



Volume 1 | Issue 1 | April, 2021

www.sabujeema.com

SABUJEEMA

An International Multidisciplinary e-Magazine

**MORPHOLOGICAL AND MEDICINAL
PROPERTIES OF TRIDAX PROCUMBENS LINN.**

: A CONCISE REVIEW

- Bijaylaxmi Das & Pankaj Kumar Singh



editorsabujeema@gmail.com



www.facebook.com/sabujeema.sabujeema



www.linkedin.com/in/sabujeema-e-magazine

Morphological and Medicinal Properties of *Tridax procumbens* Linn. : A Concise Review

[Article ID: SIMM0011]

Bijaylaxmi Das

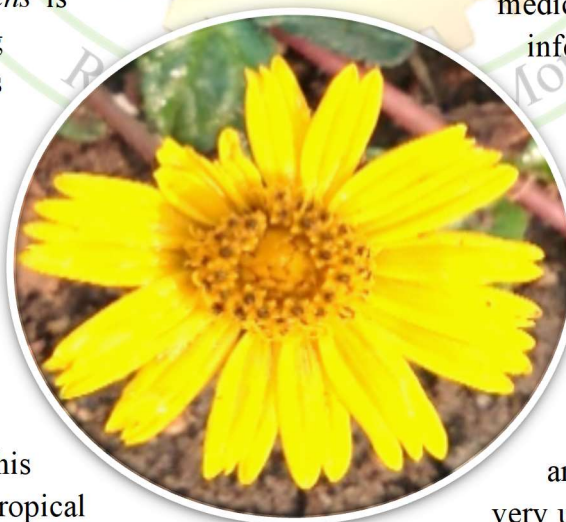
Department of Botany,
School of Applied Sciences,
CUTM, Odisha

Pankaj Kumar Singh

ICAR-(NRRI) Central Rainfed Upland
Rice Research Station,
Hazaribagh, Jharkhand

INTRODUCTION

T*ridax procumbens* is a flowering plant species which belonging to asteraceae family this species mainly known as weed and pest plant. It is commonly known as coat buttons or tridax daisy (Figure 1-4) the native of this plant species is tropical Americas. According to human



behavior when suffering with illness or infected some disease they are directed use and contact general physician and take allopathic medicine to cure their disease. Some of the medicinally important species of the genus *Tridax* are: *T. rosea*, *T. serboana*, *T. erecta*, *T. bicolor*, *T. accedens*, *T. dubia*, *T. angustifolia*, and *T. serboana*.

Leaf of *Tridax Procumbens*



SCIENTIFIC CLASSIFICATION

Kingdom: Plantae
Division: Angiosperms
Order: Asterales
Family: Asteraceae
Genus: *Tridax* Species: *Procumbens*

MORPHOLOGICAL PROPERTIES

After long time this type of allopathic medicine use our body can be infected secondary disease, it's very harmful for us. Throughout the world after the research work on medicinal plants, all medicinal plant do not have side effect if use continuously. Some research finds that medicinal herbs are not any time of side effect so it's very useful for us then allopathic medicine. This plant (*Tridax procumbens*)

have a multi chemical constituent, some chemical constitution like alkyl esters, sterols, pentacyclic triterpenes, fatty acids, and polysaccharides. Has been isolated from the aerial part of the plant (*Tridax procumbens*), other chemical constitution isolated from plant include leaf, flower, root etc.

It is herbaceous annual and perennial herbs. Basically the plant is found in moist, lightly dry condition. The plant is green in color with hairy structure are found in this plant. This species can be find fields, lawns, roadsides, meadows, crop lands and sometimes disturbed area with tropical or semitropical climate [1]. Stem are weakly and green in color or slightly brown in color with hairy, leaves are simple, alternate & opposite and dark green in color and 2cm to 4cm long and 2 cm to 3 cm width & margins are toothed, veins are divergent, stem are aerial and creepers in soil. Before starting of root system mainly a stalk like 7cm to 10cm located from leaves and apex of stem flower are located. The plant has two types flower; ray florets and disc florets [2]. Flowers are actinomorphic or zygomorphic, bisexual or unisexual and epigenous. Two different type of colour flower located in eastern Odisha white & yellow. The petal of flower is white or yellow in color and polypetalous (petal are free) in 0.2cm to 0.5cm long & the sepal is green in color and polysepalous (sepal are free). Flower is small disc like structure and center of flower is yellow color and the flower look like star in the garland.

USE IN TRADITIONAL MEDICINE

After my survey, monitory & surveillance work in eastern part of Odisha, which is the richest vegetative growth of many plants one of them is *Tridax procumbens*. Traditionally this plant have

been use in this local area by tribal people like Munda, Mohanta, Santal, kulha, Vumija, Khadia for wound healing, insect bite, anti fungal, anti coagulant. *Tridax procumbens* has been broadly used in odisa traditional medicine for insect repellent, as anticoagulant, wound healing, antifungal and in diarrhoea and dysentery [3].for the multipurpose uses of this plant are extensively used as a folk medicine and also dispensed as “Bhringraj” which is traditionally used for liver disorder since long time [4].Hair growth promoting activity and Some Antioxidant properties have been demonstrated. [5 & 6].

MATERIALS & METHOD

This plant is found in the coastal district and western plain of Mayurbhanj district of Odisha and it lies between 21° 17' and 22° 34' N latitude and 85° 40' and 87° 0' E longitude. The Western plain of Mayurbhanj is extending to Odisha plateau and this plant is found where the land is almost level with up slight slope coast area. The endogenous vegetation consults of pure sal forest which has now been replaced by paddy cultivation.

The climate of this area of Odisha is subtropical marked by high humidity and rain fall during monsoon. In Mayurbhanj district the most charming place is national park named as Similipal national park or similipal biosphere reservoir. In this area more natural herbal plants variety are found and it use to cure various disease. The Similipal hill influence the weather substantially exhibit higher rain fall and lower maximum temp then the rest of the district. In this area the average annual rainfall is around 164 cm. May is the hottest month with maximum temperature of 47⁰ C and December is the coldest month with minimum temperature of

6°C. The average annual rain fall in the district is 1500 mm. The mean monthly potential evapotranspiration values range from 40mm in January to 347 mm in May.

FIELD SURVEY:

The field survey undertaken from local aged people, Baidya kaviraj, local Ayurveda doctor, old aged people of eastern Odisha of Balichatra, Sridamchandrapur, Devkund, Meghasani, barsahi, Bisoi, Kanpur, Rasagobindpur, Thakurmunda, udala, Manatri, Mitrapur, Nuapadi, Purukhi, Nilagiri, Kuldiha, Pancholingesarwar, Rudrapur, Durgadevi, Tikirapal, Nuahata, Gududa, Deokhand etc.

Village of eastern Odisha more than one tribal community like Santal (Majhi), Ho, Munda, Mohanta, Kumhar, Bhumija, Khadia, Kolha, Bhuyan, Bathudi, Lodha, Adibasi etc lives in this area and the aged people of this community give more information about different medicinal plant verity, their uses, their doses and their best remedy for to cure various disease. We collected this plant of *Tridax procumbens* (Bishalyakarani) information including the plant species, local name, plant part uses and their doses through questionnaire, interview and convocation of local knowledgeable people, aged people, some Ayurveda medicine shop and local kaviraj of eastern Odisha. The botanical name, class, order, genus, species and family were identified with the help of Flora and Fauna of book and some taxonomy book. This information was collected from January 2021 to March 2021. These herbal remedy are use to cure various illness and these medicine has much lower cost and best drug for disease without any side effect.

Basically the information was found for collection of voucher specimens. The

specimen must be collected in every stage of their growth from different localities and habitats. The single specimen collected in the late flowering stage and a complete specimen including root system and shoot system of all parts of the plant are collected. The specimens are pressed in between the sheets of newspaper then blotting paper. After pressed of the specimen then it dry in room temperature and mounted on herbarium sheet.

DATA RECORDING

The data was recorded from local Kaviraj, aged people, local herbal and natural medicine sellers and forest conservation people from eastern Odisha. We collected all information about *Tridax procumbens* including local name, plant parts uses, method of drug preparation, doses of drug, duration was fill-up by the questionnaire by convocation and face to face interview.

RESULT AND DISCUSSION

This paper documented that the uses of one medicinal plant species *Tridax procumbens* belonging to Asteraceae family, in this plant mostly used by local people, Ayurvedic doctors in eastern Odisha for to cure various disorder. The habit of this plant is herb with creepers. The most plant parts used were leaves, stem, flower, root and whole parts of plant. The plant and parts of plant uses to cure various disease these are blood clotting, sun burn, etching in hot session, insect bite, ant bite, all nail disease, headache, nail pain after injury and reptile biting, skin infection, pimples, sore, wound, cut injury, scabies, prickly heat etc. The present survey female are involve more than man and the local informants are foresters, teacher, farmers, ayurvedic doctors, house wife, Vaidya kaviraj etc. The indigenous

people know all medicinal properties are present in nature and this is the best drug for living being and they gain their knowledge from Vaidya kaviraj, Book of Laxman Mishra, their parents and ancestor.

Tridax procumbens: (Herb)

Family- Asteraceae

Vernacular name:

It's common names include Coat buttons and *Tridax* daisy (English), Jayanthi (Kannada), *Cadillo chisaca* (Spanish), *Herbe caille* (French), *Kotobukigiku* (Japanese), *Jayanti veda* (Sanskrit), *Thalkuthi* (Malayalam), *Bikhalyakarani* (Assamese), *Ghamra* (Hindi), *Tridhara* (Bengali), *Bishalya karani* (Odia), *Kambarmodi* (Marathi), *Gayapaaku* (Telugu), *Kinatrappasan* (Tamil), *Ghaburi* (Gujarat), *Cheeravanakk* (Malayalam), *Husure jhaar* (Nepali), *Kagla ri mehndi* (Rajasthani).

FLOWERING AND FRUITING

Two colour of flower located in local area such as white and yellow and the flower has 5 petals, all the year the flower shows but the period of flowering time is May to December.

ETHNIC USES

Leaves, stem, root, flower and whole plant are use for the treatment of blood clotting, sun burn, etching in hot session, insect bite, ant bite, all nail disease, headache, nail pain after injury and reptile biting, skin infection, pimples, sore, wound, cut injury, scabies, prickly heat etc.

MODE OF DRUG PREPARATION

1. One handful of *Tridax procumbens* mature and fresh leave are taken (Fig: 1& 2) and grind them by the help of motor & pistil to extract fresh leave paste or juice (Fig: 2-5) & 2and adding with *Mimusops*

elengi seed paste apply on the surface of insect bite, reptile bite and rodents.

2. Extract of leave paste *T. procumbens* mix with *Curcuma longa* (Turmeric) and *Aloe-vera*.



3. The leaf dry at room temperature then making a fine powder, this powder is use external surface of skin for relief of etching in summer session.

4. Fresh leaves paste use for Ant bite also.

5. When the tribal people work on the field of rice the nail is infected with water and became painful etching and swelling, this leaves and root paste and juice also use for relief.

6. It also use for headache and migraine pain, in this case we use flower, leave & root of this plant and mix properly and making paste and then applying on for head.

7. The flower and mature leaves paste and juice are use for remove the infection on sore and wound.

8. Some herbal product mix with *T. procumbens* is use for cosmetic face cream and some antifungal cream. So we can say this type of product is use for promising industrial product. We can achieve the national income and promote the other non native are of this plant species. In traditional use enumerate the medicinal value which help the research chemical attributes and also clinical.



Juice of *Tridax procumbens*

3. Ali M, Ravinder E, Ramachandran R (2001) Anticoagulant activity of *Tridax procumbens*. *Fitoterapia* 72: 313-315.
4. Pathak AK, Saraf S, Dixit VK (1991) Hepatoprotective activity potential of *Tridax procumbens*. *BMC Complementary and Alternative Medicine* 10: 10-15.
5. Habila JD, Bello A, Dzikwi AA, Musa H, Abubakar N (2010) Total phenolics and antioxidant activity of *Tridax procumbens*. *African Journal of Pharmacy and Pharmacology* 4: 123-126.
6. Saraf S, Pathak AK, Dixit VK (1991) Hair growth promoting activity of *Tridax procumbens*. *Fitoterapia* 62: 495-498.

REFERENCES

1. Choudhari MM, Maheshwari JK (2009) *Ethanobotany in South Asia, Middle East*. *Journal of Scientific Research* 4: 144-146.
2. P. Meena, K. Kaushal, R. Mishra, “*Tridax Procumbens: Pharmacological Activities-A Review Article*”, *International Ayurvedic Medical Journal*, Vol. 4, Issue. 11, pp. 3392-96, 2016.