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SOME OBSERVATIONS OF MEDICINAL FOLKLORES OF DOGRAS INHABITING SHIVALIK HILLS OF JAMMU AND KASHMIR STATE

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ABSTRACT

Studies were carried in the shivalik mountain range with an aim to document the indigenous knowledge on the ethno medico folklores of Dogras. During the surveys in the area and interaction with the local populace 67 plant species were recorded which were deeply interwoven in Dogra culture. These plant species were used to cure a varied range of diseases and ailments using diverse plant species and plant parts. The most frequently plant parts used were roots, leaves, flower, seed, bark, fruit etc. in some cases whole plants were used.

KEYWORDS : Folklore, Medicinal, Shivalik, Dogras, Diseases, Ailments

Plants, since the dawn of human civilization have been put to various uses and one of the important aspects has been in human healthcare (Jain et al., 2007). The potential saleable and ethnic use of plants in medicine through folklores as well in the documented form of Rig Veda and Ayur Veda dates back to 3000-1000 BC and was in all probability the only means of curing/ or protecting the evolving human population from the diseases (Wani et al., 2006). Thus in different parts of world, different plant species are being used for curing various diseases by diverse cultural societies (Hamayun et al., 2006). According to the WHO estimate, about 80% of the population in the developing countries depends directly on plants for its medicines (Pareek, 1996; Mukhopadhyay, 1998). In India, about 2000 drugs used are of plant origin (Dikshit, 1999).

Folklore an interesting but still little-exploited source of information on our ancient culture has descended through the generations and survived in certain restricted and remote aboriginal habitats (Jain, 1967). The folklores connected with human healthcare have come to be known as ethno-medico folklores. The potential of these folklores as a source of new drugs is glaringly clear from the work of Dr. Richard Evans of the Harvard University who spent 12 years in tribal areas of Amazon (Prance, 2001) and Dr. Gunther on the ethnobotany of western Washington (Gunther, 1973). In India, the organized ethnobotanical research started about five decades ago. The ethno-medico studies by Dr. S.K. Jain and his associates on tribal areas of Madhya Pradesh have brought to light immense potential of plants in treatment of various ailments (Jain, 1963a, 1963b, 1965, 1975; Jain and Tarafder, 1963).

Many eminent pharmacologists have thoroughly discussed various aspects of the problem al).d potentials of pharmacological research and its impact on drug industry and patients (Mordini, E. 2004; Pirazzoli and Recchia, 2004). Despite tremendous progress in the field of medicine, yet there are many modern drugs available in the market which leads to adverse effects on the patients (lnamdar et al., 2008.). Moreover, despite availability of drugs for variety of ailments, there are some diseases for which yet, there is no specific modern drug (Barh, 2009; Kastenholz and Garfin, 2009). However we find better treatment prescriptions for some of these ailments in auyrvedic, or unani system of medicine (Yesilada, 2005; Khalsa, 7007). Chemical screening of some of the species used in these indigenous systems of medicine have proved rewarding (Rios and Recio, 2005; Das et al., 2006; Gautam et al., 2007). The pharmaceutical industry continues to investigate and confirm the efficacy of many medicines and toxins used by traditional communities (Verma et al., 2007).

Till recently the causal observation and field notes by a botanist would enlighten the scientific world about medicinal uses of plants. With population explosion, urbanization, adverse effects of modern drugs, it has been realized that ethno-botanical studies of different parts of the world particularly of the areas which inhabit primitive societies or which are still inaccessible and remote where local populace largely depends on plant diversity, should be under taken on priority. The main aim is to explore the

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possibility of laying hands on such plant species that have potential for new drugs. The importance of ethno-biological knowledge for suggesting new paths in scientific research, for conservation monitoring or for understanding ecological processes, has received much attention in resource management (Berkes et. al., 2000; Huntington, 2000). International agencies such as the World Wildlife Fund (WWF) and UNESCO, in the context of their joint program, the people and plant initiative, have also promoted research on ethno-botanical knowledge, as well as integration of people's perceptions and practices in resource management at local level (Cunningham, 2001). All though, now organized ethno-botanical explorations are being conducted in different parts of the world but there are many constraints. The most important constraint is the secretive attitude of the aboriginals of tribal, remote and inaccessible areas. The inhabitants of these areas do not ordinarily reveal their customs and folklore to the outsiders. In order to drive information from them, one has to get involved in their day to day activities and gain their confidence. In some areas, the aboriginals are extremely conservative and no incentives work.

Indigenous Knowledge plays a vital role in the lives of local communities. It is a key element in their food security, health, education, natural resources management, and other vital activities. The number of people in India who rely on forest products is assumed to be approximately 50 million (Shiva, 1993). For a number of reasons bio-diversity and associated indigenous knowledge are declining at a rapid rate (Arora, 1995). It has also been observed that the over the years, with linkage of remote and inaccessible areas through the network of roads and exposure of the local inhabitants to the modern amenities of life, use of ethno-drugs has declined (Gadgil et. al., 1993; Silori and Rana, 2000). In view of its importance for society in general and local communities in particular, it becomes imperative to under take organized ethno-botanical exploration of all the potential areas for collecting of plant folklores and protecting indigenous knowledge (Arora, 1997).

MATERIALS AND METHODS

Dogras are the people inhabiting some parts of Jammu province (Jammu and Kashmir State) and Himachal Pradesh. They have a distinct culture of their own and even speak a distinct language “Dogri” which has been recently included in 8th Schedule of Indian Constitution. Plant specimens and data on ethnomedicinal information have been collected from the field following the methods of Jain (1965). Almost all the densely populated villages were visited and attempt was made to gather the information from medicine men/women or knowledgeable persons of the area. In every case, effort has been made to record only those use whose effectiveness has been confidently claimed by the tribal people. The information was gathered either by taking interview of the informant or as witness of the uses. Informants were also requested to accompany in the field to detect plants, once the information on particular plant was recorded it was repeatedly verified from other sources. Plant identification was done from various local, regional and national floras besides consulting taxonomic expertise of Botanical Survey of India, Northern Circle, Dehradun and Centre for plant taxonomy, University of Kashmir.

RESULTS AND DISCUSSION

India has enormous diversity of lowering plants (17,000 species) with high proportion of endemics (33.5%) (Murthy et al., 2003). Since there is tremendous diversity in climate and vegetation, wide range of plants species have entered ethno-medico folklore in different parts of the country where people have varied socio-cultural practices. In many rural areas, “Vaid” is the local medical practitioner, who is normally an elderly person well versed with ethno-medico folklores of local plants. Although Dogras are not much secretive about their customs and folklores, but the local medicine-men generally does not reveal the identity of plant based drugs which he prescribes. Some commonly used medicinal plants are known to elderly people. Our interaction with local populace of the Dogra Belt of Jammu has enabled us to record some plant species growing in the area. These folklores are deeply interwoven with day today life activities of the inhabitants. List of the plant species along with families local name and medicinal use is given

table 1. These plant species are used to cure different ailments and disease. The plant parts used for medicinal preparations by them are leaf, root, bark, fruit, wood, tuber, seed, stem, latex etc. In some cases the whole plant is utilized. The herbal preparations are used in treatment of respiratory tract infections, gastrointestinal problems, dermatological problems, cuts and wounds, night blindness, besides as tonic, coolant, antidote, promoting male potency and causing abortion. The preparation methods included decoction, juice, paste, powder, extract and even raw (unprocessed). More interaction between locals and plants was found in rural areas which are either remote, inaccessible having primitive customs and even in the urban areas, people below poverty line are using local plants to a great extent (Amira, and Okubadejo, 2007; Kitula, 2007).

Plant diversity or to be correct the whole biodiversity is under acute threat. Various factors that have precipitated this state of affairs are population explosion, urbanization, industrialization, overexploitation, road and dam building, tourism, soil erosion and environmental degradation. This has been estimated that 20-30 percent of Indian bio-diversity is at the risk of becoming extinct in next decade. At global level the rate of plant species extinct is one in 24 hours. Since plants are chemical laboratories in nature and one does not know which plant species may prove handy for curing the most dreadful disease. It is therefore high time to explore the vast potential of ethno-drugs on war footing. Lest we may loose them all for times to come. Evolution of the plant species is the result of millions of year.

Table 1 : List of Plants

Botanical Name	Family	Dogra Vernacular Name	Indigenous Uses
Acacia catechu (L.f.) Wild.	Mimosacease	Khair	Wood pieces are boiled in water. The water is then given to women after delivery.
Achillea millefolium L.	Asteraceae	Darey-dil-jari	Leaf extract used to cure toothache.
Achyranthes aspera L.	Amaranthaceae	Pud kunda	Roots are used for causing abortion.
Aegle marmelos (L.) Corrêa	Rutaceae	Bil	Bitter fruit juice is effective against stomach disorder.
Ajuga bracteosa Wall. ex Benth.	Lamiaceae	Neel Kanthi	Plant extract is used against mouth allergies.
Albizia lebbeck (L.) Benth.	Mimosaceae	Sarreen	Bark used to cure leucode rma and bronchitis.
Amaranthus caudatus L.	Amaranthaceae	Doolu sethual	Cooling effect
Amaranthus spinosus L.	Amaranthaceae	Kada ali challary	Used as poultice in abscess and boils.
Amaranthus viridis L.	Amaranthaceae	Chelari	Half cooked leaves and tender shoots are considered effective in night blindness.
Artemisia scoparia Waldst. & Kit.	Asteraceae	Bano, Jahu	Leaves are used in stomachic complaints like indigestion and liver infections.
Arundo donax L.	Poaceae	Naar, Baranal	Decoction of rhizome is used as amollient, diuretic and to stimulate menstrual discharge.
Azadirachta indica A. Juss.	Meliaceae	Neem	Water extract of deied leaves is taken orally to cure pimples and skin eruptions.
Bauhinia vahlii Wight & Arn.	Ceasalpinaceae	Kaliar, Karal	Bark is astringent and given in diarrhea.

Bauhinia variegata L.	Ceasalpinaceae	Kachnar, Kared	Dried buds are useful in dysentery, diarrhea & piles and decoction of roots is used to treat
Cardamine impatiens L.	Brassicaceae		Whole part is used as stimulant, diaphoretic, stomachic, carminative and diuretic.
Carsissa spinarum L.	Apocynaceae	Garna	Roots in powered form are consumed to cure respiratory disorders.
Cassiope fast igiata (Wall.) D. Don	Ericaceae	Solu	The leafy twigs are ground into a paste and applied in fire burn.
Catunaregam spinosa (Thunb.) Tirveng.	Rubiaceae	Rara	Fruits given to cattle for curing dysentery.
Centella asiastica (L.) Urb.	Araliaceae	Ghor-sumbee	Whole plant is taken as brain tonic.
Cirsium arvense (L.) Scop.	Asteraceae	Kandiara, Boban	Plant is diaphoretic, emetic and tonic.
Cissampelos pareira L.	Menispermaceae	Battal bail	Leaves mixed with wheat flour fried in oil consumed for control of diarrhoea.
Clematis gouriana Roxb. ex DC.	Ranunculaceae	Chiwra	Leaf paste is used locally for wound healing.
Cleome gynandra L.	Cleomaceae	Chitti Neoli	Plants are used as antidote against snake bite.
Codonopsis ovata Benth.	Campanulaceae	Ludut	Roots and leaves, pounded to make poultice, are used in bruises ulcers and wounds.
Colebrookea oppositifolia Sm.	Lamiaceae	Chitti Soali	Leaf paste bandage relieves headache.
Convolvulus arvensis L.	Convolvulaceae	Harangi	Roots are purgative.
Cordia dichotoma G. Forst.	Boraginaceae	Lasoora, Lasoori	Bark decoction is used in fever. Fruit is given in urinary infections and diseases of lungs and spleen.
Costus specious (J. Koenig) Sm.	Costaceae	Chamarghatha	Roots are used in snake bite.
Cymbopogon m artini (Roxb.) Will. Watson	Poaceae	Babra gha	Used as insect repellent, applied in skin diseases, also used in stiff joints.
Deeringia amaranthoides (Lam.) Merr.	Amaranthaceae		Leaves are antiseptic, applied on boils and sores.
Dendrocalamus strictus (Roxb.) Nees	Poaceae	Bans, Narbans	Given to children and ladies having calcium deficiency.
Evolvulus alsinoides L.	Convolvulaceae	Sankhushpi	Plant is bitter, febrifuge, tonic and vermifuge, used in dysentery. Leaves used in chronic bronchitis and asthma.
Ficus religiosa L.	Moraceae	Bard	Ash of burnt bark is applied on skin rashes.
Fumaria indica (Hausskn.) Pugsley	Fumariaceae	Pid-papra	Plant paste is used for controlling fever. Leaf extract used to improves eye sight.
Justicia adhatoda L.	Acanthaceae	Beranker	Root extract taken orally to cure asthma and bronchitis.
Kydia calycina Roxb.	Malvaceae	Poola	Paste of leaves is applied in rheumatism.
Momordica dioica Roxb. ex Willd.	Cucurbitaceae	Kokora	Roasted root used to check bleeding from piles, bowel infections and urinary complaints.
Murraya koenigii (L.) Spreng.	Rutaceae	Kari pata	Leaves are taken in diabetes.

Nerium oleander L.	Apocynaceae	Lal-Ganeera	Stem juice is applied locally for curing pimples.
Phyllanthus emblica L.	Phyllanthaceae	Amla	Powdered dry fruits are made into paste and applied on the scalp for healthy air and good vision besides cooling effect.
Plantago major L.	Plantaginaceae	Jangli isbghol	The seeds are used to cure gastric complaints, burning sensation in stomach and dysentery.
Portulaca oleraceae L.	Portulaceae	Kulfa, Lunak	Herb is refrigerant, leaves antiscorbutic, aperient diuretic.
Pueraria tuberose (Roxb.ex Willd.) DC.	Fabaceae	Vidh	The tuber of plant is used as a remedy for throat infection.
Rumex hastatus D. Don.	Polygonaceae	Aammy	Leaves are rubbed by the locals against stings of *Urtica dioica.*
Rumex nepalensis Spreng.	Polygonaceae	Wbal	The sap of leaves and stem is applied on cuts for its astringent properties.
Senna occidentalis (L.) Link	Ceasalpinaceae	Baddee-harmann	Roots and seeds in powdered form are taken orally to cure malaria fever.
Sida cordata (Burm.f.) Borss. Waalk.	Portulaceae	Bhiunli	Used in fever, urinary complaints
Siegesbeckia orientalis L.	Asteraceae	Chachera	Herb is considered diaphoretic, cardiotonic, antiscorbutic, also used in rheumatism and renal colic.
Solidago virgaurea L.	Asteraceae	Son-dandi	Plant possesses diuretic and carminative properties.
Sonchus arvensis L.	Asteraceae	Dudoli	Roots used in cough, bronchitis , asthma and pertussis. Leaves applied to swellings and latex used in eye troubles.
Stellaria media (L.) Vill.	Caryophyllaceae	Mamiri	Whole plant used as plaster on swelling and broken bones.
Taraxacum officinale F.H. Wigg. agr.	Asteraceae	Dudli	Root is aperinet, diuretic and tonic, also used in chronic disorders of kidney and liver.
Verbacum thapsus L.	Scrophulariaceae	Sutt-tamakoo	Leaf extract is used to cure ear trouble.
Viola indica W. Becker	Violaceae	Banafsha	The powdered dried leaves are gi ven with milk to cure cough in infants.
Woodfordia fruticosa (L.) Kurz	Lythyraceae	Dhavi	Dried flowers considered astringent and stimulant, also used in dysentery.
Xanthium strumarium L.	Asteraceae	Lanetsuru	Deocotion of roots is used locally over ulcers, boils and abscesses.

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REFERENCES

Amira O. C. and Okubadejo N. U., 2007. Frequency of complementary and alternative medicine utilization in hypertensive patients attending an urban tertiary care centre in Nigeria. BMC Complementary and Alternative Medicine, **7**:30.

Arora R. K., 1995. Ethnobotanical studies on plant genetic resources- National efforts and concern, Ethnobotany, **7**:125-136.

Arora R. K., 1997. Ethnobotany and its role in the conservation and use of Plant Genetic Resources in India, Ethnobotany, **9**:6-15.

Barh D., 2009. Biomarkers, critical disease pathways, drug targets, and alternative medicine in male breast cancer. Curr Drug Targets. **10**(1):1-8.

Berkes F., Colding 1. and Folke C., 2000. Rediscovery of traditional ecological knowledge as adaptive management. Ecological Applications, **10**: 1251-1262.

Cunningham A. B., 2001. Applied ethnobotany: people, wild plant use and conservation Earth Scan, London, U.K..

Das P. K., Goswami S., Chinniah A., Panda N., Banerjee S., Sahu N. P., Achari B., 2006. Woodfordia fruticosa : traditional uses and recent findings. J. Ethnopharmacol., 2007 Mar 21, **110**(2) : 189-99.

Dikshit V. K., 1999. Export of medicinal plants from India: need for resource management. In Biodiversity - North-east India Perspectives: People's Participation in Biodiversity Conservation (eds Kharbuli, B., Syem, D. and Kayang, H.), NEBRC, North-Eastern Hill University, Shillong, pp. 85-88.

Gadgil M., Birkes F. and Folkes C., 1993. Indigenous knowledge of biodiversity conservation. Ambio, **22**: 151-160.

Gautam R., Saklani A., Jachak S. M., 2007. Indian medicinal plants as a source of anti-mycobacterial agents. J Ethnopharmacol., **110**(2):200-34.

Gunther E., 1973. Ethnobotany of Western Washington: The Knowledge and Use of Indigenous Plants by Native Americans, University of Washington Press, Seattle,

Hamayun M., Khan, S. A., Kim Ho- Youn. Na, C.I. and Lee, In-Jung., 2006. Traditional nowledge and ex situ conservation of some threatened medicinal plants of Swat Kohistan, Pakistan. International Journal of Botany, **2**(2): 205-209.

Huntington H. P., 2000. Using traditional ecological knowledge in science: methods and applications. Ecological Applications, **10**: 1270-1274.

Inamdar N., Edalat S., Kotwal V. B., Pawar S., 2008. Herbal drugs in milieu of modern drugs. Int J Green Pharm, **2**:2-8

Jain S. K. and C. R. Tarafder, 1963. Native plant remedies for snake bite among the adibasis of central India Indian Med. 1. **57**: 307-309.

Jain S. K., 1963a. Studies in Indian ethnobotany--plants used in medicine by the tribals of Madhya Pradesh. Bull. Reg. Res. Lab. Jammu, **I**: 126-128.

Jain S. K., 1963b. Studies in Indian ethnobotany-less known uses of fifty common plants from the tribal areas of Madhya Pradesh. Bull. Bot. Surv. India, **5**: 223-226.

Jain S. K., 1965. Medicinal plantlore of the tribals of Bastar. Econ. Bot., **19**: 236-250.

Jain S. K., 1967. Plants in Indian Medicine and folklore associated with healing of bones. Indian Journal of Orthopaedics, **1**(1): 95-104.

Jain S. K., 1975. Medicinal Plants. Ed. 2. National Book Trust of India, New Delhi.

Kastenholz B., Garfin D. E., 2009. Medicinal plants: a natural chaperones source for treating neurological disorders. Protein Peptide Letters. **16**(2): 116-20 .

Khalsa K. P., 2007. The practitioner's perspective: introduction to Ayurvedic herbalism. J Herb Pharmacother, **7**(3-4): 129-42.

Kitula R. A., 2007. Use of medicinal plants for human health in Udzungwa Mountains Forests : a case study of New Dabaga Ulongambi Forest Reserve, Tanzania. Journal of Ethnobiology and Ethnomedicine, **3**:7.

Mordini E., 2004. Ethnical considerations on pharmacogenomics. Pharmacological Research, **49**(4) : 375-379.

Mukhopadhyay S., 1998. Conservation, protection and biodiversity of medicinal plants. In Prospects of Medicinal Plants (eds Gautam, P. 1. et al.), Indian Society for Plant Genetic Resources, New Delhi, 15-28.

Murthy M. S. R., Giriraraj A. and Dutt C. B. S., 2003. Geoinformatics for biodiversity assessment. Biol. Lett., **40**(2): 75- 100.

Olsson P. and Folke., 200I. Local ecological knowledge and institutional dynamics for ecosystem management: a case study of lake Racken watershed, Sweden. Ecosystems, **4**: 85**-**104.

Pareek S. K., 1996. Medicinal plants in India: Present status and future prospects. In Prospects of Medicinal Plants (eds Gautam, P. L. et al.), Indian Society for Plant Genetic Resources, NBPGR Campus, New Delhi : 5-14.

Pirazzoli A. and Recchia G., 2004. Pharmacogenetics and pharmacogenomics: are they still promising? Pharmacological Research, **49**(4): 357-361.

Prance G. T. 2001. Richard Evans Schultes (12 January 1915"':"10 April): A tribute. Economic Botany, **55**(3): 347-362.

Rios J. L., Recio Me., 2005. Medicinal plants and antimicrobial activity. J Ethnopharmacol, **100** (1-2) : 80-4.

Samant S. S., Dhar U. and Palni L. M. S., 1998. Medicinal plants of Indian Himalaya: Diversity Distribution Potential Values. Gyanodaya Prakashan, Nainital, India

Jain S., Shrivastava S., Nayak S., Sumbhate S., 2007. Recent trends in Curcuma Longa Linn. Pharmacognosy Reviews, **1** (1): 119-128.

Shiva M. P., 1993. Solutions to over come impediments in forest development through MFP based management. Proceedings of the International Seminar on Minor Forest Products in Forestry, 17-18 April. Dhera Dun.

Silori E. S. and Rana A. R., 2000. Indigenous knowledge on medicinal plants and their use in Narayan Sarovar Sanctuary, Kachchh. Ethnobotany, **12**: 1-7.

Teklehaymanot T. and Giday M., 2007. Ethnobotanical study of medicinal plants used by people in Zegie Peninsula, Northwestern Ethiopia. J Ethnobiol Ethnomedicine, **3**: 12.

Verma A. K., Kumar M. and Bussmann R.W., 2007. Medicinal plants in an urban environment: the medicinal flora of Banares Hindu University, Varanasi, Uttar Pradesh. Journal of Ethnobiology and Ethnomedicine, **3**:35

Wani P. A., Oar A. R., Mohi-ud-din G. G., Ganaie K. A., Nawchoo I. A. and Wafai B. A., 2006. Treasure and Tragedy of the Kashmir Himalaya. International Journal of Botany, **2** (4): 402-408.

Yesilada E., 2005. Past and future contributions to traditional medicine in the health care system of the Middle-East. J Ethnopharmacol, **100** (1-2): 135-7.

Jain S. K., 1965. Medicinal Plantlore of the tribals of Bastar. Econ. Bot. **19**:236-250.