Ethnomedicinal plants used by the tribals of Bargarh district to cure diarrhoea and dysentery

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The tribals and other rural communities residing in and around the forests in Bargarh district of Orissa mostly depend on the vegetation around them for the prevention as well as treatment of diseases and ailments. First hand information on ethnomedicinal uses of plants, their doses and mode of administration have been collected from the local traditional medicine practitioners as well as experienced old men and women. The paper deals with 35 ethnomedicinal plants used by the tribals for the treatment of diarrhoea and dysentery in Bargarh district. The tribals of the district, who were interviewed, include Sahanra, Binjhal, Gond and Kondh, besides some other minor communities.

Keywords: Ethnomedicinal uses, Orissa, Diarrhoea, Dysentery, Sahanra, Binjhal, Gond, Kondh

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Bargarh district, one of the 10 districts of western Orissa is located in between 20° 40′ and 21° 49′ North latitude and 82° 45′ and 83° 48′ in East longitude (Fig. 1). The total geographical area of the district is 5,837 km². The soil is red, red-black and alluvium type. The district enjoys a tropical monsoon. The forests are dry deciduous and moist type. The district is inhabited by tribals like Sahanra, Binjhal, Kondh, Gond, Munda, Kuli, Kalanga, Oran, Mirdha, Dharua, Kisan, Kharia, and Parja. Out of these, Sahanra, Binjhal, Kondh, and Gond are the predominant tribals. Although modern system of medicine has influenced the people, still these people not only earn their livelihood from the forest but also go to forest for medicines for the treatment of different diseases.

Methodology

The study area was surveyed during different seasons from 2002-2004. Information on ethnomedicinal plant species collected during the survey was discussed with local people and traditional healers (Kabiraj, Vaidyas and Guniyans) to know about the medicinal uses of the plants. These medicine practitioners revealed the information after frequent persuasion because most of them were reluctant to disclose their secret of medicine practices.

The information on medicinal uses of these plants was verified and confirmed from interviews with people of other localities and cross checked1-23. The plant species were identified with the help of standard floras and voucher specimens are preserved in the herbarium of Department of Botany, Panchayat College, Bargarh, Orissa24-25.

Enumeration

The plant species are alphabetically enumerated with their plant name, family, local names and its medicinal uses.

Fig. 1—Map showing the study area
Abutilon indicum (L.) Sweet (Malvaceae), Pedipedica
Uses: Plant crushed with rice washed water is taken twice daily to cure dysentery.

Acacia leucophloea Willd. (Mimosaceae), Guhiria
Uses: Seed paste obtained by rubbing on a stone is taken orally to cure dysentery.

Alangium salvifolium (L.f.) Wang. (Alangiaceae), Aankel
Uses: Bark paste is taken once daily to cure dysentery.

Alternanthera sessilis R.Br. (Amaranthaceae), Kalmosag, Mirmira
Uses: Root, stem and leaf decoction is taken twice daily to cure blood dysentery.

Bauhinia semla Wunderl. (Caesalpiniaceae), Aamthi
Uses: Bark paste is taken twice daily to cure dysentery and blood dysentery.

Blumea lacera DC. (Asteraceae), Poksungha, Budhipad
Uses: Root paste is taken with honey three times a day to cure diarrhoea.

Caesalpinia bonduc (L.) Roxb. (Caesalpiniaceae), Gil
Uses: Root paste is taken with black pepper powder thrice a day to cure diarrhoea.

Capparis zeylanica L. (Capparaceae), Asdhia
Uses: Leaf extract mixed with black pepper powder and is taken twice daily to cure dysentery.

Centella asiatica (L.) Urban (Apiaceae), Thalkuri
Uses: Whole plant extract is taken twice daily to cure infantile diarrhoea.

Corchorus capsularis L. (Tiliaceae), Nailta
Uses: Root paste is taken twice a day to cure dysentery.

Cratoxylum magnus (Lour.) DC. (Capparaceae), Barun
Uses: Stem bark paste mixed with black pepper powder is taken twice daily with honey to cure infantile diarrhoea.

Croton roxburghii Balak. (Euphorbiaceae), Desand, Neda
Uses: Stem bark paste with a pinch of salt is taken thrice a day to cure blood dysentery.

Curcuma aromatica Salisb. (Zingiberaceae), Banhaldi
Uses: Rhizome is taken raw or extract of tuber soaked over night in hot water is taken next morning in empty stomach to cure diarrhoea and dysentery.

Cymbopogon flexuosus (Steud.) Wats. (Poaceae), Dhammantari
Uses: Root decoction is taken thrice a day to cure diarrhoea.

Cyperus rotundus L. (Cyperaceae), Gandha kanda
Uses: Paste of plant root and ginger is taken with honey thrice a day to cure diarrhoea.

Dalbergia volubilis Roxb. (Fabaceae), Bireshkela (Kondh = infantile diarrhoea)
Uses: Root bark paste is taken two to three times a day to cure diarrhoea of infants.

 Diospyros malabarica Desr. (Ebenaceae), Makar-kendu
Uses: Fruit paste with honey is given twice a day to infants to cure Dhuda (a form of diarrhoea commonly seen in case of infants).

Eclipta prostrata L. (Asteraceae), Bhrungaraj
Uses: Whole plant extract mixed with curd is divided into two halves and is taken twice daily for 4-5 days to cure diarrhoea.

Ficus benghalensis L. (Moraceae), Bar
Uses: Milky latex is poured into the navel in every two hrs to cure diarrhoea.

Madhuca longifolia (Koenig) Macb. (Sapotaceae), Mahul
Uses: Fruit pulp mixed with cow’s ghee is taken twice daily to cure infantile diarrhoea called, Dhuda.

Marsilea quadrifolia L. (Marsileaceae), Sunsunia
Uses: Crushed plant is taken with sugar candy or honey to cure infantile diarrhoea.

Mimosa pudica L. (Mimosaceae), Lajkuri
Uses: Leaf extract is taken with black pepper powder and honey twice daily to cure infantile diarrhoea.

Mucuna pruriens (L.) DC. (Fabaceae), Baikhujen
Uses: Root extract mixed with black pepper powder is taken thrice daily to cure diarrhoea.

Ocimum americanum L. (Lamiaceae), Kuabadli
Uses: Plant leaves and ginger rhizome paste is taken thrice a day to cure dysentery.
**Ocimum sanctum** L. (Lamiaceae), *Tulsi*
Uses: Seeds soaked overnight in half a glass of water is filtered and the filtrate is taken in the morning to cure dysentery. Root paste is taken with sugar candy twice a day to cure dysentery.

**Paederia scandens** (Lour.) Merrill (Rubiaceae), *Gandhel*
Uses: Root decoction is taken with sugar candy 4-5 times a day to cure diarrhoea and dysentery.

**Plesmonium margaritiferum** Schott (Araceae), *Gorupita*
Uses: Root paste mixed with *Piper nigrum* is taken twice daily to cure dysentery.

**Prosopis cineraria** Druce (Mimosaceae), *Shani, Shami*
Uses: Bark paste mixed with honey is taken twice daily to cure diarrhoea and dysentery.

**Pterocarpus marsupium** Roxb. (Fabaceae), *Bija*
Uses: Paste prepared from plant gum, opium and *Cinnamomum verum* fruit powder is taken twice a day to cure blood dysentery.

**Pterospermum xylocarpum** (Gaertn.) Sant. & Wagh. (Sterculiaceae), *Muchkund*
Uses: Bark decoction mixed with *Piper nigrum* powder is taken twice a day to cure infantile diarrhoea.

**Sida rhombifolia** L. (Malvaceae), *Rakatsinghi*
Uses: Root crushed with rice washed water is taken thrice daily to cure dysentery.

**Sphaeranthus indicus** L. (Asteraceae), *Bukasungha*
Uses: Root crushed with *Achyranthes aspera* root and sugar candy is taken thrice daily after each defecation to cure diarrhoea.

**Syzygium cumini** (L.) Skeels (Myrtaceae), *Jam*
Uses: Root extract is taken twice daily in empty stomach to cure diarrhoea and dysentery.

**Trichosanthes dioica** Roxb. (Cucurbitaceae), *Putol*
Uses: Decoction of plant leaves and *Piper nigrum* fruit powder is taken 3-4 times a day to cure diarrhoea.

**Tridax procumbens** L. (Asteraceae), *Bishalyakarni*
Uses: Root paste is taken three times a day to cure dysentery.

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**Discussion**
The paper includes 35 plant species belonging to 24 families of ethnobotanical interest, which are recorded after critical screening with the available scientific literature. Out of 35 plant species, 15 plants are used singly and 20 in multiple preparations. *Blumea lacera, Capparis zeylanica, Crateva magna, Curcuma aromaticia, Cymbopogon flexuosus, Eclipta prostrata, Madhuca longifolia, Prosopis cineraria, Pterospermum xylocarpum, Plesonum margaritiferum* and *Trichosanthes dioica* are reported for the first time for their use against diarrhoea or dysentery. *Centella asiatica, Crateva magna, Dalbergia volubilis, Pterospermum xylocarpum, Madhuca longifolia, Marsilea quadrifolia, Mimosa pudica* are reported for the first time for their use against infantile diarrhoea. The paper also includes 5 plant species such as *Alternanthera sessilis, Bauhinia semla, Croton roxburghii, Ocimum americanum* and *Pterocarpus marsupium* used in blood dysentery. A proper analysis and conservation of these plant species would be of immense help to the people. Hence, pharmacological/phytochemical investigation of these plant species is required to know the accuracy of the therapeutic values for better utilization of the traditional knowledge.

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