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Survey of Ethnomedicinal plants used by Bhil community from selected villages of Santrampur taluka, Mahisagar District, Gujarata

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ABSTRACT

Ethno-botanical research on medicinal plants was conducted in selected villages of Santrampur taluka, Mahisagar district, Gujarat. The main aim of this study was collating the data of ethno-medicinal plants which is used by tribal communities in selected area. This study was focuses on identifying the medicinal plants, collections of their data, disease treated, preparation method, used plants parts which is used in traditional medicine and etc. It was also focuses on the traditional knowledge of indigenous people. The data was collected through personal interviews and questionnaires by the tribal people of selected areas. It s also present a list and uses of medicinal plants. This study provides information about the 15 ethno-medicinal plants belonging to 15 families, which is used by indigenous people in their traditional and various diseases.

Key words- Ethno- botanical, Ethno medicinal, Santrampur taluka, traditional medicine

INTRODUCTION

Ethnobotanical work in Mahisagar District

Gujarat has several tribal regions, one of which is Mahisagar district. Tribal people predominantly live in the district's remote areas. The tribal community and animal keepers make up the majority of the populace. The Damor, Katara, Pargi, Bamniya, Sangada, Tadvi, designated tribes are the most numerous in the region. Most people labour as farmers and animal keepers. In total 304 plant types from 68 families and 211 Genera have been identified in the Kaleshwari, in Mahisagar district Khanpurtaluka (kunjana Narendra Kumar Patel, 2022). Planning for sustainable use of the resources that are currently available, conservation efforts, and proper knowledge of plant diversity will all benefit greatly from this research.

Even as it predicts the future, ethno botany documents the past and present of humankind. As a field of study, ethnobotany helps us gain a deep comprehension and respect of the complexity and closeness of relationships between people and the natural world. Tropical forests, which make up only 10% of the earth's land area, are thought to be home to more than 50% of the planet's species (Wilson,1985). Plants have been used by humans for a variety of things throughout history, including sustenance, medicine, shelter, decoration, building, and clothing (Ajay Kumar et al., 2021). The world Health Organization (WHO) was very successful in 1970s at promoting the inclusion of conventional medicine in third World public health initiatives. According to the Alma Ata Declaration, "health for all in the year 2000."At the start of the new century, we must assess our progress toward this ideal (Rainer w. Bussmann). The traditional use of plants by indigenous communities reflects the cultural aspects as well as biodynamic elements that have immense Pharmacological potential to cure many diseases (Cox et al., 1994, Etkin,1993). In rural areas of emerging countries, the use of plant species as traditional medicines offers a genuine replacement for healthcare services (Muhammad Umair, et al.)

MATERIAL AND METHODOLOGY

Santrampur Taluka is Located between 23.1895° N and 73.8928° E longitude at an elevation of 140 meters. The average annual rainfall is 330 mm and temperature between 25°C to 40°C.The town is sits on the Banks of suki river, in central of Gujarat. In the summer, the river Frequently dries up, leaving only a tiny trickle of water.

The main Aim of this study was to collect the information about the ethno-medicinal plants, which is used by local communities of tribal in treatment of various disease and primary health care. The data was collected from various villages of Santrampur taluka. Around the ethnic region of Santrampur Taluka, ethno-medical important plant visits were planned. The tribal group and farmers make up the majority of the residents. The information was gathered through personal discussions with tribal people and Local healers, which is called 'Bhagat' or 'Bhuva' by tribal communities. The Interview and conservation Held in the regional language. The information gathered to concentrate on the local name, beneficial components, specific disease, and preparation method. The plant photo and information were collected from the selected villages for the study of ethno-medicine. The people of tribal communities used the plants parts for traditional medicine and their health care. Plant identification was by the help of taxonomic expert of University and literature which is available in library of botany department, Gujarat University, Ahmedabad.

RESULT AND DISCUSION

This data is collected from the 10 villages of santrampur taluka (Chinchani, Nani bhugedi, Moti bhugedi, Lilvasar, Sagan faliya, Moral naka, Kaduchi, Parthampur, Baliya, Ambela). The data was collected during the February month 2023 through the personal conservations in local language. There are 15 plants was collected from the 15 families. There are 2 climber, 5 Herbs, 3 trees and 4 shrubs species are recorded. Herbs are highest number (10) in plant species. According to records, highest number of plant species are from Solanaceae family. Leaves are the most useful plant part compared to other plant parts. The study was revealed that; leaves are the maximum used part for the making medicine. Tribals are used the plant part for traditional medicine and various disease. They used for fever, diarrhea, snake and dog bite, throat pain, cough, skin infections and acne problems.

The following medicinal plants are found which is used by tribals for their traditional medicine.

1.Scientific name: Sarcostemma acidum L.
Family: Apocynaceae
Local name: Sandhvel
Collected from: chinchani village
Botanical description: Leafless, jointed branches, climber type plant, green colored
Ethnomedicinal Use:
Ailment: joints problem
Useful part: whole plant
Preparation method: Take plant part and crush with water and make paste and apply in part of joints problem.

2. **Scientific name:** Passiflora incarnata L.
Family: Passifloraceae
Common name: Pandavvel
Collected from: chinchani village
Botanical description: Climber type plant, green leaves, Smooth and trailing stem, leaves are alternate and 3-lobed, white-purple flower
Ethnomedicinal Use
Ailment: Skin injury, diarrhea**,**
Useful part: leaves
Preparation method: Take leaves boil it in warm water make a paste and apply on the injured skin; crush the leaves and make juice, take one time in day in diarrhea.

3. Scientific name: Chinopodium album L.
Family: Chenopodiaceae
Local name: Chil ni bhaji

Collected from: moral naka village
Botanical description: Annual herb, vegetable crop, alternate leaves and upper part of flowering, small flower, smooth and straight stem, small plant,
Ethnomedicinal Use
Ailment: Eye disease, Throat pain
Useful part: whole plant
Preparation method: Crush the leaves and boil with water, take it to juice in throat pain.

4. Scientific name: Ziziphus mauritiana L.
Family: Rhamnaceae
Local name: Bordi
Collected from: Moral naka village
Botanical description: Shrub or tree, stipular spines present and many branches are present, fruit are present which is different shaped in their variety (oval, oblong and round), green leaves, brown and hard wood, fruit is smooth and glossy.
Ethnomedicinal Use
Ailment: cure acne, headache, digestion
Useful part: leaves, fruit, root
Preparation method: crush the leaves and Make paste applied topically affected area to cure acne. Take juice of fruit once a day for digestion problem.

5. Scientific name: Artocarpus heterophyllus L.
Family: Moraceae
Local name: Fanas
Collected from: kaduchi village
Botanical description: Evergreen tree, branches, green leaves, reddish brown bark, fruit are present and yellowish colored, milk is present in inner part of bark, green stem, alternate leaves and oblong and oval shaped, small flower.
Ethnomedicinal Use
Ailment: Skin problem, fever**,** blood circulation
Useful part: Fruit, leaves, bark
Preparation method: Fruit are used in make food and eat it for blood circulations**.** The dry leaves are used for making powder and take with water in fever.

6. Scientific name: Datura stramonium L.
Family: Solanaceae
Local name: Dhaturo
Collected from: Ambela village
Botanical description: Annual herb, freely branched plant, long and thick root, leafy and smooth stem, stem is green to reddish purple colored, flowers are present which is colored in white to violate, leaves are long, smooth and soft, lower surface of leaves is light green and upper surface is darker green, small and black seed.
Ethnomedicinal Use
Ailment: Headache, skin infection
Useful part: fruit, leaves
Preparation method: Take Dhatura fruit, crush and make powder for skin infection. Leaves used for headache.

7. Scientific name: Senna occidentalis L.
Family: Fabaceae
Local name: Jungli puvad
Collected from: Moti bhugedi
Botanical description: small shrub, annual plant, alternate leaflet, stem is yellowish to purple colored, simple and green leaves, small root. Seeds are present
Ethnomedicinal Use
Ailment: fever, snake and dog bite
Useful part: leaves
Preparation method: 2 to 3 leaves crush with water and make paste, apply in snake bite or dog bite.

8. Scientific name: Neolamarkia cadamba L.
Family: Rubiaceae
Local name: cadamba(kadam)
Collected from: kaduchi village
Botanical description: Straight and large tree, green to yellowish leaves, alternate branches, red to orange colored flower, fruits are present which is small and fleshy.
Ethnomedicinal Use
Ailment: skin diseases, eyes problem, diarrhea
Useful part: Leaves, flower
Preparation method: crush leaves and make a powder, apply with water in skin infections.

9. Scientific name: Commelina benghalensis L**.**
Family: Commelinaceae
Local name: Bokanu
Collected from: sagan faliya village
Botanical description: Annual or perennial herb, weed plant, hairy or alternate leaves, small in Hight, light blue-white flower, thin root, underground stem.
Ethnomedicinal Use
Ailment: fever, treat indigestion
Useful part: whole plant
Preparation method: Take a plant part and make juice of it and take once in day for decrease fever.

10. Scientific name: Amaranthus viridis L.
Family: Amaranthaceae
Local name: Dhimdi
Collected from: Nani bhugedi (roadside area)
Botanical description: small herb, annual or weed plant, light green stem, smooth stem, small Hight, small green flower, branched present, green, and ovate leaves, silky and smooth leaves.
Ethnomedicinal Use
Ailment: Acne, lumps treatment
Useful part: leaves
Collected from: chinchani village
Preparation method: Take leaves crush with water and boil it and make paste, apply on acne treatment.

11. Scientific name: Phyllanthus reticulatas L.
Family: Phyllanthaceae
Local name: kamoii
Collected from: chinchani village
Botanical discription: Annual shrub plant, young stem is light reddish-brown or hairy, simple leaves, black and dark purple colored fruit are present, fruits are smooth and globose to oblate, brownish branches.
Ethnomedicinal Use
Ailment: Skin diseases, fever
Useful part: Stem, leaves
Preparation method: Leaves paste are used in skin ailments by directly applied on skin.

12. Scientific Name : Cocculus hirsutus L.
Family: Menispermaceae
Local name : vahuvelo
Botanical discription: evergreen shrub, climber plant, floweres are presnt in white to yellowish colored, fruit is colored in dark purple.
Ethnomedicinal Use
Ailment: fever
Useful part: Leaf
Preparation method: make a juice extract of leaves and take it in fever treatment.

13. Scientific name: Portulaca oleracea
Family: Portulaceae
Locak name: Luni
Collected from:
Botanical discription: Annual and weed plant , small hight, Smooth and alternate leaves, green leaf, reddish in colored, yellow flower**.**
Ethnomedicinal Use
Ailment: Heal wound
Useful part: whole plant
Preparation method: Crush the leaves and apply the paste directly on wounds.

14. Scientific name: Vitex negundo L.
Family: Lamiaceae
Common name : nagod
Botanical discription
Ehnomedicinal use
Ailment: Snake bite, Joints pain
Useful part: leaf, root
Preparation method : Juice of leaves are directly used in snake bite; take a leaves and roots juice in equal amount, add a oil in it and warm it and apply in joints pain part.

15. Scientific name: Euphorbia hirta
Family : Euphorbiaceae
Common name: Gachiyu
Botanical discription: Annual herb, small in hight, hairy stem**,** simple leaves, flowers are present
Ethnomedicinal Use
Ailment: snake bite ailment, asthma, cough
Useful part: Whole plant
Preparation method: make a paste of plant and apply it on snake bite; crush the leaves and make juice take it twice in day in asthma treatment.

Table.1 (List of plants used in medicine, useful part, and Ailments)

NO.	Scientific name	Common name	Family	Used part	Habit	Ailment
1.	Possiflora incarnata L.	Pandavvel	Passifloraceae	Leaves	Climber	Fever, diarrhea
2.	Sarcostemma acidum L.	Sandhvel	Apocynaceae	Whole plant	Climber	joints problem
3.	Chinopodium album L.	Chil ni bhaji	Chenopodiaceae	Whole plant	Herb	Eye disease, through pain
4.	Artocarpus heterophyllus L.	Fanas	Moraceae	Fruit, bark, leaves	Tree	Skin problem, diabetes, bloodcirculation
5	Commelina benghalensis L.	Bokanu	Commelinaceae	Whole plant	Shrub	Indigestion, fever
6.	Senna Occidentalis L.	Jungli puvad	Fabaceae	Leave, seed	Shrub	Bone treatment
7.	Euphorbia hirta L.	Gachiyu	Euphorbiaceae	Whole plant	Herb	Snake bite, fever, skin ailment
8.	Amaranthus viridis L.	Dhimdi	Amaranthaceae	Whole plant	Herb	acne, lumps treatment

9.	Datura stramonium L.	Dhaturo	Solanaceae	Fruit, leaves, root, seed	Shrub	Hair treatment Warm infection
10.	Neolamarkia cadamba L.	Kadamb	Rubiaceae	Flower, fruit	Tree	Diarrhea, skin disease, eyes problem, fever
11.	Portulaca oleracea L.	Luni	Portulaceae	Whole plant	Herb	Heal wounds
12.	Phyllanthus reticulatas L.	Kamoii	Phyllanthaceae	Leaves, stem	Tree/shrub	Fever, skin disease
13.	Cocculus hirsutus L.	Vahuvelo	Menispermaceae	Whole plant	Herb	Fever, skin problem
14.	Ziziphus mauritiana L.	Boradi	Rhamnaceae	Fruit, bark	Tree	Various disease cough, asthma
15.	Vitex negundo L.	Nagod	Lamiaceae	Leaves, root	Shrub	Snake bite, swelling problem, skin infection

PHOTO PLATE

Sarcostemma acidum L. Possiflora incarnata L.

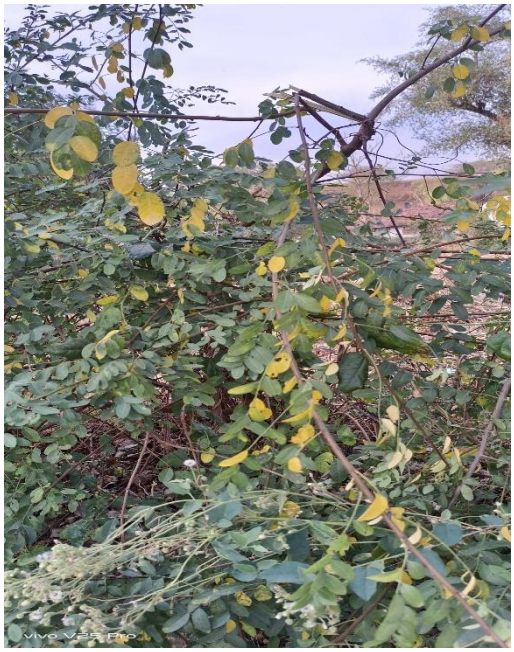
Artocarpus heterophyllus L. Chinopodiumalbum L.

Commelina benghalensis L. Portulaca oleracea L.

Senna Occidentalis L. Euphorbia hirta L.

Amaranthus viridis L. Ziziphus mauritiana L.

Datura stramonium L. Phyllanthus reticulatas L.



CONLUSION

The tribal people of santrampur taluka have immense knowledge of medicinal plants. There have been no negative impacts associated with using ethnomedicinal plants. They used the medicinal plants for various diseases. Also, they used the plants for their primary health care and traditionally purposes. In addition, this paper sheds some light on different traditional and medicinal aspects of plants as well as their practical uses.

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