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Ethnobotanical Study of Some Medicinal Plants of Rawal Town

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Abstract: Ethnobotanical survey was carried out in Rawal Town. The winter medicinal flora of town consisted of twenty-five species, which belong to twenty families. Out of them seventeen were dicot and three were monocot. Family Euphorbiaceae had three species, which was followed by Amaranthaceae, Astraceae and Papilionaceae with two species each. The remaining families had one species each. According to survey carried out in the specified area four species that is *Achyranthus, Capsella, Cynodon* and *Cyprus* are used as diuretic and for the treatment of gall blabber diseases. The leaves and fruits of Acacia are used for curing cough. *Amaranthus* is highly effective against snakebite and rheumatism. Calotrpis is used for treatment of cholera and malaria, where as Cannabis is notorious for its narcotic effects and also used for curing diarrhoea. Carthamus is supposed to be effective in ulcer and itching. Cassia and Convolvulus are used as purgative. The vegetative part of Chenopodium is anthelmintic and those of Aloe are effective in eradicating piles. The stem, leaves and roots of Dalbergia are used in curing leprosy.

Key words: Ethnobotany, Medicinal Plants

Introduction

Indigenous knowledge is as old as human civilization but the term ethnobotany was first used by an American botanist Berger in (1895) to study of plants used by primitive and aboriginal people. Later redefined ethnobotany by using modern ecological term. It is the study of direct interaction between human and plant population through its culture each human population classified plants. They develop attitudes and beliefs about plants. They also learn the use of plants. Plants impose same limitation on them. These mixture interaction is called ethnobotany. It promotes traditional culture, local remedies, forest management practices and tradition knowledge transformation to next generation. It improves self-confidence of minorities and enhances their social and cultural values. Goodman and Ghafoor (1992) collected information about one hundred and fourteen plant species used by the rural people and villagers of Baluchistan for miscellaneous purposes, out of which fifty six prescribed by herbalists for medicines. Review of Ethnobotanical study of different areas have been presented by Jain and Sahu (1993), Imtiaz-ul-Haq and Hussain (1995), Badshah *et al.* (1998), Khan (1999), Harmarneh (1998). Atique and Iqbal (1992) studied traditional drug specie *Pongamia pinnata* linn for dermal diseases. Motley (1994) presented a comprehensive survey of past, present and future use of sweet flag *Acorus calamus*. According to him the plant has rich ethnobotanical history dating back possibly to the time of Musa (peace be upon him). It has been valued for its rhizome and fragrant oil, has been used in alcoholic beverages and as a fragrant essence in perfume and oil. Current researches investigate that it has antibacterial and antifungal properties. So it is very important to conserve natural resources and save the tradition knowledge. Ethnobotany in Pakistan is important because 80% of population lives in villages and rural areas and mostly depend upon 'Unani' System of medicines (Ikram and Hussain, 1978). Therefore it is necessary for phytochemist and pharmacologist to determine their true therapeutic properties. A few workers have taken pain to elucidate but still far from comprehensive account. However, encroaching urbanization and accompanying changes in their life styles are responsible for the decrease of the practice in local use of plants for medicines. It has been estimated that more than 65% of local people in some remote areas depend upon medicinal plants since it is their traditional knowledge and being poor these people do not have access to clinics or hospitals. Rest of 35 percent has changed their life style and have access to modern health facilities. Rawal Town in Islamabad is rich in medicinal plants and still it stand almost neglected. The area demand extensive ethnobotanical survey. It is situated at a distance of 4 km from Faizabad on the Murree road. Annual temperature average range is 14.4 to 28.9°C. Ethnobotanical survey of the area was necessary because due to over grazing and browsing lot of medicinal plants were destroyed. So it was important to document max portion of knowledge with sense of urgency. Ethnobotanical study was planned by keeping in view the following objectives. To collect the information about local name of medicinal plant species. To collect the information about indigenous use of medicinal plant species. To establish database regarding medicinal plants of Rawal Town.

Materials and Methods

Many plants species were randomly collected from different sites of Rawal Town during month of Nov-Dec, 1999. Out of them 25 plants were medicinally important species. They were dried, preserved and identified with the help of Flora of Pakistan (Nasir and Ali, 1971-1995; Nasir and Rafiq, 1995). Confirmations of plants were done by National Herbarium, NARC, Islamabad. The ethnobotanical information regarding the local names and traditional uses of plants were known from the local inhabitants of Rawal Town. Generally aged person and local Hakims were consulted.

Results and Discussion

The information about their local names and traditional uses against many disorders like cough, dysentery, diarrhoea, wound, piles, ulcer, malaria, cholera, fever, rectal fissure, rheumatism, asthma, sore throat, jaundice, leprosy, small pox, vomiting and skin diseases were collected. There were twenty-five species belonged to twenty families. Out of them seventeen were dicot and only three were monocot. Ethnobotanical information showed that many species were locally used for various purposes such as fuel wood and fodder. Out of these twenty five species were medicinally used (Table 1). Rawal Town is under heavy biotic pressure due to over grazing and browsing. Many species are

Table 1: Classification and Traditional Uses of Some Plants of Rawal Town

Botanical Name	Local Name	Family	Dicot/Monocot	Part of Plant Used	Traditional uses
Acacia arabica Lam.	Kikar	Mimosaceae	Dicot	Leaves and fruits	Cough, Dysentery
Achyranthus aspera Mill	Puth kanda	Amaranthaceae	Dicot	Whole Plant	Diuretic, Piles, skin eruption
Aloe barbadensis Mill	Ghee kunvar	Liliaceae	Monocot	Whole Plant	Rectal fissure, Piles, Fever
Amaranthus viridis L.	Chulai	Amaranthaceae	Dicot	Leaves	Snakebite, Rheumatism
Bryophyllum pinnatum Lam.	Patharchat	Crassulaceae	Dicot	Leaves	Wound and Insect bites
Calotropis procera R.Br	Ak	Asclepiadaceae	Dicot	Whole Plant	Cholera, Malaria
Cannabis sativa L.	Bhang	Cannabinaceae	Dicot	Whole Plant	Intoxicant, Dysentry, Diarrhoea
Capsella bursapastoris L.	Sheperd's Purse	Brassicaceae	Dicot	Seed	Diarrhoea, Diuretic
Carthamus oxycantha M.Bieb	Pohli	Astraceae	Dicot	Seed	Ulcer, Itching
Cassia fistula L.	Amaltas	Caesalpinacea	Dicot	Whole Plant	Pressing for ring worm, Irritation, Purgative
Chenopdium album L.	Bathu	Chenopodiaceae	Dicot	Whole Plant	Laxative, Anthelmintic
Convolvulus arvensis L.	Laily	Convolvulaceae	Dicot	Root	Purgative
Cynodon dactylon L.	Khubble	Poaceae	Monocot	Root	Diuretic, Laxative, Dysentry *Cyprus*
rotundus L.	Della	Cyperaceae	Monocot	Tuber	Anthelmintic, Astringent, Diuretic
Dalbergia sissoo L.	Shisham	Papilionaceae	Dicot	Leaves, Roots, Stem	Decoction of leaves used in,
gonorrhoea					Wood used in leprosy and stop vomiting
Datura stramonium L.	Dhatura	Solanaceae	Dicot	Whole Plant	Fruit sedative, Intoxicating seed narcotic. Leaves used against Asthma
Euphorbia hirta L.	Dodak	Euphorbiaceae	Dicot	Whole Plant	Expectorant used in cough and Asthma
Euphorbia helioscopia L.	Chhattri dodak	Euphorbiaceae	Dicot	Whole Plant	Anthelmintic, Purgative
Fumaria parviflora L.	Shatra	Fumariaceae	Dicot	Whole Plant	Diuretic, Anthelmintic
Malva parviflora L.	Sonchal	Malvaceae	Dicot	Whole Plant	Cough, Ulcer
Melilotus indica All.	Senji	Papilionaceae	Dicot	Whole Plant	Diarrhoea
Morus alba L.	Safed Shahtut	Moraceae	Dicot	Fruit, Bark	Refergerent, Anthelmintic, Sore throat
Olea europea L.	Zaitoon	Oleaceae	Dicot	Bark	Laxative
Ricinus communis L.	Arind	Euphorbiaceae	Dicot	Seeds and Leaves	Purgative, Jaundice, Rheumatic, Swelling
Xanthium strumarium L.	Chhota dhatura	Astraceae	Dicot	Root and Seed	Sedative, Diuretic, Smallpox, Dysentry

constantly decreasing in this area. Being rural area no effective measures are taken by government. However, it should be the moral and ethic duty of local people to save the plant resources. Most of the medicinally plants are uprooted for burning purposes and also grazed by the livestock. It therefore seems appropriate to manage the grazing and browsing system. As such the area is heavily degraded so government should also take proper measures to increase the cultivation of important plant species on different areas. Private and government agencies dealing with trade promotion should enhance market value of important plant species by decreasing expensive transportation cost. Biological societies and research centers should work for the promotion of traditional knowledge.

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