

Checklist of Trees of Uttar Pradesh, India: An Account to Understand their Nativity and Phenology

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ABSTRACT

The present checklist is a comprehensive document that provides information on available tree species in Uttar Pradesh along with their phenology, native range and IUCN status. In this checklist, a total number of 378 tree species are catalogued belonging to 221 genera and 55 families of angiosperms and 10 native ranges. Of the documented species 04, 05 and 09 belong to the Endangered, Vulnerable and Near Threatened categories respectively.

Keywords: IUCN, India, Phenology, Native Range, Tree, Uttar Pradesh.

Introduction

The trees are key ecosystem engineers [1]. Among the vegetation types, trees hold key position with respect to forest and ecosystem health [2]. They act as pollutant absorbers, natural coolers, rain promoters and producers of a number of economically important products. The increased demand for space, tree-based timber and non-timber products, developmental activities, etc. creates severe threats for tree vegetation [3]. In the recent past, the numbers of tree species were either extinct or facing problems of extinction because of unawareness or overexploitation. According to maximum workers tree species are rapidly disappearing and the genetic diversity of tree species is more vulnerable than the other plant species [4]. To check the extinction of tree species the prerequisite condition is the availability of a comprehensive document on the tree species present in a particular area. If these comprehensive documents also contain information on phenology, native range, and vegetation type of the tree species then it becomes more worthwhile with respect to sustainable management of forests, formulation of conservation strategies, assessment of effect of climate change, etc.

The state Uttar Pradesh is situated between 23.52° N to 31.28° N latitude and 77.3° E to 84.39° E longitude, covering 243,286 Km² area. It is 4th largest state of India and comprises diverse geographical regions viz., Himalayan foothills in the north including Terai and Bhabhartracts, fertile Gangetic plains in the central part, Vindhya hills and plateaus in the south[5,6,7,8]. The state has rich drainage systems including the Ganga, Yamuna, Sarayu, and Ghaghara, with tributaries like the Ramganga,Gomti,and Betwa. The climate of state is humid subtropical with three distinct seasons, and averagetemperature ranges between 25-40°C during summer and 7-15°C during winter. Annual rainfall ranges from 600 mm in the western arid zones to 1500 mm in the eastern regions. Forests cover 6.09% of the state, comprising tropical dry, moist deciduous, and evergreen forests [9,10]. Uttar Pradesh's rich biodiversity is reflected in its protected areas (1 National Park, 25 wildlife sanctuaries, 10 Ramsar sites). These areas harbor endemic, rare, and economically significant species, contributing to the region's ecological wealth.

The enlisting of trees is not only the inventory of tree diversity and genetic diversity but also relevant for forest and biodiversity research, forestry, agri-horticulture, silviculture, landscape management and conservation biology of rare, endemic and endangered tree species. Further, correlation with phenological data and nativity of species in different climatic conditionsis helpful in predictingthefuture of the species under future climate change [11]. It has been noticed that reproductive and vegetative time varies with species considerably from year to year in different areas and climates. Such phenological data is very relevant for tree breeders who must have knowledge about the phenology of tree species for seed collection, propagation, grafting, etc. It is also important for entomologists to study the correlation between insect cycles and stages of tree growth [1,12]. Considering the above facts, the present study was carried out with the objectives of documentation of species diversity among the trees with phenology and their nativity ranges.

Materials and Methods:

The present investigation is based on secondary datacompiled from authentic online and offline sources of literature.The distribution of tree species along with data regarding habits, phenology, and native range were collected and analyzed. The botanical names of the tree species have been updated according to the POWO (Plants of the Word Online; https://powo.science.kew.org). Angiosperm phylogeny Group IV classification for families of flowering plants has been followed while preparingthecomprehensive list of trees of Uttar Pradesh[13].

Results and Discussion

In thepresent study 378 tree species are documented belongingto 55 families and 221 genera. Fabaceae represents as the most dominant family with 54 tree species followed by Euphorbiaceae (32 spp.), Bignoniaceae (24 spp.), Malvaceae (16 spp.) and Rubiaceae (13 spp.). *Acacia* present as the most dominant genus includes 14 species followed by *Ficus*with13 species. The phenology of trees has been classified into 4 different quarters: 263 species undergo the flowering and

fruiting phase during January – March (1st quarter), 300 species in 2rd quarter (April-June), 248 species in 3rd quarter (July-September) and 216 in 4th quarter (October-December). With respect to phenological events, the month of March to June is recorded as most suitablein which a maximum number of species are in the flowering and fruiting phase(Table-1 & Fig.1). It is valuable information for researchers who are working on climate change, phenology, reproductive biology and management of trees [14].

Our study also indicates that tree species of Uttar Pradesh belong to 10 native ranges. However, there are anumber of tree species that share more than one native range, species from 10 different native ranges are identified, these are: South America (350 species), North America (39 species), East Asia (04 species), Africa (39 species), Australia (52 species), Tropical Asia (45 species), Pacific (10 species), Europe (12 species), Indian Subcontinent (103 species) and Asia (306 species) (Fig. 2). Data regarding native range and distribution of any plant species is useful for conservation initiatives, as it shows how species are naturally suited and capable of flourishing. In context of tree species, this information is also critical for tracing migratory/spread routes of respective tree species, comprehending and preserving healthy ecosystems, effective land management, afforestation, reforestation efforts, and promoting the sustainability of forests and the diversity of life they uphold [15].

IUCN database was used for evaluation of threat status of the species, 04 species are classified as Endangered (Ficus cupulata, Tecomella undulata, Tectona grandis, Pterocarpus santalinus), 05 species is Vulnerable (Cleistanthuscollinus, Dalbergia latifolia, Jacaranda mimosifolia, Santalum album, Saracaasoca), 09 species are Near Threatened (Aegle marmelos, Albizia thompsonii, Dalbergia melanoxylon, Eucalyptus camaldulensis, Eucalyptus paniculata, Eucalyptus robusta, Handroanthusimpetiginosus, Swietenia mahagoni, Pterocarpus marsupium), 245 species are under Least Concern category and 16 species are Data Deficient. The remaining species are not mentioned in the IUCN database. The information regarding IUCN status of a particular plant species is very crucial as its knowledge creates awareness and understanding of threats of biodiversity in common people as well as guide researchers, conservators, and local/national/international authorities to formulate strategies and to understand level of effort for its

conservation [16].

In conclusion, we hope that the effort of our team in the form of this manuscript will be useful for the researchers, conservators, and policymakers who are continuously devoting their effort for understanding phenology-migratory routes of different tree species, conservation of nature, different aspects of biodiversity and maintenance of healthy ecosystems.

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Fig. 1: Number of tree species flowered in the particular month

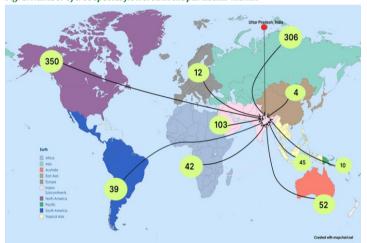


Fig.2: Contribution of different locations of world to tree diversity in Uttar Pradesh

S.No.	Name of species	Family	Habit	Flowering & Fruiting	Native Range	IUCN Category
1	Dilleniaaurea Sm.	Dilleniaceae	Small Trees	Apr Jun.	E. India to Indo-China ²	LC
2	Dillenia indica L.	Dilleniaceae	Medium sized evergreenTrees	May Feb.	India to China (S. Yunnan, S. Guangxi) and W. & Central Malesia².	LC
3	DilleniapentagynaRoxb.	Dilleniaceae	Moderate - sized Deciduous Trees	Jan Jun.	Indian Subcontinent ⁶ to China (Yunnan) and S. Sulawesi².	NA
4	<i>Magnolia champaca</i> (L.) Baill. ex Pierre	Magnoliaceae	Middle - sized evergreen Trees	Apr. – Jul.	S. India to S. Central China and Lesser Sunda Islands ² .	LC
5	Magnolia figo (Lour.) DC.	Magnoliaceae	Trees	Apr Jun.	SE. China, Korea (Jeju-do)².	LC
6	Magnolia grandiflora L.	Magnoliaceae	Evergreen medium Trees	Apr May.	SE. U.S.A. to Texas ⁶ .	LC
7	Annona muricata L.	Annonaceae	Small Trees	Apr Nov.	S. Mexico ⁶ to S. Tropical America ⁸ .	LC
8	Annona reticulata L.	Annonaceae	Medium sized Trees	Apr Dec.	Mexico ⁶ to NE. Venezuela ⁸ .	LC
9	Annona squamosa L.	Annonaceae	Small Trees	Jun Jan.	Mexico ⁶ to Colombia ⁸ .	LC
10	Cananga (Dunal)Hook.f. & Thomson	Annonaceae	Tall Trees	Jun Jan.	Tropical Asia ¹⁰ to N. Australia³.	LC
11	<i>Miliusa tomentosa</i> (Roxb.) Finet & Gagnep.	Annonaceae	Tall Deciduous Trees	Mar Jun.	Indian Subcontinent ⁶ .	LC
12	<i>Miliusavelutina</i> (DC.) Hook.f. & Thomson	Annonaceae	Large Trees	Feb Aug.	Himalaya to Indo-China².	LC
13	<i>Polyalthia longifolia</i> (Sonn.) Benth. &Hook.f. ex Thwaites	Annonaceae	Evergreen Trees	Mar Sep.	S. India, Sri Lanka².	NA
14	Polyalthiasuberosa (Roxb.) Thwaites	Annonaceae	Small Trees	May Dec.	India to China (S. Guangxi, S. Guangdong) and Peninsula Malaysia ² , Philippines ¹⁰ .	LC
15	Cocculus laurifoliusDC.	Menispermaceae	Small Trees	Apr Aug.	Indian Subcontinent4 to Japan (S. Kyushu)2 and Philippines10.	LC

16	Capparis Decidua (Forssk.) Edgew.	Capparaceae	Small Trees	Mar Jul.	Mauritania¹ to Andaman & Nicobar Islands⁴.	LC
17	Cratevaadansonii DC.	Capparaceae	Trees	Apr Nov.	Tropical Africa ¹ .	LC
18	Crateva religiosa G.Forst.	Capparaceae	Trees	Mar Oct.	Tropics ^{2,1,8,3} & Subtropics ^{2,1,6,8,3} .	LC
19		Capparaceae	Trees	Jul Nov.	Himalaya to S. China and Indo-China².	LC
20	CratevaunilocularisBuchHam.	Bixaceae	Small Trees	Sep Dec.	Mexico ⁶ to S. Tropical America ⁸ .	NA
21	Bixa L.	Cochlospermaceae	Small Trees	Dec Jun.	India to MyanMar ² .	LC
22	Cochlospermumreligiosum(L.) Alston	Flacourtiaceae	Trees	Mar Jul.	Indian Subcontinent ⁶ to China (Yunnan) and Indo- China ² .	NA
23	Casearia graveolens Dalzell	Flacourtiaceae	Small Trees	Dec Aug.	Ethiopia to S. Africa ¹ , SE. China ² to Tropical Asia ¹⁰ .	LC
24	Flacourtia indica (Burm.f.) Merr.	Flacourtiaceae	Trees	Mar Oct.	Nepal to China (S. Yunnan, W. Guangxi) and N. MyanMar².	NA
25	FlacourtiaJangomas (Lour.) Raeusch.	Flacourtiaceae	Trees	Feb Jun.	Assam to Peninsula Malaysia².	DD
26	Hydnocarpuskurzii (King) Warb.	Flacourtiaceae	Trees	Oct Apr.	NE. Pakistan ⁶ to S. China and Indo-China ² .	LC
27	Xylosma longifolia Clos	Pittosporaceae	Small Trees	Feb Dec.	Himalaya to China (W. Yunnan) and Indo-China².	LC
28	Pittosporum napaulense (DC.) Rehder &E.H.Wilson	Pittosporaceae	Small Trees	Aug Jan.	Sahara ¹ to India ² .	LC
29	Tamarix aphylla (L.) H.Karst.	Dipterocarpaceae	Trees	Mar Dec.	Indian Subcontinent ⁶ to SE. Tibet².	LC
30	ShorearobustaC.F.Gaertn.	Malvaceae	Trees	Aug Dec.	Indian Subcontinent ⁶ to China (S. Yunnan) and Indo-China ² .	LC
31	KydiacalycinaRoxb.	Malvaceae	Trees	Mar Jun.	NE. Sudan ¹ to Indian Ocean, Tropical & Subtropical Asia ^{10,2} to Pacific ⁸ .	LC
32	<i>Thespesia populnea</i> (L.) Sol. ex Corrêa	Malvaceae	Trees	May Oct.	Tropical ^{2,1,8,3} & S. Africa ¹ , S. Arabian Peninsula ² .	NA
33	Adansonia digitata L.	Malvaceae	Trees	Feb May.	Tropical & Subtropical Asia ^{10,2} to N. Australia ³ .	LC
34	Bombax ceiba L.	Malvaceae	Trees	Dec Apr.	Mexico ⁶ to Tropical America ⁸ .	LC
35	<i>Ceiba pentandra</i> (L.) Gaertn.	Malvaceae	Trees	Mar Oct.	India to S. China and Indo- China².	LC
36	EriolaenacandolleiWall.	Malvaceae	Small Trees	Apr Jun.	Nepal to China (Yunnan) ² .	NA
37	Eriolaenawallichii DC.	Malvaceae	Trees	Mar Jun.	Indian Subcontinent ⁶ to China (S. Yunnan) and Sumatera².	LC
38	Firmianacolorata (Roxb.) R.Br.	Malvaceae	Trees	Aug Jan.	Mexico ⁶ to Tropical America ⁸ .	LC
39	Guazumaulmifolia Lam.	Malvaceae	Small Trees	Aug Feb.	China (S. Yunnan) ² to Tropical Asia ¹⁰ .	LC
40	Helicteresisora L.	Malvaceae	Trees	Oct Jan.	Tropical & Subtropical Asia ^{10,2} to Pacific ⁸ .	LC
41	Kleinhovia L.	Sterculiaceae	Trees	Mar Aug.	Nepal to China (S. Yunnan) and Peninsula Malaysia ² .	LC
42	Pterospermumacerifolium Zoll. &Moritzi	Sterculiaceae	Trees	May Dec.	N. India to S. China and Peninsula Malaysia².	LC
43	Pterospermum lanceifolium Roxb. ex DC.	Malvaceae	Trees	Jun Nov.	NE. India to Indo-China².	LC
44	PterospermumsemisagittatumBuch Ham. ex Roxb.	Malvaceae	Trees	Jun Dec.	Indian Subcontinent ⁶ to MyanMar².	LC
45	Pterospermumsuberifolium (L.) Raeusch.	Malvaceae	Trees	Feb Jul.	Indian Subcontinent ⁶ to W. & Central Malesia ² .	LC
46	Sterculia foetida L.	Malvaceae	Trees	Feb May.	Indian Subcontinent ⁶ LC to Indo-China ² .	LC
47	Sterculia urensRoxb.	Malvaceae	Trees	Mar Aug.	Indian Subcontinent ⁶ to China (SW. Yunnan) and	LC

					Indo-China ² .	
48	<i>Sterculia villosa</i> Roxb. ex Sm.	Tiliaceae	Shrubs or small	Feb Aug.	Mascarenes ¹ , S. Iran ² to	LC
40		Tillaceae	Trees	reb Aug.	Queensland ³ .	LC
49	Grewia asiatica L.	Tiliaceae	Shrubs or small Trees	Aug Dec.	Indian Subcontinent ⁶ to China ² .	NA
50	<i>Grewia damine</i> Gaertn.	Tiliaceae	Small Trees	Feb May.	Tropical & Subtropical Asia ^{10,2} .	LC
51	Grewia eriocarpa Juss.	Tiliaceae	Large Shrubs or Small Trees	Aug Jan.	Tropical & S. Africa ¹ to India ² .	LC
52	Grewia flavescens Juss.	Tiliaceae	Undershrubs,Shurbs or Small Trees	Sep Feb.	India Subcontinent ⁶ to Peninsula Malaysia ² .	NA
53	Grewia helicterifoliaWall. ex G.Don	Tiliaceae	Small Trees	Apr Dec.	Pakistan to Himalaya ²	LC
54	<i>Grewia optiva</i> J.R.Drumm. ex Burret	Tiliaceae	Shrubs or small Trees	Apr Nov.	India².	NA
55	<i>Grewia orbiculata</i> Rottler	Tiliaceae	Shrubs or small Trees	May Dec.	India, Sri Lanka².	LC
56	Grewia orientalisL.	Tiliaceae	Shrubs or small Trees	May Oct.	Indian Subcontinent ⁶ to MyanMar².	NA
57	Grewia rothii DC.	Tiliaceae	Shrubs or small Trees	Jul Feb.	Indian Subcontinent ⁶ to Indo-China ²	NA
58	Grewia serrulata DC.	Tiliaceae	Large Shrubs or Small Trees	Feb Dec.	Indian Subcontinent ⁶ to China (SW. Yunnan, Guangxi) and Peninsula Malaysia ² .	LC
59	<i>Grewia tiliifolia</i> Vahl	Oxalidaceae	Small Trees	May Aug.	Central & E. Jawa to Maluku².	DD
60	Averrhoa carambola L.	Rutaceae	Large Trees	Mar Dec.	Indian Subcontinent ⁶ .	NT
61	Aegle Marmelos (L.) Corrêa	Rutaceae	Trees	Aug Jul.	India to Peninsula Malaysia².	LC
62	Atalantiamonophylla DC.	Rutaceae	Trees	Oct Nov.	. W. & S. India, Sri Lanka, Indo-China², Philippines ¹⁰ .	LC
63	Atalantia racemosa Wight ex Hook.	Rutaceae	Trees	Mar Jul.	S. China to Indo-China ² .	LC
64	Clausenalansium(Lour.) Skeels	Rutaceae	Small Trees	Nov Oct.	Indian Subcontinent ⁶ to Hainan and W. Malesia².	LC
65	Glycosmis mauritiana (Lam.) Tanaka	Rutaceae	Shrubs or small Trees	Throughout the year. (6,53)pg	Indian Subcontinent ⁶ to China (SW. & S. Yunnan) and W. & Central Malesia ² .	LC
66	Glycosmis pentaphylla (Retz.) DC.	Rutaceae	Trees	Mar Dec.	Indian Subcontinent ⁶ to Andaman Islands².	NA
67	LimoniaacidissimaL.	Rutaceae	Shrubs or small Trees	Mar Jul.	Indian Subcontinent ⁶ to China (S. Yunnan, Guangdong) and Peninsula Malaysia (Langkawi), S. Hainan ² .	NA
68	Murrayakoenigii(L.) Spreng.	Rutaceae	Shrubs or small Trees	Apr Jul.	Tropical & Subtropical Asia ^{10,2} to Vanuatu ³ .	NA
69	Murraya paniculata (L.) Jack	Rutaceae	Small Trees	Mar Dec.	W. Central Himalaya to India, Sri Lanka, Indo- China².	LC
70	Naringicrenulata (Roxb.) Nicolson	Rutaceae	Trees	Apr Aug.	China ² .	LC
71	Ailanthus altissima (Mill.) Swingle	Rutaceae	Trees	Dec Jul.	Indian Subcontinent ⁶ , Andaman Islands².	DD
72	Ailanthus excelsaRoxb.	Zygophyllaceae	Shrubs or small Trees	Throughout the year.	India².	LC
73	Balanites roxburghii Planch.	Burseraceae	Trees	Feb Apr.	Indian Subcontinent ⁶ .	NA
74	<i>Boswellia serrata</i> Roxb.	Burseraceae	Large Trees	Feb Jun.	India to China (E. Sichuan, S. & SE. Yunnan, SW. Guangxi) and Indo-China².	LC
75	GarugapinnataRoxb.	Meliaceae	Trees	Nov Aug.	Tropical & Subtropical Asia ^{10,2} to Vanuatu ³ .	LC
76	Aglaia elaeagnoidea (A.Juss.) Benth.	Meliaceae	Shrubs or small Trees	Throughout year	China (Guangxi, Guangdong) to Peninsula Malaysia².	LC
77	Aglaia odorataLour.	Meliaceae	Trees	Jan Dec.	S. China ² to Tropical Asia ¹⁰ .	LC
78	Aphanamixispolystachya (Wall.) R.Parker	Meliaceae	Large Trees	Feb Sep.	Tropical Asia ¹⁰ .	LC

79	AzadirachtaA.Juss.	Meliaceae	Medium - sized Trees	Mar Jun.	Tropical & Subtropical Asia ^{10,2} to N. & E. Australia ³ .	LC
80	Melia azedarach L.	Meliaceae	Trees	Jan Jul.	Indian Subcontinent ⁶ to MyanMar².	NA
81	Soymida Febrifuga (Roxb.) A.Juss.	Meliaceae	Trees	Apr Nov.	S. Florida ⁶ to Caribbean ⁸ .	NT
82	Swietenia mahagoni (L.) Jacq.	Meliaceae	Large Trees	Mar May.	S. China ² to Tropical Asia ¹⁰ .	LC
83	Toona ciliataM.Roem.	Meliaceae	Small Trees	Apr Sep.	Indian Subcontinent ⁶ to S. China and W. & Central Malesia ² .	NA
84	Trichiliaconnaroides (Wight & Arn.) Bentv.	Opiliaceae	Climbing shrubs or small Trees	Dec Nov.	S. China ² to Tropical Asia ¹⁰ .	NA
85	Cansjerarheedei].F.Gmel.	Celastraceae	Trees	Mar Dec.	S. India ² .	NA
86	Cassinealbens(Retz.) Kosterm.	Celastraceae	Shrubs or small Trees	Mar Dec.	Uttarakhand².	NA
87	<i>Maytenus falconeri</i> (M.A.Lawson) M.A.Rau	Celastraceae	Shrubs or small Trees	Throughout the year.	SE. Spain ^{2,5} , Africa ¹ , Arabian Peninsula, Iran to India ² .	NA
88	Maytenus senegalensis (Lam.) Exell	Celastraceae	Shrubs or small Trees	Jul Jun.	E. Himalaya to China (S. Yunnan) and Peninsula Malaysia².	LC
89	<i>Microtropis discolor</i> (Wall.) Wall. ex Meisn.	Rhamnaceae	Shrubs or small Trees	Aug Jan.	NE. Pakistan to W. Nepal and NW. India².	LC
90	Rhamnus triquetra (Wall.) Brandis	Rhamnaceae	Shrubs or small Trees	Mar Jun.	Indian Subcontinent ⁶ .	NA
91	<i>Ziziphus caracutta</i> BuchHam. ex Roxb.	Rhamnaceae	Small Trees	Jun Jan.	N. & E. China to S. Korea ² .	LC
92	Ziziphus jujuba Mill.	Rhamnaceae	Trees	Aug Mar.	Cape Verde, African Sahara to Sahel to Tanzania ¹ , S. Iran ² to Australia ³ .	LC
93	Ziziphus mauritianaLam.	Rhamnaceae	Scandent shrubs or small Trees	Feb Jul.	Indian Subcontinent ⁶ to China (SW. & S. Yunnan) and Indo-China ² .	LC
94	Ziziphus rugosa Lam.	Rhamnaceae	Large straggling Shrubs or Small Trees	Apr Jan.	Indian Subcontinent ⁶ .	LC
95	Ziziphus xylopyrus (Retz.) Willd.	Vitaceae	Shrubs or small Trees	Jun Dec.	Indian Subcontinent ⁶ to China (Yunnan) and Indo- China ² .	LC
96	<i>Leea asiatica</i> (L.) Ridsdale	Vitaceae	Large Shrubs or Small Trees	Jun Mar.	Laccadive Islands, W. & S. India, Sri Lanka².	LC
97	<i>Leea indica</i> (Burm.f.) Merr.	Vitaceae	Shrubs or small Trees	Jul Mar.	Indian Subcontinent ⁶ to China (Yunnan) and Indo- China ² .	LC
98	<i>Leea macrophylla</i> Roxb. ex Hornem.	Sapindaceae	Trees	Apr Sep.	Indian Subcontinent ⁶ to S. China and NW. Peninsula Malaysia ² .	DD
99	DimocarpuslonganLour.	Sapindaceae	Evergreen, stiff shrubs or small trees	Throughout the year.	Tropics ^{2,1,8,3} & Subtropics ^{2,1,6,8,3} .	LC
100	Dodonaeaviscosa Jacq.	Sapindaceae	Shrubs or moderate trees, evergreen,	Jan May.	China (Guangdong, Guangxi) to Tropical Asia ² and NW. Australia ³ .	LC
101	Lepisanthesrubiginosa (Roxb.) Leenh.	Sapindaceae	Shrubs or small Trees ,evergreen,	Nov Jun.	Tropical ¹ & Subtropical Old World ^{2,1,2,5} .	LC
102	Lepisanthes senegalensis (Poir.) Leenh.	Sapindaceae	Trees,evergreen.	Mar Jun.	China (SW. Guangdong) to Peninsula Malaysia, Borneo², Philippines ¹⁰ .	NA
103	Litchi chinensis Sonn.	Sapindaceae	Trees,evergreen.	Oct Jan.	India, Sri Lanka, Andaman Islands² .	NA
104	Sapindus Marginatus Vahl	Sapindaceae	Trees	Apr Feb.	Pacific ⁸ , Tropical & Subtropical America ^{6,8} .	LC
105	Sapindussaponaria L.	Sapindaceae	Trees	Sep Mar.	Indian Subcontinent ⁶ to MyanMar².	DD
106	Sapindustrifoliatus L.	Sapindaceae	Medium size Deciduous trees	Mar Aug.	Indian Subcontinent ⁶ to Indo-China, Central & S. Malesia ² .	LC
107	Schleichera oleosa (Lour.) Oken	Sabiaceae	Trees,evergreen.	Dec Jun.	Indian Subcontinent ⁶ to China (W. Yunnan) and	NA

					Indo-China, N. Sumatera, W. Jawa².	
108	Meliosmasimplicifolia (Roxb.) Walp.	Anacardiaceae	Trees,evergreen.	Jan May.	Trinidad to S. Tropical America ⁸ .	LC
109	Anacardium occidentale L.	Anacardiaceae	Small to medium sized trees ,	Jan May.	Indian Subcontinent ⁶ to China (S. Yunnan) and Indo-China ² .	LC
110	BuchananialanzanSpreng.	Anacardiaceae	Trees	Feb May.	Indian Subcontinent ⁶ to China (S. Yunnan to SW. Guangdong) and Indo- China ² .	LC
111	Lanneacoromandelica (Houtt.) Merr.	Anacardiaceae	Large,evergreen trees.	Apr Jun.	Assam to China (S. Yunnan)².	DD
112	Mangifera indica L.	Anacardiaceae	Shrubs or trees	Aug Dec.	N. Pakistan to Japan, Sumatera².	LC
113	Rhus chinensis Mill.	Anacardiaceae	Trees	Mar Jan.	Indian Subcontinent ⁶ to MyanMar².	LC
114	SemecarpusanacardiumL.f.	Anacardiaceae	Trees	Apr Dec.	Indian Subcontinent ⁶ to China (S. Yunnan, S. Guangxi) and Malesia ² .	LC
115	Spondias pinnata (L.f.) Kurz	Moringaceae	Trees	Nov Apr.	Pakistan to W. India ² .	NA
116	<i>Moringa concanensis</i> Nimmoex Dalzell &A.Gibson	Moringaceae	Trees	Feb Jun.	NE. Pakistan to NW. India².	LC
117	Moringa oleifera Lam.	Fabaceae	Trees	Feb Jun.	Indian Subcontinent ⁶ to China (SW. Guangxi, Yunnan) and Indo-China².	LC
118	Butea monosperma(Lam.) Kuntze	Fabaceae	Evergreen,medium - size trees	Apr Jul.	Queensland to NE. New South Wales, Vanuatu ³ .	LC
119	<i>Castanospermum australe</i> A.Cunn. ex Mudie	Fabaceae	Large trees	Apr Jan.	Indian Subcontinent ⁶ to Indo-China².	LC
120	Dalbergia lanceolariaL.f.	Fabaceae	Large trees	Sep Apr.	Indian Subcontinent ⁶ , Andaman Islands, Jawa ² .	VU
121	Dalbergia latifoliaRoxb.	Fabaceae	Shrubs or small Trees	Apr Dec.	Tropical & S. Africa ¹ .	NT
122	Dalbergia melanoxylon Guill. & Perr.	Fabaceae	Large trees	Feb Jul.	S. Arabian Peninsula to MyanMar².	LC
123	Dalbergia sissooRoxb. ex DC.	Fabaceae	Trees	Mar Apr.	Indian Subcontinent ⁶ to Peninsula Malaysia².	LC
124	Erythrina suberosaRoxb.	Fabaceae	Trees	Mar Apr.	Tanzania ¹ to Pacific ⁸ .	LC
125	Erythrina variegata L.	Fabaceae	Shrubs or small Trees	May Jul.	Afghanistan to Tibet and Himalaya².	LC
126	<i>Indigofera heterantha</i> Wall. ex Brandis	Fabaceae	Trees	Feb Apr.	Bangladesh to Indo-China².	DD
127	<i>Millettia peguensis</i> Ali	Fabaceae	Trees	Feb May.	W. Himalaya to W. Nepal and India ² .	LC
128	Ougeiniaoojeinensis(Roxb.) Hochr.	Fabaceae	Trees	Apr Feb.	Tropical & Subtropical Asia ^{10,2} to W. Pacific ⁸ .	LC
129	Pongamia pinnata (L.) Pierre	Fabaceae	Trees	Oct Jan.	Indian Subcontinent ⁶ .	NT
130	Pterocarpus marsupium Roxb.	Fabaceae	Trees	Jun Dec.	S. India ² .	EN
131 132	Pterocarpus santalinusL.f. Sesbania grandiflora (L.) Poir.	Fabaceae Fabaceae	Trees Shrubs or trees	Sep Mar. Feb Dec.	Malesia ² to New Guinea ³ . Tropical & S. Africa ¹ , Arabian Peninsula ² , Indian Subcontinent ⁶ .	DD LC
133	Sesbania sesban(L.) Merr.	Fabaceae	Evergreen narrow headed shrubs or small trees	Mar May.	SE. New Mexico to S. Texas and Mexico ⁶ .	NA
134	Sophora secundiflora (Ortega) Lag. ex DC.	Fabaceae	Medium - sized shrubs or trees	Sep Mar.	Tropical Asia ¹⁰ to N. Australia ³ .	NA
135	Bauhinia malabaricaRoxb.	Fabaceae	Medium - sized trees	Sep Mar.	Indian Subcontinent ⁶ to MyanMar ² .	LC
136	Bauhinia purpurea L.	Fabaceae	Small trees	Apr Mar.	Indian Subcontinent ⁶ to China (Yunnan) and Indo- China².	LC
137	Bauhinia racemosa Lam.	Fabaceae	Medium - sized trees	Sep Feb.	Indian Subcontinent ⁶ .	NA
138	Phanera roxburghiana (Voigt) Bandyop., Anand KuMar. &Chakrab.	Fabaceae	Shrubs or trees	Aug Feb.	Africa to Arabian Peninsula ¹ , Sri Lanka².	LC

139	Bauhinia tomentosa L.	Fabaceae	Small to medium - sized trees	Sep Apr.	Indian Subcontinent ⁶ to China (S. Yunnan)².	LC
140	Bauhinia variegata L.	Fabaceae	Large Shrubs or small trees	Mar Sep.	Mexico ⁶ to Venezuela, Caribbean ⁸ .	NA
141	Caesalpinia coriaria (Jacq.) Willd.	Fabaceae	Shrubs or small Trees	Sep Mar.	SE. Mexico to Central America ⁶ .	LC
142	Caesalpinia pulcherrima (L.) Sw.	Fabaceae	Shrubs or small Trees	Jul Jan.	Indian Subcontinent ⁶ to Indo-China ² .	NA
143	Caesalpinia sappan L.	Fabaceae	Trees	Apr Jun.	Indian Subcontinent ⁶ to MyanMar².	LC
144	Cassia fistula L.	Fabaceae	Trees	May Jun.	Assam to S. China ² and Papuasia ³ .	LC
145	Cassia javanica L.	Fabaceae	Trees	May Jun.	MyanMar ² .	LC
146	Cassia javanica subsp. renigera(Wall. ex Benth.) K.Larsen	Fabaceae	Small trees	Apr Next year Apr.	India, Sri Lanka².	NA
147	Cassia roxburghiiDC.	Fabaceae	Trees	Dec Feb.	Sudan to Tanzania ¹ , S. Arabian Peninsula ² .	LC
148	Delonixelata(L.) Gamble	Fabaceae	Trees	Apr Aug.	N. & W. Madagascar ¹ .	LC
149	Delonix regia(Bojer ex Hook.) Raf.	Fabaceae	Trees	Oct Apr.	India to Bangladesh ² .	LC
150	HardwickiabinataRoxb.	Fabaceae	Shrubs or small Trees	Mar Jun.	Mexico ⁶ to N. Argentina, Caribbean ⁸ .	LC
151	Parkinsonia aculeata L.	Fabaceae	Trees	Apr Feb.	Indo-China² to N. Australia³.	LC
152	Peltophorum pterocarpum (DC.) Backer ex K.Heyne	Fabaceae	Trees	Mar Jul.	E. Pakistan to MyanMar. and Sri Lanka².	VU
153	Saracaasoca(Roxb.) W.J.de Wilde	Fabaceae	Shrubs or small Trees	Jul May.	Indian Subcontinent ⁶ to MyanMar².	LC
154	Senna auriculata (L.) Roxb.	Fabaceae	Shrubs or small Trees	Throughout the year	Ethiopia to S. Tropical Africa ¹ .	LC
155	<i>Senna didymobotrya</i> (Fresen.) H.S.Irwin & Barneby	Fabaceae	Trees	Oct Jan.	Mexico ⁶ to S. Tropical America ⁸ .	LC
156	<i>Senna multijuga</i> (Rich.) H.S.Irwin& Barneby	Fabaceae	Medium - sized trees ,	Throughout the year	Sri Lanka, Indo-China².	LC
157	<i>Senna siamea</i> (Lam.) H.S.Irwin & Barneby	Fabaceae	Shrubs or small Trees	Most part of the year	Indian Subcontinent6 to MyanMar².	LC
158	<i>Senna surattensis</i> (Burm.f.) H.S.Irwin& Barneby	Fabaceae	Trees	May Mar.	Comoros, Madagascar ¹ .	NA
159	Tamarindus indica.	Fabaceae	Trees	Aug Jan.	SE. Maluku to New Guinea ² and N. Australia ³ .	LC
160	<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	Mimosaceae	Medium - sized trees,	Jun Apr.	Indian Subcontinent ⁶ to China (Yunnan)².	NA
161	Acacia catechu (L.f.) Willd.	Mimosaceae	Trees	Aug Apr.	India to MyanMar, Sri Lanka².	NA
162	<i>Acacia chundra</i> (Roxb. ex Rottler) Willd.	Mimosaceae	Tall shrubs or small trees	Mar May.	Oman, Iran to MyanMar ^{2.}	NA
163	Acacia eburnea (L.f.) Willd.	Mimosaceae	Tall shrubs or small trees	Nov Mar.	Tropical & Subtropical America ⁸ .	NA
164	Acacia farnesiana(L.) Willd.	Mimosaceae	Medium - sized trees,	Mar Jan.	India, Sri Lanka, MyanMar².	NA
165	Acacia ferruginea DC.	Mimosaceae	Medium - sized trees,	Apr Jan.	Himalaya to India².	NA
166	<i>Acacia lenticularis</i> BuchHam. ex Benth.	Mimosaceae	Medium - sized trees,	Aug Mar.	Indian Subcontinent ⁶ , Indo- China, Jawa, Lesser Sunda Islands ² .	NA
167	Acacia leucophloea (Roxb.) Willd.	Fabaceae	Trees	Aug Mar.	E. & SE. Australia ³ .	NA
168	Acacia melanoxylon R.Br.	Mimosaceae	Medium - sized trees,	Mar Dec.	E. Afghanistan to N. India².	NA
169	Acacia modesta Wall.	Mimosaceae	Trees	May Apr.	Africa ¹ , Arabian Peninsula, Indian Subcontinent ⁶ to Myanmar ² .	NA
170	Acacia nilotica (L.) Willd. ex Delile	Mimosaceae	Small trees	Dec May.	Oman, Iran to Myanmar ² .	NA
171	<i>Acacia pseudoeburnea</i> J.R.Drumm. ex Dunn	Mimosaceae	Small trees	Jul Jan.	Tropical & S. Africa ¹ to India ² .	NA
172	Acacia senegal (L.) Willd.	Mimosaceae	Small or medium -	Apr Jun.	Sahara to Eritrea and	NA

			sized trees		Zambia ¹ , Arabian Peninsula².	
173	Acacia seyalDelile	Mimosaceae	Small trees	Nov Apr.	India to Indo-China, Jawa to Sulawesi².	NA
174	Acacia tomentosa (Rottler) Willd.	Fabaceae	Large trees	Mar Jun.	Tropical Asia ¹⁰ to N. Australia ³ .	LC
175	Adenantherapavonina L.	Fabaceae	Large trees	Apr Jul.	S. China ² to Tropical Asia ¹⁰ .	LC
176	Albizia chinensis (Osbeck) Merr.	Fabaceae	Large Shrubs or medium - sized trees	Apr Jun.	E. Transcaucasus ^{2,5} to Japan ² .	NA
177	Albizia Jul.ibrissinDurazz.	Fabaceae	Large trees	Apr Next year Apr.	Indian Subcontinent ⁶ to MyanMar ² .	LC
178	Albizia lebbeck (L.) Benth.	Fabaceae	Small to large trees	Apr Sep.	Nepal to Indo-China ² .	LC
179	<i>Albizia lucidior</i> (Steud.) I.C.Nielson ex H.Hara	Fabaceae	Trees	Apr Mar.	Indian Subcontinent ⁶ to S. China and Indo-China ² .	LC
180	Albizia odoratissima(L.f.) Benth.	Fabaceae	Trees	Aug Apr.	Tropical & Subtropical Asia ^{10,2} to Queensland ³ .	LC
181	Albizia procera (Roxb.) Benth.	Fabaceae	Large trees	Jan Jun.	E. India².	NT
182	Albizia thompsonii Brandis	Fabaceae	Shrubs or small Trees	Feb Jun.	Bolivia ⁸ .	LC
183	Calliandra haematocephalaHassk.	Fabaceae	Trees	Jun Oct.	Indian Subcontinent ⁶ , Indo - china, Jawa, Lesser Sunda Islands².	NA
184	Calliandra inermis (L.) Druce	Fabaceae	Shrubs or small Trees	Aug Feb.	Africa ¹ , Arabian Peninsula, India, Sri Lanka, MyanMar Malesia ² to N. Australia ³ .	LC
185	Dichrostachys cinerea (L.) Wight & Arn.	Fabaceae	Medium - sized trees ,	Apr Jun.	W. & Central Himalaya to N. India (N. Uttar Pradesh) ² .	NA
186	Indopiptadeniaoudhensis(Brandis) Brenan	Fabaceae	Shrubs or small Trees	Aug Apr.	S. Mexico to Belize, Florida to Cuba ⁶ .	NA
187	Leucaena latisiliqua (L.) Gillis	Fabaceae	Trees	Mar Aug.	Bangladesh to MyanMar ² .	DD
188	Parkia biglandulosa Wight & Arn.	Fabaceae	Trees	Sep May.	Tropical Asia ¹⁰ .	LC
189	Parkia timoriana(DC.) Merr.	Fabaceae	Trees	Jan May.	Mexico ⁶ to Guyana and Peru ⁸ .	LC
190	Pithecellobium dulce (Roxb.) Benth.	Fabaceae	Medium - sized trees ,	Dec Jun.	Arabian Peninsula, SW. & S. Iran to India².	NA
191	Prosopis cineraria (L.) Druce	Fabaceae	Medium - sized trees ,	Apr Jun.	Central & S. U.S.A. to Mexico ⁶ .	NA
192	Prosopis glandulosaTorr.	Fabaceae	Tall shrubs or small trees	Apr Jan.	Mexico ⁶ to Venezuela, Peru, Caribbean ⁸ .	NA
193	Prosopis Juliflora (Sw.) DC.	Fabaceae	Trees	Mar Jun.	Central America ⁶ to Venezuela and Ecuador ⁸ .	LC
194	Samanea saman (Jacq.) Merr.	Rosaceae	Shrubs or small Trees	Feb Jul.	cultigen from Transcaucasus ^{2,5,2} .	NA
195	Prunus amygdalusBatsch	Rosaceae	Shrubs or Trees	Mar Sep.	Transcaucasus ^{2,5,2} to N. Iran ² .	DD
196	Prunus domestica L.	Rosaceae	Shrubs or small Trees	Jan Jun.	cultigen from N. Central China4.	NA
197	Prunus persica (L.) Batsch	Rosaceae	Trees	Apr Jul.	Europe ^{2,5} to N. Iraq ² .	DD
198	Pyrus communis L.	Rosaceae	Trees	Jun Sep.	Iran to S. Central China and Indo-China².	LC
199	Pyrus pashiaBuchHam. ex D.Don	Rosaceae	Trees	Apr Sep.	S. China to Indo-China ² .	NA
200	Pyrus pyrifolia (Burm.f.) Nakai	Rhizophoraceae	Trees	Dec Apr.	Madagascar ¹ , India to Central China ² and Solomon Islands N. Western Australia to E. Queensland ³ .	NA
201	Caralliabrachiata (Lour.) Merr.	Combretaceae	Trees	Jan Apr.	India to China (Yunnan) and Indo-China ² .	NA
202	Anogeissus acuminata (Roxb. ex DC.) Wall. ex Guill. & Perr.	Combretaceae	Trees	May Dec.	Indian Subcontinent ⁶ .	NA
203	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill. & Perr.	Combretaceae	Trees	Apr Aug.	India to China².	NA
204	AnogeissuspendulaEdgew.	Combretaceae	Trees	Jan May.	NW. & Central India ² .	NA
					Indian Subcontinent ⁶ to	

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206	<i>Terminalia alata</i> B.Heyne ex Roth	Combretaceae	Trees	Apr Dec.	Indian Subcontinent ⁶ to Myanmar².	NA
207	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Combretaceae	Trees	Apr Feb.	Indian Subcontinent ⁶ to China (S. Yunnan) and Malesia ² .	LC
208	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Trees	Nov Oct. (of the next year).	Comoros ¹ , Madagascar, Tropical & Subtropical Asia ^{10,2} to Pacific ⁸ , N. Australia ³ .	LC
209	Terminalia catappa L.	Combretaceae	Trees	Mar Dec.	Indian Subcontinent ⁶ to China (W. Yunnan) and Indo-China ² .	LC
210	Terminalia chebula Retz.	Myrtaceae	Trees	Aug Nov.	Queensland to NE. New SouthWales ³ .	LC
211	<i>Corymbia citriodora</i> (Hook.) K.D.Hill&L.A.S.Johnson	Myrtaceae	Trees	Oct Mar.	Australia ³ .	NT
212	Eucalyptus camaldulensisDehnh.	Myrtaceae	Trees	Sep Dec.	SE. Queensland to E. Victoria³.	NT
213	Eucalyptus paniculata Sm.	Myrtaceae	Trees	Sep Nov.	SE. Queensland to E. New South Wales ³ .	ΝΤ
214	Eucalyptus robusta Sm.	Myrtaceae	Trees	Sep Mar.	E. Australia ³ .	LC
215	Eucalyptus saligna Sm.	Myrtaceae	Trees	Jul Mar.	S. Tropical America ⁸ .	NA
216	Psidium guajava L.	Myrtaceae	Trees	Mar Aug.	Tropical ¹⁰ & Subtropical Asia ² to N. Queensland ³ .	LC
217	Syzygiumcumini (L.) Skeels	Myrtaceae	Trees	Mar Jul.	Uttarakhand to India ² .	NA
218	<i>Syzygiumheyneanum</i> (Duthie) Gamble	Myrtaceae	Trees	Mar Aug.	China (S. Yunnan) and W. Malesia².	LC
219	Syzygiumjambos(L.) Alston	Myrtaceae	Trees	Mar Jul.	Tropical & Subtropical Asia ^{10,2} to N. Australia ³ .	LC
220	Syzygium nervosum DC.	Lecythidaceae	Trees	May Jan.	Afghanistan² to N. Australia³.	LC
221	<i>Barringtonia acutangula</i> (L.) Gaertn.	Lecythidaceae	Trees	Apr Oct.	Afghanistan to NW. Peninsula Malaysia².	NA
222	CareyaarboreaRoxb.	Lythraceae	Trees	Apr Oct.	Indian Subcontinent ⁶ to Myanmar ² .	LC
223	Lagerstroemia parvifloraRoxb.	Lythraceae	Trees	Apr Dec.	China ² (Yunnan) to Tropical Asia ¹⁰ .	LC
224	Lagerstroemia speciosa (L.) Pers.	Lythraceae	Shrubs or small Trees	Dec May.	E. Tanzania, Comoros, Madagascar ¹ , Tropical & Subtropical Asia ^{10,2} .	LC
225	Woodfordiafruticosa(L.) Kurz	Punicaceae	Trees	In most parts of the year.	NE. Türkiye to W. & N. Pakistan².	LC
226	Punica granatum L.	Caricaceae	Trees	In most parts of the year.	S. Mexico ⁶ to Venezuela ⁸ .	DD
227	Carica papaya L.	Araliaceae	Small - soft wooded trees	Jun Dec.	Indian Subcontinent ⁶ to S. China and Indo-China ² .	LC
228	Heteropanaxfragrans (Roxb.) seem.	Alangiaceae	Small trees	Mar Jun.	E. Tropical Africa ¹ , Comoros, Indian Subcontinent ⁶	LC
229	Alangiumsalviifolium (L.f) wangerin	Rubiaceae	Shrubs or small trees	Apr Jan.	Pakistan to S. China and W. Malesia².	LC
230	Catunaregamspinosa(thunb .) Tirveng.	Rubiaceae	Shrubs or small trees	May Nov.	Nepal to Taiwan ² .	NA
231	Cephalanthus tetrandrus (Roxb.) Ridsdale &Bakh.f.	Rubiaceae	Shrubs or trees	Mar Dec.	Indian Subcontinent ⁶ to Indo-China².	NA
232	Ceriscoidesturgida (Roxb.) Tirveng.	Rubiaceae	Trees	Mar. - Jun.	India to Bangladesh ² .	LC
233	Gardenia latifolia Aiton	Rubiaceae	Trees	Jul Apr.	Indian Subcontinent ⁶ to China (Yunnan) and Peninsula Malaysia (Perlis) ² .	NA
234	Haldina cordifolia (Roxb.) Ridsdale.	Rubiaceae	Trees	Jun Feb.	Indian Subcontinent ⁶ to S. Central China ² and Indo- China, Philippines ¹⁰	LC
235	Hymenodictyonorixense (Roxb.) Mabb.	Rubiaceae	Shrubs or small trees	Apr Jun.	Nepal to China (Yunnan) and Indo-China².	NA
236	Hyptianthera stricta (Roxb. ex Sm.)	Rubiaceae	Shrubs or small trees	Mar Jun.	India to Bangladesh, Sri	LC

	Wight & Arn.				Lanka, Nicobar Islands ² .	
237	<i>Ixora pavetta</i> Andrews	Rubiaceae	Deciduous trees	Jun Mar.	Indian Subcontinent ⁶ to Indo-China².	LC
238	Mitragynaparvifolia (Roxb.) Korth.	Rubiaceae	Small trees	Apr Feb.	Sri Lanka, India to Indo- China, Jawa².	NA
239	Morinda pubescens Sm.	Rubiaceae	Trees	Jul Feb.	S. China ² to Tropical Asia ¹⁰ .	NA
240	<i>NeolaMarckiacadamba</i> (Roxb.) Bosser	Rubiaceae	Shrubs or small trees	Aug Jan.	Indian Subcontinent ⁶ to S. China ² (S. Yunnan) and Philippines ¹⁰ .	LC
241	Pavetta tomentosa Roxb. ex Sm.	Rubiaceae	Small trees	May Aug.	Indian Subcontinent ⁶ to Indo-China².	LC
242	Tamilnadiauliginosa (Retz.) Tirveng. & Sastre	Rubiaceae	Small trees	Mar Jul.	Indian Subcontinent ^{6.}	LC
243	<i>Wendlandiaheynei</i> (Schult.) Santapau& Merchant	Rubiaceae	Small trees(P13)	Jan Apr.	Indian Subcontinent ⁶ to S. China and Indo-China ² .	LC
244	Wendlandia tinctoria (Roxb.) DC.	Myrsinaceae	Shrubs or trees	Mar Dec.	Indian Subcontinent ⁶ to China (S. & SE. Yunnan, SW. Guangxi) and Peninsula Malaysia ² .	LC
245	Ardisia solanaceaRoxb.	Myrsinaceae	Shrubs or small trees	Jul Feb.	Indian Subcontinent ⁶ to S. Central China and Indo- China ² .	NA
246	Embeliabasaal (Roem. & Schult.) A.DC. synonym of Embeliatsjeriam- cottam	Myrsinaceae	Scandent shrubs or small trees	Jul Feb.	Indian Subcontinent ⁶ to S. Central China and Indo- China².	NA
247	<i>Embeliatsjeriam-cottam</i> (Roem. & Schult.) A.DC.	Primulaceae	Shrubs or small trees	Mar Jun.	Mexico & West Indies ⁶ .	NA
248	Jacquinia ruscifolia Sessé& Moc	Sapotaceae	Trees	Nov Aug.	Uttarakhand to Assam², SE. Tibet, Andaman Islands⁴.	NA
249	<i>Diploknema butyracea</i> (Roxb.) H.J.Lam	Sapotaceae	Trees	Mar Aug.	Indian Subcontinent ⁶ .	NA
250	Madhuca longifolia (L.) J.F.Macbr.	Sapotaceae	Trees	Nov May.	India to China (S. Guangxi) and Peninsula Malaysia (Johor)².	LC
251	Manilkara hexandra (Roxb.) Dubard	Sapotaceae	Trees	Nov Apr.	Mexico ⁶ to Colombia ⁸ .	LC
252	Manilkara zapota (L.) P.Royen	Sapotaceae	Trees	Mar Sep.	S.India ² to vanuatu ³ .	LC
253	MimusopselengiL.	Ebenaceae	Trees	May Aug.	Central & S. India to Bangladesh².	NA
254	Diospyros chloroxylonRoxb.	Ebenaceae	Trees	May Jan.	Nepal².	NA
255	Diospyros holeanaB.L.Gupta&P.C.Kanjilal	Ebenaceae	Trees	Jun Jan.	Tropical Asia ¹⁰ .	NA
256	Diospyros malabarica (Desr.) Kostel.	Ebenaceae	Trees	Apr Oct.	S. India, Sri Lanka, Andaman & Nicobar Islands².	NA
257	Diospyros melanoxylon Willd.	Ebenaceae	Trees	Mar Oct.	Tropical Asia ¹⁰ .	NA
258	Diospyros montanaRoxb.	Ebenaceae	Trees like firs	Mar Sep.	Bangladesh ² .	NA
259	Diospyros strictaRoxb.	Ebenaceae	Trees	Apr Jun.	S. India, Sri Lanka².	NA
260	Diospyros sylvaticaRoxb.	Symplocaceae	Shrubs or trees	Feb Jun.	Nepal to S. China and Indo- China ² .	LC
261	SymplocosracemosaRoxb.	Oleaceae	Trees	Feb May.	Tropical & Subtropical Asia ^{10,2} to N. Queensland ³ .	LC
262	ChionanthusramiflorusRoxb.	Oleaceae	Shrubs or small trees	Apr Jun.	N. Central India ² .	DD
263	Jasminum brevipetiolatum Duthie	Oleaceae	Trees	Aug Mar.	Himalaya to Indo-China, Sumatera to Jawa².	LC
264	Nyctanthes arbor-tristis L.	Oleaceae	Trees	Mar May.	Indian Subcontinent ⁶ to China (Yunnan) ² and SW. Pacific ³ .	LC
265	Olea paniculata R.Br.	Oleaceae	Trees	Apr Dec.	Indo-China ² .	LC
266	SchreberaswietenioidesRoxb.	Salvadoraceae	Shrubs or small trees	Mar. - Jun.	W. Yemen, S. Iran to India ² .	DD
267	Salvadora oleoides Dec.ne.	Salvadoraceae	Trees	Dec Apr.	Africa ¹ to Syria and Arabian Peninsula ² .	LC
268	Salvadora persica L.	Apocynaceae	Trees	Nov Jun.	Tropical ¹⁰ & Subtropical Asia ² to N. Australia ³ .	LC
269	Alstoniascholaris (L.) R.Br.	Apocynaceae	Trees	May Dec.	Kenya to S. Africa ¹ , Indian Subcontinent ⁶ to Indo- China ² .	LC

			_		Indian Subcontinent ⁶ to S.	
270	<i>Holarrhena pubescens</i> Wall. ex G.Don	Apocynaceae	Trees	Apr Apr.	China and Peninsula Malaysia².	LC
271	<i>Wrightia arborea</i> (Dennst.) Mabb.	Apocynaceae	Trees (268)	Apr Feb.	India to Myanmar ² .	LC
272	Wrightia tinctoria (Roxb.) R.Br.	Asclepiadaceae	Shrubs or small trees	Throughout the year	Macaronesia ³ , N. & Tropical Africa ¹ to Indo-China ² .	LC
273	Calotropis procera (Aiton) W.T.Aiton	Loganiaceae	Deciduous tree	Mar Jan.	India to N. Peninsula Malaysia².	LC
274	Strychnos nux-vomica L.	Loganiaceae	Shrubs or small trees	Apr Jul.	Rwanda to Limpopo, Madagascar ¹ , India to Myanmar, Sri Lanka².	NA
275	Strychnos potatorumL.f.	Boraginaceae	Deciduous trees	Mar Jun.	Indian Subcontinent ⁶ to Nansei – shoto ² and SW. Pacific ³ .	LC
276	Cordia dichotomaG.Forst.	Boraginaceae	Medium sized trees	Mar May.	Uttarakhand to N. & Central India².	NA
277	<i>Cordia macleodii</i> (Griff.) Hook.f. & Thomson	Boraginaceae	Small trees	Apr Dec.	Africa ¹ to Indian Subcontinent ⁶ .	LC
278	Cordia sinensis Lam.	Boraginaceae	Deciduous trees	Mar Oct.	NE. Pakistan to W. Himalaya and NW. India².	DD
279	Cordia vestita (A.DC.) Hook.f. & Thomson	Boraginaceae	Medium sized Deciduous trees	Feb May.	Tropical & Subtropical Asia ^{10,2} to E. Australia ³ .	LC
280	Ehretia acuminata R.Br.	Boraginaceae	Small trees	Jan May.	-	NA
281	EhretialaevisRoxb.	Solanaceae	Shrubs or small trees	Feb Sep.	Tropical ⁶ & Subtropical America ⁸ .	LC
282	<i>Solanum erianthum</i> D.Don	Bignoniaceae	Small trees	JunOct. (Fruitsmature up to Jan.)	Mexico to Central America ⁶ .	LC
283	Crescentia alata Kunth	Bignoniaceae	Small trees	May Jul.	Mexico ⁶ to Venezuela, Caribbean ⁸ .	LC
284	Crescentia cujete L.	Bignoniaceae	Medium sized Deciduous trees	Mar Feb.	India to Bangladesh².	LC
285	Dolichandrone falcata (Wall. ex DC.) Seem.	Bignoniaceae	Trees	Aug Feb.	E. Central India to Assam and Peninsula Malaysia ² .	LC
286	<i>Fernandoaadenophylla</i> (Wall. ex G.Don) Steenis	Bignoniaceae	Trees	Dec May.	Central Mexico ⁶ to S. Tropical America ⁸ .	NT
287	Handroanthusimpetiginosus (Mar.t. ex DC.) Mattos	Bignoniaceae	Small to medium sized Deciduous trees	Apr Dec.	Bolivia to NW Argentina ⁸ .	VU
288	Jacaranda mimosifoliaD.Don.	Bignoniaceae	Medium sized spreading trees	Apr Nov.	Tropical & S. Africa ¹ .	LC
289	Kigeliaafricana (Lam.) Benth.	Bignoniaceae	Trees	Oct Dec.	S. Central China to Malesia².	LC
290	MillingtoniahortensisL.f.	Bignoniaceae	Trees	Jun Mar.	S. China ² to Tropical Asia ¹⁰ .	LC
291	Oroxylum indicum (L.) Kurz	Bignoniaceae	Shrubs or small trees	Jul Mar.	Panama ⁶ .	LC
292	Parmentieracereifera Seem.	Bignoniaceae	Trees	Jan May.	S. Mexico ⁶ to S. Venezuela ⁸ .	LC
293	<i>Roseodendron donnell-smithii</i> (Rose) Miranda	Bignoniaceae	Trees	Feb Jun.	W. Tropical Africa to Uganda and Angola¹.	LC
294	SpathodeacampanulataP.Beauv.	Bignoniaceae	Trees	Apr Jan.	Indian Subcontinent ⁶ to Indo-China².	LC
295	Stereospermumchelonoides (L.f.) DC.	Bignoniaceae	Trees	Mar Aug.	Indian Subcontinent ⁶ to Indo-China ² .	NA
296	Stereospermum suaveolens (Roxb.) DC.	Bignoniaceae	Trees	Dec Mar.	Mexico ⁶ to Ecuador ⁸ .	LC
297	Tabebuia rosea (Bertol.) DC.	Bignoniaceae	Shrubs or small trees	Oct May.	W. Ecuador ⁸ .	LC
298	Tecoma castanifolia (D.Don) Melch.	Bignoniaceae	Evergreen shrubs or small trees	Apr Dec. (twice in a year)	Tropical [®] & Subtropical America ⁶ .	LC
299	Tecoma stans (L.) Juss. ex Kunth	Bignoniaceae	Trees	Jan Apr.	Oman, SW. Iran to NW. India².	EN
300	Tecomella undulata (Sm.) Seem.	Verbenaceae	Trees	Apr Sep.	S. China ² to Tropical Asia ¹⁰ .	LC
301	Callicarpa arboreaRoxb.	Verbenaceae	Small or medium- sized trees	Jul Oct.	Caribbean ⁶ , Panama to N. South America ⁸ .	LC
302	Citharexylum spinosum L.	Verbenaceae	Shrubs or small trees	Sep Feb.	Indian Subcontinent ⁶ , Jawa².	LC
303	Clerodendrum phlomidisL.f.	Verbenaceae	Trees	Feb Jun.	Pakistan to China (S.	LC

					Yunnan) and N. Indo- China².	
304	<i>Gmelina arborea</i> Roxb. ex Sm.	Verbenaceae	Shrubs or small trees	Feb Jun.	Pakistan to Myanmar ² .	LC
305	Premna barbata Wall. ex Schauer	Verbenaceae	Trees	Mar Jul.	China (S. Yunnan) ² to Tropical Asia ¹⁰ .	LC
306	Premnamollissima Roth	Verbenaceae	Trees	May Dec.	India to Indo-China ² .	EN
307	Tectona grandisL.f.	Verbenaceae	Trees	Most parts of the year	Pakistan to Peninsula Malaysia².	LC
308	Vitex leucoxylonL.f.	Verbenaceae	Shrubs or trees	Almost throughout the year	S. Somalia ¹ to Mozambique, W. Indian Ocean ² , Iran to Japan and Marianas ³ .	LC
309	Vitex negundo L	Lauraceae	Trees	Mar Jul.	Himalaya to SE. Tibet and Peninsula Malaysia ² .	LC
310	BeilschmiediaroxburghianaNees	Lauraceae	Trees	Apr Nov.	Tropical & Subtropical Asia ^{10,2} .	LC
311	Litseaglutinosa (Lour.) C.B.Rob.	Lauraceae	Trees	Apr Jul.	Indian Subcontinent ⁶ to S. China and W. Malesia ² .	LC
312	Litseamonopetala (Roxb.) Pers.	Lauraceae	Shrubs or trees	Apr Jul.	Nepal to S. China and Indo- China².	LC
313	<i>Litsea salicifolia</i> (Roxb. ex Nees) Hook.f.	Lauraceae	Trees	Feb Sep.	E. Bolivia to Brazil and NE. Argentina ⁸ .	LC
314	<i>Ocotea lancifolia</i> (Schott) Mez	Proteaceae	Trees	Mar Apr.	SE. Queensland to NE. New South Wales ³ .	LC
315	<i>Grevillea robusta</i> A.Cunn. ex R.Br.	Santalaceae	Small evergreen Trees	Feb Jul.	Jawa ² to N. Australia ³ .	VU
316	Santalum album L.	Euphorbiaceae	Trees	Jul Oct.	Indian Subcontinent ⁶ to S. Central China and Indo- China, Jawa².	LC
317	Antidesmaacidum Retz.	Euphorbiaceae	Small trees	Apr Aug.	Tropical & Subtropical Asia ^{10,2} .	LC
318	Antidesmabunius (L.) Spreng.	Euphorbiaceae	Trees	Jul Oct.	Tropical & Subtropical Asia ^{10,2} to N. Australia ³ .	LC
319	AntidesmaghaesembillaGaertn.	Euphorbiaceae	Small Trees	Sep Oct.	Tropical & Subtropical Asia ^{10,2} to N. Queensland ³ .	LC
320	Antidesmamontanum Blume	Euphorbiaceae	Small trees	Oct Jan.	S. China ² to Tropical Asia ¹⁰ and Queensland ³ .	LC
321	<i>Aporosa Octandra</i> (BuchHam. ex D.Don) Vickery	Euphorbiaceae	Trees	Feb Apr.	Tropical & Subtropical Asia ^{10,2} to Pacific ⁸ .	LC
322	<i>Bischofia javanica</i> Blume	Euphorbiaceae	Shrubs or small trees	Apr Nov.	Indian Subcontinent ⁶ to S. China and Sumatera ² .	LC
323	Breynia vitis-idaea (Burm.f.) C.E.C.Fisch.	Euphorbiaceae	Trees	Aug Feb.	Indian Subcontinent ⁶ to S. China and W. Malesia ² .	LC
324	Bridelia retusa (L.) A.Juss.	Euphorbiaceae	Shrubs or small trees	Nov Feb.	Tropical & Subtropical Asia ^{10,2} to N. Australia ³ .	LC
325	<i>Bridelia tomentosa</i> Blume	Euphorbiaceae	Small trees with short trunk	Oct Feb.	Himalaya to NE. India².	DD
326	Bridelia verrucosa Haines	Euphorbiaceae	Shrubs or small trees	Jun Dec.	Indian Subcontinent ⁶	VU
327	<i>Cleistanthuscollinus</i> (Roxb.) Benth. ex Hook.f.	Euphorbiaceae	Trees	Mar Jan.	Indian Subcontinent ⁶ to China (S. Yunnan) and Indo-China².	LC
328	Croton persimilisMüll.Arg.	Euphorbiaceae	Shrubs or small trees	Jul Nov.	Tropical & Subtropical Asia ^{10,2} .	LC
329	Croton tiglium L.	Euphorbiaceae	Small trees	Mar Oct.	Sikkim to Indo-China ² .	NA
330	Drypetesassamica (Hook.f.) Pax &K.Hoffm.	Euphorbiaceae	Shrubs or small trees	Nov Jan.	Pakistan to Indo-China and Jawa².	LC
331	Euphorbia antiquorum L.	Euphorbiaceae	Shrubs or small trees	Sep Nov.	Indo-China to Lesser Sunda Islands².	LC
332	<i>Euphorbia lacei</i> Craib	Euphorbiaceae	Shrubs or small trees	Oct Dec.	Iran to Myanmar ² .	LC
333	Euphorbia neriifolia L.	Euphorbiaceae	Shrubs or small trees	Mar Jul.	Indian Subcontinent ⁶ to MyanMar².	LC
334	Euphorbia nivuliaBuchHam.	Euphorbiaceae	Shrubs or small trees	Aug Oct.	Madagascar ³ .	LC
335	Euphorbia tirucalli L.	Euphorbiaceae	Trees	Jan Mar.	S. India to China (Sichuan, Yunnan) and Peninsula Malaysia, Hainan².	NA
336	Falconeria insignis Royle	Euphorbiaceae	Shrubs or trees	Sep Jan.	Indian Subcontinent ⁶ to Taiwan².	LC

337	Glochidionellipticum Wight	Euphorbiaceae	Trees	Apr Jul.	Pakistan to China (Yunnan) and Indo-China².	LC
338	<i>Glochidionheyneanum</i> (Wight & Arn.) Wight	Euphorbiaceae	Small trees	Jan Sep.	Indian Subcontinent ⁶ to S. China and Indo-China ² .	NA
339	Glochidionlanceolarium (Roxb.) Voigt	Euphorbiaceae	Small trees	Mar Dec.	S. China ² to Tropical Asia ¹⁰ .	LC
340	Macaranga denticulata (Blume) Müll.Arg.	Euphorbiaceae	Trees	Aug Dec.	Indian Subcontinent ⁶ to S. China and Sumatera ² .	LC
341	Macaranga indica Wight	Euphorbiaceae	Small trees	Oct Apr.	Tropical & Subtropical Asia ^{10,2} to N. & E. Australia ³ .	LC
342	<i>Mallotus philippensis</i> (Lam.) Müll.Arg.	Euphorbiaceae	Small trees	Sep Apr.	Brazil (Pará) ⁸ .	NA
343	Phyllanthus acidus (L.) Skeels	Euphorbiaceae	Trees	Mar Dec.	Tropical & Subtropical Asia ^{10,2} .	LC
344	Phyllanthus emblica L.	Euphorbiaceae	Trees	Mar next year Jun.	Tropical Asia ¹⁰ .	LC
345	Putranjivaroxburghii Wall.	Euphorbiaceae	Shrubs or small trees	Almost throughout the year	NE. Tropical Africa ¹ .	NA
346	Ricinus communis L.	Euphorbiaceae	Trees	Feb Nov.	Indian Subcontinent ⁶ to China (S. Yunnan, SE. Guangxi) ² and Philippines ¹⁰ .	LC
347	<i>Mallotus nudiflorus</i> (L.) Kulju &Welzen	Euphorbiaceae	Trees	May Dec.	N. India to S. China and W. & Central Malesia ² .	NA
348	Triadicacochinchinensis Lour.	Euphorbiaceae	Trees	Jun Dec.	Central & S. China to Vietnam and Temp. E. Asia².	LC
349	Triadicasebifera (L.) Small	Urticaceae	Shrubs or small trees	Jul Nov.	China to Tropical Asia and Vanuatu².	LC
350	Debregeasia longifolia (Burm.f.) Wedd.	Urticaceae	Shrubs or small trees	Mar May.	Pakistan to Temp. E. Asia and Peninsula Malaysia².	LC
351	Oreocnide frutescens (Thunb.) Miq.	Ulmaceae	Trees	Feb May.	Medit. ^{2,5} to N. Iran ² .	LC
352	Celtis australis L.	Ulmaceae	Trees	Jan Mar.	N. Pakistan to S. China and W. Malesia².	LC
353	Celtis tetrandraRoxb.	Ulmaceae	Trees	Jan Apr.	Indian Subcontinent ⁶ to Indo-China, E. Borneo².	LC
354	<i>Holoptelea integrifolia</i> (Roxb.) Planch.	Cannabaceae	Small evergreen Trees	Sep. – Nov.	Indian Subcontinent ⁶ to Indo-China².	NA
355	Trema orientale (L.) Blume	Cannabaceae	Small trees	Mar Sep.	Indian Subcontinent ⁶ to Indo-China².	LC
356	Trema politoria (Planch.) Blume	Moraceae	Trees	Nov Jun.	SW. India ² .	NA
357	Artocarpus heterophyllus Lam.	Moraceae	Trees	Mar Jun.	N. & E. India to S. Central China and Indo-China².	NA
358	Artocarpus lacuchaBuchHam.	Moraceae	Trees	May Jul.	India to Korea and Indo- China².	LC
359	<i>Broussonetia papyrifera</i> (L.) L'Hér. ex Vent.	Moraceae	Small trees	Feb May.	Indian Subcontinent ⁶ , Andaman Islands, Thailand².	NA
360	Ficus arnottiana (Miq.) Miq.	Moraceae	Trees	Throughout the year	Indian Subcontinent ⁶ , Andaman Islands².	NA
361	Ficus benghalensis L.	Moraceae	Small trees	Feb Oct.	E. Medit. ^{2,5} to Central Asia and Afghanistan².	LC
362	Ficus carica L.	Moraceae	Shrubs or small trees	Feb Aug.	India (Madhya Pradesh, Uttar Pradesh)².	EN
363	<i>Ficus cupulata</i> Haines	Moraceae	Shrubs or small trees	Feb Jun.	S. China ² to Tropical Asia ¹⁰ and N. Australia ³ .	LC
364	Ficus hispidaL.f.	Moraceae	Trees	Feb Sep.	Tropical & Subtropical Asia ^{10,2} to W. Pacific ⁸ .	LC
365	Ficus microcarpaL.f.	Moraceae	Trees	Apr Jun.	India to Bangladesh, Sri Lanka².	LC
366	Ficus mollis Vahl	Moraceae	Small trees	May Sep.	SE. Egypt to NE. Tropical Africa ¹ and Arabian Peninsula ² .	LC

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367	Ficus palmata Forssk.	Moraceae	Trees	Feb Oct.	Pakistan² to N. Queensland³.	LC
368	Ficus racemosa L.	Moraceae	Long trees	Apr Sep.	SE. Pakistan to MyanMar ² .	LC
369	Ficus religiosa L.	Moraceae	Deciduous trees	Mar Jun.	China (W. Yunnan) ² to Tropical Asia ¹⁰ .	NA
370	Ficus rumphiiBlume	Moraceae	Small trees	Throughout the year	NE. Pakistan to S. China and Peninsula Malaysia².	LC
371	Ficus semicordataBuchHam. ex Sm.	Moraceae	Large trees	Apr Jan.	Tropical & Subtropical Asia ^{10,2} to Caroline Islands ³ .	LC
372	<i>Ficus virens</i> Aiton	Moraceae	Small trees	Feb Jun.	Iran ² to Kuril Islands and W. Malesia ⁶ , N. & Central America, W. South America ⁸ .	LC
373	Morus L.	Moraceae	Shrubs or trees	Jan Jun.	India to Korea and Indo- China².	LC
374	<i>Broussonetia papyrifera</i> (L.) L'Hér. ex Vent.	Moraceae	Medium sized trees	Mar May.	Himalaya to China (S. Yunnan) and Indo-China, Sumatera to Jawa².	LC
375	Morus macrouraMiq.	Moraceae	Small trees	Apr Aug.	S. China ² to Tropical Asia ¹⁰ .	LC
376	StreblusasperLour.	Casuarinaceae	Large trees	Mar Jun.	India ² to W. Pacific ⁸ .	LC
377	Casuarina equisetifolia L.	Salicaceae	Large trees	Mar Jun.	Central & S. Europe ^{2,5} to Xinjiang and W. Himalaya ² .	LC
378	Populus alba L.	Salicaceae	Medium sized trees	Feb Apr.	Indian Subcontinent ⁶ to China and W. & Central Malesia ² .	LC

EN: Endangered; VU: Vulnerable; NT: Nearly Threatened; LC: Least Concern; DD: Data deficient; NA: Not available in IUCN database.

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