



## PLANT SPECIES OF FAMILY EUPHORBIACEAE FROM SABARMATI RIVER OF GUJARAT STATE ,INDIA.

### KEYWORDS

Euphorbiaceae , Sabarmati river

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**ABSTRACT** The present paper deals with enumeration of plant species of family Euphorbiaceae , which are grow in the area of Sabarmati river of Gujarat state , India. Plant exploration was conducted to determine plant species of family Euphorbiaceae. Taxonomic position of these plant species is described in various available Floras. Plant species of family Euphorbiaceae from Sabarmati riverbed-riverside area, have been listed systematically which counts 25 species of 15 genera ,these plants species grow wild as well as cultivated.

### INTRODUCTION

The Euphorbiaceae family contains a large variety of phytochemicals, a toxic substances produced by plants, A milky latex is a characteristic of the Euphorbiaceae. It includes Trees, shrubs, herbs and twiners. Life span is perennials and annuals. This family easily recognized by their inflorescences-Cyathium. The present work reported enumeration and systematic survey of Euphorbiaceae family from mentioned area. Earlier, The Plants of Northern Gujarat published by Saxton, W. T. and Sedgwick L. J. (1918) ,Shah, C. K. (1963) enumerate the sedges of Sabarmati ,Bhatt, R. P. et.al (1969) reported A study of the vegetation and flora of Khedbrahma region. Sabnis , S. D. et.al (1975) reported the forest vegetation and phytogeography of Khedbrahma region. Shah, G. L. (1978) published the flora of Gujarat State. Yogi, D. V. (1970) submit thesis of the flora of North Gujarat. Earlier many research workers explore the North Gujarat region but not much explore the river Sabarmati.

### STUDY AREA:

The geographical situation of the Sabarmati river is between 22° 30' to 24° 30' North latitude and 72° 30' to 73° 30' East longitude. It originates from Arvalli hills, near Vekaria in Rajasthan State and enters in the Gujarat state at the boundary of the Sabarkantha district .It passing through across the Northern to central part of the Gujarat state .It flows

through seven districts of the Gujarat state , namely Banaskantha, Sabarkantha , Mehsana ,Gandhinagar, Ahmedabad , Kheda and Anand and finally enters into the Gulf of Khambhat (Cambay). Sabarmati river is one of the longest river in the state and its length is about 418 km.It has total 5475 sq.km catchments area.

### MATERIAL AND METHODS

The study on angiosperms of family Euphorbiaceae from the Sabarmati river of Gujarat, India is based on the results obtained from both extensive and intensive studies of the vegetation of area under study. Field survey was carried out for collection of plants. Identification of plant species during field work was done by compiling different floras available and authenticated by experts from University department and research institutes. The photographs of all the plant species were taken during field trip. This piece of work is survey based. Surveys were made for a five years (2001-2005 ) to collect and identify the flowering plants. The collected plants were categorized according to their Family, Scientific name, Vernacular name and Habit represent in description.

**RESULT:** The list of collected plants is given in Table,1. [ T-Tree , S-Shrub , Us-Undershrub , H-Herb , Cl-Climber , Tw-Twiner , W- wild , C- cultivated, ]

Table,1

No	BOTANICAL NAME	LOCAL NAME ( In Gujarati )	HABIT	CULTIVATED or WILD	REMARKS
01	<i>Acalypha ciliata Forsk.</i>	Dadari, Dadarj	H	W	Common
02	<i>Acalypha indica L.</i>	Dadarj, Khokoli	H	W	Common
03	<i>Baliospermum montanum Willd.)</i>	Danti jamalgot	H	C	Common
04	<i>Bridelia retusa (L.) Spr.</i>	Asan, Monj	T	W	Common
05	<i>Chrozophora rotleri (Geis) Juss.</i>	Kalo Okharad	H	W	Common
06	<i>Croton bonplandianum Baill.</i>	Croton	H	C	Common
07	<i>Pedilanthus tithymaloides (L)</i>	Vilayati kharsan	H	C	Common

08	<i>Drypetus roxburghii</i> (Wall.)	Putranjivi	T	C	Not common
09	<i>Dalechampea scandens L.</i>	Khoti khajavani	Tw	W	Not common
10	<i>Emblia officinalis Gaertn.</i>	Ambla	T	C	Common
11	<i>Euphorbia heterophylla L.</i>	Lalpatti	H	W	Very common
12	<i>Euphorbia hirta L.</i>	Nagli Dudheli	H	W	Very common
13	<i>Euphorbia neriifolia L.</i>	Bhungro Thor	S	W	Very common
14	<i>Euphorbia nivulia Buch -Ham.</i>	Thor	S	W	Very common
15	<i>Euphorbia orbiculata H.B.&amp;K.</i>	Bethi dudheli	H	W	Common
16	<i>Euphorbia parviflora L.</i>	Ubhi dudheli	H	W	Common
17	<i>Euphorbia tirucalli L.</i>	Kharsani	S	C	Common
18	<i>Jatropha curcas L.</i>	Ratanjyot	S	W	Common
19	<i>Jatropha gossypifolia L.</i>	Vilayati Arandi	S	W	Common
20	<i>Kirganelia reticulata (Poir.) Baill</i>	Kamboi	S	W	Common
21	<i>Phyllanthus fraternus Web.</i>	Bhony Ambli	H	W	Very common
22	<i>Phyllanthus urinaria L.</i>	Bhoy Ambli	H	W	Very common
23	<i>Phyllanthus virgatus Forsk.</i>	Moti BhoyAmbli	H	W	Common
24	<i>Ricinus communis L.</i>	Arandi	S	C	Common
25	<i>Securinega leucopyrus (Willd.)</i>	Thumari	S	W	Common

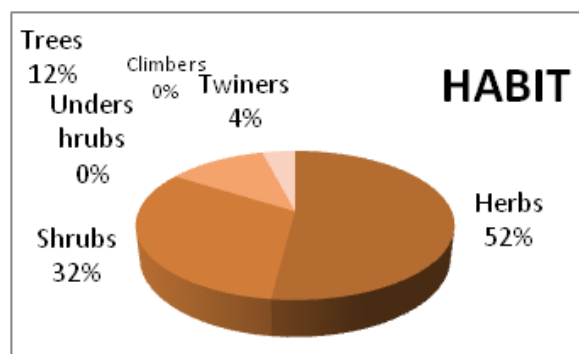
ANALYSIS OF CULTIVATED / WILD PLANTS

STATISTICAL ANALYSIS OF FAMILY  
Family:Euphorbiaceae

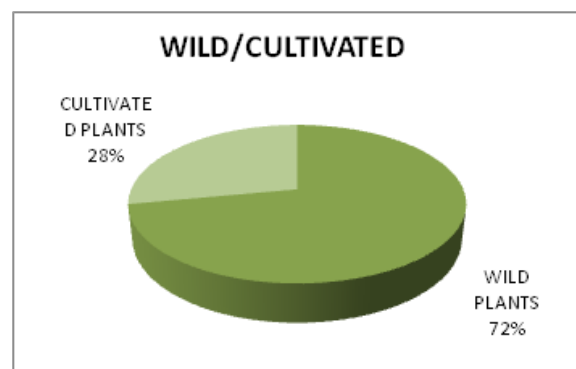
Genera	15
Species	25

ANALYSIS OF HABIT

Herbs	Shrubs	Trees	Twiners
13	08	03	01



WILD PLANTS	CULTIVATED PLANTS
18	07



DISCUSSION & CONCLUSION:

The analysis of the plant species in the area gives the result that the total Angiosperm flora including naturalized and indigenous plants comprises of about 25 species belong to 15 genera of the family . The dominance of the plant species especially of semi-arid zone type and presence of different life forms

like herbs, shrubs, twiners and trees in a particular ratio shows clear structural of the semi arid zone to arid zone. The most of the species as weeds are mainly found in this study area. A good percentage of the herbs species present in the area. This explains one of the unique characteristics of the riparian ecology where the riverside always remain open and its influence determines abundance and presence of the medium sized evergreen and riparian tree species. There are herb

13 species, shrub 08 species, tree 03 species, twiners 01 species. There are 17 common species, 06 very common species, 02 not common species. There are 07 cultivated plant species and 18 wild plant species.

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