



## Enumeration of Plant Species from Family Malvaceae of Sabarmati River of Gujarat State, India.

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### ABSTRACT

The present research paper give the information regarding plant species of Malvaceae family as riparian vegetation, which are grow in the area of Sabarmati river of Gujarat state, India. I enumerate and prepare a list of Plant species belongs to family Malvaceae. These plant species described in various available Floras. Plant species of family Malvaceae listed systematically which counts 11 species of 07 genera, These plant species grow wild as well as cultivated.

**KEYWORDS :** Malvaceae, Sabarmati river.

### INTRODUCTION

Malvaceae are one of the most ecologically and economically important plant Family. Mostly found as cultivated as well as wild species. Earlier record of vegetation, 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, its length is about 418 km. It has total 5475 sq.km catchments area.

### MATERIAL AND METHODS

The study of Malvaceae family from the Sabarmati river of Gujarat, on the results obtained from extensive and intensive studies of the vegetation of area. Field survey was carried out from last 05 years during post doctorate for observation and collection of plants. Identification of plant species during field work was done by compiling different available floras and authenticated by experts from University department and research institutes. This piece of work is survey based. Surveys were made for a five years (2011-2015) to collect and identify the plants. The collected plants were categorized according to their Scientific name, Vernacular name and Habit represent in description.

### RESULT:

#### 1. *Abelmoschus manihot* (L.)

(JANGALI BHINDI)

Medic. Malvaceae Fam. 46. 1787; Cooke 1: 118; GLS 1: 94 FBI 1:341; RNS 90; BBM 458

A perennial under shrubs, erect, hispid branched. Leaves with short stiff hairs, cordate, serrate, acutely, palmately 5-7 lobed, broadly ovate. Flowers yellow with a deep purple or chocolate base. Capsule 4-5 angled, ovoid-oblong, hispid. Seeds globose, black.

**Fls. :** Aug.-Nov. **Frs. :** Sep.- Jan. Occasionally found in the riverside.

#### 2. *Abutilon indicum* (L.) (KHAPAT, KANSKI)

Sw. Hort. Brit. 54. 1826; Cooke 1: 102; GLS 1: 96; S & S 247 FBI 1:326; FOS 1:490; RNS 85; BBM 005

An erect perennial undershrubs. Leaves cordate, ovate, acuminate, toothed, entire, seldom, shallowly 3-lobed, hairy, and stipulate. Flowers pale yellow, axillary, solitary, fruit a capsule, seeds blackish brown, minutely pitted and hairy.

**Fls. & Frs. :** Almost throughout the year, Common in waste land.

#### 3. *Gossypium herbaceum* L. (KAPAS)

Chevalier in Rev.Bot. Appl. Agr. Trop. 19:537. 1939; Cooke 1: 123; GLS 1: 101; S & S 248 FBI 1:346; FOS 1:491; RNS 94; BBM 073

Herbaceous, tall, erect, hairy, tomentose, undershrubs. Leaves cordate, entire or shallowly 3-5 lobed, ovate-triangular and hairy. Flowers yellow with deep chocolate or

purple base within, axillary, solitary, involucre bracts 7-12, free, Capsule hairy, 5-winged. Seeds reddish-brown and minute with fibres. **Fls. & Frs. :** July - Jan. common, cultivated in field.

#### 4. *Hibiscus ovalifolius* (Forsk.) (CHANAK BHINDI)

Vahl., Symb. Bot. 1:40. 1790; Cooke 1: 113; GLS 1:105 FBI 1:335; FOS 1:491; RNS 89; BBM 074

Tall slender, hairy, herbs. Leaves, ovate-oblong, hairy acute, serrate. Flowers pale-to-bright-rosey, axillary, solitary and in terminal racemes, epicalyx 6 filiform. Capsule broad, globose 5-valved. **Fls. & Frs. :** Aug.- Apr. Common in riverside.

#### 5. *Hibiscus caesius* Garcke

in Oestr. Bot. Zeit. 7:850. 1849; Cooke 1: 116; GLS 1: 103; S & S 248 FBI 1:339; FOS 1:491; RNS; BBM 309

An annual herb, erect, tall, Leaves 3-5 lobed deeply palmate,, lanceolate, sharply serrate, lobes narrowly or broadly elliptic, hairy, petiole. Flowers yellow with purple centre, involucre bracts usually 10, free. fruit broadly ovoid capsule.

**Fls. & Frs. :** Aug.- Jan. in plain open areas.

#### 6. *Hibiscus rosa-sinensis* L. (JASUD)

Sp. Pl. 694. 1753; Cooke 1: 120; GLS 1: 107 FBI 1:344; FOS 1:491; RNS 91; BBM 007

Small shrubs, 3-5m, tall small shrubs. Leaves acuminate, serrate, ovate, glabrous or sparsely hairy beneath. Flowers axillary, solitary, red, epicalyx 5-7, sepal 5, petal 5, monodelphous stamen.

**Fls. & Frs. :** Throughout the year, Commonly cultivated in garden.

### 7. *Thespesia populina* L.

Soland.ex Corr. In Ann. Mus. Paris 9 : 290 ; Cooke 1: 122; GLS 1: 117; FBI 1:345 ;FOS 1:492; RNS 93 BBM 150

An perennial small tree, erect, tall. Leaves cordate, hairy, petiole. Flowers yellow axillary. Fruit globose capsule.

**Fls. & Frs. :** Oct - Mar. occasionally, planted in the garden.

### 8. *Sida acuta* Burm.f. Fl. (BALA)

Ind. 147. 1768; Cooke 1: 98; GLS 1: 114 FBI 1:323 ; RNS 83 ; BBM 006

Small much branched 20-50cm, hairy in younger parts. Leaves lanceolate, base rounded, serrate, glabrous on both sides, sessile or nearly so. Flowers yellow or pale-orange, axillary, solitary or 2-3-fascicled. Capsule glabrous, reticulate pale-brown. Seeds, dark-brown or blackish-brown, smooth, glabrous.

**Fls. & Frs. :** Sep.- Mar. Common, among grasses in waste land.

### 9. *Sida cordifolia* L. (MAHABALA)

Sp. Pl. 684. 1753; Cooke 1: 99; GLS 1: 115; S & S 247 FBI 1:324 ;FOS 1:492 ; RNS 84 ; BBM 075

Small, annual, hairy, 40-100cm tall, tomentose undershrubs. Leaves cordate, obtuse, petioles long, tomentose. Flowers yellow, axillary, solitary or few clustered at ends of branches. Fruits subglobose, tomentose rounded. Seeds minute, black.

**Fls. & Frs. :** Oct.- Dec. common in the

### 10. *Sida retusa* L. (ATIBALA)

Sp. Pl. (ed. 2) 961. 1762; Cooke 1: 99; GLS 1: 116; FBI 1:324 ;FOS 1:492 ; RNS 83 ; BBM 151

Erect, stellately hairy 45-100cm tall. Leaves broadly elliptic-lanceolate or lanceolate, coarsely toothed at top, glabrescent above, gray-tomentose beneath. Flowers reddish-yellow, axillary, solitary and clustered at end of branches. Capsule nearly globose, reticulated. Seeds dark-brown, smooth, glabrous.

**Fls. & Frs. :** Sep.- Dec. common.

### 11. *Urena lobata* L.

Sp. Pl. 692. 1753; Cooke 1: 106; GLS 1: 117; S & S 247 FBI 1:329 ;FOS 1:491 ; RNS 87 ; BBM 214

An erect perennial stellately hairy, herbs. Leaves entire, broadly ovate or nearly orbicular, sessile grey tomentose beneath. Flowers pink, rose coloured, axillary, solitary.

Epicalyx linear-lanceolate. **Fls. & Frs. :** Aug.-Dec. not commonly found. rare

**Table:1 : Plant list**

No	BOTANICAL NAME	LOCAL NAME ( In Gujarati )
1	<i>Abelmoschus manihot</i> (L.) Medic.	Jangli Bhindi
2	<i>Abutilon indicum</i> (L.) Sw.	Khapat
3	<i>Gossypium herbaceum</i> L.	Kapas
4	<i>Hibiscus hirtus</i> L.	Dupari
5	<i>Hibiscus ovalifolius</i> (Forsk.) Vahl.	Chanak Bhindi
6	<i>Hibiscus rosa-sinensis</i> L.	Jasud
7	<i>Thespesia populina</i>	Paraspiplo
8	<i>Sida acuta</i> Burm.f.	Bala
9	<i>Sida cordifolia</i> L.	Maha-bala
10	<i>Sida retusa</i> L.	Ati-bala
11	<i>Urena lobata</i> L.	Vagdau Bhindo

Genus	7
Species	11

### ANALYSIS OF CULTIVATED / WILD PLANTS

WILD PLANTS	CULTIVATED PLANTS
07	04

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