

ENUMERATION OF PLANTS- MONOCOTS

ENNUMERATION OF PLANTS-PART II

MONOCOTYLEDONS

HYDROCHARITACEAE

Two species belonging to two different genera viz., <u>Hydrilla</u> and <u>Vallisneria</u> represents this family in the study area.

Hydrilla Rich.

Nomenclature: <u>Hydrilla verticillata</u> (Linn.) Royle, III. Bot. Himal. t. 376. 1839; Hook. f. Fl. Brit. India. 5: 659, 1888; Cooke, Fl. Pres. Bombay 3: 170, 1958 (Repr. ed); Shah, Fl. Guj. 2: 651, 1978; Sharma, et al., Fl. Maha. Monocot. 3. 1996; <u>Serpicula verticillata</u> L. f. Suppl. 416. 1781; <u>Vallisneria verticillata</u> (L. f.) Roxb. Fl. Ind. 3: 751.

Habit: Fresh water, slender, glabrous, submerged herbs, free floating or rooting.

Phenology: FLS and FRS- September to December.

Distribution and Status in the Study Area: Abundant at the pond at Pavi-jetpur.

Distribution in Gujarat: Throughout, common (Shah, 1978).

Vallisneria Linn.

Nomenclature: <u>Vallisneria spiralis</u> Linn. Sp. Pl. 1015. 1753; Hook. f. Fl. Brit. India. 5: 660, 1888; Cooke, Fl. Pres. Bombay 3: 171, 1958 (Repr. ed); Shah Fl. Guj. 2: 652. 1978; Sharma, et al., Fl. Maha. Monocot. 5. 1996.

Habit: A submerged herb, with creamy-white to pale yellow glabrous stolons.

Phenology: FLS and FRS- January to April.

Distribution and Status in the Study Area: Common in stagnant water in Orsang river bed at Chalamali and Sukhidam at Pavi-jetpur.

Distribution in Gujarat: Throughout in stagnant water (Shah, 1978).

ORCHIDACEAE

A total of five species belonging to three different genera- <u>Habenaria</u>, <u>Nervilia</u> and <u>Vanda</u> have been observed in the area under this family.

Habenaria Willd.

Nomenclature: <u>Habenaria marginata</u> Colebr. In Hook. Exot. Bot. t. 136. 1825; Hook. f. Fl. Brit. India. 6: 150. 1890; Cooke, Fl. Pres. Bombay 3: 200. 1958 (Repr. ed); Shah Fl. Guj. 2: 658. 1978; Sharma, et al., Fl. Maha. Monocot. 41. 1996.

Habit: Perennial herb.

Phenology: FLS and FRS- August to October.

Distribution and Status in the Study Area: Rare, a few plants were seen on the hills at Dolariya and Kevdi forests. **PLATE 46**

Distribution in Gujarat: Sanjan, Bulsar, Dangs, Panchmahals; rare (Shah, 1978).

Nervilia Comm. ex Gaud. nom. cons.

Nomenclature: Nervilia aragoana Gaud., in Bot. Voy. Freye. 422. t. 36. 1826; Hook. f. Fl. Brit. India. 6: 121, 1888; Cooke, Fl. Pres. Bombay 3: 211, 1958 (Repr. ed). (non Lindl. 1840); Shah Fl. Guj 2: 659, 1978; Sharma, et al., Fl. Maha. Monocot. 48. 1996; Santapau and Kapadia 134; Pogonia flabelliformis Lindl., in Wall. Cat. 7400. 1832 (nomen) and Gen. and Sp. Orchid. 415. 1840; Pogonia carinata Wt. Icon. 5(1): 15. t. 1720. 1851; Pogonia scottii Reichb. f. 276. 1872; Nervilia scottii (Reichb. f.) Schltr., in Bot. Jahrb. 45: 404. 1911.

Habit: Tuberous terrestial orchid with almost subsessile leaves.

Phenology: Only observed only in vegetative condition.

Local Name: Dukar-kand.

Distribution and Status in the Study Area: An addition to the flora of Chhota-udepur forest division. Not reported previously by Karatela (1973) and Thaker (1974). A few plants were located in vegetative conditions at a sacred place in Tundawa beat of Rangpur range, Chhota-udepur forest division. PLATE 46

Distribution in Gujarat: Dangs (Malegaon, Ahwa); not common (Shah, 1978).

Nomenclature: Nervilia discolor (Bl.) Schltr., in Bot. Jahrb. 45: 403. 1911; Hook. f. Fl. Brit. India. 6: 119, 1888; Cooke, Fl. Pres. Bombay 3: 211. 1958 (Repr. ed); Shah Fl. Guj. 2: 659. 1978; Sharma, et al., Fl. Maha. Monocot. 50. 1996; Santapau and Kapadia 131. Pl. 32; Cordyla discolor Bl. Bijdr. 417. 1825; Pogonia discolor (Bl.) Bl. Mus. Bot. Lugd.-Bat. 1: 32. 1849 and 128. t. 57. 1858; Pogonia biflora Wt. Icon. 5(1): 22. t. 1758. 1851; Nervilla biflora (Wt.) Schltr., in Bot. Jahrb. 45: 403. 1911.

Habit: Tuberous terrestial orchid with sessile leaves.

Phenology: FLS and FRS- Not seen, only observed in vegetative condition.

Local Name: Digad-kand.

Distribution and Status in the Study Area: An addition to the flora of Chhota-udepur forest division. Not reported by Thaker, et al., (1968-69), Karatela (1973) and Thaker (1974). Located in Dolariya range of forest division. **Both the species varies mainly on the color of the leaves and also the number of veins on individual leaf. **PLATE 46** Distribution in Gujarat: Dangs (Malegaon, Subir); not frequent (Shah, 1978).

Vanda R. Br.

Nomenclature: <u>Vanda tessellata</u> (Roxb.) Hook. f. ex G. Don in Lond. Hort. Brit. 372. 1830; Hook. f. Fl. Brit. India. 6: 52, 1890; Cooke, Fl. Pres. Bombay 3: 208, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 662, 1978; Sharma, et al., Fl. Maha. Monocot. 62. 1996; <u>Epidendron tesellatum</u> Roxb. Pl. Cor. 1: 34, t. 2. 42. 1795; <u>Vanda roxburghii</u> R. Br. Bot. Reg. 6: t. 506. 1820.

Habit: Stout epiphytic orchid.

Phenology: FLS- March to June, FRS- April to August.

Sanskrit Name: Rasna.

Local Name: Vando.

Distribution and Status in the Study Area: Abundant on <u>Madhuca indica</u> at Kevdi forests and also at Chhota-udepur. <u>PLATE 46</u>

Distribution in Gujarat: Vyara, Rajpipla, Panchmahals; rare but locally abundant (Shah, 1978).

Local Uses: Decoction of epiphytic roots is useful in rheumatism. Leaf paste is used in headache. Decoction of leaves is used in abscess.

Nomenclature: <u>Vanda testacea</u> (Lindl.) Reichb. f., in Gard. Chron. II: 166. 1877; Hook. f. Fl. Brit. India. 6: 59, 1888; Cooke, Fl. Pres. Bombay 3: 207, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 663, 1978 Sharma, et al., Fl. Maha. Monocot. 63. 1996; Santapau and Kapadia 219; <u>Aeridus testaceum</u> Lindl. Gen. and Sp. Orch. 238. 1833; <u>Vanda spathulata</u> Grah. Cat. Pl. Bombay 204. 1839 (non Spr. 1826); <u>Vanda parviflora Lindl.</u>, in Bot. Reg. 30. Misc. 45. 1844;

Habit: Epiphytic orchid with thick stem.

Phenology: FLS- May to June, FRS- July to December.

Distribution and Status in the Study Area: Sparingly seen at Sadli, Chhota-udepur, Kevdi and Naswadi on Madhuca indica, Boswellia serrata and Mangifera indica. Distribution in Gujarat: Bulsar and Dangs, rare (Shah, 1978).

PLATE 46



Nervilia aragoana Gaud. (Orchidaceae) Addition to the flora of Chhota-udepur forest division.



Nervilia discolor (Bl.) Schtr. (Orchidaceae) Addition to the flora of Chhota-udepur forests.



Flower: <u>Habenaria marginata</u> var. <u>marginata</u> Colebr. (Orchidaceae) Chhota-udepur forest division.



<u>Vanda</u> <u>tessellata</u> (Roxb.) Hk. f. ex G. Don (Orchidaceae) in flowering.

ZINGIBERACEAE

This family is represented in the area by two species of the genera <u>Costus</u> and <u>Curcuma</u>. They are <u>Costus speciosus</u> and <u>Curcuma</u> inodora respectively.

Costus Linn:

Nomenclature: <u>Costus speciosus</u> (Koenig ex Retz.) J. E. Sm. in Trans. Linn. Soc. 1: 249. 1791; Hook. f. Fl. Brit. India. 6: 249, 1892; Cooke, Fl. Pres. Bombay 3: 243, 1958 (Repr. ed.); Shah, Fl. Guj. 2: 664, 1978; Sharma, et al., Fl. Maha. Monocot. 70. 1996; <u>Banksia speciosa</u> Koenig ex Retz. Obs. 3: 75. 1783.

Habit: Slender, simple or sparingly branched perennial herbs.

Phenology: FLS- August to September, FRS- September to December.

Sanskrit Name: Kustha.

Local Name: Parthu.

Distribution and Status in the Study Area: An extremely rare plant seen only once from Kevdi to Lagami forests. Also planted at forest Nursery, Chhota-udepur. The stem and the bracts turns deep red on maturity and that makes the plant conspicuous. The pronounced flexuousness of the stem is a characteristic feature of the plant. PLATE 47

Distribution in Gujarat: Dangs, Vyara, Bansda, Rajpipla; rather rare in the forests undergrowth (Shah, 1978).

Local Uses: Roots are bitter, astringent, purgative, stimulant, tonic and anthelmintic; used in insect bite. Boiled leaf juice is used in earache. Root decoction is given in urinary tract infections. Leaf paste with sugar is given as antidysentric to small childrens. Root paste is applied on joints to relieve pain. Its decoction is given internally as a remedy for Cholera and Jaundice.

Uses in other regions of Gujarat state: The rhizome is astringent. It is made into a paste and applied on snake bites by the tribals of Dangs forest division (Shah and Gopal, 1982).

Curcuma Linn.

Nomenciature: <u>Curcuma inodora</u> Blatt., in Journ. and Proc. As. Soc. Bengal 26: 357-358. 1930; Hook. f. Fl. Brit. India6: 300. 1893; Cooke, Fl. Pres. Bombay 3: 225. 1958; Shah, Fl. Guj. 2: 665, 1978; Sharma, et al., Fl. Maha. Monocot. 75. 1996; Ch and O 221.

Habit: Scapigerous perennial herb.

Phenology: FLS and FRS- June to August.

Sanskrit Name: Kachur, Gandhmul, Dravid.

Local Name: Ambodi.

Distribution and Status in the Study Area: Occasional in the forests undergrowth at

Kadipani, Ambadungar and Mithibor. PLATE 47

Distribution in Gujarat: Throughout (except Kachchh); common in shaded spots and

forests undergrowth (Shah, 1978).

Local Uses: Paste of the dried tubers is given in stomach and abdominal pains.

Uses in other regions of Gujarat state: Rhizome poultice is applied on sprains and snake bites by the tribals of Dangs forest division (Shah and Gopal, 1982).

MUSACEAE

Only one species of type genus <u>Musa</u>, i.e. <u>Musa paradisiaca</u> have been observed in the area.

Musa Linn.

Nomenclature: Musa paradisiaca L. Sp. Pl. 1043. 1753; Hook. f. Fl. Brit. India. 6: 262, 1888; Cooke, Fl. Pres. Bombay 3: 249, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 666, 1978; Sharma, et al., 89. 1996; Bailey 286; Musa sapientum Linn. var paradisiaca (Linn.) Baker in Ann. Bot. 7: 213. 1893.

Habit: A stoloniferous, large, tree like herb, with false stems formed by large, sheathing leaf bases.

Phenology: FLS and FRS- More or less throughout the year.

Sanskrit Name: Kadali, Rambha, Mova.

Local Name: Kela.

Distribution and Status in the Study Area: Cultivated throughout in Pavi-jetpur range especially between Bodeli to Pavi-jetpur.

Distribution in Gujarat: Throughout; some varieties are cultivated in Gujarat (Shah, 1978).

Local Uses: Cultivated as one of the major crop plants at Bodeli and Pavi-jetpur areas of Chhota-udepur forest division.

CANNACEAE

Only one species of type genus <u>Canna</u>, i.e. <u>C. indica</u> represents this family in the area.

Canna Linn.

Nomenclature: <u>Canna indica</u> Linn. Sp. Pl. 1. 1753; Hook. f. Fl. Brit. India. 6: 260, 1890; Cooke, Fl. Pres. Bombay 3: 251, 1958; Shah, Fl. Guj. 2: 667, 1978; Sharma, et al., Fl. Maha. Monocot. 91. 1996.

Habit: A large tall Ornamental herb. Leaves alternate, elliptic-lanceolate to acuminate. Flowers generally red, showy in terminal racemes.

Phenology: FLS- Almost throughout the year.

Distribution and Status in the Study Area: Grown as an ornamental at Garden and college campus, Chhota-udepur.

Distribution in Gujarat: Grown as a ornamental throughout Gujarat (Shah, 1978).

AMARYLLIDACEAE

Under this family only one species of the genus <u>Crinum</u>, i.e. <u>C</u>. <u>latifolium</u> has been observed in the area.

Crinum Linn.

Nomenclature: <u>Crinum latifolium</u> Linn. Sp. Pl. 291, 1753; Hook. f. Fl. Brit. India. 6: 283, 1888; Cooke, Fl. Pres. Bombay 3: 258, 1958; Shah, Fl. Guj. 2: 668, 1978; Sharma, et al., Fl. Maha. Monocot. 95, 1996.

Habit: Bulbous herb.

Phenology: FLS- May, FRS- Not seen.

Sanskrit Name: Nagdamni.

Distribution and Status in the Study Area: Rare, collected from the margins of the tributaries of river Orsang at Singla.

Distribution in Gujarat: So far reported only from Central Gujarat; rare (Shah, 1978). Uses in Other regions of Gujarat State: The flowers are put in water to make a semisolid gel which is given as a drink in case of snake bite by the tribals of Dangs forest division (Shah and Gopal, 1982).

HYPOXIDACEAE

Only one species of the genus <u>Curculigo</u>, i.e. <u>C</u>. <u>orchioides</u> is found growing in the area.

Curculigo Gaertn.

Nomenclature: <u>Curculigo orchioides</u> Gaertn. Fruct. 1: 63., t. 13, 1788; Hook. f. Fl. Brit. India. 6: 279, 1890; Cooke, Fl. Pres. Bombay 3: 255, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 670, 1978; Sharma, et al., Fl. Maha. Monocot. 102. 1996.

Habit: Perennial, scapigerous herbs with persistent, fibrous leaf sheaths.

Phenology: FLS and FRS- June to September.

Sanskrit Name: Talamulika, Talapatri, Talamuli.

Local Name: Kali-musli.

Distribution and Status in the Study Area: Common but not abundant in shaded places and also as a forest undergrowth at Singla, Kawant, Kevdi, Naswadi, Jamlidam, Vadhavan and Panvad. <u>PLATE 47</u>

Distribution in Gujarat: Throughout (except Kachchh), in the deciduous forests (Shah, 1978).

Local Uses: Roots are useful in piles, jaundice, asthma, gonorrhoea and skin diseases. The root powder along with Jaggery is very useful for abdominal pains due to kidney stones. Decoction of root is given to cattle for expelling intestinal worms.

Uses in other regions of Gujarat state: The root juice is given to ladies in stomachache during menstruation by the tribals of Dangs forest division (Shah and Gopal, 1982).

AGAVACEAE

Only one species of the type genus <u>Agave</u>, i.e. <u>A</u>. <u>americana</u> is present in the area.

Agave Linn.

Nomenclature: Agave americana Linn. Sp. Pl. 323, 1753; Cooke, Fl. Pres. Bombay 2: 754. 1958; Shah, Fl. Guj 2: 671. 1978; Sharma, et al., Fl. Maha. Monocot. 104. 1996; Bailey, Man. Cult. Pl. 239 and Cycl. Hort. 234, ff. 139, 140. Agave cantula Roxb.

Habit: Stout, acaulescent shrub, with a short trunk.

Phenology: FLS and FRS- June to October.

Local Name: Kedki.

PLATE 47



Costus speciosus (Koenig.) Smith (Zingiberaceae). In flowering. Rare in Cudepur forests division.

Curcuma inodora
Blatter. Common as
forest undergrowth at
Mithibor and Dolariya.
(Zingiberaceae)





<u>Curculigo</u> <u>orchioides</u> Gaertn. (Hypoxidaceae) Common as forest undergrowth. Distribution and Status in the Study Area: Planted along roadsides, hedges and as a border plant in different ranges.

Distribution in Gujarat: Throughout planted, seldom reported in a wild state (Patel, 1984).

Local Uses: Grown as a hedge plant by the tribals.

Uses in other regions of Gujarat state: Locally called as "Ramban" in Dharampur forest division. Plant yields superior quality of water resistant fibers; grown as hedge plant around cultivated fields. Leaves: used for brooms (Reddy, 1989).

TACCACEAE

This family is represented in the area by only one species of the type genus $\underline{\text{Tacca}}$, i.e. $\underline{\text{T}}$. leontopetaloides.

Tacca Forst.

Nomenclature: <u>Tacca leontopetaloides</u> (L.) O. Ktze. Rev. Gen. Pl. 3: 311. 1893; Hook. f. Fl. Brit. India. 6: 287, 1890; Cooke, Fl. Pres. Bombay 3: 262, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 672, 1978; Sharma, et al., Fl. Maha. Monocot. 108. 1996; <u>Leontice leontopetaloides</u> Linn. Sp. Pl. 313. 1753; <u>Tacca pinnatifida</u> Forst. Char. Gen. 1776.

Habit: Perennial erect herbs with stout root stock.

Phenology: FLS and FRS- July to September.

Local Name: Kanchinda no velo.

Distribution and Status in the Study Area: Occasional in forests undergrowth at Mogra, Kikawada, Kawant, Kevdi, Lagami and Vagasthal.

Distribution in Gujarat: In deciduous forests; occasional (Shah, 1978).

Local Uses: Tubers are considered bitter and are useful in dysentery and diarrhoea. Paste of the root tuber is applied on swellings. Decoction of tuber is used as a lotion in skin diseases.

Uses in other regions of Gujarat state: Locally called as "Badhva" in Ratanmahal forests. Rhizomes are eaten by the tribals (Bedi, 1979). Tubers are eaten as vegetable. The root decoction is given in leprosy (Dangs forest division) (Shah and Gopal, 1982). Locally called as "Hardatad" in Dharampur forest division. Root tuber is used as vegetable (Reddy, 1989).

DIOSCOREACEAE

Two species of the same genus <u>Dioscorea</u>, i.e. <u>D. bulbifera</u> and <u>D. pentaphylla</u> represents this family in the area.

Dioscorea Linn.

Nomenclature: <u>Dioscorea bulbifera</u> Linn. Sp. Pl. 1033. 1753; Hook. f. Fl. Brit. India. 6: 295, 1890; Cooke, Fl. Pres. Bombay 3: 265, 1958 (Repr. ed); Shah, Fl. Guj. 2: 673, 1978; Sharma, et al., Fl. Maha. Monocot. 111. 1996; <u>Dioscorea sativa</u> Thunb. Fl. Jap. 151. 1784.

Habit: An extensive glabrous twiner with globose or disciform bulbils.

Phenology: FLS and FRS- July to October.

Sanskrit Name: Varahi-kand, Grushti.

Local Name: Bhoy-kand.

Distribution and Status in the Study Area: Common in forest undergrowth and on hedges along roadsides at Gabadia, Chhota-udepur, Singla, Kawant, Mogra, Naswadi and Ghantoli-songir.

Distribution in Gujarat: Throughout, everywhere; common (Shah, 1978).

Local Uses: Tubers are used in piles, dysentery, syphilis and applied on ulcers. Decoction of bulbils is warmed initially and then applied on abdominal pains. The paste of the tubers is applied on external injury to bones. The bulbils and tubers are eaten by natives during scarcity of food.

Uses in other regions of Gujarat state: Locally called as "Kandavel" in Ratanmahal forests. Bulbils after repeated boiling and washing are eaten by the tribals (Bedi, 1979). Bulbils and tubers are eaten by the tribals of Dangs forest division (Shah and Gopal, 1982) and natives of Dharampur forest division (Reddy, 1989)

Nomenclature: <u>Dioscorea pentaphylla</u> Linn. Sp. Pl. 1032. 1753; Hook. f. Fl. Brit. India. 6: 289, 1888; Cooke, Fl. Pres. Bombay 3: 264, 1958; Shah, Fl. Guj. 2: 675, 1978; Sharma, et al., Fl. Maha. Monocot. 113. 1996.

Habit: Twiner with prickly stem.

Phenology: FLS- August to October, FRS- September to April.

Sanskrit Name: Kodkand.

Local Name: Kulvel.

Distribution and Status in the Study Area: Sparingly seen in the forests of Mogra and Jamlidam.

Distribution in Gujarat: In deciduous and scrub forests (Shah, 1978).

Local Uses: Tubers are considered tonic and its decoction is used for depressing the swellings and boils.

Uses in other regions of Gujarat state: Locally called as "Suri" in Ratanmahal forests. Tubers and bulbils are kept in running water for a day and then after repeated boiling and washing are eaten by the tribals (Bedi, 1979).

LILIACEAE

A total of seven species belonging to six different genera have been observed and collected from the area.

Aloe Linn.

Nomenclature: Aloe vera (L.) Burm f. Fl. Ind. 83. 1768; Hook. f. Fl. Brit. India. 6: 302. 1889; Cooke, Fl. Pres. Bombay 3: 283, 1958 (Repr. ed); Shah, Fl. Guj. 2: 677, 1978; Aloe perfoliata Willd. var. vera Linn. Sp. Pl. 320. 1753; Aloe barbedensis Mill. Gard. Dict. n. 2. 1768,

Habit: Succulent herbs with spiny leaves.

Phenology: FLS- November to January, FRS- Not seen.

Sanskrit Name: Kumari, Gruhkumari, Gruhkanya.

Local Name: Kunvar-pathu.

Distribution and Status in the Study Area: Cultivated near human habitation at Dhandhoda village of Chhota-udepur range.

Distribution in Gujarat: Throughout in waste places, scattered or subgregarious; also cultivated near houses (Shah, 1978).

Uses in other regions of Gujarat state: The fresh juice from leaf is used by tribal ladies for hair wash. The mucilaginous leaf pulp is applied to the parts affected by rheumatic pains (Saurashtra) (Shah, Menon and Gopal, 1981).

Allium Linn.

Nomenclature: Allium cepa L. Sp. Pl. 300. 1753; Hook. f. Fl. Brit. India. 6: 337, 1888; Cooke, Fl. Pres. Bombay 3: 284, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 677, 1978; Sharma, et al., Fl. Maha. Monocot. 141. 1996; Bailey 246.

Habit: Herb with tunicated underground bulbs.

Phenology: FLS and FRS- February to April.

Sanskrit Name: Palandu, Mukhdustak, Yavnesth.

Local Name: Dungri.

Distribution and Status in the Study Area: Cultivated mainly in Pavi-jetpur range. Distribution in Gujarat: Cultivated throughout as a cold season crop (Shah, 1978).

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Asparagus Linn.

Nomenclature: Asparagus racemosus Willd. var. javanicus (Kunth) Baker in Journ.

Linn. Soc. 14: 624, 1874; Hook. f. Fl. Brit. India. 6: 316. 1890; Cooke, Fl. Pres.

Bombay 3: 270, 1958 (Repr. ed); Shah, Fl. Guj. 2: 679, 1978; Sharma, et al., Fl.

Maha. Monocot. 119. 1996; Asparagopsis javanica Kunth. Enum. 5: 100. 1850.

Habit: Deciduous, slender, sermentose shrubs with cladodes.

Phenology: FLS and FRS- July to September.

Sanskrit Name: Shatamuli, Shatavari, Bahupatra.

Local Name: Satavri.

Distribution and Status in the Study Area: Not frequent in the undergrowth of forests at Kevdi and Dolariya. **PLATE 48**

Distribution in Gujarat: Throughout, cultivated or wild in forest undergrowth and hedges (Shah, 1978).

Local Uses: Roots are demulcent, diuretic, aphrodisiac, antiseptic, antidysentric and galactagogue. Root paste is given in acidity and intestinal worms of cattle.

Uses in other regions of Gujarat state: Locally called as "Saslanu Ghas" in Ratanmahal forests. Roots are aphrodisiac; often eaten by the tribals (Bedi, 1979). Fresh juice with honey is demulcent and presumed aphrodisiac (North Gujarat, Bhil tribe) (Shah and Gopal, 1985). The root is dried and powdered finely, the powder is mixed with boiled water and the decoction is orally given in diabetes (Rajpipla forest division, Vasava tribe) (Shah and Gopal, 1986).

Nomenclature: Asparagus gonoclados Baker in Journ. Linn. Soc. 14: 627. 1874; Hook. f. Fl. Brit. India. 6: 318, 1888; Cooke, Fl. Pres. Bombay 3: 271, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 678, 1978; Sharma, et al., Fl. Maha. Monocot. 117. 1996.

Habit: Much branched undershrub with tri-quadrous branches.

Phenology: FLS and FRS- November to January.

Sanskrit Name: Atirasa, Abhiru, Narayani.

Local Name: Ubhi satavri.

Distribution and Status in the Study Area: Occasional as a wild. Also planted at Dhandhoda Village nursery.

Distribution in Gujarat: Saurashtra, North Gujarat, Panchmahals and Rajpipla; rare to occasional (Shah, 1978).

Chlorophytum Ker.-Gawler.

Nomenclature: <u>Chlorophytum tuberosum</u> (Roxb.) Baker in Jour. Linn. Soc. London. 15: 332. 1876; Hook. f. Fl. Brit. India. 6: 334, 1892; Cooke, Fl. Pres. Bombay 3: 281, 1958 (Repr. ed); Shah, Fl. Guj. 2: 680, 1978; Sharma, et al., Fl. Maha. Monocot. 129. 1996; Anthericum tuberosum Roxb. Fl. Ind. 2: 149. 1832.

Habit: Scapigerous herbs with ellipsoidal oblong root tuber at the tip of each root.

Phenology: FLS and FRS- June to October.

Local Name: Dholi musli.

Distribution and Status in the Study Area: Common in some of the areas like Kevdi, Mithibor, Dolariya and Rangpur; scattered or in loose patches, often showing the same habitat as that of <u>Urginea indica</u>. <u>PLATE 48</u>

Distribution in Gujarat: Throughout the deciduous forests (Shah, 1978).

Local Uses: Tubers are tonic and its decoction is taken as aphrodisiac. Leaves are eaten as vegetable by the natives.

Uses in other regions of Gujarat state: Locally called as "Jhanjaria" in Ratanmahal forests. Roots are used as a vegetable by the bhil community and are considered as tonic (Bedi, 1979). Locally called as "Kumarinibhaji". Root tubers eaten by the tribals; Leaves are used as vegetable (Reddy, 1989).

Gloriosa Linn.

Nomenclature: <u>Gloriosa superba</u> Linn. Sp. Pl. 305. 1753; Hook. f. Fl. Brit. India. 6: 358, 1892; Cooke, Fl. Pres. Bombay 3: 274, 1958 (Repr. ed); Shah, Fl. Guj.. 2: 681, 1978; Sharma, et al., Fl. Maha. Monocot. 137. 1996.

Habit: Extensive climber with root tubers.

Phenology: FLS- July to September, FRS- September to October.

Sanskrit Name: Langali, Langalika, Kalikarika, Agnijvala, Vishaliya, Garbhashatini.

Local Name: Kankasiyo.

Distribution and Status in the Study Area: Occasional as a hedge plant at Pavijetpur, Bodeli, Dhandhoda and Ghelvant. <u>PLATE 48</u>

Distribution in Gujarat: Throughout; common on hedges; rare in forests undergrowth (Shah, 1978).

PLATE 48



Asparagus racemosus
Willd. var. javanicus
Baker (Liliaceae) in
flowering and fruiting.

<u>Chlorophytum</u> <u>tuberosum</u>

Baker. (Liliaceae) Mithibor □

forests. Chhota-udepur.





Gloriosa superba Linn. in flowering. (Liliaceae). Rare at Mithibor and Pavijetpur. Local Uses: Roots or rather tubers are purgative, tonic, relieves stomachic, anthelmintic; used in leprosy, piles, colic, ulcers, insect-bite and skin affections. The decoction of tubers is given in gonorrhoea. Roots are also used as abortifacient and agent for promoting labour pains. Root paste (tuber) is externally applied on boils and inflammations. Powder of tuber (20 %) along with <u>Lantana camara</u> leaves is applied as ointment on wounds.

Uses in other regions of Gujarat state: Tuber paste is anti-dote in snake bite (Bedi, 1979). Locally called as "Vadhvardi" in North Gujarat (Bhil, Dungrabhil and Kathodia tribe). Root decoction for gout, seed paste gently rubbed on abdomen of pregnant women for quick delivery (Shah and Gopal, 1985).

Urginea Stein.

Nomenclature: <u>Urginea indica</u> (Roxb.) Kunth, Enum. 4: 333. 1843; Hook. f. Fl. Brit. India. 6: 347, 1888; Cooke, Fl. Pres. Bombay 3: 277, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 683, 1978; Sharma, et al., Fl. Maha. Monocot. 141. 1996; <u>Scilla indica</u> Roxb. Fl. Ind. 2: 147, 1832.

Habit: Perennial herbs with tunicated bulbs. In absence of flowers and/or fruits the tunicated bulb with spreading long, radical, strap shaped leaves are sufficient for its identification.

Phenology: FLS- February to April, FRS- April to May.

Sanskrit Name: Vanapalandum, Kollakand.

Local Name: Jangli-dungari.

Distribution and Status in the Study Area: Occasional in the area. Seen at Mogra forests.

Distribution in Gujarat: Bulsar, Dangs, Rajpipla, Saurashtra; not common (Shah, 1978).

Local Uses: The underground bulbs have cardiac, stimulant, digestive and diuretic properties; useful in bronchitis, asthma, rheumatism and in skin diseases.

COMMELINACEAE

Only one species of the genus Commelina, i.e. C. benghalensis is found in the area.

Commelina Linn.

Nomenclature: <u>Commelina benghalensis</u> Linn. Sp. Pl. 41. 1753; Hook. f. Fl. Brit. India. 6: 370, 1892; Cooke, Fl. Pres. Bombay 3: 291, 1958 (Repr. ed). Shah, Fl. Guj. 2: 687, 1978; Sharma, et al., Fl. Maha. Monocot. 149. 1996.

Habit: An annual, diffuse or suberect herb, pubescent in younger parts, glabrous in older.

Phenology: FLS and FRS- August to October.

Sanskrit Name: Vatsapriya, Koshpriya.

Local Name: Kali-gushadi.

Distribution and Status in the Study Area: Common, scattered or in loose patches, in moist ground along road sides and among grasses at Juna Chhota-udepur, Jamlidam and Lagami forests.

Distribution in Gujarat: Throughout, everywhere; common (Shah, 1978).

ARECACEAE

A total of three species belonging to three genera i.e. <u>Borassus</u>, <u>Cocos</u> and <u>Phoenix</u> have been observed in the area.

Borassus Linn.

Nomenclature: <u>Borassus flabellifer</u> Linn. Sp. Pl. 1187. 1753; Hook. f. Fl. Brit. India. 6: 482. 1892; Cooke, Fl. Pres. Bombay 3: 321, 1958 (Repr. ed); Shah, Fl. Guj. 2: 692, 1978; Sharma, et al., Fl. Maha. Monocot. 199. 1996.

Habit: Unarmed tree, 15-30 mt tall, straight at times curved, gradually tapering towards apex.

Phenology: FLS- January to March, FRS- March to May.

Sanskrit Name: Tad-phala, Trunraj, Lekhyapatra, Dhvajdrum.

Local Name: Tad, Tadfadi.

Distribution and Status in the Study Area: Common in the area; usually seen near human inhabitation.

Distribution in Gujarat: Throughout in plains (Shah, 1978).

Local Uses: Juice of the plant is diuretic, stimulant and useful in inflammatory affections and dropsy. Leaves are used for thatching and roofing purposes.

Uses in other regions of Gujarat state: Fresh sap is considered cooling agent, astringent, refreshing and useful in hyperacidity (North Gujarat, Bhil and Dungrabhil tribe) (Shah and Gopal, 1985). Tender shoot is used as vegetable; Fresh sap: for cooling; Leaves for thatching; Fibers obtained from leaf petioles and spadix is used for making ropes; Fresh spadix decoction: Powerful and astringent stimulant (Dharampur forest division) (Reddy, 1989).

Cocos Linn.

Nomenclature: Cocos nucifera L. Sp. Pl. 1188. 1753; Hook. f. Fl. Brit. India. 6: 482, 1888; Cooke, Fl. Pres. Bombay 3: 322, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 693, 1978; Sharma, et al., Fl. Maha. Monocot. 200. 1996; Bor 350.

Habit: Tall monoecious palm with thickened trunk at the base.

Phenology: FLS and FRS- Almost throughout the year.

Sanskrit Name: Narikel, Drudhphalam.

Local Name: Nariyel.

Distribution and Status in the Study Area: Occasional, not in wild but are planted near houses at Dhandhoda and Ghelvant villages.

Distribution in Gujarat: Throughout; seldom planted (Shah, 1978).

Phoenix Linn.

Nomenclature: Phoenix sylvestris (Linn.) Roxb. Fl. Ind. 3: 787. 1832; Hook. f. Fl. Brit. India. 6: 425. 1892; Cooke, Fl. Pres. Bombay 3: 311, 1958 (Repr. ed); Shah, Fl. Guj. 2: 694, 1978; Sharma, et al., Fl. Maha. Monocot. 195. 1996; Elate sylvestris Linn. Sp. Pl. 1189. 1753.

Habit: 8-10 mt tall trees with straight trunk and persistent leaf bases.

Phenology: FLS and FRS- January to June.

Sanskrit Name: Kharjuri, Khajurika.

Local Name: Khajuri.

Distribution and Status in the Study Area: Frequent in waste places along roads in the area, more common between Bodeli and Ghelvant villages.

Distribution in Gujarat: Throughout, in waste places (Shah, 1978).

Local Uses: Fruits are tonic. Leaves are used in toothache. Juice of the leaves is used as a cooling beverage.

Uses in other regions of Gujarat state: The leaves are made into fine brooms and mats by the tribals of Saurashtra region (Shah, Menon and Gopal, 1981). Sap called

as 'Neera' taped from the phloem is cooling; Leaves for thatching roofs, in making mats and brooms; Ripe fruits edible (Reddy, 1989).

PANDANACEAE

This family is represented in the area by single species of the genus <u>Pandanus</u> i.e. <u>P. fascicularis</u>.

Pandanus L. f. nom. cons

Nomenclature: <u>Pandanus fascicularis</u> Lamk. Encycl. 1: 372. 1785; Hook. f. Fl. Brit. India. 6: 485. 1892; Cooke, Fl. Pres. Bombay 3: 324, 1958 (Repr. ed); Shah, Fl. Guj.. 2: 695, 1978; Sharma, et al., Fl. Maha. Monocot. 206. 1996; <u>Pandanus odoratissimus</u> Linn. f. Suppl. 424. 1781; <u>Pandanus tectorius</u> Soland ex Parkinson in J. Voy. H. M. S. Endeavor 46, 1773 ex Warburg in Pfreich. 3: 46. 1800.

Habit: Large shrubs with spiny leaves.

Phenology: FLS- July to October.

Sanskrit Name: Ketak, Ketaki, Kantdala, Suvarnaketki.

Local Name: Kevdo.

Distribution and Status in the Study Area: Occasional in the area. A few plants observed along riverbanks at Pavi-jetpur.

Distribution in Gujarat: Planted; seldom wild in North Gujarat (Shah, 1978).

Uses in other regions of Gujarat state: Oil extracted from bracts is used in perfumes and hair oils; also used in religious ceremonies (Reddy, 1989).

TYPHACEAE

Only one species of the type genus <u>Typha</u> i.e. <u>T</u>. <u>angustata</u> is found in the area.

Typha Linn.

Nomenclature: <u>Typha angustata</u> Bory and Chaub. Exp. Sci. Mor. 2(1): 338. 1832; Hook. f. Fl. Brit. India. 6: 489, 1892; Cooke, Fl. Pres. Bombay 3: 326, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 695, 1978; Sharma, et al., Fl. Maha. Monocot. 207. 1996; <u>Typha domingensis</u> auct. plur. non. Linn.

Habit: A robust, perennial, marshy scapigerous herb.

Phenology: FLS- July, FRS- August to October.

Sanskrit Name: Areka.

Local Name: Gha-bajariu.

Distribution and Status in the Study Area: A few small patches were observed in moist ground along a ditch on roadside at Mogra.

Distribution in Gujarat: Common, in scattered, compact patches, in marshy grounds along water courses (Shah, 1978).

Uses in other regions of Gujarat state: Locally called as "Ranban" in North Gujarat (Bhil tribe). Husk of flowers, mixed with honey, said to be good for amenorrhoea (Shah and Gopal, 1985). Plant is used for thatching huts and in making mats (Reddy, 1989).

ARACEAE

Two species of the genus Amorphophallus, i.e. A. campanulatus and A. sylvaticus have been observed in the study area.

Amorphophallus Blume

Nomenclature: Amorphophallus campanulatus (Roxb.) Blume ex Decne, in Nouv.

Ann. Mus. Par. 3: 336. 1834; Hook. f. Fl. Brit. India. 6: 513, 1892; Cooke, Fl.

Pres.Bombay 3: 336, 1958 (Repr. ed); Shah, Fl. Guj. 2: 697, 1978; Sharma, et al., Fl.

Maha. Monocot. 220. 1996.

Habit: Perennial herb with spherical corm.

Phenology: Only observed in vegetative conditions.

Sanskrit Name: Asordhan.

Local Name: Suran.

Distribution and Status in the Study Area: Rare, seen only at Dolariya range of Chhota-udepur forest division.

Distribution in Gujarat: Cultivated at some places for the corms used as vegetable (Shah, 1978).

Uses in other regions of Gujarat state: Bulbils and corms are used as vegetable by the natives of Dharampur forest division (Reddy, 1989).

Nomenclature: Amorphophallus sylvaticus (Roxb.) Kunth, Enum. 3: 34. 1841; Hook. f. Fl. Brit. India6: 518, 1888; Cooke, Fl. Pres. Bombay 3: 340, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 697, 1978; Sharma, et al., Fl. Maha. Monocot. 221. 1996; Arum sylvaticum Roxb., Fl. Ind. 3: 511. 1832.

Habit: Perennial herbs with spherical corm.

Phenology: FLS and FRS- April to July.

Sanskrit Name: Kandnayak. Local Name: Jangli Suran. Distribution and Status in the Study Area: Rare, seen at Kawant, Naswadi and Jamlidam.

Distribution in Gujarat: Rajpipla, Panchmahals; rare (Shah, 1978).

ALISMATACEAE

This family is represented in the area by the sole species of the genus <u>Limnophyton</u>, i.e. <u>L</u>. <u>obtusifolium</u>.

Nomenclature: <u>Limnophyton obtusifolium</u> (L.) Miq. Fl. Ind. Bat. 3: 242. 1855; Hook. f. Fl. Brit. India6: 560. 1892; Cooke, Fl. Pres. Bombay 3: 345. 1958 (Repr. ed).; Shah, Fl. Guj. 2: 702. 1978; Sharma, et al., Fl. Maha. Monocot. 234. 1996; S and B 50; <u>Sagittaria obtusifolia Linn. Sp. Pl. 993. 1753.</u>

Habit: Perennial scapigerous herbs, with a stout root stock.

Phenology: FLS and FRS- September to January.

Distribution and Status in the Study Area: Occasional at solitary ponds at Pavi-jetpur and Chhota-udepur.

Distribution in Gujarat: Throughout Gujarat except Kachchh along margins of ponds, ditches etc; common (Shah, 1978).

CYPERACEAE

Under this family a total of twelve species belonging to four different genera have been observed in the area.

Bulbostylis Kunth.nom.cons.

Nomenclature: <u>Bulbostylis barbata</u> (Rottb.) Cl. In Hook. f. Fl. Brit. India. 6: 651, 1892; <u>Stenophyllus barbata</u> (Rottb.) in Cooke, Fl. Pres. Bombay 3: 401. 1958 (Repr. ed); Shah, Fl. Guj. 2: 712, 1978; Sharma, et al., Fl. Maha. Monocot. 272. 1996; <u>Scirpus barbatus</u> Rottb. Desc. Pl. Rar. Progr. 27. 1772 et Descr. Ic.Pl. 52, t. 17, f. 1773.

Habit: Tufted annual herb with fibrous roots.

Phenology: Flowers and Fruits- August to October.

Distribution and Status in the Study Area: Common among grasses in wet drying places at Rajmahal Chhota-udepur, Singla and Juna Chhota-udepur.

Distribution in Gujarat: Throughout, among grasses (Shah, 1978).

Cyperus Linn.

Nomenclature: <u>Cyperus cyperoides</u> Linn. Mant. 2: 181, 1771; <u>Mariscus sieberianus</u> Nees ex Clarke. In Hook. f. Fl. Brit. India. 6: 622, 1893; Cooke, Fl. Pres. Bombay 3: 874, 1958 (Repr. ed). and 3: 387, 1908; Shah, Fl. Guj. 2: 724, 1978; Sharma, et al., Fl. Maha. Monocot. 343. 1996; <u>Cyperus cyperoides</u> (L.) Kuntze. Rev. Gen. Pl. 3(2): 333, 1898; Verma et Chandra 238 1981.

Habit: Perennial herbs with dark-brown sheaths.

Phenology: Flowers and Fruits- August to October.

Distribution and Status in the Study Area: Common in moist ground among grasses and alluvial riverbeds of Orsang at Singla, Sadhli and Mogra.

Distribution in Gujarat: North to South Gujarat; not common (Shah, 1978).

Nomenclature: <u>Cyperus difformis</u> Linn., Cent. Pl. 2: 6, 1756; Hook. f. Fl. Brit. India. 6: 599, 1893; Cooke, Fl. Pres. Bombay 3: 376, 1958 (Repr. ed); Shah, Fl. Guj. 2: 725, 1978; Sharma, et al., Fl. Maha. Monocot. 348, 1996.

Habit: Slender, annual tufted herb.

Phenology: Flowers and Fruits- September to December.

Distribution and Status in the Study Area: Common and abundant, found in moist ground along margins of ponds and ditches, in alluvial river beds and cultivated fields at Chhota-udepur, Panvad, Mogra, Sadhli and Bhadurpur.

Distribution in Gujarat: Throughout, common (Shah, 1978).

Nomenclature: <u>Cyperus iria</u> Linn. Sp. Pl. ed. I. 45. 1753; Hook. F. Fl. Brit. India. 6: 606. 1893; Cooke, Fl. Pres. Bombay 3: 380, 1958 (Repr. ed); Shah, Fl. Guj. 2: 728, 1978; Sharma, et al., Fl. Maha. Monocot. 287. 1996.

Habit: 15-25 cm tall herbs with tufted, slender, triquetrous, straite, glabrous stem.

Phenology: Flowers and Fruits- September to December.

Distribution and Status in the Study Area: Common, subgregarious, in pure or mixed patches, in moist grounds along margins of ditches at Adtia of Kawant range.

Distribution in Gujarat: Throughout, in moist ground; common, gregarious (Shah, 1978).

Nomenclature: <u>Cyperus pumilis</u> Linn. Cent. Pl. 2: 6, 1756; Hook. f. Fl. Brit. India. 6: 591, 1893; Cooke, Fl. Pres. Bombay 3: 370, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 734, 1978; Sharma, et al., Fl. Maha. Monocot. 351. 1996.

Habit: Tufted, annual herbs with slender, straite, trigonous, glabrous stem.

Phenology: Flowers and Fruits- August to October.

Distribution and Status in the Study Area: Common in moist ground along margins of ponds, ditches along roadsides and in open grasslands at Chhota-udepur, Rajmahal Chhota-udepur, Juna Chhota-udepur and Singla.

Distribution in Gujarat: Throughout, among grasses (Shah, 1978).

Nomenclature: <u>Cyperus rotundus</u> Linn. Sp. Pl. ed. I. 45, 1753; Hook. f. Fl. Brit. India. 6: 614, 1893; Cooke, Fl. Pres. Bombay 3: 385, 1958 (Repr. ed); Shah, Fl. Guj. 2: 735, 1978; Sharma, et al., Fl. Maha. Monocot. 293. 1996.

Habit: 30-40 cm tall stoloniferous herbs.

Phenology: Flowers and Fruits- Throughout the year.

Sanskrit Name: Megh, Mustha, Abhrabhed, Bhadramustha.

Local Name: Chichado.

Distribution and Status in the Study Area: Common and abundant along margins of ditches, river beds and in cultivated fields at Chhota-udepur, Juna Chhota-udepur and Kadipani.

Distribution in Gujarat: Throughout, common everywhere (Shah, 1978).

Local Uses: Roots are diuretic, emmenagogue, diaphoretic, anthelmintic, astringent and stimulant; used in diseases of stomach, corneal ulcers and bowel complaints.

Uses in other regions of Gujarat state: Locally called as "Chido" in North Gujarat (Bhil and Dungrabhil tribe). Roots are diaphoretic and astringent (Shah and Gopal, 1985). The aromatic rhizome is used in perfumery; stem in making mats (Reddy, 1989).

Nomenclature: <u>Cyperus triceps</u> (Rottb.) Endl. Cat. Hort. Vinodb. 1: 94. 1842; Hook. f. Fl. Brit. India. 6: 587, 1888; Cooke, Fl. Pres. Bombay 3: 391, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 737, 1978; Sharma, et al., Fl. Maha. Monocot. 331. 1996; <u>Kyllinga triceps</u> Rottb. Deser. et Icon. 14. t. 4. f. 6. 1773.

Habit: Slender, 8-15 cm tall tufted herb with very short rhizomatous fibrous roots.

Phenology: Flowers and Fruits- August to October.

Sanskrit Name: Nirvarshi.

Distribution and Status in the Study Area: Common among short grassy patches and in damp marshy places at Chhota-udepur, Juna Chhota-udepur, Vagasthal and Sadhli.

Distribution in Gujarat: Throughout, among grasses; common (Shah, 1978).

Fimbristylis Vahl.

Nomenclature: Fimbristylis dichotoma (L.) Vahl., Enum. Pl. 2: 287, 1806; Hook. f. Fl. Brit. India. 6: 632, 1893; Cooke, Fl. Pres. Bombay 3: 396, 1958 (Repr. ed); Shah, Fl. Guj. 2: 744, 1978; Sharma, et al., Fl. Maha. Monocot. 307. 1996; Scirpus dichotomus Linn. Sp. Pl. 50, 1753; Fimbristylis diphylla Vahl., Enum. Pl. 1806.

Habit: 30-40 cm tall perennial herbs.

Phenology: Flowers and Fruits- October to December.

Distribution and Status in the Study Area: Common in moist ground at Chhota-udepur, Ghelvant, Kadipani, Hampeshwar and Jamlidam.

Distribution in Gujarat: Throughout, everywhere; common, scattered or subgregarious (Shah, 1978).

Nomenclature: <u>Fimbristylis ovata</u> (Burm. f.) Kern in Blumea 15: 126, 1967; Hook. f. Fl. Brit. India. 6: 649. 1893; Cooke, Fl. Pres. Bombay 3: 399, 1958 (Repr. ed); Shah, Fl. Guj. 2: 747, 1978; Sharma, et al., Fl. Maha. Monocot. 316. 1996; <u>Carex ovata</u> Burm. f. Fl. Ind. 194, 1768; <u>Fimbristylis monostachyos</u> Hassk. Fl. Java Rar. 61, 1848. Habit: Perennial, tufted herbs, with short root stocks and straite, slender, glabrous stem.

Phenology: Flowers and Fruits- September to October.

Distribution and Status in the Study Area: Common in moist damp soil at Chhota-udepur, Singla, Mogra and Naswadi.

Distribution in Gujarat: Throughout (except Kachchh) but very much restricted in distribution; not common (Shah, 1978).

Scirpus Linn.

Nomenclature: <u>Scirpus squarrosus</u> Linn., Mant 2: 181. 1771; Hook. f. Fl. Brit. India. 6: 663, 1893; Cooke, Fl. Pres. Bombay 3: 410, 1958 (Repr. ed); Shah, Fl. Guj. 2: 757, 1978; Sharma, et al., Fl. Maha. Monocot. 356. 1996.

Habit: 8-15 cm tall tufted annual herbs with almost wiry stems.

Phenology: Flowers and Fruits- September to October.

Sanskrit Name: Keseruk.

Distribution and Status in the Study Area: Occasional in moist places at Hampeshwar, Zoz, Kadipani, Naswadi and Satun.

Distribution in Gujarat: Throughout (except Saurashtra), but in a few restricted localities only (Shah, 1978).

Nomenclature: Scirpus triangulatus Roxb. (Hort Beng. 81, 1814, nom. nud) Fl. Ind. ed. I, 1: 219, 1820; Hook. f. Fl. Brit. India. 6: 659, 1893; Cooke, Fl. Pres. Bombay 3: 411, 1958 (Repr. ed); Shah, Fl. Guj. 2: 758, 1978; Sharma, et al., Fl. Maha. Monocot. 358. 1996; Scirpus mucronatus Linn. Sp. Pl. ed. 1, 50, 1753; Schoenoplectus mucronatus (Linn.) Palla, Bot. Jahrb. Syst. 10: 299, 1889.

Habit: 20-50 cm tall perennial, glabrous herbs, with creeping rhizomes.

Phenology: Flowers and Fruits- September to December.

Distribution and Status in the Study Area: Occasional along margins of pond at Pavijetpur.

Distribution in Gujarat: North Gujarat (Prantij) and South Gujarat (Songadh-Vyara) (Shah, 1978).

POACEAE

This family is represented in the area by a total of twenty-two species belonging to twenty different genera.

Apluda Linn.

Nomenclature: <u>Apluda mutica</u> Linn. Sp. Pl. ed. 1. 82, 1753; Hook. f. Fl. Brit. India. 7: 150, 1896; Cooke, Fl. Pres. Bombay 3: 474, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 776, 1978; Sharma, et al., Fl. Maha. Monocot. 390. 1996; Bor. 93, 1960; Roy, 26. 1984.

Habit: Perennial 40-80 cm tall herbs.

Phenology: Flowers and Fruits- August to February.

Local Name: Bhangore.

Distribution and Status in the Study Area: Common, gregarious or subgregarious, in open grounds along roads, railway lines, edges of cultivated fields at Kadipani, Singla, Kawant, Naswadi, Panimines, Ghelvant and Ghantoli-songir.

Distribution in Gujarat: Throughout, gregarious, everywhere; common (Shah, 1978). Local Uses: Plant is used as fodder by the tribals.

Chloris Swartz.

Nomenclature: Chloris barbata SW. Fl. Ind. Occ. 1: 200, 1797; Hook. f. Fl. Brit. India. 7: 292, 1897; Cooke, Fl. Pres. Bombay 3: 555, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 798, 1978; Sharma, et al., Fl. Maha. Monocot. 425. 1996; Bor. 465, 1960; Roy. 50, 1984.

Habit: 30-40 cm perennial herbs with tufted culms.

Phenology: Flowers and Fruits- December.

Local Name: Bajariu.

Distribution and Status in the Study Area: Common in cultivated fields at Kadipani, Naswadi and Mogra.

Distribution in Gujarat: Throughout, common (Shah, 1978).

Coix Linn.

Nomenclature: Coix lachryma-jobi Linn. Sp. Pl. 972, 1753; Hook. f. Fl. Brit. India. 7: 100, 1897; Cooke, Fl. Pres. Bombay 3: 517, 1958 (Repr. ed); Shah, Fl. Guj. 2: 803, 1978; Sharma, et al., Fl. Maha. Monocot. 438. 1996; Bor. 264, 1960; Roy. 56, 1984. Habit: 40-70 cm tall annual herbs with culms erect or geniculately ascending, stout, terete, smooth, glabrous and polished.

Phenology: Flowers and Fruits- August to December.

Sanskrit Name: Gabedhu, Gavedhuk.

Local Name: Kahudo.

Distribution and Status in the Study Area: Occasional, found in muddy places at Parota and Pavi-jetpur.

Distribution in Gujarat: Throughout, in moist places; common to rare in areas of occurrence (Shah, 1978).

Local Uses: Seeds are tonic and diuretic. Roots are used in menstrual disorders and inflammations of the urinary passage.

Cymbopogon Spreng.

Nomenclature: <u>Cymbopogon martinii</u> (Roxb.) Wats. In Atkins Gaz. N. W. Prov. Ind. 392, 1882; Hook. f. Fl. Brit. India. 7: 204, 1897; Cooke, Fl. Pres. Bombay 3: 517, 1958 (Repr. ed); Shah, Fl. Guj. 2: 806, 1978; Sharma, et al., Fl. Maha. Monocot. 439. 1996; Bor. 129, 1960; Roy. 58, 1984; <u>Andropogon martinii</u> Roxb. Fl. Ind. 1: 280, 1820.

Habit: Sweet scented 1 mt tall perennial herbs.

Phenology: Flowers and Fruits- August to December.

Sanskrit Name: Rohisha, Gandhtrun, Saugandhik.

Local Name: Rocha-ghas.

Distribution and Status in the Study Area: Occasional, found growing along the wastelands at Vagasthal, range Chhota-udepur.

Distribution in Gujarat: Throughout, in hilly areas, gregarious; common (Shah, 1978). Local Uses: The plant yields the commercially important palmarosa oil. It is one of the NTFP for tribals of the area. This oil is used as a remedy for lumbago and stiff joints and also for skin diseases. It is taken internally in small doses as a remedy for billious inflammations.

<u>Cvnodon</u> Rich.ex Pers.nom.cons.

Nomenclature: <u>Cyanodon dactylon</u> (Linn.) Pers. Syn. Pl. 1: 85, 1805; Hook. f. Fl. Brit. India. 7: 288, 1897; Cooke, Fl. Pres. Bombay 3: 554, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 808, 1978; Sharma, et al., Fl. Maha. Monocot. 442. 1996; Bor. 496, 1960; Roy. 60, 1984; <u>Panicum dactylon</u> Linn. Sp. Pl. 58, 1753.

Habit: 10-15 cm tall, perennial herb with erect or ascending culms.

Phenology: Flowers and Fruits- Throughout the year.

Sanskrit Name: Ananta, Ruha, Dhurva, Haritali, Shahastravirya, Nildurva, Shatparvika.

Local Name: Darbh chod.

Distribution and Status in the Study Area: Common, forming dense mats on the ground, also used as a lawn grasses at Chhota-udepur forest division.

Distribution in Gujarat: Throughout, common (Shah, 1978).

Local Uses: Root decoction is used as diuretic and in dropsy. The root infusion is used for stopping bleeding from piles. Plant decoction is used in diarrhoea, dysentery and wounds. Plant juice is applied on burns.

Uses in other regions of Gujarat state: Locally called as "Darbha" by the tribals of Dangs forest division. The tribals prepare pot bases, baskets and mats from the dried leaves tribals of Dangs forest division (Shah and Gopal, 1982).

Dactyloctenium Willd.

Nomenclature: <u>Dactyloctenium aegypticum</u> (L.) P. Beauv. Ess. Agrost. Expi. Pl. 15, 1812; Hook. f. Fl. Brit. India. 7: 295, 1897; Cooke, Fl. Pres. Bombay 3: 560, 1958 (Repr. ed); Shah, Fl. Guj. 2: 808, 1978; Sharma, et al., Fl. Maha. Monocot. 445. 1996; Bor. 489, 1960; Roy. 62, 1984; <u>Cynosurus aegyptius</u> Linn. Sp. Pl. ed. 1. 72, 1753; <u>Eleusine aegyptia</u> (Linn.) Desf. Fl. Atlant. 1: 85, 1798.

Habit: 10-25 cm tall annual herbs with erect, suberect or geniculately ascending culms.

Phenology: Flowers and Fruits- Almost throughout the year.

Distribution and Status in the Study Area: Common in most of the areas explored.

Distribution in Gujarat: Throughout, everywhere; common (Shah, 1978).

Dendrocalamus Nees.

Nomenclature: <u>Dendrocalamus strictus</u> Nees in Linnaea 9: 476, 1834; Hook. f. Fl. Brit. India. 7: 404, 1897; Cooke, Fl. Pres. Bombay 3: 572, 1958 (Repr. ed); Shah, Fl. Guj. 2: 809, 1978; Sharma, et al., Fl. Maha. Monocot. 449. 1996; Roy. 63, 1984.

Habit: 10-12 mt stout trees with solid, erect, tufted culms.

Phenology: Flowers and Fruits- December to March.

Sanskrit Name: Vansh.

Local Name: Vans.

Distribution and Status in the Study Area: Occasional, but gregarious in Kawant and Chhota-udepur ranges near water courses.

Distribution in Gujarat: Throughout (except Kachchh) in deciduous forests; also planted at some places (Shah, 1978).

Local Uses: Culms are tonic and astringent. Leaves mixed with rice and wheat is given to cattle for removing worms.

Uses in other regions of Gujarat state: Young shoots are used as vegetable; also pickled and stored; stem used in hut constructions and for making musical instruments; grains cooked and eaten (Dangs and Dharampur forest division) tribals of Dangs forest division (Shah and Gopal, 1982, Reddy, 1989).

<u>Dichanthium</u> Willemet.

Nomenclature: <u>Dichanthium annulatum</u> (Forssk.) Stapf, in Prain. Fl. Trop. Afri. 9: 178, 1917; Hook. f. Fl. Brit. India. 7: 196, 1897; Cooke, Fl. Pres. Bombay 3: 508, 1958 (Repr. ed); Shah, Fl. Guj. 2: 810, 1978; Sharma, et al., Fl. Maha. Monocot.

454. 1996; Bor. 133, 1960; Roy. 65, 1984; <u>Andropogon annulatus</u> Forssk. Fl. Aegypt.-Arab. 173, 1775.

Habit: 30-40 cm tall perennial herbs with slender, tufted, erect, terete and faintly striate culms.

Phenology: Flowers and Fruits- August to November.

Local Name: Maruvel.

Distribution and Status in the Study Area: Common, often loosely gregarious, on earth bunds of cultivated fields and in waste places along roadsides and railway lines at Chhota-udepur, Puniyavat, Adtia and Panvad.

Distribution in Gujarat: Throughout, common (Shah, 1978).

<u>Digitaria</u> Heist.ex Fabricius.

Nomenclature: <u>Digitaria stricta</u> Roth ex Roem. et Schult. Syst. Veg. 2: 474, 1817; Hook. f. Fl. Brit. India. 7: 18, 1897; Cooke, Fl. Pres. Bombay 3: 459, 1958 (Repr. ed); Shah, Fl. Guj. 2: 815, 1978; Sharma, et al., Fl. Maha. Monocot. 463. 1996; Bor. 305, 1960; Roy. 71, 1984.

Habit: 30-40 cm tall annual herbs with very slender, smooth, glabrous tufted culms.

Phenology: Flowers and Fruits- August to December.

Local Name: Bajariu.

Distribution and Status in the Study Area: Occasional in the area at Ghelvant and Panimines.

Distribution in Gujarat: North to South Gujarat; not common (Shah, 1978).

Eragrostis P. Beauv.

Nomenclature: <u>Eragrostis ciliaris</u> (Linn.) R. Br. In Turkey, Narr. Exp. Cngo. APP. 478, 1818; Hook. f. Fl. Brit. India. 7: 314-315, 1897; Cooke, Fl. Pres. Bombay 3: 545, 1958 (Repr. ed); Shah, Fl. Guj. 2: 823, 1978; Sharma, et al., Fl. Maha. Monocot. 483. 1996; Bor. 506, 1960; Roy. 86, 1984; <u>Poa ciliaris</u> Linn. Syst. Nat. ed. 10, 2: 875, 1759.

Habit: 10-25 cm tall annual herbs with glabrous straite culms.

Phenology: Flowers and Fruits- October to January.

Local Name: Chitkyu.

Distribution and Status in the Study Area: Common throughout the area explored.

Distribution in Gujarat: Kachchh, Saurashtra, North Gujarat (Ahmedabad); Central

Gujarat and Rajpipla; on the whole rare (Shah, 1978).

Heteropogon Pers.

Nomenclature: <u>Heteropogon contortus</u> (Linn.) P. Beauv. ex Roem. et Schult. Syst. Veg. 2: 836, 1817; Hook. f. Fl. Brit. India. 7: 199, 1897; Cooke, Fl. Pres. Bombay 3: 510, 1958 (Repr. ed); Shah, Fl. Guj. 2: 823, 1978; Sharma, et al., Fl. Maha. Monocot. 503. 1996; Bor. 163, 1960; Roy. 100, 1984; <u>Andropogon contortus</u> Linn. Sp. Pl. 1045, 1753.

Habit: 50-60 cm perennial herbs with erect culms.

Phenology: Flowers and Fruits- July to January.

Local Name: Dabh.

Distribution and Status in the Study Area: Common on hilly slopes in the forests of Boriyad, Kevdi, Jamlidam and Naswadi.

Distribution in Gujarat: Throughout, scattered or gregarious; common (Shah, 1978).

Oryza Linn.

Nomenclature: Oryza sativa Linn. Sp. Pl. 333. 1753; Hook. f. Fl. Brit. India. 7: 93, 1892; Cooke, Fl. Pres. Bombay 3: 565, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 845, 1978; Sharma, et al., Fl. Maha. Monocot. 545. 1996; Blatter and McCann 274. t. 187; Bor 605; Patel 91: 336.

Habit: Annual, 75-100 cm tall herbs.

Phenology: Flowers and Fruits- August to November.

Sanskrit Name: Dhanya, Shali, Tundul.

Local Name: Chokha.

Distribution and Status in the Study Area: Cultivated in some of the villages of Chhota-udepur range.

Distribution in Gujarat: Cultivated; commonly throughout South Gujarat (Shah, 1978). Local Uses: Cultivated and consumed by the tribals.

Panicum Linn.

Nomenclature: <u>Panicum miliaceum</u> Linn. Sp. Pl. 58. 1753; Hook. f. Fl. Brit. India. 7: 103, 1892; Cooke, Fl. Pres. Bombay 3: 456, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 847, 1978; Sharma, et al., Fl. Maha. Monocot. 547. 1996; Blatter and McCann 159. t. 100; Bor 327; Patel 91: 325.

Habit: Perennial herbs with stout, terete, straite culms.

Phenology: Flowers and Fruits- August to October.

Sanskrit Name: Dhanyapriyangu.

Local Name: Moraiyo.

Distribution and Status in the Study Area: Common on hilly slopes at Singla, Vagasthal, Kadipani and Mogra.

Distribution in Gujarat: Cultivated in Gujarat at some places as Kharif crop (Shah, 1978).

Paspalidium Stapf.

Nomenclature: <u>Paspalidium flavidum</u> (Retz.) A. Camus in Lecomte, Fl. Gen. de l' Indo-China. 7: 419, 1922; Hook. f. Fl. Brit. India. 7: 28, 1897; Cooke, Fl. Pres. Bombay 3: 445, 1958 (Repr. ed); Shah, Fl. Guj. 2: 850, 1978; Sharma, et al., Fl. Maha. Monocot. 555. 1996; Bor. 333, 1960; Roy. 123, 1984; <u>Panicum flavidum</u> Retz. Obs. Bot. 4: 15, 1786.

Habit: 50-60 cm perennial herbs with slender, tufted culms.

Phenology: Flowers and Fruits- July to October.

Local Name: Goriyu.

Distribution and Status in the Study Area: Occasional, along roads with other grasses at Jamlidam, range Dolariya.

Distribution in Gujarat: Throughout; common (Shah, 1978).

Saccharum Linn.

Nomenclature: <u>Saccharum officinarum</u> Linn. Sp. Pl. 54. 1753; Hook. f. Fl. Brit. India. 7: 118, 1892; Cooke, Fl. Pres. Bombay 3: 466, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 860, 1978; Sharma, et al., Fl. Maha. Monocot. 583. 1996; Blatter and McCann 46; Bor 212; Patel 91: 318.

Habit: Erect perennial herbs or grass with slightly short panicle than <u>Saccharum</u> spontaneum.

Phenology: Flowers and Fruits- September to December.

Sanskrit Name: Ikshu.

Local Name: Sherdi.

Distribution and Status in the Study Area: Cultivated at Dhandhoda and Nani Dumali villages of Chhota-udepur range.

Distribution in Gujarat: Cultivated at many places (Shah, 1978).

Local Uses: Stem is laxative and aphrodisiac. Useful in burning sensation, blood diseases, biliousness and bowel affections.

Nomenclature: <u>Saccharum spontaneum</u> Linn. Mant. All 183, 1771; Hook. f. Fl. Brit. India. 7: 118, 1897; Cooke, Fl. Pres. Bombay 3: 465, 1958 (Repr. ed); Shah, Fl. Guj. 2: 860, 1978; Sharma, et al., Fl. Maha. Monocot. 583. 1996; Bor. 214, 1960; Roy. 139, 1984.

Habit: Perennial herbs with thick rhizomes and a long (large) silky panicles.

Phenology: Flowers and Fruits- August to January.

Sanskrit Name: Kasha.

Local Name: Kans.

Distribution and Status in the Study Area: Common in rocky or stony river beds at Panvad, Ghelvant and Naswadi. A conspicuous plant by its inflorescence.

Distribution in Gujarat: Throughout, common (Shah, 1978).

Sorghum Moench.

Nomenclature: <u>Sorghum halepense</u> (Linn.) Pers. Syn. Pl. 1: 101, 1805; Hook. f. Fl. Brit. India. 7: 182, 1897; Cooke, Fl. Pres. Bombay 3: 502, 1958 (Repr. ed); Shah, Fl. Guj. 2: 867, 1978; Sharma, et al., Fl. Maha. Monocot. 598. 1996; Bor. 222, 1960; Roy. 152, 1984; <u>Holcus halepensis</u> Linn. Sp. Pl. ed. 1, 1047, 1753.

Habit: 70-90 cm tall perennial herbs.

Phenology: Flowers and Fruits- July to January.

Sanskrit Name: Dirghamala.

Local Name: Baru.

Distribution and Status in the Study Area: Common in hedges and in open grass lands. A distinct grass by its height and much branched spreading panicles. Seen at Naswadi, Jabugam and Rajmahal Chhota-udepur.

Distribution in Gujarat: Throughout, in hedges and forests undergrowth; common (Shah, 1978).

Local Uses: Plant is used as fodder and also as thatching material.

Nomenclature: <u>Sorghum vulgare</u> Pers. Syn. Pl. 1: 107. 1805; Blatter and McCann 58;; Hook. f. Fl. Brit. India. 7: 183, 1892; Cooke, Fl. Pres. Bombay 3: 511, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 866, 1978; Sharma, et al., Fl. Maha. Monocot. 600. 1996; Patel 91: 319; <u>Sorghum bicolor</u> (L.) Moench. Meth. Pl. Hort. Bot. Merburg. 207. 1794; Bor 207; <u>Holcus sorghum</u> Linn. Sp. Pl. 1047. 1753; <u>Holcus bicolor</u> Linn. Mant. Alt. 301. 1771; <u>Andropogon sorghum</u> (L.) Brot. Fl. Lusit. 1: 88, 1804.

Habit: Stout, annual 75-100 cm tall annual herbs.

Phenology: Flowers and Fruits- December to March.

Sanskrit Name: Dirghamala.

Local Name: Juwar.

Distribution and Status in the Study Area: Cultivated; rarely an escape in the areas

explored.

Distribution in Gujarat: Cultivated as a cereal crop at some places, extensively in many parts of South Gujarat (Shah, 1978).

Local Uses: Extensively cultivated for its grains by the tribals of the area.

Sporobolus R. Br.

Nomenclature: <u>Sporobolus diander</u> (Retz.) P. Beauv. Ess. Agrost. 26: 147, 178, 1812; Hook. f. Fl. Brit. India. 7: 247, 1897; Cooke, Fl. Pres. Bombay 3: 539, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 870, 1978; Sharma, et al., Fl. Maha. Monocot. 613. 1996; Bor. 629, 1960; Roy. 156, 1984; <u>Agrostis diander</u> Retz. Obs. Bot. 5: 19, 1789.

Habit: Annual herbs with slender erect culms,

Phenology: Flowers and Fruits- August to December.

Local Name: Kario.

Distribution and Status in the Study Area: Common on the edges of cultivated fields and in shaded places along roadsides at Vagasthal and Singla.

Distribution in Gujarat: Throughout (except Kachchh); common (Shah, 1978).

Themeda Forsk.

Nomenclature: Themeda quadrivalvis (Linn.) Ktze. Rev. Gen. Pl. 2: 794, 1891; Hook. f. Fl. Brit. India. 7: 213, 1897; Cooke, Fl. Pres. Bombay 3: 514, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 875, 1978; Sharma, et al., Fl. Maha. Monocot. 622. 1996; Bor. 252, 1960; Roy. 161, 1984; Andropogon quadrivalvis Linn, in Murr. Syst. Veg. ed. 13, 758, 1774.

Habit: 60-80 cm annual herbs with simple or sparingly branched culms.

Phenology: Flowers and Fruits- August to December.

Local Name: Ratad.

Distribution and Status in the Study Area: Common in the area, gregarious at Singla, Panvad and Pavi-jetpur.

Distribution in Gujarat: Throughout; common, gregarious (Shah, 1978).

Triticum Linn.

Nomenclature: <u>Triticum aestivum</u> Linn. Sp. Pl. 85. 1753; Hook. f. Fl. Brit. India. 7: 367, 1892; Cooke, Fl. Pres. Bombay 3: 574, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 880, 1978; Sharma, et al., Fl. Maha. Monocot. 634. 1996; Blatter and McCann 279; Bor 679; Patel 91: 338; <u>Triticum sativum</u> Lam. Fl. Frane. 3: 625. 1778; <u>Triticum vulgare</u> Vill. Hist. Pl. Dauph. 2: 153. 1787.

Habit: 30-50 cm tall tufted herbs.

Phenology: Flowers and Fruits- December to March.

Sanskrit Name: Godhuma.

Local Name: Ghaon.

Distribution and Status in the Study Area: Cultivated in villages between Bodeli and Chhota-udepur.

Distribution in Gujarat: Cultivated; seldom an escape (Shah, 1978).

Local Uses: Cultivated and consumed by the locals.

Zea Linn.

Nomenclature: Zea mays Linn. Sp. Pl. 971. 1753; Hook. f. Fl. Brit. India. 7: 102, 1897; Cooke, Fl. Pres. Bombay 3: 574, 1958 (Repr. ed).; Shah, Fl. Guj. 2: 882, 1978; Sharma, et al., Fl. Maha. Monocot. 635. 1996; Blatter and McCann 2; Bor 270; Patel 91: 321.

Habit: 2-3 cm tall annual herbs.

Phenology: Flowers and Fruits- July to October.

Sanskrit Name: Yavanala.

Local Name: Makai-Doda.

Distribution and Status in the Study Area: Most staple crop or major crop of the tribals at Chhota-udepur forest division. Almost cultivated throughout forest division, but more frequent at Chhota-udepur and Rangpur range.

Distribution in Gujarat: Cultivated commonly in tribal areas of Central Gujarat (Shah, 1978).

Local Uses: The most staple cash crop of the tribals of Chhota-udepur forest division.

PTERIDOPHYTES

<u>Actinoipteris radiata</u> (Sw.) Link., <u>Adiantum lunatum</u> Burm., <u>Marsilea guadrifida</u> Linn. <u>Ophioglossum</u> sp., <u>Selaginella</u> sp.,