

WEED FLORA OF GANDHINAGAR DISTRICT, GUJARAT, INDIA



Botany

KEYWORDS : Weeds, Gandhinagar

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ABSTRACT

To find the flora of weeds of Gandhinagar district the study was carried out for period of 2 years from March '2011 to February '2013. The present study was carried out on 20 selected sites of four talukas of Gandhinagar district.

Weed collection was made with repeated field trips encompassing all the different seasons. During the field work and collection, special attention was given to record the characters of weeds. Weeds have been investigated by collection and identification. Total 34 families, 93 genera and 116 weed species were recorded in present study.

INTRODUCTION

“Weed” is applied to many plants that grow and reproduce aggressively and invasively. In general therefore, a weed is a plant that is considered by the user of the term to be a nuisance. They are usually the native plants which are best adapted to the environment where they grow, so can easily out-compete with our crop plants. It traditionally has been defined as “A herbaceous plant not valued for use or beauty, growing wild.” According to Brenchely (1920) weed is a plant that grows so luxuriantly that it chocks out of all other plants that possess more valuable nutritive properties. According to Gohil (2010) “A weed is a plant out of place”.

MATERIAL AND METHODS

The present study was undertaken during year 2011 to 2013. Extensive collection was made with repeated field trips encompassing all the different seasons. During the field work and collection, special attention was given to record the characters of weeds. Identification of the weed species was done by ‘Flora of Gujarat State’ (Shah, 1978). The list has been prepared in sequence of Scientific name of plant, Name of family and Local name (Vernacular name).

RESULTS AND DISCUSSION

The present study was carried out for period of 2 years from March '2011 to February '2013. Total 116 weed species were recorded in present study. The Scientific name of plant, Name of family and Local name of weed plant species are given in Table

Table – 01

Recorded weed species during field trip in Gandhinagar District (Year 2011 – 2013)

Sr. No.	Scientific Name	Family	Local Name
1.	<i>Abutilon indicum</i> (L.) Sw. Hort. Brit.	MALVACEAE	Khapat
2.	<i>Acalypha indica</i> L.	EUPHORBIACEAE	Dadari
3.	<i>Acanthospermum hispidum</i> DC. Prodr.	ASTERACEAE	Kanti
4.	<i>Achyranthus aspera</i> L.	AMARANTHACEAE	Sonar
5.	<i>Achyranthus aspera</i> L. var <i>aspera</i>	AMARANTHACEAE	Anghedi
6.	<i>Acrachne racemosa</i> (Heyne ex R. & S.) Ohwi	POACEAE	Chinkhe
7.	<i>Aerva javanica</i> (Burm. F.) Juss.	AMARANTHACEAE	Gorakh Ganjo
8.	<i>Alternanthera sessilis</i> (L.) DC. Cat. Hort.	AMARANTHACEAE	Pani ni Bhaj
9.	<i>Alysicarpus monilifer</i> (L.) DC. Prodr.	PAPILIONACEAE	Jhuhighas
10.	<i>Amaranthus lividis</i> L.	AMARANTHACEAE	Tandaljo
11.	<i>Amaranthus spinosus</i> L.	AMARANTHACEAE	Bhaji ni jat
12.	<i>Amaranthus viridis</i> L.	AMARANTHACEAE	Dhhimdo
13.	<i>Ammannia baccifera</i> L.	LYTHRACEAE	Jal Agio
14.	<i>Anagallis arvensis</i> L. var. <i>coerulea</i> (Schreb.)	PLUMBAGINACEAE	Chanak chibhadi
15.	<i>Argemon maxicana</i> L.	PAPAVERACEAE	Darudi
16.	<i>Aristida funiculata</i> Trin. & Rupr. Sp. Gram.	POACEAE	-
17.	<i>Avena sterilis</i> L.	POACEAE	Oat
18.	<i>Barleria prionitis</i> L.	ACANTHACEAE	Kad
19.	<i>Bergia odorata</i> Edgew. Journ.	ELATINACEAE	Sapoti

– 01. Many of the 116 weed species identified occurred in all the four taluka and no single taluka contained all the 116 weed species. Poaceae is the largest family among the monocotyledon and Amaranthaceae, Asteraceae, Euphorbiaceae and Papilionaceae are main families of dicotyledon. Poaceae family represented the highest number of species (20 species). In dicotyledone, Asteraceae family represented the highest number of genera and species (11 species). Amaranthaceae, Asteraceae, Papilionaceae and Poaceae family observed dominant in Gandhinagar district due to their high number of recorded species. Udoh *et al.* (2007) recorded total of 33 dominant weed species were identified of Poaceae, Asteraceae, Euphorbiaceae, Fabaceae, Cyperaceae, Commelinaceae, Nyctaginaceae and Sterculiaceae families. Gohil (2010) recorded total 203 weed angiosperm plant species in Valsad district, South Gujarat in his study. Jangid and Sharma (2011) recorded 204 weed species in Modasa taluka of Sabarkantha district.

CONCLUSION

Total 34 families, 93 genera and 116 weed species were recorded in Gandhinagar district. Out of these 31 families, 73 genera and 91 species belong to dicotyledon and 3 families, 20 genera and 25 species belong to monocotyledon.

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20.	<i>Blepharis repens</i> (Vahl) Roth	ACANTHACEAE	Kadhaserio
21.	<i>Blumea eriantha</i> DC.	ASTERACEAE	Kapurio
22.	<i>Boerhavia diffusa</i> L.	NICTAGINACEAE	Satodi
23.	<i>Boerhavia erecta</i> L.	NICTAGINACEAE	-
24.	<i>Borreria stricta</i> (L. f.) Schum.	RUBIACEAE	Madhuri jadi
25.	<i>Brachiaria setigera</i> (Retz.) Hubb	POACEAE	Kaneru
26.	<i>Cadaba fruticosa</i> (L.) Druce	CAPPARACEAE	Batkani
27.	<i>Calotropis procera</i> (Ait.) R. Br.	ASCLEPIADACEAE	Akado
28.	<i>Capparis deciduas</i> (Forsk.) Edgew.	CAPPARACEAE	Kerdo
29.	<i>Cardiospermum halicacabum</i> L.	SAPINDACEAE	Trigharivel
30.	<i>Cassia occidentalis</i> L.	CESALPINIACEAE	Kasundri
31.	<i>Cassia pumila</i> Lam. Encycl.	CESALPINIACEAE	Nani Chimed
32.	<i>Cassia tora</i> L.	CESALPINIACEAE	Kuvandio
33.	<i>Cenchrus pennisetiformis</i> Hochst. & Steud.	POACEAE	-
34.	<i>Chenopodium album</i> L.	CHENOPODIACEAE	Chil
35.	<i>Chenopodium murale</i> L.	CHENOPODIACEAE	Bilaro
36.	<i>Chloris montana</i> Roxb. Hort. Beng.	POACEAE	-
37.	<i>Chloris virgata</i> Sw. Fl. Ind. Occ.	POACEAE	Mindiya ni jat
38.	<i>Cissampelos pareira</i> L.	MENISPERMACEAE	Venivel
39.	<i>Cleome gynandra</i> L.	CAPPARACEAE	Ghandhatu
40.	<i>Cleome viscosa</i> L.	CAPPARACEAE	Pili Tilven
41.	<i>Clitoria ternatea</i> L.	PAPILIONACEAE	Garni
42.	<i>Cocculus hirsutus</i> (L.) Diels in Pfreich.	MENISPERMACEAE	Vevdi
43.	<i>Commelina benghalensis</i> L.	COMMELINACEAE	Motu Shishmul
44.	<i>Commelina diffusa</i> Burm. F. Fl. Ind.	COMMELINACEAE	Nanu Shishmul
45.	<i>Convolvulus arvensis</i> L.	CONVOLVULACEAE	Nerivel
46.	<i>Convolvulus microphyllus</i> (Roth) Sieb.	CONVOLVULACEAE	Shankhavi
47.	<i>Corchorus olitorius</i> L.	TILIACEAE	Church
48.	<i>Corchorus trilocularis</i> L. Mant.	TILIACEAE	Tridhari Church
49.	<i>Crotalaria medicaginea</i> Lam. Encycl.	PAPILIONACEAE	Adbau Methi
50.	<i>Croton bonplandianum</i> Baill.	EUPHORBIACEAE	-
51.	<i>Cynodon dactylon</i> (L.) Pers. Syn.	POACEAE	Dharo
52.	<i>Cyperus compressus</i> L.	CYPERACEAE	Moth ni jat
53.	<i>Cyperus esculentus</i> L.	CYPERACEAE	-
54.	<i>Cyperus rotundus</i> L.	CYPERACEAE	Moth
55.	<i>Dactyloctenium aegyptium</i> (L.) P. Beauv.	POACEAE	Makra
56.	<i>Datura metel</i> L.	SOLANACEAE	Dhanturo
57.	<i>Desmodium triflorum</i> (L.) DC Prodr.	PAPILIONACEAE	Zino Pandadio
58.	<i>Dichanthium annulatum</i> (Forsk.) Stapf.	POACEAE	-
59.	<i>Digera muricata</i> (L.) Mart. Beitr. Amar.	AMARANTHACEAE	Kanjro
60.	<i>Digitaria adscendens</i> (H.B. & K.) Henrard	POACEAE	Tarodiyu
61.	<i>Digitaria ciliaris</i> Prain	POACEAE	-
62.	<i>Dinebra retroflexa</i> (Vahi) Panz.	POACEAE	Khariu
63.	<i>Echinochloa colonum</i> (L.) Link. Hort.	POACEAE	Samo
64.	<i>Eclipta prostrate</i> (L.) L. Mant.	ASTERACEAE	Bhangro
65.	<i>Eragrostis tenella</i> (L.) P. Beauv.	POACEAE	Kalavo
66.	<i>Eriochloa procera</i> (Retz.) C. E. Hubb.	POACEAE	Samo
67.	<i>Euphorbia hirta</i> L.	EUPHORBIACEAE	Dudheli
68.	<i>Euphorbia microphylla</i> H. B. & K.	EUPHORBIACEAE	Dudheli ni jat
69.	<i>Evolvulus alsinoides</i> (L.) L.	CONVOLVULACEAE	Kali Shankhvali
70.	<i>Gomphrena celosivides</i> Mart.	AMARANTHACEAE	-
71.	<i>Hyptis suaveolens</i> (L.) Piot.	LAMIACEAE	Vilayati tulsi
72.	<i>Indigofera linnaei</i> Ali.	PAPILIONACEAE	Fatakiya
73.	<i>Indigofera oblongifolia</i> Forsk.	PAPILIONACEAE	Zildi
74.	<i>Ipomoea fistulosa</i> Mart. Ex Choisy	CONVOLVULACEAE	Besharmi
75.	<i>Ipomoea obscura</i> (L.) Ker-Gawl.	CONVOLVULACEAE	Vad Fudardi
76.	<i>Ipomoea pes-tigridis</i> L.	CONVOLVULACEAE	Photial, Wagpadi
77.	<i>Ipomoea sinensis</i> (Desr.) Choisy	CONVOLVULACEAE	Dholi Fudardi
78.	<i>Justicia procumbens</i> L.	ACANTHACEAE	Pittpapdo
79.	<i>Lantana camara</i> L. var. aculeate (L.) Mold.	VERBENACEAE	Ingradhanu
80.	<i>Launaea resedifolia</i> (L.) Druce	ASTERACEAE	Bhonpatri
81.	<i>Leptochloa panicea</i> (Retz.) Ohwi	POACEAE	-
82.	<i>Melilotus indica</i> All. Fl. Pedem.	FABACEAE	Jungali Methi
83.	<i>Melochia corchorifolia</i> L.	STERCULIACEAE	Chuncha Khapat
84.	<i>Mollugo nudicaulis</i> Lam. Encycl.	MOLLUGINACEAE	Parpat ni jat
85.	<i>Moschosma polystachyum</i> (L.) Bth.	LAMIACEAE	Dungrau Tulsi
86.	<i>Mukia maderaspatana</i> (L.) M. Roem. Svn.	CUCURBITACEAE	Chanak-Chibhdi
87.	<i>Ocimum canum</i> Sims.	LAMIACEAE	Ran Tulsi
88.	<i>Oldenlandia affinis</i> DC. Prodr.	RUBIACEAE	Parpat

89.	<i>Parthenium hysterophorus</i> L.	ASTERACEAE	Congress grass
90.	<i>Pergularia daemia</i> (Forsk.) Chiov.	ASCLEPIADACEAE	Chamar Dudheli
91.	<i>Peristrophe bicalyculata</i> (Retz.) Nees	ACANTHACEAE	Dungrau Tulsi
92.	<i>Phyllanthus fraternus</i> Webster	EUPHORBIACEAE	Bhonya Amli
93.	<i>Physalis longifolia</i> Nutt.	SOLANACEAE	Popti
94.	<i>Portulaca oleracea</i> L.	PORTULACEAE	Moti Luni
95.	<i>Pulicaria crispa</i> Sch. Bip	ASTERACEAE	Sonfulki ni jat
96.	<i>Pupalia lappacea</i> (L.) Juss.	AMARANTHACEAE	Bhurat
97.	<i>Rhynchosia minima</i> (L.) DC.	FABACEAE	Nahni Kamalvel
98.	<i>Saccharum spontaneum</i> L. Mant. Alt.	POACEAE	Dabh, Kans
99.	<i>Setaria tomentosa</i> (Roxb.) Kunth, Rev.	POACEAE	Chiktu
100.	<i>Setaria verticillata</i> (L.) P. Beauv. Ess.	POACEAE	Chipatiu-Motu
101.	<i>Sida acuta</i> Burm.	MALVACEAE	Bala
102.	<i>Sida glutinosa</i> Cav. Diss.	MALVACEAE	Chikni Bala
103.	<i>Solanum nigrum</i> L.	SOLANACEAE	Piludi
104.	<i>Solanum surattense</i> Burm.	SOLANACEAE	Bhoringni
105.	<i>Sonchus oleraceus</i> L.	ASTERACEAE	Dudhli Sonki
106.	<i>Spergula arvensis</i> L.	CARYOPHYLLACEAE	Sankadiyu
107.	<i>Sphaeranthus indicus</i> L.	ASTERACEAE	Gorakh Mundi
108.	<i>Tephrosia senticosa</i> (L.) Pers.	PAPILIONACEAE	Sarpankha ni jat
109.	<i>Tephrosia villosa</i> (L.) Pers.	PAPILIONACEAE	Sarpankho
110.	<i>Teramnus labialis</i> (L.f.) Spreng.	PAPILIONACEAE	Valiyo – velo
111.	<i>Trianthema triquetra</i> Rottl. Ex Wild.	AIZOACEAE	Satodi
112.	<i>Tribulus terrestris</i> L.	ZYGOPHYLLACEAE	Bethu Gokhru
113.	<i>Tridax procumbens</i> L.	ASTERACEAE	Pardesi Bhangro
114.	<i>Triumfetta rhomboidea</i> Jacq.	TILIACEAE	Bhurati
115.	<i>Vernonia cinerea</i> (L.) Less.	ASTERACEAE	Sahadevi
116.	<i>Xanthium strumarium</i> L.	ASTERACEAE	Gokhru

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