

# *Pteris multifida* Poiret., a new record from eastern Uttar Pradesh, India

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Manuscript received: 06 March 2013

Accepted for publication: 20 July 2013

## ABSTRACT

Gond D. K., Kumar S., Samuel C. O., Abbasi P. & Saini D. C. 2013. *Pteris multifida* Poiret., a new record from eastern Uttar Pradesh, India. Geophytology 43(2): 167-169.

*Pteris multifida* Poiret is described and illustrated as a new record from eastern Uttar Pradesh, India.

**Key-words:** *Pteris multifida*, new record, eastern Uttar Pradesh, India.

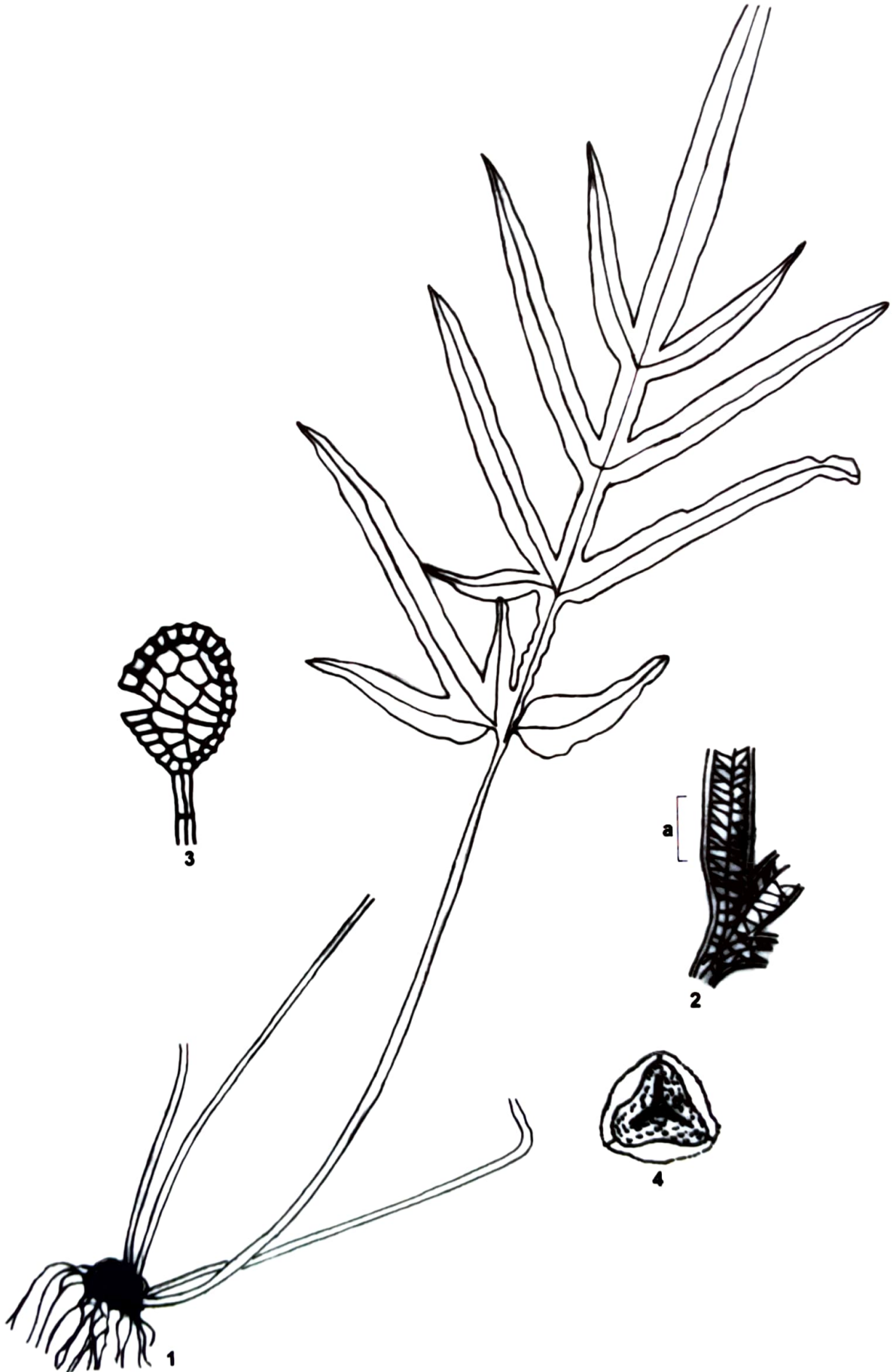
## INTRODUCTION

The genus *Pteris* (family Pteridaceae) is represented in India by 64 species. Of these, 18 species are simple pinnate types (Das 2007). Manickam and Irudayaraj (1991) reported 15 species of *Pteris* from the Western Ghats of South India. About 30 species have been reported from the peninsular India (Sreenivas & Madhusoodanan 2010). Only two species of *Pteris* have been recorded from Uttar Pradesh (U.P.), viz. *Pteris vittata* from eastern U.P. (Saini et al. 2010) and *Pteris multifida* from Moradabad in western U.P. (Singh 1989). So far, there is no record of *Pteris multifida* from eastern U.P. As Gorakhpur (eastern U.P.) is situated in Terai region, where moisture and humidity prevail almost throughout the year, *Pteris multifida* commonly grows here on moist places along the road side, on shady moist walls in villages and along the banks of river and other water channels. Previously, this species was collected

from the cultivated areas, but now it is naturalized in these habitats. The eastern part of Uttar Pradesh lies between 23°56' and 28°54'N latitudes and 84°40' and 87°10'E longitudes and is bounded by Nepal in the north, Madhya Pradesh in the south, Bihar and Jharkhand in the east and districts of central U.P. in the west. During floristic survey of wetlands of eastern U.P., including Gorakhpur and adjoining areas, the authors collected some interesting pteridophytic plant specimens which were identified as *Pteris multifida* Poiret.

## MATERIAL AND METHOD

The plant was collected from different localities of Gorakhpur, eastern Uttar Pradesh during July 2009-2010. Field notes were prepared during collection and samples were kept in separate polythene bags. The plant was properly processed, poisoned, mounted on sheet and deposited in the Herbarium of the Birbal Sahni Institute of



**Text-figures 1-4.** *Pteris multifida* Poiret. 1. Plant body. 2. A portion of pinna, enlarged. 3. Sporangium. 4. Spore, Bar a = 1 cm.



Palaeobotany, Lucknow for future reference. Detailed observation was made on its taxonomic characters and ecological and distributional patterns.

### DESCRIPTION

*Pteris multifida* Poiret in Lam. Encycl. Bot.  
5: 714. 1804.

Text-figures 1-4

**Description:** Rhizome short, creeping, thick, scaly. Scales small up to 2.5 mm long, entire, apex acute. Fronds dimorphic, thin, fertile fronds 25-32 cm in height; sterile fronds 13-20 cm in height, green, ovate. Pinnae 2-3 pairs, opposite, lanceolate, green, terminal pinnae larger than lateral pinnae, terminal pinnae 15.0-16.0 cm long, and 0.6-0.8 cm broad; lateral pinnae 6.0-9.0 cm long and 0.4-0.5 cm broad; margin wavy, apex acute, serrate, glabrous, thin, papyraceous, pinna decurrent to form a winged rachis; lower pinnae multifid; venation free, forking, numerous. Sori brown along the margin. Indusium white. Sporangium globose, 220-240  $\mu\text{m}$  long; stalk 250-300  $\mu\text{m}$ , 2-celled. Annulus 17-18 celled, Spores brown, 40-45  $\mu\text{m}$ , trilete-tetrahedron.

**Material collected:** *Pteris multifida* Poiret (Pteridaceae), Gorakhpur, U.P., India, 03.11.2010, collected by D. K. Gond, BSIP Herb. No. 0342.

**Distribution:** United States, Japan, Korea, China, Pakistan and India.

### DISCUSSION

The serrated margin in young fronds of *Pteris multifida* indicates similarity with *Pteris cretica* L. However, serration disappears in the former at maturity. It also differs from *Pteris cretica* in having winged rachis. A careful study of collected specimens and thorough perusal of literature indicate that the plant was previously recorded only from Moradabad of western U.P. (Singh 1989, Saini et al. 2010). Hence the plant is treated as a new record for eastern Uttar Pradesh.

### ACKNOWLEDGEMENT

The authors are thankful to the Director, Birbal Sahni Institute of Palaeobotany, Lucknow and to the Principal, St. Andrew's Post-Graduate College, Gorakhpur for providing necessary facilities.

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