

# Medicinal value of pteridophytic flora of Anuppur forest division of Madhya Pradesh

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The present paper is an endeavour to bring out the medicinal value and economic importance of pteridophytic plants, occurring in various localities of Anuppur forest division, Madhya Pradesh. The communication embodies an enumeration of 35 plant species of economic importance, belonging to 26 genera and 17 families including 14 plant species as additions to the useful ferns of India. The plants are arranged in alphabetical order along with available local names and uses.

**Key-words** – Traditional use, Tribes, Pteridophytes, Anup-pur, Madhya Pradesh

## INTRODUCTION

ANUPPUR is situated between 22° 38' to 23° 34' North latitude and 81° 11' to 82° 12' East longitude. It covers an area of 1361 sq. kilometres. The area is bounded in north by Shahdol and Sinerguja districts, south by Bilaspur and Mandla districts, in east by Bilaspur district of Chhattisgarh state and in west again by Shahdol district. It has four forest ranges namely, Sohagpur, Pushprajgarh, Kotma and Anuppur. Different types of topographical features from plain to undulating and hilly are encountered in the area. The Maikal hill range lies in the south with steep hills. The large area of Dadar, distributed on the peaks of these hills, forms the fertile agricultural land parallel to Narvada, Johilla and other natural water courses. The altitude varies from 320 metres to 1175.25 metres. The maximum height of northern part of Maikal hills is 1114.60 metres and southern part is 1175.25 metres. The area is intersected by several large and small rivers, streams and rivulets along with numerous swampy areas. Various falls are also present in the area, especially in Pushprajgarh and Amarkantak areas. Due to various topographic features and soil composition, the area has great diversity in habitats. The diverse habitat of the region, harbour a great diversity in vegetation, specially the ground vegetation, which comprises varieties of flowering and non flowering (algae, fungi, bryophytes and pteridophytes) plants.

The climate of the area is moist sub-tropical with rainy, summer and winter seasons. The tract experiences rains largely from South-West monsoon from mid June to mid September. The average rainfall of the area is 1900 mm. The mean annual temperature ranges from 16°C to 32°C. The vegetation of the area is moist sub-tropical deciduous type. Sal is the dominant species and occurs on the large tract of plain sandstone and hilly Deccan Traps at 350-600 metres height. It is also found in Jaleshwar area of Amarkantak range which is situated on 1125 metre height from the sea level. The Sal loses its dominance on slopas and replaced by mixed forest. Such type of forests found scattered on hilly slopes of gneiss granite, Deccan traps and Lameta rocks. The teak forests also occur in the area, on slopes of Maikal hill ranges of the Deccan traps where the soil is basaltic and loamy.

The whole area of Anuppur is dominated by Baiga, Gonds and Panica tribes, with maximum concentration in Pushprajgarh and Amarkantak areas, where they are about 99% of the total population. The tribe, inhabiting in this area, belongs to the two main stocks, the Kolarian or the Munda and Dravidian. The Baiga tribe of Dravidian group is considered to be one of the oldest and primitive aboriginal tribe of India. The Maikal hill range is considered to be the native place of Baigas (Maheshwari 1996). A majority of tribes is well versed in natural medicinal practices. The perusal

of literature published on vegetation and its utility from Madhya Pradesh (Bhalla, *et al.* 1992, Dwivedi, 2000; Jain 1992; Jain 1963 a, 1963b, 1963c, 1963d, 1964a, 1964b, 1964c; 1965a, 1965b; Khare & Khare, 2000; Kumar, 1996; Lal, 1993; Maheshwari 1983, 1984, 1989, 1990a, 1990b, 1996a, 1996b; Maheshwari & Dwivedi 1985, 1988; Oomachan & Maish 1991; Pandey, *et al.*, 1991; Roy & Chaturvedi, 1986; Samvatsar & Diwanji 200; Saxena, 1986; Sikarwar, 1993; Singh, 2000; Singh & Vishwanathan 1996; Srivastava, *et al.* 2000), revealed that no specific study on medicinal use of pteridophytic plants of Anuppur has been done so far. The present study is aimed to document the medicinal information of pteridophytic plant occurring in this area being utilized by these tribes in treatment of various diseases.

The plants are arranged in alphabetical order with their correct botanical name and its family followed by available synonyms, basionyms, local name and use. Plants recorded for the first time for their economic or medicinal use are marked with an asterisk.

\***Abacopteris aspera** (Presl.) Ching. (Aspleniaceae)

Uses : Leaves are boiled in mustard oil and used as massage to treat paralysis. Leaves are taken to treat jaundice. Leaves are also used as poultice for early maturation of boils.

\***Actinopteris australis** (Linn. f.) Link. (Actinopteridaceae)

*Syn.*- *A. dichotoma* Beddi., *A. radiata* Link.

Local name : Mor-Pankh

Uses : Decoction of fronds are used to treat malaria. The fronds are boiled with ginger and 'Gur' and the warm syrup is taken orally by women to abort premature baby. The fresh rhizome is taken to cure tuberculosis. Leaves are given to kill intestinal worm in children. Paste of leaves is applied on cuts to stop bleeding and avoid any infection.

**Adiantum capillus-veneris** Linn. f. (Adiantaceae)

Local name : Ratanjot

Uses : A drink made from fresh fronds is taken for relief from constipation. It is also useful for promotion of sexual desire. Fronds are chewed for treatment of fever. It is also used as tonic and stimulant. Decoction

of frond is used for promotion of bronchial secretion and its removal. This decoction is also used to promote menstruation or regulate the menstrual periods. It is also used to treat cancer. The paste of frond is used for early healing of wounds and also used to treat skin disease.

**Adiantum hispidulum** Sw. (Adiantaceae)

Local name : Titali

Uses : Leaves are eaten to increase eye sight. It is also taken as vegetable to produce resistance in body from any viral infection. Leaf-paste is used to treat ringworm. Plant is used to stimulate pregnancy. Roots are used to cure piles.

**Adiantum incisum** Forsk. (Adiantaceae)

*Syn.*-*A. caudatum* Linn.

Local name : Murgashikha

Uses : Decoction of rhizome is used to promote bronchial secretion and its removal. It is also used to promote sexual desire in men. Leaves are used to treat jaundice, cold and cough.

**Adiantum philippense** Linn. (Adiantaceae)

*Syn.*- *A. lanulatum* Burm. f.

Local name : Hansraj

Uses : Leaves and fronds are made into drink and taken orally to treat dysentery, leprosy and fits. It is also useful for treatment of rabies, ulcers and fever. The decoction of rhizome is very effective drug for sore throat and piles. It is also used to treat cancer.

\***Ampelopteris prolifera** (Retz.) Capel (Thelypteridaceae)

*Syn.*- *Heminitis prolifera* Retz.

Uses : Fronds are cooked and eaten as vegetable. Aqueous extract of leaves are used to remove intestinal worm. Leaves are used as blood purifier. The leaves are burnt to ash and mixed with coconut oil and applied to cure skin disease. Paste of root is used to cure eczema.

\***Asplenium cheilosorum** Kuntz. ex Mett. (Aspleniaceae)

Local name : Sana

Uses : Leaves are taken internally to suppress sexual desire and produce sterility in women. It is also used to cure jaundice.

**\**Athyrium falcatum* Bedd. (Polypodiaceae)**

Uses : A drink made from leaves is used to increase amount of urine. It is also used to treat jaundice and diseases of spleen. Decoction of fronds is used to promote menstruation. It is also used to promote bronchial secretion and facilitate its removal. Young fronds are eaten as vegetable after cooking.

***Azolla pinnata* R. Br. (Azollaceae)**

Syn.-*Salvinia imbricata* (Roxb.) Nakai.

Local name : Kai

Uses : Paste of plant is used to treat skin disease especially fungal and bacterial diseases. It is also used for manure and bird feed.

***Ceratopteris siliquosa* (Linn.) Copel. (Ceratopteriaceae)**

Syn.-*C. thalictroides* (Linn.) Brougn.

Local name : Panighas

Uses : Whole plant (without root) is used to treat stomach disorder. It is also taken as tonic. The paste of plant is applied on cuts and wounds to check bleeding. Fronds are used as vegetable.

***Cheilanthes farinosa* Kaulf. (Pteridaceae)**

Syn.-*Aleuritopteris farinosa* (Forsk.) Fee

Uses : Decoction of leaves is used for wash of ulcer to remove maggots in animals. Paste of plant is used to treat ulcer. Decoction of leaves is used to treat cold and fever. Roots are made into paste and applied on eczema and wound for early healing.

***Cyclosorus parasiticus* (Linn.) Forwell. (Thelypteridaceae)**

Uses : A fomentation of fronds is given for relief from gout and rheumatism. Aqueous extract of leaves is used to wash wounds to prevent from bacterial infection. Paste of leaves is used to cure piles. It is also used to kill lice.

***Dryopteris cochleata* (Don) C. Chr. f. (Dryopteriaceae)**

Local name : Hathajodi

Uses : Leaf extract is given internally to kill the intestinal worms in children. Leaves are taken as vegetable to purify blood and get rid of pimples.

***Equisetum arvense* Linn. (Equisetaceae)**

Local name : Harjor

Uses : Plant is taken to treat liver disease and to promote appetite. It is also used to increase amount of urine. Paste of plant is applied to treat skin disease. Plant is tied around the effected part of the body to rejoin the fractured bone. Decoction of plant is used to treat kidney disease.

***Equisetum debile* Roxb. ex Voucher. (Equisetaceae)**

Local name : Harjor

Uses : Plant is taken internally to regulate liver function and increase appetite. It also increases the amount of urine. The plant is tied over joints and muscles for relief from pain. It is also useful in treatment of bone fracture. Extract of plant is taken internally to treat kidney disorder and also used to remove stone.

***Helminthostachys zeylanica* (Linn.) Hook. f. (Ophioglossaceae)**

Local name : Panja-ghas

Uses : Fronds are taken internally to treat neuralgic pain at the back of the thigh caused by the inflammation of the sciatic nerve. It is also helpful in treating the sore throat and mouth. It is also used to get rid of constipation. The rhizome is taken internally to remove impotency. Decoction of rhizome is used to treat dysentery and cough. A drink is prepared from the fronds and taken internally to overcome the toxic effect of narcotics. Young fronds are eaten after cooking.

***Lygodium flexuosum* (Linn.) Sw. (Schizaeaceae)**

Local name : Bhut-raj

Uses : Decoction of plant is used to promote bronchial secretion and to facilitate its removal. Paste of fronds is used for early healing of wounds. Paste of root is used to treat scabies, eczema, ulcer and rapidly spreading inflammation of the skin. It is also used to treat pains in the muscles, joints and certain tissues. Decoction of plant is taken internally to promote urination and to stop burning sensation in urine.

***Lygodium microphyllum* (Cav.) R. Br. (Schizaeaceae)**

Syn.-*L. scandens* Sw.

Uses : Decoction of leaves is used to treat dysentery. Paste of leaves is used to treat skin diseases. Poultice of leaves is used to suppress the swelling and to relief from pain. Young leaves are eaten after cooking. Mature stem is used to tie small articles and they are used to make baskets.

\***Marginaria macrocarpa** (Bory. ex Willd.) Nayar & Kaur (Polypodiaceae)

Uses : The whole plant is boiled in mustard oil and used to remove dandruff. It is also used as hair tonic.

**Marsilea minuta** Linn. (Marsileaceae)

Local names : Susnari, Charpatiya

Uses : Vegetable of plant is taken for treatment of various eye diseases and to increase eye sight. The plant is burnt into ash and used as tooth powder to get rid of toothache.

\***Microsorium membranaceum** (D. Don) Ching. (Polypodiaceae)

Uses : Paste of frond is applied on peptic ulcer for treatment. Leaves are used to treat constipation. It is also used to treat urinary diseases.

**Nephrolepis biserrata** Schott. (Polypodiaceae)

Syn. - *N. acuta* Presl.

Local name : Saga-ghas

Uses : Decoction of fresh frond is taken to treat cold and cough. It is also used to treat jaundice and constipation. Young fronds and rhizomes are eaten after cooking.

**Ophioglossum reticulatum** Linn. (Ophioglossaceae)

Local name : Ekpatia

Uses : Plant is taken internally for treatment of stomach disorder and acidity. Plant is eaten as vegetable.

**Ophioglossum vulgatum** Linn. (Ophioglossaceae)

Local name : Ekpatta

Uses : Fronds are made into drink with sugar and taken as tonic. Its extract is used to check bleeding from cuts and early healing. Plant is taken to treat cancerous growth. Decoction of plant is taken in heart troubles.

**Paraleptochilus decurrens** (Bl.) Copel. (Polypodiaceae)

Uses : Plant is made into paste and applied on ulcers for treatment. Decoction of plant is used to bath animals to get rid of mites.

\***Pleopeltis lanceolata** Kaulf. (Polypodiaceae)

Syn. - *Polypodium lanceolatum* Linn.

Uses : Decoction of leaves is taken to cure cold and cough. It is also taken as antiallergent against itching in body. Paste of leaves is applied on forehead for

relief from headache. It is also used to protect cuts and wound from any infection.

\***Polystichum ariculatum** Linn. (Aspidiaceae)

Uses : Fronds are boiled in mustard oil and massaged over affected part of the body to remove pain in muscles and joints. Fronds are eaten after cooking.

\***Polystichum semicordatum** Sw. (Aspidiaceae)

Uses : Fronds are taken for treatment of jaundice and constipation. Paste of leaves is applied on wound for early healing. Fronds are eaten after cooking.

\***Pteris quadric-aurita** Retz. (Pteridaceae)

Uses : Juice of rhizome is applied to glandular swelling of neck. Leaves are taken to treat dysentery. Young fronds are eaten as vegetable.

\***Salvinia natans** (Linn.) All. (Salviniaceae)

Uses : Plant is made into paste and applied to treat ringworm and eczema. Plant is taken internally to remove acidity.

\***Selaginella ciliaris** (Retz.) Spring (Selaginellaceae)

Uses : Plant is used to treat inflammation of the mucous membrane of the genital organs, and other venereal diseases. It is also used to get relief from colic. Plant is taken internally to dissolve stone.

\***Selaginella longipila** Hieron. (Selaginellaceae)

Uses : Plant is taken internally to rejuvenate the life. It is also useful in treatment of prolepsis of rectum. Drink of plant is taken to regulate menses. It is also helpful in treatment of bleeding piles.

\***Tectaria fuscipes** (Wall. ex Bedd.) C. Chr. (Aspidiaceae)

Uses : Leaves are made into paste and applied on affected parts of body to treat ringworm, eczema and other skin diseases. It is also used to regulate liver functions.

**Tectaria macrodonta** (Fee) C. Chr. (Aspidiaceae)

Uses : Leaves are made into paste and applied on septic ulcers. Fronds are used to increase appetite.

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