

ETHNOBOTANICAL USES OF WILD FRUITS OF RATLAM DISTRICT (M. P.)

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ABSTRACT

The study documents various ethnobotanical uses of 48 wild fruit species used by bhil tribe of Ratlam district (M.P.). The tribals were contacted and the information on 48 species belonging to 42 genera under 30 families from different pockets was documented. For each species, the information regarding Botanical names, Local names, Parts used and ethnobotanical uses have been provided.

Keywords: Ethnobotanical Plants, Wild Fruits, Bhil Tribe, Ratlam

INTRODUCTION

The major fruit crops grown commercially in India are apple (*Pyrus malus*), banana (*Musa paradisiaca*), guava (*Psidium guajava*), grape (*Vitis vinifera*), litchi (*Nephelium litchi*), mango (*Mangifera indica*), orange (*Citrus aurantium*), papaya (*Carica papaya*), pomegranate (*Punica granatum*) and sapota (*Achras sapota*) etc. There are quite a large number of indigenous and underutilized fruit crops, which are being used by the local inhabitants. In fact for people living in villages, these underutilized fruits are the only source of food, nutrition and health care. Due to their medicinal properties, these fruits have been used in Indian system of medicine since time immemorial. Apart from their nutritive and medicinal values quite a few of these underutilized fruits have excellent flavour and very attractive colour. In spite of these quality attributes most have not undergone any conscious phase of domestication and human selection. These crops are cultivated, traded, and consumed locally. These crops have many advantages like easier to grow and hardy in nature, producing a crop even under adverse soil and climatic conditions. Ratlam district lying between 23°05' – 23°55' N latitude and 74°30' – 75°42' E longitude covers an area of 4861 sq. km. The district is situated on Malwa plateau at 493.62 m. above the sea level. Bhils are the main inhabitants of different villages of the district. According to 2001 census the population of Bhil tribe in the district was 2,26,156 lakhs constituting about 23.27% of the total population of Ratlam district. Ethnobotany has introduced numerous little-known or unknown uses of plants (Jain, 1981; 1991; 2002; 2004). The author has been engaged in ethnobotanical investigations in this district, results of which have been published earlier (Jadhav, 2012; 2013; 2014). This paper is also prepared on the same lines. In the present investigation, the author has recorded hitherto ethnobotanical uses of fruits of surrounding plants in the habitations of the tribe. The present paper provides the information on some ethno-botanical uses of fruits of some plant species used by Bhil tribe of Ratlam district (M.P.).

MATERIALS AND METHODS

Methodology

Frequent ethnobotanical surveys were conducted between August 2004 to December 2008 in different tribal inhabited villages of Ratlam district (M.P.) and more than 300 ethno medicinal plants were recorded. Ethno botanical usage of fruit parts of 48 plant species has been provided in this paper. First hand data regarding various uses and local names of plants were collected through personal contacts established with a large number of tribal informants and “Bhopa” (Traditional rural medicine men). “Bhopa” is to be contacted for collecting information about ethnobotanical plants. With an intension to give them the credit of their knowledge, a list of Bhopa is given below with their age and Village- 1. Vijay Dodiya (30 yr, Dabar), 2. Khimaji Dodiya (42 yr, Dabar), 3. Manglaji Hari (50 yr, Semaliamaal), 4. Vijay lal ji Rawat (45 yr, Khairda), 5. Lal chand Dodiya (50 yr, Devla), 6. Chaitanji Ninama (40 yr, Naktipada), 7. Jotiji Ninama (40 yr, Ganawa), 8. Premchand ji Bhabhar (26 yr, Naktipada), 9. Manjiji

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Katara (40 yr, Chandragad Maal), 10. Punam Chand Bhabhar (32 yr, Chandragad Maal), 11. Mangal Singh Bhabhar (35 yr, Kangsi), 12. Virji Maida (34 yr, Mahapura), 13. Babuji Khadia (38 yr, Harthal), 14. Baluji Garwal (40 yr, Harthal), 15. Kodarji Garwal (42 yr, Harthal), 16. Mohan ji Maida (45 yr, Naharpura), 17. Bhagirath ji Katija (36 yr, Gayli), 18. Haroba (55 yr, Bibdod), 19. Phulji Bhil (45 yr, Matrunda), 20. Onkarnath ji (60 yr, Khankhai), 21. Kodar Ba (55 yr, Haldupada), 22. Lallu Maida (35 yr, Rampuria), 23. Shambhu Singh Gamad (37 yr, Khejdipada), 24. Bahadur (38 yr, Vatpadi), 25. Bhairosingh Muniya (40 yr, Bhamat), 26. Lunja ji Charpota (55 yr, Kangsi), 27. Velji Ba (80 yr, Ranisingh), 28. Hurji Ba (45 yr, Ranisingh), 29. Lal Chand Ba (70 yr, Bashindra), 30. Babu (35 yr, Naharpura), 31. Lachman Ba (60 yr, Dholawad). During the survey the ‘Bhopa’ was contacted and were taken to the field for documenting the information about ethno botanical plants, local names and method of preparation of the drug and approximate dosage of administration or other ethnobotanical use. These data are recorded in the field book. Voucher specimens are collected for authentication of information and future reference. With the help of local names and specimens, it was possible to verify the uses with other villagers and the data are considered valid if at least 2 informants provided similar uses about a medicinal plant. Herbarium specimens were prepared following the standard method (Jain and Rao, 1978) and deposited in the herbarium of Botany department, Government PG Arts & Science College, Ratlam (M.P.). Herbarium specimens were identified with the help of standard Floras (Verma *et al.*, 1993; Mudgal *et al.*, 1997; Singh *et al.*, 2001).

RESULTS AND DISCUSSION

The paper provides the information on ethno botanical uses of fruits of 48 plant species used by Bhil tribes of Ratlam District (M.P.). Most of the species (4 species) belong to family Sapotaceae followed by Rutaceae, Solanaceae, Cucurbitaceae and Rhamnaceae (3 species each) and Malvaceae, Mimosaceae, Annonaceae, Moraceae, Caesalpiniaceae, Borainaceae and Myrtaceae (2 species each). This valuable ethno botanical knowledge of tribes needs to be preserved before it is eroded from the memory. These studies of traditional plant lore paves the way for discovering new economic and botanical sources for the welfare of mankind.

Enumeration

Table 1: List of Ethnobotanical Uses of Fruits of Local Plants Species of Ratlam District (M.P.)

Botanical Name	Local Name	Family	Uses
<i>Abelmoschus esculentus</i> (L.) Moench.	Bhindi	Malvaceae	2 to 4 fresh fruits are chewed daily for 7 days to check undesirable discharge of semen with urine and to increase sexual potentiality.
	Bambul		A teaspoonful powder of unripe dried fruits is taken early in the morning with milk daily for 7 days to check undesirable discharge of semen with urine and to increase sexual potentiality.
<i>Acacia arabica</i> Auct.		Mimosaceae	
<i>Achras zapota</i> L.	Chiku	Sapotaceae	Fruits are eaten.
<i>Adansonia digitata</i> L.	Gorakh-amli	Bombacaceae	Fruits are eaten.
	Billi		The juice is extracted from boiled ripe fruit and it is taken to cure cold and dysentery.
<i>Aegle marmelos</i> (L.) Corr. ex Roxb.		Rutaceae	
<i>Annona squamosa</i> L.	Sitaphal	Annonaceae	Fruits are eaten.
<i>Annona reticulata</i> L.	Raamphal	Annonaceae	Fruits are eaten.
<i>Artocarpus heterophyllus</i> Lam.	Katar		Unripe cooked fruits are used as vegetable. It is also used in pickles.
	Limdo	Moraceae	*Fruits are eaten.
<i>Azadirachta indica</i> A. Juss.		Meliaceae	*Extract of fruits is taken with water to

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	Hingorio		cure bodyache and headache. *Fruit pulp is used as detergent for washing the cloths. *A drop extracted from fruit pulp is taken with a cup of water to cure typhoid, tetanus, hysteria and epilepsy. *Extract of fruit-pulp is applied in the cases of scorpion sting. *The tribals give the extract of fruit pulp with water to their cattle for removing the intestinal worms.
<i>Balanites aegyptiaca</i> (L.) Del.	Papito	Simaroubaceae	*Unripe cooked fruits are used as vegetable. *Ripe fruits are eaten. *Unripe fruit pulp is eaten to cure tumor in stomach. It is also useful in obesity. *The epicarp of unripe fruit is eaten in the cases of prolepsy of uterus and hydrocoel.
<i>Carica papaya</i> L.	Karamda	Caricaceae	*Unripe cooked fruits are used as vegetable. It is also used in pickles.
<i>Carissa carandus</i> L.	Garmalo	Apocynaceae	*Mature fruits are eaten by the tribals.
<i>Cassia fistula</i> L.	Limbu	Caesalpiniaceae	Extract of fruit is given by the tribals to their cattle in Afra disease. *Fruit is used in pickles. *Juice of fruits (Sugar may be added) is taken in the cases of burning in urethra during micturition. *The fruit-juice is taken orally with salt/sugar by the tribals for relief in body-heat & diarrhoea.
<i>Citrus limon</i> (L.) Burm. f.	Kundru	Rutaceae	*Unripe cooked fruits are used as vegetable. *Fruits are chewed daily 2 times is very useful for diabetic patients.
<i>Coccinia cordifolia</i> Cogn.	Gundlo	Cucurbitaceae	The mature fruits are eaten by the tribals.
<i>Corida dichotoma</i> Forst. f.	Gundi	Boraginaceae	The mature fruits are eaten by the tribals. Sometimes bhils cook vegetable from the young fruits.
<i>Cordia gharaf</i> (Forssk.) Ehrenb. ex Asch.	Timru	Boraginaceae	Fruits are eaten.
<i>Diospyros melenoxylon</i> Roxb.		Ebenaceae	
<i>Ficus glomerata</i> Roxb.	Gulri	Moraceae	Fruits are eaten.
<i>Grewia tiliifolia</i> Vahl.	Dhaman	Tiliaceae	Fruits are eaten.
<i>Hibiscus sabdariffa</i> L.	Khati bhindi	Malvaceae	Fruits are sour in taste and it is mainly used for culinary purposes.
<i>Lantana camara</i> L.	Barmasi	Verbinaceae	Fruits edible.
<i>Limonia acidissima</i> L.	Kavit	Rutaceae	*Fruits are used for making Chuteny.

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<i>Madhuca indica</i>	Maudo Aambo	Sapotaceae	*Fruit pulp is eaten by the children. *The powder of unripe fruit is taken with water in the cases of obesity. *Extract of fruit pulp is taken with water to cure menorrhoea. Fruit eaten raw or cooked. *Unripe fruits are used for mankind pickles and Chutney. *Ripe fruits are eaten by the tribals. *The gum of unripe fruit is applied against scorpion sting. *The mesocarp of boiled 2 unripe fruits is mixed in a glassful of water with one teaspoonful sugar and one teaspoonful salt. This juice is taken orally 2-3 times in a day to cure diarrhoea. *The powder of dried small unripe fruits is taken with water to cure loose motion. *Pickle of fruits is made into paste with 25 gm. Haldi (<i>Curcuma longa</i> L.) in 250 ml mustard oil and given to cattles in the case of Afra disease.
<i>Mangifera indica</i> L.		Anacardiaceae	
<i>Mimusops elengi</i> L.	Maulsari	Sapotaceae	Fruits are eaten
<i>Mimusops hexandra</i> (Roxb.) Dub.	Rayna	Sapotaceae	Fruits are eaten
<i>Momordica dioica</i> Roxb. ex Willd.	Kikoda	Cucurbitaceae	Unripe cooked fruits are used as vegetable.
<i>Moringa oleifera</i> Lam.	Surajno	Moringaceae	Cooked fruits are used as vegetable.
<i>Mukia maderaspatana</i> (L.) Roem.	Charboti	Cucurbitaceae	Fruits edible.
	Kero		*Fruits are eaten. *2 drops of latex of <i>Calotropis gigantea</i> (L.) R. Br. are dropped in ripe fruit of Banana (<i>Musa paradisiaca</i>) and eaten alternate day early in the morning to cure jaundice.
<i>Musa paradisiaca</i> L.		Musaceae	*Unripe fruit is eaten in loose motion.
<i>Opuntia elatior</i> Mill.	Hasla thuar	Cactaceae	Mature fruits eaten.
<i>Phoenix sylvestris</i> (L.) Roxb.	Khajoor	Arecaceae	Fruits are eaten
<i>Phyllanthus emblica</i> L.	Amlo	Euphorbiaceae	Fruits are eaten. It is also used in pickles.
<i>Physalis minima</i> L.	Popcho	Solanaceae	*Mature fruits are eaten by the tribals. *Extract of unripe fruit is taken with

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<i>Pithecellobium dulce</i> (Roxb.) Benth.	Sarkari imli	Jamphal	Mimosaceae	water to cure fever. Fruits are eaten
<i>Psidium guajava</i> L.			Myrtaceae	*Cooked fruits are used as vegetable.
<i>Punica granatum</i> L.	Anaar		Punicaceae	*Fruits are eaten.
<i>Solanum surattense</i> f.	Bhuri rindi			*Ripe berry fruit is used after roasting to cure cough and cold.
			Solanaceae	Fruits are eaten
<i>Solanum nigrum</i> L.	Charpoti			Fruit mash is applied over teeth in toothache.
			Solanaceae	*Mature fruits are eaten by the tribals.
<i>Syzygium cumini</i> (L.) Skeels	Jambu			*Fruit juice is used in stomachache.
				Fruits are eaten.
	Amla		Myrtaceae	
<i>Tamarindus indica</i> L.			Caesalpiniaceae	Fruits are eaten and often prepared a sweet drink mix with sugar and mash pulp.
	Bedo			*Fruits are eaten.
<i>Terminalia bellerica</i> (Gaertn.) Roxb.			Combretaceae	*The fruit is crushed and dropped in water as a fish poison by the Bhils.
<i>Trapa natans</i> L.	Hingoda		Trapaceae	Fruits are eaten.
<i>Xeromorphis spinosa</i> Keay	Gali		Rubiaceae	Fruits used as fish poison.
<i>Ziziphus mauritiana</i> Lam.	Bor		Rhamnaceae	Fruits are eaten.
<i>Z. nummularia</i> (Burm. F.) Wt. & Arn.	Bor jari			Fruits are eaten.
			Rhamnaceae	
<i>Ziziphus xylopyra</i> Willd.	Ghat bor			*Fruits are eaten
			Rhamnaceae	*Fish poison

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