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ETHNOBOTANICAL STUDIES IN ABUJHMARH (BASTAR), INDIA

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The maria *and* muria *tribal communities living in* Abujhmarh *area in Narayanpur taluka of Bastar, Madhya Pradesh (India) mostly depend on the natural resources of their neighbouring forests for food, medicine and for other material culture and local rural technology. They use many plants in their religious ceremonies also. The* Abujhmarh *area is ethnobotanically under-explored. This paper deals with the ethnobotany of 35 plants from there. The information was derived from the specimens of plants and plant parts collected by the author during several explorations in the area (1986-1990) and by having interviews and discussions with the tribals. Vernacular names are also mentioned. A survey was conducted among medicinal plant sellers and local people of the area and 5 recipes and their use in fertility cult, menstural problems, birth control and in deriving stimulation etc. were discussed.*

Ethnobotany deals with the studies among the tribals and rural people for recording their unique knowledge about plant wealth and for search of new resources of herbal drugs, edible plants and other aspect of plants. It also includes the impact of man on his plant surroundings and the attitute of people towards plants. Plants have always been important to man. They provide oxygen, shelter, clothings and directly or indirectly food. Perhaps as a consequence of his dependence on plants, man has incorporated them into his language, religion, art, drama and recreation. For this reason, evaluation of the relationships between a group of people and their surroundings vegetation can provide useful cultural insights. The multiple uses for which plants are employed by *Abujhmarhia* tribals are often not known outside their community. With the advent of civilization and rapid spread of modern technology, the *Abujhmarhias* also, like other tribals, are changing very fast from their primitive cultural systems. Before the customs, traditions are replaced by modern acculturation, it was thought necessary to

record the uses of plants and plant parts in the folklore and folklife among *Abujhmarhias.*

LOCATION AND AREA OF STUDY

The *Abujhmarh* (Abujh = dark, unknown; marh = plateau) area is a mass of rugged hills in the south-west portion of Narayanpur taluka of the old princely state of Bastar (17° 45' - 20° 30' N and 80° 15' - 82° 15' E) and now the southernmost Jagdalpur (Bastar) district of Madhya Pradesh. The region is conspicuous because it is wholly comprised of high ridges and deep valley. From the west boundary of the district, it continues eastwards and descends clearly to Narayanpur-Kondagaon plateau in the east along Narayanpur and Chhotedungar. *Abujhmarh* offers unusual opportunity for ethnobotanical studies as these tribals largely depend upon the surrounding plant resources for their food, medicine and other material culture and for their existence.

The climate is generally warm, wet and humid in this region with average annual rainfall of 152 cm. Commercially valuable teak (*Tectona grandis* L.) and **sal** (*Shorea robusta* Gaertn. f.) forests were found in this area. The commonest species in these forests are *Madhuca indica* J.F. Gmel., *Lagerstroemia indica* L., *Pterocarpus marsupium* Roxb., *Grewia subinaequalis* DC, *Holarrhena antidysenterica* (L) Wall., *Diospyros melanoxylon* Roxb., *Hardwikia binata* Roxb., *Anogeissuss latifolia* Wall., *Bambusa arundinacea* Willd. and *Boswellia serrata* Roxb.

PEOPLE AND LOCAL INHABITANTS

Any ethnobotanical study is incomplete without a reference to the local inbahitants. *Abujhmarh* is a place of *maria* and *muria* tribals. These tribals are generally farmers in the aboriginal areas which have poorer villages. This area is very sparsely inhabited by aboriginal people inspite of being most difficult to access in Bastar because its inbahitants - the *abujhmarhia* tribes are still in the stage of shifting cultivation on the steep slopes of the hills. These aboriginals are Hill-Marias and Bison-Horn-Marias. The diet of these tribals consists of three meals of very simple kind. The breakfast is finger-millet (*Eleusine coracana*) cooked with a thin gruel called **pej.** The mid-day meal is practically the same supplemented with boiled **mahua** (*Madhuca indica*). The evening meal consists of finger millet or coarse rice with salt in it. The food is supplemented by chicken on festive occasions. They have rich folklore transmitted orally from generation to generation. Thus a wealth of information exists among them on utility of plants.

In India, Dr. E.K. Janaki Ammal initiated researches on ethnobotany

and studied subsistence food plants of certain tribals of south India and better prospects of *Dioscoreas* in India but good scientific base have appeared in the last two decades leading to publication of regional enumerations consisting of about 3000 plants used as medicines, fuel, food, fodder, fibre or house building, musical instruments, narcotics, beverages, in material culture and for magico-religious purposes (Agrawal and Saha, 1968; Jain, 1963, 1980, 1991). Several studies on the plants used in veterinary medicines have also been made. But considering the vast size of the country with varied flora and many kinds of tribes, these studies seem to be meagre and this is particularly in Bastar tribals. The only existing account of the ethnobotany of this region are those of Jain (1964, 1965), Umesh Chandra and Mehra (1983) and Roy and Chaturvedi (1987).

METHODOLOGY

The general procedure for gathering data was the same as described by Jain (1963). It consists of data obtained from informants by interviewing them in detail or also by witnessing the uses of plant or plant parts during stays in several tribal villages. The voucher specimens collected have been identified (Chopra *et al.*, 1956; Anon., 1946-1976). In addition to this, the author has employed different models of approach for field study. In this, following points were taken into consideration : (a) the dress, expression, speech, behaviour etc. are the factors which help the respondent infer whether you are one of them or an outsider, (b) let the respondent speak out as much as possible keeping your verbal expression to the minimum. However, certain words/phrases which help the continuity of their replies and keep them on the right track, will be useful, (c) make the respondent feel that you are not merely eliciting something from them but you are actually sharing or ready to share in their problems, (d) help the respondent understand before they reply to the queries, that (i) problems exists around them, (ii) the key solution of the problems is with them only. The surveyer can help them trace the key and guide them to the right direction, (e) it is not advisable to side with one group or the other if the groups begin to emerge during discussion. Be neutral, and (f) the interview should be informal one and not question-and-answer type. Still better, if the respondent knows the least that he is being interviewed.

During field work, local tribals or informants of the area were requested to accompany to the forest and to identify the plants/plant parts they use. Sometimes plants are collected from one locality and queries were made from adjescent tribal villages familiar with the plants.

RESULTS AND DISCUSSION

(a) Food: Although rice constitutes the major foodgrain of the *Abujhmarhias;* bulbs, rhizomes, leaves of various native plants supplement their food. But generally they boil rice and **kosara**-ragi (*Eleusine coracana*) and make a paste (known as **pej**). They take it in the morning and then they carry it in **tumba** (dried bottlegourd - *Lagenaria siceraria* Standl.) urns used to store liquor **pej** to the forest where they roam during day time. They use bulbs of *Amorphophallus* spp. also in their food.

(b) Medicine: The tribals or aboriginal people generally reside in very remote areas where practically no organized medical aid is available. They use herbal medicines in the ailments. The knowledge of herbal medicines is limited to a few members of the community. Some of the plants employed by the *Abujhmarhias* in medicine are enumerated in this paper. In these enumerations, the species are alphabetically arranged. The letters Ha, G,H,E in parenthesis indicate Halbi, Gondi, Hindi and English names respectively. This follows a brief notation of uses, as revealed by local tribals and informants consulted during the study. Collector's name (Umesh Chandra = UC), collector numbers, plant families are recorded after scientific names. The location of the collection is given after the notation of uses.

Abelmoschus manihot (L) Medic., UC 3145, Malvaceae, Wild okra (E), **Banramkalia, Bhursakanda** (G); decoction of root if taken by impotent person, stimulation is derived. Gudadi

Achyranthus aspera L., UC 3142, Amaranthaceae, **Agya** (Ha); when women insert roots in vagina, it has abortifacient effect. Garhbengal

Andrographis paniculata Nees, UC 3152, Acanthaceae, **Bhuilimb** (G), **Chirayata** (G); the plant is febrifuge, the leaves are pounded and made into small pills, two pills per day are reported to cure fever. Gudadi (near Orachha)

Bryonopsis laciniosa (L) Naud. UC 3172, Cucurbitaceae, **Shivlingi** (H). the powered seeds are given to barren women to help conception. Ranwahi (near Bhanupratappur)

Casearia elliptica Willd. UC 3174, Samydaceae, **Swarnmool** (Ha, H); the bark of the root is considered to be very good tonic for anaemic condition. Chhotedungar

Chloroxylon swietenia DC, UC 3167, Meliaceae, **Nadbirla** (G), **Bhirra** (H); leaves are crushed and applied to cattles to heal wounds. Bastanar

Citrus aurantifolia (Christm.) Swingle syn. *C. medica* var. acida. UC 3159, Rutaceae, **Kagzi Nimbu** (H); juice of one lemon is added to half kg of unboiled milk and is given to lessen diorrhoea. Chhotedungar

Cochlospermum religiosum (L.) Alston, UC 3162, Bixaceae, **Kayari** (G), **Harsingar** (Ha) **Gongal** (H); bark of the tree is pounded and applied to broken limbs, particularly in cattles. Pandaripani (Narayanpur)

Cuminum cymium L., UC 3144, Umbelliferae, Wild cumin (E), **Banjeer** (Ha); the fruit is pungent, hot and sweet, is reported to be stomachic. Kusumkasha

Euphorbia prostrata Ait., UC 3153, Euphorbiaceae, **Dudheli** (Ha); when taken as vegetable, it enhances lactation. Three doses are sufficient. Geedam (near Dantewada)

Gardenia turgida Roxb. UC 3169, Rubiaceae, **Pendra-ki-jadi** (G); decoction of the roots of *Gardenia turgida* and *Ficus glomerata* is said to cure sugar (Diabetes) in urine when urine is dark and reddish. Ranwahi

Glossogyne bidens (Retz.) Alston, UC 3158, Compositae, **Jangali Dhania** (Ha); the whole plant is crushed, mixed with sweet and applied to aching teeth for relief; also the pounded roots applied in snake-bite and scorpian sting. Bastar

Helicteres isora L., UC 3163, Sterculiaceae, **Marodphali** (H,G); the fruits are used to relieve stomach disorders. Kusumkasha

Leucas aspera Spr., UC 3175, Labiateae, **Tamba, Gubibuta** (Ha); half headache, juice of the root is administered in corresponding nostril. Chhotedungar

Mucuna prurita Hook. f., UC 3143 Papillionaceae, **Baidhok, Kawanch** (H, Ha); seeds are given for improving retention of semen. Ranwahi

Ocimum sanctum L., UC 3164, Labiatae, **Memri** (G), **Tulsa** (H); decoction of the whole plants applied to kill ticks in hen. Ranwahi

Petunga dhana Buck. Ham. ex C.B. Clark var. dalzellii C.B. Clark, UC 3147, Rubiaceae, **Bhojraj** (G) and

Petunga nagpurens, UC 3148, Rubiaceae, **Tejraj** (G); decoction of leaves and roots when taken, stimulation derived. Ranwahi

Polygonum plebejum R. Br., UC 3161, Polygonaceae, **Kati Bhaji** (Ha); eaten as vegetable, the plant is believed to promote lactation. Garhbengal

Pongamia pinnata L., UC 3160, Polygonaceae, **Karanj** (Ha); used for treating eczema, the seed oil is applied after bathing. It is applied to burns and itches also. Chhotedungar, Narayanpur

Scoparia dulcis L., UC 3165, Scrophulariaceae, **Mithipatti** (H), **Ghodatulsi** (H, Ha); the leaves are powdered and made into pills, three pills are taken daily in weakness of semen. Jagdalpur

Semecarpus anacardium L., UC 3149, Anacardiaceae, **Idumaraam, Biba** (G), **Bhilawa** (H); the fruits heated, an oil oozes out and is applied

to cuts and other foot injuries, also in ache of waist and hand joints. Orachha

Shorea robusta Gaertn. f., UC 3171, Dipterocarpaceae, **Sargi** (G), **Sal** (H); the fruits are pounded and the paste is given for treating diorrhoea. Chhotedungar

Smilex prolifera Roxb., UC 3166, Liliaceae, **Mutrilaha** (G), **Ramdatoon** (H); children who urinate in the night are cured if they employ leaves of this plant in their food and branches as tooth brush. Gudadi (near Orachha)

Sterculia urens Roxb., UC 3156, Sterculiaceae, **Gulu** (H), **Karat** (Ha); the bark is pounded and given to women before childbirth to facilitate delivery. Ranwahi

Tamarix dioica Roxb., UC 3155, Tamaricaceae, **Gajri** (G), **Jhau** (H); a few leaves are cooked with rice and given to children to relieve cough, also decoction of leaves for cure of enlarged spleen in children as well as adults. Chhotedungar

Tectona grandis L., UC 3170, Verbanaceae, **Sagwan** (H); oil obtained by distillation of wood chips are reported to cure eczema and ringworm, ashes of wood applied to swollen eyelids. Narayanpur

Tephrosia purpurea Pers., UC 3151, Papilionaceae, **Chiktibuta** (Ha), **Bajradanti** (H); this species with *Asparagus* spp. is an ingredient for medicine used in treating impotency, roots crushed and the paste is given in snake-bite. Ranwahi

Terminalia belirica Roxb., UC 3146, Combretaceae, **Baheda** (H); it is used in piles, diorrhoea and headache etc., as purgative also. Chhotedungar

Thespesia populnea Soland ex Correa, UC 3168, Malvaceae, **Paraspipar** (Ha): barks leaves and flowers are pounded into paste and used in skin infection, scabies, ringworm and eczema etc. Kusumkasha

Urtica dioica L. UC 3150, Urticaceae, **Bichchhu-buti** (H, Ha); an infusion of it, is administred to control excessive menstrual flow. Narayanpur, carhbengal

Wrightia tinctoria R. Br., UC 3157, Apocynaceae, **Indrajau** (G); fresh leaves when chewed - relief in toothache, decoction of leaves is taken as stomachic. Kusumkasha

Xeromphis spinosa (Thunb.), UC 3154, Rubiaceae, **Dhudhributa** (Ha); roots are used for treating gonorrhoea and disease of urinary tract. Orachha

As per the local medicinal plant sellers and the local people of the area, the plants and plant parts were mixed according to following recipes and are given in various treatments.

Recipes 1: Inflorescence of *Crocus sativus* L., UC 3177, Iridaceae, **Kesar** (H); inflorescence of *Thespesia populnea* Soland ex Correa, UC 3168, Malvaceae, **Paraspipar** (Ha); *Terminalia belirica* Roxb., UC 3146, Combretaceae, **Baheda** (H); *Emblica officinalis* Gaertn., UC 3188, Euphorbiaceae, **Amla** (H); *Anogeissus latifolia* Wall., UC 3179, Combretaceae, **Dhawada** (G); *Elletaria cardamomum* Maton, UC 3180, Zinziberaceae, **Chhoti elaichi** (H); *Syzygium aromaticum* (L) Merr. & L.M. Perry, UC 3183, Myrtaceae, **Laung** (H); *Styrax officinalis* L., UC 3182, Styraceae, **Silajeet** (H); and *Piper nigrum* L., UC 3184, Piperaceae, Black pepper (E) - all are pounded and a mixure powder is obtained. One teaspoonful of this powder if taken daily with water for six months, barren women will redevelop menstruation, and can produce child.

Recipes 2 : Decoction of roots of *Gardenia turgida* Roxb., UC 3169, Rubiaceae, **Pendra** (G); and fruits of *Ficus racemosa* L., syn. *F. glomerata* Roxb., UC 3185, Moraceae, **Gular** (H) are used in diabetes.

Recipes 3: Leaves of *Petunga dhana* Buch. Ham. ex C.B. Clarke var. dalzellii C.B. Clarke, UC 3147, Rubiaceae, **Bhojraj** (G); is pounded with sugar. If the paste is taken, high stimulation is derived.

Recipes 4: *Alpinia officinarum* Hance, UC 3186, Zinziberaceae, **Kalanjan** (G); *Myristica fragrans* Houtt, UC 3187, Myristicaceae, **Jaiphal** (H); *Zingiber officinale* Rose, UC 3188, Zinziberaceae, **Adrak** (H) - all are mixed and pounded in equal quantity. The mixture helps in curing acute cough.

(c) Other uses: Women use *Carthamus tinctorious* L., UC 3189, Compositae, **Kusum** (H), Safflower (E) oil in their dark hairs. Women of *Abujhmarh* - their arm and faces are heavily tattood. The dyes used for tattooing are of plant origin. They use *Madhuca indica* J.F. Gmel., UC 3190, Sapotaceae, **Mahua** (H) cups for sipping **pej** etc. Mats used are made of bamboos (*Melcoanna* spp. and *Arundinaria* spp.).

It can be well established from the above enumerations and from work published in the past that *Abujhmarh* has a good treasure of folklore uses of plants. The author has only mentioned those plants which came into his notice during exploration expeditions to Bastar district in the years 1986 to 1990. Many other folklore uses of plants are to be found out. The only difficulty in this work is that the *Abujhmarhias* do not easily yield the secrets of the plants, they use for medicinal and other purposes; they have a traditional notion that if they do so, the curing properties of the plants will vanish. They yield those secrets only

to their kith and kin and at the last stages of their life. While interviewing the tribals, an effort was made not to make these discussions/ queries monotonous for the informants and on certain occasions, the author encouraged them to ask for treatment of any diseases; what tribals of their villages did for these diseases and then what they did, was discussed. In majority of cases, the prescription was known to several tribals for common ailments such as cuts, pains, fever but for serious ailments and complicated diseases, the village medical man alone was considered competant. This person is generally the most respected and rather indespensable man of the society. He is usually jealous of his knowledge. Animal sacrifice and exorcism still play a role in tribals of *Abujhmarh*. Propitiation of God or the spirit whose ill-will has caused the sickness, are always an essential part of treatment. Also all the herbs used in prescription must be considered ineffective without accompanying oracles. These oracles has to be recited by the so called medicine man at the time of administering it. They have no prescription for controlled diet during sickness. They are usual in diet. The medicine. men generally don't tell about the medicine considering it as trade secret but in case the approach is good and in case, they have been given a leading role in discussions, generally they spoke out without more reservations but to few ailments, they don't tell at all. The work for exploring *Abujhmarh* requires much patience and technique to win the confidence of the people. No doubt, if systematic work is done, many valuable results can be expected but before the time lapses, the work needs to be expedited.

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