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ETHNOBOTANICAL SURVEY IN APIACEAE PLANTS IN KABEERDHAM, CHHATTISGARH, INDIA

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ABSTRACT

A survey was conducted to document the ethnobotanical potential of Kabeerdham district in Apiaceae plants during 2019. This study report the result of an ethnobotanical survey on the uses of medicinal plants by inhabitants of Kawardha, the study was mainly focused on gathering information on traditional uses of plants from local peoples. The present study reviews the ethno medicinal uses of family Apiaceae reported from Kawardha. Out of 60 species reported from Kawardha 58 are found to be used medicinally. The main uses of the herbal drugs were as digestive antihelmintic febrifuge respiratory problems. Most commonly treated disorders by use Apiaceae herbal flora are gastrointestinal tract and liver disorders (48%) cough cold and respiratory tract problems (71%) the plants parts frequently used are root (27%) followed by whole plants material (60%) leaf root fruit (30%) its is suggested to carry out similar studies for other families to explore the indigenous knowledge for the development and collectively document the scattered existing knowledge, a number of Indian medicinal plants have been used in the traditional system of Ayurveda. The result of this survey indicated that studied area is rich in medicinal plants to treat a wide spectrum of human ailments; therefore this work will also contribute towards the information for the new treatment through drugs and their utilizations.

KEYWORDS: Vegetable, Kabeerdham, Oil formation, Traditional Knowledge, Medicinal Uses, Ethnobotanical survey.

INTRODUCTION

The ethnobotanical study was conducted in different area of Kabeerdham district of Chhattisgarh India. The reports were documented and it has been found that 80 plants species are described in which different segments of plants are used for different intended purposes

by human being for example medicine, food, fodder, furniture, diner, cosmetics etc. Kabeerdham district is rich in biodiversity of Umbelliferae or Apiaceae plants it is a most basic plants of ethnobotany. Umbelliferae family has a multiple quality, he plants belong to this family are medicinal plant, ornamental plant, oil formation plant, carminative plant flavoring agent plant, insecticidal plants spice plants etc. Ethnobotany literally means the study of botany of the primeval race. This term was first applied by Harsh Berger in 1895 to the study of plants used by primitive man and plants. Later in 1962 Schulte interpreted ethnobotany as the study of relationship between people of primitive sociality and their plant environment (Sharma and Kumar, 2011).

The forest area is about 4.64% of the total area of Chhattisgarh 41 villages is found in Kabeerdham district. latitude 21 longitude 82 degree Soil black and red climate tropical or subtropical. Umbelliferae family plant represents the diverse plant part used included whole plants, leaves, stem, roots, tuber, bark, flowers, fruit and seeds. Traditional and ethnic fact gathered from such study has transact most significant role in the discovery of the natural resources. Umbelliferae plants were screened for polyacetylenic compound antiproliferative constituents in Umbelliferae plants. These plants are mostly medicinal flavoring agent insecticidal seductive oil formation it's tonic plant plays a very multiple role for the use for human society. The plants of this family are cosmopolitan in their distribution, however they are not found in arctic regions. They are very commonly found in northern temperate regions. In the tropical countries they are either found in the hilly tract or cultivated in the winter season. In our country the family is represented by several important species such as C*orundum sativum*, *Cuminum cyminnum* etc. Majority of the plants are annual, biennial herbs sometime shrub and under shrub are also found.

These plants have showed important source of medicine for human being since ancient times. The knowledge of use of medicinally important plant has been passed verbally from generation to generation over times and led to the discovery of a wide range of plant derived drugs. Ethnobotanical researches are conducted to prevent both loss of this knowledge and its destructive changes during transmission between Generations. This information is also collected and documented by ethnobotanical studies for further investigations in future. Documenting this information is useful for recording local culture traditions and gives us some of the important information necessary to protect our natural habitat (Mosaddegh, 2012).

MATERIALS AND METHODS

Sampling site: Kawardha Kabeerdham district

Present study was carried out in various baiga villages of Kabeerdham in India. A survey was undertaken to collect information from baiga people on the use and management of natural resources. The survey made in baiga dominated villages of plant family. The indigenous knowledge of local traditional healers and the natural resources used for various purposes were collected through questionnaire and personal interviews during field trips. The ethnomedicinal information was obtained from knowledgeable person, experienced people medicine men and heads and local inhabitants of the village, who have knowledge of plants for health and livelihood security (Sandey and Sharma, 2016).

Ethno botanical field work was operated in several tribal lush village of Kabeerdham data on uses were recorded in the field from experience people. Data has been collected by survey in all over Kawardha block, species images are taken in morning and evening schedule. Surveys were made in the kabeerdham block present in Maikal hills and near the sankri river (Nawaz, 2009).

RESULT AND DISCUSSION

The reports were documented of ethnobotany edible medicinal flavoring agent etc use of 50 plants species in Apiaceae family are described in which different parts of plants are used for different purposes for folklore traditional utilization resource by people etc. (Table). Plants species were recorded which are being used as vegetables, drinks, fruits, dry fruits, pickles, foods, chutney, medicinal use, food oil formation. Family wise distribution of 50 medicinal plants shows this family is most dominant families with 16 species each. Herb tree, shrub, climber medicinal are reported for each species. Botanical name, family name, local name, eaten part, medicinal use, ethnobotanical use and methods of use, administration and ailments treated are provided.

During the survey, 52 herbs belonging to 48 genera and 26 plant families showed to present medicinal uses (Table 1). The families which contributed with species included as folk medicines were: Lamiaceae (9 spp.), Asteraceae (8 spp.), Apiaceae (4 spp.), while the remaining 18 families had only one medicinal species. Different parts of medicinal plant species were used by indigenous people of this area as medicine. For curing ailments, the use of aerial plant parts was higher (85%) than the underground parts (15%). Among the aerial

parts, leaf was used in majority of cases (28 species). Leaves were used the most, constituting (25%) of the total uses. This was followed by fruits (19%), flowers (17%), roots (15%), seeds (12%), whole plants (8%), barks (2%) and gums (2%). Maximum use of leaves medicinal purpose indicates in apiaceae ither these plants are easily availability or they may have strong medicinal properties (Amiri et. al., 2012) Taxonomically dicotyledons plants were the most species rich and contribute 292 taxa belonging to 218 genera and 75 families, whereas monocotyledonous plants contribute 54 taxa belonging to 47 genera and 15 families. Among the monocotyledonous plants Aristida setacea, Apluda mutica, Heteropogon contortus and Perotis indica were collected from scrub savannas. Many species of plants enumerated in the Biodiversity Park are medicinally valuable resources, apiaceae family (Sukumaran and Parthiban, 2014).

A total of 26 Aromatic plants were propagated by using their seeds out of them some species of Aromatic plants were also introduced in developed form in the Herbal Garden. Mostly herbaceous plant seeds are grown in the field directly, but in the case of woody plants need for development of new plants by nursery method. When the new plantlets are capable to survive in the field are shifted to the field followed by proper care. All management strategies applied, which are needed for their successfully development of the new individuals of the Aromatic plants (Patel, 2015).

Table: Taxonomic details of plants and their edible use full parts.

S/N	Botanical name	Folk/local name	Habit	Part used	Ethnomedicinal Ethnobotnical importance
1	*Anethum graveolens*	soay	Herb	Seed	Carminative, digestive disorders, Antihypertensive
2	*Ammi visnaga*	Spairkai	Herb	Whole plant	Painful menstruation, kidney stones, cough, whooping cough, asthma, hypertension medicine
3	*Ammi majus*	Ajowain desi	Herb	Whole plants	Psoriasis, and leukoderma vitiligo
4	*Apium leptophylum*	Ajmoda	Herb	Flowers	Colic pain, useful in antinephritic, Antirheumatic
5	*Apium graveolens*	Karfas	Herb	Root	Analgesic, stimulant
6	*Anthriscus nemorosa*	Rosa	Herb	Fruit stem	Carminative, aromatic agent
7	*Angelica galauca*	Choru	Herb	Root	Infantile atrophy, stimulant, cardio active.
8	*Angelica archangelica*	lica	Herb	Root seed	Nervous system, resoiratory tract medicine
9	*Anethum sowa*	sowa	Herb	Fruit	The root are eaten vegetable
10	*Bupleurum hamiltonii*	toni	Herb	Aerial part	Used for fever, cough and influenza
11	*Bunium cyllindricum*	Dri	Herb	Fruit	Carminative
12	*Bupleurum falcatum*	catum	Herb	Whole plant	Anti-allergic, anti-inflammatory activity
13	*Bunium persicum*	Kala Zeera	Herb	Fruit	Abdominal pain, indigestion.
14	*Bupleuram longicule*	Cule	Herb	Root	Usefull in flatulence, liver troubles and

					others fevers.
15	*Bupleurum lanceeolatum*	ola	Herb	Root leaf	Gastric problesm, food plants
16	*Bupleurum hamiltonii*	urum	Herb	Aerial parts	Cough, used for fever.
17	*Centella asiatica*	ghoptapre	Herb	Whole plant	Usefull in skin diseases, cuts and snake bites.
18	*Carum carvi*	Zira siah	Herb	Fruit	Flatulent colic spasmodic conditions
19	*Coriandrum sativam*	Dhania	Herb	leaf	Carminative, stomachin and tonic, stimulant.
20	*Carum carvi*	Shiajira	herb	seed	Carminative, condiment, stomachin.
21	*Centella asiatica*	Brahmi	Herb	Leaf weed	Blood purifier, local stimulant, antiphlogistic, tonic.
22	*Cuminum stellatum*	atum	Herb	Seed	Carminative, oil formation
23	*Cuminum cyminum*	Zeera sufaid	Herb	seed	Knee and waist pain.
24	*Cortia depressa*	tias	Herb	Flowers seed	Sedeative and stomachache.
25	*Chaerophyllum reflexum*	exum	Herb	Stem	Urinary disorders, oil formation
26	*Chaerophyllum villosum*	sum	Herb	Leaf	Cold, cough, pain caused by cold.
27	*Daucus carota*	Gager	Herb	Root	Burns, scalds
28	*Dorema ammoniacum*	cum	Herb	Root	Anticovulsion, expectorant
29	*Eryngium billardierei*	gium	Herb	Root	Use in constipation
30	*Foeniculum vulgare*	Saunf	Herb	Leaf seed	Use in Antidiabetic
31	*Ferula oopoda*	Hing	herb	Seed leaf, sap	The stem is boiled and used to kill intestinal worms.
32	*Ferula narthex*	Hing	Herb	Whole plant	Used for cough, asthma, gastric problems, toothache.
33	*Ferula communis*	erula	Herb	Leaf	Analgesic, nervous stimulant
34	*Ferula assa- foetida*	Hing	Herb	Root	Sexual tonic to encourage potency.
35	*Ferula assa- foetida*	assa	Herb	Stem	Tonic
36	*Hydrocotyle javanica*	nica	herb	Whole plant	Indigestion, fever
37	Heracleum canescens	cleum	Herb	Root	Root paste used for skin problem.
38	*Heracleum candicans*	ichflah	Herb	Seed	Use for Cold, cough, sexual problems
39	*Ligusticum thomsonii*	korshidone	Herb	Aerial parts	Antiseptic, carminative use
40	*Lisaea heterocarpa*	Khar sefid	Herb	Stem	Indigestion
41	*Oenanthe javanica*	javanica	Herb	Stem	Oil formation, indigestion
42	*Pimpinella diversifolia*	Nella	Herb	Whole plant	Dysentery
43	*Pimpinella acuminate*	Nate	Herb	Fruit	Cough and cold
44	*Prangos pabularia*	laria	Herb	Root, fruit	Carminative, indigestion
45	*Scandix pectin- veneris*	Buti	Herb	Aerial parts	Use in Body pains, blood coagulation
46	*Selium candollii*	cando	Herb	leaf	Use in skin diseases.
47	*Torilis leptophylla*	Atra	Herb	Leaf	For use liver disorder
48	*Trachydium roylei*	Mushen	Herb	Leaf	Antidote scorpion medicine use in
49	*Trachyspermum ammi*	Ajowain	Herb	Seed	Diarrhea cholera, colic oil formation
50	*Zosima absinthifolia*	Gowatk	Herb	Leaf, seed	Diabetes and use in tonic formations.

CONCLUSION

Apiaceae plants play an important role in daily life of the local people the Kabeerdham block depends largely on Apiaceae plants resources for their livelihood and possesses rich traditional knowledge system. The local people considering in terms of dietary nutrition, marginal income and even local health care. In this study we report that the data collected shows that these medicinal plants have been used to cure 48 types of ailments. The results of

the present study provide evidence that medicinal plants continue to play an important role in the healthcare system of this tribal community. The ethnobotanical medicinal survey revealed that the people from this area have significant herbal drugs knowledge. It has been used by the local ethnic communities like Gond, baiga, korku, muria and oraon in order, to earn good revenue for their livelihood, collect these medicinal plants in huge quantities and sell them in the local markets at the cheaper rate.

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