

Full Length Research Paper

List of Ethno-Medicinal Plants Used By Locals of District Kishtwar, Jammu and Kashmir

¹Abdul Hafiz Wani, ²Sayyed Ashfaquallah and ³H.C Joshi.

¹Research Scholar, Department of Economics, Kumaun University, S.S.J Campus, Almora, Uttrakhand, India.

²Research Scholar, Department of Botany Kumaun University, D.S.B Campus Nainital, Uttarakhand, India.

³Professor, Department of Economics, Kumaun University, S.S.J Campus, Almora, Uttrakhand, India.

Article history

Received: 09-12-2016

Revised: 19-12-2016

Accepted: 04-01-2017

Corresponding Author:

Abdul Hafiz Wani

Research Scholar,
Department of
Economics, Kumaun
University, S.S.J
Campus, Almora,

Abstract

Mother Nature is blessed with varieties of flora, fauna, minerals etc in plenty. District Kishtwar is also no less in abundance of the same and among them *Artemisia maritima* (Moonin) is an indigenous herb used as multi-treatment drug. The present study was carried out in nine villages of district Kishtwar of Jammu and Kashmir focusing the identification of ethno-medicinal plants and their importance in the context of economic perspective. For the present study plants were collected from the vicinity and firstly identified by local inhalers (Hakims and Vadhyas) and after that by Department of Indian System of Medicine (ISM Unit / Treatment Centre) DRUDOO (Bhaderwah) and KISHTWAR, Range Forest Officer BATOTE. Out of collected and identified plants, 78 species belong to 72 genera and 39 families of which 10 were trees, 16 were shrubs, 49 were herbs and 3 were climbers. In all about 78 major plants (16 cultivated and 62 wild) were used as an ethno-medicine by the local people of concerned regions. These ethno-medicinal plants prove lifesaving equipment for people residing in remote areas of Kishtwar and give local Hakims and Vadhyas a high socio-economic status.

Key Words; Ethno-medicinal plants, Moonin, Drug, Bhaderwah, Hakims and Vadhyas.

Introduction

According to Shah, 1997 "The term medicinal plants is used to denote those non- aromatic and aromatic plants which are used for medicinal perfumery, dye and cosmetic purposes, spices and condiments also fall under this category". Folk medicines today play a key role in the developing countries due to a lack of or limited modern health services. From ancient times, plants have been a rich source of effective and safe medicines. Due to their safe, effective and inexpensive nature, indigenous remedies are popular among the people of both urban and rural areas in India [1].

Western Himalayas are considered as a storehouse of herbal wealth supporting the vast network of traditional Indian System of Medicine. There is a wealth of information on the identity and distribution of different plant species of the region in the form of regional floras, reports of botanical expeditions, monographic accounts of families, genera and similar other publications. Ethno-botanical studies on medicinal plants are of paramount importance, particularly in harsh climates like cold arid regions. Such indigenous system of traditional knowledge conserves cultural and ecological diversity [2]. The experience and knowledge of local herbalists, who can utilize enormous diversity of plants, which is much sought after and patronized. The people residing in the villages of marginalized hill areas have been in isolation for centuries and possess good knowledge of phyto-therapy [3]. However from few decades erosion of bio- diversity knowledge occurs in younger generation regarding ethno-medicinal use of plants [4].

Kishtwar popularly known as "Land of Sapphire and Saffron" is also very rich in forest products. Most of its area is hilly terrain. Kishtwar lies in the lap of Himalaya. It ranges from Middle Himalaya to Greater Himalaya. The climate of Kishtwar ranges from temperate to alpine[5].

The ethno-medicinal plants of Kishtwar region have large potential to treat various ailments among the inhabited in the remotest region of district. The main aim of this study is to document the ethno-medicinal plants and to conserve the traditional knowledge of Hakims and Vadhyas.

Materials and Method**Profile of Study Area**

The present study was conducted in District Kishtwar of Jammu and Kashmir which is situated at altitude of 1,638m having coordinates 33.32⁰ N and 75.77⁰E. The area is enveloped with dense forests of deodar, fir and pine is treasure of scenic beauty. Kishtwar district consists of 8 blocks: Kishtwar, Inderwal, Paddar, Marwah, Warwan, Dacchan, Nagsani and Drabshalla. According to Census 2011 population of district Kishtwar is 230696. It covers an area of 7737 km². Snow covers the most parts of the district from December to March. About 90% area of district is backward and the main occupation of the people (80%) is farming, cattle and sheep rearing. Due to geographical remoteness of the area and socio-economic condition of the local population folk medicine is still commonly used in Kishtwar. These factors also explain the preservation of ethno-pharmacological practices in this region. Majority of population about 80% depends on agriculture and animal husbandry for their livelihood whereas about 20% peoples are employed in government services. The important crops grown are rice, wheat, maize, tobacco, pulses, and saffron.

Data collection

The specimens of ethno-medicinal plants were collected from nine villages of district Kishtwar. The information regarding the local name of plants and procedure of their use was collected by involving 32 hakims (the local herbalists), old aged persons including women population through a deep on spot interview method. The field survey was conducted during the month of April-July 2013.

Sample preparation

A well-developed herbarium was prepared out of collected specimens of ethno-medicinal plants.

Data Analysis

The herbarium was send for identification of specimens to Department of Indian System of Medicine (ISM Unit / Treatment Centre) DRUDOO (Bhaderwah) and KISHTWAR, Range Forest Officer BATOTE. The information gathered from respondents was compiled into a research report.

Results

The result revealed that the locals of Jammu and Kashmir were depended on traditional ethno-medicine for the curing of primary health care. These marginal people cannot pay huge amount of money for the purchasing medicine from the market. Therefore, they depend upon the ethno-medicines which are easily obtained from the flora of the area. This practice was tradition of the locals of the area from hundreds of years. Hakims and Vadhyas provided the ethno-medicine for the locals after the preparation of medicine from the plants with their respective using procedure respectively. It has been found that the number of plants considered as medicinal plants in the research field is 78 species. These 78 species belong to 72 genera and 39 families of which 10 were trees, 16 were shrubs, 49 were herbs and 3 were climbers. In all about 78 major plants (16 cultivated and 62 wild) were used as an ethno-medicine by the local people of concerned regions. Among these the maximum plants were used in cough and cold, stomach problems, fever, skin diseases, followed by boils and pimples, anemia, asthma, diabetes, pneumonia and leucorrhea. A few species are used in cuts and wounds, antipyretic, bone fracture and diarrhea etc respectively (as given in the result table 1).

Table 1: Showing the plants which are used in ethno-medicinal purposes in Kishtwar region.

S. No	Botanical name	Local name	Habit	Use	Using part	Using procedure
1	<i>Artemisia meritima</i> , L	Mooiin	Shrub	Stomach problems	Leaves	The leaves are used in stomach problems. The leaves are also used in expelling worms from intestine.
2	<i>Angelica glauca</i> , Edgew.	Chora	Herb	Stomach problems	Roots	The roots are grinded and eaten with gud (sugar) against stomach problems. The roots are burnt to remove the snakes when they enter the houses.
3	<i>Cirsium arvense</i> (L)Scop	Jhaskantu	Herb	Inducing Vomiting	Inflor-Sence	The young inflorescence is crushed in water and is used for inducing vomiting.

4	<i>Viola serpens</i> , Wallich Ex. Ging.	Banaf-Sha	Herb	Cough & Cold and throat problems.	Flowers	The flowers are grinded in milk and applied on throat problems.
5	<i>Foeniculum vulgare</i> , Mill.	Sonf	Herb	Constipation	Seeds	Seeds mixed with sugar are used against constipation.
6	<i>Valeriana Dubia</i>	Murma	Herb	Dandruff	Roots and rhizomes	The roots and dried rhizomes are grinded and mixed in water to wash the hair to get rid of dandruff.
7	<i>Urtica dioica</i> , L.	Soyi	Herb	Cuts and wounds, paralyzed parts	Roots	Crushed root are applied on cuts and wounds. The plant is used to treat paralyzed parts of body by putting them on affected parts.
8	<i>Daphne oleoides</i> . Schrub.	Kalishadi	Shrub	Skin diseases	Leaves	The leaf is grinded in water and resulted paste is applied on skin diseases.
9	<i>Datura stramonium</i> L.	Dhatura	Herb	Headache, boils, asthma, skin diseases.	Seed and Leaves.	Oil medicated with datura is applied to head in headache; to boils and skin diseases.
10	<i>Picrorhiza kurroa</i> Royle ex Benth.	Kour	Creeping Herb	Fever and an appetizer	Root	The root powder mixed with honey is given against fever. The root powder mixed with honey also acts as a cooling agent and an appetizer.
11	<i>Saxifraga jacquemontiana</i> Decne.	Agg jari	Herb	Ruptured wounds	Leaves	The leaves are crushed and applied on ruptured wounds as an antiseptic and these also accelerate healing.
12	<i>Verbascum thapsus</i> L.	Ban tambaku	Herb	Winds, Cold and dysentery.	Leaves	Leaves are dried & smoked for mental relaxation. A paste of leaves is also applied on the wounds. The smoke (dhuni) of plant is utilized to drive away the ghostly instincts from children.
13	<i>Bergenia stracheyi</i> (Hook F. and Thoms.)Engl	Dhadkopdi	Herb	Swollen joints, cuts & wounds	Rhizome and bark	Rhizome paste is applied to swollen joints. Bark is antiseptic and is used to heal up cuts and wounds.
14	<i>Sambucus wightiana</i> Wallich ex wight.	Kown	Herb	Effective Diuretic.	Roots, Leaves & berries	The roots, leaves, berries are used for purgative properties. The decoction of root and inner bark is an effective diuretic.
15	<i>Viburnum grandiflorum</i> Wallich.	Chalander	Shrub	Abdominal pain, Constipation, eye infection.	Leaves and fruits	Colloidal sol. of powdered leaves is taken to relieve abdominal pain, Fruits are used in constipation. Sap of leaves is used in eye infection.
16	<i>Salix alba</i> L.	Uri	Tree	Teeth cleaning, antiseptic properties.	Bark	Bark has antiseptic properties and is used to clean teeth Bark is put in water and that water is

						used to bath newly born babies to avoid any infection.
17	<i>Berberis aristata</i> D.C.	Kareel Kaim-bal	Evergreen, Shrub	Mild laxative	Fruits	Ripe fruits are laxative and given to children.
18	<i>Senecio chrysanthemoides</i> D.C.	Jarjam	Herb	Wounds, Rheumatic pain, Antiseptic.	Flowers, Roots.	Flowers are crushed and applied on wounds as anti-septic. Root powder is used against rheumatic pain.
19	<i>Delphinium roylei</i> Munz.	Mori	Herb	Skin eruptions, insecticides.	Seeds	Seeds are used as an insecticide and treatment of skin eruptions.
20	<i>Caltha palustris</i> L.	Tatn	Herb	Cough inflammation	Root, Shoots flowers.	Aqueous extract of root and shoot is diuretic and also used in cough. Roots are used in urinary infection. Flowers syrup is used against inflammation.
21	<i>Aconitum violaceum</i> Jacquen.	Patrishi	Herb	Fever	Roots	The root powder is given along with jiggery (Gur) against fever. The root powder also act as appetizer
22	<i>Rumex nepalensis</i> Sprengel.	Herbel	Herb	Erupting skin, cuts and wounds.	Leaves and stem.	Leaves are warmed and applied on erupted skin. Crush leaves and stem are applied on cuts and wounds.
23	<i>Punica granatum</i> L.	Anardana, Darhu	Shrub	Jaundice, anemia	Seeds	Seed juice is highly nutritious and taken in jaundice and anemia. Seeds are eaten by locals in general weakness. The juice also acts as cooling agent and appetizer.
24	<i>Rheum australe</i> D.Don	Chukri	Herb	Stomach problems, wounds, muscular swelling, tonsillitis, joint pain	Root	Root powder mixed with mustard oil is applied on joints to get relief from joint pain.
25	<i>Pinus wallichiana</i> A.B.Jackson.	Chew, Chir.	Evergreen Tree	Cuts and wounds.	Resin from young saplings	The resin from young saplings is used for healing of cuts, wounds and cracks of heels.
26	<i>Cedrus deodara</i> Roxb. Ex. D.Don.	Diyar/ gadh	Evergreen Tree	Skin rashes,ulcers, headache	Stem oil and bark.	The oil (known as kilo/kellam) extracted from stem and bark is used to treat skin rashes and external ulcers. The oil is also used to massage the body get relief from rheumatic pain.
27	<i>Abies pindrow</i> Royle	Sall	Evergreen Tree.	Rheumatism cuts and wounds.	Bark.	Bark is added to tea and used against rheumatism. The resin is used for quick healing of cuts and wounds.
28	<i>Phytolecta acinosa</i> Roxb.	Brand	Herb	Sedative, joint pains	Leaves, twigs, roots.	The leaves and twigs have narcotic effect and thus used as sedative to induce sleep. Root oil is used for joint pain.
29	<i>Corydalis govaniiana</i> Wall	Bhutyata	Herb	Headache, Vermicide, cattle dysenteric & dietary.	Flowers leaves, Roots.	Flower juice is applied externally on forehead against headache. Decoction of leaves is used as vermicide. Roots are given to cattle as dysenteric

						and dietary.
30	<i>Oxalis corniculata</i> L.	Chhuku	Herb	Boils, abscesses, wounds	Whole Plant	A fine paste of aerial parts of herb along with few seeds of black pepper is applied on boils, abscesses and wounds. This application results in drying and healing of wounds.
31	<i>Ficus palmate</i> Forsskal.	Feku	Tree	Skin diseases, against Constipation.	Latex, Fruit	The latex is applied on skin diseases. The fruit is used against constipation.
32	<i>Malva neglecta</i> Wallr.	Succhal	Herb	Laxative, facilitate Detachment. Expulsion of placenta in cows & cattle.	Leaves and roots	The decoction of leaves is used as laxative. The crushed roots in water are given to cows and buffaloes to facilitate detachment & expulsion of placenta after delivery.
33	<i>Viscum album</i> L.	Parontha	Evergreen Shrub	Cattle milk Production & Health.	Leaves	Leaves given to the cattle to keep them healthy and to increase the milk production.
34	<i>Desmodium elegans</i> D.C.	Shemar	Shrub	Cuts & wounds, Cleaning teeth.	Leaves, bark	The leaves are crushed and applied on cuts and wounds to avoid infection and to stimulate healing. The bark is used to clean teeth.
35	<i>Salvia moorcroftiana</i> Wallich Ex Benth.	Gaddo	Herb	Cold & cuffs, Stomach pain, dysentery	Roots	Roots are crushed and used in cold and cough. Seeds are emetic and used against dysentery.
36	<i>Rabdosia rugosa</i> Wallich Ex Benth.	Sheshak	Shrub	Stomach pain, Insecticide	Whole plant, leaves	The leaves are grinded and eaten to relieve stomach pain. Extract of leaves is used as vermicide in children. Whole plant is used as insecticide.
37	<i>Mentha longifolia</i> L.	Jungli Pudina	Herb	Cooling Medicine	Leaves	The leaves are soaked in water to give an infusion which is drunk as cooling medicine.
38	<i>Ajuga bracteosa</i> Wallich Ex Benth.	Neel Kanth	Shrub	Gastric problems, malarial fever & Jaundice.	Leaves	Water extract of fresh leaves is generally administered orally with sugar to children against gastric problems. Luke warm leaf extract is also given against malarial fever & jaundice. Leaf juice is used to cure mouth ulcers.
39	<i>Juglans regia</i> L.	Khor	Tree	Skin Diseases	Leaves, Pericarp Of unripe fruit.	The leathery peri carp of unripe fruit is grinded and applied on skin diseases.
40	<i>Asculus indica</i> (Colebr. Ex. Cambess.) Hook.	Gugu	Tree	Rheumatism, colic pain	Seeds	Oil from seeds is externally applied against rheumatism. Seeds are given to horse in colic pain.
41	<i>Geranium wallichianum</i> D.Don.	Gule-e-sanober	Herb	Toothache, Rheumatic pain, Diarrhea & dysentery	Whole herb	The herb is crushed and the paste is used against toothache. The herbal tea is used against rheumatic pain. Root extract is used in chronic diarrhea and dysentery.
42	<i>Rhododendron campanulatum</i> D.Don.	Nichni Shutengar	Evergreen Shrub	Cold, inducing Vomiting	Leaves	Leaves are mixed with tobacco and used as snuff to cure cold. Leaves are used to remove

						undigested material from stomach by inducing vomiting.
43	<i>Rhododendron anthopogon</i> D.Don.	Shutnegar	Evergreen Shrub	Skin problems, cough & cold, fever	Leaves, flowers	Leaves and flowers are used against skin problems, cough & colds. Dried flowers are powdered & mixed with oil and massaged over entire body in post delivery complications like fever, cough & cold.
44	<i>Morina longifolia</i> Wallich.	Kim	Herb	Avoid insect damage to garments	Roots	Roots are collected and kept in garments to avoid insect damage.
45	<i>Dioscorea deltoidea</i> Wallich	Kinns	Climber	Rheumatic diseases, ophthalmic disorders, allergic states	Rhizome	The rhizome yield a steroid(cortisone)which has proved of great value in the treatment of a large variety of diseases, particularly in rheumatic diseases, certain ophthalmic disorders & allergic states.
46	<i>Juniperus communis</i> L.	Bithur	Evergreen Shrub	Rheumatism	Seeds	The oil extracted from juniperus is applied against rheumatism.
47	<i>Sedum ewersii</i> Ledeb.	Kupadd jari	Herb	Increase milk production in cattles, has cooling effect	Whole Plant	The plant is crushed and applied on forehead to provide cooling & soothing effect. This plant is given to cattle to increase milk production.
48	<i>Rhodiola himalensis</i> D.Don.	Dand-jari	Herb	Clean Teeth	Stem Bark	Stem bark is used to clean teeth to avoid the infection of teeth.
49	<i>Acorus calamus</i> L.	Nagruss	Herb	Bronchitis And fever	Rhizome	Rhizome is emetic in large doses. Fresh rhizome is inhaled in common cold as anti-allergic.
50	<i>Arisaema flavum</i> (Forsskal) Schott.	Sapp Google	Herb	Foot & mouth disease in cattle, on snake bite	Tubers	The tubers are crushed and a paste is made which is applied against foot & mouth disease in cattle. The paste is also applied on snake bite.
51	<i>Calendula officinalis</i> L.	Hamesh-bahar	Herb	Skin Diseases & Burns	Flower & leaves	The flowers and leaves are crushed and paste is applied on skin diseases and burns.
52	<i>Gnaphalium hypoleucum</i> D.C.	Charr	Herb	Throat Problems	Flowers	The flowers are crushed in water and the resulted paste is applied on throat problems.
53	<i>Jurinea dolomiaca</i> L.	Guggal	Herb	Rheumatism, Skin eruptions.	Roots	The crushed roots are applied on skin eruptions. Aromatic oil from roots is useful in goats and rheumatism.
54	<i>Taraxacum officinale</i> Wigg.	Handh	Herb	Anti-Rheumatism	Leaves & roots	Roots are diuretic & anti-rheumatic. Tea from leaves is used as tonic.
55	<i>Berberis lyceum</i> Royle	Kaimal	Shrub	Constipation & Acidity	Fruits & bark	The fruits are eaten against constipation & acidity. The extract of the bark is used as cooling agent.
56	<i>Crocus sativus</i> L.	Kesar/Kung	Herb	Increases immunity and general tonic	Stigmas	It is used as nerve sedative and stimulant. It is also used as a general tonic to increase immunity.
57	<i>Phlomis</i>	Neeltrath	Herb	Cough	Leaves	Powdered leaves are mixed in

	<i>bracteosa</i> Royle ex Benth.			&Cold	& Flowers	tea and used against cough & cold. Flowers are crushed and used as laxative.
58	<i>Inula royleana</i> C. B. Clarke	Mulain	Herb	Blood Pressure	Roots	The oil obtained from root is mixed with kuth oil-root oil of <i>Saussurea lappa</i> . It produces fall in blood pressure.
59	<i>Saussurea lappa</i> (Decne.) Sch. Bip.	Kuth	Herb	Joint pains, cough and asthma	Roots	The root oil is used to cure joint pain through external massage. The root is also used in cough and asthma.
60	<i>Impatiens glandulifera</i> Royle	Hillus	Herb	Provides Cooling effect, snake bite, stress	Roots, leaves, & Flowers	The roots and leaves are crushed & applied on forehead, hands & foot to provide cooling food. Leaves decoction is used in stress and mental tension. Flowers are used against snake bite.
61	<i>Arnebia benthami</i> (Wall. Ex. G. Don) Johnston.	Kazuban	Herb	Fever, cough & cold, pneumonia	Root	Root powder is given in fever, cough & cold along with honey. The roots are added to tea & that tea is given to persons having pneumonia.
62	<i>Betula utilis</i> D.Don	Bhuz	Tree	Antiseptic, anemia, cough, Obesity	Bark	The decoction of the bark is antiseptic carminative given in anemia, cough, obesity, urino-genital diseases and various infections.
63	<i>Podophyllum hexandrum</i> Royle	Bankakdi	Herb	Skin diseases, gastric problems	Roots and fruits	The crush leaves and roots are applied on skin diseases. Fruit is eaten In gastric problems.
64	<i>Crataegus songarica</i> G. Koch.	Dakh	Shrub	Heart healthy, Constipation	Fruits	The fruits are eaten to keep the heart healthy. The fruits are also eaten against constipation.
65	<i>Cannabis sativa</i> L.	Bhang	Herb	Appetizer, Narcotic and toxic, lice and Dandruff	Leaves	The plant yield 'charas' and 'ganja' which in action are sedative, appetizer, narcotic and toxic. Leaf juice removes lice and dandruff.
66	<i>Juniperus recurva</i> D.Don	Bithar	Evergreen Tree	Insecticide, rheumatism	Leaves, twigs, Seeds	Leaves and twigs are burnt in houses to produce the smoke which is considered as insecticide. The oil extracted from seeds is applied against rheumatism.
67	<i>Datura Innoxia</i>	Datura	Herb	Toothache, headache, swollen limbs	Leaves	Extract of leaves is used for toothache and headache. Externally leaves are applied to swollen limbs. Seeds are narcotic.
68	<i>Mentha Spicata</i>	Podina	Herb	Mouth wash, dysentery	Leaves	Leaves are used in chutney and for dyspepsia. It is also used as salad and carminative. Decoction of leaves is used as mouth wash. Leaves cooked along with omlate are used to cure dysentery.
69	<i>Rubus hoffmeisterianus</i> , Kunth.	Aarsaa	Shrub	Skin diseases	Leaves &	The leaves and fruits are grinded in water and resulted

International Journal of Basic and Applied Sciences				Wani et. al.,	Vol. 6 No. 1	ISSN: 2277-1921
					Fruits	paste is applied on skin diseases.
70	<i>Rosa Lindley</i>	Wan gulab	Shrub	Eye troubles and burns	Root	Root decoction is used in eye troubles.
71	<i>Coriander Sativum</i>	Dhaniya	Herb	Ulcers, rheumatism, aromatic & refrigerant	Fruit	A decoction of the dried fruits is given in flatulent colic & rheumatism. The watery paste of seeds is used for the cure of ulcers of the mouth and throat.
72	<i>Allium Sativum</i>	Thome/ Lashuna	Herb	Fever, cough, diuretic, flatulence, & earache	Bulb	A decoction of garlic made with milk and water is given in small doses in hystine, flatulence etc. Its juice is introduced in the ear for relief of earache.
73	<i>Lycopersicon esculenton</i>	Tamatar	Herb	High blood pressure, common cold, Burns	Fruit, leaf	The pulped fruit is an extremely beneficial skin wash for people with oily skin. Sliced fruits are a quick and easy aid treatment for burns, scalds and sunburn.
74	<i>Trigonella foenum-graecum</i>	Methi	Herb	Cold, Fever	Seeds, Leaves	Tea made from fenugreek seeds is equal in value to quinine in reducing fevers.
75	<i>Allium Cepa</i>	Piyaz	Herb	Jaundice	Bulb, Leaves	Hot water extract of the dried bulb is taken orally for diabetes, and jaundice.
76	<i>Prunus persica</i>	Aru	Tree	Skin problems	Leaves, Fruit & Seeds	The leaves of a peach tree can be used for the external care of the skin, eliminating spots, pimples and other skin imperfections & is very useful to care dry and dull skins.
77	<i>Momordica charantia</i>	Karella	Climber	Diabetes, skin diseases	Fruit & leaves	Karella juice is also used to treat skin problems and generally good for skin health as it purifies blood.
78	<i>Lagenaria vulgaris</i>	Loki	Climber	Anemia, loss of appetite, & weight loss	Fruit	Lauki juice is useful in weakness, anemia, and loss of appetite and is also useful in Acidity and weight loss.

Among these, 10 species (10 genera) belongs to Asteraceae, 5 species (5 genera) belongs to Lamiaceae and Rosaceae each, 3 species (3 genera) belongs to Pinaceae and Ranunculaceae, 3 species (2 genera) belongs to Berberidaceae, 2 species (2 genera) belongs to Apiaceae, Araceae, Crassulaceae, Saxifragaceae, Sambucaceae, Scrophulariaceae each 2 species (1 genera) belongs to Polygoniaceae, Ericaceae, Cupressaceae each, 1 species belongs to the Balsaminaceae, Betulaceae, Boraginaceae, Cannabinaceae, Dioscoreaceae, Dipsacaceae, Geraniaceae, Hippocastanaceae, Iridaceae, Juglandaceae, Lorantheaceae, Leguminosae, Moraceae, Malvaceae, Papaveraceae, Phytolaccaceae, Punicaceae, Solanaceae, Salicaceae, Thymelaeaceae, Violaceae, Valerianaceae and Urticaceae.

Conclusion

The findings revealed that inhabitants of the study area are using various plants species in day to day life for curing various ailments such as cold, cough, minor cuts and wounds, gastric problems etc. Among the 78 species of ethno-medicinal plants the most plant species used belongs to family Asteraceae. As per people's perceptions they are using various plant species for medicinal use, as they are easily available in nearby vicinity and require low cost for preparation. Further it is reported that these valuable plant species are declining at a faster rate due to anthropogenic pressure and erosion of bio-diversity knowledge in younger generation.

Recommendations

The Hakims and Vadhyas are facing a fear of threat regarding the extinction of bio-diversity knowledge with their death. If government institutions, N.G.O^s and other bodies will not take appropriate action to inculcate the bio-diversity knowledge in the young minds, then the valuable knowledge about the medicinal herbs and other plants will vanish forever. The state government

of Jammu and Kashmir should take an initiative to identify the local herbalists and incorporate their knowledge in scientific research. Government agencies should promote the use of ethno-medicinal plants by providing Hakims and Vadhys and other locals of remote areas modern and scientific technique of cultivation, storage, packing and marketing.

References

1. Bhanwar Singh Hada and S.S.Katewa: Ethnomedicinal Plants Used Against Various Diseases in Jhalwar District Of Rajasthan, India. Journal of Global Biosciences, ISSN 2320-1355, vol 4, no.4, pp.2077-2086, 2015.
2. Gupta, S.K. et al., : Ethno-Botanical Study of Medicinal Plants of Paddar Valley of Jammu and Kashmir, India, Africian Journal of Traditional, Complementary and Alternative Medicines. 10(4):59-65, 2013.
3. Arya, D. and Khan, A: Ethno Medicinal Plants and their Contribution to Cure Various Ailments as House hold Remedies in Garhwal Himalaya India, International Journal of Pharmaceutical Science and Research. 6(4): 1590, 2015.
4. Arya, D., Kumar, M and Khan, A.: Erosion of Bio-diversity knowledge between younger and older generations in Doda district of Jammu and Kashmir Himalaya (India), International Journal of Current Research. 6(9): 8300-8301, 2014.
5. www.kishtwar.nic.in visited on 25-11-2016.