

STUDIES ON THE ETHNOBOTANY OF ORISSA

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ABSTRACT

The paper presents the ethnobotanical observations on 81 species which were recorded during authors' survey in Orissa State for over four years. A number of interesting uses for antifertility, medicine, fibre, food etc. are reported, many of which have been found new on comparison with the important published literature on the medicinal and economic plants of the country.

INTRODUCTION

Orissa has a rich and varied flora due to its diversified topography and variable climatic conditions. The physical set up of the State is interesting as it contains several ranges from the sea coast line to high peaks exceeding 1500 metres in height. There is an extensive plateau in the interior with a foreground of wide coastal plain. The forest area is extensive, constituting about 42 percent of the total land area of the State, though the wooded area is only 25 percent of the total area. Among the States of Indian Union, Orissa has got second highest number of tribal population which according to 1971 census is 50.72 lakhs, constituting 23.1 percent of the total population of the State. There are about 60 tribes inhabiting the State, out of which the important ones are, Kond, Gond, Santal (Mayurbhanj), Saora (Ganjam), Munda, Kolha, Shabar, Paroja (Koraput), Gadabas (Koraput) and Kol (Simlipal). The tribal people possess fairly good knowledge about the medicinal uses of the plants which they have acquired in the course of their centuries old experience and association with the plants. In the absence of any other medical facility available to them in their remote habitations they had to develop their own remedies

for their ailments from their surrounding plants.

The rich flora, the vast forest and large tribal population provide ideal conditions for ethnobotanical studies in the State. Importance of such studies has already been emphasized by several workers in the past (Schultes 1960, 1962, 1963; Jain 1967; De 1960) and where as other countries like United States of America, Mexico, Brazil, China, W. Africa etc. have done enough work on ethnobotany, very little attention has been paid in this direction in India. Jain (1962, 1963, 1965) started for the first time ethnobotanical studies in Bastar district of Madhya Pradesh and Shah and Joshi (1971) published an account of the ethnobotany of Kumaon region. In Orissa, ethnobotanical studies were started by the Botanical Survey of India in 1970-71 and some papers have been published (Jain 1970-71; Jain et al. 1973; Pal & Banerjee 1971; Pal 1973; Chaudhuri & Pal 1975 and Pal & Banerjee 1977). The present paper gives an account of ethnobotanical observations on 81 species, recorded during the course of four years survey in the regions of Simlipal (Mayurbhanj), Bhubaneswar, tidal forests of Mahanadi delta and Ganjam. The species are arranged alphabetically giving details of

local names and local uses of the plants, followed by the name of locality from where the notes were recorded and field book number. A number of interesting tribal uses for antifertility, medicine, fibre, food etc. are described, which might be of medicinal, industrial or nutritional values. On comparison with the important published literature on the medicinal and economic plants of the country, many of these uses have been found to be new.

The botanical specimens collected at the time of recording the notes are preserved in the herbarium of the Regional Research Laboratory, Bhubaneswar.

[Abbreviations: Or.—Oriya; K.—Kol; D.—Dorli (Simlipal); S.—Saora; Tel.—Telugu]

ENUMERATION

Abrus precatorius Linn.

'Kainch' (Or.)

The plants yielding white seeds are used by the tribal people for antifertility in women. The seeds about 3-4 in number are soaked in rice water in the evening and left overnight. The decanted rice water is given on the third day of the menstruation early in the morning after sunrise. As many seeds are soaked as the number of years for which contraception is required (R. Udaigiri, Ganjam, 1899).

According to another method of use, one seed is pounded and given on the fourth day of the menstruation. This will be effective as contraceptive only for one month. (Narainpur, Ganjam).

The root of the plant yielding white seeds is made into paste with milk and given once daily for three days for inducing abortion. (Chandragiri, Ganjam).

Aegle marmelos (Linn.) Corr.

'Belo' (Or.)

The bark is pounded and made into paste with mustard seeds and used for diarrhoea, dysentery and other stomach disorders. The root is made into paste with 3-21 black

peppers and administered once daily for seven days in bite by mad dog (Ganjam).

Alangium salvifolium (Linn. f.) Wang

'Ankol' (Or.)

The leaves and tender shoots are made into paste with salt and applied to boils (Ganjam, 1161).

Allophyllus serratus Radlkofer

'Pattanai', 'Ramabilli', 'Gurichawal' (Or.)

The ripe fruits are edible (Bhubaneswar, 881, 1061).

Alstonia venenatus R. Br.

'Kendia rade' (S.)

The bark, pounded and mixed with 'Karanj' (*Pongamia pinnata*) oil is applied to skin diseases (Ganjam, 1278).

Ampelocissus latifolia (Roxb.) Planch.

'Pania moha' (Or.); Oterori (K.)

The root is pounded and applied to wounds (Simlipal, 555).

A. tomentosa (Roth) Planch.

'Dumba', 'Debliya' (S.)

The root-paste is applied to wounds and sprains (Ganjam, 1202).

Andrographis echioides (Linn.) Nees

The plant-paste is applied to burns (Ganjam, 1109).

Anisochilus carnosus (Linn. f.) Wall.

'Paunsia' (S.)

The leaves are crushed and applied to itches caused due to excessive contact of the skin with water (Ganjam, 1269).

Anogeissus latifolia (DC.) Wall. ex Bedd.

'Dhai' (Or.)

Paste of the bark with black pepper is administered for dry cough (Ganjam, 1274).

Argyrea nervosa (Burm.) Boj.

'Batradi' (S.)

The leaves are used for giving hot fomentation after applying mustard oil to relieve headache (Ganjam, 1242).

Barleria cristata Linn.

'Daskarada' (Or.)

A decoction of the root with 'Koelekha' (*Barleria strigosa* Willd.) and dry fish is given in anaemia (Ganjam, 1439).

Barleria strigosa Willd.

'Koelekha' (Or.)

A decoction of the root with 'gulchi' (*Tinospora cordifolia*) and 'daskarada' (*Barleria cristata*) is given with honey and 'pipli' (*Piper longum*) in acute fever (Ganjam, 1236).

Bauhinia purpurea Linn.

'Barada' (Or.), Baredab (S.)

Tender leaves are cooked and taken as vegetable (Ganjam, 1186).

Biophytum sensitivum (Linn.) DC.

About 20-25 plants are made into paste and given twice or thrice daily with milk to allay body heat caused by some excitement (Ganjam, 1128).

Blumea membranacea DC.

'Poksunga' (Or.)

The plant-juice is administered to relieve body pain (Jambu, 1333).

Boerhaavia diffusa Linn.

'Khapra sag', 'Alikapudi' (Ganjam), 'Purni' (Jambu), 'Kharkharia' (Or.).

The cooked leaves serve as vegetable. The root-paste is applied to head to allay body heat (Ganjam).

The leaves are cooked without salt and given to patients suffering from jaundice (Jambu).

Bryophyllum pinnatum (Lamk.) Oken

'Amkakri' (Or.)

The plant-paste is applied to forehead to relieve headache (Ganjam, 1498).

Byttneria herbacea Roxb.

'Sanolaliya' (Or.)

The root is made into paste along with the root of 'menhankalo' (*Trichosanthes bracteata*) and applied as plaster after frying in 'mahul' (*Madhuca indica*) oil for quick union of fractured bones. The root-paste is applied to wounds to clear off pus (Ganjam, 1219).

Caesalpinia crista Linn.

'Gila' (Or.)

Two seeds are pounded and given in early

morning with cow milk in rheumatic pains (Jambu, 1007).

Careya arborea Roxb.

'Kumbhi' (Or.)

The bark extract is given in empty stomach with curd prepared out of cow milk once daily for 3 days in blood-dysentery. For more effectiveness of the medicine, 'chura' (pressed rice) and 'jaiphal' (*Myristica fragrans*) are also added (Ganjam, 1138).

Cassia fistula Linn.

'Sunari' (Or.)

The fruit is rubbed on a stone and the paste so obtained is applied to pimples (Ganjam).

Cayratia auriculata (Roxb.) Gamble

'Ludradanka' (S.)

The stem is cooked and taken as vegetable. The fruits are poisonous and skin irritant (Ganjam, 1201).

Chloroxylon swietenia DC.

'Bheru' (Or.)

The root-paste is heated and applied warm to neck to relieve pain due to cold (Ganjam, 2252).

Cipadessa baccifera (Roth) Miq.

'Pittamari' (Or.)

The plant is used in bile trouble and hence the local name 'Pittamari' ('Pitta' means bile and 'mari' means subside). The root (about 10 gms) is made into paste with few mustard seeds, warmed and given in empty stomach. The leaf is pounded and its paste in gingeli oil is applied to head. Excess bile would come out through vomiting (Ganjam, 1203).

Clausena excavata Burm. f.

'Agnijal' (Or.), Duki potum (K.)

The root is a reputed medicine for acidity. It is sometimes given along with the root of *Cissampelos pareira* Linn. About 5 gms powdered root of each is mixed and given twice daily for 10-15 days (Simlipal, 455).

Clerodendrum viscosum Vent

'Beniya' (S.)

The root is made into paste with garlic

and warmed on a piece of earthen pot and administered for fits. One dose will consist of a piece of 5 cm long root of about 2 cm diameter, and in all three doses are given to cure the disease (Ganjam, 1192).

Cocculus hirsutus (Linn.) Diels

'Musakani', 'Dahdahiya' (Or.)

The leaves are cooked and given to children to check excess urination and bed-wetting. Only one dose of the medicine is considered effective but it should be continued for one week or so. The leaf-paste is applied to bites by pregnant rat which is considered very poisonous (Ganjam, 1110-a).

Costus speciosus (Koen.) Sm.

'Bankachya' (S.)

Pickle prepared from the rhizome is eaten as general tonic (Ganjam, 1210).

Crotalaria prostrata Roxb.

'Vishnukarni' (Or.)

A decoction of the entire plant is given with honey to stop vomiting (Ganjam, 1442).

Curculigo orchoides Gaertn.

'Kalimusli', 'Talmuli' (Or.)

The root-paste is warmed over a castor-leaf and few drops are poured in the ear to relieve ear-ache; the paste is also applied to the head and covered with castor-leaf.

The root (about 8 gms) is fried in 'ghee' (butter) and used in cough. The root and black pepper are pounded and made into paste which is heated and applied while warm to cuts (Ganjam). The paste of about 8 gms root with mustard seed is administered to nursing women to increase lactation (Ganjam, 1294-a).

Cynoglossum lanceolatum Forsk.

'Sungaban' (D.)

The entire plant is pounded and made into paste which is applied to relieve muscular pain (Simlipal, 471).

Dalbergia latifolia Roxb.

'Sisu' (Or.)

The wood-extract is applied to eczema and pimples (Ganjam, 1409).

Desmodium triquetrum (Linn.) DC.

'Salparni' (Or.)

A decoction of the plant (50 gms) and 'Kustaparni' (25 gms), 'Pipli' (*Piper longum*) 3 gms, 'Gulanchi' (*Tinospora cordifolia*) 10 gms, 'Saunthi' (*Zingiber officinale*) 10 gms, 'Dhania' (*Coriandrum sativum*) 10 gms and 'Pita putola' (*Trichosanthes cucumerina*) 10 gms is made in 1 litre of water and given in doses of 25 cc. with honey twice daily to cure chronic fever (Ganjam, 1180).

Diplocyclos palmatus (Linn.) Jaffery

'Shivling' (Or.)

A decoction of about 50 gms entire plant with fruits is made with the leaves of 'neem' (*Azadirachta indica*) and 10 gms 'Bhuineem' (*Andrographis paniculata*). It is divided into 8 equal parts and administered twice daily with honey for four days in small-pox to reduce the virulence of the disease (Ganjam).

Single seed of the plant, black pepper and sugarcandy are powdered and given in the morning with the juice of *Aloe barbadensis* for fertility in barren women. In all, three doses, each consisting of 1½, 2½ and 3½ black peppers are given on the third, fourth and fifth days of the menstruation (Ganjam, 1469).

Eclipta alba (Linn.) Hassk.

'Ghuntkalava' (Tel.)

The plant-paste is applied to wounds of cattle. The same with mustard seeds is applied to itches caused due to excessive contact of the skin with water (Ganjam, 1249).

Euphorbia hirta Linn.

'Hariharik', 'Jhantikhuntia' (Or.), Pacha-batlu (Tel.)

The crushed plant is fried and applied to cuts. The latex is applied to eyes in children when they turn reddish (Ganjam, 1456).

Eupatorium odoratum Linn.

'Phulgandhuri', 'Gandhuri' (Or.)

The plant juice is used as an external application for sprains. A paste of the entire

plant is used as a plaster for bone fractures (Ganjam, 1204).

Ficus tinctoria Forsk. subsp. **parasitica** (Willd.) Corner
'Kharsara', 'Jhirang' (Or.)

The scabrous leaves are used as sand paper to give final finish before polishing the horn articles (Ganjam, 1229).

Flacourtia indica (Burm. f.) Merr.
'Bhainch' (Or.)

The paste of about 7 gms bark with about 2 gms mustard seed is heated in earthen pot and given with curd twice daily for dysentery (Ganjam, 2173).

Giseckia pharnaceoides Linn.
'Sunsunia' or 'Susni' (Or.)

The plant is cooked and taken as a vegetable (Jambu, 1047).

Gloriosa superba Linn.
'Puttichatta' (Tel.)

The stem is tied around arm of women to facilitate delivery (Ganjam, 1111).

Gouania leptostachya DC.
'Rangchero' (Or.)

The plant is boiled with 'kulthi' and given to cattle for diarrhoea (Ganjam, 1239).

Grewia sapida Roxb.
'Burso' (K.)

The ripe fruit is edible (Simlipal, 366).

Hibiscus prainii Raizada & Chatt.
'Halbali', 'Baniya' (Or.)

The stem yields a fibre which is used for making ropes (Jambu, 1321).

Hybanthus enneaspermus (Linn.) F. v. Muell.
'Madan mastak' (Or.)

The paste of two to three entire plants with seven black peppers is given once daily for siphillis and dysentery (Jambu; Bhubaneswar, 1033).

Lantana camera Linn var. **aculeata** (Linn.) Moldenke
'Naguari' (Or.)

The crushed leaves are applied to wounds (Ganjam, 1468).

Lasia spinosa (Linn.) Thw.
'Kantasar' (K.)

The rhizome is used for diarrhoea, dysentery and other stomach troubles (Simlipal, 436).

Litsea glutinosa (Lour.) L. B. Robins.
'Naluga' (Or.)

Two to three leaves are powdered and given for cold and cough (Jambu, 1039).

Malaxis mackinnonii (Duthie) Ames
'Gandamala Gachho' (Or.)

The tuber is pounded and its paste in water, applied to sores in neck ('gandamala') —Ganjam, 1428.

Melanthesa rhamnoides (Retz.) Bl.
'Tagidare' (S.), 'Jhanjika' (Or.)

The powdered leaves are applied to burns and their paste to forehead for relieving headache due to heat (Ganjam, 1101).

Michelia champaca Linn.
'Champa' (Or.)

The bark is employed as an abortifacient for two to three months old pregnancy. As an oral contraceptive, the root (about 6-8 cm long) is made into paste with 21 black peppers and given after menstruation for 3 days (Ganjam, 1212).

Mimosa pudica Linn.
'Lajkuli', 'Lajuli' (Or.)

The root is made into paste in the water collected after washing raw rice and given orally for snake-bite. A decoction of the root is given with sugar as diuretic (Ganjam).

Momordica dioica Roxb.
'Kankorh' (Or.)

The root-paste is applied to swollen breast (Ganjam).

Mucuna monosperma DC.
'Tekka' (Or.)

The seed is rubbed with water on a stone and the paste so obtained is applied to sores (Ganjam, 1238).

Naringi crenulata (Roxb.) Nicolson
'Baintha' (Or.)

The leaf-paste is fried with gingeli oil and applied to head to relieve headache due to excess bile mainly in women (Ganjam, 1146a).

Passiflora foetida Linn.

‘Bisripi’ (Or.)

The leaves are applied to inflammations. The ripe fruit is eaten raw (Jambu, 1051).

Phoenix acaulis Roxb. ex Buch.-Ham.

‘Kankhajuri’ (Or.)

The roasted rhizome is given to women after delivery in stomach disorders. One rhizome per day is administered (Ganjam, 2202).

Pimpinella heyneana (DC.) Benth.

‘Chapasiri’ (S.)

The seed and the leaves are used as spices (Ganjam, 1170).

Plesmonium margaritiferum (Roxb.) Schott

‘Oal’ (Or.)

The tuber (about 1 cm long) is boiled, coated with boiled rice, and swallowed twice daily for cure in piles (Ganjam, 1900).

Plumbago indica Linn.

‘Raktachita’ (Or.)

The root, about 2.5 cm long is made into paste along with the root of *Michelia champaca* and given once daily in the morning for three days to induce abortion of three to four or even upto six month old pregnancy. ‘Sharbet’ (solution of sugar in water) is given after the medicine to keep cool and normal diet is allowed (Ganjam).

According to another method of use, the root is made into a paste with mustard seeds and given once daily for 3 days to induce abortion. This is considered injurious for health (Ganjam, 1930).

Pueraria tuberosa (Roxb. ex Willd.) DC.

‘Bhuikakharu’ (Or.)

The tuber is allowed to ferment in an earthen pot and given to cattle in sufficient quantity for ‘Benga’ disease (swelling of glands in the neck)—Ganjam, 1961-a.

Pygmaeopremna herbacea (Roxb.) Moldenke

‘Gitia’ (Simlipal—K.), Putrani (Ganjam-Or.)

The leaves are cooked and eaten as a vegetable (Ganjam). The root is pounded and its paste applied as binder (Simlipal, 385).

Rothia indica (Linn.) Druce

‘Papra’ (Or.)

A decoction of the plant (50 gms) with 10 gms ‘Saunthi’ (*Zingiber officinale*), 3 gms ‘Pipal’ (*Piper longum*), 5 gms black pepper and 10 gms ‘Bhuineem’ (*Andrographis paniculata*) is divided into 8 equal parts. It is given twice daily for four days in fever with symptoms of excess bile (Ganjam, 1444).

Scindapsus officinalis Schott

‘Gajpipariya’ (Or.)

The fleshy leaves are used as wrapper for baking wheat flour (Bhubaneswar, 886).

Shorea robusta Gaertn. f.

‘Sal’ (Or.)

A decoction of the bark is used for washing the old wounds over which the powder of the tender leaves is applied (Ganjam).

Smilax macrophylla Roxb.

‘Mutri’ (Or.)

The root-juice is mixed with powdered ‘Biridal’ (*Phaseolus mungo*) and made into cakes and given with warm milk for gout and rheumatism. Use of salt in the day meals is restricted (Ganjam, 1418).

Streblus taxoides (Heyne ex Roxb.) Kurz

‘Jhumpuri’ (Or.)

The fruits are cooked and eaten as a vegetable (Puri, 226).

Strychnos nux-vomica Linn.

‘Kochila’, ‘Kora’ (Or.)

The seeds are soaked in cow urine for seven days and then fried in cow ‘ghee’. This ‘ghee’ is applied to eczema and other skin diseases (Ganjam).

The ‘oil’ of its wood and that of ‘Karada’ (*Cleistanthus collinus*) bark is applied to eczema. For extraction of ‘oil’ one earthen pot having a hole at the bottom is filled with ‘kochila’ wood and ‘karada’ bark and a receiver earthen pot is kept below it. The pots are covered with soil and heat is applied from all sides. ‘Oil’ is collected in the lower pot (Ganjam).

Suaeda maritima Dumort.

‘Giriya’, ‘Harmich’ (Or.)

The leaves and the tender shoots are cooked and eaten as a vegetable. The plant-ash is used for cleaning clothes (Chandipur 590).

Synostemon bacciformis (Linn.) Webster
'Billinariya' (Or.)

The ripe fruits are edible (Jambu, 1309).

Tephrosia villosa (Linn.) Pers.
'Barbariya' (S.), 'Kulthia' (Or.)

The root is made into paste with 21 black peppers and given with warm water to relieve pain in scrotum (Ganjam, 1279).

Terminalia alata Heyne ex Roth
'Sahja' (Or.)

A paste of the bark and mustard seeds is applied to wounds (Ganjam, 1834).

Toddalia asiatica (Linn.) Lamk.
'Tundpura' (Or.)

The ripe fruits are eaten raw and considered carminative (Bhubaneswar, 179).

Tragia involucrata Linn.
'Bichhuati' (Or.), 'Janagatar' (S.)

A paste of the root and mustard seeds is given in snake-bite and also applied on the site of bite. The root, if kept in house, is considered to keep off snakes. The fruit-paste with turmeric is applied to skin diseases (Ganjam, 1298).

Viscum orientale Wall.
'Kochila Malang' (Or.)

The leaves of the plant growing on the tree of 'Kochila' (*Strychnos nux-vomica*) are used as a substitute to 'Bhang' (*Cannabis sativus*) for their intoxicating effect (Bhubaneswar, 885).

Woodfordia fruticosa (Linn.) Kurz
'Dhia' (Or.), 'Sinja nape' (S.)

A decoction of 5-6 flowers per dose is given with honey for 3-4 days in nausea and aversion to food during pregnancy. It is also used in small-pox (Ganjam, 1437).

Xantolis tomentosum (Roxb.) Raffin
'Kantabar' (S.)

The root-bark is pounded with raw rice, made into cakes and given for rheumatism.

The stem-bark is pounded and its paste applied to the neck to relieve pain due to cold (Ganjam, 1171).

Xylocarpus granatus Koenig
'Sisumar' 'Sisumbar', 'Chapa' or 'Sisu' (Or.)

The fruits are very much liked by monkeys. The seed-paste is applied on mumps, boils, swollen breast and in toothache (Jambu, 1028).

Zingiber montanum (Koenig) Link ex A. Diet.

'Ramkedar' (Or.)

The rhizome is considered a good tonic and appetiser. It is given with black pepper in cholera and for extraction of intestinal worms (Ganjam, 1410).

Zingiber zerumbet Rosc. ex Sm.
'Gada' (Or.)

The rhizome is used in snake-bite (Ganjam, 1087).

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