



## ETHNOMEDICINAL ASPECTS OF SOME FOREST MEDICINAL PLANTS OF KASHMIR

Zakir Hussain  
Khanday\*

Department of Life Science, Singhania University, Rajasthan \*Corresponding Author

Sumer Singh

Department of Life Science, Singhania University, Rajasthan

Firdous Mir

CSIR- Indian Institute of Integrative Medicine, Field Station Pulwama

**ABSTRACT** Kashmir Himalaya is a sanctuary of diverse habitats which support a rich floristic wealth that has been used as a resource base by its people since long long times. Almost all areas of Kashmir valley are floristically rich having both deciduous and evergreen forests which maintain a wide range of biodiversity. Owing to the rich and unique floristic diversity a good proportion of plant species are used as medicine in one or other form. The Kashmir valley especially the Pir-Panchal range holds a rich variety of Medicinal plants with diverse biological properties. The body of existing ethnomedicinal knowledge has led to great development in health care. In these respects knowledge about medicinal uses of plants has played an important role and will continue to do so in future. The present study revealed that there are about 22 medicinal plant species which are commonly found in the forests of Kashmir Himalayas and are used in various ailments.

**KEYWORDS :** Biological diversity, Ethno medicine, Forests, Himalaya.

## INTRODUCTION

India being the treasure house of biodiversity with its diverse ecological conditions, rich ethnic diversity and a strong traditional knowledge base accounts for 45,000 plant species. Out of which more than 8000 species are used in some 10,000 herbal drug formulations. Ninety percent of the herbal industry's requirement is taken out from the forests, resulting into their destruction. Due to this reason many species have become endangered. There is urgent need to conserve our precious bio wealth for sustainable utilization. Our knowledge about the aforesaid is still inadequate and needs further extensive and intensive investigations so as to have full spectrum at hand. For this more elaborate and research oriented information are aptly required.

In spite of having strong traditional knowledge base and rich biodiversity India has an insignificant share in the international Herbal Trade. Two possible reasons for this situation are: Firstly we have broken the chain by not doing advanced researches using the latest technologies on existing information's on herbal sciences in the past and second we forget to have a sustainable development of plant resources.

The work of Dr. S.K Jain (1964, 1967, and 1981) is very much popularized ethnobotanical work in India; through his publications, he has also discussed several field methods and problems for ethnobotanical studies. Consequently, in India, several field studies in tribal areas of Mayurbhanj by Bal (1942), Bihar by Gupta (1963) Kumaon by Shah and Joshi (1971), Araku valley by Banerjee (1974), Ratanmahal hills by Bedi (1978), Nagar and Haveli by Bennet (1978), Lahul by koelz (1979), Brahamputra valley by Boissya & Mujumdar (1980), Madhya Pradesh by Jain et.al. (1979), Saurashtra by Shah et al., (1981), Uttarakhand by Issar (1981), Santal Pargana by Srivastava and Verma (1981), Andaman and Nicobar Islands by Bhargava (1981) and Sind valley by Dar et al., (1984) were performed and they provided a number of positive results (Mudgal, 1995).

Likewise, Dr R. J. Rodin of Missouri Botanical garden has devoted more than 25 years to publish his account of the ethnobotany of the Kwanyama Ovambos. The entire Ovambo culture has been studied by him. In the same way, very valuable work has been done by other workers like Gunter (1945) on the ethnobotany of western Washington, Turner & Bell (1971) on ethnobotany of the coast Saltish Indians of Vanboucher Island.

## METHODOLOGY

The present survey was carried out in hilly areas of Kashmir Himalayas. The diverse features offer many habitats and micro habitat types for a variety of herbal plant species to grow in the high altitude alpine forests. Several field surveys and interviews were carried to obtain knowledge from the tribal communities inhabiting the hilly forest areas of Kashmir Himalaya. The survey was started with the

interview of experienced people. Besides the common people were also consulted to share their knowledge about medicinal species which are used asked the question in local language regarding the traditional use of these medicinal plants. Data was collected as per the appropriate methodology. (Jain 1995, Schultes 1962). In a total about 100 people were consulted from these localities. Out of these 100 about 70 people were old and experienced people. In all the total number of localities surveyed were 20. All the information obtained from these people regarding the traditional use of medicinal plants was recorded in the field book. A number of publications were consulted for the taxonomic identification of plant species Jain (1991), Chopra et al (1996), Kirtikar and Basu (1991).

**Table 1. List of Medicinal plants used in various ailments in Kashmir Himalaya.**

| S.No | Botanical Name                       | Local name | Habit  | Part used           | Tribal use in various ailments    |
|------|--------------------------------------|------------|--------|---------------------|-----------------------------------|
| 1    | Abies pindsow Royle                  | Bodal      | Tree   | Leaves, Bark        | Headache, Cough                   |
| 2    | Achillea millefolium L               | Pohel gas  | Herb   | Whole plant, Root   | Common cold, Toothache, Dysentery |
| 3    | Aconitum heterophyllum Wall ex Royle | Patris     | Herb   | Root                | Diarrhea, Dysentery, Dry cough    |
| 4    | Adiantum vensustum G. Don            | Geutheer   | Herb   | Leaves              | Skin eruptions, Pimples           |
| 5    | Aesculus indica Hook                 | Handoon    | Tree   | Fruit               | Cracked heel, Dandruff, Hair fall |
| 6    | Agarcus campestris L                 | Hedur      | Fungus | Fruiting body       | Paralysis                         |
| 7    | Allium walihichi Kunth               | Wan prawn  | Herb   | Leaves              | Blood impurity, Stomach ache      |
| 8    | Arthemisia absinthium L              | Tethwen    | Herb   | Leaves, Whole plant | Stomach ache, Joint dislocation   |
| 9    | Berberis lycium Royle                | Dhop kul   | Shrub  | Leaves              | Scurvy, Bleeding piles, Eye sore  |
| 10   | Cydonia oblongata Mill               | Bomb chout | Tree   | Fruit, Seed         | Chopped skin, Asthma, Itching     |

|    |                                     |                 |       |                           |  |
|----|-------------------------------------|-----------------|-------|---------------------------|--|
| 11 | Cedrus deodara<br>G. Don            | Deodar          | Tree  | Resin,<br>Heart wood      | Piles, Skin<br>allergy                                     |
| 12 | Duchesnia<br>indica                 | Youngris<br>h   | Herb  | Root, fruit               | Menstrual<br>trouble,<br>Stomach ache                      |
| 13 | Juniperus<br>communis L             | Ardo            | Shrub | Fruit                     | Indigestion,<br>Kidney trouble                             |
| 14 | Morus Lavigota<br>Wall ex Brandis   | Chatbat         | Tree  | Leaves                    | Sore throat,<br>Wound                                      |
| 15 | Morus nigra L                       | Shatul          | Tree  | Fruit                     | Sore throat,<br>Jaundice                                   |
| 16 | Ocimum<br>sanctum Mant              | Bradegas<br>s   | Herb  | Leaves,<br>Aerial part    | Abdominal<br>pain,<br>Indigestion,<br>Hemorrhoids          |
| 17 | Picea simithiana<br>(Wall Boiss)    | Kachul          | Tree  | Resin                     | Cracked Heel   |
| 18 | Podphyllum<br>hexandrum             | Wanwan<br>gum   | Herb  | Rhizome,<br>fruit, leaves | Boil,<br>Diahorrea,<br>Constipation,<br>Stomach<br>trouble |
| 19 | Pinus<br>walhichiana A.B<br>Jackson | Kayur           | Tree  | Resin                     | Muscular pain,<br>Cracked heel                             |
| 20 | Prunelra<br>Vulgaris L              | Kal-<br>weeth   | Herb  | Flower                    | Dizziness,<br>High fever,<br>Wound                         |
| 21 | Rheum emodi<br>Wall ex Meissn       | Pumb-<br>chalen | Herb  | Rhizome                   | Boil,<br>Rheumatism,<br>Wound                              |
| 22 | Zizyphus jujube<br>Mill             | Brey            | Tree  | Bark, fruit               | Diarrhea,<br>Night sweets                                  |

**RESULTS AND DISCUSSION**

During the present survey which was carried in the inaccessible area of the Kashmir Himalayas the author found about 22 medicinal plant species which are commonly available in the forests of Kashmir and are used by the tribal and non-tribal people of Kashmir against different diseases. These plant species are enumerated in Table 1, along with their botanical and vernacular names, part used, habit and traditional use. Among the selected plant species 10 species are herbs, a species are tree, and 2 species are shrubs and one plant species in fungus (Fig 1). The most dominant plant parts used are leaves, fruit and roots. Rhizome, bark, resin, flowers are also used as plant parts (Fig 2). The present study also revealed the overexploitation of various parts of the medicinal plants is done by the local communities to cope with the environment conditions and also for income generation. Most of these plant species are used for pharmaceutical preparations. The interviews of the knowledgeable persons revealed that the local inhabitants over exploits some of the commercially viable medicinal plants for income generation and are traded either in the local or in the state market.

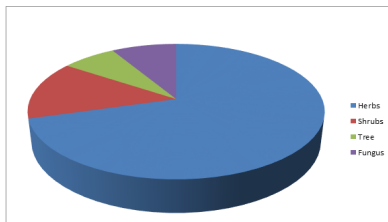


Fig. 1. Showing Habit of ethno-medicinal plant species.

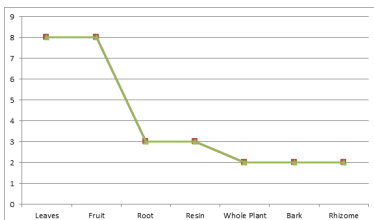


Fig. 2. Plant parts being used for medicine by people of the study area.

**CONCLUSION**

Medicinal plant products are most convenient and have greater acceptance amongst the users due to their easy availability, easy biodegradability, easy to handling, economic cost, mankind and environment friendly nature both and minimum side effect. Despite this the traditional knowledge system in India is facing a major setback due to lack of documentation. There is an urgent need to record ethno medicinal information among the diverse ethnic communities before some of very important aspects of the traditional culture are completely lost. Our field survey confirms that cultivation of medicinal plants is a viable option to improve the livelihood of poor farmers. The study revealed that growing demand for medicinal plants is related to the great cultural significance attached to significance if medicinal [plants and following factors are needed to success on this sector: our findings to suggest that one is, To promote the cultivation of those medicinal plants with a large marked potential. Second is Select a suitable are with favorable agro-ecological ground conditions and relatively low levels of economic development.

**ACKNOWLEDGEMENT**

We are highly thankful to the local rural and tribal people of Kashmir valley for their help in our Survey and Data collection regarding the medicinal plants. We are also highly thankful to CSIR-IIIM Srinagar, for identification of medicinal plant specimens.

**REFERENCES**

- Bal, SN (1942). Useful plants of Mayurbhanj state in Orissa. Rec Bot Surv. India 6: 1-119.
- Banerjee, DK (1977). Observations on ethnobotany of Araku valley Vishakhapatnam Distt., A.P.J Sci. Club 33 (3): 14-21
- Bedi, S.J (1978). Ethnobotany of Raj Mahal Hills Gujrat India Econbot 32: 278-284
- Bennet, SSR (1978). Ethnobotanical studies in Nagar Haveli forests. Some interesting native drugs. Ind for 104, 676-681.
- Bhargava, N (1981). Plants in folk life and folklore in Andaman and Nicobar islands. In Jain S.K (ed) Glimpses of Indian Ethnobotany. 329-344.
- Boissya, C.L and Mujumdar, R (1980). Folklore claims from the Brahmaputra valley (Assam). Ethnomedicine 6, 139-45.
- Chopra, R.N., S.L.Nayar and I.C Chopra. Glossary of Indian medicinal plants CSIR New Delhi, (1996) ISBN: 8172361262.
- Dar, GH, Virjee, Kachroo P and Buth GM (1984). Ethnobotany of Kashmir I Sind valley J Econ Tax Boy 5, 3 668-75
- Gupta, S.P (1963). An appraisal of Chotnagpur tribal pharma copia. Bull Bihar tribal Res. Inst 5 (2): 1-18
- Gunther, E (1945). Ethnobotany of western Washington. University of Washington publication in anthropology (2nd edition 1973)
- Issar, R.K (1981). Traditionally important medicinal plants and folklore of Uttarakhand Himalayas for animal treatment. J.Sci Res plant Med. 2: 61-66.
- Jain, S.K (1964). The role of a botanist in folklore research. Folk lore 5: 145-1450.
- Jain, S.K (1967). Ethnobotany: Its scope and study Indian Museum Bulletin, 2: 39-43.
- Jain, S.K and Dam, N (1979). Some ethnobotanical notes from North eastern India. Econ Bot 33: 52-56
- Jain, S.K (Ed) (1981). Glimpses of Indian Ethnobotany exford and IBH New Delhi:
- Jain, S.K (1991). Dictionary of Indian Folk Medicine and Ethnobotany, 1991. Deep publications New Delhi.
- Jain, S.K (1995). A Manual of Ethnobotany (2nd ed) Scientific Publishers, Jodhpur.
- Kirtikar, K.R and Basu, B.D (1991). Indian Medicinal plants. Vol 4 Lalit Mohan Basu Publications, Allahabad India
- Koelz, W.N (1979). Notes on the Ethnobotany of Lahul, a province of the Punjab Q.J Crude Drug Res. 17, 1-56.
- Mudgal, V (1995). Recent Ethnobotanical works on different states tribes of India. In: A manual of Ethnobotany edited by Jain S.K (Scientific publishers Jodhpur), 48.
- Schultes, R.E (1962). The role of Ethnobotanist in the search for New medicinal plants. L.lodia. 25: 257-266.
- Shah, N.C and Joshi M.C (1971). An ethnobotanical study of Kumaon region of India. Econ Bot 25: 414-422.
- Shah, G.L Menon A.R and Gopal G,V (1981). An account of the ethnobotany of Saurashtra in Gujrat State (India). J.Econ. Taxon. Bot 2: 173-182.
- Srivastava, D.K and Verma, S.K (1981). An ethnobotanical study of Santal Pargana, Bihar. Ind. For 107: 30-41.
- Turner, N.C and Bell, M.A.M. (1971). The Ethnobotany of the coast Saltish Indian of Vancouver Island. Econ. Bot 25: 63-104.