solanum wrightii</i> Bh..	Vangi Vruksha	Bluish white	Feb.- May
<b>BIGNONICACEAE</b>			
<i>Heterophragma quadriloculare</i> (Roxb.) K. Schum.	Varas	White	Jan.-June
* <i>Jacaranda acutifolia</i> Humd & Bonpl.	Neel mohor	Blue	April-Dec.
* <i>Kigellia pinnata</i> (Jacq.) Dc.	Sausage tree	Yellow	March- Dec.
* <i>Markhamia platycalyx</i> Sprague		Bright yellow	Dec.- April
* <i>Millingtonia hortensis</i> L.	Akashneem	White	Oct.-Nov.
<i>Oroxylum indicum</i> (L) Vent.	Tetu	Yellowish purple	June-Dec.
* <i>Spathodia Campanulata</i> P. Beauv.	Spathodia	Orange	July- March
* <i>Tabebuia argentea</i> (Bur.& Schum.)Britt.	-----	Bright.yellow	March- May
* <i>T.pallida</i> (Lindl.) Miers.		Pink	March-May
<i>T.rosea</i> DC.		Pink	Feb.-April
* <i>Tecoma stans</i> L.	Tecoma	Yellow	Throughout the year
<b>VERBINACEAE</b>			
* <i>Citharexylum spinosum</i> L.	Anantura	Whitish	July-Oct.
<i>Gmelina arborea</i> Roxb.	Gambhari, Shivan	Yellowish	March-May, April-July
<i>Tectona grandis</i> L.	Sag	Pale yellow	June-Sept.,Nov.-Dec.
<b>MYRISTICACEAE</b>			
<i>Myristica dactyloides</i> Gaerth.	Jayphal	Creame	April-Sept.
<b>PROTEACEAE</b>			
* <i>Grevillea robusta</i> A.Cunn.ex. R. Br.	Silver Oak	Grey Yellow	March-July
<b>SANTALACEAE</b>			
<i>Santalum albn L.</i>	Chandan	Purple brown	Feb.-April,May-June
<b>ARALIACEAE</b>			
* <i>Brassaia actinophylla</i> (Endl.) Harm.	Umbrella tree	Scarlet	Nov.-Dec.
<b>EUPHORBIACEAE</b>			
<i>Cleistanthus collinus</i> (Roxb.) Benth. Ex. Hook K.F.	Garvi	Brown	Dec.-April
<i>Emblica. officinalis</i> Gaerth.	Awala	Greenish yellow	March-May,Nov.-Feb.

* <i>Phyllanthus acidus</i> (L.)K.Skeels.	Rayawala	Reddish	March-May,Nov.-Feb.
* <i>Putranjiva roxburghii</i> Wall.	Putranjiva	Yellow green	March-May
<b>ULMACEAE</b>			
<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Papada	Brownish	Jan.-June
<b>MORACEAE</b>			
<i>Atocarpus heterophyllus</i> Lam.	Phanas	Yellowish green	Dec.-March,July-Aug.
<i>Ficus beghalensis</i> L.	Vad		April-june
<i>F. carica</i> L.	Anjir	Greenish	March-May
<i>F.microcarpa</i> L.f.	Nandruk	Pink Purple	Oct. Jan.
<i>F.racemosa</i> L.	Umber	Pale green	Feb.-June
<i>F. religiosa</i> L.	Pimpal	Dark purple	Oct.-Nov.
* <i>Morus alba</i> L.	Tuti	Green	July-March
<b>CASUARINACEAE</b>			
* <i>Casuarina equisetifolia</i> J.R. & Forst.	Suru	Greenish	Feb.-April,Sept.-Oct.
<b>ARECACEAE</b>			
* <i>Areca catechu</i> L.	Supari	Whitish	Jan.-March,Oct.-Jan.
* <i>Borassus flabellifer</i> L.	Tad	Green	March-April, April-May
* <i>Caryota urens</i> L.	Berlimad, Fish tail palm	Greenish	Oct.-April
* <i>Cocos nucifera</i> L.	Naral	Greenish	Throughout the year
<i>Phoenix sylvestris</i> Roxb.	Shindi	White	March-April,Sept.-Oct.
* <i>Roystonea regia</i> (H.B.& K.) O.F.Cook	Bottle palm		March –June
* <i>Ravenala madagascarensis</i> J.F.Gmel	Travellers Tree	Green	Dec.-March
<b>GYMNOSPERMS</b>			
<b>PINACEAE</b>			
<i>Pinus longifolia</i> Roxb.	Pine	Scarlet	Feb.April
<b>CUPRESSACEAE</b>			
* <i>Biota orientalis</i> Endl.(L.)	Morpankhi	Yellow	Sept.-Oct.
<b>ARAUCARIACEAE</b>			
* <i>Araucaria excelsa</i> Br.	Christ Mas Tree	----	----

Note- Taxa marked with asterisks (\*) indicate exotic species

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