



Ethnobotanical study of medicinal plants sold at weekly fairs of Karanjia in Mayurbhanj district, Odisha, India

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Abstract

Ethno-medication alludes to those drugs that are customarily polished by the ethnic or ancestral individuals. Tribals having gigantic conventional information about restorative upsides of the plants that has passed starting with one age then onto the next age. The week after week fairs, the sole monetary foundations on which ancestral individuals for the most part depend for their trade needs where week by week reasonable has various capacities like essential issues for socio-social exercises for assembled individuals. An endeavor has been made to investigate conventional restorative information on plant materials (35 species) having a place with 31 genera having a place with 20 families from week after week fairs of Karanjia, Mayurbhanj district of Odisha. Ethno-medico-natural data was assembled through a few visits to nearby business sectors and week by week fairs of better places in Karanjia, met with merchants and educated people, neighborhood medication men just as through distributed literary works from this space. week by week fairs in ancestral regions fill in as multipurpose focus like, exchange, diversion, social, monetary, social and medical care. Along these lines, care ought to be taken for the turn of events and smooth working of such multi-reason focuses to save the ethnic culture and custom.

Keywords: ethno-medicine, ethno-botany, Karanjia, weekly fair, medicinal plants, conservation

Introduction

The information on the ancestral related with the conventional mending works on utilizing wild plants is currently quick vanishing because of present day medical care framework. Ethno-organic science is the interdisciplinary logical investigation of the connection among plants and individuals all through the world since days of yore. It likewise identifies with individuals of a specific culture and religion utilizes native plants as food, cover, medication, clothing and so forth. The tribals and antiquated ethnic races all through the world have their own societies, customs, cliques, strict rituals, legends, black magics and food varieties and frameworks of therapeutic practices. They have gigantic information about the utilization of wild plants for their fundamental requirements, food and work and have fostered an exceptional comprehension of woodland assets (Prusti and Behera, 2010). In several social orders, the accessible beneficial plants establish skeleton of medical care frameworks Globally, around 85% of the customary prescriptions utilized for essential medical services got from plants. Customary medication ethnobotanical information assume a significant part in logical examination, especially when the writing and hands on work data has been appropriately assessed. Since this information communicates orally through ages and gets by in customs of native society there is a quick need to archive it on a conflict balance; list the uncared information would be wiped out.

The week after work week fairs or markets of tribal regions are privately called Haats which is the fundamental significant financial establishment on which ancestral individuals generally depend for their everyday needs by

trade or deal framework. From days of yore, the week by week reasonable has a personal connection with the tribals for some, reasons like food, wellbeing, grub and so on By and large, haats have a customary work day time at specific spots for a particular period in the daytime. While some analyze the products and ask about their rates, others sit together immersed out of gear tattle or some kind of energized conversations. The tribals of various towns likewise trade data about family works with their family members and can share the social gathering. A week by week reasonable isn't just a spot for buying and exchanging however It additionally gives astonishment and amusements time to the ancestral individuals. Week after week reasonable assumes a significant part as a middle for marital arrangement and dissemination of social qualities among the ethnic networks (Raja, 1987) [12]. Week after week fairs fill in as the main issue for socio-social exercises because of the assemblage of individuals (Behera, 2003) [1]. Week after week fairs or haats are for the most part held in huge open spaces under the shelter of huge trees like mango, jack organic product or banyan with or with next to no framework or in day-by-day commercial centers on a particular day and time.

Karanjia, one of the eastern Indian towns located in the Mayurbhanj district of Odisha. It is the Notified Area Council in Mayurbhanj and furthermore the sub-divisional settle of the Panchpir development. Karanjia is available at 21.78 N scope and 85.97 E longitude with 389m above least ocean level (Fig. 1.). The normal temperature goes from 14 °C to 37 °C. The greatest temperature and least temperature ascend in the period of May and January separately. The blustery season gets a significant part of precipitation from

the Southwest rainstorm during the time of July to October. Three unmistakable seasons are felt as summer season (March to mid-June), stormy season (mid-June to October) and winter season (mid-October to February). It is encircled by Rairangpur Forest Division in the north, Keonjhar Wildlife Division in the south, Similipal Forest in the east and Keonjhar Division in the west. There are two significant kinds of timberlands found in this division i.e., wet deciduous sal backwoods and dry deciduous sal woodland with few patches of semievergreen timberlands inside Similipal. Because of substantial biotic impedance and fire peril, the majority of the woods change from clammy deciduous to dry deciduous with its partners. The review region is an ancestral prevailing region where over 70% of the complete populace is tribals that for the most part possessed the woodland region and rely upon the plant assets for food, grain, medications and tips and so forth (Saxena et al., 1988) [21]. Horticulture is the principal control of The territories of this space actually individuals rely upon backwoods for their requirements. Because of the cozy

relationship and reliance on timberlands for their food to meds in regular routines, the tribals of this space have obtained priceless customary information on bio-asset usage and have broad information on different plants and their employments. Already numerous specialists have been chipped away at ethnobotanical upsides of the plants in Mayurbhanj (Mudgal and Pal, 1980; Yoganarasimhan and Dutta, 1972; Saxena and Dutta, 1975; Saxena et al., 1988; Sarkar et al., 1999; Pandey and Rout, 2002, 2006; Pandey et al., 2000; Rout and Pandey, 2007; Rout et al., 2009(a), 2009(b), Rath et al., 2009; Mohanta et al., 2006; Rath and Acharya, 2006; Behera, 2006; Rout et al., 2010; Jena et al., 2011) [7, 23, 25, 21, 19, 8, 2, 10, 18, 7, 19, 6, 14, 2, 15, 15]. There is no data about week after week fairs or haats giving significant data of ethnomedicinal employments of plants for ancestral wellbeing. Accordingly, there is a little advance taken in this paper to gather data about ethnomedicinal contemplates from the week after week fairs which is a significant point for tribals for monetary turn of events.



Fig 1: Map of the study site Karanjia, Mayurbhanj dist., Odisha (Source: mapsindia.com)

Methodology

A few studies were directed from July 2019 to August 2020 to gather about the plants sold in week-by-week fairs or haats and nearby business sectors for their ethnomedicinal values utilized by tribals and neighborhood occupants. Data were gathered and recorded in the standard organization. The nearby name or Odia name were additionally gathered which assisted with gathering the plants from neighborhoods, for simple ID. The gathered plants were related to the assistance of nearby individuals and with the assistance of accessible greenery (Haines, 1925; Saxena and Brahmam, 1996; The World verdure online, 2020) [3, 20]. The snippets of data about the restorative properties of the plants in haats were gathered from the sellers like Kabiraj, Vaidyas

or the medication men and furthermore from individuals who were getting it. The employments of these restorative plants sold in the week by week reasonable were likewise refereed from the prior distributed writing sources Sarkar et al., 1999; Rout and Panda, 2010; Rath et al., 2009, Mohanta et al., 2006, Behera, 2006, Pandey et al., 2000, Rout et al., 2009(a), 2009(b), 2010) [19, 15, 13, 6, 2, 10, 17, 15]. The plant examples were made herbaria with standard techniques (Jain and Rao, 1977) [4] and the voucher example was kept in the Department of Botany, Karanjia Autonomous College, Karanjia, Mayurbhanj, after legitimate ID of plant with logical name, nearby name/Odia name, blooming, fruiting period, date of assortment and so forth The outcome was given the plant name with recommended design with a

nearby name, plant parts utilized with their ethnomedicinal utilizes, which were introduced in an in order way.

Result

The current paper manages the data about plant materials or plant parts sold by the various healers in various week by week markets or fairs of Karanjia. The outcome gives data around 35 plant species having a place with 20 families and 31 genera sold in various week by week fairs in Karanjia for restorative purposes.

The plant parts were sold in type of leaves, root/rhizomes, seeds, blossoms in dry structure. The report gives a thought of the different ethnomedicinal plants utilized by local people which were sold by the nearby healers, ancestral individuals in week after week fairs.

Enumeration of the medicinal plants found in the different weekly fairs (Haats) in Karanjia.

Abrus precatorious L.

Family-Fabaceae

Local name-Kaincha

Parts used- Seeds

Uses- Seed powder is assumed in responsibility for asthma. During feminine cycle, the seed powders are utilized for staying away from origination.

Acacia sinuata (Lour.) Merr.

Family- Fabaceae

Local Name- Shikakai

Parts used- Pods, Bark

Uses- Dry units are made powder and applied on hair for long hair and dim shading. The stem bark glue is utilized to fix malarial fever.

Achyranthes aspera L.

Family- Amaranthaceae

Local Name-Apamaranga

Parts used- Whole plant, root

Uses- Entire plant bubbled decotion taken twice with water to command over urinary issues. Root glue is applied remotely on scorpion nibble. The decotion of plant is blended in with water and used to control hack and fever.

Aegle marmelos (L.) Correa

Family-Rutaceae

Local Name-Bel, Bela

Parts used-Leaf, fruit

Uses- Leaves are utilized as blood purifier and stomach related. Organic product mash is utilized as purgative and supportive in food absorption just as command over loose bowels.

Aquilaria agallocha Roxb.

Family- Thymelaceae

Local Name- Agaru

Parts used- Root, bark

Uses-The root and bark powder utilized as restoratively in type of harsh, anesthetic, love potion, astringent, unpleasant, cardiotoxic, carminative, energizer.

Alstonia scholaris (L.) R. Br.

Family- Apocynaceae

Local Name- Chhatiana

Parts used- Leaf, Bark

Uses- Leaf juice is applied to kill lice. Decotion of bark juice helps in urinary contamination control.

Andrographis paniculata (Burm.f.) Nees.

Family-Acanthaceae

Local Name-Chireita

Parts used- Leaf

Uses- New leaf glue is given with honey in the mole issue of the skin. Biting of 2-3 leaves in void stomach toward the beginning of the day fixes skin issues.

Asparagus recemosus Willd.

Family- Asparagaceae

Local Name-Atrang, Satabari

Parts used- Root

Uses- Root in powdered structure taken with milk to conquer impotency in men. It helps in assimilation and control spermatorrhoea.

Bacopa monnieri (L.) Wettst.

Family- Scrophulariaceae

Local Name-Brahmi

Parts used-Whole plant

Uses- Entire plant is eaten as nourishment for increasement of memory power. Green leaves are used to make food items in form of fried leafy vegetables.

Cassia fistula L.

Family- Fabaceae

Local Name-Hari, Sunari

Parts used-Bark, leaf

Uses- Bark decotion in void stomach is given to clear clogging issues. The bark glue and leaf decotion is taken to defeat jaundice.

Cheilocostus speciosus (J. Koenig) C.D. Specht

Family-Costaceae

Local Name-Keu kanda, Keuna

Parts used -Rhizome

Uses- Root glue straightforwardly applied on joint expanding, utilized as germicidal and furthermore bit for toothache.

Clausena excavata Burm.f.

Family-Rutaceae

Local Name-Agnijal, Agnijhal

Parts Used- Bark

Uses- Bark decotion blended in with *Holarrhena pubescens* bark to fix dysentery. Bark juice are likewise utilized in fever. Root glue is likewise taken as a decent canapé and furthermore lessens body torment.

Curculigo orchioides Gaertn

Family-Hypoxidaceae

Local name-Telkanda, Talamuli, Kalamusali

Parts used- Roots

Uses- The root glue with warm milk is given to defeat from impotency in man. The root glue is applied on snake chomp. Root glue and decotion are additionally utilized in leucorrhoea, halmorrhoids, skindisease, asthma, bronchitis, jaundice, the runs, cuts and wounds.

Entada rheedii Spreng.

Family- Fabaceae

Local Name- Gilo, Giridi

Part used- Seeds

Uses- Seeds utilized in torments of the flanks, in weakness and in fiery glandular swellings and for fix scabies. The seared seed cotyledons are blended in with Piper longum to make pills which is administrated to take for 2-3 days in malarial fever. The seed glue applied on pimple to clear the pimples.

***Glycyrrhiza glabra* L.**

Family- Fabaceae

Local Name-Yasthimadhu

Parts used- Root and stem

Uses- Root and stem powder are utilized to control tuberculosis, hack, bronchitis, sickness.

***Hemidesmus indicus* (L.) R.Br. ex. Schult.**

Family-Apocynaceae

Local Name-Dudi, Antamula

Parts used-Root

Uses- Root paste utilized in treatment of fever. Root glue applied on temple to drop down the temperature. Root glue is applied remotely on snakebite to defeat the toxin impact.

***Paederia foetida* L.**

Family-Rubiaceae

Local Name-Prasaruni

Parts used-Leaf

Uses- Leaf decotions are given in fever and gout. Leaf glue are taken in gastric issues and in processing issues. Leaf glue is applied remotely on rheumatic parts to defeat from rheumatic torment

***Phyllanthus emblica* L.**

Family- Euphorbiaceae

Local Name- Merel, Amla, Aonla

Part used- Fruits

Uses- Dried natural products are utilized in hack, asthma, bronchitis, skin infection, Jaundice, and irregular fever, Indigestion, corrosiveness protein. Ordinary eating of this natural product in crude or powder structure likewise controls sugar level and increment eye power. Natural product juice with honey is given to control consuming of pee.

***Pongamia pinnata* (L.) Pierre.**

Family-Fabaceae

Local Name-Karanja

Parts used- Stem, leaf

Uses- Bark juice used to cure in ulcer, gonorrhoea, dyspepsia, diarrhoea, leprocy, Seed oil is used for skin disease and also used as mosquito repellent. Young stem used as tooth brush in toothache. It controls pyorrheal growth, caries and bad breath of mouth. Leaf decotion is given to control cough, inflammation pectorical disease, chronic fever.

***Pterocarpus marsupium* Roxb.**

Family- Fabaceae

Local name-Piasala

Parts used- Stem, bark.

Uses- The stem and bark juices assumed in responsibility for blood looseness of the bowels. Here and there the bark of *Mangifera indica* is make glue with bark of *P. marsupium*

administrated once per day to stop blood looseness of the bowels.

The water put away in vessel arranged from stems helps in charge of diabetes.

***Pterospermum acerifolium* (L.) Willd.**

Family- Sterculiaceae

Local Name-Muchukunda

Parts used- Flower

Uses- The dry blossoms are crushed in water and the blender is given with misri to command over loose bowels and the runs.

***Rauvolfia serpentina* (L.) Benth. Ex.Kurz.**

Family- Apocynaceae

Local name-Patalagaruda

Parts used- Leaf, root.

Uses-The dry blossoms are crushed in water and the blender is given with misri to command over looseness of the bowels and the runs.

***Sapindus trifoliatus* L.**

Family- Sapindaceae

Local Name-Ritha

Parts used- Fruits

Uses- The dry organic products are utilized to clean hair and long development of hair.

***Saraca asoca* (Roxb.) Wild.**

Family- Fabaceae

Local Name-Asoka

Part used- Leaf, bark, seeds

Uses- The decoction of bark is utilized in gynecological issues in females. The seed powder and leaf powder are additionally taken to control diabetes.

***Senna tora* (L.) Roxb.**

Family- Fabaceae

Local Name- Chakunda

Part used- Seed, leaf

Uses- Leaf glue or seeds glue applied on scabies and diverse skin sicknesses. Seared seed powder with jaggery is allowed for 307 days in scabies as well.

***Solanum torvum* Sw.**

Family- Solanaceae

Local Name- Bhejri

Parts used- Root, seeds

Uses- Bark of root is utilized for 5 to 7 days for control of malarial sickness. The seeds utilized in the treatment of hack control in evening time.

***Solanum virginianum* L.**

Family- Solanaceae

Local Name-Bhejibaigan

Parts used- Fruit, seeds, Root

Uses- Root bark is utilized for 5 to 7 days for control of malarial illness. The seeds utilized in the treatment of hack control in evening.

***Strychnos nux-vomica* L.**

Family- Loganiaceae

Local Name-Kochila

Parts used-Seed, bark

Uses- Root bark is utilized for 5 to 7 days for control of malarial infection. The seeds utilized in the treatment of hack control in evening time.

***Terminalia arjuna* (Roxb. ex DC.) Wight & Arn.**

Family- Combretaceae

Local name-Arjuna

Parts used-Bark

Uses- The bark decoction is given in looseness of the bowels control and in blockage issues. New decoction of bark is applied remotely for recuperating of cut and wounds

***Terminalia bellirica* (Gaertn.) Roxb.**

Family-Combretaceae

Local Name-Bahada

Parts used- Fruit.

Uses- Beat natural products are utilized in foot and mouth illness. In lumbago issues. The dry organic product powder is taken with dry natural product powder of *Terminalia chebula* and *Embllica officinale* for a few days. In the hack, the dry organic product was seared with desi ghee and dark pepper chewed with honey for help.

***Terminalia chebula* Retz.**

Family-Combretaceae

Local Name-Harida, Kashaphal

Parts used-Fruit

Uses- Dry natural product is bitten in stomach torment. Dry natural product powder is one of the elements of Triphala churna which is utilized for absorption, hair development, gastric, eye issues.

***Tinospora cordifolia* (Willd.) Miers.**

Family- Menispermaceae

Local Name-Guluchi

Parts used- Stem, bark

Uses- A little piece of stem is squashed and the juice is blended in with water and taken to control malarial fever and furthermore in hack. The bark and stem juice given in void stomach to command over sugar level and furthermore for expansion in insusceptibility power.

***Withania somnifera* (L.) Dunal.**

Family- Solanaceae

Local Name- Aswagandha

Parts used- Leaf, seeds, roots

Uses-Root powder is administrated with milk in impotency issue of male. In clogging additionally root glue given with milk to lessen the issue. The leaf and root powder helps in resistance development. The blossoms are guided with honey to defeat from spermatorrhoea. Root powder with mil is given to female for lactation of milk.

***Zingiber officinale* Roscoe.**

Family- Zingiberaceae

Local Name-Ada, Sunthi

Parts used- Rhizome

Uses- In the beginning phase of Hydrocele, juice of rhizome whenever given with jaggery in void stomach in morning, the enlarged decreases.

The new rhizome or dried (Sunthi) whenever overflowed with *Ocimum sanctum* leaves and overwhelmed by jaggery, it decreases gastric and controls hack and cold as well. New squeeze with dark salt goes about as a decent tidbit. 1 spoon

dry powder is taken with warm water to mitigate from stomach torment due heartburn. In Jaundice 1 spoon dried ginger with jaggery is taken for 7 days to control the jaundice.

Discussion

Along these lines, the current examination indicates the plants are sold in week after week fairs have a high potential for different therapeutic employments. This paper addresses 35 angiosperms plants for the most part utilized for loose bowels, hack and cold, the runs, invulnerability sponsor and many skin issues. Plant portions of *Aquilaria agallocha* and *Glycyrrhiza glabra* were utilized as energizers, aphrodisiacs, astringents, in the treatment of tuberculosis, uncleanliness and so forth. The plant parts like organic products *Aegle marmelos*, leaves of *Senna tora*, underlying foundations of *Cheilocostus speciosus* were utilized for therapeutic properties just as well as utilized as wild food by tribals and non-tribals. The seeds of *Entada rheedii* were high potential in therapeutic properties utilized for glandular swellings, pimples, malarial fever. It was likewise uncovered that the region is wealthy in therapeutic plants which are valuable to treat different human sicknesses in inescapable. It was likewise seen that the nearby individuals of this space having great information about the restorative and food upsides of the plants considered in the week after week market or haats. The vast majority of the more established matured liked to rely upon the neighborhood plants for their therapeutic properties. While the more youthful age was having less information about the plants and their ethnomedicinal values as they have less interest in the protection of the plant assets, safeguarding of the native information, astuteness and innovation related with these plants. The review gives a little feature that there is a requirement for complete documentation of the plants sold in business sectors by neighborhood healers, Vaidyas and Kabiraj and so forth and their exact customary information for the group of people yet to come benefits which will help in preservation of the plant assets and the conventional information. In this way, there steps ought to be taken to preserve these plants before over investigation and should make appropriate important use of them.

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