

***Goniophlebium mengtzeense* (Christ) Rödl-Linder
[Polypodiaceae subfam. Microsoroideae] – a new record for
Darjiling hills and state of West Bengal, India**

Nayan Thapa, Dorjay Lama, Upakar Rai and Abhijit Chettri

Department of Botany, St Joseph College, Darjiling- 734104, West Bengal, India
E-mail: nayanthapa16@yahoo.com

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Abstract

The fern *Goniophlebium mengtzeense* (Christ) Rödl-Linder [Polypodiaceae] is a new record for Darjiling hills in West Bengal, a near threatened taxa having its restricted distribution in far North-East India.

Key word: *Goniophlebium mengtzeense*, New record, Darjiling hills

The District of Darjiling lies between 26°31' and 27°13' N latitudes and between 87°59' and 88°53' E longitudes (O'Malley 1999). The Darjiling hills is a segment of eastern Himalaya and is around 2436.55 km² or 77 % area of the Darjiling District in West Bengal. The altitudinal variation ranges from 150 m (at Sukna) to 3660 m (at Sandakphu-Phalut) which presents diverse topographical condition (Das 1995, 2004; Acharya & Acharya 2001).

Regular field trips were made during April 2011 to July 2012 for documentation of fern and fern allies in various forests tract of Darjiling hills and the collected specimens were processed into mounted herbarium-sheets following Jain & Rao (1977). Voucher specimen has been deposited in the Llyod's Botanical garden and Herbarium of Botany department, St. Joseph college, Darjiling. Specimens were identified by matching with the pre-identified specimens in the Herbarium of the Llyod's Botanical garden, Darjiling as well as consulting published literature including Mehra & Bir (1964); Hara (1966); Mathew (1971); Chowdhury (1973); Ghosh *et al* (2004) and Fraser-jenkins (2008). However, while studying the distribution of different species, it was revealed that *Goniophlebium mengtzeense* (Christ) Rödl-Linder was not recorded previously from the Darjiling hills as well as from the state of West Bengal.

So, the present collection of *Goniophlebium mengtzeense* (Christ) Rödl-Linder [Polypodiaceae subfam. Microsoroideae] from Darjiling Hills forms the new record for this region as well as for the state of West Bengal. A brief description of the species along with sketches is provided here for its easy identification.

Goniophlebium mengtzeense (Christ) Rödl-Linder, Philipp. J. Sci. 116: 154. 1987; & in Blumea 34: 404. 1990; Hovenkamp & Rödl-Linder, Fl. Males., Ser. II, Ferns and Fern Allies 3: 50. 1998.

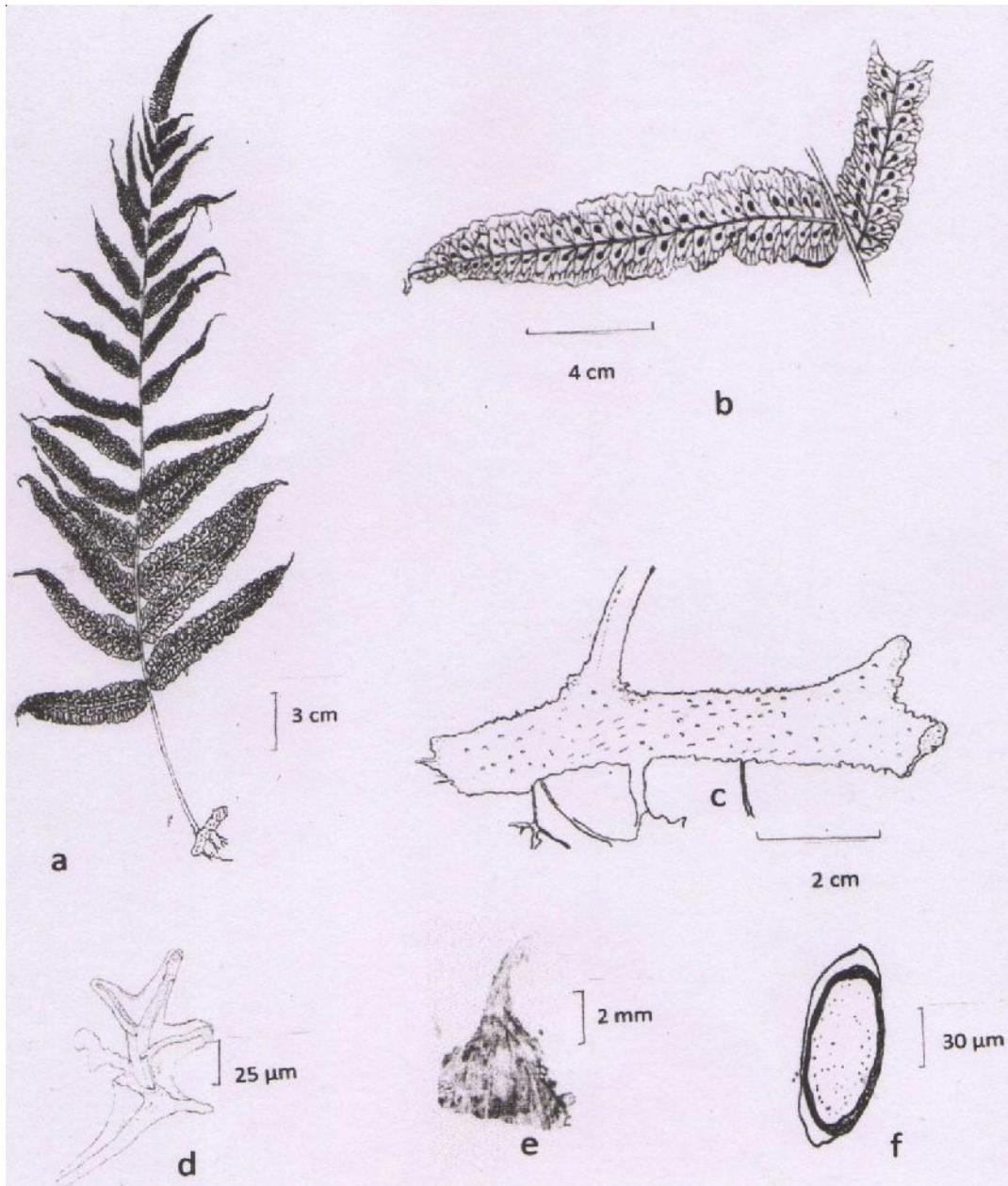


Plate I. *Goniophlebium mengtzeense* (Christ) Rödl-Linder: a. Habit; b. Pinna with sori; c. Rhizome magnified; d. Paraphysis; e. Rhizome scales; f. spores

Polypodium mengtzeense Christ in Bull. Herb. Boiss. 6: 867. 1898. *Polypodiastrum mengtzeense* (Christ) Ching, Acta Phytotax. Sin. 16: 28. 1978. *Polypodium argutum* Wallich var. *khasianum* Clarke, J. Linn. Soc. 24: 417. 1888; Beddome, Handb. with suppl. 90. 1892. *Polypodium asperum* J.G. Baker in Kew Bull. 231, 1898 (*non P. asperum* 1818, *nec.* Blume 1826).

Rhizome long, creeping, 3 – 4 mm in diam., sparsely scaly, whitish bloomy; scales brown, ovate-lanceolate, base broad and peltate, sparsely toothed, acuminate. Fronds remote. Stipes

straw-colored, 10 – 15 cm, scaly at base, glabrous upward. Lamina ovate lanceolate in outline, 40 – 50 × 15 – 25 cm. Lateral pinnae 15 – 20 pairs, sessile, ovate-lanceolate, 10 – 15 × 1.5 – 2.5 cm, serrate or denticulate, acuminate, base rounded; terminal pinna distinct; veins anastomosing to form 2 or 3 areoles on each side of costa, each costal areole containing a simple free included veinlet, other free veinlet ending inside margin of lobes, visible on both surfaces. Lamina herbaceous, abaxially yellowish green, adaxially dark green, both surfaces glabrous except for minute scales abaxially. Sori orbicular, terminal on included veinlets of costal areoles, in one row on each side of costa, medial or slightly closer to costa, superficial. Spores monolet, hyaline and smooth.

Exsiccatae: West Bengal, Darjiling hills, Chitrey, 24.06.2012, *Nayan Thapa 059* (SJC BH), 060 (LBG).

Distribution: India (Meghalaya, Manipur, Arunachal Pradesh), China, Nepal, Thailand.

Status: The species is extremely rare and becoming endangered due to habitat destruction.

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