



IJREB

International Journal of Research in

Engineering and Bioscience

Volume 1 (Special Issue 1)

ISSN 2321-743X

Journal home page: www.ijreb.org

MEDICINAL DIVERSITY OF THE FAMILY ADIANTACEAE (PRESL) CHING (PTERIDOPHYTA) OF EASTERN UTTAR PRADESH

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Abstract

The paper deals with medicinal value of family Adiantaceae. The Family Adiantaceae (Presl) Ching is with 4 species in the present study area. The species are ***Adiantum capillus- veneris***, ***A. caudatum***, ***A. lunulatum*** and ***A. incism***. All four species are having a good medicinal value. On the basis of field surveys the traditional methods of curing of diseases and ailments like stomach disorders, Ulcers, cough and cold, fever, asthma etc. are presented.

Keywords: Medicinal ferns, Adiantaceae, Eastern Uttar Pradesh, India

INTRODUCTION

The Homosporous fern family Adiantaceae is well known group of ferns, commonly known as maidenhairs, which is widely distributed mainly in the tropical and subtropical regions. Twenty five species of *Adiantum* occur in India (Dixit 1984, Khullar 1994, Borthakur *et al.* 2001), 10 species are reported to be in South India (Dixit 1984, Manickam & Irudayaraj 1992) and nine species in Assam (Borthakur *et al.* 2001). Chandra (2000) has reported about 26 species from India. In the present study four species are reported. Pteridophytes are known to man for more than 2000 years for their medicinal values. Caius may be the first man who has described the medicinal uses of some ferns of India. Chaudhary (1973), Vyas and Sharma (1998) and Padala (1988) contributed to the knowledge of medicinal uses of pteridophytes. Nayar (1957), Kumar & Kaushik (1999) and Kaushik & Dhiman (1995) also told about medicinal uses of some Pteridophytes of India. Pteridophytes are used in Homeopathic, Ayurvedic, and Unani medicines. Different parts like rhizome, stem, fronds, pinnae and spores are useful in the treatment of various diseases.

Study Area

The Study area Eastern Uttar Pradesh (Fig. 1), which is at the foot hills of the Himalayas is bounded by Nepal on the North, Uttarakhand on the North-East, Himachal Pradesh on the North- West, Haryana on the West, Rajasthan on the South-West, Madhya Pradesh on the South & South-West & Bihar on the East. They are situated between 23°52' N & 31°28'N Latitudes and 77°30'E and 84°39'E Longitude. Being at the foot hills it is very rich in diversity and it has been poorly reported.

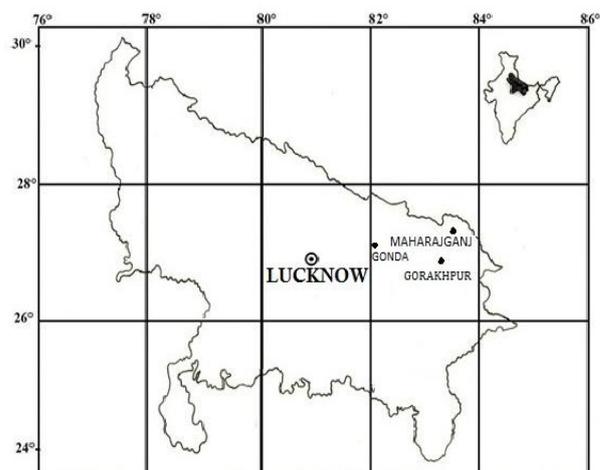


Fig. 1

MATERIALS AND METHODOLOGY

The present data is outcome of field work carried out in different parts of Eastern Uttar Pradesh. All the specimens were collected in duplicate and they are deposited in Centre for Plant Species Biology, Department of Botany, St.

Andrew’s College (PG), Gorakhpur, Uttar Pradesh.

RESULTS

About four species of Pteridophytes with medicinal properties have been collected from Eastern Uttar Pradesh. Their Botanical Names of the plants, family, mode of use and parts used are given below.

1- *Adiantum caudatum* L.

N.V. Rajahamsa

Leaf paste is applied for burns, cuts and wounds. It is used as an expectorant and skin diseases, Diabetes, cough and fever.

2- *Adiantum capillus-veneris* L.

N.V. Hansraj

The decoction of leaves is taken for acute bronchitis and fever. The fronds are used against cough and cold and also chewed for the treatment of mouth blisters. Fronds extract mixed with honey is used as an eye ointment. It is used as a stimulant, expectorant, purgative, demulcent and hair tonic. It has anticancerous, hypoglycaemic, aphrodisiac, antibacterial, antifungal and antiviral properties.

3- *Adiantum lunulatum* Burm.

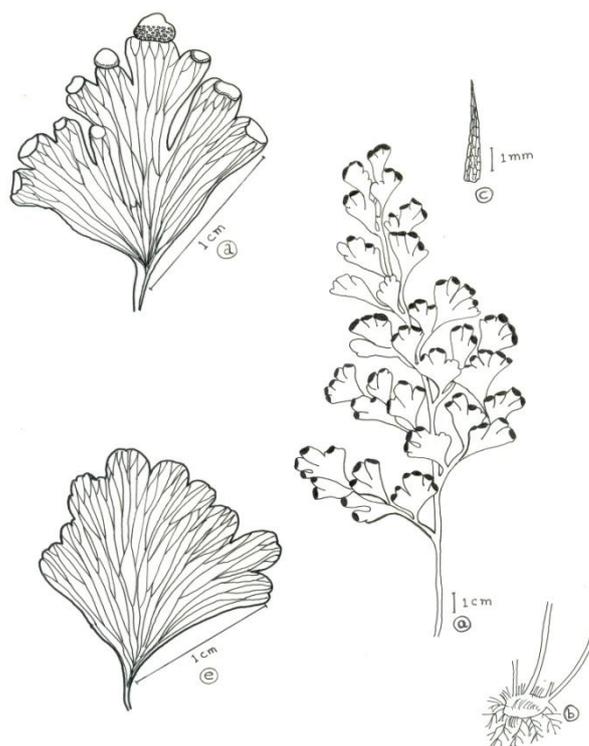
N.V. Chitrapada

The plant is useful in Dysentery, leprosy and fever. The paste of fronds and rhizomes is applied for centipede-bite. It is used in blood related diseases, in epileptic fits and in rabies, rhizomes prescribed for strangery and in fever due to elephantiasis.

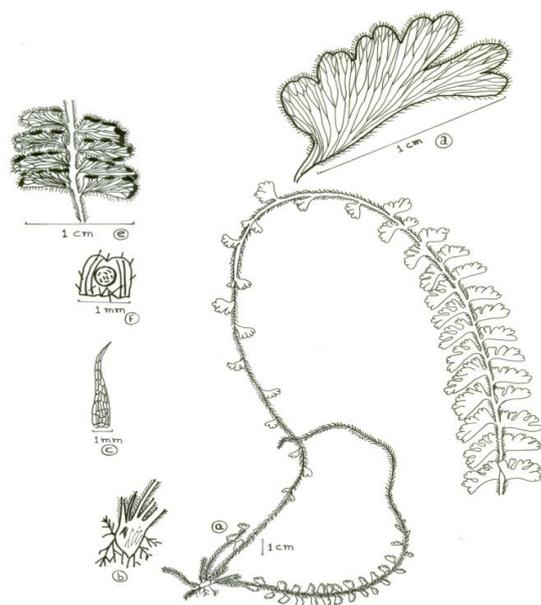
4- *Adiantum incism* Forsk.

N.V. Hanspadi

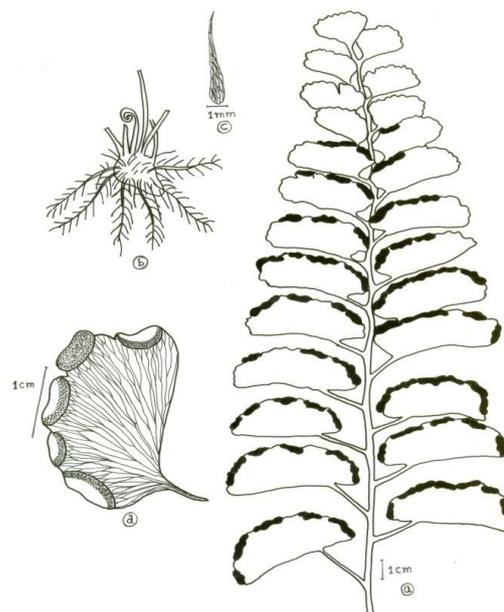
The leaf powder is mixed with butter and used for controlling the internal burning of the body. Also used in cough, diabetes, fever and skin diseases.



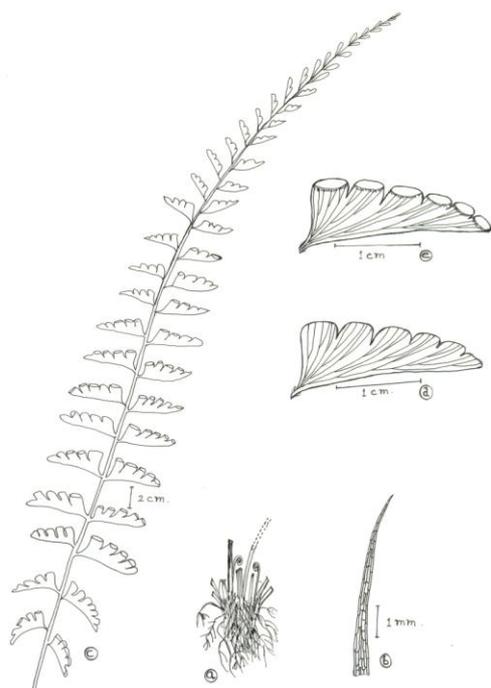
Adiantum capillus-veneris



Adiantum caudatum



Adiantum lunulatum



Adiantum incisum

ACKNOWLEDGEMENT

The authors are thankful to the Principal, St. Andrew’s (PG) College, Gorakhpur for the facilities and the encouragement given to us. One of the authors (SDR) is thankful to UGC (UGC Sanction No. 40-308/2011) for the financial assistance.

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LEGENDS

1. *Adiantum capillus-veneris*

- a. Habit
- b. Rhizome
- c. Rhizome Scale
- d. Pinnule enlarged showing sori
- e. Pinnule enlarged showing venation

2. *Adiantum caudatum*

- a. Habit
- b. Rhizome
- c. Rhizome Scale
- d. Pinna enlarged showing venation
- e. Two pairs of pinnae
- f. Sorus enlarged

3. *Adiantum incisum*

- a. Habit
- b. Rhizome scale
- c. Habit
- d. Pinnule enlarged showing venation
- e. Pinnule enlarge showing sori

4. *Adiantum lunulatum*

- a. Habit
- b. Rhizome
- c. Rhizome Scale
- d. Pinna enlarged showing venation and sori