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Medicinal Value of the Asteraceae of Dir Kohistan Valley, NWFP, Pakistan

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Abstract

The present study deals with the local uses of 25 species belonging to 21 genera of the family Asteraceae. Dir Kohistan valley has diverse habitats for the growth of various medicinal plants. The local medicinal uses include painkiller, diuretic, febrifuges, carminative, anthelmintic, anti-inflammatory, aphrodisiac, cardio tonic, tonic, stomachache, dyspepsia, jaundice, leprosy, cough, asthma, ulcers, vomiting etc. People have strong faith in herbal medication by ethnomedicinal plants and women are leading men in applying the recipe for medication by these plants. Some of useful species are under serious threat due to unsustainable activities. Hence, a proper documentation of useful plants with their present status and local traditional knowledge as well as practices is urgently needed. Effort should also be initiated to implement appropriate conservation measures for preservation and sustainable uses of these useful species.

Key Words: Medicinal Value, Asteraceae, Dir Kohistan Valleys, NWFP, Pakistan.

Introduction

Kohistan, the place of mountains, was called “Yaghistan” the land of rebels during the British rule. It is a name applied to all hilly areas, such as Swat Kohistan, Dir Kohistan and Indus Kohistan. Literally the word means "the place of mountains" (Hamayun, 2005). The Kohistan under focus in this paper is generally called "Dir Kohistan." The Dir Kohistan Valley covers 140,351 acres of the coniferous forests situated between latitude 35^0- 9′ to 35^0-47′ and longitude 71^0-52′ to 72^0-22′ in the northern position of the watershed of Panjkora river.

Ethnobotany in Pakistan

Ethnobotany includes all sorts of relationships between people and plants. The definition of ethnobotany can be sum up in four words i.e. People, Plants, Interactions, and Uses. The term ethnobotany was for the first time used by John Harshberger in 1896. In the last 100 years, the science of ethnobotany has progressed and the trend is shifting from mere documentation process to a more practical one which emphasize on conservation and sustainable use of plant resources.

Ethnobotanical work in Pakistan is in its infancy. Only a few projects have been launched for documentation as well as sustainable use of plant resources despite of the fact that Pakistan presents very rich and diverse flora due to her diverse climatic, soil conditions and multiple ecological regions. Pakistan has four phytogeographical regions, the uniregionals, consisting of Irano-Turanian (46%), Sino-Himalayan (10%), Saharo-Sindian (9.5%), and Indian element (4.5%). The country has about 6,000 species of wild plants of which about 400 to 600 are considered to be medicinally important (Khan, 1991).

The northern areas of Pakistan with unique biodiversity due to the presence of Himalayas, Karakorums and Hindu-Kush mountain ranges are under tremendous pressure from locals because of illicit cutting of valuable plants, poor collection and storage methods of medicinal plants, smuggling of timber wood, over grazing, corrupt forest officials, illiterate population with no sense or lust for conservation and above all passive and non practical policies of Government as well as NGO,s working in the area (Sher, 1998).

Methodology

Research work was carried out during July 2007 - August 2008 in the area of Dir Kohistan (N. W.F.P). Field work was carried out in order to investigate the existing ethnobotanical practices. During these trips different plant species of the family Asteraceae were collected, dried, documented and were identified both by comparing them with herbarium specimen and with the help of flora of Pakistan (Riedl, 1991; Choudhary *et al.*, 2000). The field work includes interviews, observations and guided field walks/transects walks. Medicinal usage data were collected from local people and practioner medical experts (hakims) that practice medicine regularly. About 100 informants were interviewed in this regard.

Enumeration

Botanical name ***Achillea millefolium*** **L.**

Local name Jarai
Habit Perennial herb
Parts used Whole plant
Local uses The plants contain a volatile oil, which is a stimulant tonic and astringent, and stops intestinal bleeding. The whole plant is used as a diuretic, a stimulant, for piles, cold and to stop perspiration. Also used as fodder.
Flowering season July-Sept.

Botanical name ***Anaphalis triplinerus*** **(Spreng.) Hand, Mazz.**
Habit Herb
Parts used Fresh leaves
Local uses The fresh leaves are bruised and applied to the wound as a plaster.

Botanical name ***Artemisia trichophylla*** **Wall.ex DC.**
Local name Jaukay.
Habit Herb.
Parts used Leaves and shoots.
Local uses It is used as respiratory stimulant, anathematic and purgative us used as a cure for earache and used for burning. Shoots are used in making brooms for sweeping lawns and ropes of houses and for construction of roofs.
Flowering season July-September

Botanical name ***Artemisia maritime*** **L.**
Local name Tarkha
Habit Herb
Parts used Leaves
Local uses Anthelminthic. Also useful for curing skin diseases. Shoot is used as fodder. Brooms are constructed for sweeping dirt from lawns.
Flowering season July-September

Botanical name ***Artemisia scoparia*** **L.**
Local name Jawkay, Kamasla tarkha
Habit Herb

Parts used Flowering head

Local uses Used as anathematic, used as medicine against malarial fever. Also used to make brooms.

Flowering season July-September

Botanical name ***Artemisia absinthium* L.**

Habit Herb

Parts used Whole plant

Local uses It is an aromatic tonic. It was formerly found as a high reputation in debility of the digestive organs. The powdered herb in small amount mixed in soup, will serve to relieve bilious melancholia and will help to disserve the yellow hove of jaundice from skin.

Flowering season July-September

Botanical name ***Bidens pilosa* L.**

Habit Shrub

Parts used Whole plant

Local uses Young shots are used for treatment of rheumatism. The young leaves are used for abdominal pain. Flower is remedy for diarrhea and infusion of the leaf and root is remedy for colic.

Botanical name ***Calendula officinalis* L.**

Local name Ziar gulae

Habit A cultivated ornamental herb

Parts used Flower and leaves

Local uses Flowers and shoots are used to treat wounds.

Flowering season March-July

Botanical name ***Cichorium intybus* L.**

Local name Hun

Habit Herb

Parts use Whole plant

Local uses The roots are used for Jaundice. Leaves are used as a "Saag" against Typhoid .It also increases bile secretion and is used to promote digestion.

Flowering season July-Sept.

Botanical name ***Conyza canadensis*** **(L) Cronquist.**

Local name Malooch

Habit Herb

Parts used Vegetative parts

Local uses Fresh fodder, stimulant, homeostatic, diuretic, used in diarrhea and dysentery.

Flowering season July-Sept.

Botanical name ***Chrysanthemum leucanthemum*** **L.**

Local Name Chitti phulari

Habit herb

Part used Flowers

Local uses Flowers are used for digestive problems.

Flowering season August-September

Botanical name ***Dipsacus fullonum*** **L.**

Habit Herb

Parts used Leaves

Local uses The water held by the leaves is used to cool inflammation of the eyes.

Flowering season June-August.

Botanical name ***Echinops cornigerus*** **L.**

Habit herb

Part used Aerial parts.

Local uses Aerial parts are dried and crushed to obtain powder, which is commonly used for fever of domestic animals

Flowering season September-October

Botanical name ***Gnaphallium officinale*** **L.**

Family Asteraceae

Habit Herb

Parts used Leaves

Local uses Leaves are used as an astringent.

Botanical name ***Inula royleana*** **Clark.**

Family Asteraceae

Habit Herb

Parts used Whole plant

Local uses Aromatic tonic used as diaphoretic, diuretic and expectorant.

Botanical name ***Lactuca serriola*** **L.**

Local name Zangali salad

Habit A common herb

Parts used Whole plants

Local uses The herb is used as cooling, sedative, diaphoretic, diuretic, antiseptic and expectorant.

Flowering season April-June

Botanical name ***Lacuta virosa*** **L.**

Habit Herb

Local name Kahu

Parts used Flowering parts

Local uses Laxative, antispasmodic and diuretic. It is also used as a remedy in palpitation of the heart and fever.

Flowering season April-June

Botanical name ***Onopordeum acanthium*** **L.**

Local name Ghna botay.

Habit A thorny herb

Parts used Leaves and roots

Local uses The leaves and roots are taken in drink to help the cramp in the neck. The leaves and roots are of healing quality. Antispasmodic.

Flowering season July-Oct.

Botanical name ***Saussurea heteromala*** **(D.Don) Hand.**

Family Asteraceae

Local name Kali Zira
Parts used Seeds and roots
Local uses The seeds are carminative in nature and also used as a cure for horse bite. Roots is used as tonic and useful in liver diseases, kidney and chest complaints.
Flowering season July-September

Botanical name: ***Saussurea costus*** **(Falc.) Lipsch.**
Family: Asteraceae
Local name: Minyal, Kuth
Habit: Herb
Part Used: Root
Local uses Used to treat pains especially arthritis.

Botanical name ***Senecio chrysanthemoides*** **DC.**
Family Asteraceae
Local name Kalay di Jar
Habit Herb
Part used Rhizome
Local uses Rhizome is used against asthma and respiratory problems.

Botanical name ***Senecio chrysanthemoides*** **DC.**
Local name Ghopga
Habit Herb
Parts used Flowers and leaves
Local uses Flowers are ornamental and poisonous. Leaves are used for emollient purpose.

Botanical name ***Sonchus asper*** **L.**
Family Asteraceae
Local name Shawda pai
Habit Herb
Parts used Young shoots and flowers
Local uses Its decoction is used as a tonic, diuretic and for jaundice. Also used for curing constipation and as fodder.

Flowering season March- September

Botanical name ***Taraxacum officinale*** **Weber.**
Local name Ziar Gulae
Habit Herb
Parts used Flower, root and leaves
Local uses Its decoction is used as a tonic, diuretic and for jaundice. Also used for curing constipation. It is used against tumors. It is purgative, mild laxative, used as remedy for kidney and liver diseases. It is also helping in the flow of bile. It is also ornamental plant
Flowering season Feb.-April

Botanical name ***Xanthium strumarium*** **L.**
Local name Geskay
Habit Shrub
Parts used Leaves
Local uses Leaves are applied for curing skin diseases. Leaf is also locally used for curing malarial fever.
Flowering season March-September

Discussion

The present study provides information on the indigenous uses of 25 important ethnobotanically important plants belonging to Asteraceae family. The important objective of this study was to record the indigenous uses of these plants used by the local women for various purposes. The ethnobotanically important plants are a source of income and cure for the local women. Local people are using the plants for various purposes i.e., medication, food, cosmetics, and fodder for the cattle. They have faith on these plants. The ratio of the women using allopathic medicines is negligible because they are directly dependent on plants for medication and other basic needs. The ethnobotanically important and other beneficial plants are quite useful for the basic health and hygiene of the local women. Local people are directly dependent on these plants for cure of different diseases, food, skin care, cosmetics and fodder for the cattle. These plants are a source of interaction between the people and the natural resources of the area. It is very important that the precious ethnobotanical knowledge about these plants should be transferred to the younger generations. The data may be valuable in the future for pharmacological studies.

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