

## ***Arachnis senapatiana* (Phukan & A.A. Mao) Kocyan & Schuiteman (Orchidaceae): an addition to the flora of Nagaland, India**

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### **Abstract**

*Arachnis senapatiana* (Phukan & A.A. Mao) Kocyan & Schuiteman is an addition to the orchid flora of Nagaland. Previously it was reported from Manipur state in NE India. A detailed description along with photographs is provided for its easy recognition in the field.

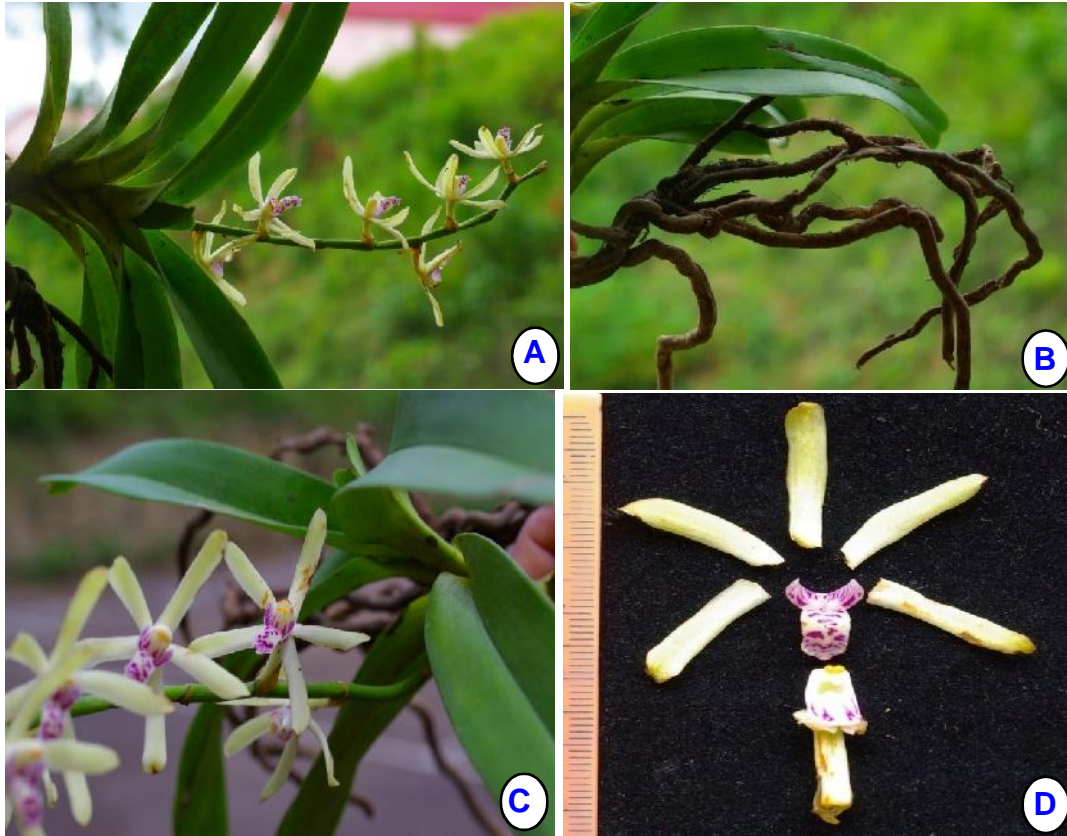
**Key word:** *Arachnis senapatiana*, Orchidaceae, New record, Nagaland.

### **INTRODUCTION**

Until recently *Armadorum* Breda (Orchidaceae) was a small genus of four species in South and South East Asia from India to Borneo, Thailand, Sumatra and Bali with species being transferred from one genus to other forcing Seidenfaden (1988) to comment that 'I doubt if traditional studies of morphological characters can carry us much further'. With the latent characters unearthed through molecular studies this genus was understood to belong to a more broadly circumscribed *Arachnis* and thus Kocyan & Schuiteman (2013) transferred *Armadorum senapatianum*, the only left over species in the genus *Armadorum* to *Arachnis*. According to *Genera Orchidacearum* (Wood 2014) the genus *Arachnis* includes not only *Armadorum*, *Arachnanthe* and *Arrhynchium* but *Esmeralda* also. This was originally described by Phukan & Mao (2002) as a new species of *Armadorum* from the Senapati Hills of Manipur state in NE India. Phukan (2009) later reported it as occurring in Darjeeling Hills and cultivated at Shillong, Meghalaya. After that there was no report of this species elsewhere from NE India. During a recent floristic inventory as a part of orchid survey in the hills of Nagaland, an interesting vandaceous orchid was collected from Asukhomi village of Zunheboto district at an altitude about 1747 m above MSL. After critical literature consultation and personal communication with Dr C. Sathish Kumar (TBGRI, Kerala, India) the species was identified as *Arachnis senapatiana* (Phukan & Mao) Kocyan & Schuiteman and which was never been reported from Nagaland (Hynniewta *et al.* 2000; Deb & Imchen 2008; Deb 2013). So, the present finding is a new distribution record for the orchid flora of Nagaland. A detailed taxonomic description along with photographs is provided here.

### **Taxonomic Description**

*Arachnis senapatiana* (Phukan & A.A. Mao) Kocyan & Schuiteman, *Phytotaxa* 161(1): 62. 2013. *Armadorum senapatianum* Phukan & Mao, *Orchid Review* 110: 299. 2002.



**PLATE – I:** **A.** Inflorescence; **B.** Roots; **C.** Close up view of flowers; **D.** Dissected flower parts

Monopodial epiphytic herbs with thick cylindrical roots arising near the base. Leaves distichous, coriaceous, linear, oblong, 17-32 x 2.3-3.1 cm, apex bilobed. Inflorescence axillary, 24-30 cm long, simple, rigid, cylindrical, laxly twelve-flowered: bracts scarious, triangular, brown, 7-10mm long. Flower 30-50 mm across, creamy white, fragrant, spreading. Ovary and pedicel 17-20 mm long. Sepals linear-oblong, trinerved; dorsal 23-34 x 5-8 mm, subacute to obtuse; laterals 26-35 x 4-7mm, acute, keeled dorsally. Petals 23-33 x 6-8 mm, oblanceolate, acute, five nerved. Lip 10-13 mm long, shorter than sepals and petals, three-lobed, with two basal callus; side lobes 6-8 x 3-4 mm, erect, oblong, obtuse, deep pink or purple – streaked; mid-lobe marked with deep pink or purple, 6-10 x 4-6 mm, deflexed, oblong, serrulate at apex with a small beak facing downwards; spur prominent, 5-7 mm long, 3 mm wide, touching the beak of the mid-lobe. Column 6-8 x 4-5 mm thick, fleshy spotted with purple, pollinia two (Figure 1).

**Specimen examined:** Asukhomi village, Zunheboto district, Nagaland; altitude 1747 m [GPS Location N 26°15' 26.8" and E 95° 06' 59.3"], *SDNU 206*, dated 19.06. 2014.

**Flowering:** June; **Fruiting:** Not seen

**Ecology:** The species was collected at an altitude about 1747 m MSL (GPS location: N 26°15' 26.8" and E 95° 06' 59.3") in subtropical broad-leaved hill forest dominated by *Quercus griffithii* Hooker f. & Thomson ex Miquel, *Lithocarpus elegans* (Blume) Hatusima ex Soepadmo and *Morus* sp. Only three individuals were encountered during the field survey.

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