



## NOTE

## *Liparis atosanguinea* Ridl. (Orchidaceae), a New Orchid Addition to India from Andaman & Nicobar Islands

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**ABSTRACT:** *Liparis atosanguinea* is reported here as a new record for the orchid flora of India. This rare terrestrial orchid is collected from the inland evergreen forests of Andaman & Nicobar Islands. A detailed description along with identification key and photographs are provided.

**KEY WORDS:** Andaman & Nicobar Islands, *Liparis*, Orchidaceae, new addition.

### INTRODUCTION

*Liparis* L. C. Rich. is a large, widespread genus of terrestrial and epiphytic plants with the estimates ranging from 250 – 350 species worldwide (Comber, 1990; Seidenfaden and Wood, 1992). In India this genus is represented fairly well with 45 species including 17 endemics, with highest diversity in the Himalayan region (Sathish Kumar and Manilal, 1994). In Andaman & Nicobar Islands (A & N Islands), this genus is very poorly represented so far with a single species *L. elegans* Lindl. (Jayanthi *et al.*, 2006). During the floristic inventorisation of A & N Islands a terrestrial species of *Liparis* was collected from the damp, shaded, hilly slopes of inland evergreen forests. The species showed remarkable difference from all the other known terrestrial orchids occurring in the Islands. Critical study of the specimen and survey of the available literature revealed that the species is *Liparis atosanguinea* Ridl. This species is so far known to occur in Thailand, Vietnam, Peninsular Malaysia, Sumatra and Borneo (Comber, 2001). The present collection of this beautiful orchid forms a new record to the flora of India. A detailed description along with photographs, ecological notes and a dichotomous key to the species of *Liparis* occurring in A & N Islands are provided.

### TAXONOMIC TREATMENTS

#### Key to the species of *Liparis* in Andaman & Nicobar Islands

- 1a. Plants epiphytic; leaves jointed at base; lip oblong, under 3 mm across.....*L. elegans*

- 1b. Plants terrestrial; leaves not jointed at base; lip broadly obovate, over 1 cm across ..... *L. atosanguinea*

*Liparis atosanguinea* Ridl. J. Str. Br. Roy. As. Soc. 39: 71, 1903; Seidenfaden & Wood in Orchids of Penin. Malaysia & Singapore 231. 1992; Seidenfaden in Orchids of Indochina 130. 1992; Comber in Orchids of Sumatra 140. 2001 Fig. 1 & 2

Terrestrial herbs, 20-30 cm high. Pseudobulbs narrowly conical, 5-8 × 0.8 cm, covered with membranous sheaths. Leaves 3-4, narrow to broadly elliptic, 8-16 × 3.5-7 cm, acuminate at apex, entire, unequal at base, narrowed to a sheathing base, 6-nerved; nerves converging at apex. Scape 5-angled, 3.5-9 cm long, winged at angles, wings 0.5-0.8 mm wide. Rachis 10-15 cm long, 5-angled, up to 12-flowered, winged at angles. Floral bracts narrowly lanceolate, 2-3 × 1-2 mm, acute at apex with a blunt tip, entire along margin. Flowers c. 2 cm across, dark purple – maroon, laxly arranged; pedicel with ovary 1.5-1.8 cm long, dark purple, strongly angled. Dorsal sepal oblong – lanceolate, 10-12 × 2.5-3 mm, bluntly acute at apex, entire, prominently 3-nerved. Lateral sepals obliquely lanceolate, 10-12 × 3-3.5 mm, bluntly acute at apex, entire, 4-nerved, the 4th nerve running halfway towards the apex. Petals linear, 11-13 × 1 mm, blunt at apex, entire at margin, 1-nerved. Lip obovate – obcordate, 10-12 × 12-14 mm, emarginate at apex, with a shallow rounded or flat sinus between the lobules, margin deeply erose up to 1/2 the length of lip towards apex, basal half with entire margin, narrowed at base with prominent callus on either side of median which is connected together by an obscure transverse band at the base. Column arcuate, c. 5 × 0.8 mm, widest at the



Fig. 1. *Liparis atrosanguinea* Ridl. (Photo)

anterior half, slightly flattened towards base; anther c.  $1 \times 1$  mm; operculum truncate at its front edge. Pollinia c.  $0.9 \times 0.4$  mm. Capsules oblongoid, c.  $1.5 \times 0.8$  cm, with remnants of column at the apex; fruiting pedicel c. 1.5 cm long.

Flower and fruit: May – July.

Distribution: India: Andaman & Nicobar Islands, Thailand, Vietnam, Peninsular Malaysia and Sumatra.

Specimens examined: India: North Andaman, Saddle Peak National Park, Hilly slopes of Inland evergreen forests, 12 June 2003, *Sumathi 18643* (PBL); Great Nicobar Island, Campbell Bay National Park, Inland evergreen forests of Mt. Thullier, 30 May 2002, *Jayanthi, Sumathi & Karthigeyan 19335* (PBL).

Ecology: In Andaman and Nicobar Islands it is rare and found growing on moist, hill slopes of Saddle Peak in North Andaman and Mt. Thullier in Great Nicobar Island at an altitude of 350 - 650 m. A few individuals were also noticed growing a few feet above the ground

on moss laden crevices of tree trunks.

Note: This species looks similar to that of genus *Malaxis* in vegetative condition, but it could be easily identified during flowering with its conspicuous purplish – maroon flowers. Seidenfaden (1992) denotes the flower colour as crimson – purple, whereas the Sumatran population described by Comber (2001) were said to be light green with a violet blotch in the centre or sometimes violet all over. In the A & N populations, the flowers are dark purple to maroon. Also, the lip differs in being obovate – obcordate and slightly broader than longer (up to  $1.2 \times 1.4$  cm), whereas in the Sumatran population the lip is described as broadly ovate which is longer than broader c.  $1.7 \times 1.3$  cm.

## ACKNOWLEDGEMENTS

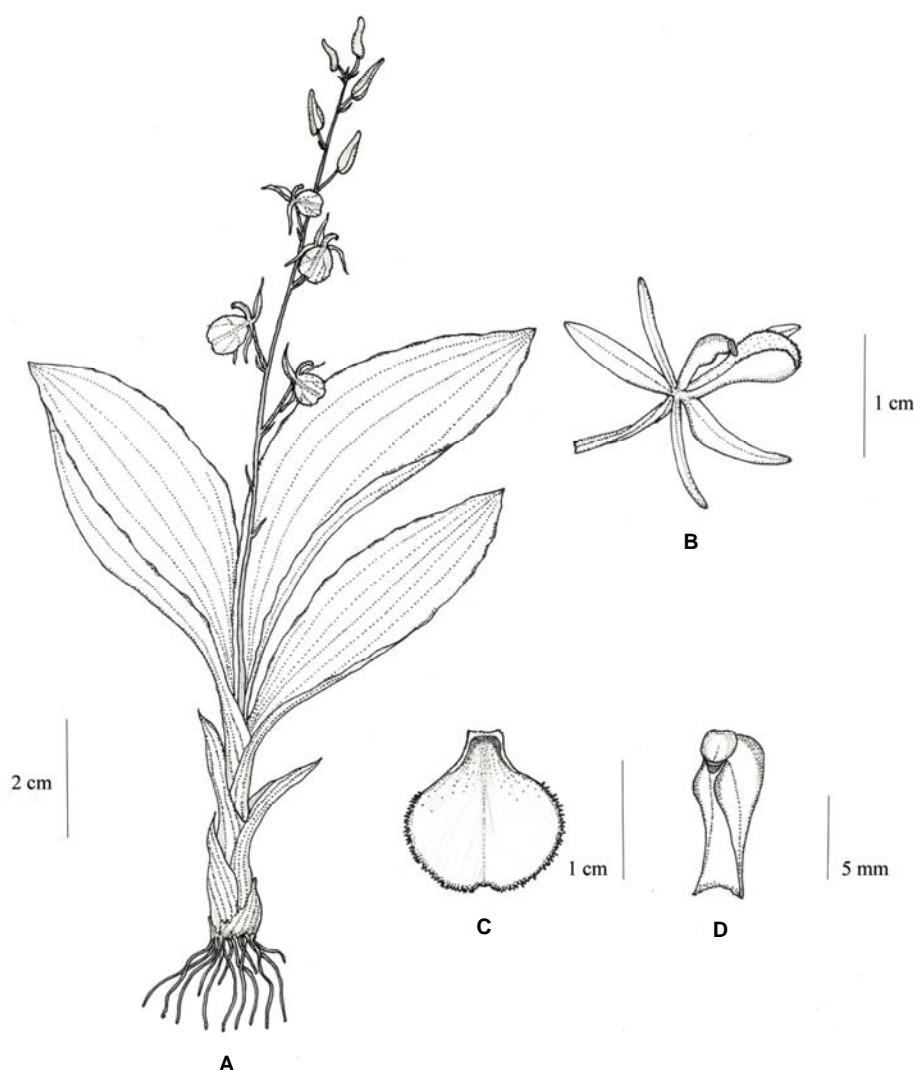


Fig. 2: *Liparis atrosanguinea* Ridl. A: Habit. B: Flower. C: Lip. D: Column.

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## LITERATURE CITED

- Comber, J. B.** 1990. Orchids of Java. The Bentam-Moxon Trust. Royal Botanic Gardens, Kew, England. pp. 128.
- Comber, J. B.** 2001. Orchids of Sumatra. Natural History Publications (Borneo) Sdn. Bhd, Malaysia. pp. 136-140.
- Jayanthi, J., R. Sumathi, K. Karthigeyan and P. V. Sreekumar.** 2006. *Liparis elegans* Lindl. (Orchidaceae) – A New Report to India from Great Nicobar Biosphere Reserve. J. Econ. Tax. Bot. **30**: 195-197.
- Sathish Kumar, C. and K. S. Manilal.** 1994. A Catalogue of Indian Orchids. Bishen Singh Mahendra Pal Singh, Dehra Dun, India. pp. 39-79.
- Seidenfaden, G. and J. J. Wood.** 1992. The Orchids of Peninsular Malaysia and Singapore. Olsen & Olsen, Fredensborg, Denmark. pp. 226-231.



## 印度安達曼-尼科巴群島蘭科植物的補註 – *Liparis atrosanguinea* Ridl.

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摘要：本文報導印度一個蘭科植物的新紀錄 *Liparis atrosanguinea*。這種罕見的地生蘭花是安達曼 - 尼科巴群島內陸的常綠森林中所收集到的。文中提供該物種詳細說明、辨識檢索表以及照片。

關鍵詞：安達曼-尼古巴群島、羊耳蒜屬、蘭科、新見聞。