

# A PRELIMINARY SURVEY OF THE FLORA OF DHARAMPUR FORESTS IN GUJARAT

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## ABSTRACT

The present survey has 421 taxa spread over 51 Angiosperm families collected from forests of Dharampur during 1966 & 1967. Of 421 taxa 344 are dicotyledons and 31 are monocotyledons. The forest are moist deciduous type.

## INTRODUCTION

Though the flora of some parts of Gujarat is now known, there are many areas which have not yet been botanically explored. The forest range of Dharampur is one of them. In the present paper, therefore, the plants of Dharampur forests are listed from the collections made during the months of March, June, August, October and December 1966 & 1967. The collections were made from the areas in vicinity of Dharampur, Mohaugarh, Boljudi, Avantha, Manpada, Vajiyat, Karanjvadi, Bantli, Dussara pati and Tisvari. The whole range is mountainous varying in height from 15.5 to 706 m and some places plains. It is traversed by three rivers Amranga, Swargavanini (known as Vanki near Balsar) and Par. The soil of the area is black clay in which mostly paddy is cultivated.

Dharampur is a taluka town situated at 73° 20' E and 20° 36' N in the south east part of Balsar district about 50 km from Balsar. The latter is one of the main junction on Bombay-Ahmedabad line about 194 km north of Bombay. The State transport buses regularly ply between Balsar and Dharampur. From Dharampur the buses ply during the fair season to the areas explored.

The forests are moist deciduous type of Chann pion (1958). The average annual rainfall is about 2500 mm.

The nomenclature of the plants listed is brought up-to-date in light of the current literature.

The entire collection is deposited in the herbarium, Department of Botany, Sardar Patel University, Vallabh Vidyanagar, Gujarat.

## ENUMERATION

### ANNONACEAE

- Annona reticulata* Linn.
- A. squamosa* Linn.
- Polyalthia longifolia* Thunb.

### MONOCOTYLEDONAE

- Coccoloba hirsuta* (L.) Diels.
- Tinospora cordifolia* (Willd.) Miq.

### NYMPHAEACEAE

- Nelumbo nucifera* Gaertn.
- Nymphaea nouchali* Burm. f.

### CRUCIFERAE

- Cardamine trichocarpa* Hochst. ex Rich.
- Rorippa indica* (L.) Hieron.

### PAPAVERACEAE

- Argemone mexicana* Linn.

### CARYOPHYLLACEAE (CAPPARIDACEAE)

- Capparis sepiaria* Linn.
- C. zeylanica* Linn.
- Cleome burmanni* W. & A.
- C. gynandra* Linn.
- C. viscosa* Linn.

### VIOLACEAE

- Hybanthus enneaspermus* (L.) F. Muell.

### PORTULACACEAE

- Portulaca oleracea* Linn.

### CARYOPHYLLACEAE

- Polycarpon prostratum* (Forsk.) Aschers & Schradl.

### TAMARICACEAE

- Tamarix ericoides* Roux.

### BIATINEAE

- Bergia zmannioides* Heyne ex Roth

### MALVACEAE

- Abelmoschus manihot* (L.) Medik.
- Azadirachta indica* (Cav.) Alef.
- Hibiscus cannabinus* Linn.
- H. subdariffa* Linn.
- Kydia calycina* Roxb.
- Sida acuta* Burm.

*Sida rhombifolia* L. var. *retusa* Miq.  
*S. veronicaefolia* Lamk.  
*Thespesia populnea* Soland. ex Corr.  
*Urena lobata* Linn.

## BOMBACACEAE

*Bombax ceiba* Linn.

## STERCULIACEAE

*Helicteris isora* Linn.  
*Melochia corchorifolia* Linn.  
*Pterospermum acrifolium* Willd.  
*Sterculia urens* Roxb.  
*Waltheria indica* Linn.

## TILIACEAE

*Corchorus aestuans* Linn.  
*C. fascicularis* Lamk.  
*C. olitorius* Linn.  
*Grewia abutilifolia* Vahl ex Juss.  
*G. tiliaefolia* Vahl  
*Triumfetta rhomboidea* Jacq.

## OXALIDACEAE

*Biohytum sensitivum* (L.) DC.  
*Oxalis corniculata* Linn.

## BALSAMINACEAE

*Impatiens balsamina* Jacq.  
*I. kleinii* W. & A.

## RUTACEAE

*Argle marmelos* (L.) Corr.  
*Limonia acidissima* Linn.

## SIMARUBACEAE

*Ailanthus excelsa* Roxb.

## BURSERACEAE

*Bowtellia serrata* Roth.  
*Garuga pinnata* Roxb.

## MELIACEAE

*Azadirachta indica* A. Juss.

## CELASTRACEAE

*Celastrus paniculata* Willd.  
*Maytenus senegalensis* (Lamk.) Exell

## RHAMNACEAE

*Ventilago denticulata* Willd.  
*Zizyphus mauritiana* Lamk.  
*Z. sumularia* (Burn. f.) W. & A.  
*Z. oenoplia* Mill.

## VITACEAE

*Cayratia carnosu* Gagnep.  
*Cissus repanda* Vahl

## SAPINDACEAE

*Sapindus laurifolius* Vahl

## ANACARDIACEAE

*Anacardium occidentale* Linn.  
*Lacca coromandelica* (Houtt.) Merrill  
*Mangifera indica* Linn.

## MORINGACEAE

*Moringa concanensis* Nimmo  
*M. oleifera* Lamk.

## FABULOSACEAE

*Abrus precatorius* Linn.  
*Aeschynomene indica* Linn.  
*Alysicarpus glumaceus* (Willd.) DC.  
*A. procumbens* (Roxb.) Schindler  
*A. vaginalis* (L.) DC.  
*Butea monosperma* (Lamk.) Tuck.  
*Cajanus cajan* (L.) Mill.  
*Cicer arietinum* Linn.  
*Crotalaria albida* Heyne ex Roth.  
*C. calycina* Schrank  
*C. filipes* Bth.  
*C. juncea* Linn.  
*C. lunifolia* Linn. f.  
*C. prostrata* Roth.  
*Dalbergia latifolia* Roxb.  
*Desmodium gangeticum* (L.) DC.  
*D. triflorum* (L.) DC.  
*Erythrina variegata* L. var. *orientalis* (L.) Merr.  
*Heslania latebrosa* DC.  
*Indigofera astragalina* DC.  
*L. lunifolia* (L. f.) Retz.  
*L. linnaei* Ait.  
*L. trita* Linn. f.  
*Mucuna pruriu* Hk. f.  
*Ogenia oejinensis* (Roxb.) Hochreit.  
*Phaseolus radiatus* Linn.  
*Pongamia pinnata* (L.) Pierre  
*Pterocarpus marsupium* Roxb. var. *acuminatum* Prain.  
*Sesbania bispinosa* (Jacq.) P. & B.  
*Smithia sensitiva* Ait.  
*Tephrosia purpurea* (L.) Pers.  
*Teramnus labialis* (L. f.) Spreng.  
*Zornia gibbosa* Span.

## CAESALPINIACEAE

*Bouhinia purpurea* Linn.  
*B. racemosa* Lamk.  
*Caesalpinia crista* Linn. p.p.  
*C. pulcherrima* (L.) Swartz  
*Cassia fistula* Linn.  
*C. pumila* Lamk.  
*C. tora* Linn.  
*Tamarindus indica* Linn.

## MIMOSACEAE

- Acacia chandra* (Roxb.) Willd.  
*A. ferruginea* DC.  
*A. leucophloea* Willd.  
*A. nilotica* (L.) Del. var. *indica* Brenan.  
*A. pennata* Willd.  
*Albizia lebbek* (L.) Bth.  
*Pithecellobium dulce* (Roxb.) Bth.  
*Prosopis spicigera* Linn.

## BORAGACEAE

*Rosa* sp.

## VABIACEAE

*Vahlia digyna* (Retz.) O.K.

## HALORAGACEAE

*Myriophyllum spathulatum* Blott. & Halib.

## COMBRETACEAE

- Anogeissus latifolia* Wall. ex Beddome  
*Combretum ovalifolium* Roxb.  
*Terminalia bellirica* (Gaertn.) Roxb.  
*T. crenulata* Roth

## MYRTACEAE

- Eucalyptus globulus* Labill.  
*Syzygium cumini* (L.) Skeels

## LECYTHIDACEAE

*Careya arborea* Roxb.

## LYTHRACEAE

- Ammannia baccifera* Linn.  
*A. multiflora* Roxb.  
*Lagerstroemia parviflora* Roxb.  
*Lawsonia inermis* Linn.  
*Rotala densiflora* (Roth) Koehne  
*R. indica* (Willd.) Koehne  
*R. scryphifolia* (Roth) Brenck.  
*Woodfordia fruticosa* (L.) Kurz

## ONAGRACEAE

- Jussiaea repens* Linn.  
*Ludwigia perennis* Linn.

## TRAPACEAE

*Trapa natans* L. var. *bispinosa* Makino

## EUPHORBIACEAE

- Benincasa cerifera* Savi  
*Coccinia cordifolia* (L.) Cogn.  
*Cucumis callosus* (Rottl.) Cogn.  
*Diplocyrtis palmatus* (L.) Jeffrey  
*Luffa acutangula* (L.) Roxb. var. *amara* Clarke  
*L. cylindrica* (L.) Roem.  
*Momordica dioica* Roxb.  
*Muklia maderaspatana* (L.) Roem.

*Trichosanthes cucumerina* Linn.

## CACTACEAE

*Opuntia elatior* Mill.

## MOLLUGINACEAE

- Glinus lotoides* Linn.  
*G. oppositifolius* (L.) A. DC.  
*Mollugo pentaphylla* Linn.

## UMBELLIFERAE

- Centella asiatica* (L.) Urban  
*Pimpinella adscendens* Dalz.

## ALANGIACEAE

*Alangium salviolium* (L. f.) Wang.

## RUBIACEAE

- Adina cordifolia* (Roxb.) Hk. f. ex Brande  
*Anoris foetida* (Dalz.) Bth. & Hk. f.  
*A. rheedei* Hk. f.  
*Borreria articularis* (L. f.) F. N. Wall.  
*B. stricta* (L. f.) Schum.  
*Dentella repens* (L.) Forst.  
*Mitragyna parvifolia* (Roxb.) Korth  
*Morinda tomentosa* Heyne ex Roth  
*Oldenlandia corymbosa* Linn.  
*Randia uliginosa* DC.

## COMPOSITAE

- Acanthospermum hispidum* DC.  
*Ageratum conyzoides* Linn.  
*Bidens biternata* (Lour.) Merr. & Sherif  
*Blainvillaea rhomboides* Cass.  
*Blumea ciliaris* DC.  
*B. membranacea* DC.  
*B. oxydonta* DC.  
*Caesulia axillaris* Roxb.  
*Cyathocline purpurea* (Don) O.K.  
*Echinops echinatus* Roxb.  
*Eclipta prostrata* (L.) Linn.  
*Elephantopus scaber* Linn.  
*Emilia sonchifolia* (L.) DC.  
*Glossocardia bosvallaea* (L. f.) DC.  
*Grangea maderaspatana* (L.) Poir.  
*Gulzotia abyssinica* Cass.  
*Launaea fallax* (J. & S.) O.K.  
*L. sarmentosa* (Willd.) Als-L.  
*Sphaeranthus indicus* Linn.  
*Tridax procumbens* Linn.  
*Vernonia cinerea* (L.) Less.  
*Xanthium strumarium* Linn.

## LOBELIACEAE

*Lobelia alsinoides* Lamk.

## PELUMBAGINACEAE

*Plumbago zeylanica* Linn.

## SAPOTACEAE

*Madhuca indica* (Gmel.)*Mimusops elengi* Linn.

## EBENACEAE

*Diospyros melanoxylon* Roxb.

## OLEACEAE

*Nyctanthes arbor-tristis* Linn.

## SALVADORACEAE

*Salvadora persica* Linn.

## APOCYNACEAE

*Carissa congesta* Wt.*Holarbena antidysenterica* (L.) Wall. ex G. Don*Nerium indicum* Mill.*Plumeria acuminata* Ait.*Rauvolfia tetraphylla* Linn.*Wrightia tinctoria* R. Br.

## ASCLEPIADACEAE

*Calotropis gigantea* (L.) R. Br.*C. procera* (Ait.) R. Br.*Dryas volubilis* (L.) Bth. ex Hk. f.*Oxystelma secumone* (L.) Kunt.

## PERIPLOCAEAE

*Cryptolepis buchanani* R. & S.*Hemidesmus indicus* (L.) R. Br.

## GENTIANACEAE

*Canscora diffusa* R. Br.*Centaurium roxburghii* (G. Don) Druce*Eriostema verticillatum* (Willd.) Engl.*Exacum pedunculatum* Linn.*Hoppea dichotoma* Willd.*Nymphoides cristatum* (Roxb.) O. K.*N. indicum* (L.) O. K.

## HYDROPHYLLACEAE

*Hydrolea zeylanica* (L.) Vahl

## BORAGINACEAE

*Cordia procumbens* Linn.*Cordia gharaf* (Forsk.) Elmer & Asch.*C. obliqua* Willd.*Heliotropium indicum* Linn.*H. supinum* Linn.*Rotula aquatica* Lour.*Trichodesma zeylanicum* R. Br.

## CONVOLVULACEAE

*Cuscuta reflexa* Roxb.*Evolvulus alsinoides* Linn.*Ipomoea aquatica* Forsk.*I. cairica* (L.) Sw.*I. heterifolia* Linn.*I. nil* (L.) Roth*I. obscura* (L.) Ker-Gawl*I. pestigridis* Linn.*I. sinensis* Choisy*I. triloba* Linn.*Merremia gangetica* (L.) Cufodot*M. hastata* (Des.) Hall. f.*Operculina turpethum* (L.) Silva*Rivea hypocyrtiformis* Choisy

## SOLANACEAE

*Datura innoxia* Mill.*D. metel* Linn.*Lycopersicon esculentum* Mill.*Physalis minima* Linn.*Solanum nigrum* Linn.*S. surattense* Burtt. f.

## SCROPHULARIACEAE

*Bacopa monnieri* (L.) Pennell*Limnophila indica* (L.) Druce*Lindenbergia indica* (L.) O. K.*Lindernia unguis-cati* (Burtt.) Pennell*L. ciliata* (Cels.) Pennell*L. crustacea* (L.) F. Muell.*L. oppositifolia* (Retz.) Mak.*L. parviflora* (Roxb.) Haines*Rhamphicarpa longiflora* Bth.*Sopubia delphinifolia* Don*Stemodia viscosa* Roxb.*Striga angustifolia* (Don) Saldanha*S. asiatica* (L.) O. K.*Sutera dissecta* (Del.) Walp.*Verbascum chinense* (L.) Sant.

## LENTIBULARIACEAE

*Utricularia gibba* var. *exoleta* Taylor

## OROBANCHACEAE

*Aeginetia indica* Linn.

## BIGNONIACEAE

*Dolichandrone falcata* Seem.

## PEDALIACEAE

*Sesumum indicum* Linn.

## MARTYNIACEAE

*Martynia annua* Linn.

## AGANTHACEAE

*Adhatoda vasica* Nees*Barleria prattensis* Sant.

*Barleria prionitis* Linn.  
*Blepharis maderaspatensis* (L.) Roth  
*B. molluginifolia* Pers.  
*Bremekampia neilgherrensis* (W.) Sreenadhavan  
*B. verticillata* (Roxb.) Sreenadhavan  
*Carvis callosa* (Nees) Brinck.  
*Dielliptera verticillata* (Forsk.) Christens.  
*Dipteracanthus prostratus* (Poir.) Nees  
*Eranthemum ruscum* (Vahl) R. Br.  
*Hygophila auriculata* (Schum.) Heim.  
*H. serpyllum* (Nees) T. Anders.  
*Justicia procumbens* Linn.  
*J. simplex* D. Don  
*Peristrophe bicalyculata* (Retz.) Nees  
*Rangia parviflora* Nees  
*R. pectinata* (L.) Nees

VERBENACEAE

*Clerodendron inerne* Gaertn.  
*C. serratum* Spring.  
*Gmelina arborea* Roxb.  
*Lantana camara* L. var. *aculeata* (L.) Moldenke  
*Phyla nodiflora* (L.) Greene  
*Tectona grandis* Linn. f.  
*Vitex negundo* Linn.

LAMIACEAE

*Anisomelis indica* (L.) O. K.  
*Hyptis suaveolens* Poit.  
*Leonotis nepetifolia* (L.) R. Br.  
*Leucas aspera* (Willd.) Sp.  
*L. biflora* R. Br.  
*Ocimum americanum* Linn.  
*Pogostemon parviflorus* Bth.  
*Salvia plebeia* R. Br.

NYCTAGINACEAE

*Boerhavia diffusa* Linn.

AMARANTHACEAE

*Achyranthes aspera* Linn.  
*Amaranthus gangeticus* Linn.  
*A. spinosus* Linn.  
*A. viridis* Linn.  
*Alternanthera sessilis* (L.) DC.  
*Celosia argentea* Linn.

POLYGONACEAE

*Polygonum barbatum* Linn.  
*P. glabrum* Willd.  
*P. plebejum* R. Br.  
*P. plebejum* R. Br. var. *indica* Hk. f.

PIPERACEAE

*Peperomia pellucida* H. B. & K.

UDRANTHACEAE

*Dendrophthoe falcata* (L. f.) Engelm.  
*Viscum articulatum* Hk. f.

SANTALACEAE

*Santalum album* Linn.

ELIPODIACEAE

*Breidelia squamosa* (Mull. Arg.) Gehrm.  
*Chrozophora prostrata* Dcne.  
*Emblicia officinalis* Gaertn.  
*Euphorbia bombalensis* Smal.  
*E. hirta* Linn.  
*E. nerifolia* Linn.  
*E. parviflora* Linn.  
*E. thymifolia* Linn.  
*E. tirucalli* Linn.  
*Homonoia riparia* Loefl.  
*Jatropha curcas* Linn.  
*J. gossypifolia* Linn.  
*Kirgenelia reticulata* (Poir.) Baill.  
*Mallotus philippensis* (Lamk.) Muell. Arg.  
*Phyllanthus asperifolius* Hitch.  
*P. maderaspatensis* Linn.  
*P. simplex* Retz.  
*Ricinus communis* Linn.

ELIMACEAE

*Holoptelea integrifolia* (Roxb.) Planch.  
*Trema orientalis* (L.) Bunge

URTICACEAE

*Elatostema cuscutum* Wt.  
*Ficuria interrupta* (L.) Gaud.  
*Girardinia zeylanica* Decne.  
*Pilea microphylla* Læhm.  
*Pouzolzia zeylanica* (L.) Boerl.

MORACEAE

*Artocarpus heterophyllus* Lamk.  
*Ficus asperrima* Roxb.  
*F. bengalensis* Linn.  
*F. glomerata* Roxb.  
*F. hispida* Linn. f.  
*F. religiosa* Linn.  
*F. retusa* Linn.

CASUARINACEAE

*Casuarina equisetifolia* Linn.

HYDROCHARITACEAE

*Blyxa echinosperma* (Clarke) Hk. f.  
*Hydrilla verticillata* (L. f.) Royle  
*Ottelia alismoides* Pers.  
*Vallisneria spiralis* Linn.

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- ORCHIDACEAE  
*Vanda* sp.
- AMARYLLIDACEAE  
*Crinum brachyneura* Herb.
- DIOSCOREACEAE  
*Dioscorea bulbifera* Linn.
- AGAYACEAE  
*Agave ingens* Berger
- COMMELINACEAE  
*Commelina benghalensis* Linn.  
*C. inaequalis* Vahl  
*C. paludosa* Bl.  
*Cyanotis fasciculata* (Heyne ex Roth) Schott. f.  
*Murdannia juncoides* (W.) R. & S.  
*M. sulciflora* (L.) Brenan
- PALMAE  
*Areca catechu* Linn.  
*Borassus flabellifer* Linn.  
*Cocos nucifera* Linn.  
*Phoenix sylvestris* (L.) Roxb.
- AROIDACEAE  
*Arisaema neglectum* Schott  
*Colocasia antiquorum* Schott  
*Cryptocoryne retrospiralis* Kunth
- LEMNACEAE  
*Lemna gibba* Linn.
- NALAEACEAE  
*Najas minor* All.
- ERIOCAULACEAE  
*Eriocaulon dianae* Fyson  
*E. eleonare* Fyson
- CYPERACEAE  
*Cyperus atulatus* Kera  
*C. compressus* Linn.  
*C. difformis* Linn.  
*C. iria* Linn.  
*C. michelianus* (L.) Link subsp. *pygmaeus* (Rottb.)  
 Archer & Gacibo.  
*C. pumilus* Linn.  
*C. rotundus* Linn.  
*C. squarrosus* Linn.  
*C. tegetum* Roxb.  
*C. tenuispica* Steud.  
*C. triceps* Endl.  
*Eleocharis atropurpurea* Kth.  
*E. dulcis* (Burm. f.) Trin. ex Henschel

- E. geniculata* (L.) B. & S.  
*Fimbristylis dichotoma* Vahl  
*F. miliacea* (L.) Vahl  
*F. quinqueangularis* Kth.  
*F. tenera* Roem. & Schult.  
*F. woodrowii* Clkc.  
*Fuirena ciliaris* (L.) Roxb.  
*Scirpus articulatus* Linn.  
*S. lateriflorus* Griseb.

GRAMINEAE

- Apluda mutica* Linn.  
*Bambusa bambos* (L.) Voss  
*Bothriochloa* sp.  
*Brachyria ramosa* (L.) Stapf  
*Cenchrus ciliaris* Linn.  
*Chloris barbata* (L.) Sw.  
*Cynodon dactylon* (L.) Pers.  
*Dactyloctenium aegyptium* (L.) Beauv.  
*Dendrocalamus strictus* Nees  
*Dichanthium annulatum* (Forsk.) Stapf  
*Diabra retroflexa* (Vahl) Panz.  
*Echinochloa colonum* (L.) Link  
*Eleusine indica* (L.) Gaertn.  
*Elytrophorus spicatus* (Willd.) A. Camus  
*Eragrostis cilianensis* (All.) Link  
*E. japonica* (Thunb.) Trin.  
*E. pilosa* (L.) Beauv.  
*E. poaeoides* Beauv.  
*E. unioloides* (Retz.) Nees ex Steud.  
*Isachne globosa* (Thunb.) O. K.  
*Melanocenthrus jacquemontii* Jamb.  
*Oplismenus burmannii* (Retz.) Beauv.  
*Oryza rufipogon* Griff.  
*O. sativa* Linn.  
*Panicum miliare* Lamk.  
*Paspalidium flavidum* (Retz.) A. Camus  
*Paspalum scrobiculatum* Linn.  
*Saccharum spontaneum* Linn.  
*Sacciolepis interrupta* Stapf  
*Setaria glauca* (L.) Beauv.  
*Sorghum halepense* (L.) Pers.  
*Sporobolus diander* (Retz.) Beauv.  
*Themeda quadrivalvis* (Roxb.) O. K.  
*Tragus racemosus* Hk. f. non Scop.

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TAXO

Micro  
anything is  
polynomial.  
of sets (in  
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The genus  
and in the  
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known. Its  
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are not  
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Monocot  
Eudicot

INTRO

discussion was pre  
ve typified by M. 187  
entirely identical  
196. This seems