



Ethnomedicinal Values of Some Weed Plant Species of Bhavnagar, Gujarat, India

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Abstract

Weed plants are considered as unwanted and undesired plants in the fields in plant community. It is also considered as enemies to the farmers and gardeners. they are known as useless or unwanted plants .Many agriculturists, Ayurvedic practicer and field botanists are considered that weeds are used in Indian traditional and tribal medicine .Many of these weeds have high ethno medicinal importance, they are being destroyed because of lack of scientific knowledge and guidance. There are many weeds are having medicinal and good therapeutic values . The main aim of this study is to expose the important ethnomedicinal values of 61 prominent weeds belongs to 31 different families that grow as wild in the Bhavnagar. Weeds could provide its medicinal importance.

Key words: *Ethnomedicine, Weeds, Bhavnagar.*

INTRODUCTION

A weed is defined as any plant that interferes with the objectives of farming or forestry, such as growing crops, cultivating forest plantations. A weed may also be defined as any plant growing where it is not wanted and not intentionally sown. Despite the negative impacts of weeds, some plants are naturally strong to soils, providing habitat and feed for wildlife, providing competitors, and those weeds that can best compete nectar for bees, offering aesthetic qualities, serving as a always tend to dominate. There are approximately 250,000 species of plants an economical and practical way in order to produce worldwide; of those, about 3%, behave medicine, food, feed, and fiber for humans and animals. In this context, the negative impacts of weeds indirectly problems in worldwide cropping systems. there are many weeds having

ethnomedicinal and pharmacological value. Weeds have been found in ancient Indian literatures, all plants were not medicinally important plants .every plant on this earth is useful for human beings, Many of these weeds they consider some are useful and havemedicinal and pharmacodynamic importance. ^[1] Living close to nature, the tribals and rural people know better to use the plants. The present study emphasizes upon the popularization of traditional knowledge of rural communities. This has simultaneous impact on the socioeconomic upliftment of the local communities.^{[2][3][4]}

STUDY AREA

Bhavnagar is located in the west of gulf of khambhat and It is fifth largest city of Gujarat state

located between 21°28' N 72°05' E to 21°46'N 72°09'E . Bhavnagar has a semi arid climate, and due to proximity to the sea, the climate remains a bit humid throughout the year.

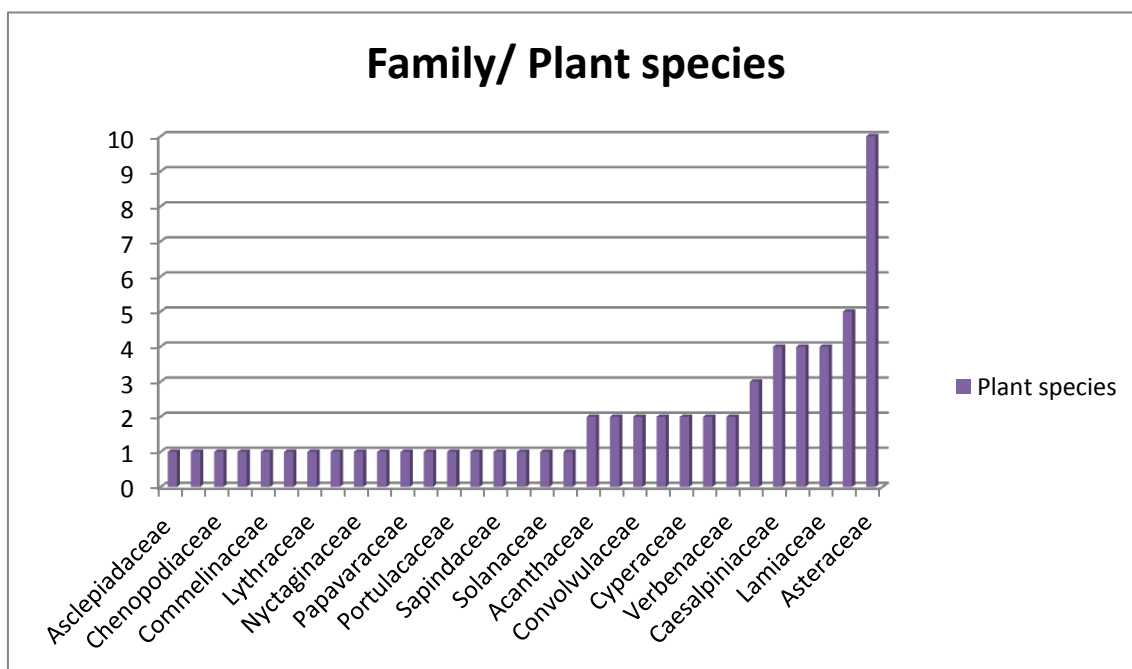
METHODOLOGY

The present study is the outcome of critical, minute and systematic study of the weed plants ^{[3][8][9]} and their usages by the local inhabitant of the study area. A large number of rural persons were

interviewed and gather the ethnomedicinal information. The data presented data are based on personal interviews with informants like ayurvedic medicine practicer, local healers, farmers and old experienced people.^{[7][10][11][12][13][14][15]} During the field work,specimens of each ethnomedicinal important plant were collected. The information was recorded on a questionnaire based on Jain (1995) and in the field note book.^{[5][6]}

RESULT & DISCUSSION

Graph-1: Family and plant species



Total eleven 61 weed plants species identified and recorded as medicinal value in the study area. The ethnomedicinal survey of the area indicates that the local people use these plants for non commercial purpose. However, for majority of the species, various plant parts are the source of raw material for medicines.Further, there is no standardization of the dose of the active principle and most of the doses are given on experience basis. It may therefore , concluded that the wise use of these plant species on sustainable basis for medicine

need biochemical investigation.I also mention here to uses of of properly identified plant's part and dose of medicine under medical supervision.

Table-1 Enumeration of plant species of the study area with their botanical names, part used Form of use and uses.

| Sr.No | Botanical Name | Family | Ethnomedicinal uses |
|-------|---|----------------|---|
| 1 | <i>Blepharis indica</i> T.Anders. | Acanthaceae | Seeds diuretic, expectorant , Aphrodisiac and Tonic. |
| 2 | <i>Barleria prionitis</i> Linn. | Acanthaceae | Decoction of root is given in coughs, fever and rheumatism.Paste of leaves mixed with black pepper and it is given orally regularly for few days on piles.Juice of leaves,is dropped in the ear to stop pus formation in the ear. |
| 3 | <i>Achyranthes aspara</i> Linn. | Amaranthaceae | A decoction of roots is used for stomach troubles , The root is astringent and their paste is applies to wounds,Cooked leaf for internal piles and root for clean teeth and relief in toothache |
| 4 | <i>Alternanthera sessilis</i> DC | Amaranthaceae | The plant is used in diarrhea, skin disease and dyspepsia (heart burn) It is also used as eye washer and the extract of stem. |
| 5 | <i>Amaranthus spinosus</i> Linn. | Amaranthaceae | Root and leaf juice promotes digestion. |
| 6 | <i>Celosia argentea</i> Linn. | Amaranthaceae | Leaves are crushed and the paste is applied on scorpion sting. |
| 7 | <i>Digera arvensis</i> L. | Amaranthaceae | Leaves used to cure weak bones, Infections etc |
| 8 | <i>Calotropis procera</i> (Ait.) R. Br. | Asclepiadaceae | Leaf In the treatment of asthma. A poultice of roasted leaves is applied to inflammatory swelling and rheumatic joints. The latex of plant is used in dropsy, tachia, leprosy. |
| 9 | <i>Ageratum conyzoides</i> Linn. | Asteraceae | A hot poultice of the leaves and stem is applied on leprous sores and other skin diseases. Plant juice is applied externally for cuts and wounds |
| 10 | <i>Bidens biternata</i> (Lour.) Merr. | Asteraceae | Leaf juice in treatment of sores and root paste in case of tooth ache |
| 11 | <i>Blumea lacera</i> DC. | Asteraceae | Crushed leaves are externally used on boils, wounds and blisters. Juice of the plant mixed with sugar is taken in cold. |
| 12 | <i>Cythocline purpurea</i> (Don.) Kuntze | Asteraceae | Roots are given in stomach pain |
| 13 | <i>Echinops echinatus</i> Roxb. | Asteraceae | The plant is diuretic, ophthalmia, hysteria and nerve tonic. The whole plant is used against skin itching. Recipe: Boil 2 kg of plant in 12-15 liters of water for few hrs then bath with that water, after waiting for cooling, twice a day for 3-4 days. |
| 14 | <i>Eclipta prostrate</i> (Linn.) Linn. 'Bhingraj'. | Asteraceae | improve hair growth and colour. Its paste is applied over the swollen areas of elephantiasis, abscess ,over wounds to reduce pain and quick wound healing.Its juice extract is used as eye and ear drops to relieve infection and pain.use as nasal drops, after mixing with goat milk is is done in grey hairs and headache. juice |

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| | | | extract with castor oil to relieve intestinal worm infestation. |
| 15 | <i>Launaea nudicaulis</i> Hook.f. | Asteraceae | Crushed leaves are applied on forehead during headache. |
| 16 | <i>Launaea procumbens</i> Pravin Kawale | Asteraceae | used in renal disorders |
| 17 | <i>Sphaeranthus indicus</i> Linn. | Asteraceae | Decoction of the plant is diuretic and used in urethral discharges. Flowers are taken in summer as a tonic and cooling agent. Fruits are said to be digestive. |
| 18 | <i>Xanthium sarumarium</i> Linn. | Asteraceae | Roots are taken as a good tonic. The plant decoction is given in long standing malarial fever and diseases of urinary systems. |
| 19 | <i>Heliotropium indicum</i> | Boraginaceae | Decoction of leaves and flowers used as gargle for sore throats and tonsillitis |
| 20 | <i>Trichodesma indica</i> R. Br. | Boraginaceae | Root is taken in stomach disorders. |
| 21 | <i>Brassica juncea</i> (L.) Mustard | Brassicaceae | decoction filtrate as eye drops to cure eye diseases(white patches in pupil) |
| 22 | <i>Cassia occidentalis</i> Linn | Caesalpiniaceae | Leaves are externally used in case of various cutaneous diseases especially ring worms. Roasted seeds are sometimes used in place of coffee. |
| 23 | <i>Cassia tora</i> Linn. | Caesalpiniaceae | A paste of the root made with lime juice is used for extracting ring worms. The leaves are used during intestinal disorders amongst children. Seeds are externally used in various skin diseases. |
| 24 | <i>Cassia absus</i> Linn. | Caesalpiniaceae | Parts of the stem are woven and tied around the opposite ear to remove migraine. |
| 25 | <i>Cassia fistula</i> L. | Caesalpiniaceae | Seed uses in Gastric problems, |
| 26 | <i>Chenopodium album</i> | Chenopodiaceae | This plant is mostly used as vegetable. It is sweet, digestive, laxative and is used in peptic ulcer, cardiac disorder and spleen disorder. The roots are used in jaundice, urinary diseases. Fruit and root are known as antidote to snake poison. |
| 27 | <i>Cleome gynandra</i> Linn (| Cleomaceae | Leaves paste is used in rheumatism headache and stiff neck. It's warm juice is popular remedy for ear diseases. |
| 28 | <i>Commelina benghalensis</i> L. | Commelinaceae | Plant decoction to cure worm infections, decoction of the whole plant is useful for constipation and leprosy. |
| 29 | <i>Convolvulus arvensis</i> L. | Convolvulaceae | Commonly given to children for removal of worm from Intestine. It is also appropriate in skin disorders. Its extract is used in treatment of skin disorder. |
| 30 | <i>Evolvulus alsinoides</i> Linn. | Convolvulaceae | Extract of plant with sugar is given in diarrhoea and dysentery. |
| 31 | <i>Ipomea carnea</i> Jacq. | Convolvulaceae | Leaves coated with sarson oil is externally used on swelling testicles. |
| 32 | <i>Cuscuta reflexa</i> Roxb. | Cuscutaceae | Whole Plant kidney problems and cough. |
| 33 | <i>Cyperus rotundus</i> L. | Cyperaceae | The rhizome gives positive result in the treatment of |

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| | | | menstruation, vomiting and diarrhea. Also used as a laxative for cattle for treating nausea, pain reduction, fever, inflammation, for muscle relaxation. |
| 34 | <i>Cyperus compressus</i> Linn. | Cyperaceae | Roasted tubers mixed with coconut oil for killing lice. |
| 35 | <i>Acalypha indica</i> L. | Euphorbiaceae | Seeds- Bronchitis, Asthma, rheumatism,. |
| 36 | <i>Euphorbia hirta</i> Linn. | Euphorbiaceae | The latex is applied to eyes in children when they turn reddish. Extract of plant used in bowel complaints and cough. It is also given in dysentery. The crushed plant is fried and applied to cuts. |
| 37 | <i>Jatropha curcas</i> Linn. | Euphorbiaceae | Young branches warmed in fire act as a foment in pain of joints. |
| 38 | <i>Phyllanthus niruri</i> L. | Euphorbiaceae | The fresh root of the plant is used for the cure viral hepatitis. It is also used as diuretic in oedema, to increase appetite and to reduce inflammations. |
| 39 | <i>Rhynchosia minima</i> L. | Fabaceae | Whole plant Used for bath after delivery for body care. |
| 40 | <i>Tephrosia purpurea</i> (Linn.) Pers. | Fabaceae | The boiled extract of plant is a vermifuge and used to kill the intestinal worms |
| 41 | <i>Hyptis suaveolens</i> (L.) Pot. | Lamiaceae | Leaves and flowers are crushed and applied on forehead to relieve headache. |
| 42 | <i>Leonotes nepetaefolia</i> R. Br. | Lamiaceae | Smoke for calyx given in stomach pain. Seeds diuretic also given to cattle in dropsy. |
| 43 | <i>Leucas caspera</i> L. | Lamiaceae | The leaf decoction used as to cure cold, cough, and skin disorders |
| 44 | <i>Ocimum americanum</i> Linn. | Lamiaceae | Crushed leaves applied on forehead during headaches. They are also used for wounds in animals. |
| 45 | <i>Ammania baccifera</i> Linn. | Lythraceae | Dried leaves are added to 'pan' (beetle leaf) and are given for the treatment of venereal diseases. |
| 46 | <i>Sida cordifolia</i> Linn. | Malvaceae | The plant is reputed for. The plant part is used for its tonic properties in fever, nervous disorders, colic, general debility and heart irregularity. It also reported to improves sexual strength. The roots juice is used for wounds healing while bark is effective in curing facial paralysis and the leaves are used for the blood fluctuation |
| 47 | <i>Abutilon indicum</i> (Linn.) Sweet | Malvaceae | The seeds are laxative and work effectively in curing piles |
| 48 | <i>Sida rhombifolia</i> Linn | Malvaceae | Leaves are used for healing sores. The whole plant is aphrodisiac. |
| 49 | <i>Glinus lotodies</i> Linn | Molluginaceae | Dried plants used in diarrhoea and abdominal disorders. |
| 50 | <i>Boerhaavia diffusa</i> Linn. | Nyctaginaceae | The leaves of the plant are cooked as potherb (leafy vegetable) and the powder of the dried roots is snuffed in flue while the powder of the roots along with honey is given in cough and asthma. 50 ml juice of the plant is given 3 times a day in menstrual pain (dysmenorrhea). |
| 51 | <i>Oxalis corniculata</i> Linn. 'Khattibutti' | Oxaladaceae | The fresh juice is beneficial for the treatment of anemia, tympanitis, dysentery and piles |
| 52 | <i>Argemone mexicana</i> L. | Papavaraceae | Flower decoction as a external medical agent in case of |

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| | | | eye infections |
| 53 | <i>Cynodon dactylon</i> (L.) Pers | Poaceae | The plant is astringent, cooling, haemostatic, tonic and is used stop bleeding or in wound healing. When someone cut his finger then the fresh leaves and stem are grinds in mouth and then applied on wound to stop bleeding. Its juice is mixed with milk for curing bleeding piles, irritation of urinary tract and for vomiting. Sometime it is used with rose-flower in treatment jaundice, piles and dysentery. |
| 54 | <i>Portulaca oleracea</i> L | Portulacaceae | The whole plant, except the root, is used as antibacterial, antiinflammatory and anthelmintic. The juice extracted from 100g of fresh plant are diluted with water and serves as an anthelmintic and ascariasis. It is refrigerant, laxative and alterative, also used in lower abdomen and urinary tract problems. |
| 55 | <i>Borreria stricta</i> (L.f.) Schum. | Rubiaceae | Decoction of root is prescribed as emetic in poisoning cases. Juice of leaf is used to cure pain of ear. Flower-bud paste is used as ointment on cuts and wounds. |
| 56 | <i>Cardiospermum halicacabum</i> L. | Sapindaceae | Leaf decoction internally to cure cold, cough, fever, head ache . |
| 57 | <i>Bacopa monnieri</i> (Linn.) Pennell | Scrophulariaceae | Leaves are taken in chronic fever and also to improve memory and as a tonic for nervous disorder. A poultice made of the boiled plant is placed on the chest of children suffering from cough. |
| 58 | <i>Solanum surattense</i> (Burn.) F | Solanaceae | This plant is used for eye irritation and for abdomen pain. It is also useful in dental pain and cough. Crushed fruits are externally applied on head in mental disorders. Fruit decoction is used as gargle in toothache. |
| 59 | <i>Phyla nodiflora</i> Linn | Verbenaceae | Leaves and young shoots are used in curing indigestion in children while its decoction is believed as cooling agent and demulcent in cases of venereal diseases. whole plant is used for hepatitis. |
| 60 | <i>Lantana camara</i> Linn. | Verbenaceae | The crushed leaves are applied to wounds. |
| 61 | <i>Tribulus terrestris</i> Linn. | Zygophyllaceae | Fruits are taken in various types of urinary diseases. Infusion of fruit is also given in kidney diseases. |

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