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PK Lakherey
Department of Botany,
BRD PG College, Moosanagar,
Kanpur Dehat, Uttar Pradesh,
India

Corresponding Author
PK Lakherey
Department of Botany,
BRD PG College, Moosanagar,
Kanpur Dehat, Uttar Pradesh,
India

Endangered ethnobotanical plants of Hamirpur district U.P.

PK Lakherey

Abstract
Floristic and Ethnobotanical studies of Hamirpur District (U.P.) was carried out during 2009-2012 Total of 33 species of plants belonging to 25 families and 32 genera were recorded to be endangered due to over exploitation of plants and grazing. The ethnobotanical uses of these species of plants were briefly discussed in the present communication.

Keywords: Endangered, floristic and ethnobotanical studies

Introduction
'Ethnobotany' commonly refers to the interrelationships between primitive people and plants, the relationship being extended to the entire range of influences of each on the other and not merely confined to the uses (De, 1968) [5].
The term 'Ethnobotany; was first coined by Hershberger (1896) [9]. One of the pioneers of economics botany in America. According to De (1968) [5] Francisco Hemandez, been recognized to be the earliest worker on this aspect. He (1570:1575) extensively surveyed the flora, fauna and minerals of Mexico and wrote a comprehensive account in 16 folio volumes.
The development of this science of the human cultural ecology, has preceeded independently in various countries and various field surveys have been carried out amongst primitive and tribal and rural population in several parts of the world. Gunther (1945) [8] published "Ethnobotany of Western Washington". The papers on ethno-narcotics, (Schulters, 1956) and ethnopediatrics and ethnogynacology were contributed by Schultes (1963b) [23] and Altschul (1970a, b) [1, 2] respectively.
Further Schultes (1962) [22] narrated the role of ethnobotany in search of new drug yielding plants. Turner and Bell (1971) worked on the ethnobotany of the Coast Salish Indians of Vacouver Islands. Barrau (1958, 1961) published the information related with the subsistence agriculture in Honolulu. Vidal (1959; 1960, 1961a, b; 1962) [29-35] contributed a series of papers on the uses of various plants in France. Hartwell (1967-1971) provided a large compilation of antitumour plants, from old texts and local folk medicines from all over the world.
Central India however is one of those important regions in India where the tribal populations and forest dwellers form a considerable part of the population (Jain, 1981a, b) [15, 16]. Use of plants in folk medicine is said to be very prevalent in this region (Jain and Tarafder, 1963) [11]. Rath (1979) observed that 25 species of plants were being used by the tribals for medicinal purposes in Sukhinda region of Orissaa. Further Rath (1981) [18] reported about 20 plant species used by aboriginal tribes in the state of Orissa with specific reference to plants applied for eye diseases. Saxena *et al*., (1981) [20] made ethnobotanical observations in Orissa and recorded the uses of about 83 species of plants.
Ghose *et al*., (1980) [6] have described fifteen flowering plants used by the tribals (Oran, Munda, Santhal and Bihors) of Chotanagpur and Santhal pargana (Bihar) for the treatment of dysentery. Gupta (1981) [7] recorded the information regarding the native uses of medicinal plants by Asurs of Netarhat plateau within Chotanagpur division of South Bihar. Tarafder and Chaudhari (1981) [24] carried out ethnobotanical studies in Hazaribagh district of Bihar. The tribals (Oron, Bihor, Santhal, Munda, Khond, Bedis, Karmali and Mahali) of the district were found using a large number of wild plants for food and medicine. Mishra and Shukla (1981) [17] collected information from villagers about the medicinal and other ethnobotanical uses of 196 plants species from Allahabad district (U.P.) Saxena and Vyas (1983) [19] reported the Ethnobotanical plants of Dhasan Valley.

Hamirpur district of Uttar Pradesh located at 25.57 N 80.09 E. It has an average elevation of 80 Meter (262Feet) is an unexplored area from Ethnobotanical point of view. The vast rural area is inhabited with lodhs and other casts dependent on forests and agriculture and rich in flora. It is therefore considered important for Ethnobotanical studies.

Materials and Methods

Floristic and Ethnobotanical surveys of the selected localities of Hamirpur District (U.P.) was carriedout during 2009-12 on the guidelines as suggested by Schultes (1962) [22]. The method of field work was followed according to Jain (1963a, 1964, 1965) [12-14]. The information about the use of plants for food, fodder, medicine, dry, oil, fiber, tannin, etc. were recorded by personal interviews with rural and tribals (Lodhis), raj-vaidyas, herbalists, foresters, cowherds, shepherds, goatherds and old experienced villagers of different casts and tribes living in villages of Hamirpur district (U.P.). Specimens were collected for all the plants reported to be used for different purposes and marked with their field numbers. They were identified up to species level. In some cases identification of the specimens was also confirmed with the isotope specimens preserved in the berbarium, botanical survey of India, central circle.

Enumeration of plants

The plant species were enumerated with its botanical name, local name, habit, local used and Locality.

The plant species have been arranged alphabetically on the basis of their botanical names under their respective families arranged according to Hooker's system of classification (1875:1897)

1. *Agave Americana*, Linn. (Ram Bans) Shrub.
Family: Amaryllidanceae
Local Uses: The fibers are obtained from the leave are used for tying purpose. Long axi of the inflorescence is used as a polo for making 'Palaki' used for weeding purpose.
Locality: Syondhi.

2. *Alectra parasitica*, A. Richa. Var. chitrakutensis Rau. (Niragundi) Herb
Family: Scrophulari
Local Uses: Air dried plants are mixed with equal amount of seeds of *Psoralia corylifolia* Linn. And powdered. It is provided orally for the cure of leprosy and leucoderma, also recommended for local pplication.
Locality: Bhujpura.

3. *Borassus flabellifer*, Linn. (Tar) Tree
Family: Palmae
Local Uses: The oil is prepared with the central axis of male inflorescence and applier extemally on gout. The fruits are eaten. The leaves are used to make fans. The male inflorescence is burnt and ash is applied over pimple.
Locality: Hamirpur.

4. *Calotropis gigantia*, (L.) R.Br. (Gulabi Aak) Shrub
Family: Asclepiadaceae
Local Uses: Latex is used as an antidote to Insect-bite The leaves are warmed and applied to the swellings. Powdered flowers with black peppe are used to prepare small pills uses for the treatment of cholera. Flowers are offered to Lord Shiva. Plant used for totem.
Locality: Kaohari.

5. *Cassia fistula*, Linn. (Amaltas), Tree
Family: Leguminosae
Local Uses: Pulp of the fruit is given to the cattle suffering from cold. The fruit is used as an antidote to snakebite. The flowers taken internally to expe. Hook-worm. The wood is used to make furniture.
Locality: Lidhaura Khurd.

6. *Casuarina equisetifolia*, Linn. (Jhau) Shrub.
Family: Casuarineae
Local Uses: The leaves are commonly used in the form of dry vegetable.
Locality: Lamaura.

7. *Centella asiatica*, Linn. (Bramhi) Herb.
Family: Umbelliferae
Local Uses: The plants are used as vegetables. Infusion of the plant is used as a brain tonic. It is also used for the treatment of itch and eczema. Extract of the leaves is provided for oral administration to cure gastritis.
Locality: Bhatewara Khurd.

8. *Chlorophytum tuberosum*, Baker (safed musli) Herb.
Family: Liliaceae
Local Uses: Powdered tubers are used for the treatment of leucorrhoea and also during general weakness. The leaves are used as vegetables.
Locality: Ruri Kalan.

9. *Curculigo orchioides*, Gaertn. (Kali musli) Herb.
Family: Amaryllidaceae.
Local Uses: The fresh root is put on the spot of scorpion sting to get relief. Juice of the tuber is used as eye drop to the cattle suffering from watering of eye. The powdered root is used for the treatment of urinary trouble.
Locality: Jakha.

10. *Cymbopogon citrates*, (DC.) Stapf. (Gandhatrina) Herb
Family: Gramineae
Local Uses: Decoction of the leaves is used during digestive disorder. Paste of leaves is applied on forehead during headache.
Locality: Hamirpur

11. *Desmodium gangeticum*, DC. (Sarian), Shrub.
Family: Leguminosae
Local Uses: The roots are powdered and recommended for oral administration in the treatment of dysentery and diarrhea. The roots are used as an antidote to scorpion sting. The root chewed to cure jaundice.
Locality: Bapretha.

12. *Elytraria acaulis*, (Linn. f.) Lindau. (Shastra musli) Herb
Family: Acanthaceae
Local Uses: The roots are used as poultice to the sores of cattle. The leaves are pounded and the paste is applied on wounds.
Locality: Dhawari

13. *Ficus racemosa*, Linn. (Umber, Umar) Tree.
Family: Urticaceae.
Local Uses: Latex is used for the treatment of fissured skin disease. The fruit juice with sugar is given to the children during dysentery. The wood is used for making House building materials and agricultural implements. Fruits are eaten and said to be useful for diabetes.
Locality: Dhawarra.

14. *Ficus rumphil*, Blume. (Pakar) Tree.
Family: Urticaceae.
Local Uses: The wood is used to make agricultural Implements.
Locality: Dadri.

15. *Gloriosa superb*, Linn. (Kaliha) Herb
Family: Liliaceae
Local Uses: The roots are used orally to be cattle for the treatment of rheumatism. Paste of tuber is applied externally on snakebite. The Tuberous root is used for totem.
Locality: Bambhauri Kalan.

16. *Helicteres isora*, Linn. (Maror Fali), Herb.
Family: Sterculiaceae
Local Uses: Powdered fruits with water are used in Dysentery and stomachache. Powdered bark is used for the treatment of diarrhea & dysentery. Fried pods are powdered and given to children to kill intestinal worms.
Locality: Natarra.

17. *Hemidesmus indicus*, R.Br., (Anant mool) Prostrate shrub
Family: Asclepiadaceae.
Local Uses: The extract of the root is used for the treatment of tonsillitis. The root punded into paste and applied on snake bite.
Locality: Salat.

18. *Lepidageathis trinervis*, Nees. (Siyar Bhathka) Herb.
Family: Acanthaceae.
Local Uses: Extract of the roots is provided for oral administration in bleeding piles. A decoction of the plant is used for the treatment of intermittent fever.
Locality: Lamaura.

19. *Mimusops elengi*, Linn. (Bakul Maulsiri) Tree.
Family: Sapotaceae.
Local Uses: Leaves are used for the treatment of snake bite.
Locality: Kuraura Dang.

20. *Operculina turpethum*, Linn. (Nisoth) Herb.
Family: Convolvulaceae
Local Uses: The powdered plant is used as laxative.
Locality: Simariya.

21. *Pandanus odoratissimus*, Roxb. (Keora) Shrub.
Family: Pandanaceae
Local Uses: An aqueous distillate of flowers called kewra, is used for the treatment of headach and urinary retention.
Locality: Gudha.

22. *Pedalium murex*, Linn. (Bara gokhroo) Herb.
Family: Pedalineae
Local Uses: The dried and powdered fruits are used for the treatment of leucorrhoea. Whole plant is fed to animal suffering from stomachache.
Locality: Budhwara.

23. *Piper betle*, Linn. (Pan), Climber
Family: Piperaceae
Local Uses: Expressed juice of the leaf is used In cough. Leaves are offered to Lord Vishnu, Shiva and Goddess Durga.
Locality: Bhatewara Kalan.

24. *Pluchea lanceolate*, Oliver & Hiern. (Rasna) Shrub
Family: Compositae
Local Uses: Decoction of the twigs is used for the treatment of dysmanorrhoea.
Locality: Syondhi.

25. *Plumbago zeylanica*, Linn. (Chita) Herb.
Family: Plumbagineae
Local Uses: A decoction of the roots is provided for oral administration during rheumatic fever. The root is tied to the wrist during muscular pain and joint pain as totem.
Locality: Khiriya Khurd.

26. *Putranjiva roxburghaii*, Wall. (Putrajeev) Tree
Family: Euphorbiaceae.
Local Uses: The plant is worshipped by the women whose children die before birth. They also bear garland of its fruits.
Locality: Taiya.

27. *Salmalia malabarica*, DC. (Simul, Semar) Tree.
Family: Bombacaceae
Local Uses: The cotton obtained from the fruits is used for stuffing beds and pillows. The stem bark is pounded to make a paste and applied on pimples.
Locality: Srinagar.

28. *Sauromatum guttatum*, Wall. (Sap-ki-kheti) Herb.
Family: Araceae
Local Uses: The tubers are pounded and applied on the Sores of the cattle.
Locality: Makarbai.

29. *Semecarpus anacardium*, Linn. (Bhilawa) Tree.
Family: Anacardiaceae
Local Uses: Oil obtained from seeds is used tocure diseases of foot sores of the cattle.
Locality: Jaitpur.

30. *Tylophora indica*, (Burm. F.)Merr. (Pithwan) Climber
Family: Asclepiadaceae
Local Uses: The expressed juice of the leaves is used for treatment of bronchial asthma. The decoction of the plant is used for the treatment of arthritis.
Locality: Jaitpur.

31. *Uraria picta*, Desv. (Pithwan) Shrub.
Family: Leguminosae
Local Uses: The powdered leaves are used for the treatment of piles. The plant is used as an antidote to snake bite.
Locality: Teli Pahari.

32. *Urena lobata*, Linn. (Bachata) Under Shrub.
Family: Malvaceae
Local Uses: Stem of the plant is used to obtain fibers for

making ropes. The leaves are pounded with onion, and the paste is applied on wounds.
Locality: Saudhi.

33. *Vitis quadrangularis*, Wall. (Hadjor) Creeper
Family: Vitaceae
Local Uses: The fresh stem is pounded and the poultice is externally applied on bone fracture.
Locality: Budhwara.

Results and Discussion
The Ethnobootanical survey of Hamirpur district has revealed it there is an agriculture based area and rich in folklores which require special attention and remedial measures for their conservation. The deforestation activity by the rural people, grazing of vegetation by domestic cattle, collection of medicinal plants for pharmaceuticals and other purposes made the life pocess of plants reduced to the minimum level of about 33 species of plants enumerated in the present paper.
There is an urgent need for the protection of plant wealth and ethnic knowledge of the area by establishing the culture collection centers and regional ethnobotanic gardens.

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References
1. Altschul, Siri Von Reis. Ethnopediatric notes in the Harvard University Herbaria. Liyodia. 1970a;33:195-198.
2. Altschul, Siri Von Reis. Ethnopediatric notes in the Harvard University Herbaria. Liyodia. 1970b;33:195-198.
3. Barrau J. Subsistence Agriculture in Melanesia. Honolulu, 1958.
4. Barrau J. Subsistence Agriculture in Polynesia. & Micronesia. Honolulu, 1961.
5. De JN. Ethnobotany: A new Science in India, Sc & Cult. 1968;34(8):326-328.
6. Ghos TK, Mahato AK, Sahoo SC. Some important medicinal plants used against dysentery by the tribals of Chhotanagpur & Santhal Pargana (Bihar). Proc. 67th Ind. Sc. Cong. Part III (Abstract), 1980, 63.
7. Gupta SP. Native Medicinal uses of Plants by the Asus of Netarhat Plateau (Bihar) In: Glimpses of Indian Ethnobotany: 218:231. Oxford & IBH Pub. Co., New Delhi, 1981.
8. Gunther E. Ethnobotany of Western Washington: Seattle, 1945.
9. Hrshberger JW. The purpose of ethnobotany. Bot. Gazette. 1896;31:146-154.
10. Hooker JD. The Flora of Britishindia. 7Vols. L. Reeve & Co. London, 1857-1897.
11. Jain SK, Trafdar CR. National plant remedies for snake bite among the advasis of Central India, Indian Med. J. 1963;57:307-309.
12. Jain SK. Observations on the ethnobotany of the tribals of Madhya Pradesh Vanyajati. 1963a;11:177-183.
13. Jain SK. The role of a botanist in folk: lore research. Folklore. 1964;5:145-150.
14. Jain SK. Medicinal plantlore of the tribals of Bastar, Eco. Bot. 1965;19:236-250.
15. Jain SK. Glimpses of Indian Ethnobotany, Oxford & IBH Pub. Co., New Delhi, 1981a.
16. Jain SK. Oservations on Ethnobotany of the tribals of Central India, In: Glimpses of Indian Ethnobotany: 193:198. Oxford & IBM Pub. Co. New Delhi, 1981b.
17. Mishra BK, Shukla BK. Medicinal & Ethnobotanical resources from the flora of Allahabad district (U.P.) Proc. 68th Ind. Sc. Gong. Part III (Abstract), 1981, 155.
18. Rath GC. Studies on Ethnophamacological plants of Orissa; plant applied for eye diseases. Proc. 68th Ind. Sc. Gong. Part III Abstract, 1981, 155.
19. Saxena AP, Vyas KM. Ethnobotany of Dhasan Valley. J Econ. Taxon. Bot. 1983;4:151-128.
20. Saxena Braahman HOM, Dutta PK. Ethnobotanical studies in Orissa in Glimpses of Indian Ethnobotany: 232-244. Oxford & IBM Pub. Co. New Delhi, 1981.
21. Schultes RE. The strange narcotic snuffs of eastern Columbia: their Source, Premaration and effect of an American Botanist. London News. 1956;229:520-521.
22. Schultes RE. The role of the ethnobotanist in the seach for New Medicinal Plants. Lloydia. 1962;25:257-266.
23. Schultes RE. Planate Colombianae XVI. Plants as Oral contraceptives in N.W. Amazon Lloydia. 1963b;26(2):67-74.
24. Tarafder CR, Chaudhari HN. Less known medicinal used of plants amoung the tribats of Hazaribagh. District of Bihar: Glimpses of Indian Ethnobotany. Oxford & IBM Pub. Co. New Delhi, 1981, 208-217.
25. Vidal JE. Plantes Utiles dulaos (Cryotogams) I.J. Agric. Trop. Bot. Appl. (Paris). 1959;6:589-594.
26. Vidal JE. Plantes Utiles du laos (Cryotogams) II. J Agric. Trop. Bot. Appl. (Paris). 1960;6:589-594.
27. Vidal JE. Plantes Utiles du laos (Monocotyledons) III. J Agric. Trop. Bot. Appl. (Paris). 1961a;7:417-440.
28. Vidal JE. Plantes Utiles du laos (Monocotyledons) IV. J Agric. Trop. Bot. Appl. (Paris). 1961b;7:560-587.
29. Vidal JE. Plantes Utiles du laos (Monocotyledons) V. J Agric. Trop. Bot. Appl. (Paris). 1962;8:456-385.