Ethnomedicinal Uses of Xeric Flora in Tehsil Banda Daud Shah Collected from Distric Karak KPK Pakistan

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Abstract: The present study was an effort to document and investigate the ethnomedicinal uses of xeric flora in Tehsil Banda Daud Shah, District Karak and Pakistan. Results of the present study were based on medicinally important 21 species, belonging to 16 families. The dominant families include Mimosaceae with 3 species, followed by Asclepidaceae, Euphorbiaceae and Zygophyllaceae with 2 species each. These medicinal plants are used to cure different ailments like diarrhea, dysentery, headache, gonorrhea, joint pains, abdominal pain, stomach problem, toothache and skin diseases. These plant species have other benefits along with their medicinal value like food, fruits, fodder, wood and timbers. About 40 informants, including local peoples (Both men and women) and “Hakims” were interviewed for the collection of ethnomedicinal data through a questionnaire.

Key words: Xeric plants - Banda Daud Shah

INTRODUCTION

The term ethnobotany was first used by U.S botanist Harsh Berger in 1896. It is the combination of two words i.e., Ethno which means People and Botany means Plants. So term ethnobotany laterally means people and plants. It is related with the direct, medicinal, traditional and natural relationship of human with the environment. Ethnobotanists examine how plants are used in different fields such as food, shelter, clothing, hunting and ceremonies. Ethnobotanical studies have been becoming increasingly valuable in the development of healthcare and conservation programs in different part of the world. Plants contribute a lot to our lives mainly due to their extra-ordinary array of diverse classes of biochemical with a variety of biological activities. Twenty five percent of pharmaceutical drugs in United States are synthesized on the basis of chemicals from over forty plant species. Ethnomedicine is a sub-branch of ethnobotany/medical anthropology, which is related with the study traditional medicines; especially those, whose knowledge and practices have been orally transmitted from one generation to the other over centuries. Ethnomedicine practices are becoming more advanced in urban areas. With the migration of peoples from widely varied geographical location, the number of traditional healing clinics in the main cities become increasing. For example New York City has a larger population of Dominican (Native) healers. These healers migrated to United States along with their native tradition and healing processes. Their healing process generally consists of botanical therapies (Treatment), herbal medicines and native ethnomedicinal knowledge. Some of these plants are not locally grown and are imported from other areas. Plants can only be used in dried form. Plants in Pacific Islands contain a vital form of food, fiber, dye and other building materials. Among these important chemical substances are alkaloids, carbon compounds of hydrogen, oxygen, nitrogen, glycosides, essential oils and resins. For example Indian fever bark from the cinchona tree is used for the treatment of one common known disease, Malaria. The active chemical in the bark is alkaloid quinine. Alkaloid quinine can also be used for the treatment of other diseases besides Malaria.

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The word Unani is derived from the Arabic word “Tibb-e-Yunani” which means “Greek medicine”. The origin of unani system is deeply described in Greek and Arab medical history, with many principles and philosophical concepts proposed by the early physicians of these cultures in modern Unani system. For example, the ancient Greek Galen (1321-2010 A.D) was a medical practitioner and experimented the drugs derived from plants. He invented (Planed) a detail system of single plants medicines/treatment which is parallel to unani systems of “singles” Galles’s treatment with plant derived drugs to balance the basic qualities of heat, cold, moisture and dryness [8]. Nearly seventy percent of the population of urban and rural areas gets benefits from the Unani system of medicine in spite of very sophisticated (Complex) hospitals and allopathic practitioners which work under the Government of Pakistan. In rural areas, household treatment is being used for generations. “Tibb-e-Nabvi” provides base for the traditional unani system of medicine in Pakistan. Medicinal plants used by the practitioners of this systems, are easily available in the forest, mountains, valleys, gardens and agricultural fields. This system is relatively cheap and quite near to nature. In Indo-pak subcontinent, these traditional systems may be either Unani or Ayurvedic system [9]. Ayurvedic system is not only the medical system but also a physical and philosophical touch to life. It supposed humans as a microcosm (A thing representing something much larger) of the universe because all of the associated properties found in natural world are present in human conversely (Opposite), the aspects found in human being are also reflected in the universe. “Man is therefore a microcosm”. According to this philosophical concept, universe consists of four basic elements; earth, water, fire and air and the same components constitute the human body. A healthy person is one, in which these components are properly aligned, such as in sense of mind, body and soul. Any deviation from this balance result in psychological, physical and spirituals ailments (Minor illness) [10].

Indigenous medicine is now recognized worldwide as a health care resource. There are considerable economic benefits in the development of indigenous medicines and in the use of medicinal plants for the treatment of various diseases. The 74% of all plant-derived drugs in clinical use worldwide have been discovered through the investigation of ethnomedicinal uses of plants [11]. The use of ethnobotany is not only related to science but has an important role in conservation of nature and culture, particularly in the biodiversity and the diversity of local human cultures in the world. In fact conservation and biodiversity is linked with each other, for example, traditional medicine and food cultures. The use of edible plants differs from one place to another place. Traditional knowledge system is hundreds or thousands of years old and involved various plans for protection and utilization of plant resources. Therefore, ethnobotany has played an important role in past and will also play in the future to record (Documents) and describe traditional knowledge of medicinal and edible plants. It also plays an important role in description of other uses of plants in various human societies in the world. The point to be noted here is that the ethnobotany has been recognized (Known) as a research tool and viable approach for studying sustainable use of natural resources [12].

Ethnobotany has provided health care facilities. For example, People living in tribal region and in villages are using indigenous plants as medicine from long ago because this knowledge reaches to them through generation to generation and is based on experiences. Also the tribes and villages are far away from cities and mostly there are no health facilities. Also there are mostly poor or even middle class people and cannot afford the rising prices of synthetic drugs. Therefore local drugs are available for them [10]. Tehsil Banda Daud Shah is an important area of District Karak. Still, no ethnobotanical study has been conducted on this area. Therefore the present study was an effort to search the local medicinal uses of plants, which might be beneficial for the future phytochemists, pharmacologists, ethnobotanists and other associated researchers.

MATERIALS AND METHODS

The present study was undertaken for the collection of plant specimens and to explore the ethno botanical data of the area Tehsil Banda Daud Shah which has locally been used for the treatment of various diseases. For this purpose the area was visited in the year 2013. Keeping in mind the flowering period of plants, the collection was done in the month of April 2013. The materials used during the research project included map of the area, plant presser, notebook, pencil, newspaper, blotting paper, cutter, camera and polythene bags. Ethnobotanical information was gathered from the inhabitants of the area, which included aged people and Hakims. A questionnaire was used for the collection of data, which contain questions like:
What is your name?
How old are you?
Do you know any xerophytic medicinal plant in this area?
What are the local names of these plants?
Which parts of these plants are used?
How do you use them?
Where these medicinal plants are present?

About 40 informants were selected for the fulfillment of questionnaires. Plant specimens collected were arranged properly in the newspaper and then pressed by plant presser. To avoid fungal attack, the newspapers were changed at regular period. The preserved plants specimens were mounted on Herbarium sheets. The identifications were made according to Flora of Pakistan [13]. Specimens were deposited in the herbarium of Botany Department, Islamia College Peshawar, for further reference.

Description of Plant
Botanical Name: Acacia modesta Wall.
Family Name: Mimosaceae
Local Name: Wanna
Habit: Tree
Flowering period: March-May
Occurrence: Common
Part used: Gum, branches, leaves and wood.
Local Uses:

- the tips of young branches are used as a miswak (Toothbrush).
- The gum obtained from the bark is used as tonic and stimulant, either used directly or mixed with Ghee.
- The gum is also used in the preparation of “Halwa”, which is used as tonic by the women’s after the child birth.
- The leaves are used as an emollient and demulcent.
- The leaves are also used as a fodder for goats.
- The wood is extremely hard and used in the manufacturing of furniture and implements.

Medicinal Uses from Literature:
- The gum obtained from the tree, is restorative in function [14].
- Sweet meal from gum is effective for lumbago.
- Ash of bark along with mercury is used for paralysis, asthma and as aphrodisiac.
- Powder obtained from dry bark along with little amount of salt and sugar is used to cure chest pains and dysentery [15].

The tips of young branches are used as a miswak.
The gum obtained from the bark is used as tonic.
The seeds are used to cure dysentery.
The leaves and fruit are used as fodder for goats.
The pod contains a gelatinous liquid, which is used as a gum.
Wood is used in the manufacturing of furniture and agricultural equipment.

Medicinal Uses from Literature:
- The extract obtained from the wood is used as astringent in diarrhea and applied on spongy Gums.
- The powder of dry pods and bark is effective for lumbago, kidney pains, diabetes, Spermatorrhea, sexual disorders, phlegm, as tooth powder and as astringent.
- The leaves decoction is used to cure dysentery.
- The gum is used in the formation of sweat meal, which is effective for lumbago [15].
The bark is used to cure leucoderma, itching, skin diseases, piles, excessive perspiration and inflammation.

The leaves are effective in ophalmia.

The flowers are used to treat asthma and snake bite [14].

**Medicinal Uses from Literature:**
- The plant is very bitter, heating, laxative, anthelmintic; relieves stranguary; also cure the ulcers.
- The ashy plant act as an expectorant.
- The hot leaves are used to cure abdominal pain.
- The plant is used to cure leprosy, leucoderma and disease of spleen [14].

Description of Plant

Botanical Name: *Aloe vera* L.
Family Name: Liliaceae
Local Name: Zargiya
Habit: Shrub
Flowering Period: March-April
Occurrence: Common, especially in graveyard.
Part Used: Whole Plant; especially leaf gel.

Local Uses:
- The leaf gel is directly used to treat sugar and to purify blood.
- The leaf gel is also used to cure face spot, pimples etc.
- The leaf gel is mixed with hairs oil to stop hair falling.
- The leaf gel is used to control involuntary bowel.
- The warmed leaf is applied over the affected areas for the treatment of rheumatism, swelling and paralysis.
- The plant is locally considered as a wholly plant and is grown in the graveyard.

**Medicinal Uses from Literature:**
- Fresh jelly or cooked jelly along with mutton is used to treat phlegm, diabetes, rheumatism, headache, lumbago, stomach ulcer and liver disease.
- Jelly is astringent in function.
- Pickle of jelly is also recommended for diabetes.
- Jelly along with egg and curd is used as hair tonic.
- Jelly along with honey and turmeric is used as skin tonic [15].

Description of Plant

Botanical Name: *Calotropis procera* Acit.
Family Name: Asclepidaceae
Local Name: Spolmai
Habit: Shrub
Flowering Period: Throughout the year
Occurrence: Common especially on road sides.
Part Used: Whole plant.

Local Uses:
- The latex is used to reduce hand pain; also to remove thorn in the body, act as skin tonic.
- The latex is also used as slimming agent, it reduces extra fats.
- Powdered bark is used in dysentery.
- The roots and bark is used as expectorant.
- The stems are used as food either directly or cooked.
- The stem is used as blood purifier.
- The stem is also useful for sugar patients.
- The plant is also used as economic source by the local people.

**Medicinal Uses from Literature:**
- The plant is used to treat ulcers and asthma.
- The plant is also used to cure rheumatic pains.

Description of Plant

Botanical Name: *Capparis decidua* (Forsk.) Edgeeu
Family Name: Capparidaceae
Local Name: Kirra
Habit: Tree
Flowering Period: March-May
Occurrence: Common
Part Used: Bark, leaves, branches and fruit.

Local Uses:
- The bark and leaves are acrid in taste, laxative and anthelmintic, used to treat cough, asthma and inflammation.
- The extraction of leaves is used as blood purifier.
- The fruit is used to cure cardiac problems.
- The tips of young branches are used as fodder for goats.

**Medicinal Uses from Literature:**
- The plant is used to treat ulcers and asthma.
- The plant is also used to cure rheumatic pains.

Description of Plant

Botanical Name: *Caralluma tuberculata*
Family Name: Asclepidaceae
Local Name: Pawanna
Habit: Herb
Flowering Period: May-September
Occurrence: Common
Part Used: Stem.

Local Uses:
- The stem is used as food either directly or cooked.
- The stem is used as blood purifier.
- The stem is also useful for sugar patients.
- The plant is also used as economic source by the local people.

**Medicinal Uses from Literature:**
- The stem is directly eaten by diabetic patients or cooked.
The stem is carminative and used to cure stomach ache.

The stem is useful in rheumatism [16].

**Description of Plant**

**Botanical Name:** Dalbergia sissoo Roxb.

**Family Name:** Papilionaceae

**Local Name:** Shawa

**Habit:** Tree

**Flowering Period:** March-April

**Occurrence:** Un-Common

**Part Used:** Leaves, roots and wood.

**Local Uses:**

- The extraction of leaves is used for bathing purpose, as heat stimulant.
- The roots are used as astringent.
- The powdered wood is used in skin eruption and alterative in function.
- The juices of leaves are used as blood purifier.
- The wood is used in furniture, construction materials and timbers.

**Medicinal Uses from Literature:**

- The bark and wood are bitter, hot, acrid and used to cure skin diseases, ulcers and diseases of blood.
- The juices of leaves are anthelmintic, enriches the blood and also used in eye and nose disease
- The juice of leaves is used in scabies, scalding urine, syphilis and stomach troubles [14].

**Description of Plant**

**Botanical Name:** Dodonea viscosa L.

**Family Name:** Sapindaceae

**Local Name:** Zara wanna

**Habit:** Shrub

**Flowering Period:** January-March

**Occurrence:** Common

**Part Used:** Leaves and Branches.

**Local Uses:**

- The warmed leaves are applied around the joints for rheumatism.
- The leaves are also used for varicose; relieves vein swelling.
- The branches are used as fuel wood.

**Medicinal Uses from Literature:**

- The decoction of leaves is used as blood purifier.
- The juice of the aerial part is used by sugar patient.
- The juice is also used for cooling purpose.
- The juices are also used to relieve constipation.

**Description of Plant**

**Botanical Name:** Euphorbia helioscopia L.,

**Family Name:** Euphorbiaceae

**Local Name:** Chathrai botta

**Habit:** Herb

**Flowering Period:** February-March

**Occurrence:** Un-Common

**Part Used:** Milky latex and seeds.

**Local Uses:**

- The milky latex is poison but used to remove thorn from the skin.
- The oil extracted from the seeds is purgative.
- The seeds along with roasted peppers are used in cholera.

**Medicinal Uses from Literature:**

- An acrid, bitter, antiseptic herb that is used to expel phlegm and relieve spasms.
- The juices are used externally for burns and warts.
- The juices are used internally for asthma, bronchitis, emphysema, nervous cough, catarrh, hay fever and amoebic dysentery [17].

**Description of Plant**

**Botanical Name:** Fagonia cretica Linn.

**Family Name:** Zygophyllaceae

**Local Name:** Aspalagzia

**Habit:** Shrub

**Flowering Period:** March-April

**Occurrence:** Common

**Part Used:** Aerial part especially leaves.

**Local Uses:**

- The plant is used to treat fever, dysentery, urinary discharges, erysipelas, typhoid, alexipharmic, tumors and the blood.
- The plant is acrid and bitter and cooling; used for liver troubles, in chronic bronchitis, asthma, spitting of blood, opthalmia and toothache.
- The bark is used to treat scabies [14].

**Description of Plant**

**Botanical Name:** Melia azedarach L.,

**Family Name:** Meliaceae

**Local Name:** Bakianra

**Habit:** Tree

**Flowering Period:** March-April

**Occurrence:** Un-Common

**Part Used:** Leaves, fruits and seeds.

**Local Uses:**
The juice of leaves along with brassica oil is used to kill lice in the hairs.

The women wash their hairs with leaf extraction to kill lice’s.

The juices obtained from the leaves are used as blood purifier.

The seeds are used in rheumatism.

The fruits are carminative.

The leaves and fruits are also used as a fodder for animals.

Medicinal Uses from Literature:

The extract of leaves and powder of dry leaves is used to treat leprosy, constipation, allergy, skin diseases, jaundice, as blood purifier and pain killer [15].

The root is astringent to bowels, used to treat vomiting, leucoderma, belching, blood impurities, heart disease, ulcer, headache, uterine pains and fever.

Oil extracted from the seeds is a brain tonic, laxative and used to cure earache and liver problems.

The flowers and leaves are diuretic, emmengogue, used to relieve nervous headache and cold swelling [14].

The decoction of leaves is used to treat toothache.

The oil obtained from the fruits is used as rubefacient; relieves joints pain.

The olive oil is also effective in constipation.

The dried leaves are used in asthma.

The fruits are edible.

The wood of olea is very durable, used in the manufacturing of construction material and Agricultural implements.

The wood is also an economic source of some people.

Medicinal Uses from Literature:

The roots are effective for scorpion sting.

The fruit is useful in biliousness, liver disorders, thirst, burning of eye and caries of teeth.

The fruit is used as blood purifier.

The fruit is also used to increase blood.

Opuntia is considered best food for camels.

The plant is used for shelter.

The plant is locally cultivated around the field; to protect it from erosion.

Medicinal Uses from Literature:

The plant is bitter, laxative, stomachic, carminative and antipyretic.

The plant is used in urinary problems, tumors, piles, inflammation, anemia, ulcers and enlargement of spleen.

The flowers are used to cure bronchitis and asthma.

The juice of plant is heating, alexiteric and leucoderma.

The juice of plant is used to treat earache.

The fruit is used to cure gonorrhea [14].
• Hermaline and hermine obtained from the seeds are used for the treatment of parkinsonium.
• The seeds are narcotic, antispasmodic, hypnotic, anodyne, nauseant, emetic and Emagogue [14].

Medicinal Uses from Literature:
• The juice of leaves along with milk is given to cure eruption and an infusion of it is very useful for sore throat and low fever.
• The fruits and leaves are effective in boils and eruption.
• The plant is used as cooling medicine.
• The plant is also used to cure teeth and eye diseases [14].

Description of Plant
Botanical Name: Phoenix Sylvester’s Roxb.
Family Name: Palmeae
Local Name: Khajoor
Habit: Tree
Flowering Period: May-September
Occurrence: Common
Part Used: Whole plant.
Local Uses:

Medicinal Uses from Literature:
• The root is used as miswak (Toothbrush).
• The fruit is edible.
• The dried fruit is used as tonic.
• The fruit is used to treat heart problems.
• The fruit in dry form is used by women’s to increase lactation.
• The sticks are used for protection and building purposes.
• The sticks are also used to cover the dead body of women in time of transfer to grave.
• The leaves are locally used in the making of bags and baskets.
• The wood is also used for fuel purpose.

Description of Plant
Botanical Name: Rhazya Stricta Dene.
Family Name: Apocynaceae
Local Name: Ganderia
Habit: Shrub
Flowering Period: February-April
Occurrence: Common
Part Used: Leaves.
Local Uses:

Medicinal Uses from Literature:
• The roots are used to cure toothache.
• Fruits are used as tonic.
• The juice of the tree is laxative and used for cooling purpose.
• The extraction of leaves is used as cooling agent.
• The juice of leaves is used as blood purifier.
• The juice of the leaves is also used to cure skin rashes.
• The leaves are directly used as anticancer.
• The extraction of leaves is also used to treat digestive problems in animals.

Description of Plant
Botanical Name: Ricinus communis Linn.
Family Name: Euphorbiaceae
Local Name: Rhand
Habit: Shrub
Flowering Period: Throughout the year
Occurrence: Un-Common
Part Used: Leaves and seeds.
Local Uses:

Medicinal Uses from Literature:
• The decoction of leaves cures jaundice.
• The root extracts cure joints pain [19].
• The seeds are cathartic.
• Oil is useful for paralysis, muscle tonic and inflammation.
• The decoction or paste of root is used for piles.
• Leaves decoction is useful for asthma and cough [16].

Description of Plant
Botanical Name: Tamarix aphyla L.
Family Name: Tamarariaceae
Local Name: Ghaz
Habit: Tree
Flowering Period: February-May
Occurrence: Common
Part Used: Leaves and wood.
Local Uses:

Medicinal Uses from Literature:
• The extraction of leaves is used for hair coloration.
• The juice of leaves is used to cure blood infections like pimples, boils and itches.
• The smoke leaves are used to cure teeth swelling and cough.
The wood is used in the manufacturing of furniture, agricultural implements and as fuel wood.

Medicinal Uses from Literature:
- The galas are used as astringent.
- The bark is bitter and astringent.
- Powdered bark along with wit oil and kanala is used as an aphrodisiac; also used in Eczema and other diseases [14].

Description of Plant
- Botanical Name: Withania coagulans Dunal.
- Family Name: Solanaceae
- Local Name: Shopyanga to treat biliousness, burning sensation, thirst, Habit: Shrub
- Flowering Period: February-July
- Occurrence: Common
- Part Used: Leaves and fruits.
- Local Uses:
  - The juice of leaves is used as cooling agent.
  - The juice of leaves is also used as blood purifier.
  - The fruit is used to cure stomach ulcer.
  - The juices of leaves are also used as skin tonic; effective in urticaria, purities, acne and Freckle on face.

Medicinal Uses from Literature:
- The fruit of these plants are effective in digestive and liver disorders.
- The fruit is also used in cheese preparation [17].
- The fruit is used for digestive disorders, gastric and blood purification.
- The seeds are used for diabetes [18].

Description of Plant
- Botanical Name: Ziziphus jujuba Lam.
- Family Name: Rhamnaceae
- Local Name: Bera
- Habit: Tree
- Flowering Period: March-April
- Occurrence: Very common
- Part Used: Leaves, fruit and wood.
- Local Uses:
  - The leaves are used as emollient.
  - The fruit is edible and tonic.
  - The dried fruit is used for impotence, gastric and stomach ulcers.
  - The fruit is used to increase the quantity of semen (sperm).
  - The fruit is also used to cure early ejaculation.
  - The fruit is also used as economic source by the local peoples.
  - The leaves are also used as fodder for goats.

RESULT AND DISCUSSION

Important and locally used, 21 plants, belonging to 16 families were collected from the area of the study. All the species are angiosperm, out of which one is monocot and remaining 20, are dicot Mimosaceae is the dominant family with three species followed by Asclepiadaceae, Euphorbiaceae and Zygophyllaceae with two species each. Liliaceae, Capparidaceae, Papilionaceae, Sapindaceae, Meliaceae, Apocynaceae, Tamaraceae, Solanaceae and Rhamnaceae is represented by single species each.

Locally these plants are used for treatment of various diseases. The medicinal plants distribution is given in the Tables 1-5.

Table no. 1 indicates that Acacia modesta, Wall., Acacia nilotica (Linn) Delile, Peganum harmala L., Phoenix sylvestris Roxb. And Ziziphus jujuba Lam. are used as tonic. These results are in conformation with, Ahmad et al. [14], Mushtaq et al. [15] and Mahmood et al. [18]. As revealed by table no. 2 that Acacia nilotica (Linn.) Delile, Albizia lebbeck (Linn.) Bth Calotropis procera Acit., Fagonia cretica Linn., Olea ferruginea Royle., Peganum harmala L., Ricinus communis Linn., Withania coagulans Dunal. and Ziziphus jujuba Lam. are used in gastrointestinal disorders. The same uses are reported by Mushtaq et al. [15], Guishan et al. [17], Mahmood et al. [18] and Reddy et al. [19]. According to table no. 3. the plants Aloe vera L., Capparis decidua (Forssk.) Delile, Albizia lebbeck (Linn.) Bth Calotropis procera Acit., Fagonia cretica Linn., Melia azedrach L., Opuntia monocaantha Haw., Peganum harmala L., Rhazya stricta Dene. and Withania coagulans Dunal. are used as cooling agent and blood purifier. These results are in conformation with Ahmad et al. [14], Mushtaq et al.
### Table 1: Drugs used as tonic

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Family Name</th>
<th>Local Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia modesta, Wall.</td>
<td>Mimosaceae</td>
<td>Wanna</td>
</tr>
<tr>
<td>Acacia nilotica (Linn.) Delile</td>
<td>Mimosaceae</td>
<td>Kiker</td>
</tr>
<tr>
<td>Peganum harmala L.</td>
<td>Zygophyllaceae</td>
<td>Sponda</td>
</tr>
<tr>
<td>Phoenix sylvestris Roxb.</td>
<td>Palmeae</td>
<td>Khaajoor</td>
</tr>
<tr>
<td>Ziziphus jujuba Lam.</td>
<td>Rhamnaceae</td>
<td>Bera</td>
</tr>
</tbody>
</table>

### Table 2: Drugs used in gastrointestinal disorders (diarrhea, dysentery, constipation, dyspepsia and abdominal pain).

<table>
<thead>
<tr>
<th>Botanical Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Acacia nilotica (Linn.) Delile</td>
<td>Mimosaceae</td>
<td>Kiker</td>
</tr>
<tr>
<td>Albizia lebbeck (Linn.) Bth</td>
<td>Mimosaceae</td>
<td>Sirin</td>
</tr>
<tr>
<td>Calotropis procera Acit.</td>
<td>Asclepidaceae</td>
<td>Spolmai</td>
</tr>
<tr>
<td>Fagonia cretica Linn.</td>
<td>Zygophyllaceae</td>
<td>Aspalgzai</td>
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<tr>
<td>Olea ferruginea Royle.</td>
<td>Oleaceae</td>
<td>Shuna</td>
</tr>
<tr>
<td>Peganum harmala L.</td>
<td>Zygophyllaceae</td>
<td>Sponda</td>
</tr>
<tr>
<td>Ricinus communis Linn.</td>
<td>Euphorbiaceae</td>
<td>Rhand</td>
</tr>
<tr>
<td>Withania coagulans Dunal.</td>
<td>Solanaceae</td>
<td>Shopyanga</td>
</tr>
<tr>
<td>Ziziphus jujuba Lam.</td>
<td>Rhamnaceae</td>
<td>Bera</td>
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</tbody>
</table>

### Table 3: Drugs used as cooling agent and blood purifier

<table>
<thead>
<tr>
<th>Botanical Name</th>
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<th>Local Name</th>
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<tbody>
<tr>
<td>Aloe vera L.</td>
<td>Liliaceae</td>
<td>Zargiya</td>
</tr>
<tr>
<td>Capparis decidua (Forsk.) Edgeeu</td>
<td>Capparidaceae</td>
<td>Kirra</td>
</tr>
<tr>
<td>Caralluma tuberculata</td>
<td>Asclepidaceae</td>
<td>Pawan</td>
</tr>
<tr>
<td>Dalbergia sissoo Roxb.</td>
<td>Papilionaceae</td>
<td>Shawa</td>
</tr>
<tr>
<td>Fagonia cretica Linn.</td>
<td>Zygophyllaceae</td>
<td>Aspalgzai</td>
</tr>
<tr>
<td>Melia azedrach L.</td>
<td>Meliaceae</td>
<td>Bakianra</td>
</tr>
<tr>
<td>Opuntia monocanth Haw.</td>
<td>Cactaceae</td>
<td>Zarkam/Parropai</td>
</tr>
<tr>
<td>Peganum harmala L.</td>
<td>Zygophyllaceae</td>
<td>Sponda</td>
</tr>
<tr>
<td>Rhazia stricta Dene.</td>
<td>Apocynaceae</td>
<td>Ganderia</td>
</tr>
<tr>
<td>Withania coagulans Dunal.</td>
<td>Solanaceae</td>
<td>Shopyanga</td>
</tr>
</tbody>
</table>

### Table 4: Remedies of wounds and skin diseases

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Family Name</th>
<th>Local Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acacia modesta, Wall.</td>
<td>Mimosaceae</td>
<td>Wanna</td>
</tr>
<tr>
<td>Albizia lebbeck (Linn.) Bth</td>
<td>Mimosaceae</td>
<td>Sirin</td>
</tr>
<tr>
<td>Aloe vera L.</td>
<td>Liliaceae</td>
<td>Zargiya</td>
</tr>
<tr>
<td>Calotropis procera Acit.</td>
<td>Asclepidaceae</td>
<td>Spolmai</td>
</tr>
<tr>
<td>Dalbergia sissoo Roxb.</td>
<td>Papilionaceae</td>
<td>Shawa</td>
</tr>
<tr>
<td>Euphorbia helioscopia L.,</td>
<td>Euphorbiaceae</td>
<td>Chatri bota</td>
</tr>
<tr>
<td>Rhazia stricta Dene.</td>
<td>Apocynaceae</td>
<td>Ganderia</td>
</tr>
<tr>
<td>Tamarix aphyla L.</td>
<td>Tamaraceae</td>
<td>Ghaz</td>
</tr>
<tr>
<td>Withania coagulans Dunal.</td>
<td>Solanaceae</td>
<td>Shopyanga</td>
</tr>
<tr>
<td>Ziziphus jujuba Lam.</td>
<td>Rhamnaceae</td>
<td>Bera</td>
</tr>
</tbody>
</table>

### Table 5: Remedies of multipurpose

<table>
<thead>
<tr>
<th>Botanical Name</th>
<th>Family Name</th>
<th>Local Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calotropis procera Acit.</td>
<td>Asclepidaceae</td>
<td>Spolmai</td>
</tr>
<tr>
<td>Capparis decidua (Forsk.) Edgeeu</td>
<td>Capparidaceae</td>
<td>Kirra</td>
</tr>
<tr>
<td>Euphorbia helioscopia L.,</td>
<td>Euphorbiaceae</td>
<td>Chatri bota</td>
</tr>
<tr>
<td>Melia azedrach L.</td>
<td>Meliaceae</td>
<td>Bakianra</td>
</tr>
<tr>
<td>Olea ferruginea Royle.</td>
<td>Oleaceae</td>
<td>Shuna</td>
</tr>
<tr>
<td>Peganum harmala L.</td>
<td>Zygophyllaceae</td>
<td>Sponda</td>
</tr>
<tr>
<td>Withania coagulans Dunal.</td>
<td>Solanaceae</td>
<td>Shopyanga</td>
</tr>
<tr>
<td>Ziziphus jujuba Lam.</td>
<td>Rhamnaceae</td>
<td>Bera</td>
</tr>
</tbody>
</table>

Uses: Slimming agent, expectorant, purgative, vermifuge and fever, laxative, antihelmintic, cough, asthma and cardiac problem, purgative and cholera, kill lice, rheumatism and carminative, rubefacient, rheumatic, joint and asthma, stomach ulcer and urticarial, impotence and ulcers.
[15], Riaz Ullah et al. [16], Gulshan et al. [17] and Mahmood et al. [18]. As shown in table no. 4 Acacia modesta, Wall., Albizia lebbeck (Linn.) Bth, Aloe vera L., Calotropis procera Acit., Dalbergia sissoo, Euphorbia helioscopia L., Rhazya stricta Dene., Ricinus communis Linn., Tamarix aphylla L., Withania coagulans Dunal. and Ziziphus jujuba Lam. are used to treat wounds and skin diseases. The same results are supported by Mushtaq et al. [15], Gulshan et al. [17], Mahmood et al. [18] and Reddy et al. [19]. The plants Calotropis procera Acit., Capparis decidua (Forssk.) Edgeuw., Euphorbia helioscopia L., Melia azedarach L., Olea ferruginea Royle., Peganum harmala L., Withania coagulans Dunal and Ziziphus jujuba Lam. as shown in table no. 5 are used for multipurpose like slimming agent, expectorant, purgative, vermifuge, fever, laxative, cough, asthma, cardiac problems, cholera, rheumatism, carminative, rubefacient, antiseptic, ulcer and impotence. Same uses are described by, Ahmad et al. [14], Gulshan et al. [17] and Mahmood et al. [18]. Tehsil Banda Daud Shah has a rich flora and most of these species are wild. People collect the plants in their proper season and prepare drugs by themselves and use when they need. Though the people mostly depend on allopathic drugs but in the remote areas, these traditional practices are still very common. The aim of the present study was to document and investigate the traditional knowledge of useful medicinal plants and also their screening for their future pharmaceutical activities.

CONCLUSIONS

The present study investigated the ethnomedicinal uses of xeric flora in Tehsil Banda Daud Shah, of District Karak. About 40 informants were interviewed for the collection of data. The informants included local people (both men and women) and “Hakims”. It was found that in total 21 species, belonging to 16 families, were utilized by the inhabitants of the area for the treatment of various diseases. The main diseases are diarrhea, dysentery, headache, gonorrhea, joint pains, abdominal pain, stomach problems and toothache and skin diseases. The plant species are also used for various purposes such as fodder, fruits, wood and timber. The percentage of medicinal plants was found more in the hilly areas instead of plain areas. The main causes of vanishing of the medicinal plants include;

- Absence of irrigation system.
- Uses of fodder species.

- Cultivation of crops.
- Construction of houses.

Recommendations: The effort of the government as well as the local people, for the protection of important medicinal plants, is necessary. The government efforts, for the preservation include; plantation, irrigation system and protection. For the local peoples; it is necessary that they should protect, avoid deforestation and overgrazing and document the traditional knowledge of the medicinal plants. These efforts can bring better protection for the important medicinal plants.

REFERENCES


