

A new subspecies of *Odisha cleistantha* (Orchidaceae) from Koraput district of Odisha, India

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भारत के ओडिशा राज्य के कोरापुट जिले से संग्रहित ओडिशा क्लेस्टान्था (आर्किडेसी) की नई उपजातियां

सरत मिश्रा

सारांश

ओडिशा के कोरापुट जिले से ओडिशा क्लेस्टान्था एस. मिश्रा उप जाति फ्लाबेल्लाटा को संग्रहित किया गया है। यह अपनी मूल संबद्ध उपजाति क्लेस्टान्था से एफ्लाबेल्लिफॉर्म लेबिल्लम एवं अपने पुष्पों के मुक्तरूपी वर्तिकाग्र फलकों के आधार पर भिन्न है।

ABSTRACT

Odisha cleistantha S. Misra subsp. *flabellata* S. Misra is described from the Koraput district of Odisha. It differs from its typical form (subsp. *cleistantha*) in having a flabelliform labellum and divergent stigma lobes of the flower.

Keywords: *Odisha*, Orchidaceae, New subspecies, Koraput, India

INTRODUCTION

Odisha S. Misra is a terrestrial monotypic genus in the subfamily Orchidoideae under Orchidaceae. It is described with only one species *Odisha cleistantha* S. Misra endemic to India (Misra 2007). The species was collected and critically studied from 12 different locations in Odisha state during 1974 to 2004. Subsequently it was recorded from 4 more localities and the morphological variation observed in the biotypes was discussed (Misra 2011).

One specimen collected in August 2009 from the Koraput district in southwest Odisha shows marked variation in the floral structure. Here, the labellum is fan-shaped in outline with crenulate margins, in contrast to

a labellum with narrowly ovate-lanceolate outline and with entire margins, in all other biotypes collected earlier. This plant was kept under cultivation at Bhubaneswar, where it flowered regularly every year around the month of October. Considering the distinct floral features of the taxon, it is described here as a new subspecies of *Odisha cleistantha* along with the analytical drawing.

TAXONOMIC TREATMENT

Odisha cleistantha S. Misra subsp. ***flabellata*** S. Misra subsp. nov. (Fig. 1, Plate 1)

Type: INDIA, Odisha, Koraput district, Barigam (near Laxmipur), c. 800 m., 12.08.2009, Sarat Misra 2510 (Holotype: CAL)

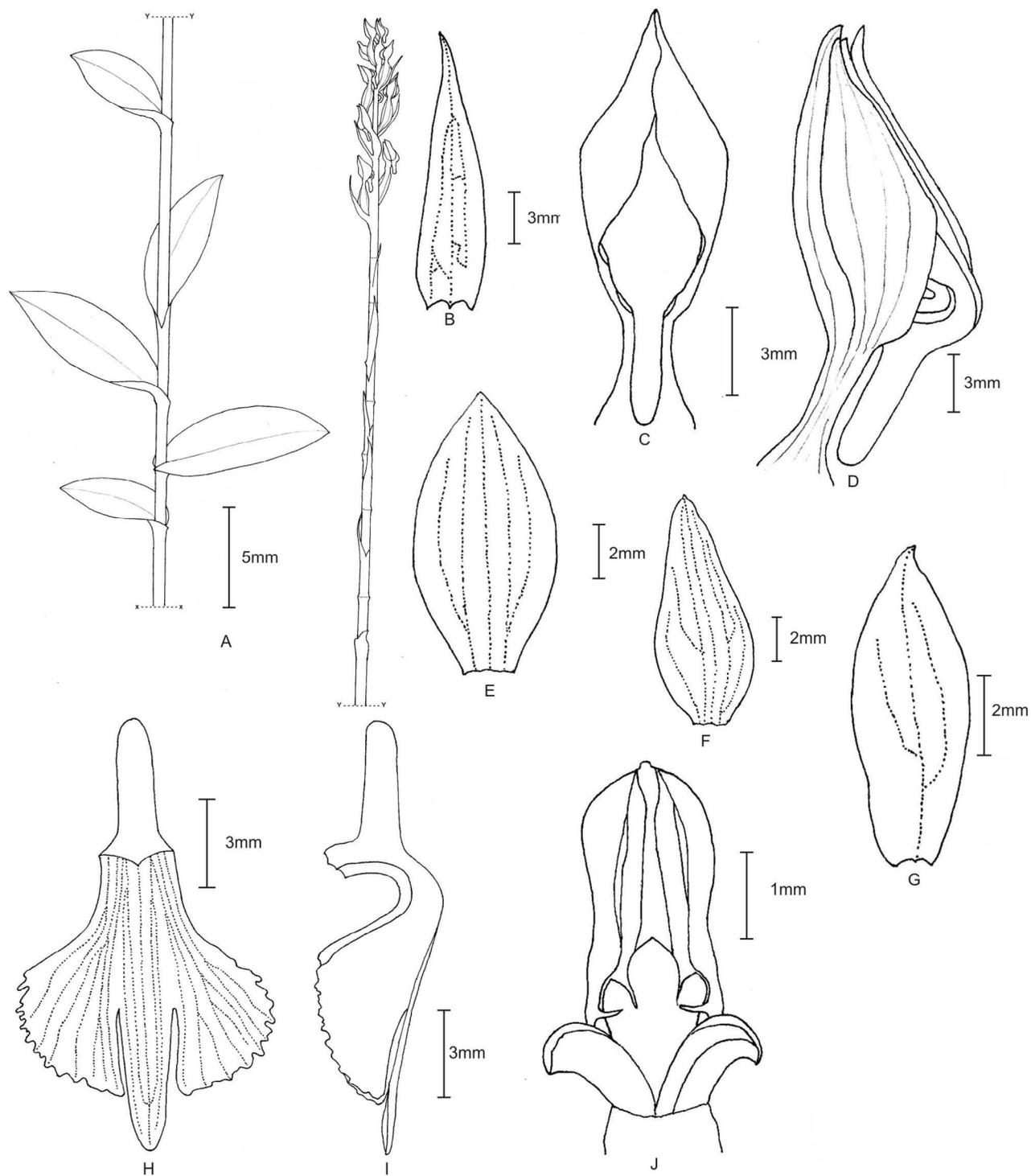


Fig. 1. *Odisha cleistantha* S. Misra subsp. *flabellate* **A.** habit, **B.** floral bract, **C**&**D.** flowers, front and lateral views, **E.** dorsal sepal, **F.** lateral sepal, **G.** petal, **H.** labellum, spread out, seen from top, **I.** labellum lateral view, **J.** column with anther, stigma & rostellum in position (After S. Misra 2510; drawn by S. Misra)

Diagnostic character : *Odisha cleistantha* S. Misra subsp. *flabellata* S. Misra is differentiated from its typical subspecies *cleistantha* by the presence of a longer raceme; a flabelliform labellum, outer margins of its lateral lobes crenulate; spur distinctly elongate; the stigma lobes diverged from the very base and decurved on their apices.

Scattered terrestrial tuberoid herbs growing up to 50 cm long. Stem terete, 6 mm thick, leafy with 5 leaves spirally and laxly arranged on the stem. Leaves sessile, elliptic-lanceolate, acuminate, 60-90 × 20-30 mm, with fine translucent margins; base amplexicaul-sheathed, non-articulate. Inflorescence terminal, erect, c. 40 cm long; peduncle terete, glabrous, with 5 tightly clasping, narrow-lanceolate, apiculate, sterile bracts; raceme c. 105 mm long, with spirally, closely arranged flowers. Floral bracts green, lanceolate-acuminate, 3-veined, 20-25 × 4-5 mm. Pedicel very short, stout; ovary obliquely fusiform, c. 20 × 5-6 mm, rather large for the size of the flower, strongly ribbed, abruptly beaked. Flowers verdant green, inodorous, perianth not opening, 15-18 mm long, spurred. Sepals and petals thick, mid-vein strongly ridged on the back. Dorsal sepal elliptic-lanceolate, acute, 3-veined, upper part clasped by the apices of the lateral sepals, c. 10.5 × 5.5 mm; lateral sepals narrowly ovate-lanceolate, mucronate, upper half slightly oblique, 3-veined, c. 10.5 × 4.5 mm. Petals erect, elliptic-lanceolate, apex slightly falcate, 1-veined. Lip erect, apical half enclosed by the

lateral sepals, flabellate in outline when spread out, blade c. 10 × 9 mm, base of lip well projecting below the base of lateral sepals in a loop, spurred, 3-lobed; lateral lobes erect, obliquely flabellate, outer margins crenulate, 3-veined; mid-lobe oblong, narrowed to and rounded at apex, c. 5 × 1.2 mm; spur greenish white, held close to the beak of the ovary, elongate, 5-7 mm long, cylindrical, rounded at apex.

Column short, erect, slightly expanded on apical half, c. 4 × 1.5 mm. Stigma at base of the column, basally joined, lobes diverged, apically decurved, waxy white, c. 1.5 × 0.6 mm. Rostellum erect, elongate, 3-lobed apically; the lobes free, ± elliptic-lanceolate; lateral lobes short, not connected with the anther, apices simple; mid-lobe slightly curved inside. Anther firmly fused with the top of the column, 2-loculed; locules well separated, elongate, longitudinally 2-chambered by a membranous septum, without basal projections. Pollinia not observed. Auricles immediately below the anther base, reduced to filiform hooks, c. 3 mm long.

Habitat: Tropical moist deciduous forest, in partly open situation, on a sloping ground, with rocky-loamy soil.

Flowering: October – November.

Distribution: In the type locality only.

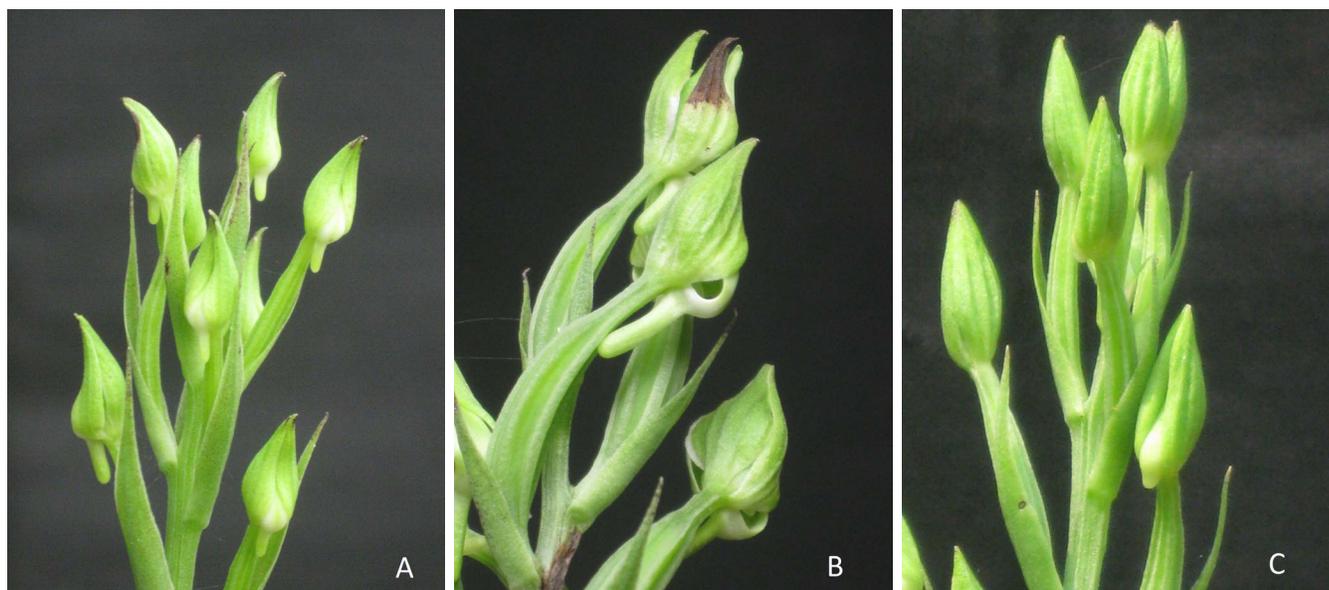


Plate 1. A. *Odisha cleistantha* S. Misra subsp. *flabellata*, raceme showing flowers with long spurs, **B.** closeup view of flowers of the same, **C.** *Odisha cleistantha* S. Misra subsp. *cleistantha*, raceme showing flowers with reduced spurs.

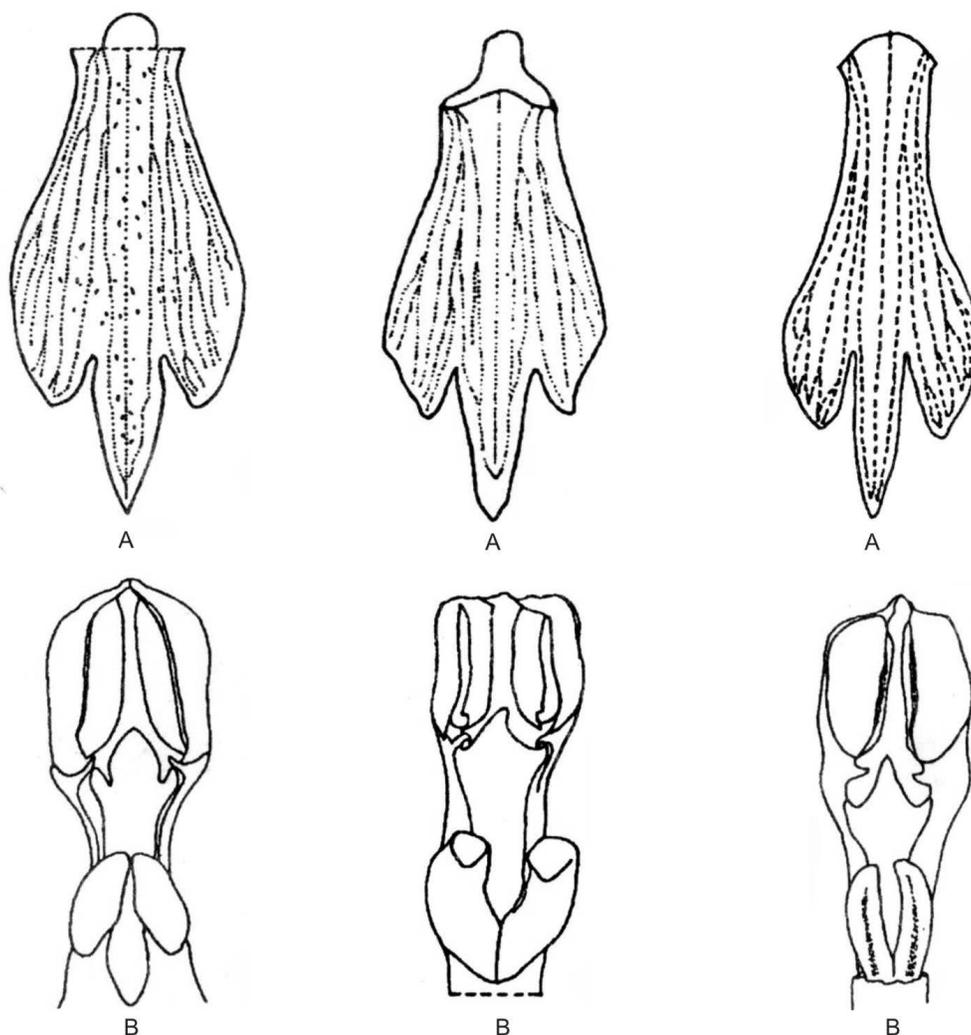


Fig. 2. *Odisha cleistantha* S. Misra subsp. *cleistantha*. Morphological variation in the labellum and stigma lobes in different biotypes from Odisha state. A. labellum, B. stigma lobes on column (After SM 890, SM 1378 & SM 2434; drawn by S. Misra).

TAXONOMIC NOTE

The subspecies *flabellatuam* has floral features similar to the subspecies *cleistantha*. In the former taxon, the raceme is longer; the labellum at its base is very prominently projected below the bases of the lateral sepals in a loop, distinctly spurred; spur elongate, 5-7 mm long; the lamina has a flabellate outline, the lateral lobes are obliquely flabellate, its outer margins crenulate, the mid-lobe narrowly oblong, narrowing to apex; stigma lobes are divergent from the very base and apically decurved. In the subspecies *cleistantha*, in contrast, the raceme is short; the labellum is “well projected below the bases of the lateral sepals, trough-shaped, or shortly but deeply saccate, laterally flattened

(Misra 2004: 233)” or “shortly spurred; spur squarish, laterally compressed, with a broad, rounded apex, c. 1.6 × 1.6 mm (Misra 2007: 253)”; the lamina has a narrowly ovate-lanceolate outline; the lateral lobes obliquely ovate-lanceolate, its margins entire; the mid-lobe narrowly lanceolate, acute to acuminate; stigma lobes are ± parallel to each other. (Fig. 2)

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