

## **Occurrence of *Rhododendron camelliiflorum* Hooker f. (Ericaceae) in Darjiling Hills: a new record for the state of West Bengal, India**

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### **Abstract**

Recent collection of *Rhododendron camelliiflorum* Hooker f. (Ericaceae) from the temperate habitat of Alubari area in Neora Valley National Park is a new record of its occurrence for the state of West Bengal. The plant is sparsely distributed in the area and its discovery from the region increases the number of taxa of *Rhododendron* to 22 in West Bengal.

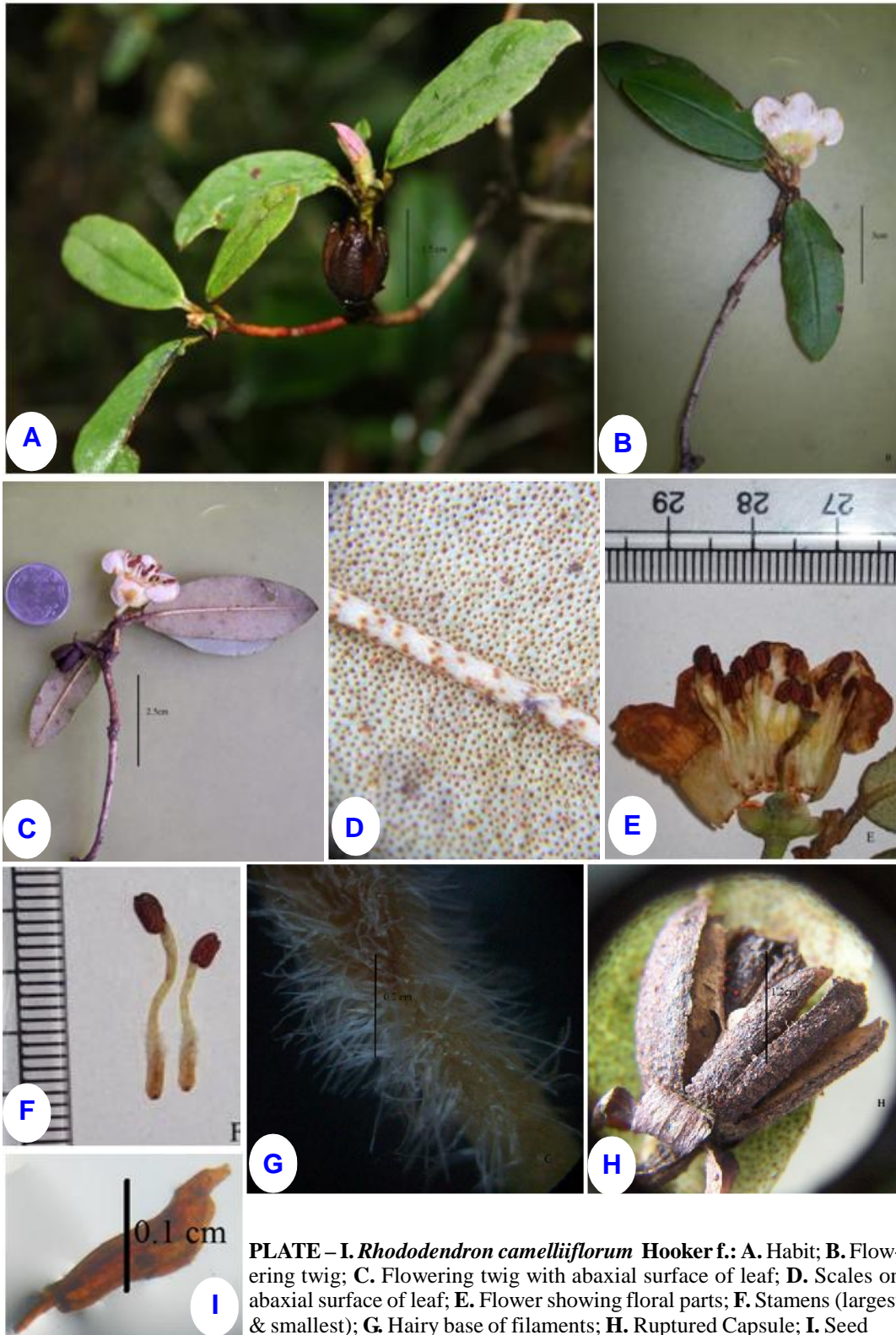
**Key words:** *Rhododendron camelliiflorum*, New record, West Bengal

### **INTRODUCTION**

Floristically rich Darjiling hill is home to diverse form of plants harboring sino-himalayan elements in the higher altitude of the region (Das 1995; Fraser Jenkins *et al.* 2015). The genus *Rhododendron* Linnaeus contains the third largest assemblage of species (Frodin 2004) accounting to ca.1000 species (www.eflora.org) of which 90 % occur in South-east Asia. China is the center of origin with 571 species of which 72 % are endemic. Contradicting account of *Rhododendron* sp. in Indian sub-continent are perceived i.e. 87 species, 12 subspecies and 8 varieties in Indian Himalaya (Sekar & Srivastava, 2010), 117 species from North east India (Mao 2010; Pradhan *et al.* 2014).

Darjiling Himalaya is home to 21 taxa (Rai *et al.* 2014) with an addition of *Rhododendron grande* var. *singalense* Rai *et al.* Hills of Darjiling is a segment of Eastern Himalaya with an altitudinal variation ranging from  $\pm 150$  m to 3660 m, providing a diverse micro-ecological niche with numerous inaccessible terrains. The terrain complexity hinders exploration of the forest leading to the limited discovery and record of species for the region. The other factor is the flowering time of different species is overlapping with the breeding season of animals when the National Park usually remain closed for the visitors making it impossible and unrecognizable for many species in the wild.

Regular trips were made in the Neora Valley National Park during April 2012 to September 2015 for floristic and phytosociological studies. The collected specimens were processed into mounted herbarium-sheets following conventional techniques (Jain & Rao, 1977) and were identified by matching with pre-identified specimens in the herbarium of Llyod's Botanical Garden, collected from State of Sikkim as well as through consultation of published literature including (Hooker 1849; Hara 1971; Pradhan & Lachungpa 1990; Grieson



**PLATE – I.** *Rhododendron camelliiflorum* Hooker f.: **A.** Habit; **B.** Flowering twig; **C.** Flowering twig with abaxial surface of leaf; **D.** Scales on abaxial surface of leaf; **E.** Flower showing floral parts; **F.** Stamens (largest & smallest); **G.** Hairy base of filaments; **H.** Ruptured Capsule; **I.** Seed

& Long 1991; Chamberlain *et al.* 1996; Sekar & Srivastava 2010; Mao 2010; Rai *et al.* 2014; Pradhan *et al.* 2015). The plant was identified as *Rhododendron camelliiflorum* Hooker f. Voucher specimens have been deposited in the Herbarium of Llyod's Botanical Garden. However, while studying the distribution of the species, it was revealed that the plant was not recorded previously from the Darjiling hills as well as from the state of West Bengal. So, the present collection of the species from Darjiiling 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.

***Rhododendron camelliiflorum*** J.D. Hooker, *Rhododendron of Sikkim-Himalaya* 3: t. 28. 1851; Grieson & Long, *Flora of Bhutan*, Vol. 2, Part 1: 384. 1991; Mao, *Botanica orientalis* 7: 26 – 34. 2010; Sekar & Srivastava, *Amer. J. Pl. Sci.* 1: 131 – 137. 2010; Pradhan, *J. Amer. Rhododendron Soc.* 1: 76 – 80. 2015.

Shrubs, 100 – 200 cm tall; epiphytic to lithophytic; young shoots densely scaly. Leaf blade leathery, oblong-lanceolate, 8–10 × 2.5–3.5 cm, acute, base cuneate to rounded, sub-glabrous adaxially, abaxially scaly. Inflorescence terminal, 1 – 2-flowered; pedicel stout, 0.5 – 1 cm densely scaly; calyx lobes 5, rounded, pale-green, 0.5 – 0.8 cm, broadly ovate, persistent in fruit, sparsely scaly at base; corolla open-campanulate, thick, white tinged with pale red, 1.5 – 2.5 × 2 – 3 cm, outer surface sparsely scaly; stamens 12 – 16, filaments hairy at base, 1 – 1.5 × 0.1 – 0.2 cm; hairs simple, white, 0.1 – 0.2 cm; ovary scaly, 5 – 10 locular; style stout, glabrous, short, 0.8 – 1 cm, stigma bifid. Capsule ovoid, scaly, 1 – 1.5 cm.

*Exsiccatae*: West Bengal, Darjiling hills, Alubari (Rechala), 12.07. 2014, Nayan Thapa LBG014297 (Llyod's Botanical Garden), N 26° 06.438" and E 88° 43.226", Alt: 2550 ± 11.5 m.

*Global distribution*: Bhutan, India (Arunachal Pradesh, Sikkim), Nepal, China.

*Local distribution*: Alubari (Rechala).

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