

Bee Floral Calendar of Dakshina Kannada and Udupi districts of Karnataka, India

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The study was directed to identifying the floristic resources for the foraging honeybees in this region and to use these data to explore ecologically based management strategies, which would enhance apicultural production particularly honey. A total of 308 plant species belonging to 97 families were identified from this region with Caesalpinaceae and Fabaceae contributing the large number of genera followed by Asteraceae, Acanthaceae, Poaceae, Mimosaceae, Euphorbiaceae, Arecaceae, Combretaceae, and Rubiaceae in that order. The timing of flowering was largely seasonal constrained, resulting in a flowering peak of more species in late winter to summer. The present paper shows information of botanical aspect such as basic data on floral source, their local name, flowering period, mode of pollination and availability of nectar and pollen.

Key-words– Bee forage plants, pollen, nectar, *Apis cerana*, *Apis dorsata*.

INTRODUCTION

KARNATAKA has been an important centre for bee-keeping in India. Swamy Shambhavananda started beekeeping in 1930 in Coorg. Suryanarayana (1966) attempted to evaluate the natural vegetation of the western high lands, foot hills and eastern plains of Coorg with emphasis on bee forage plants. Diwan and Rao (1971), Krishnaswamy (1980), Bhat *et al.* (1990) and Kuberappa *et al.* (1996) surveyed the bee flora of Castle rock region, Chikmagalore, Dharwar region and Bangalore respectively.

The Department of Science and Technology, Government of India sponsored project, was undertaken by us to study botanical and Melittopalynological investigation in coastal Karnataka to find out the source of apiculturally important plant species. As a part of these investigations we studied floral sources to *Apis cerana*, *Apis dorsata* and also *Apis mellifera* in the forest and coastal areas of Dakshina Kannada and Udupi districts.

Apiculture with *Apis cerana*, the Indian hive bee was started over seven decades ago. These bees are common in areas with diversified bee forage potential in forest, agricultural and plantation crops areas. The season for honey production depends upon the floral

preferences of bees and also the flowering periods of such preferred plant species. An important constraint for the beekeeping industry in these districts has been the scant information available on the floral sources of nectar and pollen producing plants.

Agashe and Rangaswamy (1997) analysed five samples of honey from Bangardka of erstwhile Dakshina Kannada district and revealed that 12 species belonging to different angiosperm families serve as predominant to minor sources for *Apis cerana* bees in this area. The present investigations were directed at identifying floristic resource for the foraging honeybee in this region and to use these data to explore ecologically based management strategies, which would enhance apicultural production without deleteriously affecting the conservation values of the region.

Ecogeography of the study area

The Dakshina Kannada¹ and Udupi districts are situated on the West Coast of India. Geographically, South Kanara region is separated from the rest of the South Indian peninsula by the towering heights of the Western Ghats. The length of the coastline is almost straight but broken at numerous points by rivers, rivulets, creeks and bays. The district lies between 12° 27' and 13° 58' north latitude and 74° 35' and 75° 40' east

longitude. The soil characteristic of the study area is highly variable and ranges from alluvial, red and dark to laterite types. Heavy rainfall, high humidities and oppressive weather mark the climate of this district. The main rainy season is from June to September. The average annual rainfall in the district is 3930 mm (154.73"). South Kanara is essentially forest district and flora is luxuriant and highly diversified. The slopes of the Western Ghats are clothed with dense vegetation containing valuable timber species. Cultivation is confined mainly to the plains near the coast and the bottoms of the valleys.

MATERIAL AND METHOD

A systematic field botanical survey was undertaken in Dakshina Kannada and Udupi districts with special emphasis on beekeeping field stations. Field trips were undertaken to record botanical observations on habit, flowering period and mode of pollination of plants with reference to bee forage. The plants were identified by referring Flora of Presidency of Madras (Gamble, 1979), Manual of cultivated plants (Bailey, 1948), Flora of Bangalore District (Ramaswamy & Razi 1973), Flora of Hassan District (Saldanha & Nicolson 1976), Flora of Karnataka (Saldanha, 1984), Flora of Presidency of Bombay (Cooke, 1967) and Flora of Coorg (Keshavamurthy & Yoganarasimhan 1990).

OBSERVATION AND DISCUSSION

Data collected during the investigation is presented in Table 1. The information incorporates 308 plant species, belonging to 97 families of which 132 tree forms followed by 77 shrubs, 85 herbs and 14 climbers assessed as useful sources of bee forage to Indian bee and rock bees. The species are arranged in alphabetical order (Table 1). As far as possible the correct nomenclature of the species is ascertained by reference to the latest available literature. Information is provided on botanical aspects such as basic data on floral source, followed by the local name in *Kannada*, on its flowering period and bee forage value. The value of the plant species for bee forage is indicated by N for nectar and P for pollen and depending upon the relative importance as bee forage the

figures P_1 , P_2 and P_3 and similarly N_1 , N_2 and N_3 are given to denote their minor, medium and major source. Further, these results were categorized on the basis of results obtained by palynological analysis of honey samples and pollen loads carried out as part of the research program (Agashe and Rangaswamy 1997 and Rangaswamy 2001).

The Caesalpiniaceae, Fabaceae, Asteraceae, Acanthaceae, Poaceae, Mimosaceae, Euphorbiaceae, Arecaceae, Combretaceae, and Rubiaceae contributing the largest number of species. Vegetation floristics and foliage projective covers were assessed at 16 permanent sampling sites. The timing of flowering was largely seasonal constrained, resulting in a flowering peak of more species during late winter to summer. Honey bees selected the longer flowering species and it was suggested that length of blooming period may be indicative of plant reproductive effort so that species with a longer average duration of flowering may also have the best floral resource. The figure 1 shows pollination calendar of major important honey producing plants from these districts. The beekeepers can select profusely flowering plants from this list (Figure 1) for migrations of bee colonies.

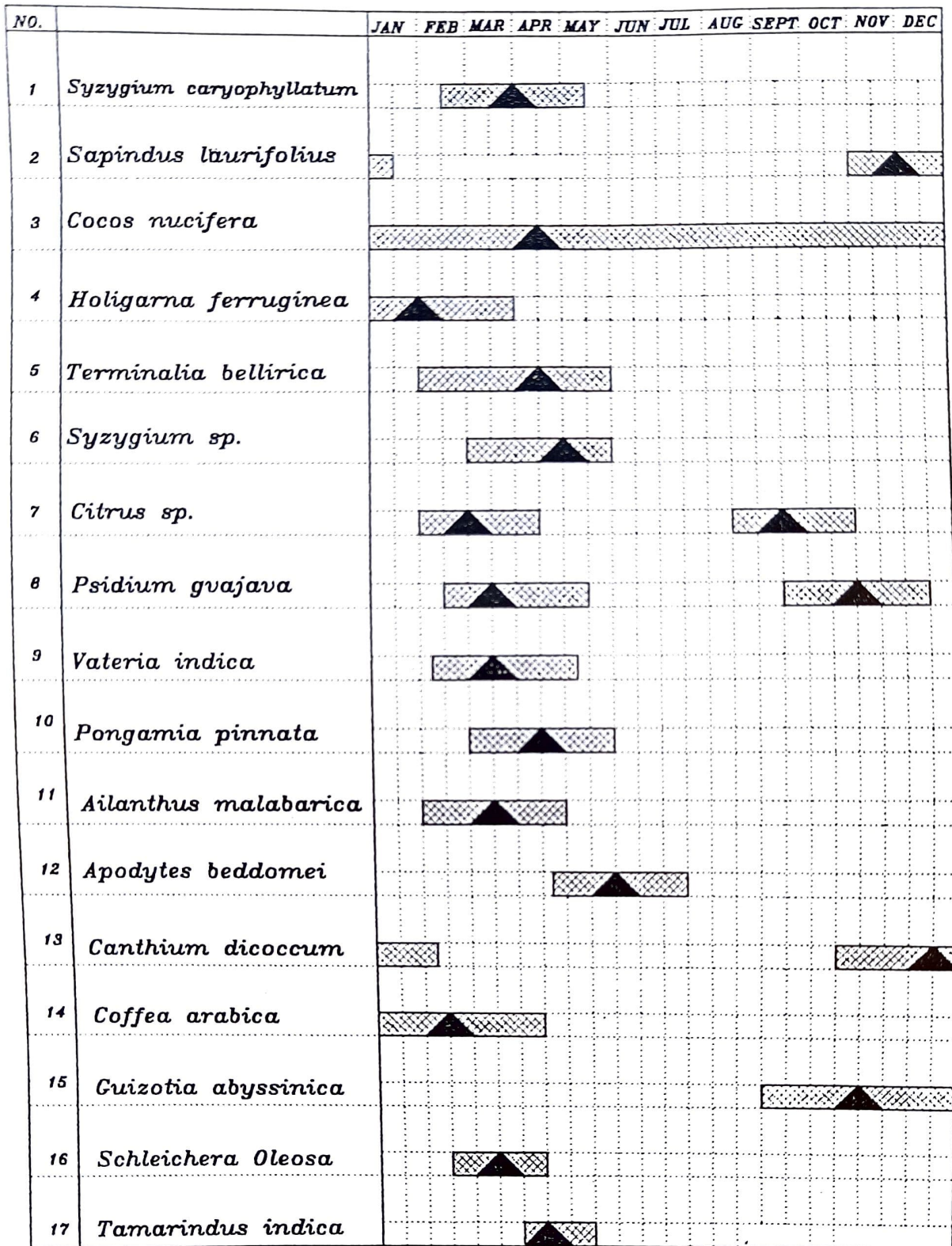
The impact of honeybee foraging on the pollination ecology of species must be considered. The conservation of these floral resources should be of major concern to the honey industry and the industry needs to consider carefully the implications of utilizing these areas for honey production.

ACKNOWLEDGEMENTS

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NOTE:

Flowering Period ——— ▨

Peak Flowering Period ——— ▴

Fig. 1. Pollination calendar of major beeforefaring plants located in Dakshina Kannada

Table 1. Bee floral calendar

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
1	<i>Abelmoschus esculentus</i> Monech.	Bende	Herb	Malvaceae	Oct-Feb	En	N ₁ P ₂
2	<i>Abutilon indicum</i> (L.) Sweet.	Sree mudre gida. Kisangi	Shrub	Malvaceae	Oct-Feb	En	N ₁ P ₂
3	<i>Acacia auriculiformis</i> A. Cunn	-	Tree	Mimosaceae	Apr-May	En	Rare visit for pollen
4	<i>Acacia catechu</i> Willd.	Kachu Kaggali	Tree	Mimosaceae	May-Oct	En	NP ₂
5	<i>Acacia ferruginea</i> DC.	Banni	Tree	Mimosaceae	Apr-May	En	NP ₁
6	<i>Acacia nilotica</i> (L.) Willd. Delile	-	Tree	Mimosaceae	May-July	En	-P ₂
7	<i>Acacia sinuata</i> Merr.	Seegekayi	Tree	Mimosaceae	Feb-May	En	N ₂ P ₃
8	<i>Acanthospermum hispidum</i> DC.	Kadlemullu geda.	Herb	Asteraceae	July-Dec	Am	-P
9	<i>Acanthus ilicifolius</i> L.	Hodechulli, Thudechulli.	Shrub	Acanthaceae	Nov-Jan	En	-P
10	<i>Achras zapota</i> L.	Sapota	Tree	Sapotaceae	Apr-Sep	En	-P
11	<i>Achyranthes aspers</i> L.	Uttharani	Herb	Amaranthaceae	Oct-Feb	En	N P ₁
12	<i>Actinodaphne angustifolia</i> Nees.	Paniyatha	Tree	Lauraceae	Dec-Feb	En	N ₂ P ₃
13	<i>Adhatoda vasica</i> . Nees	Adusogae	Shrub	Acanthaceae	Oct-Nov	En	N P
14	<i>Aegicerous corniculatus</i> Blanco.	Solae	Shrub	Myrsinaceae	Jan-Apr	En	N P
15	<i>Aegle marmelos</i> Corr.	Bilvapatre	Tree	Rutaceae	Apr-Jun	En	N ₂ P ₂
16	<i>Agave americana</i> L.	Buthale Kathale	Erected Herb	Agavaceae	Aug-Dec	En	N P
17	<i>Ageratum conyzoides</i> L.	Uralageda	Herb	Asteraceae	Jan-Dec	Am	- P ₂
18	<i>Ailanthus malabarica</i> DC.	Guggulu Dhopa	Tree	Simarubaceae	Feb-Mar	En	N ₂ P ₃
19	<i>Ailanthus triphysa</i> Alst.	Dhupa	Tree	Simarubaceae	Feb-Mar	En	N ₁ P ₂
20	<i>Albizia amara</i> Boiv.	Chigare	Tree	Mimosaceae	Mar-May	An	N P ₁
21	<i>Albizia lebbeck</i> Willd.	Bage	Tree	Mimosaceae	Mar-Apr	An	N P ₁
22	<i>Albizia procera</i> Benth.	Bage, Belati (Kallu) Salabage	Tree	Mimosaceae	Apr-Jun	An	N P ₁
23	<i>Allium cepa</i> L.	Eerulli	Herb	Liliaceae	Jan-Apr	En	N P ₂
24	<i>Alternanthera sessilis</i> R.Br.	Honagonne soppu	Herb	Amaranthaceae	Oct-Feb	En	-P
25	<i>Amaranthus hybridus</i> L.	Hannae soppu	Herb	Amaranthaceae	Aug-Apr	An	-P ₁
26	<i>Amaranthus spinosus</i> L.	Mulluharivae soppu	Herb	Amaranthaceae	Oct-Feb Aug-Jan	An	-P ₂
27	<i>Ampelocissus tomentosa</i> Planch.	-	Shrub	Vitaceae	Mar-Apr	En	N P
28	<i>Anacardium occidentale</i> L.	Godambe (Geru)	Tree	Anacardiaceae	Dec-Feb	En	N ₂ P ₁
29	<i>Ananas comosus</i> Schult.	Ananas	Erect Herb	Bromeliaceae		En	N ₁ P
30	<i>Andrographis paniculata</i> Nees	Nelabevu	Herb	Acanthaceae	Nov-Dec	En	N P

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
31	<i>Andropogon pumilus</i> Roxb.	-	Erect Herb	Poaceae	Aug-Oct	An	P
32	<i>Angelonia grandiflora</i> L.	-	Herb	Scrophulariaceae	Oct-Apr	En	N P
33	<i>Anogissus latifolia</i> Wall.	Dindega Bejjalu	Tree	Combretaceae	Jun-Jul Dec-Jan	En	N ₁ P
34	<i>Anthocephalus cadamba</i> Miq.	Cadambla	Tree	Rubiaceae	Dec-Jan	En	N ₁ P ₁
35	<i>Antigonon leptopus</i> HK & Arn.	-	Climber	Polygonaceae	Jan-Dec	En	N ₂ P ₂
36	<i>Apluda mutica</i> L.	Sannahullu	Herb	Poaceae	Sep-Dec	An	P
37	<i>Apodytes beddomei</i> mast.	Kasrimara	Tree	Icacinaceae	Mar-May	En	N ₁ P ₃
38	<i>Areca catechu</i> L.	Adike	Tree	Arecaceae	Dec-Aug	En	N ₁ P ₂
39	<i>Argemone mexicana</i> L.	Dathurada gida, Ummathi	Herb	Papaveraceae	Sep-May	En	N P
40	<i>Artemisia nilagirica</i> Pamp.	Galimaddu	Small Shrub	Asteraceae	Oct-Jan	Am	P ₂
41	<i>Artocarpus heterophyllus</i> Lamk	Halasu	Tree	Moraceae	Feb-Mar	Am	P ₁
42	<i>Artocarpus hirsutus</i> Lam.	Hebbalasu	Tree	Moraceae	Jan-Mar	En	N ₁ P ₂
43	<i>Arundinella metzii</i> Hochst.	Hebbalasu	Herb	Poaceae	Sep-Dec	Am	P
44	<i>Asparagus racemosus</i> Willd.	Halvu makkala Thayberu	Climber	Liliaceae	Jan-Apr	En	- P ₁
45	<i>Atalantia manophylla</i> (L.) Corr.	Kadunimbe	Tree	Rutaceae	Nov-Jan	En	N ₂ P ₂
46	<i>Avicennia alba</i> Bl.	Hole Kandla	Shrub	Avicenniaceae	Jan-Jun	En	N ₁ P ₂
47	<i>Avicennia marina</i> Vierh.	-	Shrub	Avicenniaceae	May-Dec	En	N P ₁
48	<i>Avicennia officinalis</i> L.	-	Shrub	Avicenniaceae	May-Sept	En	N P ₂
49	<i>Azadirachta indica</i> A. Juss.	Bevina mara	Tree	Meliaceae	Mar-May	Am	N ₂ P ₂
50	<i>Barleria lawii</i> T. Anders	Kenegorati mullu	Shrub	Acanthaceae	Oct-Nov	En	N P ₁
51	<i>Bauhinia acuminata</i> L.	Bilemandara Gandigulabi	Shrub	Caesalpiniaceae	Mar-May	En	N P
52	<i>Bauhinia galpinii</i> Br.	-	Shrub	Caesalpiniaceae	Sep-Nov	En	N P
53	<i>Bauhinia purpurea</i> L.	Dasavala. Kempu Mandara	Tree	Caesalpinissaceae	Sep-Dec	En	N P
54	<i>Bauhinia racemosa</i> Lamk.	Basavana pada (Rabeeja)	Tree	Caesalpiniaceae	Mar-Apr	En	N P ₄
55	<i>Bidens pilosa</i> L.	-	Herb	Asteraceae	Sep-Nov	Am	N ₁ P ₂
56	<i>Bignonia atrovirens</i> , Roth.	-	Tree	Bignoniaceae	Mar-Dec	En	N P ₂
57	<i>Bischofia javanica</i> Bl.	Gobranairal	Tree	Euphorbiaceae	Feb-Mar	En	N ₂ P ₂
58	<i>Blepharis asperrima</i> Nees.	-	Herb	Acanthaceae	Oct-Jan	En	N ₂ P ₂
59	<i>Blumea lacera</i> DC.	Gandarigida	Herb	Asteraceae	Jan-May	En	N ₁ P ₁
60	<i>Bombax malabaricum</i> DC.	Buruga	Tree	Bombacaceae	Feb-Mar	En	N ₂ P ₂
61	<i>Borassus flabellifer</i> L.	Thatinengu mara	Tree	Arecaceae	Jan-Dec	Am	N ₁ P ₂
62	<i>Borreria articularis</i> Will.	-	Herb	Rubiaceae	Jun-Dec	En	N P ₁
63	<i>Borreria stricta</i> Schum.	-	Herb	Rubiaceae	May-Oct	En	N P
64	<i>Boswellia serata</i> Roxb.	Chilaka dhupa Maddidhpua	Tree	Burseraceae	Apr-May	En	N P

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
65	<i>Brassica juncea</i> Czer.	Sasavae	Herb	Brassicaceae	Sep-Jan	En	N ₂ P ₂
66	<i>Breynia retusa</i> Alst.	Halukaddi gida	Shrub	Euphorbiaceae	Apr-May	En	N ₂ P ₁
67	<i>Bridelia squamosa</i>	-	Tree	Euphorbiaceae	Jan-Sep	En	N ₂
68	<i>Bridelia scandens</i> (Roxb.) Willd.	-	Shrub	Euphorbiaceae	Aug-Dec	En	N P ₂
69	<i>Buchanania lanzan</i> Spr.	Murkali Kolegeru	Tree	Anacardiaceae	Jan-May	En	N ₂ P ₂
70	<i>Butea monosperma</i> Taub.	Muttugada mara	Tree	Fabaceae	Jan-Mar	En/Oro	N ₂ P ₂
71	<i>Caesalpinia mimosides</i> Lam.	Nelaganne. Komme	Shrub	Caesalpiniaceae	Oct-Jan	En	P ₁
72	<i>Caesalpinia pulcherrima</i> Swartz.	Kenjegae	Shrub	Caesalpiniaceae	Jan-Dec	En	- P ₁
73	<i>Cajanus cajan</i> (L.) Millsp.	Thogari	Shrub	Fabaceae	Oct-Dec	En	N ₁ P ₁
74	<i>Calamus flagellum</i> Gr.	Betta	Climbing Shrub	Arecaceae	Oct-Feb	An	- P ₁
75	<i>Calamus rotang</i> L.	Nagabetha	Climbing Shrub	Arecaceae	Nov-Feb	An	- P ₁
76	<i>Calamus travancoricus</i> Bedd.	Nayibetha	Climbing Shrub	Arecaceae	Nov-Feb	An	- P ₂
77	<i>Calendula officinalis</i> L.	-	Herb	Arecaceae (Ornamental)	Aug-Nov	Am	N P
78	<i>Callicarpa tomentosa</i> Murr.	Arthegida	Tree	Verbenaceae	Jan-Dec	En	N ₁ P ₁
79	<i>Calophyllum apetalum</i> Willd. Wt.	honne, Kallhonne	Tree	Clusiaceae	Sep-Feb	En	N ₂ P ₂
80	<i>Calycopteris floribunda</i> Poir.	-	Climbing shrub	Combretaceae	Mar-Jul	En	- P
81	<i>Canarium strictum</i> Roxb.	Karidhupa Mande dhupa	Tree	Burseraceae	Mar-May	En	N ₁ P ₂
82	<i>Canthium dicocum</i> Teys. & Binn.,	Ammemara	Tree	Rubiaceae	Nov-Jan	En	N ₃ P ₃
83	<i>Capparis grandis</i> L.f.	Torate mara	Tree	Capparaceae	Mar-Apr	En	- P ₁
84	<i>Capparis zeylanica</i> L.	Muthu kullari, Aathundikai	Climbing shrub	Capparaceae	Jac-Dec	En	N ₁ P ₁
85	<i>Capsicum annum</i> L.	Menasena kayi	Herb	Solanaceae	Aug-May	En	- P
86	<i>Carallia brachiata</i> Merr.	Bangana Andipunar	Tree	Rhizophoraceae	Dec-March	En	N ₂ P
87	<i>Careya arborea</i> Roxb.	Dodda Kavalumara	Tree	Lecythidaceae	Feb-Mar	En	N P ₂
88	<i>Carica papaya</i> L.	Papaya Parangi hannu	Tree	Caricaceae	Jan-Dec	En	N P ₁
89	<i>Carissa congesta</i> Wt.	Kauligida	Shrub	Apocynaceae	Jan-Apr	En	- P
90	<i>Caryotat urens</i> L.	Baine	Tree	Arecaceae	Oct-Jan	En	N P ₂
91	<i>Cassia alata</i> L.	-	Shrub	Caesalpiniaceae	Oct-Nov	En	- P
92	<i>Cassia auriculata</i> L.	Avarike gida	Shrub	Caesalpiniaceae	Oct-may	En	N P
93	<i>Cassia fistula</i> L.	Kakke. Konde.	Tree	Caesalpiniaceae	Mar-Apr	En	N ₁ P ₂
94	<i>Cassia occidentalis</i> L.	Dodda tagase	Shrub	Caesalpiniaceae	Nov-Mar	En	N ₁ P ₂
95	<i>Cassia tora</i> L.	Chagache	Herb	Caesalpiniaceae	May-Jun	En	- P
96	<i>Casuarina equisetifolia</i> J.R. & G. Forsct.	Galimara Sarve	Tree	Caesalpiniaceae	Feb-Mar Sep-Nov	An	- P ₂
97	<i>Ceiba pentandra</i> Gaertn.	Panjimara.	Tree	Bombacaceae	Dec-Feb	En	N ₂ P ₂

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
98	<i>Celastrus paniculatus</i> Willd.	Kariganne Bhavanga bija	Climbing shrub	Celastraceae	Feb-Mar	En	N P
99	<i>Celosia argentea</i> L.	Anne soppu	Herb	Amaranthaceae	Oct-Jan	An	N ₁ P ₂
100	<i>Centratherum anthelminiticum</i> , O.Kze	Kadugerige Sahadevi	Herb	Asteraceae	Nov-Feb	Am	N ₁ P ₂
101	<i>Chenopodium album</i> L.	Hucchu chakotha.	Herb	Chenopodiaceae	Aug-Dec	An	- P
102	<i>Chromolaena odorata</i> (L.) King & Robin	Kamunist gida.	Shrub	Asteraceae	Nov-Feb	Am	N ₂ P ₂
103	<i>Chrysopogon montanus</i> Trin.	Gajugarike hullu	Herb	Poaceae	Oct-Nov	An	- P
104	<i>Cicer arietinum</i> L.	Kadale (Chana)	Herb	Fabaceae	Nov-Jan	En	N P
105	<i>Cinnamomum camphora</i> (L.)	Karpurada mara	Tree	Lauraceae	Dec-July	En	N P ₁
106	<i>Cinnamomum</i> sp	Dalchini	Tree	Lauraceae	Jan-Jun	En	N ₁ P ₂
107	<i>Cipadessa baccifera</i> Miq.	Mandalygida. Sithonde gida. Hanumantha thoppalu.	Shrub	Meliaceae	Jan-Feb	En	N ₂ P ₂
108	<i>Citrullus vulgaris</i> Schrad.	Kallangadi balli	Climber	Cucurbitaceae	Sep-Oct, Feb-Mar	En	N P
109	<i>Citrus decumana</i> , L.	Chakota	Shrub	Rutaceae	Feb-Mar Sep-Oct	En	N ₁ P ₁
110	<i>Citrus aurantium</i> L.	Kitale hannu	Shrub	Rutaceae	Feb-Mar Sep-Oct	En	N ₃ P ₂
111	<i>Citrus medica</i> L.	Limbe	Shrub	Rutaceae	Feb-Mar Sep-Oct	En	N ₂ P ₂
112	<i>Clematis gouriana</i> Roxb.	Arpaeballi Talejadhari	Climber	Ranunculaceae	Nov-Feb	En	- P
113	<i>Cleome viscosa</i> L.	Panchami gida	Herb	Capparaceae	Jan-Mar	En	N ₂ P
114	<i>Clerodendrum viscosum</i> Vent.	Ibbane. Madras mallige.	Shrub	Verbenaceae	Feb-Mar	En	N P
115	<i>Clitoria ternatea</i> L.	Shanka pushpa.	Climbing herb	Fabaceae	Sep-Jan	En	- P ₁
116	<i>Cocculus hirsutus</i> Diels	Sugadigida Dasurballimallige	Climber	Menispermaceae	Sep-Jan	En	- P
117	<i>Cochlospermum religiosum</i> Alst.	Haladi buruga	Tree	Cochlospermaceae	Feb-Apr	En	N P ₃
118	<i>Cocos nucifera</i> L.	Thengu	Tree	Areaceae	Jan-Dec	Am	N ₂ P ₃
119	<i>Coffea arabica</i> L.	Kapigida	Shrub	Rubiaceae	Jan-Mar	En	N ₃ P ₃
120	<i>Combretum coccinium</i> Lamk.	-	Climbing shrub	Combretaceae	Jan-Mar	En	N P
121	<i>Combretum ovalifolium</i> Roxb.	Edathega	Climbing shrub	Combretaceae	Feb-mar	En	N ₁ P ₁
122	<i>Commelina benghalensis</i> L.	Kanne	Herb	Commelinaceae	Aug-Dec	Am	- P
123	<i>Connarus monocarpus</i> L.	Tholage	Shrub	Connaraceae	Nov-Jan	En	N P
124	<i>Conscora diffuse</i> R.Br.	Chamegida	Herb	Gentianaceae	Oct-Jan	En	- P ₁
125	<i>Cordia dichotoma</i> Forst.f.	Chikka salle	Tree	Boraginaceae	Mar-Apr	En	N ₁ P ₁
126	<i>Coriandrum sativum</i> L.	Kothambari	Herb	Apiaceae	Nov-Jan	En	N ₂ P ₁
127	<i>Cosmos sulphureus</i> Cav.	-	Herb	Asteraceae	Jun-Sep Dec-Feb	En	N ₁ P ₂
128	<i>Crotalaria albida</i> Heyne.	-	Herb	Fabaceae	Jan-Sep	En	- P

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
129	<i>Crotalaria juncea</i> L.	Apseunabu	Shrub	Fabaceae	Sep-Nov	En	- P
130	<i>Cucurbita maxima</i> Duch.	Segumbala	Climber	Cucurbitaceae	Jan-Dec	En	N P
131	<i>Cuphea hyssopifolia</i> H.B. & K.	-	Small Shrub	Lythraceae	Jan-Dec	En	N ₁ P
132	<i>Cynodon dactylon</i> Pers.	Garike hullu	Herb	Poaceae	Jan-Dec	An	- P
133	<i>Cynometra ramiflora</i> L. Wall.	Kanakambara	Tree	Caesalpiniaceae	Dec-Jan	En	- P
134	<i>Dalbergia horrida</i> Mobberly	-	Tree	Fabaceae	Dec-Feb	En	N ₂ P ₂
135	<i>dalbergia latifolia</i> Roxb.	Beete	Tree	Fabaceae	Jan-Mar	En	N ₂ P ₂
136	<i>Dalbergia sissoo</i> Roxb.	Chalabeete	Tree	Fabaceae	Sep-Nov	En	N ₁ P ₃
137	<i>Datura orborea</i> L.	-	Shrub	Solanaceae	Sep-Feb	En	- P ₂
138	<i>Datura metel</i> L.	Visha ummati	Herb	Solanaceae	Jun-Jan	En	- P ₂
139	<i>Debregeasia longifolia</i> Wedd.	-	Tree	Urticaceae	Oct-Dec	En	- P ₂
140	<i>Delonix elata</i> Gamb.	Sankatti	Tree	Caesalpiniaceae	Mar-Apr	En	- P ₁
141	<i>Delonix regia</i> Raf.	Dodda ratnagandhi, Gulm ohur	Tree	Caesalpiniaceae	Apr-Jun	En	- P ₃
142	<i>Dendrophthoe falcata</i> (L.f.) Etting.	Marabaksha Badanike	Parasitic shrub	Loranthaceae	Jan-Dec	En	N ₁ P ₁
143	<i>Derris thyrsoiflora</i> Benth.	-	Climber	Fabaceae	Dec-Jan	En	N ₁ P ₁
144	<i>Desmodium triflorum</i> (L.) DC.	Kadupullam puruche	Herb	Fabaceae	Oct-Nov	En	N ₁ P ₁
145	<i>Dianthus chinensis</i> L.	-	Herb	Caryophyllaceae	Dec-Mar	En	N ₁ P ₁
146	<i>Dicliptera cuneata</i> Nees.	-	Herb	Acanthaceae	Jan-Mar	En	N ₁ P ₁
147	<i>Digitaria longiflora</i> Pers.	Doddaki Hullu	Herb	Poaceae	Nov-Dec	An	- P
148	<i>Dillenia pentagyna</i> Roxb.	Kolthegea, Kadulkanagalu	Tree	Dilleniaceae	Feb-Mar	En	- P ₂
149	<i>Dioscorea oppositifolia</i> L.	-	Herb	Dioscoreaceae	aug-Nov	En	- P ₁
150	<i>Diospyros montana</i> Roxb.	Jagalaganti Bilkunike mara	Tree	Ebenaceae	Apr-May	En	N ₃ P ₂
151	<i>Disopyros saldhanae</i> Kostermans.	Karimara	Tree	Ebenaceae	Dec-Feb	En	N ₂ P ₂
152	<i>Dodonaea viscosa</i> N.Jacq.	Bandare Bandarike	Shrub	Sapindaceae	Jan-Apr	En	- P
153	<i>Dolichose biflorus</i> L.	Huruli	Herb	Fabaceae	Aug-Dec	En	N P
154	<i>Dombeya mastersii</i> Hook.	Jenuhoo.	Shrub	Sterculiaceae	Nov-Feb	En	N ₂ P ₂
155	<i>Duabanga sonneratioides</i> Buch-Ham	-	Tree	Sonneratiaceae	Sep-Apr	En	N ₁ P ₁
156	<i>Elaeagnus conferta</i> Roxb.	Hejjala	Shrub	Elaeagnaceae	Nov-Mar	En	N ₂ P
157	<i>Elaeocarpus munronii</i> Mast.	Naribikki	Tree	Elaeocarpaceae	Nov-Jan	En	N ₁ P ₁
158	<i>Elaeocarpus serratus</i> L.	Beejadamara Athukume	Tree	Elaeocarpaceae	Jan-Dec	En	N ₃ P ₂
159	<i>Elaeocarpus tuberculatus</i> Roxb.	Kungemara, Satugada mara	Tree	Elaeocarpaceae	Jan-May	En	N ₃ P ₂
160	<i>Elephantopus scaber</i> L.	Hastipada Anekalugida	Herb	Asteraceae	Sep-Nov	An	N P ₁
161	<i>Elettaria cardamomum</i> Maton	Elakki	Herb	Zingiberaceae	Jan-Feb	En	N ₁ P ₁
162	<i>Eleusine indica</i> Gaertn.	Hechuli Hullu	Herb	Poaceae	Aug-Nov	An	- P
163	<i>Emblica officinalis</i> Gaertn	Bettadanelli	Tree	Euphorbiaceae	Jan-Mar	En	N ₁ P ₁
164	<i>Eragrostis bifaria</i> Steud.	Kodimara hullu	Herb	Poaceae	Jul-Nov	An	- P
165	<i>Erythrina</i> sp.	Mullu muttuga	Tree	Fabaceae	Mar-May	En	N ₂ P ₂

Sl. No.	Name of the Taxa	Local name	Habit	Family	Flowering period	MP	Utility as be forage N/P
166	<i>Eucalyptus globulus</i> Labil	Nelagiri	Tree	Myrtaceae	Feb-Apr	En	N ₃ P ₃
167	<i>Evolvulus alsinoides</i> L.	Visnukranthi soppu	Herb	Convolvulaceae	Jan-Dec	En	- P
168	<i>Flacourtia indica</i> Merrill.	Kakkade Kuduvala	Shrub	Flacourtiaceae	Jan-Jun	En	N ₂ P ₂
169	<i>Flaveria australasica</i> Hk.	-	Herb	Asteraceae	May-Sep	An	- P
170	<i>Garcinia cambogia</i> Desr.	Punarpuli Ardhala	Tree	Clusiaceae	Dec-Mar	En	N P ₂
171	<i>Gardenia resinifera</i> Roth	Kambe	Tree	Rubiaceae	Mar-Jun	En	N P ₁
172	<i>Gliricidia sepium</i> Kunth.	Gobbarada mara	Tree	Fabaceae	Feb-Apr	En	N ₂ P ₂
173	<i>Glycosmis pentaphylla</i> Dalz.	Somarigida	Shrub	Rutaceae	Jan-Aug	En	N ₁ P ₂
174	<i>Gmelina arborea</i> Roxb.	Kaulimara, Kumathi mara	Tree	Verbenaceae	Mar-May	En	N P
175	<i>Gomphrena celosioides</i> Mart.	Nirvada malli	Heerb	Amaranthaceae	Jan-Dec	An	N P
176	<i>Goniothalamus cardiopetalus</i> (Dalz) Hk & Th.	Gawarimara	Tree	Annonaceae	Jan-Sep	An	N P
177	<i>Gossypium herbaceum</i> L.	Hatti	Herb	Malvaceae	Jul-Oct	En	N ₁ P ₂
178	<i>Grevillea robusta</i> A.Cunn.	Silvarda mara	Tree	Proteaceae	Mar-Apr Oct-Dec	En	N ₁ P ₁
179	<i>Grewia tiliifolia</i> Vahl	Thadasalu	Tree	Tiliaceae	Feb-Apr	En	N ₁ P ₂
180	<i>Guizotia abyssinica</i> Cass.	Huchellu	Herb	Asteraceae	Sep-Dec	En	N ₃ P ₃
181	<i>Hamelia patens</i> Jacq		Shrub	Rubiaceae	Jan-Dec	En	N ₁ P ₁
182	<i>Hardwickia pinnata</i> DC.	Kharachi Kammara	Tree	Fabaceae	Oct-Jan	En	- P
183	<i>Helianthus annuus</i> L.	Suryakanthi	Herb	Asteraceae	Jan-Dec	En	N ₂ P ₂
184	<i>Helicteres isora</i> L.	Edamuri, Narugida	Shrub	Sterculiaceae	Apr-Jan	En	N ₁ P ₂
185	<i>Heteropogon contortus</i> Beauv.	Sunkari hullu	Herb	Poaceae	Jul-Nov	An	- P
186	<i>Hevea brasiliensis</i> Muell-Arg.	Rubber	Tree	Euphorbiaceae	Feb-Mar	En	N ₃ P ₂ (Extra floral nectar)
187	<i>Hibiscus cannabinus</i> L.	Pundi	Shrub	Malvaceae	Oct-Feb	En	N ₁ P ₂
188	<i>Hibiscus rosa-sinensis</i> L.	Dasavalada gida	Shrub	Malvaceae	Jan-Dec	En	N P
189	<i>Holigarna ferruginea</i> March.	Geru	Tree	Anacardiaceae	Jan-Mar	En	N ₁ P ₃
190	<i>Holigarna grahamii</i> (Wt.) Kurz.	Kollegeru	Tree	Anacardiaceae	Dec-Feb	En	N P ₂
191	<i>Hopea parviflora</i> Bedd.	Khiralbhogi	Tree	Dipterocarpaceae	Mar-May	En	N ₁ P ₁
192	<i>Hopea wightiana</i> Wall.	Kalbhogi	Tree	Dipterocarpaceae	Mar-May	En	N ₁ P ₂
193	<i>Hygrophila auriculata</i> Heine	-	Herb	Acanthaceae	Sep-May	En	N ₂ P ₂
194	<i>Hyptis suaveolens</i> Poit.	-	Herb	Lamiaceae	Oct-Jan	En	N ₁ P ₁
195	<i>Impatien balsamina</i> L.	Gowrihoo	Herb	Balsaminaceae	Aug-Nov	En	N ₁ P ₂
196	<i>Ipomoea cairica</i> Sweet.	-	Climber	Convolvulaceae	Jan-Dec	En	N P ₁
197	<i>Ipomoea staphylina</i> R & S	-	Climber	Convolvulaceae	Nov-Mar	En	N ₁ P ₂
198	<i>Ixora brachiata</i> Roxb.	Yelegara	Tree	Rubiaceae	Dec-Mar	En	- P ₁
199	<i>Jacquemontia caerulea</i> , Choisy.	-	Climber	Convolvulaceae	Jun-Mar	En	N ₂ P ₂
200	<i>Justicia procumbens</i> L.	Hucchu Nelabhevu	Herb	Acanthaceae	Jan-Dec	En	- P ₁
201	<i>Justicia simplex</i> Don.	Eluva sandhigida	Herb	Acanthaceae	Jan-Dec	En	N P ₁
202	<i>Kalanchoe pinnata</i> Pers.	kalinga	Herb	Crassulaceae	Dec-Feb	En	N P
203	<i>Kandelia candel</i> Druce.	Kandla	Tree	Rhizophoraceae	Jan-Dec	En	N ₁ P ₂
204	<i>Kydia calycina</i> Roxb.	Bende mara Nayibende	Tree	Malvaceae	Sep-Feb	En	N P ₁

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205	<i>Lagascea mollis</i> Cav.	-	Herb	Asteraceae	Jun-Oct	An	N ₁ P ₃
206	<i>Lagerstroemia microcarpa</i> Wight.	Nandhi	Tree	Lythraceae	Mar-Aug	En	N ₂ P ₂
207	<i>Lagerstroemia</i> sp.	Holenandhi	Tree	Lythraceae	Mar-Aug	En	N ₂ P ₂
208	<i>Lannea coromandelica</i> Merr	Goddamara	Tree	Anacardiaceae	Feb-Apr	En	N ₁ P ₃
209	<i>Lantana camara</i> L.	Lantan, Bayligida.	Shrub	Verbenaceae	Jan-Dec	En	N P
210	<i>Lawsoknia inermis</i> L.	Goranthi	Shrub	Lythraceae	Dec-Feb	En	N ₁ P
211	<i>Leea indica</i> Merr.	Kadumuridrakshi. Mittlegida	Shrub	Leeaceae	Feb-Oct	En	N P ₁
212	<i>Lepidagathis cristata</i> Willd.	-	Shrub	Acanthaceae	Jan-Dec	En	N ₂ P ₂
213	<i>Leucas aspera</i> Spr.	Thumbegida	Herb	Lamiaceae	Oct-Feb	En	N ₁ P ₂
214	<i>Ligustrum perrottetii</i> A.DC.	Koli	Shrub	Oleaceae	Jan-May	En	N P ₂
215	<i>Litsea mysorensis</i> Gamble.	Naralagi	Tree	Lauraceae	Nov-Feb	En	N ₂ P ₃
216	<i>Lycopersicon esculentum</i> L.	Thakkali	Herb	Solanaceae	Jan-Dec	En	N P ₁
217	<i>Macaranga peltata</i> Muell. Arg.	Uppalige	Tree	Euphorbiaceae	Dec-Mar	En	- P ₂
218	<i>Madhuca indica</i> Gmel.	Ippi. Alippe	Tree	Sapotaceae	Mar-Apr	En	N ₂ P ₁
219	<i>Mallotus philippensis</i> M. Arg	Kumkumada mara	Tree	Euphorbiaceae	Aug-Oct	En	- P ₂
220	<i>Mangifera indica</i> L.	Mavina mara	Tree	Anacardiaceae	Dec-Mar	En	N ₂ P ₁
221	<i>Manihot utilissima</i> Pohl.	Maragenasu	Shrub	Euphorbiaceae	Jul-Jan	En	- P ₂
222	<i>Melastoma malabathricum</i> L.	Nekkare	Shrub	Melastomataceae	Jan-Dec	En	- P ₁
223	<i>Melia azadirachta</i> L.	Kadubeva Huccha bevu	Tree	Meliaceae	Apr-May	En	N ₁ P ₂
224	<i>Memecylon malabaricum</i> Cogn.	Uthalemara Huthumara	Tree	Melastomataceae	Feb-May	En	N ₁ P ₂
225	<i>Michelia champaca</i> L.	Sampige	Tree	Magnoliaceae	Mar-Aug	En	N P
226	<i>Milletia thyriflora</i> Benth.	Honge Jathi	Tree	Fabaceae	Feb-Apr	En	N ₂ P ₂
227	<i>Mimosa pudica</i> L.	Muttidare muni	Herb	Mimosaceae	Jan-Dec	An	N ₂ P ₃
228	<i>Mimusops elengi</i> L.	Pagademara Ranje	Tree	Sapotaceae	Sep-Nov	En	N P ₁
229	<i>Mollugo pentaphylla</i> L.	-	Herb	Aizoaceae	Jun-Aug	Am	- P
230	<i>Momordica charantia</i> L.	Hagalakai	Climber	Cucurbitaceae	Jan-mar	En	N ₂ P ₂
231	<i>Moringa oleifera</i> Lamk.	Nugge mara	Tree	Moringaceae	Jan-Dec	En	N ₂ P ₃
232	<i>Moullava spicata</i> Nicols.	-	Shrub	Caesalpiniaceae	Nov-Feb	En	N P ₁
233	<i>Muntingia calabura</i> L.	Gasagase mara	Tree	Tiliaceae	Jan-Dec	Am	N ₂ P ₃
234	<i>Musa paradisiaca</i> , auct	bale	Shrub	Musaceae	Jan-Dec	En	N ₂ P ₁
235	<i>Nilgiranthus ciliatus</i> Bremek	Gurugi	Herb	Acanthaceae	Oct-Jan	En	N ₂ P ₂
236	<i>Nymphaea nouchali</i> Burm.	Kamala Tavare	Aquatic Herb	Nymphaeaceae	Oct-May	En	N ₁ P ₂
237	<i>Osbeckia virgata</i> D.Don.	Kurkagida	Herb	Melastomataceae	Nov-Apr	En	- P ₁
238	<i>Ocimum americanum</i> L.	Nayi thulasi	Herb	Lamiaceae	Jan-Dec	En	N ₁ P ₁
239	<i>Ocimum basilicum</i> L.	Rama thulasi	Herb	Lamiaceae	Jan-Dec	En	N ₁ P ₁
240	<i>Olea dioica</i> Roxb.	Bilisarali, Hejje karakalu	Tree	Oleaceae	Dec-Aug	En	- P ₂
241	<i>Oryza sativa</i> L.	Batta	Herb	Poaceae	Sep-Nov	An	- P ₁
242	<i>Pandanus tectorius</i> Soland.	Kedige	Shrub	Pandanaceae	Jan-Dec	Am	- P ₂
243	<i>Parkinsonia aculeata</i> L.	Kodanchi	Tree	Caesalpiniaceae	Mar-Apr Sep-Oct	En	N P

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244	<i>Parthenium hysterophorus</i> L.	Congress gida	Herb	Asteraceae	Jan-Dec	An	N P ₁
245	<i>Peltophorum Pterocarpum</i> (D.C) Bak.	Haladi Huvine Mara	Tree	Caesalpiniaceae	Apr-Aug	En	N ₁ P ₂
246	<i>Pennisetum typhoides</i> Stapf. & Hubb.	Sajjae	Herb	Poaceae	Oct-Dec	Am	- P ₂
247	<i>Phaseolus mungo</i> L.	Uddu	Herb	Febaceae	Nov-Jan	En	N ₂ P ₂
248	<i>Phoenix sylvestris</i> Roxb.	Echalu mara	Tree	Arecaceae	Feb-May	An	- P ₂
249	<i>Pinanga dicksonii</i> Scheff.	Kadu adike	Tree	Arecaceae	Feb-Apr	An	- P ₁
250	<i>Pithecellobium dulce</i> Benth.	Seeme hunase	Tree	Mimosaceae	Jan-mar	Am	N ₂ P ₃
251	<i>Plumeria acuminata</i> R.Br.	Dadu sampige	Tree	Apocynaceae	Apr-Sep	En	- P ₁
252	<i>Polygala chinensis</i> L.	Seniga	Herb	Polygalaceae	Oct-Mar	En	- P
253	<i>Polygonum chinense</i> L.	Belichini kanagilu	Shrub	Polygonaceae	Jan-Dec	En	N P ₁
254	<i>Pongamia pinnata</i> Pierre	Hongemara	Tree	Fabaceae	Mar-May	En	N ₃ P ₃
255	<i>Portulaca oleracea</i> L.	Dadda gonisoppu	Herb	Portulacaceae	Oct-Jun	En	N ₁ P ₂
256	<i>Psidium guajava</i> L.	Peralakai Sebekai Chaepekai	Tree	Myrtaceae	Feb-Apr Sep-Dec	An	N ₃ P ₃
257	<i>Pterolobium hexapetalum</i> S. & W	Bakka	Shrub	Caesalpiniaceae	Apr-Sep	En	N ₁ P ₁
258	<i>Punica granatum</i> L.	Dalimbe	Shrub	Punicaceae	Nov-Mar	En	N P ₁
259	<i>Rhizophora mucronata</i> Lam.	Hoorkandla	Tree	Rhizophoraceae	Sep-Feb	En	N P ₁
260	<i>Ricinus communis</i> L.	Haralugida	Shrub	Euphorbiaceae	Jan-Dec	An	N P ₂
261	<i>Rosa leschenaultiana</i> W & A.	Gulabi gida	Shrub	Rosaceae	Jan-Dec	En	- P ₂
262	<i>Rubus ellipticus</i> Sm.	-	Shrub	Rosaceae	Aug-Dec	En	N P
263	<i>Saccharum officinarum</i> L.	Khabbu	Shrub	Poaceae	Dec-Feb	An	N ₃ P (Extra floral nectar)
264	<i>Salix tetrasperma</i> Roxb.	Niravanji Holebasi	Tree	Salicaceae	Oct-Jun	An	N ₁ P ₂
265	<i>Samanea saman</i> Merr.	Hagalurani	Tree	Mimosaceae	Mar-May	En	N P ₂
266	<i>Santalum album</i> L.	Sriganda	Tree	Santalaceae	Mar-Aug	En	N ₁ P
267	<i>Sapindus laurifolius</i> Vahl.	Antuvala	Tree	Sapindaceae	Nov-Jan	En	N ₃ P ₃
268	<i>Schefflera wallichiana</i> Harms	Bethu	Shrub	Araliaceae	Apr-may	En	N ₂ P ₂
269	<i>Schleichera oleosa</i> Oken.	Chagate mara	Tree	Sapindaceae	Feb-Mar	En	N ₂ P ₃
270	<i>Scleropyrum pentandrum</i> (Dennst) Mabblerly	Navayikuli Benduga Mulluchott mara	Tree	Santalaceae	Oct-Jan	En	N ₁ P ₁
271	<i>Scutia myrtina</i> Kurz.	Kududittannin gida	Shrub	Rhamnaceae	Nov-Aug	En	N ₂ P ₂
272	<i>Sesamum indicum</i> L.	Ellu	Herb	Pedaliaceae	Jan-Dec	Sp	N ₃ P ₂
273	<i>Sida cardifolia</i> L.	Hettutiigida, Kisangi	Shrub	Malvaceae	Oct-Jan	En	N ₁ P ₁
274	<i>Solanum seafortianum</i> Andr	-	Climber	Solanaceae	Jan-Oct	Sp	- P ₁
275	<i>Sonneratia caseolaris</i> Engl.	Holemavu Giragatle	Tree	Sonneratiaceae	Feb-Aug	En	N ₂ P ₂
276	<i>Spathodea companulata</i>	Tiehkai Nirukai	Tree	Bignoniaceae	Nov-Feb	En	N ₂ P ₁
277	<i>Stachytarpheta indica</i> Vahl.	Kadu uttarani	Herb	Verbenaceae	Jan-Dec	En	N P
278	<i>Sterculia guttata</i> Roxb.	Jenu kathala, Kampirike, Hulithoradu mara.	Tree	Sterculiaceae	Dec-feb	En	- P ₂
279	<i>Synadenium grantii</i> H.K.	Elekalli	Shrub	Euphorbiaceae	Nov-Feb	En	N ₂ P
280	<i>Syzygium caryophyllatum</i> Alton	Kuntala, Kuntuneral	Tree	Myrtaceae	Mar-May	En	N ₃ P ₃

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281	<i>Syzygium cumini</i> Skeels	Nerale	Tree	Myrtaceae	Feb-Apr	En	N ₃ P ₃
282	<i>Syzygium jombos</i> Alston	Jambu nerale	Tree	Myrtaceae	Feb-Apr	En	N ₂ P ₂
283	<i>Tabebuia argentea</i> Britt.	-	Tree	Bignoniaceae	Feb-Apr	En	N ₂ P ₂
284	<i>Tabebuia avalendae</i>	-	Tree	Bignoniaceae	Nov-Jan	En	N ₂ P ₂
285	<i>Tamarindus indica</i> L.	Hunasemara	Tree	Caesalpiniaceae	Apr-May	En	N ₂ P ₃
286	<i>Tectona grandis</i> L.f.	Saguvani	Tree	Verbenaceae	Apr-may	En	- P ₁
287	<i>Tephrosia purpurea</i> Persoon.	Kolinge Koggili	Shrub	Fabaceae	May-Out	En	- P
288	<i>Terminalia alata</i> Roth.	Karimathi, Karimaddi	Tree	Combretaceae	Apr-may	En	N ₂ P ₂
289	<i>Terminalia bellirea</i> Roxb.	Santhi mara Thare mara	Tree	Combretaceae	Feb-May	En	N ₃ P ₂
290	<i>Terminalia chebula</i> Retz.	Alalekai	Tree	Combretaceae	Apr-May	En	N P ₂
291	<i>Terminalia crenulata</i> Roth,	Matti mara	Tree	Combretaceae	Nov-Feb	En	N ₁ P ₁
292	<i>Terminalia paniculata</i> Roth.	Maravu	Tree	Combretaceae	Jul-Dec	En	- P ₂
293	<i>Thunbergia alata</i> Bojer.	-	Climber	Acanthaceae	Jul-Dec	En	- P
294	<i>Thunbergia mysorensis</i> Anders	Kamanbillu balli	Climber	Acanthaceae	Dec-Feb	En	- P
295	<i>Toddalia asiatica</i> Lam.	Kadu Menasinakai	Shrub	Rutaceae	Feb-Apr Sep-Oct	En	N ₂ P ₂
296	<i>Toona ciliata</i> Roem	Noga mara	Tree	Meliaceae	Nov-Apr	En	N ₁ P ₁
297	<i>Trema orientalis</i> Bl.	Home Karuhale	Small tree	Ulmaceae	Jan-Dec	En	N P ₁
298	<i>Tribulus terrestris</i> L.	Sanna neggilu mullu	Herb	Zygophyllaceae	Jan-Dec	En	- P
299	<i>Tridax procumbens</i> L.	Sanna shavanthi	Herb	Asteraceae	Jan-Dec	An	N P ₁
300	<i>Typha angustata</i> C. & B.	Anejondu Aapu Naribala	Erect herb	Typhaceae	Aug-Nov	An	- P ₁
301	<i>Vateria indica</i> L.	Salu dhupa. Dhupa	Tree	Dipterocarpaceae	Feb-Apr	En	N ₂ P ₃
302	<i>Vernonia cinerea</i> Less.	Karehindi, Sahadevi	Herb	Asteraceae	Jan-Dec	An	- P
303	<i>Vitex altissima</i> L.f.	Myrolu Navuladi	Tree	Verbenaceae	Apr-Aug	En	N ₂ P ₂
304	<i>Vitex negundo</i> L.	Lakkigida	Shrub	Verbenaceae	Mar-Dec	En	N ₁ P ₁
305	<i>Wendlandia thyroside</i> Steud.	Chendu kare	Shrub	Rubiaceae	Oct-Dec	En	N P
306	<i>Woodfordia fruticosa</i> Kurz.	Thambra pusti	Shrub	Lythraceae	Jan-Apr	En	N ₁ P ₁
307	<i>Zea mays</i> L.	Musukina jola. Kakejola.	Herb	Poaceae	Oct-Dec	An	- P ₁
308	<i>Ziziphus horrida</i> Rothii.	Elachi	Shrub	Rhamnaceae	Nov-Jan	En	N P ₁

MP : Mode of pollination

Am: Amphiphilous

N: Bee visits for nectar

P₁: Minor pollen source

N₃: Major nectar source.

An: Anemophilous

Orn: Ornethophilous

P: Bee visits for pollen

N₂: Medium nectar source

P₃: Major pollen source.

En: Entomophilous

Sp: Self-pollination

N₁: Minor nectar source

P₂: Medium pollen source

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