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THE MAHARAJA SAYAJIRAO  
UNIVERSITY OF VADODARA

## Systematic Identification and Documentation of plant in Waghai Botanical Garden

Submitted By: Dr. Padamnabhi S. Nagar

**Submission of Project Completion report**

For

**“Systematic Identification and Documentation of  
plant in Waghai Botanical Garden”**

Submitted to

**Dr. Dheeraj Mittal DCF  
South Dang Forest Division Ahwa, Gujarat.**

By

**Dr. Padamnabhi. S. Nagar  
Department of Botany, Faculty of Science**



**सत्यं शिवं सुन्दरम्**

**The Maharaja Sayajirao University of Baroda  
Vadodara- 390001, Gujarat.**

## **General Information:**

- ❖ **Project Title:** Systematic Identification and Documentation of plant in Waghai Botanical Garden
- ❖ **Principal investigator/consultant:** Dr. Padamnabhi S. Nagar
- ❖ **Brief Scientific Summary of the project:** Waghai Botanical Garden is one of the major plant diversity treasures having exclusive plants from all over country and world. There are more than 1200 plant species reported from the garden. In the present study a total of **502** plant species were collected and identified based on their morphological and phenological characters, out of which 409 are Dicot, 80 Monocot, 5 Gymnosperms, and 8 Pteridophytes. Further from habitat perspective there are 234 are Herbs, 74 are Shrub, 136 Trees, and 58 climbers were collected and documented.
- ❖ **Duration:** 6 month
- ❖ **Date of Completion:** March 2018
- ❖ **Institute:** The Maharaja Sayajirao University of Baroda
- ❖ **Division:** Faculty of Science
- ❖ **Department:** Botany
- ❖ **Discipline:** Plant Taxonomy

## **Objectives of the project:**

- **Plant Identification:** Identification of rich plant diversity of Waghai Botanical Garden
- **Documentation:** Documentation of rare, endangered, threatened, and state addition plants with proper identification.
- **Research:** Undertake botanical research and develop excellent referral system for plants dried and live condition, with documentation of natural resources of the South Gujarat.

## **SITE SPECIFICATION:**



**Fig. 1. Map of Study area**



**Fig. 2. Field image of Waghai Botanical Garden**

## INTRODUCTION

South Gujarat has the highest plant diversity in Gujarat. It is estimated there are more than 1300 plant species by (Tadvi, 2015). It represents the deciduous and evergreen flora of Gujarat. As per recent report on Status of Rare Endangered and Threatened plant of Gujarat, out of 26 plants, 15 plants were exclusively found in southern part of Gujarat. This region is known for highest diversity of not only the endemic and medicinal plants but also for rare threatened and endangered plants too. It comprises the region below to the river Tapi and spreads between  $72^{\circ}40'18''$  –  $21^{\circ}27'15''$  E longitude &  $20^{\circ}04'12''$  -  $74^{\circ}02'59''$  N latitude and covers an area of 14,820.26 sq. km.

Waghai Botanical Garden is unique floristic hot spot, situated in the southern part of Gujarat. There are more than 7 major Botanical garden in Gujarat state, among them Waghai Botanical Garden is considered as one of the leading Botanical garden of the state It is located around 2 km from Waghai town in to the Dang District. The garden was established in 1966 and spreads in 24 hactor between  $20^{\circ} 45'.100$  N -  $73^{\circ} 30.031$ 'E, longitude  $20^{\circ} 45'.365$ 'N -  $73^{\circ} 29.788$ 'E latitude.

The Botanical Garden is divided into 10 different plots, which represent all forest types occurring in India as classified by Champion and Seth as shown in figure 1

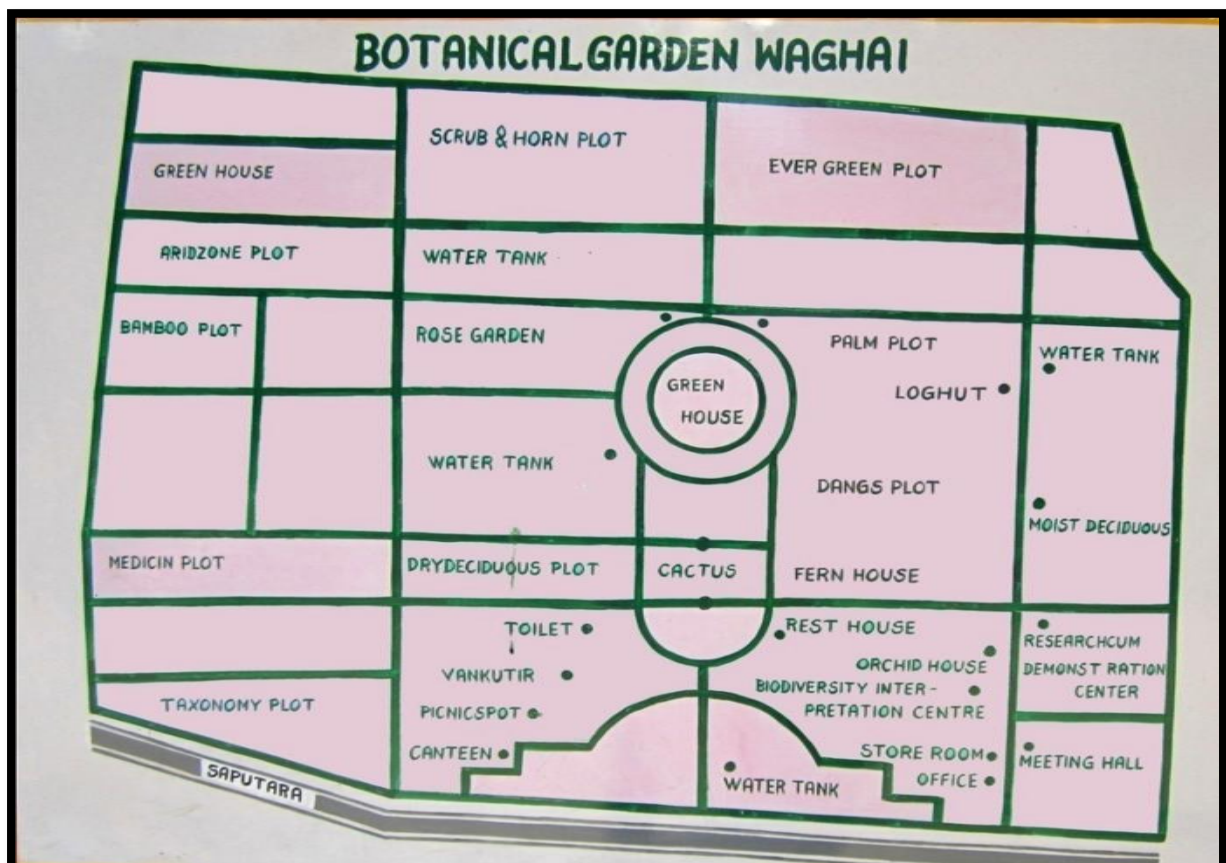


Figure 3: Map of different plots in Waghai Botanical Garden

**1) Evergreen Plot:**

Evergreen plot is a mimic of forest type observed in Southern and North Eastern part of India. Which includes plants like *Callophylum*, *Mesua*, *Artocarpus heterophyllus*, *Duabanga grandiflora*, *Hopa ponga*, *Carallia brachiata* etc. in the present study, 33 plant species has been reported. Many of the plants found from this plot are addition to flora of Gujarat.

**2) Moist Deciduous Plot:**

These plots are prepared by considering forest species available in the Southern Western Ghats, North India and Andaman & Nicobar Island. Plants includes from the plot are such as *Largerstromia indica*, *Shorea robusta*, *Dillenia indica*, *Albizia procera* etc. during the investigation total of 15 plant species reported from this plot.

**3) Dry Deciduous Plot:**

Dry Deciduous plot has vegetation similar to that of forest type of Madhya Pradesh, Gujarat, Andra Pradesh, Karnataka, Tamilnadu, and Punjab which comprises of 9 species. The representative species in such forest type are *Anogeissu latifolia*, *Diosphyros montana*, *Semicarpus anacardium*, etc.

**4) Scrub and Thorn Plot:**

This plot includes plants found in forest of Madhya Pradesh, Maharashtra, Andhra Pradesh and Rajasthan. This plot represents 8 plant species few examples are *Acacia pinnata*, *Zizyphus mauritiana* etc.

**5) Arid Zone Plot:**

The plot comprised of environment than that of arid zone of India as found in North Gujarat and Rajasthan. The vegetation of the plot includes species like *Cappris zeylanica*, *Tamrix indica*, *Opuntia ficus-indica* and some perennial grasses. Study comprises 10 plant species collected and documented from this plot.

**6) Taxonomy Plot:**

The plot was developed for the identification, nomenclature and classification of plant kingdom. The significance of the plot is to provide insight details of the complexity in plant diversity with the help of many plant species herbaria present in the WBG. In the present study resulted a total of 15 plant species has been reported.

**7) Medicinal Plot:**

This plot was added to the garden in subsequent years of its formation. It has collection of 30 species which have medicinal usages in Ayurveda, Unani, Siddha, Homeopathy and modern medicines.

**8) Bamboo Plot:**

The plot comprised of 6 bamboo species found in different regions of India. Few examples are *Bamboosa tuldodies*, *Bamboosa vulgaris* etc. during the investigation 3 plant specimens of bamboo has benn studied and documented. Remaining species were in vegetative condition which required sexual organs for further verification.

**9) Dangs Plot:**

This plot represents the species occurring in Dang forest. It has 8 species. Plants reported such as *Meyna laxiflora*, *Holoptelia integrifolia*, *Carissa carandas*, etc.



### **Cacti and Succulent Plot:**

Cacti and succulents have always attracted people across world. The plot is prepared in a house for different varieties of cacti and their attractive flowers; it is not only attract visitors but also attracts the insect and flower watcher who want to study plant animal interactions and botanist for study purposes. Cacti plot covers not only succulent plant but also comprises surrounding vegetation like *iz*. Annual and perennial plant. Present study includes a total of 23 plant species has been collected and documented from this plot

### **10) Research and Demonstration Center:**

WBG has Library of 552 books which includes books on different Flora, Horticulture, Floriculture, Agriculture and the published Forest Reports.

Waghai Botanical gardens has developed and flourished through a long tradition of exchanging, studying, displaying and conserving plants from the last few years. It serves as a place of serenity and wonder for medical plants used by the tribals of dangs. Waghai Botanical Garden has 1200 plant species of which major collection is of Dr. R.I. Patel - An eminent Taxonomist of Gujarat. Dr. B.G.Vashi; and other collection includes of Dr. J.R.Parmar and Mr. K. L. Dubey's herbaria collection. Objective of the project was to identify and update the flora with their accepted names and document this unique flora in the Waghai Botanical Garden.

## **METHODOLOGY**

### **Collection:**



**Fig: 3. Field collection**

Waghai Botanical Garden was established in 1966 it is situated about 2 Kms. away from Waghai, on Waghai-Saputara Road in Dangs District, Gujarat. It is largest garden in Gujarat spreads over an area of 24 Hector. The Botanical Garden is divided into different plots, which represent all forest types occurring in India as classified by Champion and Seth. Total of 10 plots of the garden was explored till date of which approx 50% diversity was studied and documented. Detailed methodologies were as follow:

- 1) **Field collection:** Twig with good flowers need to be collected for the specimen. The portion of the specimen should have to contain clear phyllotaxy and the branching system. For small herb, collection of more specimens as could fix on the herbarium sheet



- 2) Place the voucher in the field press such that identifying features (flowers, fruits, both sides of leaves) can be easily inspected when dried



- 3) After to the Pressing, sample should be keep inside blotting paper or presser for certain period for drying the plant sample



- 4) After drying the sample, proceed it further for poisoning and mounting.  
Preparation of poisoning Solution: Solution was prepared with ratio of 9:6:4 (90 ml of 70% alcohol solution, 6 ml formaldehyde, 4 ml glacial acetic acid + 0.001% mercuric chloride.)



- 5) Poisoning of plant specimens was done by two methods:
  1. Direct poisoning method: There are several methods of treating specimens for making them permanently poisonous. Specimens may be poisoned by dipping or painting them with an alcoholic solution of mercuric chloride. While treating the specimens care should be taken, should always be clearly labeled since this compound is extremely poisonous.
  2. Field poisoning method: since all several methods were used for poisoning across the world, this method applies directly in to the field. In this method, specimens were placed in one big polythene bag. Solution was pored in side the polythene bag. Once gets pored tight up the mouth of the polythene. Keep as it is for certain period of time once it gets fully wet. Than dry the sample by using blotting paper.



- 6) The specimens may be whole plants or plant parts get dried, it will mount on a herbarium sheet (11.5 x 16.5 in.) long, the specimen may be attached by various methods. A common method involves smearing a glass plate with a water-soluble paste, placing the specimen on the paste, and then transferring the glued plant to the mounting sheet. Small paper envelopes called fragment packets are attached to the



sheet to hold seeds, extra flowers, or any part of the specimen. Peculiar or key characteristics should be mentioned on the herbarium notes.

- 7) Once mounted and deposited in the herbarium, the collections are referred to as herbarium specimens. Such herbarium specimens can be stored for many year.



**Table 1:** Plants collected from Waghai Botanical Garden between August 2017 to March 2018.

Sr. No	Family Name	Plant Name	Vernacular Name	Habit	Class
<b>16<sup>th</sup> August, 2017</b>					
1.	Apocynaceae	<i>Plumeria rubra</i> L.	Lalchampo	Shrub	Dicot
2..	Apocynaceae	<i>Tabernaemontana divaricata</i> (L.) R.Br. ex Roem. & Schult.	Taggar	Shrub	Monocot
3..	Araceae	<i>Colocasia esculenta</i> (L.) Schott	Tera	Herb	Monocot
4.	Araucariaceae	<i>Araucaria columnaris</i> (G.Forst.) Hook.	Christmas tree	Tree	Gymnosperm
5.	Asteraceae	<i>Cyanthillium cinereum</i> (L.) H.Rob.	Shadevi	Herb	Dicot
6.	Malvaceae	<i>Triumfetta rhomboidea</i> Jacq.	Chunch ni jat	Herb	Dicot
7.	Asteraceae	<i>Ageratum conyzoides</i> (L.) L.	Borandu	Herb	Dicot
8.	Asteraceae	<i>Cosmos sulphureus</i> Cav.	Kasmiyo	Herb	Dicot
9.	Commelinaceae	<i>Murdannia nudiflora</i> (L.) Brenan		Herb	Dicot
10.	Convolvulaceae	<i>Evolvulus nummularius</i> (L.) L.	Safed Shankpushpi	Herb	Dicot
11.	Cupressaceae	<i>Platyclusus orientalis</i> (L.) Franco	Vidhya	Herb	Monocot
12.	Cyperaceae	<i>Cyperus michelianus</i> (L.) Delile	Gundani	Herb	Monocot
13.	Cyperaceae	<i>Cyperus alulatus</i> J.Kern	Gundun	Herb	Monocot
14.	Eriocaulaceae	<i>Eriocaulon elenoriae</i> Fyson	Dhudu-Ghas	Herb	Monocot
15.	Euphorbiaceae	<i>Phyllanthus urinaria</i> L.	Bhoi amli	Herb	Dicot
16..	Euphorbiaceae	<i>Jatropha integerrima</i> Jacq.	Jatropha	Shrub	Dicot
17.	Euphorbiaceae	<i>Euphorbia hirta</i> L.	Dadari	Herb	Dicot
18.	Grass	Unknown	Polada	Herb	Monocot
19.	Lythraceae	<i>Ammannia multiflora</i> Roxb.	Ammania, Zino agyo	Herb	Dicot
20.	Malvaceae	<i>Hibiscus rosa-sinensis</i> L.	Jasud	Shrub	Dicot
21	Moraceae	<i>Duranta erecta</i> L.		Tree	Dicot
22.	Oxalidaceae	<i>Oxalis corniculata</i> L.	Mukhjali	Herb	Dicot

23.	Poaceae	<i>Brachiaria ramosa</i> (L.) Stapf	Orad	Herb	Monocot
24.	Poaceae	<i>Paspalidium flavidum</i> (Retz.) A.Camus	Borath	Herb	Monocot
25.	Poaceae	<i>Digitaria bicornis</i> (Lam.) Roem. & Schult.	Shikari	Herb	Monocot
26.	Poaceae	<i>Brachiaria reptans</i> (L.) C.A.Gardner & C.E.Hubb.	Tokariya	Herb	Monocot
27.	Poaceae	<i>Sporobolus tenuissimus</i> (Schrank.) Kuntze	Balgundan	Herb	Monocot
28.	Poaceae	<i>Paspalidium geminatum</i> (Forssk.) Stapf	Jogda	Herb	Monocot
29.	Poaceae	<i>Paspalum scrobiculatum</i> L.	Kada	Herb	Monocot
30.	Poaceae	<i>Digitaria stricta</i> Roth	Kathara	Herb	Monocot
31.	Poaceae	<i>Eragrostis unioloides</i> (Retz.) Nees ex Steud.		Herb	Monocot
32.	Poaceae	<i>Eleusine indica</i> (L.) Gaertn.	Chuch	Herb	Monocot
33.	Poaceae	<i>Paspalidium flavidum</i> (Retz.) A.Camus	Danavalu	Herb	Monocot
34.	Poaceae	<i>Setaria pumila</i> (Poir.) Roem. & Schult.	Kalva	Herb	Monocot
35.	Rubiaceae	<i>Oldenlandia herbacea</i> (L.) Roxb.	Sarambal	Herb	Dicot
36.	Rubiaceae	<i>Mussaenda erythrophylla</i> Schumach. & Thonn.	Musenda	Shrub	Dicot
37.	Rubiaceae	<i>Ixora coccinea</i> L.	Ixora	Shrub	Dicot
38.	Scrophulariaceae	<i>Lindernia crustacea</i> (L.) F.Muell.	Gogle	Herb	Dicot
39.	Scrophulariaceae	<i>Lindernia multiflora</i> (Roxb.) Mukerjee	-	Herb	Dicot
40.	Scrophulariaceae	<i>Lindernia ciliata</i> (Colsm.) Pennell	Datari	Herb	Dicot
41.	Solanaceae	<i>Rauvolfia serpentina</i> (L.) Benth. ex Kurz	Van sarpgnadha	Shrub	Dicot
42.	Mimosaceae	<i>Calliandra haematocephala</i> Hassk.			
43.	Amaryllidaceae	<i>Hymenocallis coronaria</i> (Leconte) Kunth		Herb	Monocot
44.	Annonaceae	<i>Polyalthia pendula</i> Capuron ex G.E. Schatz & Le Thomas	Asopalav	Tree	Dicot
45.	Apocynaceae	<i>Tabernaemontana divaricata</i> (L.) R.Br. ex Roem. & Schult.	Double taggar, Farki	Shrub	Dicot
46.	Asclepediaceae	<i>Hemidesmus indicus</i> (L.) R. Br. ex Schult.	Anantmul	Climber	Dicot
47.	Asteraceae	<i>Emilia sonchifolia</i> (L.) DC. ex DC.	Dudheli	Herb	Dicot
48.	Cannaceae	<i>Canna indica</i> L.		Herb	Monocot
49.	Cycadaceae	<i>Cycas revoluta</i> Thunb.		Shrub	Gymnosperm

50.	Cypraceae	<i>Kyllinga brevifolia</i> Rottb.	Gudun verity	Herb	Monocot
51.	Fabaceae	<i>Desmodium triflorum</i> (L.) DC.	Dade	Herb	Dicotf
52.	Gentianaceae	<i>Oxalis triangularis</i> A. St.-Hil.	Patangya	Herb	Dicot
53.	Gentianaceae	<i>Biophytum sensitivum</i> (L.) DC.		Herb	Dicot
54.	Grass	<i>Setaria verticillata</i> (L.) P.Beauv.	Chipni	Herb	Monocot
55.	Lamiaceae	<i>Volkameria inermis</i> L.	Kadvimendi	Shrub	Dicot
56.	Lamiaceae	<i>Ocimum tenuiflorum</i> L.	Syam tulsi, Krushna tulsi	Herb	Dicot
57.	Liliaceae	<i>Ophiopogon jaburan</i> (Siebold) Lodd.		Herb	Monocot
58.	Liliaceae	<i>Fritillaria pudica</i> (Pursh) Spreng.	Lili	Herb	Monocot
59.	Lythraceae	<i>Lagerstroemia speciosa</i> (L.) Pers.	Bondaro	Tree	Dicot
60.	Menispermaceae	<i>Cocculus hirsutus</i> (L.) W.Theob.	Vasan Vel, Jal Jamini	Climber	Dicot
61.	Nyctaginaceae	<i>Bougainvillea spectabilis</i> Willd.	Bouganvelia	Shrub	Dicot
62.	Poaceae	<i>Pennisetum hohenackeri</i> Hochst. ex Steud.	Dabadiya	Herb	Monocot
63.	Pteridaceae	<i>Adiantum lunulatum</i> Burm. f.	Chidi	Herb	Pteridophyte
64.	Rubiaceae	<i>Ixora coccinea</i> L. white variant		Shrub	Dicot
65.	Zamiaceae	<i>Zamia furfuracea</i> L.f. ex Aiton	Khichdiya palm	Shrub	Gymnosperm
66.	Caryophyllaceae	<i>Dianthus chinensis</i> L.		Herb	Dicot
67.	Convolvulaceae	<i>Ipomoea batatas</i> (L.) Lam.	Sakariyu	Climber	Dicot
68.	Euphorbiaceae	<i>Euphorbia milii</i> Des Moul.		Herb	Dicot
69.	Araceae	<i>Epipremnum pinnatum</i> (L.) Engl	Surpankha	Climber	Monocot
70.	Asteraceae	<i>Solidago canadensis</i> L.		Herb	Dicot
71.	Crassuliaceae	<i>Brayophllum pinnatum</i> (Lam.) Oken		Herb	Dicot
72.	Cuperaceae	<i>Juniperus spp.</i>	Agrasoru		
73.	Euphorbiaceae	<i>Phyllanthus emblica</i> L.	Amla		
74.	Euphorbiaceae	<i>Acalypha wilkesiana</i> Müll.Arg.	Ladom	Herb	Dicot
75.	Euphorbiaceae	<i>Acalypha hispida</i> Burm.f.	Puch biladi	Herb	Dicot
76.	Liliaceae	<i>Chlorophytum comosum</i> (Thumb.)Jacques		Herb	Monocot
77.	Musaceae	<i>Heliconia rostrata</i> Ruiz & Pav.		Herb	Monocot

78.	Myrtaceae	<i>Psidium guajava</i> L.	Jamphal	Tree	Dicot
79.	Rosaceae	<i>Rosa indica</i> L.	Gulab	Herb	Dicot
80.	Santalaceae	<i>Santalum album</i> L.	Chandan	Tree	Dicot
81.	Pteridaceae	<i>Aleuritopteris bicolor</i> (Roxb.) Fraser-Jenk.	Hansraj	Herb	Pteridophyte
82.	Turneraceae	<i>Turnera ulmifolia</i> L.		Shrub	Dicot
83.	Verbinaceae	<i>Lantana camara</i> L.		Herb	Dicot
84.	Apocynaceae	<i>Catharanthus roseus</i> (L.) G.Don	Barmashi	Herb	Dicot
85.	Apocynaceae	<i>Thevetia peruviana</i> (Pers.) K.Schum.	Karen	Shrub	Dicot
86.	Asclepeadaceae	<i>Gymnema sylvestre</i> (Retz.) R.Br. ex Sm.	Madhunashini	Climber	Dicot
87.	Asteraceae	<i>Gerbera jamesonii</i> Bolus ex Hook.f.		Herb	Dicot
88.	Asteraceae	<i>Gaillardia aestivalis</i> (Walter) H.Rock		Herb	Dicot
89.	Asteraceae	<i>Sphagneticola trilobata</i> (L.) Pruski	Ghavanti ni verity	Herb	Dicot
90.	Caselpineaceae	<i>Senna insularis</i> (Britton & Rose) H.S.Irwin & Ba		Herb	Dicot
91.	Cycadaceae	<i>Cycas circinalis</i> L.		Tree	Gymnosperm
92.	Fabaceae	<i>Clitoria ternatea</i> L.		Climber	Dicot
93.	Fabaceae	<i>Alysicarpus longifolius</i> (Spreng.) Wight & Arn.	Dade	Herb	Dicot
94.	Fabaceae	<i>Teramnus labialis</i> (L.f.) Spreng.		Herb	Dicot
95.	Fabaceae	<i>Millettia peguensis</i> Ali	Brahmhi violet	Tree	Dicot
96..	Guttiferae	<i>Elaeocarpus serratus</i> L.	Rudraksh	Tree	Dicot
97.	Rubiaceae	<i>Pentas lanceolata</i> (Forssk.) Deflers		Shrub	Dict
98.	Malvaceae	<i>Corchorus oltorius</i> L	Chuch	Herb	Dicot
99.	Urticaceae	<i>Elatostema cuneatum</i> Wight		Herb	Dicot
100.	Amaraceae	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.		Herb	Dicot
101.	Apocynaceae	<i>Allamanda cathartica</i> L.		Climber	Dicot
102.	Araceae	<i>Phoenix sylvestris</i> (L.) Roxb.	Kahjoor	Tree	Monocot
103.	Araceae	<i>Caryota urens</i> L.	Shiv jata	Tree	Monocot
104.	Strelitziaceae	<i>Ravenala madagascariensis</i> Sonn.		Herb	Monocot
105.	Arecaceae	<i>Roystonea regia</i> (Kunth) O.F.Cook		Tree	Monocot

106.	Asteraceae	<i>Tarlmounia elliptica</i> (DC.) H.Rob., S.C.Keeley, Skvarla & R.Chan	Paddavel	Climber	Dicot
107.	Asteraceae	<i>Synedrella nodiflora</i> (L.) Gaertn.		Herb	Dicot
108.	Astraceae	<i>Eclipta prostrata</i> (L.) L.	Bhangro	Herb	Dicot
109.	Cesalpiniaceae	<i>Senna tora</i> (L.) Roxb.	Puvadiyu	Herb	Dicot
110.	Convolvulaceae	<i>Ipomoea cairica</i> (L.) Sweet	Railway paper	Climber	Dicot
111.	Euphorbiaceae	<i>Euphorbia hyssopifolia</i> L.	Dadri ni verity	Herb	Dicot
112.	Euphorbiaceae	<i>Phyllanthus fraternus</i> G.L.Webster	Bhoi amla	Herb	Dicot
113.	Euphorbiaceae	<i>Euphorbia tirucalli</i> L.	Patli hardsakal.	Herb	Dicot
114.	Liliaceae	<i>Asparagus racemosus</i> Willd.	Stavri	Herb	Monocot
115.	Lythraceae	<i>Malpighia coccigera</i> L.		Shrub	Dicot
116.	Mimosaceae	<i>Mimosa pudica</i> L.	Lajamni	Climber	Dicot
117.	Moraceae	<i>Ficus benjamina</i> L.		Tree	Dicot
118.	Nephrolepidaceae	<i>Nephrolepis exaltata</i> (L.) Schott	Hansraj	Herb	Pteridophyte
119.	Oleaceae	<i>Jasminum grandiflorum</i> L.	Chameli	Herb	Dicot
120.	Ophioglossaceae	<i>Ophioglossum reticulatum</i> L.		Herb	Pteridophte
121.	Piperaceae	<i>Piper nigrum</i> L.	Nagar vel	Herb	Monocot
122.	Polygonaceae	<i>Antigonon leptopus</i> Hook. & Arn.	Icecream creeper	Climber	
123.	Polypodiaceae	<i>Phymatosorus scolopendria</i> (Burm. f.) Pic. Serm.		Herb	Pteridophyte
124.	Pteridaceae	<i>Pteris vita</i> L.			
125.	Rubiaceae	<i>Rondeletia odorata</i> Jacq.		Shrub	Dicot
126.	Rubiaceae	<i>Pseudomussaenda flava</i> Verdc.		Herb	Dicot
127.	Rutaceae	<i>Crescentia alata</i> Kunth	Chandrafal	Shrub	Dicot
128.	Solanaceae	<i>Physalis minima</i> L.	Fole	Herb	Dicot
129.	Thelypteridaceae	<i>Christella dentata</i> (Forssk.) Brownsey & Jermy		Herb	Pteridophyte
130	Tiliaceae	<i>Corchorus aestuans</i> L.	Chuch	Herb	Dicot



131.	Tiliaceae	<i>Triumfetta rotundifolia</i> Lam.	Chunani verity	Herb	Dicot
132.	Vitaceae	<i>Cayratia trifolia</i> (L.) Domin		Climber	Dicot
133.	Lauraceae	<i>Litsea glutinosa</i> (Lour.)C.B.Roxb.		Tree	Dicot
134.	Acanthaceae	<i>Thunbergia grandiflora</i> (Roxb. ex Rottl.) Roxb.		Climber	Dicot
135.	Annonaceae	<i>Uvaria littoralis</i> (Blume) Blume		Tree	Dicot
136.	Araceae	<i>Epipremnum pinnatum</i> (L.) Engl.	Money plant	Climber	Monocot
137.	Araceae	<i>Amorphophallus commutatus</i> (Schott) Engl.	Suran	Herb	Monocot
138.	Bignoniaceae	<i>Parmentiera cereifera</i> Seem.	Candle tree	Shrub	Dicot
139.		<i>Unknown</i>		Tree	Dicot
140.	Cannabaceae	<i>Trema orientalis</i> (L.) Blume		Tree	Dicot
141.	Dilleniaceae	<i>Dillenia pentagyna</i> Roxb.		Tree	Dicot
142.	Dioscoriaceae	<i>Dioscorea wallichii</i> Hook.f.		Climber	Monocot
143.	Dioscoriaceae	<i>Dioscorea bulbifera</i> L.		Climber	Monocot
144.	Ebenaceae	<i>Diospyros malabarica</i> (Desr.) Kostel.		Tree	Dicot
145.	Euphorbiaceae	<i>Antidesma acidum</i> Retz.		Tree	Dicot
146.	Phyllanthaceae	<i>Flueggea virosa</i> (Roxb. ex Willd.) Royle	Pichrun		
147.	Fabaceae	<i>Mundulea sericea</i> (Willd.) A.Chev.	Supli	Shrub	Dicot
148.	Hypoxidaceae	<i>Curculigo orchioides</i> Gaertn.	Kali musli	Herb	Dicot
149.	Myrsinaceae	<i>Ardisia solanacea</i> (Poir.) Roxb.		Tree	Dicot
150.	Orobanchaceae	<i>Aeginetia indica</i> L.	Popte	Herb	Dicot
151.	Rahmnaceae	<i>Ziziphus xylopyrus</i> (Retz.) Willd.	Ghat bor	Shrub	Dicot
152.	Ranunculaceae	<i>Clematis brachiata</i> Thunb.		Climber	Dicot
153.	Rubiaceae	<i>Morinda pubescens</i> Sm.	Aal	Shrub	Dicot
154.	Solanaceae	<i>Solanum americanum</i> Mill.		Shrub	Dicot
155.	Malvaceae	<i>Helicteres isora</i> L.	Mardasing	Shrub	Dicot
156.	Vitaceae	<i>Cissus quadrangularis</i> L.	Hadsakal	Climber	Dicot
157.	Vitaceae	<i>Leea indica</i> (Burm. f.) Merr.		Herb	Dicot
158.	Vitaceae	<i>Leea macrophylla</i> Roxb. ex Hornem.		Herb	Dicot
159.	Vitaceae	<i>Ampelocissus latifolia</i> (Roxb.) Planch.		Climber	Dicot
160.	Zingiberaceae	<i>Curcuma pseudomontana</i> J.Graham	Haldar	Herb	Monocot

161.	Zingiberaceae	<i>Chelocostus speciosus</i> (J.Koenig) C.D.Specht		Herb	Monocot
<b>11<sup>th</sup> September, 2017</b>					
162.	Asteraceae	<i>Cosmos sulphureus red variant</i> Cav.	Pilo Kasmio	Herb	Dicot
163.	Euphorbiaceae	<i>Acalypha wilkinsianan. F mosaica</i>	Ladhan	Herb	Dicot
164.	Euphorbiaceae	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss.	Croton	Shrub	Dicot
165.	Euphorbiaceae	<i>Acalypha ciliata</i> Forssk.	Agya	Herb	Dicot
166.	Asparagaceae	<i>Cordyline fruticosa</i> (L.) A.Chev.	Drecaena	Shrub	Monocot
167.	Asparagaceae	<i>Agave salmiana</i> Otto ex Salm-Dyck	Ramban	Shrub	Monocot
168.	Lamiaceae	<i>Plectranthus scutellarioides</i> (L.) R.Br. Green	Coleus	Herb	Dicot
169.	Lamiaceae	<i>Plectranthus scutellarioides</i> (L.) R.Br. "Autumn Pink"	Coleus	Herb	Dicot
170.	Myrtaceae	<i>Cinnamomum verum</i> (L.) Merr.	Taj pan	Shrub	Dicot
171.	Araceae	<i>Syngonium macrophyllum</i> Engl.	Mota money plant	Climber	Monocot
172.	Araceae	<i>Pistia stratiotes</i> L.	-	Herb	Monocot
173.	Commelinaceae	<i>Tradescantia zebrina var. zebrina</i>		Herb	Monocot
174.	Basellaceae	<i>Basella alba</i> L.	Poi	Herb	Dicot
175.	Portulacaceae	<i>Portulaca grandiflora</i> Hook.	Office time	Herb	Dicot
176.	Crassulaceae	<i>Kalanchoe × houghtonii</i> D.B.Ward	Panfuti ni verity	Herb	Dicot
177.	Lythraceae	<i>Cuphea hyssopifolia</i> Kunth		Herb	Dicot
178.	Plantaginaceae	<i>Russelia equisetiformis</i> Schltld. & Cham.	Russelia	Climber	Dicot
179.	Plantaginaceae	<i>Angelonia salicariifolia</i> Bonpl.		Herb	Dicot
180.	Moraceae	<i>Ficus elastica</i> Roxb. ex Hornem.	Vad ni jat	Tree	Dicot
181.	Araceae	<i>Caladium bicolor</i> (Aiton) Vent.	Rangun pan	Herb	Monocot
182.	Rubiaceae	<i>Ixora cuneifolia</i> Roxb.	Ixora pink	Shrub	Dicot
183.	Balsaminaceae	<i>Impatiens balsamina</i> L.	Balsam	Herb	Dicot
184.	Apocynaceae	<i>Allamanda blanchetii</i> A.DC.	Alamanda pink	Climber	Dicot
185.	Leguminosae	<i>Chamaecrista pumila</i> (Lam.) K.Larsen	Dhedhor	Herb	Dicot

186.	Leguminosae	<i>Chamaecrista nictitans</i> (L.) Moench	Dhedhor ni jat	Herb	Dicot
187.	Leguminosae	<i>Smithia conferta</i> Sm.	Barbadiya	Herb	Dicot
188.	Asparagaceae	<i>Dracaena fragrans</i> (L.) Ker Gawl.	Dracaena mota	Shrub	Monocot
189.	Phyllanthaceae	<i>Phyllanthus amarus</i> Schumach. & Thonn.	Bhoi amla	Herb	Dicot
190.	Amaryllidaceae	<i>Crinum asiaticum</i> L.	Pani	Herb	Monocot
191.	Araceae	<i>Anthurium andraeanum</i> Linden ex André		Herb	Monocot
192.	Araceae	<i>Spathiphyllum cochlearispathum</i> (Liebm.) Engl.	Tamakuni veraity	Herb	
193.	Phyllanthaceae	<i>Phyllanthus virgatus</i> G.Forst.		Herb	Dicot
194.		<i>Euphorbia hypericifolia</i> L.	Dadri ni jat	Herb	Dicot
195.	Phyllanthaceae	<i>Phyllanthus tenellus</i> Roxb.	Boy amla ni jat	Herb	
196.	Euphorbiaceae	<i>Codiaeum variegatum</i> (L.) Rumph. ex A.Juss. "punctatum"		Shrub	Dicot
197.	Rubiaceae	<i>Pentas lanceolata</i> (Forssk.) Deflers "white variant"		Shrub	Dicot
198.	Pandanaceae	<i>Pandanus odorifer</i> (Forssk.) Kuntze	Kevdo	Shrub	Monocot
199.	Bignoniaceae	<i>Kigelia africana</i> (Lam.) Benth.	Undhaphul	Tree	Dicot
200.	Rhamnaceae	<i>Ziziphus jujuba</i> Mill.	Khat bor	Shrub	Dicot
201.	Leguminosae	<i>Clitoria annua</i> J.Graham	Gokarni jat	Herb	Dicot
202.	Cucurbitaceae	<i>Cayaponia laciniosa</i> (L.) C.Jeffrey	Shiv lingi	Climber	Dicot
203.	Euphorbiaceae	<i>Euphorbia tithymaloides</i> L.	Dhingaliya thor	Herb	Dicot
204.	Malvaceae	<i>Azanza lampas</i> (Cav.) Alef.	Bhindi	Herb	Dicot
205.	Brassicaceae	<i>Cleome viscosa</i> L.	Sonpaya	Herb	Dicot
206.	Caselpiniaceae	<i>Senna occidentalis</i> (L.) Link	Kasundri	Herb	Dicot
207.	Oxalidaceae	<i>Averrhoa carambola</i> L.	Kamrak	Tree	Dicot
208.	Leguminosae	<i>Abrus precatorius</i> L. White variant	Chanothi white	Climber	Dicot
209.	Leguminosae	<i>Uraria picta</i> (Jacq.) DC.	Pithvan,	Herb	Dicot

			Krushnaparni		
210.	Piperaceae	<i>Piper arboreum</i> Aubl.	Mari	Herb	Monocot
211.	Putranjivaceae	<i>Putranjiva roxburghii</i> Wall.	Putranjiva	Tree	Dicot
212.	Rutaceae	<i>Murraya paniculata</i> (L.) Jack	Kunti kamini	Tree	Dicot
213.	Loganiaceae	<i>Strychnos potatorum</i> L.f.	Zerkochla	Tree	Dicot
214.	Zingiberaceae	<i>Alpinia galanga</i> (L.) Willd.	Elchi	Herb	Monocot
215.	Euphorbiaceae	<i>Manihot esculenta</i> Crantz	Tapioca	Shrub	Dicot
216.	Rubiaceae	<i>Gardenia latifolia</i> Aiton	Hing	Shrub	Dicot
217.	Dioscoreaceae	<i>Dioscorea hispida</i> Dennst.	Vaj kand	Climber	Monocot
218.	Dioscoreaceae	<i>Dioscorea alata</i> L.	Amchai	Climber	Monocot
219.	Celastraceae	<i>Celastrus paniculatus</i> Willd.	Malkangni	Shrub	Dicot
220.	Leguminosae	<i>Abrus precatorius</i> L. Blue variant	Lal chanothi	Climber	Dicot
221.	Rubiaceae	<i>Neolamarckia cadamba</i> (Roxb.) Bosser	Kadam	Tree	Dicot
222.	Portulacaceae	<i>Portulaca grandiflora</i> Hook.	Kashmir gulab	Herb	Dicot
223.	Acanthaceae	<i>Crossandra infundibuliformis</i> (L.) Nees		Shrub	Dicot
224.	Araceae	<i>Colocasia antiquorum</i> Schott	Patra	Herb	Monocot
225.	Poaceae	<i>Chrysopogon zizanioides</i> (L.) Roberty	Vada, Khas	Herb	Monocot
226.	Solanaceae	<i>Solanum indicum</i> L.	Ubhi ringni	Shrub	Dicot
227.	Euphorbiaceae	<i>Jatropha gossypifolia</i> L.	Jatropha	Shrub	Dicot
228.	Oleaceae	<i>Jasminum grandiflorum</i> L.	Juhi ni jat	Climber	Dicot
229.	Asparagaceae	<i>Agave americana</i> L. <i>medico-picta</i>	Safed Ketki	Herb	Monocot
230.	Asparagaceae	<i>Furcraea foetida</i> (L.) Haw.	Ketki moti	Shrub	Monocot
231.	Crassulaceae	<i>Kalanchoe gastonis-bonnieri</i> Raym.-Hamet & H. Perrier	Panfuti	Herb	Dicot
232.	Martyniaceae	<i>Martynia annua</i> L.	Vag nakh	Herb	Dicot
233.	Phyllanthaceae	<i>Bridelia retusa</i> (L.) A.Juss.	Asan	Tree	Dicot
234.	Zingiberaceae	<i>Curcuma amada</i> Roxb.	Amba Haldar	Herb	Monocot
235.	Balsaminaceae	<i>Impatiens balsamina</i> L. Pink	Tivra	Herb	Dicot
236.	Balsaminaceae	<i>Impatiens balsamina</i> L. white	Tivra	Herb	Dicot
237.	Apocynaceae	<i>Cryptolepis</i> ??	Kurdu	Climber	Dicot
238.	Euphorbiaceae	<i>Euphorbia heterophylla</i> L.	Dudhela ni	Herb	Dicot

			verity		
239.	Compositae	<i>Tridax procumbens</i> (L.) L.	Ghavti	Herb	Dicot
240.	Pedaliaceae	<i>Sesamum indicum</i> L.	Tal	Herb	Dicot
241.	Verbenaceae	<i>Glandularia bipinnatifida</i> (Schauer) Nutt.		Herb	Dicot
242.	Malvaceae	<i>Sida rhombifolia</i> L.	Chikna	Herb	Dicot
243.	Apocynaceae	<i>Rauvolfia serpentina</i> (L.) Benth. ex Kurz	Serp gandha	Herb	Dicot
244.	Araceae	<i>Amorphophallus margaritifer</i> (Roxb.) Kunth	Jangli suran ni jat	Herb	Monocot
245.			Lundi vel	Climber	Monocot
246.	Ebenaceae	<i>Diospyros montana</i> Roxb.	Dheki	Tree	Dicot
247.	Sapotaceae	<i>Manilkara zapota</i> (L.) P.Royen	Chiku	Tree	Dicot
248.	Meliaceae	<i>Melia azedarach</i> L.	Limbari	Tree	Dicot
249.	Leguminosae	<i>Bauhinia malabarica</i> Roxb.	Khati chamol	Tree	Dicot
250.	Anonaceae	<i>Annona squamosa</i> L.	Sitafal.	Tree	Dicot
251.	Leguminosae	<i>Indigofera trifoliata</i> L.	Barbadiya	Herb	Dicot
252.	Acanthaceae	<i>Neuracanthus sphaerostachys</i> Dalzell	Kunje	Herb	Dicot
253.	Leguminosae	<i>Crotalaria linifolia</i> L.f.	Fatakdi	Herb	Dicot
254.	Menispermaceae	<i>Cissampelos pareira</i> L.	Lanvel	Climber	Dicot
255.	Apiaceae	<i>Centella asiatica</i> (L.) Urb.	Brahmi	Herb	Dicot
256.	Malvaceae	<i>Melochia corchorifolia</i> L.	Chuncha	Herb	Dicot
257.	Caesalpiniaceae	<i>Senna auriculata</i> (L.) Roxb.	Mindi aval	Herb	Dicot
258.	Annonaceae	<i>Artabotrys hexapetalus</i> (L.f.) Bhandari	Champo	Shrub	Dicot
259.	Acanthaceae	<i>Strobilanthes callosa</i> Nees	Karvi	Shrub	Dicot
260.	Rubiaceae	<i>Hymenodictyon orixense</i> (Roxb.) Mabb.	Bhamar chal, Kadwai	Tree	Dicot
261.	Caesalpiniaceae	<i>Caesalpinia bonduc</i> (L.) Roxb.	Kanchko	Shrub	Dicot
262.	Annonaceae	<i>Annona reticulata</i> L.	Ramphal	Tree	Dicot
263.	Poaceae	<i>Bambusa vulgaris</i> Schrad.	Pilo bamboo	Shrub	Monocot
264.	Dioscoreaceae	<i>Tacca leontopetaloides</i> (L.) Kuntze	Dev lakdi	Herb	Monocot
265.	Leguminosae	<i>Cajanus platycarpus</i> (Benth.) Maesen	Supal singi	Climber	Dicot
266.	Rhamnaceae	<i>Ziziphus jujuba</i> Mill.	Rajbor	Shrub	Dicot



267.	Leguminosae	<i>Bauhinia roxburghiana</i> Voigt	Semla Kanchnar	Tree	Dicot
268.	Leguminosae	<i>Acacia auriculiformis</i> Benth.	Estoliya baval	Shrub	Dicot
269.	Euphorbiaceae	<i>Euphorbia tithymaloides</i> L. Varigatus	Safed Dingaliya thor	Herb	Dicot
270.	Leguminosae	<i>Mimosa hamata</i> Wild.	Chilar vel ni jat	Tree	Dicot
271.	Rutaceae	<i>Feronia elephantum</i> Corrêa	Kothi	Tree	Dicot
272.	Poaceae	<i>Bambusa tuldooides</i> Munro	Bear bottle bambu	Shrub	Monocot
273.			Bamboo	Tree	Monocot
274.	Oleaceae	<i>Nyctanthes arbor-tristis</i> L.	Parijatak	Shrub	Dicot
275.	Rubiaceae	<i>Ophiorrhiza rugosa</i> var. <i>prostate</i> (D.Don) Deb & Montal		Herb	Dicot
276.	Leguminosae	<i>Bauhinia malabarica</i> Roxb.	Khathi chamol ni jat	Tree	Dicot
277.	Myrtaceae	<i>Callistemon viminalis</i> (Sol. ex Gaertn.) G.Don	Bottel-brush tree	Shrub	Dicot
278.	Scrophulariaceae	<i>Torenia indica</i> C.J.Saldanha	Gogle ni jat	Herb	Dicot
279.	Cesalpiniaceae	<i>Leucaena leucocephala</i> (Lam.) de Wit		Tree	Dicot
280.	Moraceae	<i>Ficus racemosa</i> L.	Umbro	Tree	Dicot
281.	Euphorbiaceae	<i>Baliospermum solanifolium</i> (Burm.) Suresh	Jangli diveli	Herb	Dicot
282.	Malvaceae	<i>Urena sinuata</i> L.	Vagh panji	Herb	Dicot
283.	Leguminosae	<i>Bauhinia purpurea</i> L.	Kanchan	Tree	Dicot
284.	Capparaceae	<i>Capparis zeylanica</i> L.	Kanthar	Climber	Dicot
285.	Phyllanthaceae	<i>Cleistanthus collinus</i> (Roxb.) Benth. ex Hook.f.	Ghaneri	Tree	Dicot
286.	Phyllanthaceae	<i>Glochidion ellipticum</i> Wight		Tree	Dicot
287.	Amaranthaceae	<i>Celosia argentea</i> L.		Herb	Dicot
<b>13<sup>th</sup> October, 2017</b>					
288	Gentianaceae	<i>Canscora diffusa</i> (Vahl) R.Br. ex Roem. & Schult.		Herb	Dicot

289	Leguminosae	<i>Sesbania bispinosa</i> (Jacq.) W.Wight.	Dhendor	Shrub	Dicot
290	Malvaceae	<i>Kydia calycina</i> Roxb.	Varing	Tree	Dicot
291	Leguminosae	<i>Uraria rufescens</i> (DC.) Schindl.	Shal parni	Herb	Dicot
292	Leguminosae	<i>Desmodium dichotomum</i> (Willd.) DC.	Shal parni	Herb	Dicot
293	Leguminosae	<i>Rhynchosia viscosa</i> (Roth) DC.	Ranvel	Climber	Dicot
294	Convolvulaceae	<i>Ipomoea triloba</i> L.	Gagol	Climber	Dicot
295	Amaranthaceae	<i>Achyranthes aspera</i> L.	Janjeta	Herb	Dicot
296	Lamiaceae	<i>Ocimum basilicum</i> L.	Damro	Herb	Dicot
297	Gentianaceae	<i>Enicostema axillare</i> (Poir. ex Lam.) A.Raynal	Mamejo	Herb	Dicot
298	Malvaceae	<i>Sida acuta</i> Burm.f.	Bala	Herb	Dicot
299	Malvaceae	<i>Sida cordifolia</i> L.	Bala	Herb	Dicot
300	Lythraceae	<i>Ammannia multiflora</i> Roxb.		Herb	Dicot
301	Brassicaceae	<i>Brassica nigra</i> (L.) K.Koch	Rai	Herb	Dicot
302	Acanthaceae	<i>Barleria lupulina</i> Lindl.	Kanta serya	Herb	Dicot
303	Lamiaceae	<i>Hyptis suaveolens</i> (L.) Poit.	Fanglut	Shrub	Dicot
304	Fabaceae	<i>Desmodium gangeticum</i> (L.) DC.	Shal parni	Herb	Dicot
305	Leguminosae	<i>Desmodium gangeticum</i> (L.)Dc.	Shal parni	Herb	Dicot
306	Leguminosae	<i>Desmodium laxiflorum</i> DC.	Shal parni	Herb	Dicot
307	Leguminosae	<i>Cajanus scarabaeoides</i> (L.) Thouars	Supli sing	Climber	Dicot
308	Convolvulaceae	<i>Argyrea nervosa</i> (Burm. f.) Bojer	Samudra sos	Climber	Dicot
309	Piperaceae	<i>Piper longum</i> L.	Lindipiper	Herb	Monocot
310	Rubaceae	<i>Spermacoce ocyroides</i> Burm.f.		Herb	Dicot
311	Malvaceae	<i>Abelmoschus manihot</i> (L.) Medik.	Bhindi ni jat, ranbhend	Shrub	Dicot
312	Mimosaceae	<i>Albizia lebeck</i> (L.) Benth.	Kalo siris	Tree	Dicot
313	Onagraceae	<i>Ludwigia octovalvis</i> (Jacq.) P.H.Raven		Herb	Dicot
314	Acanthaceae	<i>Hygrophila auriculata</i> (Schumach.) Heine	Talim Kahana	Herb	Dicot
315	Acanthaceae	<i>Barleria cristata</i> L.	Kanta serya Safed	Herb	Dicot
316	Acanthaceae	<i>Barleria montana</i> Nees	Gule	Herb	Dicot
317	Plumbaginaceae	<i>Plumbago zeylanica</i> L.	Chitrak	Shrub	Dicot

318	Leguminosae	<i>Crotalaria prostrata</i> Willd.	Fatakdi	Herb	Dicot
319	Poaceae	<i>Themeda tremula</i> (Nees ex Steud.) Hack.	Bhatdi	Herb	Monocot
320	Poaceae	<i>Capillipedium huegelii</i> (Hack.) A.Camus	Gandhedi	Herb	Monocot
321	Leguminosae	<i>Desmodium dichotomum</i> (wild)Dc.	Shal parni ni jat	Herb	Dicot
322	Solanaceae	<i>Cardiospermum halicacabum</i> L.	Kakdoli	Climber	Dicot
323	Nympheaceae	<i>Nymphaea rubra</i> Roxb. ex Andrews	Kamal	Herb	Dicot
324	Nympheaceae	<i>Nymphaea pubescens</i> Willd.	Safed kamal	Herb	Dicot
325	Pontederiaceae	<i>Eichhornia crassipes</i> (Mart.) Solms	Jal naruna	Herb	Dicot
326	Nympheaceae	<i>Nymphoides indica</i> (L.) Kuntze		Herb	Dicot
327	Convolvulaceae	<i>Ipomoea aquatic</i> Forssk.		Climber	Dicot
328	Nelumbonaceae	<i>Nelumbo nucifera</i> Gaertn.		Herb	Dicot
329	Onagraceae	<i>Ludwigia octovalvis</i> (Jacq.) P.H.Raven		Herb	Dicot
330	Pteridophyte	<i>Salvinia adnata</i> Desv.		Herb	Pteridophyte
331	Convolvulaceae	<i>Operculina turpethum</i> (L.) Silva Manso	Nishoter	Climber	Dicot
332	Solanaceae	<i>Solanum virginianum</i> L.	Boyringani	Herb	Dicot
333	Moringaceae	<i>Moringa oleifera</i> Lam.	Sargvo	Tree	Dicot
334	Poaceae	<i>Spodiopogon rhizophorus</i> (Steud.) Pilg.	Thararu	Herb	Monocot
335	Cesalpiniaceae	<i>Senna siamea</i> (Lam.) H.S.Irwin & Barneby	Kasind	Tree	Dicot
336	Leguminosae	<i>Albizia procera</i> (Roxb.) Benth.	Kilay	Tree	Dicot
337	Nyctaginaceae	<i>Mirabilis jalapa</i> L.	Gulabpash	Herb	Dicot
<b>14<sup>th</sup> November, 2017</b>					
338	Sapotaceae	<i>Manilkara hexandra</i> (Roxb.) Dubard	Rayan	Tree	Dicot
339	Asclepiadaceae	<i>Calotropis gigantea</i> (L.) Dryand	Aakdo	Shrub	Dicot
340.	Compositae	<i>Launaea procumbens</i> (Roxb.) Ramayya & Rajagopal	-	Herb	Dicot
341	Leguminosae	<i>Senna hirsuta</i> (L.) H.S.Irwin & Barneby	-	Herb	Dicot
342.	Leguminoseae	<i>Crotalaria triquetra</i> Dalzell	Fatakdi	Herb	Dicot
343	Leguminoseae	<i>Desmodium velutinum</i> (Willd.) DC.	Shal Parni ni Jat	Herb	Dicot
344	Leguminoseae	<i>Mucuna pruriens</i> (L.) DC.	Kuvech,	Climber	Dicot

			Kavcha		
345	Lamiaceae	<i>Anisomeles indica</i> (L.) Kuntze	Bhangrot	Herb	Dicot
346	Leguminosae	<i>Canavalia gladiata</i> (Jacq.) DC.		Climber	Dicot
347	Rhamnaceae	<i>Ventilago denticulata</i> Willd.	Lokhandi vel	Climber	Dicot
348	Cucurbitaceae	<i>Luffa acutangula</i> (L.) Roxb.		Climber	Dicot
349	Compositae	<i>Acmella radicans</i> (Jacq.) R.K.Jansen	Safed Marethi	Herb	Dicot
<b>350</b>			Holae Bhat	Herb	Monocot
351	Leguminosae	<i>Delonix regia</i> (Hook.) Raf.	Gulmahor	Tree	Dicot
352	Euphorbiaceae	<i>Euphorbia pulcherrima</i> Willd. ex Klotzsch	Pavan setiya	Shrub	Dicot
353	Verbinaceae	<i>Vitex peduncularis</i> Wall. ex Schauer.	Nagod ni jat	Tree	Dicot
354	Bignoniaceae	<i>Millingtonia hortensis</i> L.f.	Akash limbo	Tree	Dicot
355	Sapindaceae	<i>Sapindus emarginatus</i> Vahl	Aritha	Tree	Dicot
356	Malvaceae	<i>Erinocarpus nimmonii</i> J.Graham		Tree	Dicot
357	Leguminosae	<i>Crotalaria leptostachya</i> Benth.	Fatakdi ni jat	Herb	Dicot
358	Amaranthaceae	<i>Celosia argentea</i> L.	Kurdu	Herb	Dicot
359	Leguminaceae	<i>Cajanus cajan</i> (L.) Millsp.	Tuveri	Herb	Dicot
360	Malvaceae	<i>Pterospermum diversifolium</i> Blume	Kanak champa	Tree	Dicot
361	Celastraceae	<i>Maytenus rothiana</i> (Walp.) Ramamorthy		Shrub	Dicot
362	Guttiferaceae	<i>Garcinia</i> spp.	Kokam ni Jat	Tree	Dicot
363	Compositae	<i>Chromolaena odorata</i> (L.) R.M.King & H.Rob.	Apapat	Shrub	Dicot
364	Meliaceae	<i>Aphanamixis polystachya</i> (Wall.) R.Parker	Toona	Tree	Dicot
365	Leguminosae	<i>Pterocarpus marsupium</i> Roxb.	Biyo	Tree	Dicot
366	Leguminosae	<i>Spathodea campanulata</i> P.Beauv.	Spathodea	Tree	Dicot
367	Ulmaceae	<i>Holoptelea integrifolia</i> Planch.	Charal, Papdo	Tree	Dicot
368	Leguminosae	<i>Albizia odoratissima</i> (L.f.) Benth.	Safed siris	Tree	Dicot
369	Scrophulariaceae	<i>Russelia equisetiformis</i> Schlttdl. & Cham.		Climber	Dicot
370	Apocynaceae	<i>Adenium obesum</i> (Forssk.) Roem. & Schult.	Ganesh Champa	Shrub	Dicot
371	Compositae	<i>Aster amellus</i> L.		Herb	Dicot
372	Mimosaceae	<i>Calliandra haemetocephalla</i> Hassk.		Tree	Dicot

373	Bignonaceae	<i>Fernandoa adenophylla</i> (Wall. ex G.Don) Steenis	Mele sing	Tree	Dicot
374	Casurinaceae	<i>Casuarina equisetifolia</i> L.	Sharu	Tree	Dicot
375	Acanthaceae	<i>Peristrophe bicalyculata</i> (Retz.) Nees	Khareti	Herb	Dicot
376	Mimosaceae	<i>Acacia catechu</i> (L.f.) Willd.	Kher	Tree	Dicot
377	Leguminosea	<i>Peltophorum pterocarpum</i> (DC.) K.Heyne	Sonmahor	Tree	Dicot
378	Apiaceae	<i>Pimpinella adscendens</i> Dalzell	Dungar jiri, kali jiri	Herb	Dicot
379	Leguminosea	<i>Dalbergia lanceolaria</i> subsp. <i>paniculata</i> (Roxb.) Thoth.	Dandosi	Tree	Dicot
380	Lamiaceae	<i>Tectona grandis</i> L.f.	Saag	Tree	Dicot
381		Grass	Gandedi ni jat	Herb	Monocot
382	Leguminoceae	<i>Vigna spp.</i>	Khare hulund	Climber	Dicot
383	Leguminoceae	<i>Crotalaria spectabilis</i> Roth	Khamba	Herb	Dicot
384	Malvaceae	<i>Hibiscus rostellatus</i> Guill. & Perr.	Khata ambadi	Herb	Dicot
385	Meliaceae	<i>Chukrasia tabularis</i> A.Juss.			
386	Leguminoceae	<i>Milletia spp.</i>		Climber	Dicot
387	Sterculiaceae	<i>Duabanga grandiflora</i> (DC.) Walp.	Duval bangal	Tree	Dicot
388	Boraginaceae	<i>Cordia myxa</i> L.	Gundi	Tree	Dicot
<b>26<sup>th</sup> December, 2017</b>					
389	Dipterocarpaceae	<i>Hopea ponga</i> (Dennst.) Mabb.	Umbh ni Jat	Tree	Dicot
390	Salicaceae	<i>Flacourtia indica</i> (Burm.f.) Merr.	-	Tree	Dicot
391	Rhizophoraceae	<i>Carallia brachiata</i> (Lour.) Merr.	Kirpa	Tree	Dicot
392	Oleaceae	<i>Olea dioica</i> Roxb.		Tree	Dicot
393	Rubiaceae	<i>Catunaregam spinosa</i> (Thunb.) Tirveng.	Mindhal	Tree	Dicot
394	Malvaceae	<i>Grewia nervosa</i> (Lour.) Panigrahi			
395	Apocynaceae	<i>Holarrhena pubescens</i> Wall. ex G.Don	Indra Jav	Tree	Dicot
396	Dilleniaceae	<i>Dillenia indica</i> L.	Mota karmal	Tree	Dicot
397	Leguminosae	<i>Caesalpinia sappan</i> L.	Kachka ni Jat	Shrub	Dicot
398	Loranthaceae	<i>Dendrophthoe falcata</i> (L.f.) Ettingsh.	Bendvad	Epiphyte	Dicot
399	Leguminosae	<i>Flemingia strobilifera</i> (L.) W.T.Aiton	Fokte Asul	Herb	Dicot



400	Euphorbiaceae	<i>Croton persimilis</i> Müll.Arg.	Croton	Tree	Dicot
401		Grass	Tokariya grass	Herb	Monocot
402	Leguminosae	<i>Tamarindus indica</i> L.	Amlı	Tree	Dicot
403	Acanthaceae	<i>Barleria prionitis</i> L.	Kanta seriya	Herb	Dicot
404	Smilacaceae	<i>Smilax zeylanica</i> L.		Climber	Monocot
405	Poaceae	<i>Cymbopogon citratus</i> (DC.) Stapf	Resagram	Herb	Monocot
406	Crassulaceae	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Panfuti	Herb	Dicot
407	Poaceae	<i>Cyprus spp.</i>	Nagar chido	Herb	Monocot
408	Acanthaceae	<i>Andrographis paniculata</i> (Brum.f.) Nees.	Kalu kariyatu	Herb	Dicot
409	Apiaceae	<i>Pimpinella adscendens</i> Dalzell	Dungar jiru	Herb	Dicot
410	Amaranthaceae	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC.	Tandalja	Herb	Dicot
411	Lamiaceae	<i>Salvia plebeia</i> R.Br.	Babral	Herb	Dicot
412	Nyctaginaceae	<i>Boerhavia diffusa</i> L.	Satodi	Herb	Dicot
413	Poaceae	Grass	Kavish	Herb	Monocot
414	Compositae	<i>Cyathocline purpurea</i> (Buch.-Ham. ex D.Don) Kuntze	Buri	Herb	Dicot
415	Asparagaceae	<i>Sansevieria trifasciata</i> Prain	Ketki	Herb	Monocot
416	Asparagaceae	<i>Sansevieria cylindrica</i> Bojer ex Hook.	Gol ketki	Herb	Monocot
417	Sapotaceae	<i>Mimusops elengi</i> L.	Borsali	Tree	Dicot
418	Rutaceae	<i>Citrus medica</i> L.	Bijoru	Shrub	Dicot
419	Celastraceae	<i>Gymnosporia emarginata</i> (Willd.) Thwaites	Vikhro	Shrub	Dicot
420	Lamiaceae	<i>Clerodendrum phlomidis</i> L.f.	Arni	Shrub	Dicot
421	Compositae	<i>Spilanthes acmella</i> (L.) L.	Piplkha	Herb	Dicot
422	Cactaceae	<i>Opuntia elatior</i> Mill.	Fafda thor	Shrub	Dicot
423	Leguminosae	<i>Cassia javanica</i> L.	Cassia	Tree	Dicot
424	Leguminosae	<i>Lablab purpureus</i> (L.) Sweet	Valod papadi	Climber	Dicot
425	Papaveraceae	<i>Argemone mexicana</i> L.	Darudi	Herb	Dicot
426	Scrophulariaceae	<i>Verbascum chinense</i> (L.) Santapau	Babrul	Herb	Dicot
427	Poaceae	Grass	Bhutran Lili cha	Herb	Monocot
428	Rutaceae	<i>Citrus limon</i> (L.) Osbeck	Limbu	Small tree	Dicot

429	Brassicaceae	<i>Rorippa indica</i> (L.) Hiern		Herb	Dicot
430	Lythraceae	<i>Ammannia baccifera</i> L.		Herb	Dicot
431	Molluginaceae	<i>Glinus lotoides</i> L.	Kopariya	Herb	Dicot
432	Bignoniaceae	<i>Markhamia lutea</i> (Benth.) K.Schum.	Gandhi	Tree	Dicot
433	Euphorbiaceae	<i>Mallotus philippensis</i> (Lam.) Müll.Arg.	Kapilo	Tree	Dicot
434	Bignoniaceae	<i>Oroxylum indicum</i> (L.) Kurz	Tetu	Tree	Dicot
435	Moraceae	<i>Artocarpus heterophyllus</i> Lam.	Fanas	Tree	Dicot
436	Euphorbiaceae	<i>Macaranga peltata</i> (Roxb.) Müll.Arg.		Tree	Dicot
437	Leguminosae	<i>Paracalyx scariosus</i> (Roxb.) Ali	Ranval	Climber	Dicot
438	Rubiaceae			Herb	Dicot
439	Euphorbiaceae	<i>Falconeria insignis</i> Royle	Jhade sherod	Tree	Dicot
440	Poaceae	Grass	Molu Ghas	Herb	Monocot
441	Ebenaceae	<i>Diospyros montana</i> Roxb.	Timru ni jat	Tree	Dicot
442	Malvaceae	<i>Guazuma ulmifolia</i> Lam.	Bhadraksh	Tree	Dicot
443	Moraceae	<i>Ficus religiosa</i> L.	Piplo	Tree	Dicot
444	Compositae	<i>Sonchus oleraceus</i> (L.) L.	Dudheli	Herb	Dicot
445	Rubiaceae	<i>Meyna laxiflora</i> Robyns	Petar, Gogada	Shrub	Dicot
<b>16<sup>th</sup> January, 2018</b>					
446	Compositae	<i>Blumea axillaris</i> (Lam.) DC.	Shadevi ni jat	Herb	Dicot
447	Malvaceae	<i>Firmiana simplex</i> (L.) W.Wight	Kadayo	Tree	Dicot
448	Leguminosae	<i>Saraca asoca</i> (Roxb.) Willd.	Asok	Tree	Dicot
449	Anacardiaceae	<i>Mangifera indica</i> L.	Ambo	Tree	Dicot
450	Verbenaceae	<i>Petrea volubilis</i> L.	Nilamba	Climber	Dicot
451	Moraceae	<i>Ficus microcarpa</i> L.f.	Prag vad	Tree	Dicot
452	Anacardiaceae	<i>Holigarna arnottiana</i> Hook.f.	-	Tree	Dicot
453	Anacardiaceae	<i>Anacardium occidentale</i> L.	Kaju	Tree	Dicot
454	Leguminosae	<i>Butea monosperma</i> (Lam.) Taub.	Kesudo, Khakhro	Tree	Dicot
455	Meliaceae	<i>Soymida febrifuga</i> (Roxb.) A. Juss.	Rohan	Tree	Dicot
<b>23<sup>rd</sup> March, 2018</b>					
456	Crassulaceae	<i>Bryophyllum pinnatum</i> (Lam.) Oken	Panfuti ni jat	Herb	Dicot

457	Acanthaceae	<i>Justicia gendarussa</i> Burm.f.		Herb	Dicot
458	Combretaceae	<i>Terminalia catappa</i> L.	Badam	Tree	Dicot
459	Meliaceae	<i>Toona ciliata</i> M.Roem.	Toona	Tree	Dicot
460	Salicaceae	<i>Salix</i> spp.		Tree	Dicot
461	Phyllanthaceae	<i>Glochidion lanceolarium</i> (Roxb.) Voigt		Tree	Dicot
462	Lamiaceae	<i>Gmelina arborea</i> Roxb.	Sevan	Tree	Dicot
463	Dipterocarpaceae	<i>Shorea robusta</i> Gaertn.	Shal	Tree	Dicot
464		Unknow		Tree	Dicot
465	Leguminosae	<i>Derris kanjilalii</i> K.C.Sahni & H.B.Naithani		Tree	Dicot
466	Euphorbiaceae			Tree	Dicot
467	Phyllanthaceae	<i>Bischofia javanica</i> Blume	Bischofia	Tree	Dicot
468	Leguminosae	<i>Millettia leucantha</i> Kurz		Tree	Dicot
469	Meliaceae	<i>Azadirachta indica</i> A.Juss.	Bakan neem	Tree	Dicot
470	Lecythidaceae	<i>Careya arborea</i> Roxb.	Kumbhi	Tree	Dicot
471	Myrtaceae	<i>Syzygium jambos</i> (L.) Alston	Safed Jamon	Shrub	Dicot
472		Unknown		Tree	Dicot
473		Unknown		Tree	Dicot
474	Anacardiaceae	<i>Buchanania cochinchinensis</i> (Lour.) M.R.Almeida	Charoli	Tree	Dicot
475	Anacardiaceae	<i>Spondias pinnata</i> (L. f.) Kurz	Ambado	Tree	Dicot
476	Melastomataceae	<i>Memecylon umbellatum</i> Burm. f.	-	Tree	Dicot
477	Leguminosae	<i>Flemingia praecox</i> Prain	Libiya Asul	Shrub	Dicot
478		Unknown		Tree	Dicot
479	Bignoniaceae	<i>Tabebuia aurea</i> (Silva Manso) Benth. & Hook.f. ex S.Moore		Tree	Dicot
480	Rutaceae	<i>Chloroxylon swietenia</i> DC.		Tree	Dicot
481	Burseraceae	<i>Garuga pinnata</i> Roxb.	Kakad	Tree	Dicot
482	Anacardiaceae	<i>Lannea coromandelica</i> (Houtt.) Merr.	Modad	Tree	Dicot
483	Rhamnaceae	<i>Ziziphus rugosa</i> Lam.	Toran vel	Climber	Dicot
484	Apocynaceae	<i>Carissa carandas</i> L.	Karamda	Climber	Dicot
485	Lythraceae	<i>Woodfordia fruticosa</i> (L.) Kurz	Dhavti,	Shrub	Dicot

			Dhavni		
486	Leguminosae	<i>Bauhinia variegata</i> L.	Kachnar	Shrub	Dicot
487	Dipterocarpaceae	<i>Vateria indica</i> L.		Tree	Dicot
488	Boraginaceae	<i>Ehretia laevis</i> Roxb.	Datranga	Tree	Dicot
489	Sapotaceae	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) A.Chev.	Mahuda	Tree	Dicot
490	Leguminosae	<i>Melilotus albus</i> Medik.	Ghoda ghas	Herb	Dicot
491	Rubiaceae	<i>Wendlandia heynei</i> (Schult.) Santapau & Merchant	Nerkhi	Tree	Dicot
492	Sapindaceae	<i>Litchi chinensis</i> Sonn.	Litchi	Tree	Dicot
493	Solanaceae	<i>Withania somnifera</i> (L.) Dunal	Ahwagandha	Herb	Dicot
494	Ulmaceae	<i>Holoptelea integrifolia</i> Planch.	Pit papdo	Tree	Dicot
495	Leguminosae	<i>Desmodium oojeinense</i> (Roxb.) H.Ohashi	Tansh	Tree	Dicot
496	Cornaceae	<i>Alangium salviifolium</i> (L.f.) Wangerin	Ankol	Tree	Dicot
497	Malpighiaceae	<i>Hiptage benghalensis</i> (L.) Kurz	Madhvilata	Climber	Dicot
498	Lecythidaceae	<i>Couroupita guianensis</i> Aubl.	Kailash Pati	Tree	Dicot
499	Combretaceae	<i>Combretum indicum</i> (L.) DeFilipps	Rangun Vel	Climber	Dicot
500	Malvaceae	<i>Pterygota alata</i> (Roxb.) R.Br.	Eastowood	Tree	Dicot
501	Combretaceae	<i>Combretum ovalifolium</i> Roxb.	Bokad Vel	Climber	Dicot
502	Combretaceae	<i>Combretum coccineum</i> (Sonn.) Lam.	Bokad Vel Ni jat	Climber	Dicot

Many of the plants were critically studied for its morphological features. But it is showing variation as per the floral discription. Probably more details insight in the flora will give out many out roots and new discoveries. From the above table few species shows variation in floristic characters. Once they identify, it will include in database of Waghai Botanical Garden

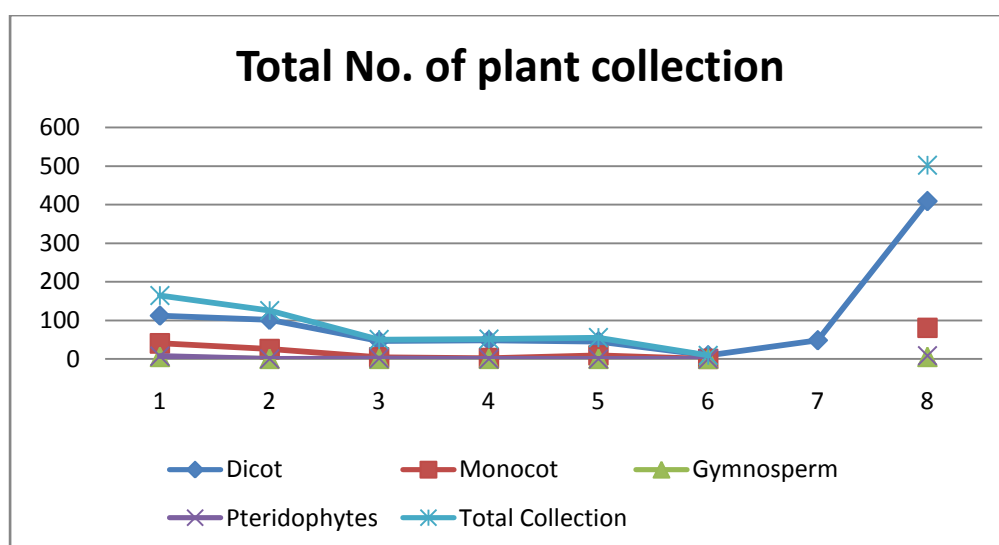
## OBSERVATIO AND DISCUSSION:

- An extensive field work was done during, 16<sup>th</sup> of August 2017 to 23<sup>th</sup> March 2018.
- During the field visit total of **502** plant specimens were collected of which 239 are **Herb**, 72 **Shrub**, 133 **Tree**, and 58 **Climber** of which 409 are **Dicots**, 80 **Monocots**, 5 **Gymnosperm** and 8 are **Pteridophytes**. All the herbarium of each plant specimens were prepared and uploaded on the web page, [www.waghaibotanicalgarden.in](http://www.waghaibotanicalgarden.in)

Catagories of different plants collected during field visit:

Collections of plant specimens					
Field Visit.	Dicot	Monocot	Gymnosperm	Pteridophytes	Total Collection
1 <sup>st</sup> (16/08/2017)	112	40	5	7	164
2 <sup>nd</sup> (11/09/2017)	101	25	-	-	125
3 <sup>rd</sup> (13/10/2017)	46	4	-	1	50
4 <sup>th</sup> (14/11/2017)	48	2	-	-	51
5 <sup>th</sup> (26/12/2017)	45	9	-	-	55
6 <sup>th</sup> (16/01/2018)	9	-	-	-	9
7 <sup>th</sup> (23/03/2018)	48	-	-	-	48
<b>Grand Total</b>	<b>409</b>	<b>80</b>	<b>5</b>	<b>8</b>	<b>502</b>

Collections of plant specimens					
Sr. No	Herb	Shrub	Tree	Climbers	Total
1 <sup>st</sup> (16/08/2017)	97	27	21	19	164
2 <sup>nd</sup> (11/09/2017)	62	25	23	15	125
3 <sup>rd</sup> (13/10/2017)	34	4	5	7	50
4 <sup>th</sup> (14/11/2017)	16	5	23	7	51
5 <sup>th</sup> (26/12/2017)	25	7	20	3	55
6 <sup>th</sup> (16/01/2018)	1	-	7	1	9
7 <sup>th</sup> (23/03/2018)	4	4	34	6	48
<b>Grand Total</b>	<b>234</b>	<b>74</b>	<b>136</b>	<b>58</b>	<b>502</b>





## EXCLUSIVE PLANTS OF WAGHAI BOTANICAL GARDEN:

Waghai Botanical Garden is rich in plant resources, many of the unique plants are exclusively found in the Waghai Botanical Garden. This unique plant species has its own peculiar characteristics in sexual organs and they differ from species to species; these unique features are the key characteristics for identification and classification of plants at genus and species level. In the present studies 15 various plant species were collected from the various plots for viz. Ever green plot, Western Ghat plot, Dang Plot, etc. these are additions to the flora of Gujarat. Most of the plant species have dimorphic or sometimes unimorphic anthers but one plant viz: *Litsea glutinosa* typical rainforest tree belonging to the Lauraceae family having typical heteromorphic anthers which shows variation in shape and size at microscopic level is given below:

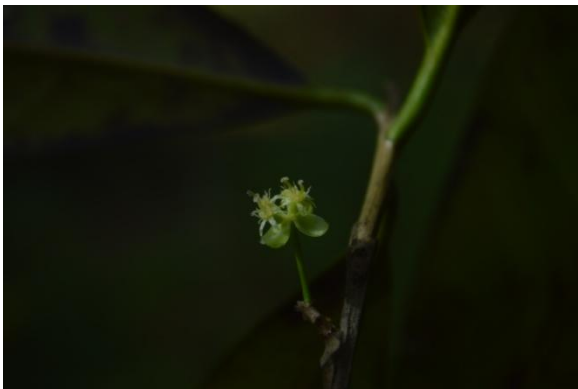


Fig: 5. Flower of *Litsea glutinosa*



Fig: 6. Microscopic view of Flower



Fig: 7. L.S of Flower

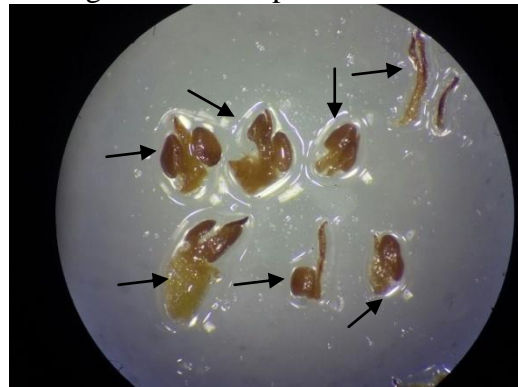


Fig: 8. Heteromorphic Anthers

## PLANTS ADDITION TO FLORA OF GUJARAT:

Collection No.	Family Name	Plant name	Vernacular name	Habit	Class	Fig.
452	Anacardiaceae	<i>Holigarna arnottiana</i> Hook.f.	-	Tree	Dicot	9
135.	Annonaceae	<i>Uvaria littoralis</i> (Blume) Blume		Tree	Dicot	10
138.	Bignonaceae	<i>Parmentiera cereifera</i> Seem.	Candle tree	Shrub	Dicot	11
144.	Ebenaceae	<i>Diospyros malabarica</i> (Desr.) Kostel.		Tree	Dicot	12
145.	Euphorbiaceae	<i>Antidesma acidum</i> Retz.		Tree	Dicot	13
356	Malvaceae	<i>Erinocarpus nimmonii</i> J.Graham		Tree	Dicot	14
389	Moraceae	<i>Hopea ponga</i> (Dennst.) Mabb.	Umbh ni Jat	Tree	Dicot	15
149.	Myrsinaceae	<i>Ardisia solanacea</i> (Poir.) Roxb.		Tree	Dicot	16
392	Oleaceae	<i>Olea dioica</i> Roxb.		Tree	Dicot	17
195.	Phyllanthaceae	<i>Phyllanthus tenellus</i> Roxb.	Boy amla ni jat	Herb	Dicot	18
285.	Phyllanthaceae	<i>Cleistanthus collinus</i> (Roxb.) Benth. ex Hook.f.	Ghaneri	Tree	Dicot	19
286.	Phyllanthaceae	<i>Glochidion ellipticum</i> Wight		Tree	Dicot	20
391	Rhizophoraceae	<i>Carallia brachiata</i> (Lour.) Merr.	Kirpa	Tree	Dicot	21
310	Rubaceae	<i>Spermacoce ocymoides</i> Burm.f.		Herb	Dicot	22
387	Sterculiaceae	<i>Duabanga grandiflora</i> (DC.) Walp.	Duval bangal	Tree	Dicot	23
465	Leguminosae	<i>Derris kanjilalii</i> K.C.Sahni & H.B.Naithani		Tree	Dicot	24
466	Leguminosae	<i>Millettia leucantha</i> Kurz		Tree	Dicot	25
485	Dipterocarpaceae	<i>Vateria indica</i> L.		Tree	Dicot	26



Fig.9 *Hologarna arnottiana*



Fig.10 *Uvaria littoralis*



Fig.11 *Parmentiera cereifera*



Fig.12 *Diospyros malabarica*



Fig.13 *Antidesma acidum*



Fig.14 *Erinocarpus nimmonii*



Fig.15 *Hopea ponga*



Fig.16 *Ardisia solanacea*





Fig.17 *Olea dioica*



Fig.18 *Phyllanthus tenellus*



Fig.19 *Cleistanthus collinus*



Fig.20 *Glochidion ellipticum*



Fig.21 *Carallia brachiata*



Fig.22 *Spermacoce ocymoides*

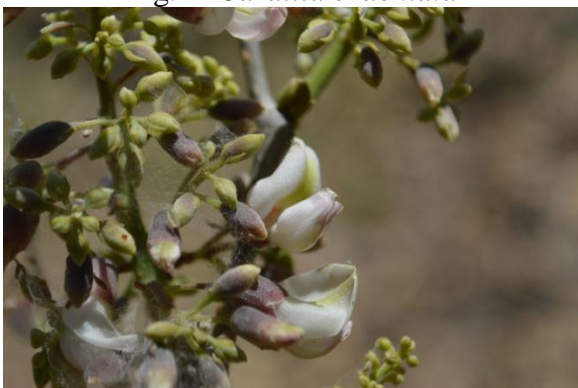


Fig.23 *Derris kanjilalii*



Fig.24 *Millettia leucantha*



Fig.25 *Duabanga grandiflora*



Fig.26 *Vateria indica*

### NEED FOR PROJECT EXTENTION:

- Based on earlier digitization of herbarium it was found that many of the herbarium sheet were got damaged and rottend. Furtherly many new plant species has been cultivated in the garden. Therefor there is urgent need for documentation of this unique flora in Waghai Botanical Garden.
- The investigation done till date has resulted in exploration of 502 plants which is approximately 50 % of the known plants reported from Waghai Botanical Garden, in order to know more about the plants of Waghai Botanical Garden more extensive and indepth study is required.
- Many of the plant species were observed but we could not verify as they were in vegetative condition are listed below.

Name of the plants species proposed for exploration in the next phase of project are as follow:

Sr. No	Family name	Plant name	Vernacular name	Habit
1.	Poaceae	<i>Dichanthium oliganthum</i> (Hochst. ex Steud.) Cope	Rush, rohisar	Herb
2.	Combrataceae	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Arjun sadad	Tree
3.	Aristolochiaceae	<i>Aristolochia bracteolata</i> Lam.	Batakvel	Climber
4.	Simaroubaceae	<i>Ailanthus excelsa</i> Roxb.	Arduso	Tree
5.	Bignonaceae	<i>Campsis radicans</i> (L.) Seem.	Tilotama	Shrub
6.	Anonaceae	<i>Miliusa tomentosa</i> (Roxb.) J.Sinclair	Umbh	Tree
7.	Rutaceae	<i>Aegle marmelos</i> (L.) Corrêa	Bili patra	Tree
8.	Urticaceae	<i>Boehmeria japonica</i> (L.f.) Miq.	Japani sider	Shrub
9.	Celastraceae	<i>Cassine glauca</i> (Rottb.)	Anand, Alan	Tree

		Kuntze		
10.	Acanthaceae	<i>Ruellia patula</i> Jacq.	-	Herb
11.	Hydrocharitaceae	<i>Ottelia alismoides</i> (L.) Pers.		Herb
12.	Passifloraceae	<i>Passiflora foetida</i> L.	Kutharvel	Climber
13.				
14.	Guttiferaceae	<i>Garcinia indica</i> (Thouars) Choisy	Kokam	Tree
15.	Magnoliaceae	<i>Magnolia champaca</i> (L.) Baill. ex Pierre	Champo	Shrub
16.	Solanaceae	<i>Datura innoxia</i> Mill.	Datura	Herb
17.	Musaceae	<i>Ensete superbum</i> (Roxb.) Cheesman	Jungli Kel	Shrub
18.	Leguminosae	<i>Acacia jacquimontii</i>	Rathobaval	Tree
19.	Leguminosae	<i>Acacia nilotica</i> var. <i>indica</i>	Deshi baval, Babul	Tree
20.	Acanthaceae	<i>Justicia adhatoda</i> L.	Ardusi	Shrub
21.	Phyllanthaceae	<i>Breynia retusa</i> (Dennst.) Alston	Kamboi	Shrub
22.	Apocynaceae	<i>Cryptolepis dubia</i> (Burm.f.) M.R.Almeida		Climber
23.	Bignoniaceae	<i>Jacaranda mimosifolia</i> D.Don	Jakaranda	Tree
24.	Leguminosae	<i>Pithecellobium dulce</i> (Roxb.) Benth.	Goras amla	Tree
25.	Anacardiaceae	<i>Semecarpus anacardium</i> L.f.	Bhilamo	Tree
26.	Leguminosae	<i>Tephrosia purpurea</i> (L.) Pers.		Herb
27.	Combretaceae	<i>Terminalia chebula</i> Retz.	Harde	Tree
28.	Lamiaceae	<i>Vitex negundo</i> L.	Nagod	Shrub
29.	Malvaceae	<i>Abroma augusta</i> (L.) L.f.	Ulatkambal	Shrub
30.	Leguminosae	<i>Adenanthera microsperma</i> Teijsm. & Binn.	Nani ratangunj	Tree
31.	Rubiaceae	<i>Haldina cordifolia</i> (Roxb.) Ridsdale	Haldu	Tree
32.	Euphorbiaceae	<i>Vernicia fordii</i> (Hemsl.) Airy Shaw		Shrub
33.	Sapotaceae	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) A.Chev.	Mahudo	Tree
34.	Leguminosae	<i>Caesalpinia ferrea</i> C.Mart.	Patang	Tree
35.	Combretaceae	<i>Getonia floribunda</i> Roxb.	Baguli	Climber
36.	Salicaceae	<i>Casearia tomentosa</i> Roxb.	Tohndood	Shrub
37.	Burseraceae	<i>Commiphora wightii</i>	Gugad	Shrub

		(Arn.) Bhandari		
38.	Bixaceae	<i>Cochlospermum religiosum</i> (L.) Alston	Ganeri	Tree
39.	Rubiaceae	<i>Coffea benghalensis</i> B. Heyne ex Schult.	Ganaria	Shrub
40.	Malvaceae	<i>Firmiana colorata</i> (Roxb.) R.Br.	Kodra	Tree
41.	Sapindaceae	<i>Filicium decipiens</i> (Wight & Arn.) Thwaites	Filicum	Tree
42.	Lamiaceae	<i>Gmelina asiatica</i> L.	-	Shrub
43.	Leguminosae	<i>Haematoxylum campechianum</i> L.		Shrub
44.	Bignoniaceae	<i>Heterophragma quadriloculare</i> (Roxb.) K.Schum.	Varash	Tree
45.	Leguminosae	<i>Indigofera cassioides</i> DC.	-	Shrub
46.	Convolvulaceae	<i>Ipomoea pes-tigridis</i> L.	Vagpati	Climber
47.	Sapindaceae	<i>Koelreuteria paniculata</i> Laxm.	-	Tree
48.	Calophyllaceae	<i>Mesua ferrea</i> L.	Nagkesar	Tree
49.	Meliaceae	<i>Pleiogynium cerasiferum</i> R.Parker	-	Tree
50.	Annonaceae	<i>Polyalthia suberosa</i> (Roxb.) Thwaites	-	Tree
51.	Leguminosae	<i>Pongamia pinnata</i> (L.) Pierre	Karenj	Tree
52.	Rosaceae	<i>Prunus cerasoides</i> Buch.-Ham. ex D.Don	-	Tree
54.	Rosaceae	<i>Pyrus pashia</i> Buch.-Ham. ex D.Don	Megul	Tree
55.	Arecaceae	<i>Sabal mexicana</i> Mart.	Sabal palm	Tree
56.	Arecaceae	<i>Sabal palmetto</i> (Walter) Lodd. ex Schult. & Schult.f.	Tad	Tree
57.	Theaceae	<i>Schima wallichii</i> Choisy	-	Tree
58.	Sapindaceae	<i>Schleichera oleosa</i> (Lour.) Merr.	Kusum	Tree
59.	Myrtaceae	<i>Syzygium rubicundum</i> Wight & Arn.	Van jamun	Tree
60.	Myrtaceae	<i>Syzygium cumini</i> (L.) Skeels	Jamun	Tree
61.	Combretaceae	<i>Anogeissus pendula</i> Edgew.	Dhavdo	Tree
62.	Capparaceae	<i>Capparis decidua</i> (Forssk.) Edgew.	Keido	Shrub
63.	Leguminosae	<i>Derris scandens</i> (Roxb.) Benth.	Karanj vel	Climber
64.	Euphorbiaceae	<i>Euphorbia neriifolia</i> L.	Bhangra thor	Shrub

65.	Combretaceae	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guillem. & Perr.	Dhavdo	Tree
66.	Leguminosae	<i>Bauhinia tomentosa</i> L.	Pilo asitro	Shrub
67.	Celastraceae	<i>Celastrus paniculatus</i> Willd.	Malkangani vel	Climber
68.	Leguminosae	<i>Erythrina variegata</i> L.	Pangaro	Tree
69.	Euphorbiaceae	<i>Euphorbia antiquorum</i> L.	Thoridu	Shrub
70.	Leguminosae	<i>Mimosa rubicaulis</i> Lam.	-	Tree
71.	Polygonaceae	<i>Persicaria glabra</i> (Willd.) M.Gómez	Sinori	Herb
72.	Leguminosae	<i>Prosopis juliflora</i> (Sw.) DC.	Eantobavalo	Shrub
73.	Apocynaceae	<i>Nerium oleander</i> L.	Karen	Shrub
74.	Convolvulaceae	<i>Rivea hypocrateriformis</i> Choisy	Fang bhaji	Climber
75.	Salvadoraceae	<i>Salvadora persica</i> L.	Piludi	Tree
76.	Anacardiaceae	<i>Schinus terebinthifolia</i> Raddi	-	Tree
77.	Leguminosae	<i>Sesbania grandiflora</i> (L.) Pers.	Agathio	Tree
78.	Arecaceae	<i>Areca catechu</i> L.	Sopari	Tree
79.	Burseraceae	<i>Bursera linanoe</i> (La Llave) Rzed., Calderón & Medina	Linilin oil tree	Shrub
80.	Apocynaceae	<i>Cryptostegia grandiflora</i> Roxb. ex R.Br.	Kharidodi	Shrub
81.	Poaceae	<i>Cymbopogon martini</i> (Roxb.) W.Watson	Rosa grass	Herb
82.	Leguminosae	<i>Glycyrrhiza glabra</i> L.	Jesthi madhu	Herb
83.	Leguminosae	<i>Hardwickia binata</i> Roxb.	Ajan	Tree
84.	Leguminosae	<i>Pueraria montana</i> var. <i>lobata</i> (Willd.) Sanjappa & Pradeep	Kudzu bean	Climber
85.	Bignoniaceae	<i>Stereospermum</i> <i>tetragonum</i> DC	Padar	Tree
86.	Apocynaceae	<i>Vallaris solanacea</i> (Roth) Kuntze	Veleris	Shrub
87.	Rubiaceae	<i>Tamilnadia uliginosa</i> (Retz.) Tirveng. & Sastre	Gogda, Petar	Shrub
88.	Rutaceae	<i>Zanthoxylum rhetsa</i> DC.	Chiffal	Tree
89.	Menispermaceae	<i>Anamirta cocculus</i> (L.) Wight & Arn.	Kakfal	Climber
90.	Burseraceae	<i>Canarium strictum</i> Roxb.	-	Tree
91.	Lauraceae	<i>Cinnamomum verum</i> J.Presl		



92.	Meliaceae	<i>Cipadessa baccifera</i> (Roth) Miq.	Henbili	Tree
93.	Rubiaceae	<i>Spermadictyon</i> <i>suaveolens</i> Roxb.		Shrub
94.	Oleaceae	<i>Ligustrum robustum</i> <i>subsp. walkeri</i> (Decne.) P.S.Green		Tree
95.	Acanthaceae	<i>Eranthemum roseum</i> (Vahl) R.Br.	Dashmuli	Herb
96.	Leguminosae	<i>Parkia biglobosa</i> (Jacq.) G.Don	Chandufal	Tree
97.	Bignoniaceae	<i>Pajanelia longifolia</i> (Willd.) K.Schum.	Aranthal	Shrub
98.	Calophyllaceae	<i>Poeciloneuron indicum</i> Bedd.	Punponthan, koili	Tree
99.	Lamiaceae	<i>Vitex pinnata</i> L.		Tree
100.	Poaceae	<i>Bambusa balcooa</i> Roxb.	Bamboo	

**Note:** Above mentioned plant species were observed during the field survey but it is in vegetative condition it is not included in the documentation. Apart from the present six month studies, further many more plants are still remains for collection, documentation and exploration

❖ **Other than Research:**

- ❖ **Publication:** Published Book on “An Exclusive plants of Waghai Botanical Garden” during Botany Fest 2018 on 07/02/2018.

**Name and Signature/Stamp with Date**

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**(Project Coordinator/Principal Investigator)**