Ethnobotany of *Dillenia pentagyna* Roxb. in Vindhya region of Madhya Pradesh, India

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**Abstract**

An ethnobotanical study among the various tribal and folk communities of Vindhya region of Madhya Pradesh was carried out during the year 2004-2007. Detailed first hand information on ethnobotanical uses of *Dillenia pentagyna* Roxb., an endangered tree species, was collected, which accounts for many ethnical uses in the study area. The tribal and folk communities use the various parts of it for the treatment of their different ailments and diseases, viz. delivery (bark), bone fracture (leaf), body pain (root), piles (leaf), diabetes (bark), diarrhoea and dysentery (bark), etc.

**Keywords:** *Dillenia pentagyna*, *Karkat*, Ethnobotany, Medicinal uses, Madhya Pradesh, Vindhya region.

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**Introduction**

*Dillenia pentagyna* Roxb. (Family — Dilleniaceae) is a medium sized, deciduous tree up to 20 m tall with pale smooth bark. Leaves are alternate, smooth, ovate-oblong, obtuse, entire or denticulate, densely clothed with white hairs, petioled, sheathing, petiole channeled, leaves crowded at the end of branches. Flowers are yellow, fragrant, in fascicles on the leafless old branches; pedicels terete; sepals thick, ovate, obtuse; petals lanceolate; fruits sub-globose, yellow, 1-2 seeded, enclosed by fleshy sepals. The plant is found almost throughout India (Plate 1).

**Study area**

Vindhya region is situated in northeastern part of Madhya Pradesh and lies between 23° 45’ to 25° 30’ North latitude and 80° 25’ to 83° 25’ East longitude, covering an area of 38,370 sq km. The Vindhya region is consists of 6 districts, viz. Rewa, Satna, Sidhi, Shahdol, Umaria and Anooppur. The rich biodiversity marks the Vindhya region. The dry mixed deciduous forests cover the area of 13,145.51 sq km, which accounts 34.4% of the total land area. The maximum and minimum temperature ranges from 48.5° C to 1° C in the month of May-June and December-January, respectively.

There are several tribal communities inhabit in the Vindhya region. The dominant tribes are Gond, Kol, Baiga, Panica, Khairwar, Pav, Manjhi, Mawasi and Agaria. As per the 2001 census, the total population of the tribal communities is about 77, 65,828, which accounts 26.4% of the total population of Vindhya region. They reside mainly in forest area and utilized forest resources for food, fibre, fodder, medicine, dye, gum, agriculture, house hold articles, thatching, etc.

**Methodology**

An extensive ethnobotanical survey was carried out among the various tribal and folk communities in Vindhya region of Madhya Pradesh during the year 2004-2007. The first hand detailed information on *D. pentagyna* locally known as *Karkat* was recorded. Detailed information such as parts used, mode of preparation, administration/application, dose and duration, name of diseases, etc. with other miscellaneous uses was recorded. The recorded information was crosschecked and verified. The reported uses were compared with well known Indian literature and found that most of them were not reported earlier¹⁻¹⁰.

**Ethnobotanical uses**

Fruits are cooked as vegetable and also used for making chutney. Root decoction (25-50 ml) is given in case of body pain twice daily till cure. In case of diabetes, one-teaspoon bark powder (5-10 g) with water is given three times a day for three months. Bark powder...
is also given in the treatment of diarrhoea and dysentery, three times a day till cure. Bark (10g) is pounded and mixed with water and filtered. The crystal sugar (10g) is added to the filtrate and given to woman for easy delivery. Bark decoction (25-50 ml) is given to woman after delivery as a tonic and also used for bath to check the infection. It is applied on head once a week for hair growth and to check the baldness.

Leaf paste is applied on cuts and wounds twice daily it is also applied on bone fracture once a day till cure. The leaf poultice is used in bleeding piles two times a day. In skin diseases and body pain decoction of leaves is used to bath once a day till cure. Leaf powder (5-10 g) is given to woman for the treatment of breast cancer twice daily till cure.

A cot or bed is made from the wood for sleeping to ward off the evil spirit and to know the forth-coming events. The cot is also used to reduce the body pain, but the cot should be prepared in one day. Tribal communities worship the plant on the Dipawali festival day thinking it as Goddess Luxmi. A statue or picture of God and Goddess is placed on the stool or stand prepared from the wood.

**Conclusion**

The present paper provides the ethnomedicinal uses of *D. pentagyna*. It is used by the various tribal and folk communities of Vindhya region for the treatment of common ailments and diseases prevailing in the region. Further phytochemical and pharmacological studies to find out active chemical constituents and validate the ethnomedicinal uses are warranted.

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