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Cleisostoma linearilobulatum (Seidenfaden & Smitinand) Garay (Orchidaceae): a new record for West Bengal, India

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INTRODUCTION

Orchidaceae is one of the largest groups of angiospermic plants with world-wide distribution except hot desert and cool polar regions and it is found in three different habitats *viz*., i. Saprophytic, ii. Terrestrial and iii. Epiphytic.

Darjeeling Himalayan region of West Bengal is notable for the maximum diversity of natural orchid species. Orchid in west Bengal are found to occur in different altitudinal zones *viz*, tropical, sub-tropical, temperate, sub-temperate and sub-alpine. Among them, the three zones *viz*., sub-tripical, temperate and sub-temperate possess greater number of species richness and natural proliferation of saprophytic, terrestrial and epiphytic orchid species found in West Bengal.

METHOD

Regular field trips were made in the Darjeeling Himalayan regions during 2009 to 2018 for orchid flora and floristic studies, the author found and collected the blooming epiphytic natural orchid species from the forest of Charkhol busty. The collected plant specimens were processed into mounted herbarium sheets following the techniques (Jain & Rao, 1977) and were identified through consultation of published literature (Hooker 1890, King & Pantling, 1898, Lucksom, 2007, Pearce & Cribb, 2002, Pradhan, 1979, Pradhan & Pradhan,1997, Yonzone *et al*. 2012). The orchid was identified as *Cleisostoma linearilobulatum* (Seidenfaden & Smitinand) Garay. Voucher specimens were deposited at Victoria Institution (College), Kolkata, West Bengal, INDIA. However, while studying the diversity and the distribution of orchid species, it was revealed that the species was not reported previously from the West Bengal. Therefore, the present collection of the species from Charkhol busty of Samalbong Gram Panchayet, Kalimpong Block –I, Kalimpong forms the new record of natural orchid for the state West Bengal. A brief taxonomical description of the species with photographs are provided here for its identification and taxonomical validation.

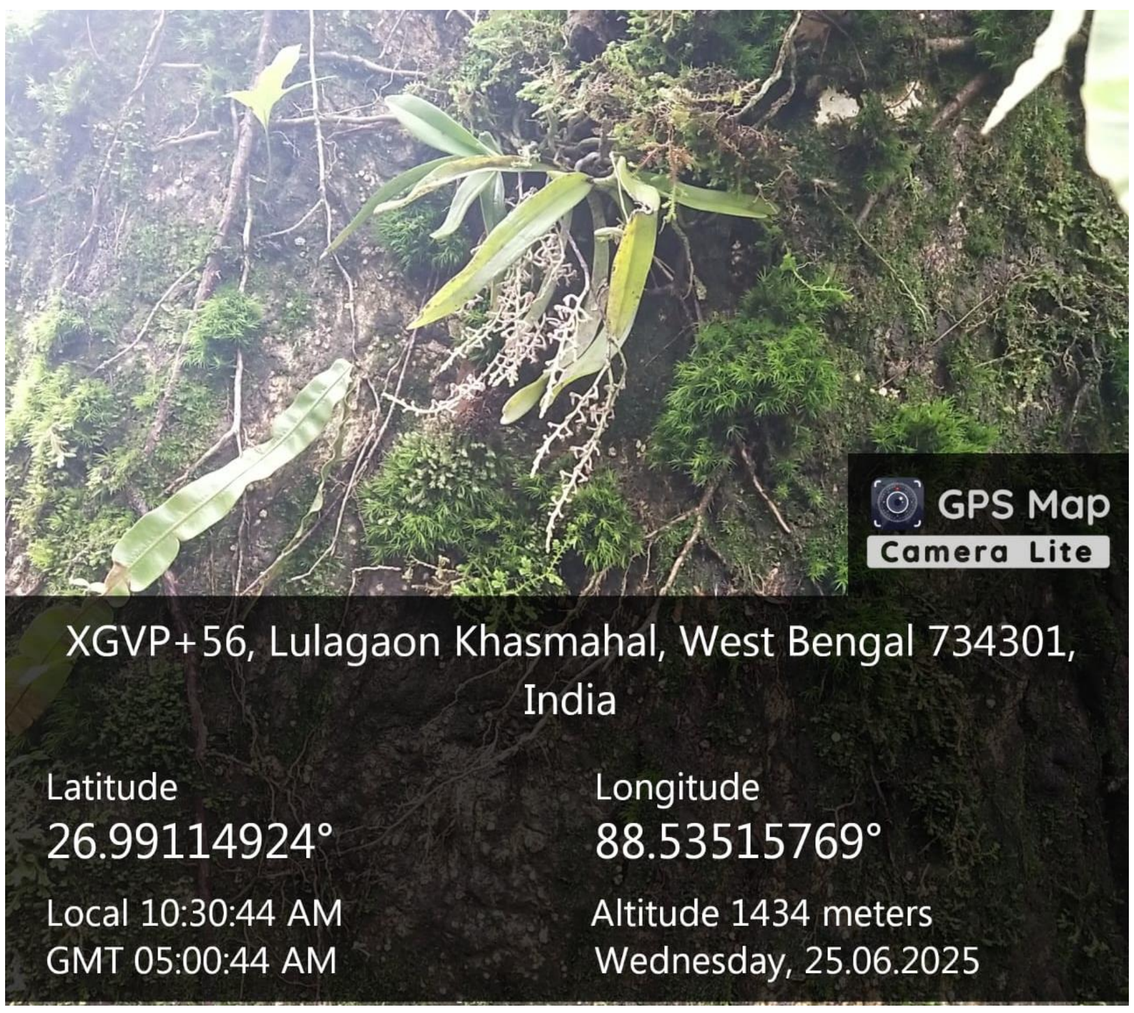

Fig. 2. ***Cleisostoma linearilobulatum*** (Seidenfaden & Smitinand) Garay
Geo Tag Photograph at habitat]

RESULTS & DISCUSSION

Taxonomic Enumeration of Taxon

Cleisostoma linearilobulatum (Seidenfaden & Smitinand) Garay, Bot. Mus. Leafl. 23(4): 172. 1972.
Sarcanthus linearilobulatus Seidenfaden & Smitinand, Orchid Thailand 4(2): 684, f.506. 1965.
Flowering: May– June; **Fruiting:** June – September.
Specimen cited: INDIA, West Bengal, Darjeeling Himalaya, Kalimpong district, Charkhol busty of Samalbong Gram Panchayet, Kalimpong Block – I, Kalimpong ,1434 m, Rajendra Yonzone 1519 (VIC BOT), dt. 25. 06. 2025.
General distribution: north east india, china and Thailand.

Fig. 1. ***Cleisostoma linearilobulatum*** (Seidenfaden & Smitinand) Garay
[Habitat Photograph]

Taxonomic Treatment

Plant epiphytic, erect or pendent, 13-24cm tall. Stem short, 1.7-3.8cm long, covered by leaf sheaths. Leaves 3-4, 8-13 x 1.5-2cm, distichous, apex unequally bi-lobed. Inflorescence 5-11cm long, lateral, paniculate, laxly many-flowered; peduncle sheathed, glabrous; sheaths 3, 0.4-0.6cm long, tubular; rachis 5-9cm long, glabrous; floral bracts ovate, tip acute. Flowers 0.5-0.7cm across; dorsal sepal and petals reddish-brown, side sepals red-brown and light green, lip pink. Pedicel and ovary straight, glabrous, 0.35-0.4 cm long. Sepals similar, oblong-lanceolate, subacute, 2.5 x 1.7mm. petals 2 x 0.9mm, oblong, obtuse. Lip tri-lobed; side lobes narrowly triangular, papillose at entrance to spur; apical lobe sagittate, broad-tipped, tips recurved; spur concave, septate half-way up inside and continuing in a ridge half-way out on apical lobe; callus with median furrow, 2-horned. Column 0.7-1mm tall, slender; rostellum parted medially with bicurved plates; stipe linear; pollinia 4. Fruit ovoid.

CONCLUSION

Taxon is highly endangered due to pollution, climatic change and human interferences to their natural habitat. Conservation of taxon require immediate attention. Micropropagation through plant tissue culture and their reintroduction in their natural range of distribution will help in massive proliferation in nature. This taxon is reported from other regions of India viz., Sikkim, North East India.

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