



ISSN Print: 2664-6064
ISSN Online: 2664-6072
Impact Factor: RJIF 5.2
IJAN 2021; 3(2): 19-26
www.agriculturejournal.net
Received: 13-06-2021
Accepted: 29-07-2021

Shakir Ullah
Institute of Botany Chines
Academy of Science, China

Rehan Ullah
Department of Botany, Bacha
Khan University Charsadda
Khyber Pakhtunkhwa,
Pakistan

Lubna Shakir
Department of Botany, Govt
Post Graduate College
Timergara Dir Lower Khyber
Pakhtunkhwa, Pakistan

Rizwan Ullah
Department of Zoology,
Shaheed Benazir Bhutto
University, Sheringal Khyber
Pakhtunkhwa, Pakistan

Corresponding Author:
Shakir Ullah
Institute of Botany Chines
Academy of Science, China

Medicinal uses of selected plants of Tehsil Munda District Lower Dir KPK, Pakistan

Shakir Ullah, Rehan Ullah, Lubna Shakir and Rizwan Ullah

DOI: <https://doi.org/10.33545/26646064.2021.v3.i2a.68>

Abstract

A comprehensive survey of medicinal plants was carried out in Tehsil Munda. A total of 50 plant species were collected from March to September along with their local name, botanical name, family, habit, part use and ethno-botanical use. Herbaceous cover was dominated with 20 species (40%) followed by trees with 17 species (34%) and then by shrubs with 13 species (26%). medicinal plants are the main basic source of the phytochemicals i.e., alkaloids, tannins, Phlobatannins, flavonoids, carbohydrates, phenols, saponin, cardiac glycosides, proteins, glycosides and terpenoids. The phytochemical analysis of the medicinal plants is also important and have commercial interest in both pharmaceuticals companies and research institutes for the formation of the new medicine for treatment of several diseases. The anti-bacterial, anti-inflammatory, analgesic, antidiuretic, anti-viral, anticancer, anti-malarial and anti-fungal activities of the medicinal plants are due to the presence of the above present phytochemicals. The local area (Dir Lower) is rich in medicinal plants and can be used for curing different diseases instead of using imported medicines. The extraction of different chemicals from the local plants can also be done to support Pakistan's health issues and economy. But unfortunately due to unawareness of the indigenous peoples these plants are going to be endangered because they uproot and demolish these plants for burning purposes mostly. Indigenous knowledge regarding medicinal plants collection and their proper mode of administration should be collect from the local people to preserve these plants properly.

Keywords: Chhani, consumption, fuel-wood, households, Lanchaan

1. Introduction

Bagh is an administrative subdivision of Lower Dir District in the Khyber Pakhtunkhwa province of Pakistan. It is lying between 34.9117° North latitude and 71.6436° longitudes and is listed among Munda and Barawal. Tehsil Munda is situated at the north of District Dir lower, south of Bajaur agency, east of District Malakand and at west of Afghanistan. The area is rangy (Mountainous) and the inhabitants are untutored and uneducated. Also they are deprived of needful facilities like transport, proper schooling, vast marketing and trading. Although farming has been the major source of income in most of the villages and inhabitants are mostly depend upon agriculture. Luckily majority of the lands are fertile and under irrigation. They cultivate vegetables and crops for themselves also send it to the local mini markets. From these local markets further it is transported to the mega markets for trading. By such ways most of the inhabitants support their selves financially. Major crops are wheat, rice, maize, mustard and barely. Beside it, some of the inhabitants are passengers in foreign countries i.e. Saudi Arabia, Dubai etc. they support their life financially by doing waging there, and a number of the young persons are engaging in the transportation of different vehicles in Karachi and other cities as well as in Munda. Moreover, some are shopkeepers in different markets of Samar Munda Bazars. Extraordinarily they are in educational departments because of low literacy rate. Phytochemicals (from the Greek word phyto, meaning plant) are biologically active, naturally occurring chemical compounds found in plants, which provide health benefits for humans further than those attributed to macronutrients and micronutrients (Hasler and Blumberg, 1999). They protect plants from disease and damage and contribute to the plant's color, aroma and flavor. In general, the plant chemicals that protect plant cells from environmental hazards such as pollution, stress, drought, UV exposure and pathogenic attack are called as phytochemicals (Gibson *et al.*, 1998). Recently, it is clearly known that they have roles in the protection of human health, when their dietary intake is significant. More than 4,000 phytochemicals have been cataloged and are classified by protective function, physical characteristics and chemical characteristics

and About 150 phytochemicals have been studied in detail (Meagher and Thomson 1999). In wide-ranging dietary phytochemicals are found in fruits, vegetables, legumes, whole grains, nuts, seeds, fungi, herbs and spices. Broccoli, cabbage, carrots, onions, garlic, whole wheat bread, tomatoes, grapes, cherries, strawberries, raspberries, beans, legumes, and soy foods are common sources (Moorachian, 2000). Phytochemicals accumulate in different parts of the plants, such as in the roots, stems, leaves, flowers, fruits or seeds⁷. Many phytochemicals, particularly the pigment molecules, are often concentrated in the outer layers of the various plant tissues. Levels vary from plant to plant depending upon the variety, processing, cooking and growing conditions (King and Young, 1999). Phytochemicals are also available in supplementary forms, but evidence is lacking that they provide the same health benefits as dietary phytochemicals (Harvey and Strategy, 2000). These compounds are known as secondary plant metabolites and have biological properties. Such as antioxidant activity, antimicrobial effect, modulation of detoxification enzymes, stimulation of the immune system, decrease of platelet aggregation and modulation of hormone metabolism and anticancer property. There are more than thousand known and many unknown phytochemicals. It is well-known that plants produce these chemicals to protect themselves, but recent researches demonstrate that many phytochemicals can also protect human against diseases (Rao, 2003) constituents, depending on their role in plant metabolism (Balasundram *et al.*, 2006). Primary constituents include the common sugars, amino acids, proteins, purines and pyrimidines of nucleic acids, chlorophyll's etc. Secondary constituents are the remaining plant chemicals such as alkaloids, terpenes, flavonoids, lignins, plant steroids, curcumins, Saponins, phenolic, flavonoids and glucosides. Literature survey indicate that phenolics are the most numerous and structurally diverse plant phytoconstituents (Mandal *et al.*, 2010) ^[6].

2. Materials and Methods

2.1 Choice of study

Ethno medicinal survey will carry in summer seasons during (2021) in different village of Tehsil Munda District Dir lower the important information about medicinal and ethno medicinal plants were obtained from the local people which are used in the treatment of different diseases in Dir lower.

2.2 Field Work

Field work was carried out in order to investigate the ethno botany, plant diversity and conservation status of the flora of Tehsil Munda. The field work includes interviews, observations and guided field walks / transects walks. Two methods were frequently used during the field work.

2.3 Observations

This method is based on observations in the field conditions. These observations were made while visiting different villages. During this process, local methods of medicinal plants collection, storage, drying, harvesting time, processing and utilization were observed and noted. In the meantime, all the plants during flowering/fruitlet stage were collected, pressed and preserved.

2.4 Interviews

During field work, interviews were conducted with the local inhabitants, selected informants, the herbalists, 'hakims' (local physicians of eastern system of medicine), pansaries (medicinal plants sellers in the local markets). Questionnaires were adopted during the surveys in order to get qualitative and participatory approach about the plant resources and their utilization by the local people. Questions concerning the utility of different plants, quantity of plants used, rate of consumption, availability, economics/market value and fuel wood /fodder head loads had been asked.

2.5 Ethno botany

The plants of ethno botanical importance were collected and classified on the basis of their utility in the area. Local people including plant collectors and other on the basis of age group were interviewed for ethno botanical information of the area. The timings for field work were selected according to the growth and collection season of the plants. Population size and its distribution, languages, ethnic affiliation, history of settlement, major social groups or classes, productive activities, subsistence crops, migration trends etc. were also explored during the field work (Martin, 2010).

3. Results

In the current study ethno-botanical importance plant of Munda district lower Dir an overall of 50 valuable plants assembles from the research region. These plants belong to different families. The dominant valuable plants and the bases of habit were herbs (32 species) followed by shrubs (8 species) and tree (10 plant species,) Complete detail of the plant, local name, botanical name, habit, family, components of plant use and ethno-botanical utilizations are as follows.

Plant No: 1

Botanical name: *Ajugba parviflora* Benth

Family: Lamiaceae

Local name: Kauri Booti

Habit: Shrub

Part used: Leaves

Ethno-botanical uses: Used in curing pimples, pimples, headache, stomach acidity and pimples.

Plant No: 2

Botanical name: *Amaranthus viridis* L.

Family: Amaranthaceae

Local name: Chorlai

Habit: Herb

Part used: Leaves

Ethno-botanical uses: For Diuretic, lithasis, headache swelling and used food and fodder.

Plant No: 3

Botanical name: *Cannabis sativa* L.

Family: Cannabaceae

Local name: Bhang

Habit: Shrub

Part used: Seeds, leaves

Ethno botanical uses: Pleasant excitement and astringent.

Plant No: 4

Botanical name: *Sisymbrium irio* L.

Family: Brassicaceae

Local name: Ginger**Habit:** Shrub**Part used:** Seeds**Ethno-botanical uses:** Seeds are used in dropsy**Plant No: 5****Botanical name:** *Chenopodium album* L.**Family:** Chenopodiaceae**Local name:** Sarmay**Habit:** Shrub**Part used:** Seeds, leaves and roots**Ethno-botanical uses:** Use as fodder, urinary problem, and worm killer.**Plant No: 6****Botanical name:** *Convolvulus arvensis* L.**Family:** Convolvulaceae**Local name:** Perwathy.**Habit:** Herb**Part used:** Whole plant**Ethno-botanical uses:** Use for fuel young plant are grazed by the cattle and skin disorders.**Plant No: 7****Botanical name:** *Fumaria indica* (Husskn.) H.N. Pugsley**Family:** Fumariaceae**Local name:** Shahtra**Habit:** Herb**Part used:** Whole plant**Ethno-botanical uses:** It is used as a fodder as well as fuel. Shoots are also used in diarrhea, blood purifier and fever.**Plant No: 8****Botanical name:** *Morus alba* L.**Family:** Moraceae**Local name:** Spen Toot**Habit:** Tree**Part used:** Root, leaves**Ethno-botanical uses:** Fruits are edible and wood is used for furniture as well as for the treatment of throat infection.**Plant No: 9****Botanical name:** *Ricinus communis* L.**Family:** Euphorbiaceae**Local name:** Arhanda**Habit:** Tree**Part used:** Whole plant**Ethno-botanical uses:** Leaves are purgative, poisonous and narcotic.**Plant No: 10****Botanical name:** *Solanum nigrum* L.**Family:** Solanaceae**Local name:** Kaach Maacho**Habit:** Shrub**Part used:** Fruits and leaves**Ethno-botanical uses:** Younger leaves as used for curing fever and flue cough. Dehydrated fruits are utilized for stomach ailments.**Plant No: 11****Botanical name:** *Withania somnifera* (L.) Dunal.**Family:** Solanaceae**Local name:** Kotilal**Habit:** Shrub**Part used:** Roots**Ethno-botanical uses:** Root paste is applied in painful swellings, bleeding wounds as well as ulcers and as well used for cure of asthma.**Plant No: 12****Botanical name:** *Phoenix dactylifera* L.**Family:** Arecaceae**Local name:** Khajoor**Habit:** Tree**Parts used:** Fruit**Medicinal uses:** It is used as an aphrodisiac and tonic.**Plant No: 13****Botanical name:** *Calotropis procera* (Willd.) R. Br.**Family:** Asclepiadaceae**Local name:** Spulmay**Habit:** Shrub**Parts used:** Leaves, flowers, latex**Medicinal uses:** Remove Intestinal pain, inflammation and respiratory disease.**Plant No: 14****Botanical name:** *Brassica campestris* L.**Family:** Brassicaceae**Local name:** Sharrsham**Habit:** Shrub**Parts used:** Leaves,**Medicinal uses:** Used as food and fodder. Beautification skin disease, Asthma and cough disease.**Plant No: 15****Botanical name:** *Dalbergia sissoo* Roxb.**Family:** Fabaceae**Local name:** Shawa**Habit:** Tree**Parts used:** Whole plant**Medicinal uses:** Use for fuel and fodder.**Plant No: 16****Botanical name:** *Melia azedarach* L.**Family:** Meliaceae.**Local name:** Toora shandai**Habit:** Tree**Parts used:** Leave, fruit**Medicinal uses:** Leaf extract is employed for antimicrobial agent, blood purification as well as used for animal food.**Plant No: 17****Botanical name:** *Acacia nilotica* (L.) Deliled.**Family:** Mimosaceae**Local name:** kikar**Habit:** Tree**Parts used:** Fruit and seeds**Medicinal uses:** Used for fuel as well as fodder.**Plant No: 18****Botanical name:** *Morus nigra* L.**Family:** Moraceae**Local name:** Toor Tooth**Habit:** Tree**Parts used:** Leaves, fruit

Medicinal uses: Used for cooling agent, astringent and cleaning throat.

Plant No: 19

Botanical name: *Eucalyptus camaldulensis* Dehnh.

Family: Myrtaceae

Local name: Laachi

Habit: Tree

Parts used: Leaves

Medicinal uses: Leaves are used to prepared Joshanda to relieve flu. Leaves are used to cure Diarrhea.

Plant No: 20

Botanical name: *Psidium guajava* L.

Family: Myrtaceae

Local name: Amrood

Habit: Tree

Parts used: Leaves and fruit

Medicinal uses: Used as a tonic. It is also useful to expel abdominal worms.

Plant No: 21

Botanical name: *Cynodon dactylon* (L.) Pers.

Family: Poaceae

Local name: Kabal

Habit: Herb

Parts used: Root, leaves

Medicinal uses: Used for animal and also use for cough, dysentery and stones.

Plant No: 22

Botanical name: *Citrus sinensis* (L.) Osbeck

Family: Rotaceae

Local name: Malta

Habit: Tree

Parts used: Fruit

Medicinal uses: It is used for appetizer along with tonic and also given to the constipating patients.

Plant No: 23

Botanical name: *Datura alba* Nees

Family: Solanaceae

Local name: Dhatura

Habit: Shrub

Parts used: Whole plant,

Medicinal uses: Leaves are smoked to cure asthma.

Plant No: 24

Botanical name: *Vitis vinifera* L

Family: Vitaceae

Local name: Angoor

Habit: Shrub

Parts used: Fruit

Medicinal uses: Fruit is used like a common tonic and laxative.

Plant no.: 25

Botanical name: *Osmium bacilicum* L

Family name: Lamiaceae

Local name: Kashmally

Habit: Herb

Part used: Leaves and flower

Ethnobotanical uses: Used as a food, shelter and fodder, Antioxidants skin and antipyretic disease.

Plant no.: 26

Botanical name: *Nerium oleander* L

Family name: Apocynaceae

Local name: Gandhery

Habit: Herb

Part used: Roots and bark

Ethnobotanical uses: Use for fodder beatification, shelter Asthma and heart attack.

Plant no.: 27

Botanical name: *Plantago lanceolate* L.

Family name: Plantaginaceae

Local name: Ghwa jabbi

Habit: Herb

Part used: Whole plant

Ethnobotanical uses: Respiratory, skin, insect and infection.

Plant no.: 28

Botanical name: *Debregeasia saneb* F.

Family: Urticaceae.

Local Name: Karwarra.

Habit: Shrub

Parts used: Fruits leaves.

Ethnobotanical uses: Used as a fruit fodder, fuel and Used for blood purification, and stomach.

Plant no.: 29

Botanical name: *Sunchus aspera* L

Family name: Asreraceae

Local name: Shoda pii

Habit: Herb

Part used: Whole plant

Ethnobotanical uses: Used as food for farm animals.

Plant no.: 30

Botanical name: *Trifolium vesipinatum* L.

Family name: Fabaceae

Local name: Shaftal

Habit: Herb

Part used: Whole plant

Ethnobotanical uses: It is used as food for farm animals. The seeds utilized for pimples.

Plant no.: 31

Botanical name: *Populus alba* L

Family name: Salicaceae

Local name: Sufedad

Habit: Tree

Part used: Whole plant

Ethnobotanical uses: Used like a fodder, timber, fuel and furniture.

Plant no.: 32

Botanical name: *Narcissus Poeticus* L

Family name: Amaryllidaceae

Local name: Goli Nargas

Habit: Herb

Part used: Flowers

Ethnobotanical uses: It is used for ornamental purposes.

Plant no.: 33

Botanical name: *Diospyros kaki* L.

Family name: Ebenaceae

Local name: Amlook

Habit: Tree**Part used:** Fruit**Ethnobotanical uses:** Fruit is suitable for eating; Leaves are utilized as food and fuel.**Plant no.:** 34**Botanical name:** *Galium aparine* L.**Family:** Rubiaceae**Local name:** Jalakai**Habit:** Herb**Part use:** Whole plant.**Ethnobotanical uses:** Used as Antidiuretic.**Plant No:** 35**Botanical Name:** *Allium sativa*. L**Family:** Amaryllidaceae**Local Name:** Ouaga.**Habit:** Herb**Parts used:** Whole plant.**Ethnobotanical uses:** Use as a food. Arteries, high blood pressure and heart diseases.**Plant no:** 36**Botanical name:** *Morus lavaegata* Wall. ex Brandis**Family name:** Moraceae**Local name:** Shah toot**Habit:** Tree**Part used:** Whole plant**Ethnobotanical uses:** Fruit is edible. Leaves are utilized as food for farm animals.**Plant no.:** 37**Botanical name:** *Ficus carica* L**Family name:** Moraceae**Local name:** Inzar**Habit:** Tree**Part used:** Fruit and leaves**Ethnobotanical uses:** It is use as fuel and fodder for the shelter. Diabetic, migraine, diarrhea**Plant no.:** 38**Botanical Name:** *Verbascum Thapsus* L.**Family:** Scrophulariaceae.**Local Name:** Khurdug.**Habit:** Herb**Parts used:** Flower leaves.**Ethnobotanical uses:** Fruits, fuel, shelter. Tuberculosis, cough, asthma.**Plant no.:** 39**Botanical name:** *Mentha longifolia* (L.)**Family name:** Lamiaceae**Local name:** Enally**Habit:** Herb**Part used:** Leaves**Ethnobotanical uses:** It is used to relieve abdominal pain and reduce gastric acidity.**Plant no.:** 40**Botanical name:** *Monothea buxifolia* (Falc.) A. DC.**Family name:** Sapotaceae.**Local name:** Gurgora**Habit:** Tree**Part used:** Whole plant**Ethnobotanical uses:** The plant is grazing through animals and the fruits are used human food. It is also used for curing Asthma and antipyretic.**Plant no.:** 41**Botanical name:** *Myrtus communis* L**Family name:** Moraceae**Local name:** Manrro**Habit:** Shrub**Part used:** Fruit and leaves**Ethnobotanical uses:** It is used as foddors. It is also practices to cured animal respiratory and digestive disorder.**Plant no.:** 42**Botanical Name:** *Xanthium strumarium* L.**Family:** Asteraceae.**Local Name:** Geeshy.**Habit:** Herb**Parts used:** Whole Plant.**Ethnobotanical uses:** Used as fodder, tonic, fuel and in digestive problems.**Plant no:** 43**Botanical Name:** *Zizyphus Jujube* Mill.**Family:** Rhamnaceae**Local Name:** Berra**Habit:** Tree**Parts used:** Whole plant**Ethnobotanical uses:** It is used as food, fuel, Shelter and also for skin disease.**Plant no:** 44**Botanical name:** *Cedrus deodara* (Roxb. ex D. Don) G. Don**Family name:** Pinaceae**Local name:** Diyar**Habit:** Tree**Part used:** Whole plant**Ethnobotanical uses:** It is used as a food as well as for the treatment of Dysentery, Diarrhea and Urinary problems.**Plant no:** 45**Botanical Name:** *Coriandrium sativum* L.**Family:** Apiaceae**Local Name:** Dania**Habit:** Herb**Parts used:** Leaves, Fruit.**Ethnobotanical uses:** Used as food and fodder and Skin disease, Asthma, blood purifier, cardiac and respiratory disease.**Plant No:** 46**Botanical Name:** *Datura innoxia* Mill.**Family :** Solanaceae**Local Name:** Batura**Habit:** Herb**Parts used:** Whole plant.**Ethnobotanical uses:** Fuel and shelter, Tonic, Dysentery and diabetic disease.**Plant no:** 47**Botanical Name:** *Papaver somniferum* L.**Family:** Papaveraceae.**Local Name:** Doda, kash.**Habit:** Shrub

Parts used: Seeds, latex.

Enthnobotanical uses: Used as fodder, fuel and also utilized for Dysentery and diarrhea.

Plant no: 48

Botanical name: *Medicago denticulata* Willd.

Family name: Fabaceae

Local name: Feshitary

Habit: Herb

Part used: Leaves

Ethnobotanical uses: Used as food and for sugar control.

Plant no: 49

Botanical name: *Malva neglecta* Wallr

Family name: Malvaceae

Local name: Panerak

Habit: Herb

Part used: Leaves

Ethnobotanical uses: Food and pain.

Plant no: 50

Botanical name: *Taraxicum officinale* (L.) Weber ex F.H. Wigg.

Family name: Asteraceae

Local name: Zyarr gully

Habit: Herb

Part used: Roots

Ethnobotanical uses: Roots are used in diabetes and for kidney problems.

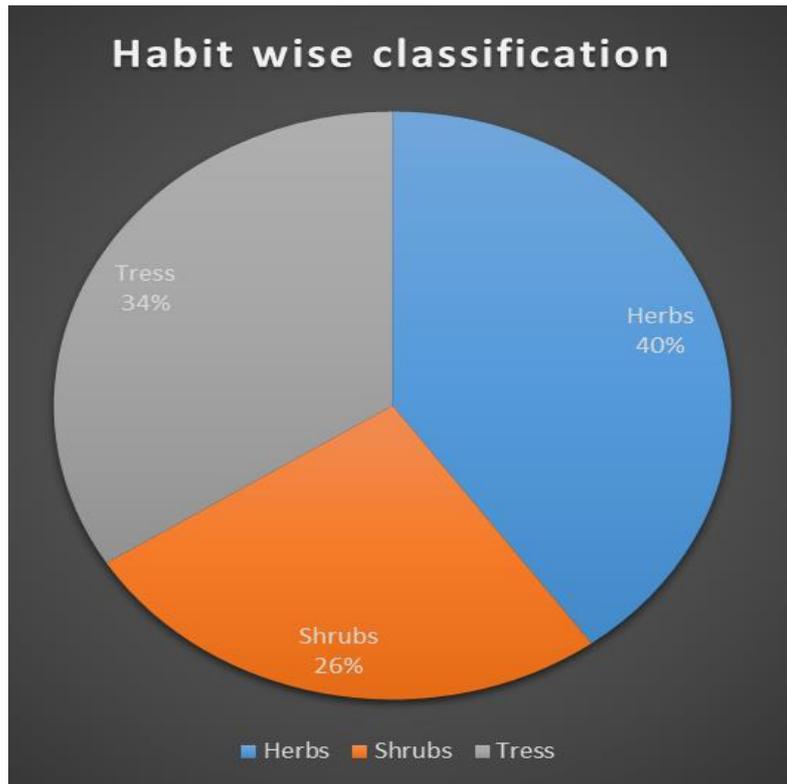


Fig 1: Representation of herbs, shrubs and trees

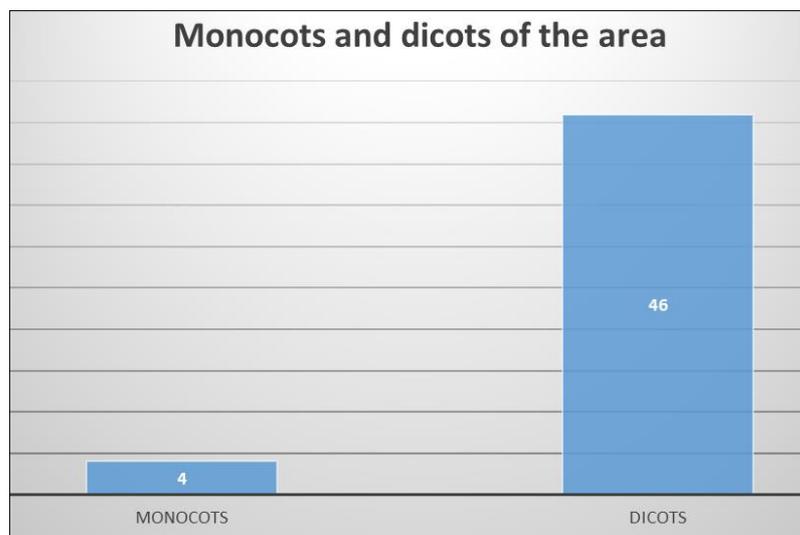


Fig 2: Monocots and dicots representation

4: Discussion

Traditional medicines are a vital and often underestimated part of health care. Nowadays, it is practiced in almost every country of the world. Its demand is currently increasing rapidly in the form of alternative medicine (Aziz, 2018). Ethno medicinal plants have been widely applied in traditional medicine systems to treat various ailments. About 80% of the populations in developing countries rely on medicinal plants to treat diseases, maintaining and improving the lives of their generation (Tuasha, 2018). Traditional knowledge has a long historical cultural heritage and rich natural resources that has accumulated in the indigenous communities through oral and discipleship practices (Ouelbani, 2016). Traditional indigenous knowledge is important in the formulation of herbal remedies and isolates bioactive constituents which are a precursor for semisynthetic drugs. It is the most successful criterion for the development of novelties in drugs (Fabricant DS. 2001). A total of 40 medicinal species including 40 vascular plant species belonging to 26 families. The current study reveals that the family Asteraceae represents eight species followed by seven species of Lamiaceae and Rosaceae each which showed a higher number of medicinal plants. Three species were contributed by each of Moraceae, Asclepiadaceae, Polygonaceae, Brassicaceae, Solanaceae, Cucurbitaceae, and Amaryllidaceae. While the remaining eight families, namely, Poaceae, Zingiberaceae, Chenopodiaceae, Plantaginaceae, Apiaceae, Fabaceae, and Zygophyllaceae, contributed two species each. Asteraceae, Lamiaceae, and Rosaceae were also reported with a high number of plants used for medicinal purposes. The high dependency on traditional healers is due to limited and inaccessible health facilities. Most people either take recipes from local healers or select wild medicinal plants prescribed by them. Some elders also knew how to preserve medicinal plant parts for future use. Traditional knowledge of medicinal plants is declining in the area due to lack of interest in the young generation to acquire this traditional treasure. Furthermore, most traditional health healers and knowledgeable elders hesitate to disseminate their recipes. Therefore, traditional knowledge in the area is diminishing as aged persons are passing away. Vernacular names of plants are the roots of ethno medicinal diversity knowledge (Khasbagan, 2008). They can clear the ambiguity in the identification of medicinal plants within an area. It also helps in the preservation of indigenous knowledge of medicinal plants. The medicinal plants were mostly reported with one specific vernacular name in the investigated area. The species with high use value need conservation for maintaining biodiversity in the study area. However, in the present case, no project or programs for the conservation of forest or vegetation are operating. Grazing and unsustainable medicinal uses were observed as the chief hazard to highly medicinal plant species. The higher use of herbs can be attributed to their abundance, diversity, and therapeutic potentials as antidiabetic, antimalarial, antipyretic, antiulcerogenic, antipyretic, blood purifier, and emollient and for blood pressure, hepatitis, stomach pain, and itching. *Aloe Vera*, cultivated for ornamental purpose, is used as wound healing agent. Among the plant parts, the higher use of fruit may relate to its nutritional value. The aerial parts of the herbaceous plants were mostly collected in abundance and frequently used for medicinal purposes. In many recipes,

more than one part was used. The utilization of roots, rhizomes, and the whole plant is the main threat in the regeneration of the medicinal plants (Ahmad *et al.*, 2009). A roasted bulb of *Allium cepa* is wrapped on the spine-containing wound to release the spine. Furthermore, its fruit is used as brain tonic, and its roasted form is useful in the treatment of dysentery. The whole plant decoction of *Ajugba bracteosa* is used for blood purification. Dried leaves and flowers of *Mentha longifolia* are used as a remedy for jaundice, fever, asthma, and high blood pressure (Khan SW, 2008). The antiulcer effect of *Solanum nigrum* fruit extract on cold restraint stress, indomethacin, pyloric ligation, and ethanol-induced gastric ulcer models and ulcer healing activity on acetic acid-induced ulcer model in rats. The information was collected and recorded for different conservation attributes by following International Union for Conservation and Nature. It was reported that seven species (8.7%) were endangered due to the much collection, anthropogenic activities, adverse climatic conditions, small size population and distribution in limited area, specificity of habitat, and over grazing in the research area. However, the below-mentioned species were found to be endangered. Traditional knowledge can also contribute to conservation and sustainable use of biological diversity.

5. Conclusion

The current medicinal survey was carried out on medicinal plants of Tehsil Munda Khyber Pakhtunkhwa. A total of 50 plant species were collected from March to September along with their local name, botanical name, English name, family, habit, part use, method of use and medicinal use. Herbaceous cover was dominated with (40%) species followed by trees with (22%) species and then by shrubs with (25%) species. We concluded that the studied area is rich floristically with medicinal plants and is important medicinally and economically. But unfortunately due to unawareness some medicinally and economically important plants like *Pinus* species having high market value which are cutting with an alarming rate. Because of over utilization, over collection, over exploitation, habitat degradation, overharvesting, deforestation, population explosion, over grazing and deforestation the area is under high biotic pressure.

6. References

1. Ahmad I, Beg AZ. Antimicrobial and phytochemical studies on 45 Indian medicinal plants against multi-drug resistant human pathogens. *Journal of ethnopharmacology*. 2001;74(2):113-123.
2. Ahmed E, Arshad M, Saboor A, Qureshi R, Mustafa G, Sadiq S. Ethnobotanical appraisal and medicinal use of plants in Patriata, New Murree, evidence from Pakistan. *Journal of Ethnobiology and Ethnomedicine*. 2013;9(1):1-10.
3. Ali A, Badshah L, Hussain F, Shinwari ZK. Floristic composition and ecological characteristics of plants of chail valley, district Swat, Pakistan. *Pak. J Bot*. 2016;48(3):1013-1026.
4. Ali H, Muhammad Z, Khan WM, Jelani G, Majeed A. Floristic inventory and ecological attributes of plant resources of Hazar Nao Hills, District Malakand Pakistan. *Pakistan Journal of Weed Science Research*, 2018, 24(3).

5. Badshah L, Hussain F, Sher Z. Floristic inventory, ecological characteristics and biological spectrum of rangeland, District Tank, Pakistan. *Pak. J Bot*, 2013;45(4):1159-1168.
6. Dabur R, Gupta A, Mandal TK, Singh DD, Bajpai V, Gurav AM. Antimicrobial activity of some Indian medicinal plants. *African Journal of Traditional, Complementary and Alternative Medicines*. 2007;4(3):313-318.
7. Hamayun M. Ethnobotanical profile of Utror and Gabral valleys, district Swat, Pakistan. *Ethnobotanical leaflets*. 2005;1:9.
8. Haq F, Rahman F, Tabassum I, Ullah I, Sher A. Forest Dilemma in the Hindu Raj Mountains Northern Pakistan: impact of population growth and household dynamics. *Small-scale Forestry*. 2018;17(3):323-341.
9. Haq F, Waseem LA, Rahman F, Ullah I, Tabassum I, Siddiqui S. Environmental Changes in the Hindu Raj Mountains, Pakistan. *Environment and Natural Resources Journal*. 2019;17(1):63-77.
10. Hussain F, Shah SM, Badshah L, Durrani MJ. Diversity and ecological characteristics of flora of Mastuj valley, district Chitral, Hindukush range, Pakistan. *Pak. J Bot*. 2015;47(2):495-510.
11. Hussain T. A floristic description of flora and ethnobotany of Samahni Valley (AK), Pakistan. *Ethnobotanical Leaflets*. 2009;7:6.
12. Ibrahim M, Khan MN, Ali S, Razzaq A, Zaman A, Iqbal M. Floristic composition and species diversity of plant resources of rural area "Takht Bhai" district Mardan, Khyber Pakhtunkhwa, Pakistan. *Medicinal and aromatic Plants (Los Angeles)*. 2019;8(338):2167-0412.
13. Kumar SJ, Devi PR, Rejitha S. Medicinal Plant Diversity across the Vallavilai Coastal Villages of Kanyakumari District.
14. Qamer FM, Abbas S, Saleem R, Shehzad K, Ali H. Forest cover change assessment in conflict-affected areas of northwest Pakistan: The case of Swat and Shangla districts. *Journal of Mountain Science*, 2012;9(3):297-306.
15. Rios JL, Recio MC. Medicinal plants and antimicrobial activity. *Journal of ethnopharmacology*. 2005;100(1-2):80-84.
16. Tiwari D, Sah AN, Bawari S, Bussmann RW. Ethnobotanical investigations on plants used in folk medicine by native people of Kumaun Himalayan Region of India. *Ethnobotany Research and Applications*. 2020;20:1-35.
17. Ullah S. Ecological Study of Different Communities Site from District Lower Dir Laram Timargara Khyber Pakhtun Khwa Pakistan. *Journal of Botany*. 2017;1(1):60-78.
18. Zeb A, Hamann A, Armstrong GW, Acuna-Castellanos D. Identifying local actors of deforestation and forest degradation in the Kalasha valleys of Pakistan. *Forest Policy and Economics*. 2019;104:56-64.