

PTERIDOPHYTIC FLORA OF LUCKNOW DISTRICT (U. P.)

The study of the Pteridophytic flora of the Gangetic plain has not received the attention it deserves. Anderson (1859) while studying the flora of Lucknow district (U.P.) reported only three species of Pteridophytes. Kapoor (1962) recorded five species (including two of Anderson).

An effort at plant collection from various localities of the district has yielded 18 species of pteridophytes belonging to 11 different families. Those marked with asterisks are being reported for the first time. The systematic enumeration of the species is on the pattern proposed by Holttum (1954). The specimens are deposited in the Herbarium of the Botany Department, B.S.N.V. Degree College, Lucknow. The plants along with their localities are given below.

SELAGINELLACEAE

***Selaginella involvens** (Sw.) Spring

On the banks of Gomati river at the border of Lucknow-Barabanki districts.

EQUISETACEAE

Equisetum debile Roxb.

Rehmankhera.

ISOETACEAE

Isoetes coromandeliana Linn.

Babaganj talab situated between Sitapur and Kursi roads.

OPHIOGLOSSACEAE

Ophioglossum reticulatum Linn.

Raipur, Amausi and Bangla-Bazar.

SCHIZAEACEAE

***Lygodium flexuosum** (L.) Sw.

Harikans-Garhi.

THELYPTERIDACEAE

***Cyclosorus acuminatus** (Houtt.) Ching (= *Dryopteris acuminata* Nakai, *Nephrodium sophoroides* Desv.)

Shitalkhera.

***C. biauritus** (Bedd.) Ching (= *Nephrodium biauritus* Bedd., *Dryopteris biaurita* C. Chr.)

Babukhera.

***C. latipinnus** (Hook.) Tardieu-et C. Chr. (Sensu Holttum 1954) (= *Nephrodium latipinna* Hook.)

Shitalkhera.

***C. parasiticus** (Linn.) Tardieu et C. Chr. (= *Polypodium parasiticum* L.)

Malihabad and Shitalkhera.

***Ampelopteris prolifera** (Retz.) Copel.

Kukrail forest, Utraitia and Shitalkhera.

DENNSTAEDTIACEAE

***Pteridium aquilinum** (L.) Kuhn (= *Pteris aquilina* L.)

Shitalkhera.

ADIANTACEAE

***Cheilanthes farinosa** (Forsk.) Kaulf. (= *Pteris farinosa* Forsk., *Aleuritopteris farinosa* Fee).

On the banks of Gomati river at the border of Lucknow-Barabanki districts.

***Adiantum caudatum** L. var. **caudatum** (= *A. hirsutum* Bory, *A. ciliatum* Bl.)

Malihabad.

***A. capillus-veneris** L. (= *A. emarginatum* Bory)

Babukhera, Harikans-Garhi, Utraitia and Baldekhera.

MARSILEACEAE

Marsilea minuta Linn.

Kapoor's *Marsilea quadrifolia* L. is probably *M. minuta* L. because the sterile form of the latter closely resembles the former. In almost every pond.

SALVINIACEAE

***Salvinia cucullata** Roxb.

In many ponds.

***S. natans** (L.) All.

In many ponds.

AZOLLACEAE

Azolla pinnata R. Br.

In almost every pond.

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OPHIOGLOSSUM GRAMINEUM WILLD. VAR. GRAMINEUM IN KERALA

A few specimens of *Ophioglossum* sent from Kerala for determination proved to be *O. gramineum* Willd. after critical examination. It is an interesting, rare and tiny species, which is reported for the first time from Quilon District, Kerala (Almeida, 1922; Beddome 1873, 1883, 1892; Blatter and Almeida, 1922; Chakravarty, 1951; Clausen, 1938; Hooker and Baker, 1868). The specimens are deposited in the Cryptogamic Unit of the Botanical Survey of India, Calcutta.

Beddome (1892) in his supplement (p. 108) mentioned that this plant occurs in South India but did not give any specific locality. There is only one specimen of this taxon in the Central National Herbarium, Sibpur, collected by Dalzell in 1878 from Bombay. Subramanyam collected it from Tamil Nadu (Balakrishnan, Thothathri and Henry, 1960). Panigrahi and Dixit (1969) reported that the former collected it from Uttar Pradesh, Joseph from Madhya Pradesh and Subba Rao from Andhra Pradesh. Panigrahi and Dixit (1969) do not include Kerala in the distribution of the taxon. But, Ninan (1958) obtained a few specimens from Palghat and reported an approximate chromosome number of 120 bivalents. In the herbarium of Botanical Survey of India, Southern Circle, Coimbatore there is only one collection of the species from Kerala (Thekkady, alt. 875 m). The plant because of its minute size and grass like leaves can easily be mistaken for a member of the Gramineae. It is very difficult to distinguish the plant

when growing along with grasses which it usually does. Mahabale (1962) thinks that this species is derived from species having double leaf traces and related to *O. lusitanicum*.

***Ophioglossum gramineum* Willd., Schrift. AK.**
 Erfurt. 18, t. 1, f. 1, 1802.

Delicate herbs 1.5-7.5 cm high; root stock tuberous, cylindric, with few roots running obliquely downwards, bearing one or two leaves; stipe upto 2.8 cm long; sterile lobe situated usually below or sometimes at the middle, linear or linear lanceolate, apex acute, slightly fleshy, 0.8-3 cm long, 1.2-3.0 mm broad; midrib absent; veins parallel, anastomosing frequently, without free vein-endings in the elongated areoles, epidermal cells elongated, dermal appendages scaly; fertile spike 1.5-5 cm long, spore-bearing region 0.4-2.00 cm long, 1.2-5 mm wide; sporangia 4-10 per spike.

Specimens examined: Sasthomkotah (Quilon Dist.), July, 1971, S. K. N. Unnithan s.n.

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