

Ethnobotany of Some Wild Plants of Hamirpur (H.P.)

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ABSTRACT: An ethno botanical survey was conducted in Hamirpur district of Himachal Pradesh during 2017. A total of 15 plants belonging to 14 Genera of 13 families were reported to be of ethno medicinal importance in this study area. This paper provides the information regarding the ethno botanical and ethno medicinal uses of 15 wild plants species.

Keywords: Ethno medicinal; indigenous; wild plants; traditional knowledge; social values.

INTRODUCTION: Man has been using various plant species since the time immemorial for well being. Nature bestowed us a very rich botanical wealth and a large number of diverse plants that are utilized by humans in different parts of world. Humans utilize this rich biodiversity in various forms such as fodder, fuel, wood, wild edibles, medicine, house building, agricultural tools, religious and other various purposes (Sharma *et al.*, 2013). Ethnobotanically, wild plants are categorized into different groups: plants for medicine (herbs) plants for food, aromatic plants and plants for fodder etc. Sometimes value of traditional wild plants is higher than several known common domestic plants (Nordeide *et al.* 1996; Sandriyal *et al.* 2001; Orech *et al.* 2007). India has tribal population of 42 million of which 60% live in forest areas and depend upon wild resources for their livelihood. The rural communities have vast knowledge of wild plants & its utilization is still an integral part of different cultures in the country. Rural communities collect and preserve these locally available wild plant species in their daily life even today (Maishi *et al.* 2005). Over 9,500 wild plant species are used by tribals for meeting their various requirements.

The state Himachal Pradesh is located in western Himalayan region. It is endowed with rich biodiversity. Various studies have been carried out on ethnobotanical and ethno-medicinal uses of floristic diversity in Himachal Pradesh (Uniyal and Chauhan, 1971; Chauhan, 1999; Uniyal *et al.* 2006; Samant *et al.* 2007; Sood and Thakur, 2004; Rana and Samant, 2011 and Sharma *et al.* 2013). Gupta (1964) estimated the availability of about 1000-2000 medicinal plant species in Himachal Himalaya, while Chauhan (2003) reported more than 100 aromatic plants from the state. In Hamirpur district, the studies regarding wild plants have been done by Kumar *et al.* (2012-2015). The traditional use of some plants of Hamirpur district of Himachal Pradesh were emphasized for the treatment

of Hepatitis and Jaundice, other liver disorders by Kumar and Choyal (2012). A study on native wild plants used by local people of Hamirpur district was carried out with major objective of how to use the wild plants and also to understand their conservation and preservation. In this study the information on various plants, which are used by local people for different activities throughout their life has been discussed.

METHODOLOGY: Hamirpur district is the one of the 12 districts of the state of Himachal Pradesh, India. The district occupies an area of 1,118 km². It is situated between 31°25'N and 31°52'N and between 76°18'E and 76°44'E. The elevation varies from the 400 meters to 1,110 meters. The town of Hamirpur lies to the east of Jakhu range. The area is hilly covered by Shivalik range.

The ethnobotanical surveys were conducted throughout the study period 2016-2017 in different area of Hamirpur district, among the local people. The plant specimens were collected during fruiting and flowering stage. Collected plant specimens during these surveys were identified and preserved in the form of herbarium. About 15 wild plants belonging to 13 families were reported which are used as edible, medicinal, fodder, religious and other properties. The methods used to collect the data:

- (a) Plants were collected and preserved in the form of herbarium.
- (b) The information was collected from the older persons of the area.
- (c) Interviews were conducted using structured questionnaire prepared for local people.
- (d) Plants were identified and nomenclatured with the help of Choudhary H.J. and Wadhwa Flora of Himachal Pradesh and Indian Flora of B.S.I.



Figure 1: Map of Hamirpur district

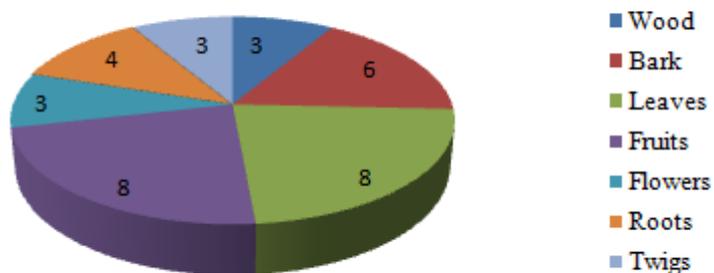


Figure 2: The number of different plant parts used among 15 wild plants

PLATE- 1



Acacia catechu



Adhatoda vasica



Bauhinia variegata



Berberis lycium



Cassia fistula



Dodoneae viscosa

PLATE- 2



Morus alba



Prunus cerasoides



Rubus ellipticus



Terminalia bellirica



Terminalia chebula



Toona ciliata

Table 1: List of 15 wild plants which are studied during survey

Sr. No.	Botanical Name	Local Name	Family	Plant Part Used	Uses
1	<i>Acacia catechu</i> Linn.	Khair, khaira, khadira in sanskrit	Fabaceae	Bark and Heartwood	The bark is used as astringent and katha, obtained from heartwood of 20-30 years old tree is described as an Astringent, in relaxed condition of throat.
2	<i>Adhatoda vasica</i> Nees.	Basuti,	Acanthaceae	Leaves, Flowers, and Root	Leaves are rich in vitamin C and carotene and yield an essential oil.
3	<i>Berberis lyceum</i> Royle.	Kashmal, Kashmalya	Berberidaceae	Tender shoots, Fruits, Roots	Decoctions of root with honey for two weeks are used for the treatment of jaundice. Tender shoots chewed for curing skin diseases and as blood purifier.
4	<i>Rubus ellipticus</i> Sm.	Akhae	Rosaceae	Fruits	Ripened fruits are eaten directly and used in making jam juice and jelly.
5	<i>Zanthoxylum armatum</i> DC.	Tirmir	Rutaceae	Fruits, Leaves and Branches	Fruits edible and used for flavoring curries. Tender leaves used for making chutney. Branches used for brushing teeth. Wood used for making walking sticks.
6	<i>Ziziphus jujuba</i> Mill. Gard.	Ber	Rhamnaceae	Leaves, Twigs, Fruits	Ripened fruits are eaten directly. Spiny twigs used for fencing. Dried leaves used as fodder.
7	<i>Vitex negundo</i> Linn.	Bana	Verbanaceae	Leaves, Twigs	Leaf paste applied to heal swollen rheumatic joint. It is used as cough remedy.
8	<i>Prunus cerasoides</i> D.Don	Pajja	Rosaceae	Bark, Fruits, Leaves and wood	Fruits and Leaves give a dark green dye. Wood is hard, durable and aromatic. Fruits can be eaten in raw or cooked form.
9	<i>Terminalia chebula</i> Retz.	Harad	Combretaceae	Fruit and Bark	Fruits are used as laxative; Bark is diuretic and cardio tonic. Kernels yield fatty oil. Tree yields a gum.
10	<i>Dodoneae viscosa</i> Jacq.	Mehndu	Sapindaceae	Bark and Leaves	Leaves and bark are used for the treatment of fever and reduction of swelling. Fruits and barks have astringent properties.
11	<i>Cassia fistula</i> Linn.	Amaltas, Kaner	Fabaceae	Leaves, Root and Bark	The paste of leaves is applied on ring-worm lesions. It is useful, leprosy, constipation, fever and heart disease. Young pods are used as pickles.
12	<i>Morus alba</i> Linn.	Toot	Moraceae	Leaves and Fruits	Fruits are eaten, used in sore throat, and skin infections. Leaves helpful in lowering blood pressure. Young leaves are cooked as vegetable and ripe fruits are eaten directly.
13	<i>Toona ciliata</i> M.Roem.	Tooni	Meliaceae	Wood, Flowers	Wood is considered of high value used in ship building, houses and high grade furniture. Flowers yields a reddish dye which is used to color silk. Bark is used as an astringent.
14	<i>Terminalia belleria</i> (Gaertn.) Roxb.	Baheda	Combretaceae	Fruits	Fruits are bitter in taste, used as astringent, laxative and used in piles, diarrhea treatment. Fruits are used to prepare triphala and pickle
15	<i>Bauhinia variegata</i> Linn.	kachnar	Fabaceae	Bark, flowers and roots.	Flower and its buds are eaten as vegetable. Boiled flower buds used with mustard oil as salads and raita.

PLATE- 3



Vitex negundo



Zanthoxylum armatum



Ziziphus jujuba

RESULTS AND DISCUSSION: About 15 wild plants species were found to be used by the local people of Hamirpur district and these plants used as vegetables, fruits, medicine, fodder, religious etc. wherever possible, local names also noted down. It was observed that only old people know about the use of wild plants. The final compiled data is given in table 1. The study revealed that indigenous communities in Hamirpur district nurture rich knowledge about wild plants i.e. acquired over several generations of experimentation. . The present study includes 15 plants used for various purposes like food fodder, fuel, medicines, aroma etc. The figure1 explained that out of 15 plants wood of 3 plant species. These plants belong to 13 families of which fabaceae and rutaceae are most dominant and Acanthaceae, Berberidaceae,

Rhamnaceae, Verbanaceae and Sapindaceae are least dominant The figure 2 shows that out of 15 plants, wood of 3 plant species i.e.20%, leaves of 8 plant species i.e. 53.3%, flowers of 3 plant species i.e.20%, twigs of 3 plant species i.e.20%, bark of 6 plant species i.e.40%,fruits of 8plant species i.e.53.3% and roots of 4 plant species i.e. 26.6% are used. The information generated in the present communication represents an immensely valuable database that provides baseline information and contributes in filling the knowledge gaps and can be helpful for the compilation of a local biodiversity registers of the study area.

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