



Original Article

Ethnobotany of Baiga Tribals with References to Utilization of Forest Resources in Amarkantak Biosphere Reserve (INDIA)

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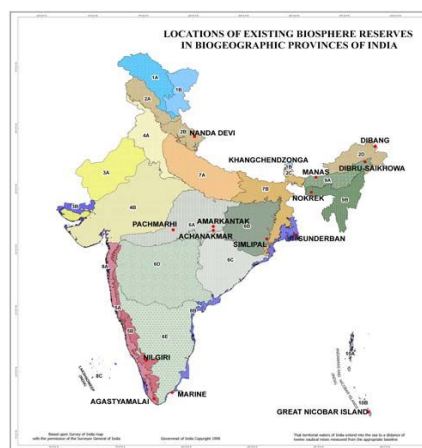
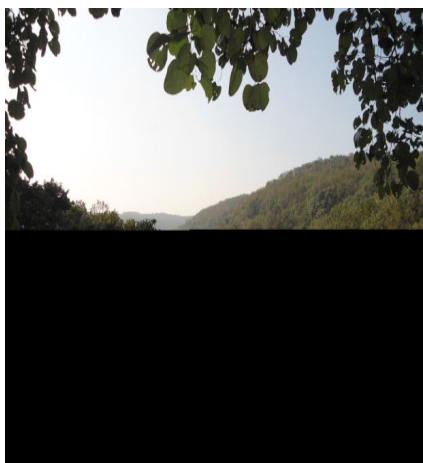
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INTRODUCTION

The Achanakmar Amarkantak biosphere reserve lies between lat . 22 o 15' to 22 o 58' N and long . 81 o 25' to 82 o 50' E , having an area 3835.51 km ² , partly falling in Madhya Pradesh and partly in Chhattisgarh state . The area falls in almost northern part of Biogeographic zone of 6 and Biogeographic province 6a (Deccan peninsula , central highlands). Out of the total area , 68.10 % lies in Bilaspur district followed by Anuppur (16.20 %) and Dindori (15.70 %). It includes one protected area (pa) viz , Achanakmar sanctuary lying in Bilaspur district with a total geographical area of 551.15. Km. Presently the Achanakmar-Amarkantak biosphere reserve has been divided into core and buffer zones area only. The entire area of 551.15 sq. km of Achanakmar sanctuary has been designated as core zone and remaining area of 3284.36 km ² serves as buffer zone. Out of this an area of 1224.98 km ² falls in Madhya Pradesh and the rest of the area of 2059.38 km ² fall in Chhattisgarh state. The biosphere reserve area includes Maikal hill ranges, the junction of Vindhyan and Satpura hill ranges forming a triangular shape. The geology of the area is varied [1-4].

Achanakmar Amarkantak biosphere reserve



MATERIALS AND METHODS

Present study was carried out in various baiga villages of amarkantak biosphere reserve of 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 biosphere reserve during October 2010 to April 2011. 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.

RESULTS

Plants used as medicines

Forests of the study area provide a number of medicinal plant resources used for different health problems of local baiga tribals.

Appendix 1:- List of Forest Plant species with their different uses by baiga people.

S.No.	Local Name	Scientific Name	Family Name	Uses
1	Kariyat	<i>Andrographis paniculata</i>	, Acanthaceae	plant extract exhibits antityphoid and antifungal activities.
2	Brahmi	<i>Centella asiatica</i> (Linn.)	Apiaceace	Cure syphilis, Mental disorder & Skin disease
3	Patal kumhda (Vidari kand)	<i>Pueraria tuberosa</i>	Fabaceae	Cure abdominal disorder.
4	Akarkara	<i>Spilanthus paniculata</i>	Asteraceae	Use in curing teeth disorder.
5	Brahma	<i>Hydrocotyle asiatica</i>	Apiaceace	Skin disease
6	Shivlingi	<i>Bryonia alba</i> .	Cucurbitaceae	Make sterility
7	Anantmool	<i>Hemidesmus indicus</i>	Asclepiadaceae	Fever, kidney stone problem.
8	Chitrak	<i>Plumbago zeylanica</i>	Plumbaginaceae	Indigestion.
9	Nirgundi.	<i>Vitex negundo</i>	Verbenaceae	Cure to antitoxinants in body
10	Van Adrak	<i>Zingiber zerumbet</i> (L.)	Zingiberaceae.	Cold fever.
11	Kalmegh	<i>Andrographis paniculata</i>	Acanthaceae	Malaria
12	Van dhania	<i>Zanthoxylum alatum</i>	Apiaceace	Gonorrhoea
13	Van Lahsun	<i>Allium wallichii</i>	Amaryllidaceae	Skin disease, indigestion
14	Van Makka	<i>Ariseama tortuosum</i>	Acanthaceae	Pilia, Tumour
15	Kanghi	<i>Abutilon indicum</i>	Malvaceae	Urinary disorder
16	Adusa	<i>Adhatoda vesica</i>	Acanthaceae	Worusicides
17	Vidhara	<i>Argyrea nervosa</i>	Convolvulaceae	Wound
18	Higlaj	<i>Cassia alata</i>	Fabaceae	Dysentery
19	Villai Kand	<i>Eulophia nuda</i>	Orchidaceae	Gastric Problem
20	Gurmar	<i>Gymnema sylvestre</i>	Asclepiadaceae	Burning sensation, urinary discharges
21	Katsaviya	<i>Barlaria priontis</i>	Acanthaceae	Kuker khashi
22	Van piyag	<i>Urginea indica</i>	Liliaceae	Urinary disorder
23	Vanjira	<i>Centratheranthmenticum</i>	Asteraceae	Fever
24	Sudarsan	<i>Crinum asiaticum</i>	Amaryllidaceae	Ear pain and fever
25	Pili	<i>Rubia cordifolia</i>	Rubiaceae	Pilia, blood purifier
26.	Ulatkambal,	<i>Abroma angusta</i>	Sterculiaceae	uterine tonic, The root has also been applied to treat itch.
27.	Gulbakawali	<i>Hedychinum coronarium</i>	Zingiberaceae.	Conjunctivities & cure other eye Disorder
28.	Jatashankari,	<i>Dryopteris</i> sp	Aspidiaceae	Fever

Plants used as food, Fruits and vegetables

Underground parts of *Dioscorea hispida* and *Colocasia* are used as food value during scarcity. Edible wild fruits are obtained from different plant species. Fruits of *Semicarpus anacardium* L. and *Citrus medica* are sold in the markets of local market. Whole plants or different parts of 20 plant species are used as vegetables (Appendix 2). Young shoots of *Asparagus racemosus*, *Dryopteris colcheata* and *Anona squamosa* L. are collected and sold Local market in high amount[5-9].





Figure plate:-1 Photo of some medicinal plants

Appendix 2:-List of Plants used as food, Fruits and vegetables.

Local Name	Botanical Name	Season of availability	Parts used
Kareel	<i>Bambusa arundinacea</i> (Wild)	July-Sept.	Young shoot
Koliari bhajee	<i>Bauhinia purpurea L.</i>	March-April	Young Leaves
suran	<i>Amorphophallus campanulatus</i>	Oct.-Nov.	Corn
Van Choulai	<i>Amaranthus paniculatus L.</i>	July-Aug.	Leaves
Munga	<i>Moringa oleifera L.</i>	March-April.	Flower & fruits
Kundru	<i>Coccinia grandis L.</i>	Rainy-Winter	Fruits
Purpuri bhajee	<i>Amaranthus viridis L.</i>	Rainy-Winter	Leaves and seeds
Mahua flower	<i>Madhuca indica</i>	March-April	Flower& Fruits
Bhodu	Indigenous Mushroom	Rainy	Fruiting body
Chirkhu	Indigenous Mushroom	Rainy	Fruiting body
Spittu	Indigenous Mushroom	Rainy	Fruiting body
Parorda	Wild Shurb	July-Sept.	Fruit
Boda kand	<i>Colocasia esculentum L</i>	July-Sept.	Tuber
Katbhajee	<i>Amaranthus spinosus L.</i>	Rainy	Leaves
Carota bhajee	<i>Cassia tora L.</i>	Rainy	Leaves
Phul bhajee	<i>Celosia argentea</i>	Rainy	Leaves
Kevkand	<i>Costus speciosus</i>	Rainy	Tuber
Baichandi	<i>Dioscorea hispida</i>	Throughout the year	Tuber
Dumer	<i>Ficus glomerata roxb</i>	Sept-dec	Fruit
Lal bhajee	<i>Amaranthus hybridus L.</i>	Rainy	Leaves
Van suran	<i>Ariseama Sp.</i>	Rainy	Tuber
Suari kand	<i>Dioscorea globosa roxb</i>	Rainy	Tuber
Jangali sem	<i>Dolichos sp.</i>	Rainy	Fruit
Jangali mooli	<i>Heliotropium ovalifolium</i>	Rainy	Leaves
Pan bhajee	<i>Marsilea sp.</i>	rainy	Leaves
Pakri	<i>Ficus. Sp.</i>	Throughout year	Young Leaves

Plants used as fodder and forages

Altogether various plant species are used as fodder and forages. Seasonal grazing is allowed in the forest. After the inclusion of some part of the forest in community forest, only the remaining part of the forest is allowed for grazing.

Plants used for farming and manure

Leaves of *Artimesia indica*, are used to prepare green manure. Dried leaves of *Shorea robuta* are

collected to prepare compost as well as to provide bedding to animals during winter season.

Plants used for Timber and fuelwood

Altogether plants are used for timber. Among them mostly used are *Anogeissus latifolia*, *Bambusa arundinacea*, *Haldinia cordifolia*, *Litsea glutineta* L. 45 plant species are used as fuel wood [10-11].

Religious plants

Altogether 11 plants are used as religious. *Cynodon dactylon* is used in worshipping god 'Ganesh' and during 'Bhaitika'. Stems of *Archyranthes aspera* are used by women in 'Teej' (Rishi Panchami). Plants of *Ficus bengalensis* and *F. religiosa* are worshiped by women on Monday and Saturday. Leaves of *Atrocarpus* are used to prepare 'Duna' and 'Taparies' which are used as plates during 'Pujas' [12-13].

Plants used for pickles

Fruits of *Magifera indica*, young rhizome of van adrak, young bud and flower of *Bauhinia purpurea* are used to prepare pickles [14-17].

DISCUSSION

The villagers use different forest plant species in their daily life. Documentation of such information's is useful for further generations and well as for their daily lives. Detailed study upon the ethnobotanical studies is necessary to document the traditional knowledge that is at the state of disappearance.

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