

MEDICINAL PLANTS USED FOR ETHNOBOTANICAL PURPOSES IN U/C PASHTA OF KARO DARA TEHSIL WARI DIR UPPER, KHYBER PAKHTUNKHWA, PAKISTAN

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Abstract

The goal of current study was to explore and document the traditional and indigenous knowledge of plants from the remote area of karo Dara U\C pashta Upper dir. Tehsil wari Khyber pakhtunkhwa, Pakistan Ethno botanical data was collected from February 10, 2023 to August 20, 2023.the data was collected through questionnaire and semi organized interviews from local communities, such as Hakeem and herbalists, local farmers, men, women, and children. Information such as regional name, common name, parts use and medicinal uses was wisely recorded during an interview.in this study of knowledge all 35 medicinal plants species from 27 families which were used to treatment of different disorders were recognized. Plants species were recorded where 15 species of herb (50%) 10 species of shrub (14%) and 10 species of tree (15%).the plants parts frequently used were leaves (40%), followed by fruits (10%),whole plants (15%), stem (5%),seeds (12%), roots (9%), flowers and barks(13%), rhizome(5%).of each. The percentage of each family that was used recorded, between these families,5 species (12%) were of family Lamiaceae, three species of family Rosaceae,(5%) two species of family plantaginaceae,(3%) and Meliaceae,the rest of the families i.e Cannabinaceae,Pinaceae,Araliaceae, Hypericaceae, Pteridaceae, Ranunculaceae, Iridaceae, Violaceae, Lamiales, Oxalidaceae, Cupressaceae, Baslsaminaceae, Monimiaceae, Gesneriaceae, grossulariaceae, Athriaceae, Polygonaceae, Ebenaceae, Berberidaceae, Taxacaeae, Juglandaceae, Urticaceae, pittosporacaeae ,had one or individuals species(2%) of each.the medicinal plants that were documented in this study frequently for many purposes and mostly used to treat different types of pain(i.e. abdominal pain, joint pain ,throat pain, tooth pain, etc.)about (31%),cough, fever(10%),core throat constipation ,dysentery(5%),and also used as purgative carminative digestive (3%),tonic and gastrointestinal (7%).antiseptic and antipyretic(4%) etc. the purpose of current study was to identify the medicinal impression of some plants in remote area of karo Dara u|c pashta tehsil wari district dir upper in this study will be recover conservation of medicinal plants in the karo Dara tehsil wari dir. upper Khyber pakhtunkhawa, Pakistan.

INTRODUCTION

CHAPTER 1

Himalayas. Before the independence of Pakistan,

Dir was a princely state, and it remained so until is a region in northwestern Pakistan in the Khyber Pakhtunkhwa, in the foothills of the

Dir 1969 when it was abolished by a presidential declaration,^[1] and the Dir District was created the following year. The area covers 5,280 square kilometres. In 1996 Dir district was officially divided into Lower Dir District and Upper Dir District.

The district is between Chitral and Peshawar. It is bordered by Chitral to the northwest and north, Swat to the east, Malakand to the south, Bajaur to the southwest, and Afghanistan to the west.^{[2][3]}

At the time of independence, Dir (princely state) was a state ruled by Nawab Shah Jehan Khan. It was merged with Pakistan in 1969 and later on declared as a district in 1970. In 1996, it was bifurcated into Upper and Lower Dir districts. This district is situated in the northern part of Pakistan.

Upper Dir (Pashto: **ډير بالا**) is one of the 26^[10] districts of Khyber Pakhtunkhwa.

Upper Dir District is 3,699 square kilometres in area and formed part of the former Malakand Division, lying along the Pakistan-Afghanistan border between Chitral, Bajaur Agency and Lower Dir.

It is connected with the Kohistan District via the Badawi Pass and connected with Chitral District through Lawari Pass and with Afghanistan through Bin Shai Pass.

Except for Dir and a number of rapidly growing bazaar towns along the main roads, the population is rural, scattered in more than 1200 villages in the deep narrow valleys of the Panjkora and its tributaries. Of these, notable villages.

One of the Karo Dara U/C Pashta.

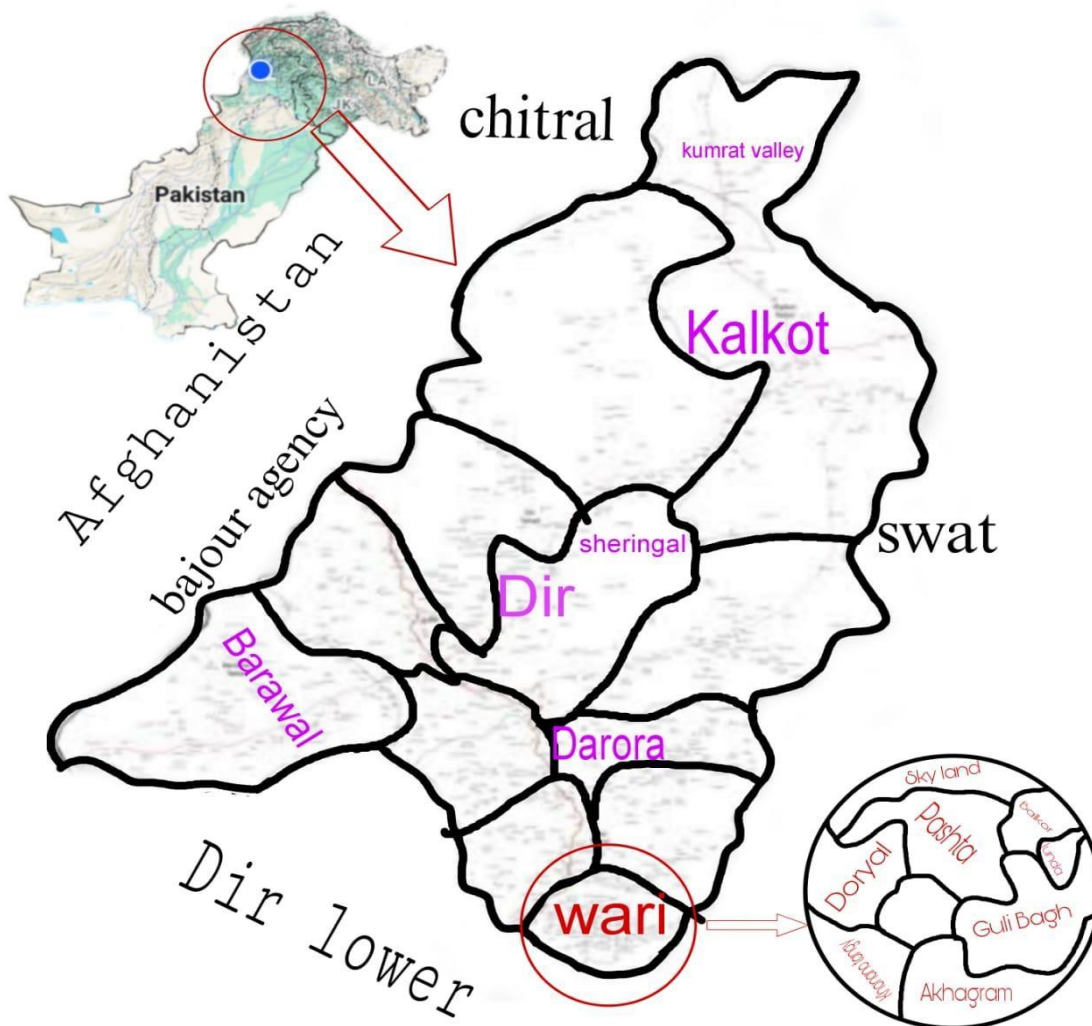
The present study highlights the local knowledge of medicinal plants located in different villages of Karo Dara U/C Pashta. Karo Dara is situated in District Dir Upper. It is densely populated area. One of the surveys claims that its population has exacerbated from twenty thousands. It has many recognizable tourist spots such Skyland Valley, Karo Top and Saily Top. The people of the area are extremely hospitable and friendly. Thousands of tourists visit

This area every year which are received with amiable hearts. The Dara is unexplored due to lack of attention from the high ups. The people of Karo Dara is totally depended on remittances.

Although, Karo Dara is full of natural beauty but less facilitated due to lack of due attention. There is no recognizable health facilities in the area in case of any emergency the patients is referred to Timargara.

In fact Karo Dara is fully ignored but naturally rich area. It habitat many medicinal plants which are extremely helpful for human health.

MAP



**CHAPTER 2
LITERATURE REVIEW**

2.1 Introduction to Ethno botany
Plants sustain the balance of nature for continuance of life on this planet and study discourse of association between plants and individuals. Named as “Ethno botany” (Khanum *et al.*, 2022). The study of utilization of native plant species of a particular region or culture by local people is called ethno botany (Ikram *et al.*, 2015). Ethno botany as a multidisciplinary science that has a lot to offer the field of health. Ethno botany involves the precise knowledge about plant resources, local people’s socio-economics and ethno medicinal traditional knowledge of plant. It should be documented

and integrated as much as possible to understand indigenous and traditional knowledge about their utilization (Mahmood *et al.*, 2011). The ethno botanical research on how indigenous populations use plants is useful for preserving traditional practices, developing new medicines and preserving biodiversity (Farooq *et al.*, 2014; Gairola *et al.*, 2021). It has been shown that native people’s use of plants to cure ailments in traditional medical systems contributed to the creation of plant-derived drugs in contemporary pharmaceuticals (Kumari *et al.*, 2022). Plant resources supply the entirety of a region’s human population with all necessary nutrients for survival, including food, forage, fodder, and feed. They also give shelter, medicines, and aesthetic

value (Ishtiaq *et al.*, 2022). People continue to use natural medicine (El Khomsi *et al.* 2022). The majority of people who live in rural regions view medicinal plants as their primary source of medication. (Maqsood *et al.*, 2022). The identification of medicinally important and fragrant plants is aided by the study of ethno botany, serving as the foundation for the development of new medications. Most allopathic pharmaceuticals are made from these plants which has essential ethno-medical compounds (Rashid & Arshad, 2002; Arif *et al.*, 2021). The indigenous communities almost all of the traditional knowledge and the usage of medicinal

plant is passed down through the generations (Abidullah *et al.*, 2019). It is still significant in today's world as evidenced by the fact that 85% of the world's population utilizes it as their primary healthcare provider and that it is the source for the creation of 80% of all synthetic medications. The inter-relationship of cultural diversity & plants biodiversity has vital co-relationship and in life of man plants play vital role (Khanum *et al.*, 2022). With advanced technology wealth, combine with chemo-diversity, biodiversity, huge innovations are necessary to develop a library of drugs from the screening of plant products using evolutionary methodologies and a plethora of knowledge about natural goods (Khan *et al.*, 2022). Ethno botanical research concentrated on making a plant contribution biological diversity information taking into consideration the biodiversity and awareness of human of the applications, utilizations and conservation of natural resource on one side and on the other side using this information for additional scientific and social and intervention (Ahmad *et al.*, 2011).

). Ethno botany, is systematic discourse of association between the plants and living being An American botanist. John Hershberger coined the word „ethno botany, „in 1896he embarked on the history of ethno botany. Literal meaning of the term ethno botany is the interaction and association between the plants and ethical values of human. Beings there is intense correlation

between plants as well as human beings which varies due to relative importance, uses and variable „cultural ,social and” racial factors, (Peshawar & abro, 2007). Ethno botanical revisions commonly determine the regionally crucial plant species, particularly for finding the fundamental drugs. Ethno botanical certification of classical comprehension has established many essential sources of plants that occur in latest globe drugs. These medicinally effective plants are mandatory contribute for means of poor inhabitants all over the globe higher plants have approximately 258,650species the planetary market for therapeutic and odoriferous plants was eight hundred sixty two billion in 2002 and can extend eighty five trillion by 2050

(shinwari, 2010) one of the considerable reason for usage of plants as therapeutics is that therapeutically plants are composed of active compounds mixtures having side effects neutralizing and synergistic effects. (Gianni, 2005). Out of total 6000 species of higher plants that are present in Pakistan, 12%species has therapeutics uses, (Shinwari, 2011).therapeutic drugs are utilized for the treatment of both beasts as well as living beings ,primarily, the plant species have particularly uses for specific sickness but plants are considered for countless usages major collectors of medicinal plants are woman as well as children due to extra amassment, certain species of plants has become extinct in the regions of Hindu Kush-Himalayan regions (Shinwari, 2010).41 therapeutic species are reported by Arshad (1999) from the vicinity of pir Mehr Ali shah Arid Agriculture, university,Rawalpindi.

Amaranthaceous, Asteraceae, Euphorbiaceae, Malvaceae, Solanaceae, Amaranthaceous, and Papilionaceae were found as most crucial families. A lot of studies has conducted in the various regions of Pakistan on therapeutically importance of plants but my studies explore the extra information of ethno botanically effective species of plants .for instance, therapeutically important species of plants,shinwari *et al.*(2002) that are present in the Northern areas of Pakistan ,such as Bar and shinaki valleys,shinwari *et,al.*(2003) out of 34pharmaceutical plants

,they found 5 endangered,18 susceptible and 19 infrequent inventory of greater than 500species including flowering plants “pictorial guide of medicinal plants of Pakistan”was published by shinwari et al.2005)

2.2 Historical perspective of Ethno botany

The ethno botany origins return to the previous era whenever life of the first human on earth began. And he utilized the need for wild natural resources (Ajaib *et al.*, 2021). The history of ethno botany is as old as human civilization itself, since people have been using plants for sustenance and medicine ever since the dawn of time. In 1896, John Harsh Berger was the first person to use the phrase "ethno botany" (Amjad, 2015). In order to make sure that the native measure is converted to the sensible consume of resources, cultural information & successful preservation of biodiversity Ethnobotanical study aids in the creation of local community priorities (Ahmad *et al.*, 2011). Almost every civilization on earth is aware of the medical benefits of plants. Due to the lack of synthetic medications, those who live in isolated areas have a strong understanding of how to use botanicals (shah *et al.*, 2013).

Plant species are the most essential and important sources of conventional drugs which are utilized in order to treat of several ailments and disorder (Shuaib *et al.*, 2019). About 4, 22,000 angiosperm plant species documented from the worldwide, additionally 50,000 have been utilized for medical goals globally (Adnan *et al.*, 2015). Medicinal species of plant were utilized in several nations throughout the world for thousands of years (Seifu *et al.*, 2004). In developing countries traditional medicine is based on plants around the worldwide medicine goes back 100,000 years (Razzaq *et al.*, 2013). Humans are mostly dependent on plants species for therapeutics and medicine and now 70%population of all over the world depends their primary healthcare necessities on medicinal herbs (Ahmad *et al.*, 2013). On the basis of an estimate among 35,000 to 70, 00 species of plant

are used in tribe medicine in all over the globe (Farnsworth and Soejarto, 1991). As opposed to that, approximately 80% worldwide People, especially in underdeveloped nations, use traditional medicines to treat a variety of illnesses because they have fewer adverse effects and are more afford able (Hassan *et al.*, 2021).

To ensure that these species of plant are utilized to treat a different ailments medications and natural therapies are being discovered daily to treat problems, and the study of ethno botany has gained in importance globally in recent years (Abidullah *et al.*, 2019). The usage of the species of advance medicine has significantly expanded, as opposed to indigenous knowledge is slowly declining as a result of fast increasing in urban population and reliance of human on modern systems of care of health, apart from this tribe system still

success in the rural people (Ahmad *et al.*, 2014). Maybe as a result of the scarcity of therapeutic plants found in nature (Ali and Qaiser, 2009). In developed nations the percent of people are decreased, that was utilize the traditional and cultural medicine such as42% the USA, 48% Australia,49% France, 40-50% Germany etc (Titz,2004).

2.3 Importance of Ethno botany

The importance of ethno botany is manifold Ethno botany provides knowledge on the traditional uses of plants; this knowledge can be used towards the development of societies The study of ethnobotany tells us about unknown but useful plants and also helps in understanding the new uses of many plants that are already known to us

Ethnobotany is essential for tribal groups of people

Tribal people mostly depend on forest products for their daily needs and primary health care Tribal people collect food oils, medicines, gums, dyes and tannins from the forests, and these groups of people in the Northeast region of India depend on the forest and its products for their basic needs, even today

Many tribes practice shifting cultivation, which is also known locally as “jhum cultivation”. In this

type of cultivation, a patch of land is cleared, crops are grown on that land, and when the soil loses its fertility after growing one or two crops, the people leave the land, move towards other parts of the forest, and continue this process. Medicinal plants also provide a source of drugs for the majority of the global population today. This is referred to as medico-ethno botany. This aspect also shows us the importance of ethno botany.

During the last few decades, some drugs such as quinine, cocaine, digoxin, and taxol have been discovered from plants, due to the knowledge of ethno botany.

Some of the bioactive compounds such as artemisinin, gossypol, hype ricin, etc. have also been recently discovered due to the understanding of the relationship between plants and society.

Ethno botany also encourages awareness for establishing a link between biodiversity and cultural diversity as well as the mutual influence of plants and humans.

Therefore it is necessary for people in our country to understand the different aspects of ethno botany.

2.4 Position of Medicinal plants in Pakistan

Pakistan is in a particularly advantageous position among emerging nations and has huge potential in numerous various diversities of medicinal species plant due to different climatic factors and adoption (Shuaib *et al.*, 2019). Pakistan is home to several thousand species of plant and the northern belt of the Pakistan, in particular, is considered a reservoir of significant species of plant which are utilized for several aims (Abbas *et al.*, 2021). Pakistan ranks 7th in Asia for medicinal plant production (Hussain *et al.*, 2022). There are about 6000 higher species of plants are found in Pakistan, six thousand species of higher plants are found, out of these six 6000 plant species 12% plant are used medicinally (Shinwari *et al.*, 2011). Half of these 6000 species (3000 species) have been found in northern regions. 124 of these 3000 species have important therapeutic

components (Sharif *et al.*, 2018). In the hilly areas approximately 84% people of Pakistan utilize medicinal plants for medicinal purposes (Hassan *et al.*, 2021).

The usage, investigation, and documentation of indigenous knowledge are made possible by Pakistan's contemporary stance on ethno botany, strengthening the nation's natural wealth. Furthermore, according to an estimated about seven hundred species of plant are utilized for food and medical aims (Shinwari *et al.*, 1996; Ijaz *et al.*, 2022). Today's allopathic or clinical medications come from natural sources in greater than 50% of cases

(Adnan *et al.*, 2014). Local population of various areas of Pakistan utilized the plant species by native and local people for several aims since for long periods. From one generation, these valuable information has been moved to next generation. This plants are consumed to treat many types of diseases and disorders, out of cuts to wounds, headache to stomach ache etc. (Ikram *et al.*, 2015).

Many types of therapeutic species of plant were discovered and their preservation and traditional use were documented by (Shinwari and Khan, 2000). 25 different types of medicinal plants were found in the Kahuta district and Rawalpindi and A sum of 124 active plants are listed in Chiltan National Park, Quetta (Durrani *et al.*, 2010). Traditional uses of these plants were also listed (Qureshi and Khan, 2001). One hundred, twenty, one plants species was reported these are derived from the Shawar Valley and utilized for many purposes (Hussain *et al.*, 2006). In the Hazar Nao forest in Malakand, 92 species of vascular plants from 56 families were documented (Murad *et al.*, 2012). From the village charmang, Bajaur, Khyber Pakhtunkhwa province of Pakistan 39 families and 58 genera, representing 64 different species of therapeutic plants, were recorded by (Abidullah *et al.*, 2019). Being applied by the native populations to cure a range of human disease. There are 33 plant species that are utilized to cure different gastrointestinal disorder that are recorded from the Midan valley area of Dir, Pakistan (Sirajuddin

et al., 2003). 52 plant species from the Derro Pezo district of Lakki Marwat were documented, along with their traditional applications (Zahoor *et al.*, 2009). Ethno-botanical use of one hundred forty plant species of 53 families were documented from Dabargai Hill in the district Swat (Khaliq and Hussain, 1995). A total 39 species of plant from 30 various families and from 36 different genera were collected in 2013 the seasons of spring and summer at district Dir upper (Sharifullah, 2016). There are an estimated around 25,000 species of plant, or 10% of all plant species in the world, are thought to exist in the Hindu Kush Himalaya, of which 10,000 plant species or 2/3 are beneficial and has been studied (Pie, 1992). The local uses of one hundred fifty species of plant from two villages (Shuki Sair and Bar Ghabair) were studied (Shinwari, 2003). 10 medical plant species were reported to have been extracted and sold to the national and foreign markets for a sum of Rs. 15.9 million, while there are 55 plant species which are historically utilized as healing agents (Rehman *et al.*, 2003). In Birma, South Waziristan 72 species of plant were recorded (Farooq *et al.*, 2012). A total of 30 therapeutic plants, 22 weeds having medical properties, and 18 kinds of pure weeds were reported (Islam *et al.*, 2006).

A total of 131 plant species from 48 families, including 2 Pteridophytes, 4 Monocots, and 42 Dicots, were included in the ethno medical data (Shah *et al.*, 2013). Through interviews, questionnaires, and group discussions, all 90 plant species from 53 different families were researched (Hassan *et al.*, 2021). Anyhow, due to development and a lack of elderly consumers, the usage of these plants by the local population is declining with time. Therefore an accurate concentration should be given to protect and preserve the natural sources earlier the knowledge of such valuable plant species lost permanently (Shuaib *et al.*, 2019).

2.5 Aims & Objectives

The aims of this work is to identify the medicinal impact of some plants in Karodara U/C Pashta

Dir Upper Khyber Pakhtunkhwa while objectives of the research work are as under.

1. To bring awareness among people about the use of local herbs.
2. To encourage the use of herbs for good health.
3. To know whether the people are aware about to use of medicinal plants.
4. To encourage and promote these wild created herbs for its nutritional values.

CHAPTER

Method and Materials

3.1 Study area.

The study was conducted in Uc pashta valley of karo Dara in District Dir upper which is part of Malakand Division Khyber Pukhtunkhwa Pakistan. The area located between 34° 58' N latitude and 72° 95' E longitude in sub-tropical try temperate part of Hindu Kush range surrounded by Swat in the East, the Bajur agency and Afghanistan in the west, District Dir lower in the south while Chitral in the North. However part of the district also lies in moist Temperate area of the country. It is one of the 24 district of KPK province and covers in area of 3,699 sqkm². The forest in the form of woodlots are located close to one another.

The total population of the district is 6,12,960 and almost all the district lies in the valley of Panjkora River which raise high in the Hindu Kush at lat. 35° 45' and join the Swat River at Sharbatayi Meta near Chackdara in Malakand district at lat. 34° 40'.

3.2 Climate

The climate of the study area is broadly described is continental with four distinct seasons and relatively long winters. There is only one meteorological station in the study area. The pattern of the rainfalls, relative humidity and temperature of this station show that the temperature increases gradually from January to June and then gradually decline up to December. The summer season is moderate and warm; June and July are the warmest months. According to station data recorded since 1976_2005, in June

the mean maximum and mean minimum temperature has been recorded 34.4°C and 11.5°C respectively (Wahab et al.2008).Winter are cold and severe usually in the month of December and January.in winter season the mean maximum and mean minimum temperature is recorded 8.8°C and-7°C .rainfall is received mostly in winter season as compared to the other seasons .the maximum average rainfall has been recorded in the month of March(269.6 mm).the relative humidity range between30_70%.

In order to obtain ethno medicinal information of the area, eight trips of Karo Dara uc pashta were made from March to August for collection of medicinal plants at their flowering periods. Plants specimens were collected from various localities of research area. The collection was tagged on the spot, the local names and their medicinal uses were asked from

the old knowledgeable people of the area. The collected specimens were properly dried and pressed in plant presser in shade condition. The dried specimens were mounted on herbarium sheets and botanically identified by comparing the plant with different herbarium specimens and by Taxonomist. The identified specimens were confirmed from flora of Pakistan. Each specimen was given voucher number and deposited in the herbarium of Botany Department of Government degree college wari Dir upper Affiliated with SBBU Sheringal Dir upper.

3.3 Identification of the ethno botanical indigenous flora

Each plant was photographed along with receipt specimens for people and easy identification the voucher number have been verified from the herbarium of government Degree College, herbarium of the University of Sheringal. Flora of Pakistan herbarium of the Hazara University and herbarium of Pakistan PARC.

3.4 Preservation of the ethno botanical indigenous flora

Collected plants material has been dried, pressed, preserved, labeled, identified with help flora of Pakistan and finally deposited in the herbarium University of Sherigal Affiliated College GDC wari dir. upper

3.5 Interview with local: We questioned about(50)individuals by means of interview and questionaries“ we took the interview from residents which had information regarding plants and had known the existence of plant species .we gathered information on numerous aspects of ethno botanical practice for instance ,usage of different parts of plants, local names and pharmaceutical local uses

3.6 Questionnaires

Questionnaires are used to collect the Data about the local flora and their medicinal uses also to know about the part of the plant body which used medicinally like barberries roots use for medicinal purposes.

CHAPTER 4
RESULTS

Plant: (1)

Athyrium (Lady Fern)



Botanical Name:

Athyrium filix-femina

Family Name:

Athriaceae Local Name:

Babozay English Name: Lady

Fern Habit:

Herb

Part

Use:

Leaf and young shoots

Medicinal Uses:

Traditional medicine used such as ,cough ,rheumatic pain ,sores ,burns and scalds ,intestinal fever ,specifically breast pain.

Plant: (2)

Ribes Bracteosum



Botanical Name:

Ribes bracteosum

Family:

Grossulariaceae

Local Name:

Sarakasah English Name:
Herb

Stink Currant Habit:

Part Use: Leaf, Flower, Care, Rhizome, Root
Medicinal uses: Backbone pain, pies, preserves or jams, fertility improved in female, Raspberries.
Plant: (3) Boldo



Botanical Name: *Peumus boldus* Family: Monimiaceae English Name:
Boldo
Local Name: Spiarky
Habit: Herb
Part Use: Leaves

Medicinal Uses:

Liver and gall-bladder problems including gall-bladder stone, Mild gastrointestinal (G1) spasms, Gall stone, for joint.

Plant: (4)

Espanol plant



Botanical Name:
Family:
English Name:
Local name:
Habit:
Part Use:

Eucodonia
Gesneriaceae
Espanol
Srah Boti
Herb
Leaf & Rhizome

Medicinal Uses:

Theorist swilling, mouth swilling, and Draft swilling.

Plant: (5)

Pale, Grass-lilly



Botanical Name:

Impatiens parviflora

Family:

Balsaminaceae

English Name:

Small balsam Or

Small-flowerd touch-me-not

Local Name:

Atrang

Habit:

Herbs

Part Use:

Flower & Leaves

Medicinal Uses:

As a treatment for warts, ringworms, and nettle sting, burns, sores, cold, pain, as a tea they help induce sleep

Plant: (6)

Juniperus



Botanical Name:

Junipers communis

Family:

Cupressaceae

Local Name:

Gogar

English:

Juniper, Enerbo, Genepro

Urdu:

Abhal

Habit:

Shrub

Part Use:

Whole plant

Medicinal Uses:

Diuretic, general antiseptic as well as for treating gastrointestinal disorder, It is a wonderfully for kidneys and help to increase volume of urine.

Plant: (7)

Oxalis



Botanical Name:

Oxalis dillenii

Family:

Oxalidaceae

Local Name:

Garday Tarokay

English:

Slender yellow

Urdu:

Khuti boti

Habit:

Herb

Part Use:

Leaves & Flowers

Medicinal Uses:

Stomach, liver problems, anti-inflammatory, anxiolytic, anticancer, antidiabetic, antifungal, asthma, allergy, anxiety.

Plant: (8)

Coastal Plain Mountainmint



Botanical Name:

Pycnanthemum nudum

Family:

Lamiales

Local Name:

Shamakay

Habit:

Herb

Part Use:

Leaves

Medicinal Uses:

The tea made of mountain mint leaves is used for treating menstrual disorders, mild headaches, fever, colds, coughs and indigestion.

Plant: (9)

Viola glabella



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Viola Glabella

Violaceae

Torah panra

Pioneer violet

Gul Banafsha

Herb

Flowers & leaf (contain salicylic acid)

Medicinal Uses:

Internally used by Blood cleaner, respiratory medicine, and treating of cough, asthma, fever, body ache.

Plant: (10)

Apostle Plant



Botanical Name:

Neomarica northiana.

Family:

Iridaceae

Local Name:

Kharmirah

English:

Walking iris, or Apostle Iris, or Apostle Plant

Urdu:

Prostarah

Habit:

Herb

Part Use:

Rhizome & Roots

Medicinal Uses:

Ornamental purpose and gardening, back pain, muscle relaxation, joint pain.

Plant: (11)

Marsh marigold



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Caltha palustris

Ranunculaceae

Kadogaye

Marsh-marigold

Daldali genda

Herb

Whole plant

Medicinal Uses:

To treat colds and sores to induce vomiting to protect against love, anti-bacterial, immune-stimulating and anti-fungal,

Plant (12):

Pittosporum tobira



Botanical Name:

Pittosporum tobira

Family:

Pittosporaceae

Local Name:

Nameer

English:

Japanese pittosporum

Habit:

shrub

Part Use:

leaves

Medicinal Uses:

It used for fungal infections in humans immune deficiency
HIV/AIDS, patients,



Plant: (13)

Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Wild strawberry

Fragaria vesca

Rosaceae

Shatkaray

Wild Strawberry, Woodland Strawberry, Alpine Strawberry

Strawberry

Herb

Leaves & Fruits

Medicinal Uses:

High cholesterol, high blood pressure, anti-microbial, anti-oxidant, anti-inflammatory, throat inflammation, kidney diseases,

Plant: (14)

Southern maidenhair fern



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Adiantum capillus-veneris

Pteridaceae

Abipasha abi sersana or Naray Babozay

Southern maidenhair fern

Persao shan

Herb

Whole plant & Leaves specially used

Medicinal Uses:

Anti-diabetic, analgesic, anti-bacterial, anti-thyroidal, anti-fungal, wound healing, anti-hair loss, anti-asthmatic, anti-inflammatory, anti-diarrheal, anti-oxidan.

Plant: (15)

Stain John's Wort



Botanical Name:

Hypericum perforatum

Family:

Hypericaceae

Local Name:

Sheen Chaiy

English:

saint John wort

Urdu:

Piliy botiy

Habit:

Shrub

Part Use:

Flowers & Leaves

Medicinal Uses:

Popular treatment for anxiety, depression, cuts, burns and cancer.

Plant: (16)

Hedera helix



Botanical Name:

Hedera hlix

Family:

Araliaceae

Local Name:

Perwataye

English:

Ivy

Urdu:

Sadah bahar

Habit:

Shrub

Part Use:

Leaves

Medicinal Uses:

Traditional used as bronchitis, whooping cough, arthritis, rheumatism, dysentery and Ivy leaf is good for cough, liquefies the sticky mucus trapped.

Plant: (17)

Flamenco (Cinquefoil)



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Potentilla

Rosaceae

Gul botay

Five finger & Silverweeds

Gul bottah

Shrub

Rhizome & Roots

Medicinal Uses:

Medicinal used as a tea for diarrhea, leucorrhea, kidney stones, arthritis, cramps, sore throat, fever and premenstrual syndrome (PMS).

Plant: (18)

Norway spruce



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Abies pindrow

Pinaceae

Kandal

West Himalayan fir

Partal, polundar

Tree

Leaves & seed

Medicinal Uses:

Tonic for bronchitis, hemoptysis, asthma, inflammatory condition, fever, anti-periodic and stomachic.

Plant: (19)

Broad Leaf Plantain



Botanical Name:

Plantago major

Family:

Plantaginaceae

Local Name:

Taqay

English:

Great plantain

Urdu:

Bartang

Habit:

Herb

Part Use:

Leaves

Medicinal Uses:

Toothaches, earache, halitosis, oral lesions, mouth sores, epistaxis, hemoptysis, loose teeth, finger pus, food pus, gingivitis and tonsillitis.

Plant: (20)

Ribwort Plantain



Botanical Name:

Plantago lanceolata

Family:

Plantaginaceae

Local Name:

Guowarjabaye

English:

plantain, narrow, leaved plantain, Rib grass, Black-Jacks

Urdu:

Hartang

Habit:

Herb

Part Use:

Leaves

Medicinal Uses:

Used for common cold, fever, cough, wound healing, and also mouth sores, loose teeth, finger hand pus and throat.

Plant: (21)

Cannabis Sativa



Botanical Name:

Family:

Local Name:

English:

Urdu:

Habit:

Part Use:

Cannabis sativa

Cannabaceae

Bhang

Hashish, or Hemp

Chars, or Bhang

Herb

Leaves, Seed and Oil

Medicinal Uses:

Treatment of anxiety or epilepsy, analgesic (pain reliever) and antispasmodic agent, and, neuropathic pain and multiple sclerosis.

Plant: (22) Chinaberry Tree



Botanical Name:	Melia azedarach
Family:	Meliaceae
Local Name:	Toora shandaye
English:	Bead tree, Cape lilac
Urdu:	Bakain or Draik
Habit:	Upland grassland, woodlands
Part Use:	Leaves

Medicinal Uses:

Leaves are used in leprosy, scrofula, anthelmintic antidiuretic,
De obstruent, and resolve.

Plant: (23)

Stinging nettle



Botanical Name:

Urtica dioica

Family:

Urticaceae

Local Name:

Sezonkay

English:

Stinging nettle

Urdu:

Bichho Booti

Habit:

Shrub

Part Use:

Leav , Stem , and Root

Medicinal Uses:

Traditionally used in control cardiovascular disorders especially hypertension , inflammatory condition such as arthritis and chronic myalgia.

Plant: (24)

Thymus serpyllum



Botanical Name:
Family:
Local Name:
English:
Urdu:
Habit:
Part Use:

Thymus serpyllum
Lamiaceae
sperkai
Wild thyme
Jangali podina
Shrub
Leav

Medicinal Uses:

Externally as an antiseptic, to treat wounds, reduce swelling, gastrointestinal and respiratory pathologies.

Plant: (25)

Juglans Ragia



Botanical Name:

Juglans ragia

Family:

Juglandaceae

Local Name:

Ghoze

English:

Walnut

Urdu:

Akhroot

Habit:

Deciduous tree

Part Use:

Root, Leaves, and Flowers

Medicinal Uses:

Walnut root are used to treat diabetes, leaves are used to treat rheumatic pain, fever, and skin disease, flower are used to treat malaria.

Plant: (26)

Torreya Californica



Botanical Name:

Torreya californica

Family:

Taxaceae

Local Name:

Bannia

English:

California nutmeg

Urdu:

Uzbek or Yoruba

Habit:

Evergreen tree

Part Use:

Nuts and Seed

Medicinal Uses:

It is used in the treatment of tuberculosis, the crushed seed used in the treatment of headaches also chills and fevers.

Plant: (27)

Berberis lycium



Botanical Name:

Berberis lycium

Family:

Berberidaceae

Local Name:

Kawaray

English:

Barberry

Urdu:

Ishkeen

Habit:

Shrub

Part Use:

Root and stem-bark

Medicinal Uses:

Antibacterial, hepatoprotective, postictal, antioxidant, wound healing. Traditionally used to treat stomach problems, liver problems, skin problems and cough.

Plant: (28)

Date-plum



Botanical Name:

Diospyros lotus

Family:

Ebenaceae

Local Name:

Tor Amlok

English:

Date-plum, or lilac persimmon

Urdu:

Khormaloo

Habit:

Shrub

Part Use:

Fruit

Medicinal Uses:

Diospyros lotus is use a sedative , astringent , nutritive , antiseptic, ant diabetic , antitumor , laxative , antipyretic and for the treatment of constitution.

Plant: (29)

Mint



Botanical Name:

Mentha

Family:

Lamiaceae

Local Name:

Powdina

English:

Mint

Urdu:

Podina

Habit:

Herb

Part Use:

Leaf

Medicinal Uses:

Menthe is use digestive problem, treat all stomach problems,
and treat skin related problems like spots, scar, especially beneficial for people with cough and cold

Plant: (30)

NEEM TREE



BOTANICAL NAME:

Azadirachta indica

Family:

Meliaceae

Local Name:

Nabrangaa

English:

Mangifera indica (Mango)

Urdu:

Neem

Habit:

herb

Part Use:

Leaves, flower, seeds, fruit, root and bark

Medicinal Uses:

This plant was used in the treatment of asthma, intestinal parasites, fever, skin diseases,

Plant: (31)

Blue Skullcap



Botanical Name:

Scutellaria lateriflora Family: Lamiaceae

Local Name:

Sheengul Botay

English:

Blue skullcap

Urdu:

Sandarah

Habit:

Herb

Part Use:

Leaves

Medicinal Uses:

This plants for used the treatment allergies, infections, inflammation, cancer and headaches.

Plant: (32)

Mentha longifolia



Botanical Name:

Mentha longifolia

Family:

lamiaceae

Local Name:

Elanay

English:

Wild mint

Urdu:

Jungli podina

Habit:

hurb

Part Use: Leaves, young stem Medicinal Uses
This plant was used for the treatment of diarrhea.
Plant: (33) Apricot



Botanical Name: Armeniaca
Family: Rosaceae
Local Name: Khoobaani
English: Apricot
Urdu: Khuubaani
Habit: Tree

Part Use: Leaves, Fruits Medicinal Uses:
Apricot is used for the asthma, constipation, infertility and skin restoring
properties.

Plant: (34)

Polygonum aviculare Linn



Botanical Name:

Local Name:

English:

Urdu:

Habit:

Polygonum aviculare linn Family:

Bandakay

Kanotgrass

Beekhe Anjbar

Herb

Polygonaceae

Part Use: Whole plant Medicinal Uses:
Used as emetic, purgative and in eyes disorder,
Plant: (35) *Abies pindrow*



Botanical Name: *Abies Pindrow* Family: Pinaceae
Local Name: Kachaal
English: West Himalayan
Urdu: Partal palundar
Habit: Tree
Part Use: Leaves
Medicinal Uses:
Used for fever, hypoglycemia, bronchitis and asthma.

Table4.1: Plant species with Botanical name, Regional name and Family

S. No	Botanical name	Regional name	Family
01	<i>Azadirachto Indica</i>	Nabrange	Meliaceae
02	<i>Abies windraw</i>	Kachaal	Pinaceae
03	<i>Athyrium filix femina</i>	Babozay	Athriaceae
04	<i>Adiantum capillus veneris</i>	Abipasha abi	Pteridaceae
05	<i>Berberis lyceum</i>	Kowaray	Berberidaceae
06	<i>Cannabis sativa</i>	Bhang	Cannabiaceae
07	<i>Caltha palustris</i>	Kadogay	Ranunculaceae
08	<i>Diospyros lotus</i>	Tor hamlok	Ebenaceae
09	<i>Eueodonia</i>	Srah boti	Gesneriaceae



10	<i>Fragaria vesca</i>	Sheetkaray	Rosaceae
11	<i>Hedera helix</i>	Perwatai	Araliaceae
12	<i>Hypericum perforatum</i>	Sheen chay	Hypericaceae
13	<i>Impatiens parviflora</i>	Atrang	Basilsaminaceae
14	<i>Junipers communis</i>	Gogar	Cupressaceae
15	<i>Juglans regia</i>	Ghooz	Juglandaceae
16	<i>Melia azadarach</i>	Tora shanday	Meliaceae
17	<i>Mentha</i>	Poodina	Lamiaceae
18	<i>Mentha longifolia</i>	Elanay	Lamiaceae
19	<i>Neomarica northiana</i>	Khamiraha	Iridaceae
20	<i>Oxalis dilleni</i>	Garda torkay	Oxalidaceae
21	<i>Pyenanthemum nudum</i>	Shahma k	Lamiaceae
22	<i>Potentilla</i>	Gul botay	Rosaceae
23	<i>Prunus armenica</i>	Khobany	Rosaceae
24	<i>Polygonum Aviculare</i>	Bandakay	Polygonaceae
25	<i>Peumus Boldus</i>	Spiarkay	Momimiaceae
26	<i>Pittosporaceae</i>	Nameer	Pittosporaceae
27	<i>Plantago lanceolata</i>	Gurworjabaay	Plantaginaceae
28	<i>Plantago major</i>	Taqay	Plantaginaceae
29	<i>Ribes braeteosum</i>	Sarakashaa	Grossulariaceae
30	<i>Salvia mooreoftiana</i>	khorghwag	Lamiaceae
31	<i>Seutellaria lateriflora</i>	Sheengul botay	Lamiaceae
32	<i>Torreya californica</i>	Bannia	Taxaceae
33	<i>Thymus seryllum</i>	Sparkai	Lamiaceae
34	<i>Urtica dioica</i>	Sezoonkay	Urticaceae
35	<i>Viola glabella</i>	Toraha parna	Violaceae



Table4.2: Family wise distribution of plant species of the area

S. NO	Families	No of plants	S. NO	Families	No of plants
01	Araliaceae	01	20	Pinaceae	01
02	Athriaceae	01	21	Pteridaceae	01
03	Baslsaminaceae	01	22	Pittosporace	01
03	Baslsaminaceae	01	23	Rosaceae	03
04	Berberidaceae	01	24	Ronunculaceae	01
05	Cupressaceae	01	25	Taxaceae	01
06	Cannabiaceae	01	26	Urticaceae	01
07	Ebenaceae	01	27	Violaceae	01
08	Grossulariaceae	01			
09	Gesneriaceae	01			
10	Hypericaeae	01			
11	Iridaceae	01			
12	Juglandaceae	01			
13	Lamiales	01			
14	Lamiaceae	05			
15	Meliaceae	01			
16	Monimiaceae	01			
17	Oxalidaceae	01			
18	Plantaginaceae	02			
19	Polygonaceae	01			

Table 4.3: Plant species with their botanical name, Regional name, Family, habit, nature of species, part use and its rout

S/NO	Botanical name	Regional name	Family	Habit	Nature species	ofPart Used	Rout
01	<i>Melia azedarach</i> (L)	Tora shandy	Meliaceae	Tree	Invasive	Leaves Skin	
02	<i>Azadirachta Indica</i>	Nabranga	Meliaceae	Tree	Invasive	Fruit, Oral seed	
03	<i>Torreya Californica</i>	Bannia	Taxaceae	Tree	Wild	leaves Oral	,
04	<i>Oxalis Dilleni</i>	Garday	<i>Tarokay</i> Oxalidaceae	Herb	Wild	Flowers Oral/ skin	,
05	<i>Plantago Major</i>	<i>Taqay</i>	Plantagina	Herb	Wild	Leaves Oral/	
06	<i>Plantago Lanceolata</i>	Guorwarjabaye	Plantagin	Herb	Wild	Leaves Oral/	
07	<i>Mentha Longifolia</i>	Elanay	Lamiaceae	Herb	Wild	Leaves Oral	
08	<i>Mentha</i>	Powdina	Lamiaceae	Herb	Cultivated	Leaves Oral	
09	<i>Salvia Moorcoftiana</i>	Khorghwag	Lamiaceae	Herb	Wild	Seeds Oral Skin	,
10	<i>Scutellaria Lateriflora</i>	Sheengul	Lamiaceae	BotayShrub	Wild	Flower Oral,	
11	<i>Thymus Seryllum</i>	Sperkai	Lamiaceae	Shrub	Wild	Whole Oral	
12	<i>Hedera Hilix</i>	Perwatai	Araliac	Herb	Wild	Leaves Skin/ Oral	
13	<i>Abies pindraw</i>	Kandal	Pinaceae	Tree	Invasive	Leaves Skin	
14	<i>Abies windrow</i>	Kachaal	Pinaceae	Tree	Invasive	Seeds, Skin	
15	<i>Urtica dioica</i> (L.)	Sezonkay	Urticac	Shrub	Wild	Leaves Oral	



16	<i>Pycnanthemum Nudum</i>	Shamakay		Herb	Wild	Flower,
		s		Lamiale		
17	<i>Potentilla</i>	Gul		BotayHerb	Wild	Flowers,
		e		Rosacea	leaves	
18	<i>Prunus armenica</i>	Khobany		Tree	Oral Cultivated	Fruits
		e		Rosacea		
19	<i>Fragaria Vesca</i>	Shatkaray		Herb	Cultivated	Fruits, Oral
		e		Rosacea	Leaves	
20	<i>Berberis Lycium</i>	Kowaray		Shrub	Wild	Bark, Oral
		aceae		Berberid	Roots	
21	<i>Junipers Communis</i>	Gogar		Shrub	Wild	Leaves Oral/
		ceae		Cupressa	skin	
22	<i>Ribes Bracteosum</i>	Sarakasah		Shrub	Wild	Roots Oral
		iceae		Grossular		
23	<i>Eucodonia</i>	Srah		BotiHerb	Wild	Rhizome Leaves Skin/
		ae		Gesneriace	Oral	
24	<i>Impatians parviflora</i>	Atrang		Shrub	Wild	Leaves
		ceae		Baslsamina		
25	<i>Polygonum Aviculare</i>	Bandakay		Herb	Wild	whole
		eae		Polygonac		
26	<i>Peumus Boldus</i>	Spiarkay		Herb	Wild	Leaves
		ae		Monimace		
27	<i>Diospyros lotus (L)</i>	Tor amlok		Ebenaceae	Tree	Cultivated
28	<i>Cannabis Sativa</i>	Bhang		Shrub	Cultivated	Leaves
		ceae		Cannabina		
29	<i>Athyrium Femina</i>	Filix-Babozay		Athriaceae	Shrub	Wild
30	<i>Caltha Palustris</i>	Kadogaye		Herb	Wild	Leaves
		ulaceae		Ranunc		
31	<i>Adiantum Veneris</i>	CapillusAbipasha	abi	sersanaHerb	Wild	Whole
		aceae		Pterid		

32	<i>Juglans regia</i> (L)	Ghuz	Tree	Cultivated	
		daceae	Juglan	Kernel	
33	<i>Pittosporaceae</i>	Nameer	Herb	Wild	Leaves
			Pittosp		
34	<i>Viola Glabella</i>	Torah	PanraHerb	Wild	Flower
		oraceae	Violac		
35	<i>Hypericum Perforatum</i>	Sheen	ChaiyTree	Cultivated	Stem,
		ae	Hyperic	Leaves	
36	<i>Neomarica Northiana</i>	Kharmirah	Herb	Wild	Rhizom,
		aceae	Iridace		
		ae			

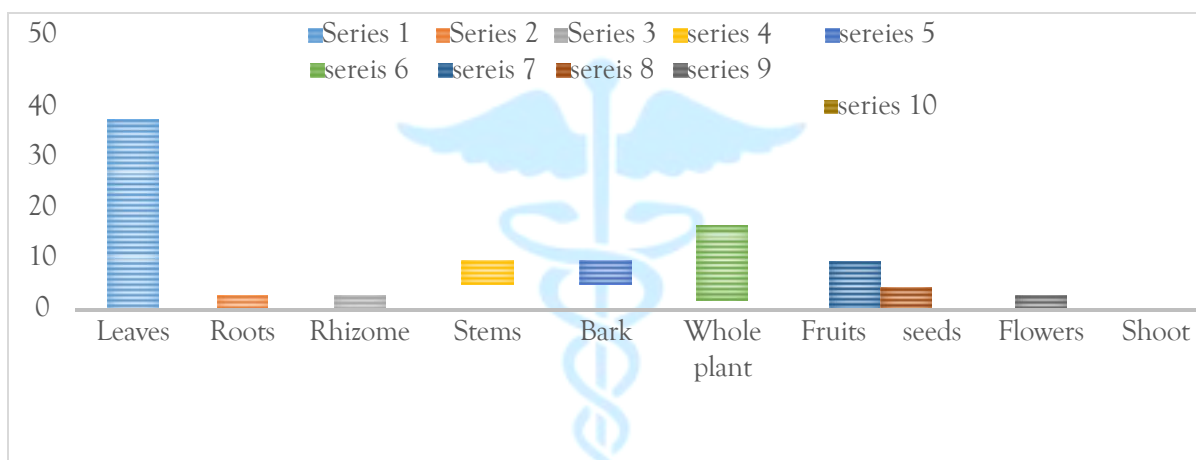


Figure4.1: PART WISE DISTRIBUTION OF PLANT

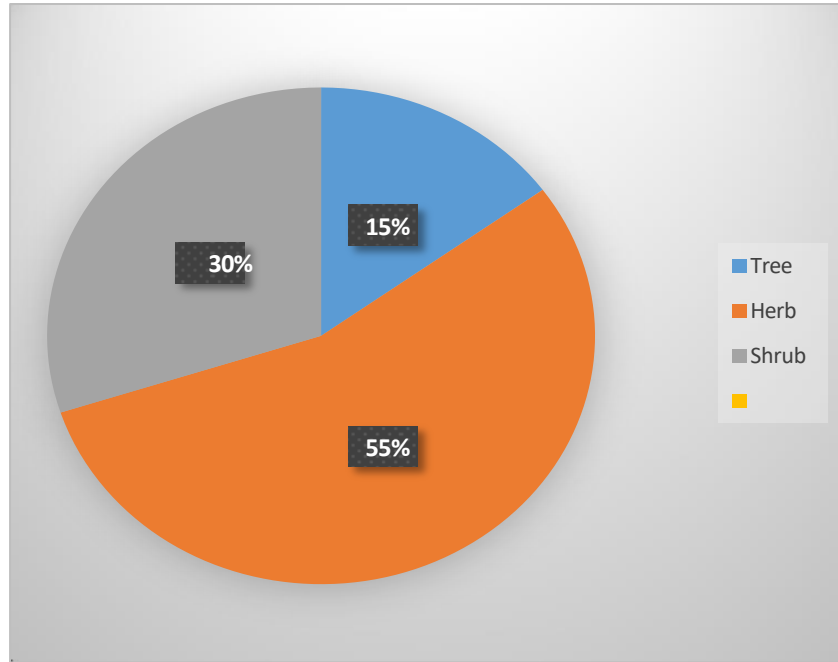


Figure4.2: HABIT WISE DISTRIBUTION OF SPECIES





Figure 4.3 : Families wise distribution of plant species

**CHAPTER 5
DISCUSSION**

In recently survey a total 35 medicinal plants species from 27 families were studied. Habit wise plants species were classified in to herbs (45%), shrub (25%), and trees (50%). plant part used, were observed as whole plants (30%), fruit (10%),

seeds (9%), leaves (25%), bark (5%), roots (6%) Lamiaceae (30.50%) was the most leading family (table).it was observed that local healers take leaves more than herbs and trees to treatment different kinds of disorder; it may be due to their easy availability, collection, less side effect and plenty in the area results obtain are in close

connection with ethno botanical surveys conducted in different area of the country. Where local people use mostly leaves than herbs and trees for the groundwork of ethno medicine belong to family Lamiaceae, Rosaceae ,Meliaceae, Ebenaceae,Cannabaceae, Taxaceae, Oxliaceae, Lamiales, Violaceae, Irdaceae, Pinaceae, Berberdiaceae, Pteridaceae.Araliaceae,and ,UrticaceaeIn our study we found that *Melia azedarach* was used for joint pain same result was also reported by (Rahman *et al.*, 2022). *Urtica dioica* was used to treat jaundice and as diuretic same results were also described by (Ahmad *et al.*, 2011).

Viola indica was used to treat wound and also used in joints diseases as reported by (Irfan *et al.*, 2018). *Diospyros lotus* was used to treat tonic as reported by (Ajmal *et al.*, 2013). *Mentha arvensis* was used for the treatment of Diarrhea as described by (Ullah and Bibi, 2018). *Mentha longifolia* was taken for the treatment of Diarrhea as reported by (Khan *et al.*, 2015). *Juglans regia* was used for the washing of teeth and also used for the diabetes mellitus as reported by (Irfan *et al.*, 2018; Ajmal *et al.*, 2013).. *Juglans regia* was used for the cleaning of teeth and also used for the diabetes mellitus as reported by (Irfan *et al.*, 2018; Ajmal *et al.*, 2013). *Salvia moorcroftiana* was taken for the treatment of wound healing also reported by (Hassan *et al.*,2017) *Thymus vulgaris* was used for the treatment of blood purification, cold, and abdominal pain as reported by (Abu-Irmaileh *et al.*, 2003). *Polygonum aviculare* plant was used as purgative and emetic in eye disorder as reported by (Khan *et al.*, 2013). *Oxalis corniculata* was used to treat dysentery, fever, and stomach pain as reported by (Hussain *et al.*, 2022). *Cannabis sativa* plant was used as antispasmodic and narcotic was described by (Sharifullah *et al.*, 2016). *Berberis lyceum* was used for the treatment of stomach infection and other wounds healing as reported by (Hassan *et al.*, 2021) *Thymus linearis* was used for cough, cold and flu reported by (Husain *et al.*, 2022). *torreya californica* used for treatment of tuberculosis .*Athyrium filix femina* was used for cough, sores and scalds, intestinal fever breast pain, Ribes

bracteosum is used for the treatment of cold as a laxative, *Impatiens parviflora* is used as treatment for ringworm and warts ,*Juniperus communis* is used for the treatment of a rheumatic arthritis and gout, *Caltha palustris* is use as anti-inflammatory and analgesic,*Adiantum capillus* is use an anti-diabetic, and analgesic ,anti-thyroidal, *Abies pindrow* it is used as atonic for bronchitis, asthma and fever, *Scutellaria lateriflora* it used for menstrual disorder,also used for kidney problems, *Fragaria vesca* used is diuretic, laxative and tonic *Potentilla* used for sore and throat, *Palntago major* it is used for upper and lower gastrointestinal bleeding, dysentery, stomach, *Plantago lanceolata* it is used to treat throat colds, *Hypericum perforatum* used for the treatment of skin problem, and wound healing, also headache,*Hedera helix* used to mucus in the air ways, also and difficulty of breathing, *Peumus boldus* used for liver and gallbladder problems,and antioxidant, *Pynanthemum* is used in the treatment of headache, and also used in the treatment of menstrual disorder, indigestion, *Pruns armeniaca* is used for asthma, constipation.*Pittosporum tobiea* it used for Hiv and Aids patient,

CHAPTER 6

Conclusion

There is great relationship between plants and humans. Plants play a vital role in the life of human"s .Humans life is impossible without plants. Plants are necessary to balance ecosystem. Plants trap the sunlight and create energy and then transfer it to animals. And humans. All life forms on Earth depend on plant energy. The upper Dir karo Dara u\c pashta is rich with medicinal plants but is largely unfamiliar. The majority of the people are illiterate and unaware of the potential and proper use of these important plants species .the local area is badly affected by lack of awareness of conservation of methods deficiency, lack of marketing opportunities and general lack of skills, moreover presently, there are no NGOS ,no proper management or established institutions working to create awareness. Conservation and

opportunity .Government and research organization must announce seminars and create program for the awareness, identification, collection, and proper use of these precious medicinal plants.

CHAPTER 7

Recommendation

The study area consisting a large number of medicinal plants

(1) It recommended these plants are in very less amount need to grow on commercials to increases their number as well as benefits.

(2) It recommend that the medicinal plants harvesting in the area in unscientific need to harvested them in sustainable way.

(3) More awareness are need about the beneficial aspects of these plants to the local community.

(4) A compressive research work a required to know the study the climatic change aspect on these plants.

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