

ARIOPSIS PELTATA NIMMO (ARACEAE)-AN ADDITION TO THE
FLORA OF GUJARAT

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Cooke (1908) in his 'Flora' covering present States of Maharashtra, Gujarat & parts of Karnataka recorded *Ariopsis peltata* Nimmo a monotypic species from Konkan (Maharashtra) only. J.D. Hooker (1893) reported this from West-tropical Himalaya (from Nepal to Sikkim) and in Western Ghats (from Konkan to Travancore). Fischer (1931) had given the localities for this species as W. Coast and Ghats, from near sea level to 1219.2 m.

So far this species has not been reported from Gujarat (Shah, 1978 & Raghavan *et al.* 1981). It is being recorded here for Gujarat State based on a specimen sent by Dr. More, collected from a hillock in Dharampur forest, Bulsar district, Gujarat State on 3-7-1977.

A description accompanied by figures and plates has been provided by Rao & Hajra (1976) while reporting this species from Arunachal Pradesh.

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ISCHAEMUM IMPRESSUM HACK. (POACEAE)
—A NEW RECORD FOR GUJARAT STATE

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J.D. Hooker (1897) included *Ischaemum impressum* Hack. on the basis of Huegel's collection from the Concan but with a question mark on the locality. Blatter & McCann (1927) reported the above mentioned species from Western Ghats and commented "We think it is quite safe to say that *I. impressum* Hack. is endemic in the Western Ghats". Bor (1960) also considered it to be endemic and gave the distribution as "Bombay State, Purandhar, endemic". The present report from Dangs district extends the distribution of *I. impressum* Hack. to Gujarat and also forms a new record for the state (Raghavan *et al.* 1981).

Specimen examined: Gujarat, Dangs dist., 1

km from Satpura to Ahwa, 3 Oct. 1979, P. Ramanandan 4624 (CAL).

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ETHNOMEDICAL NOTES FROM THE TRIBAL INHABITANTS OF THE NORTH GUJARAT (INDIA)

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ABSTRACT

The information collected from the tribal inhabitants of north Gujarat about the medicinal uses of some common species, is given.

INTRODUCTION

Ethnobotanical studies have been carried out for some parts of India (Jain, 1963a-d, 1964a,b, 1965a,b, 1967a, b; De 1968; Shah and Joshi, 1971; Pal and Srivastava, 1976; Borthakur, 1976; Vartak and Gadgil, 1980), but such studies are meagre in the Gujarat State in western India (Bedi, 1979, Shah et al., 1981; Shah and Gopal, 1982) inspite of the fact that these studies help in elucidating the cultural position of the tribes (Harshberger, 1896). Intensive ethnobotanical studies were therefore, carried out for 2 years in various parts of north Gujarat with this end in view. Much ethnobotanical information was collected from the inhabitants during outings, particularly the medicinal uses of plants, giving a scientific name, followed by a vernacular name, the voucher specimens with the collector's name (s), collection number (s) and place of collection are also cited.

CLIMATIC AND EDAPHIC CONDITIONS

North Gujarat lies between 23°-25°N latitude and 73°-75° E longitude (see Map 1). The annual rainfall is up to 30 cm with

moderately to extreme cold winters and hot summers. The soil is sandy loam, gravelly or laterite. Most of the area is flat or undulating, with scrub or semi-arid forest vegetation. The hills are few, more commonly up to 100 m, seldom 300-500 m high, but the vegetation of these hills is dry deciduous. It is these forests which are commonly inhabited by the tribals.

THE PEOPLE

The inhabitants in these areas are bhils, rabaries, gharashias, gharashia bhils and dublas, the former being the main tribe. The bhils are good archers. They are spread over in the hilly regions. The konkanies, once a heroic tribe, now live a peaceful settled life on the plains with agriculture as the main occupation. The gharashias look after cattle and sell milk and milk products. They seem to have better knowledge of herbs and their uses than other tribes have. The main occupation of rabaries is to maintain herds of cows and to sell milk and milk products. They are an orthodox tribe which believe that diseases are God-created and, therefore, they find the remedies for them in their surroundings.

Gharashia bhils are hybrids between bhils and gharashias. Dublas are labourers.

These inhabitants worship idols made from mud, called "Pithora" because their shape resembles somewhat a horse (fig. 1), and logs of *Tectona grandis* (TEAK) arranged in rows in the middle of the forest are known as "Bhame rodev" (Fig. 2).

METHOD OF STUDY

Knowledge about medicinal plants is a secret treasure of these people. And they do not easily part with it unless intimate contacts are established with them. Many times the local guides and informants bluffed to please us, but repeated queries were made from time to time from the people and local doctors. And we developed close intimacy, stayed with them for days together to obtain the facts. The plants collected during various explorations have been deposited in the herbarium of the Bio science Department, Sardar Patel University Vallabh Vidyanagar, Gujarat State. Plants are arranged according to Bentham and Hooker's system of classification under each family, species are arranged alphabetically. The botanical name is followed by the local name (s) in brackets as far as they could be ascertained from the inhabitants.

ENUMERATION OF PLANTS MENISPERMACEAE

Cissampelos pareira L., (*Venivel, Pohadvel.*)

Leaf juice applied externally on sores and on abdominal pains. YOGI 351 (Mansa); YOGI 2336 (Idar).

Cocculus hirsutus (L.) Diels, (*Vachhvel, Vacchanvel.*)

Leaf infusion a blood purifier. Leaf juice applied externally on forehead to relieve

headache. YOGI 2739 (Idar); YOGI 2169 (Khadi).

Tinospora cordifolia (Willd.) Hk. f., (*Gulrei, Gada.*)

Stem decoction taken 2 times a day before meals as tonic. YOGI 1014 (Idar).

PAPAVERACEAE

Argemone mexicana L., (*Daroli.*)

Yellow sap and seed powder applied in eczema and other skin diseases. Oil obtained by boiling powdered seeds applied on leucoderma. Seed powder mixed with 2-3 drops of sap used as ointment for eye diseases. GOPAL 922 (Khedbrahma).

FUMARIACEAE

Fumaria indica (Hauensk.) Pugsley, (*Pitrapapdo.*)

Paste prepared with water from powdered stem mixed with powder of pepper seeds applied to forehead for malaria. YOGI 2536 (Khedbrahma).

CRUCIFERAE

Brassica campestris L. var. *surson* Praia, (*Sarsav.*)

Oil from seeds is deobstruent, depurative and also used as massage on chest for cough and cold. YOGI 2550 (Khedbrahma).

CAPPARACEAE

Mucuna oblongifolia (Forsk.) A. Rich., (*Hemkand.*)

Roots are sweet and used as stimulant. Their juice given to children for convulsion. YOGI 2329 (Idar).

FLACOURTIACEAE

Cuscuta graveolens Dalz., (*Kirmira, Saptrangi.*)

Root paste applied to treat piles, but its juice administered internally for jaundice. GOPAL 1251 (Devagadh Baria).

STERCULIACEAE

Sterculia urens Roxb., (*Kadio*).

Gum dissolved in milk and given for piles as astringent. YOGI 987 (Pahada).

TILIACEAE

Corchorus capsularis L., (*Shun*).

Fresh plant, together with pieces of stem of *Alangium salviifolium* (L. f.) Wang. (Ankol) and *Tectona grandis* L.f. (Sag), powdered in wooden bowl and mucilaginous powder mixed with sugar. This mixture given in complaints of seminal discharges. SAXION 537 (Talod).

ZYGOPHYLLACEAE

Tribulus terrestris L., (*Mithugokhru Akanti*).

Fruit juice for urinary complaints. YOGI 2166 (Idar).

OXALIDACEAE

Biophytum sensitivum (L.) DC., (*Lajri, Zarero*).

4-5 drops of fresh leaf juice put in eyes twice a day to treat chronic purulent discharges. Leaf decoction given twice a day to treat dysentery, chronic uterine discharges and ordinary fevers. GOPAL 1259 (Kanjata).

Oxalis corniculata L., (*Naveri, Changeri*).

Leaf juice mixed with sugar and given to children in diarrhoea or prolapsed rectum. YOGI 2416 (Khedbrahma).

BURSERACEAE

Boswellia serrata Roxb., (*Gugul, Dhupello*).

Wood is rubbed with water and resultant ointment applied to face as tubefacient. YOGI 2187 (Idar).

CELASTRACEAE

Celastrus paniculatus Willd., (*Malkankani, Jivarel*).

Oil from seeds used for massage to treat rheumatism and paralysis. YOGI 31 (Mahudi).

MORINGACEAE

Moringa oleifera Lam., (*Saragavo*).

Stem and root are powdered and made into paste which is applied for rheumatic pains. Powder given in doses of 50 mg with water twice a day for asthma and cough. Gum from bark mixed with milk and rubbed on forehead to relieve headache. GOPAL 5002 (Rajpipla).

MYRTACEAE

Syzygium cumini (L.) Skeels, (*Jambu*).

100-250 mg seed powder 3 times a day with water, after food for diabetes. YOGI 570 (Mansa).

Syzygium beynceanum Wall. ex W. & A., (*Jaljamba*).

Bark decoction given for chronic dysentery; used in gargling sore mouth and spongy gums. YOGI 1853 (Khedbrahma).

CARICACEAE

Carica papaya L., (*Papayu*).

Seed powder has anthelmintic properties. GOPAL 1267 (Piperghota).

CACTACEAE

Opuntia elatior Mill., (*Huthlio, Fafdo thor*).

Warm poultice of longitudinally cut stem pieces mixed with turmeric powder applied to local swellings and muscular pains. GOPAL 4596 (Rajpipla).

ALANGIACEAE

Alangium salviifolium (L.f.) Wang., (*Ankol, Ankoli*).

Leaves used as poultice for rheumatism. GOPAL 1145 (Saghana).

RUBIACEAE

Borreria strieta (L.f.) K. Schum., (*Ganthiyu*).

Paste of flowers and flower buds with water applied as ointment on cuts and wounds.

Shah & Gopal

GOPAL 1378 (Devgadhi Baria).

Hymenodictyon excelsum (Roxb.) Wall.,
(Boisal, Kokadi).

Powder of intensely bitter bark given for dysentery and to kill tapeworms. GOPAL 53 (Junagadh).

COMPOSITAE

Ageratum conyzoides L., (*Dholi Sadedi, Makadnari*)

Plant extract used externally for skin diseases and leprosy. GOPAL 886 (Khedbrahma).

Echinops echinatus Roxb., (*Utkanto*)

Fruit powder of *Tribulus terrestris* L. (Mithugokhru) and underground parts of *Curculigo orchioides* Gaertn. (Kalimusli) mixed in 1:2 proportion. This mixture with the root juice of *Echinops* administered internally for acute debility after child birth. GOPAL 1078 (Vijayanagar).

Eclipta prostrata (L.) L., (*Bhangro*).

Leaf juice with water of buttermilk given as an antidote in snake bites, whereas root juice with water is given for liver complaints. GOPAL 880 (Sharneshwar).

Launaea procumbens (Roxb.) Ram. & Raj.,
(*Pitibhopatri, Matibhopatri*)

Leaf paste applied to treat skin diseases i.e., eczema and ringworm. Taken internally leaf juice presumed to kill tapeworms. GOPAL 917 (Himmatnagar); GOPAL 1034 (Posina).

Pulicaria wightiana (DC.) Cl., (*Sonafali, Sonali*)

2-3 drops of plant extract put in eyes for minor ailments. GOPAL 15 (Junagadh).

Sonchus brachyotus DC., (*Dudhli, Shonki*)

Plant juice given for fevers and as tonic during convulsions. Latex applied to wounds. GOPAL 1043 (Khedbrahma).

PLUMBAGINACEAE

Plumbago zeylanica L., (*Chitrak*)

Bruised root mixed with oil, obtained from seeds of *Petalium murex* L. and made into paste, is rubefacient and antirheumatic. YOGI 2506 (Khedbrahma).

APOCYNACEAE

Holarrhena antidysenterica (L.) Wall., (*Kado Indrajav, Chulo*)

Bitter bark juice is febrifuge, tonic and antidiysenteric, 2-tablespoonful dose of infusion of roasted seeds, daily after meals, acts as astringent for constipation and allays vomiting in cholera. YOGI 670 (Mansa).

Wrightia tinctoria R. Br., (*Narneri, Mith Indrajav*)

Bark made into paste and applied to wounds. Latex applied for skin diseases. YOGI 2581 (Idar).

ASCLEPIADACEAE

Calotropis gigantea (L.) R. Br., (*Akdo*)

Flower juice with water used as detergent, leaf paste used as poultice for inflammatory swellings, latex mild rubefacient, but also believed to be an abortifacient, 2-4 drops of latex given with any eatable or capsule. It works efficaciously for coughs, cold and even asthma. Slightly warmed leaves, smeared with castor oil, are tied round abdomen for 2-3 hours to treat acute stomachache. Treatment continued until positive results achieved. GOPAL 1583 (Khedbrahma), YOGI 2530 (Khedbrahma).

Holostemma annularium (Roth) K. Schum., (*Burial, Khirdodi*)

Latex applied externally to heal obstinate ulcers and wounds.

PERIPOLOACEAE

Hemidesmus indicus (L.) R. Br., (*Dudhvel*, *Anantmudi*)

Plant extract applied for various cutaneous diseases; Root infusion given internally to treat venereal diseases. GOPAL 968 (Balaram); YOGI 986, 1975 (Pahada).

GENTIANACEAE

Canseora diffusa (Vahl) R. Br., (*Zinku*)

Bitter plant extract given in fevers and nervous debility and to children as laxative. GOPAL 2039 (Himmatnagar).

Enicostemma hyssopifolium (Willd.) Verd., (*Mamejvo*, *Zinu Kariyatu*)

Plant extract extremely bitter and is given in fevers, stomachache and diabetes. GOPAL 1074 (Chitnasani).

EHRETIACEAE

Cordia dichotoma Forst.

Mucilaginous fruit juice used to treat cough, bark decoction is astringent and used for gargling sore mouth. YOGI 659 (Mansa).

CONVOLVULACEAE

Argyreia nervosa (Burm. f.) Boj., (*Samadarsog*, *Samudeasok*)

Hairy undersurface of fresh leaves applied to hasten suppuration of wounds and glabrous uppersurface used to heal them. Root powder said to increase semen fertility; leaf paste is rubefacient; root decoction taken as tonic. GOPAL 482 (Shayamalaji).

Merremia turpethum (L.) Shah and Bhatt, (*Nasotar*)

1 ml of plant extract with water in the morning acts as purgative. GOPAL 236 (Sharne-

shwar); GOPAL 738 (Vireshwar).

SOLANACEAE

Datura innoxia Mill., (*Kalo Dhaturo*)

Leaf paste, mixed with lime, applied to local swellings in mumps. YOGI 521, 748 (Mahudi).

Withania somnifera (L.) Dun., (*Ghodatan*, *Asuntho*, *Ahan*, *Asvagantha*)

Leaf and root powders are narcotic, diuretic and deobstruent, leaf paste applied to fester boils. YOGI 242 (Mansa).

BIGNONIACEAE

Dolichandrone falcata Seem. var. *lawli* (Seem.) Haines, (*Medsingh*)

Leaf juice massaged on abdomen of pregnant women to ease delivery, fruit and leaf juices are also fish poisons. SEDGWICK 347 (Dhansura Road).

MARTYNIACEAE

Martynia annua L., (*Vinchhudo*)

Two tablespoonful doses of root decoction twice a day given to treat skin diseases. YOGI 197 (Mansa); YOGI 1389 (Himmatnagar).

ACANTHACEAE

Petalidium barlerioides (Roth) Nees

Stem and leaf infusion, obtained by keeping them in cold water for 2 days, given in acute fevers, plant extract a bitter tonic. GOPAL 2615 (Khedbrahima).

VERBENACEAE

Gmelina arborea Roxb., (*Sivan*)

Root a bitter tonic and laxative; fresh juice used as demulcent, chiefly in gonorrhoea. YOGI 2951 (Kadi).

PLANTAGINACEAE

Plantago ovata Forsk., (*Isabgul*, *Ispogul*, *Ghoda Jiru*)

Seed decoction a cooling, demulcent drink; also given for chronic diarrhoea and dysentery; bruised seeds with water form good emollient poultice and used for gastric complaints and constipation. YOGI 2638 (Mansa).

NYCTAGINACEAE

Boerhavia diffusa L., (*Satodi, Ghetuli, Punerva*)

Leaf juice or paste used in ophthalmia, root powder a blood purifier and presumed to hasten delivery labour. YOGI 920 (Mahudi); YOGI 2803 (Ijar)

AMARANTHACEAE

Aerva javanica (Burm. f.) Juss., (*Bar*)

Leaf and root juice given alternatively at intervals of 50 min. 3 times a day for urinary disorders; powder of dried leaves, mixed with honey, administered internally 3 times a day to treat jaundice. GOPAL 2138 (Mahwa)

Aerva lanata (L.) Juss., (*Nanogorakhganja*)

Decoction of flowers and seeds given for bronchitis. GOPAL 491 (Nanapando).

Digera muricata (L.) Mart., (*Lohar, Kanjaro*)

Decoction of flowers and seed powder given for urinary complaints YOGI 1449 (Himmatnagar); YOGI 2069 (Kadi)

CHENOPODIACEAE

Chenopodium album L.

Leaf poultice put on abdomen to treat prolapsed womb. YOGI 2631 (Kadi); YOGI 1824 (Khedbrahma).

POLYGONACEAE

Polygonum glabrum Willd.

Stem paste applied on dislocated bones in children, treatment to be taken every day for about a week and it is said to set the bones right. GOPAL 576 (Khedbrahma).

EUPHORBIACEAE

Baliospermum montanum (Willd.) Muell-Arg., (*Danti, Dantan*)

Stem when chewed, relieves toothache, seeds are strongly purgative. YOGI 1474 (Khedbrahma).

MORACEAE

Ficus benghalensis L., (*Vad*)

Root decoction said to be used for diabetes, milky latex applied for muscular pains and as anodyne in rheumatism. GOPAL 1651 (Ghodawadi).

LILIACEAE

Asparagus racemosus Willd. var. *javanicus* (Kunth) Baker. (*Satavari*)

Fresh juice with honey is demulcent and presumed aphrodisiac. YOGI 2932 (Kadi).

Gloriosa superba L., (*Vachhng, Vadhvardi*)

Root decoction for goat, seed paste gently rubbed on abdomen of pregnant women for quick delivery. YOGI 114, 821, 914 (Mahudi).

ARECACEAE

Borassus flabellifer L., (*Tad*)

Fresh sap cooling, astringent, refreshing and useful in hyperacidity. YOGI 2922 (Kadi).

TYPHACEAE

Typha angustata Bory & Chamb., (*Ghahjaris, Ramban*)

Husk of flowers, mixed with honey, said to be good for amenorrhoea. GOPAL 951 (Balarum).

CYPERACEAE

Cyperus rotundus L. ssp. *rotundus*, (*Chida, Moth*)

Roots are diaphoretic and astringent. YOGI 441 (Mansa.)

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