

A Note on the Occurrence and Distribution of *Dipcadi concanense* (Hyacinthaceae)

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दिपकादी कोणकेनेन्से (हियाकिन्थेसी) के वितरण एवं परिघटना पर टिप्पणी

समीर पाटिल

सारांश

प्रस्तुत शोध पत्र दिपकादी कोणकेनेन्से (डालजेल्ल) बेकर का महाराष्ट्र में वितरण का आंकलन किया गया है। सर्वेक्षण के दौरान जाति की तीन नवीन अवस्थितियों की भी पहचान की गई है।

ABSTRACT

The paper assess the distribution status of *Dipcadi concanense* (Dalzell) Baker in Maharashtra. During the field survey three new localities of the species have also been identified.

Keywords: *Dipcadi*, Maharashtra, distribution status

INTRODUCTION

Medikus in 1790 described the genus *Dipcadi* (Hyacinthaceae: Ornithogaloideae) from *Hyacinthus* Tourn. on the basis of *Hyacinthus serotinus* L. collected from Spain. He distinguished it on the basis of tubular, erect perianth lobes and numerous flat seeds. *Dipcadi* with c. 30 species is distributed in the Mediterranean region, Africa and Southeast Asia (Mabberley, 1997; Manning & al., 2009). In India, the genus is represented by nine species including four varieties (Deb & Dasgupta, 1981), of which six species and three varieties are found in Maharashtra state (Lakshminarasimhan, 1996), inhabiting lateritic plateaus and table-lands.

Dipcadi concanense (Dalzell) Baker is a very distinct species and can easily be distinguished from other species

by its 3 to 4 cm long flowers and styles more than half the length of flower. It was first reported by Dalzell in 1850 as *Uropetalum concanense* from Malwan, Bombay. Later, Baker in 1871 treated it to *Dipcadi concanense*. Stocks & Law (without date) also reported the species from Malabar-Konkan. The species was never collected after that hence was considered to be possibly extinct in wild (Nayar & Sastry, 1987; Walter & Gillett, 1998; Mishra & Singh, 2001; Rao & al., 2003). However, after 123 years, i.e., in 1985, this plant was re-collected from Shivaji Nagar in Ratnagiri city, where several individuals were growing in a fenced, fallow, rocky plot (Mistry & Almeida, 1989). This was the only last known report of this species.

(Plate 1.)

Field surveys were conducted to assess the current status of *D. concanense* in Maharashtra, especially in Konkan

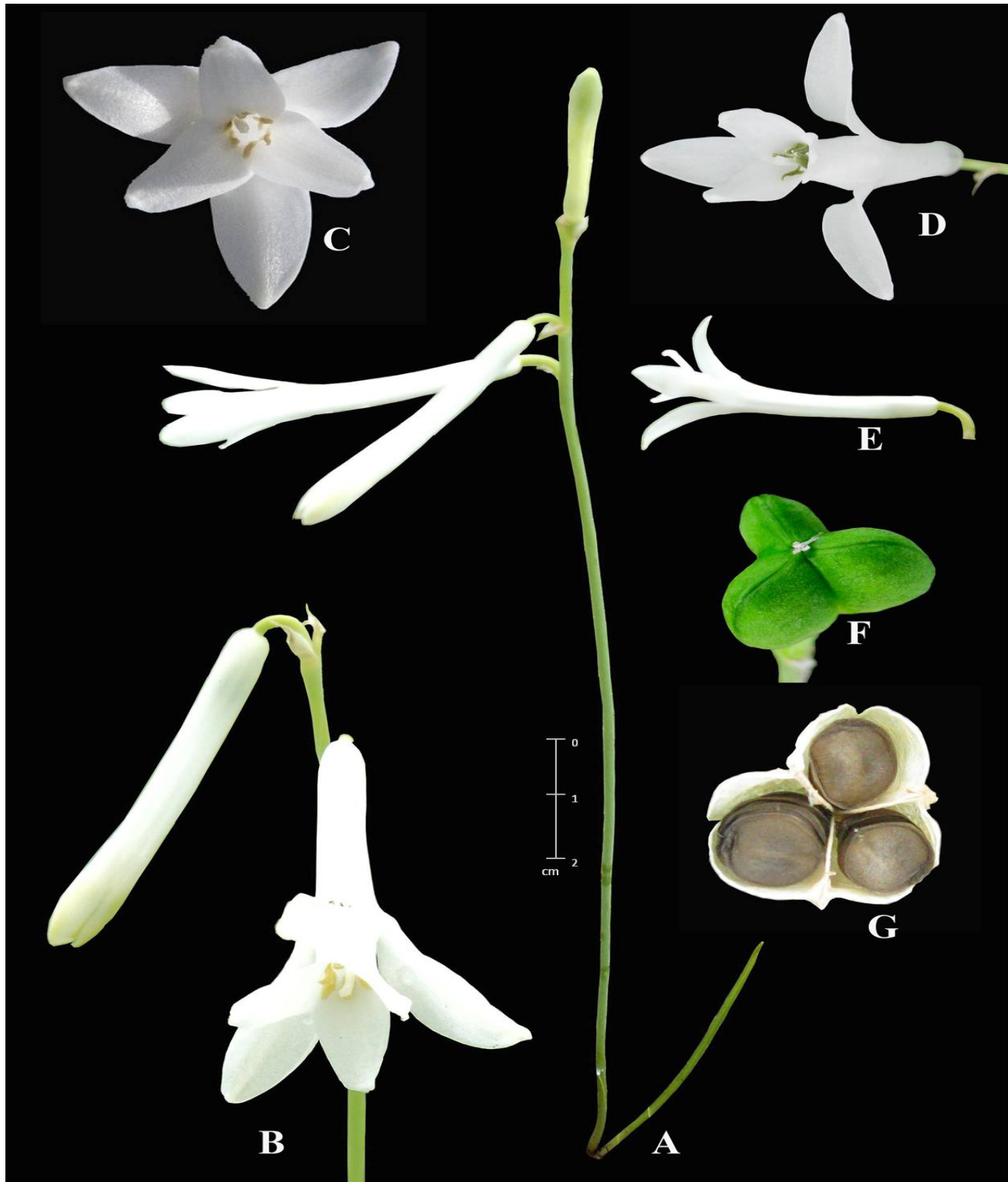


Plate -1: *Dipcadi concanense* (Dalzell) Baker - A. Habit, B. Inflorescence, C. Perianth, D. Flower lateral view, E. Perianth tube, F. Immature fruit, and G. Mature fruit with seeds.

region, keeping track of the similar type of habitats from where the species was reported earlier. Alarming, there was no individual existing in any of the earlier reported localities. However, surprisingly three new localities of the species with healthy population (of c. 100 individuals in each) were unveiled from Ratnagiri and Sindhudurg districts of Maharashtra, viz. Kasarde, opposite Punjabi Dhaba, 388 milestone on Mumbai-Goa Highway (16°25'49.4" N 73°40'62.5" E), Kudal, Nehrunagar, near Konkan Railway line (16°02'31.5" N 73°40'26.5" E) and Rajapur, Deulwadi, off Salgaon-Devachegothane Road (16°38'28.9" N 73°24'74.4" E). Hitherto the species has been reported from six different locations and all of them from Konkan region, which shows its strict endemism to the area.

Dipcadi concanense is restricted to shallow depression type of microhabitats on low-level laterites of Konkan plains at elevations between 50 and 200 m (Watve, 2013). It is commonly found associated with species of *Eriocaulon*, *Neanotis*, *Rotala*, *Utricularia*. Except for its previous known localities, the species flourishes in its microhabitat, but due to some factors it remained unnoticed from collectors. The first and the foremost is its short flowering period, as it is nearly untraceable among grasses while in vegetative condition. The individuals last only for three months and the best period to observe its appearance is from mid July to mid August. The second factor is its restriction to specific habitat type, which at present is experiencing intense pressure due to various developmental activities. Infrastructure development, mango farming, manganese mining, along with it cattle grazing and digging out of edible and medicinal bulbs have led to permanent extinction of its localities. Conservation of this sporadically distributed populations is therefore of immediate concern. Though the species is somewhat locally frequent in a very few localities of Sindhudurg and Ratnagiri districts, it has been categorised as threatened due to its localised distribution and loss of its natural habitats.

Another misconception about the plant is that it is found in Kas plateau. The recent report of this species from Kas reservoir (Pawar & Sonawane, 2012) may be based on an erroneous identification, since the species is restricted to low level ferricrete lateritic rock plateau, which is a peculiar type of habitat found only in Konkan region below 200 m of elevation (Watve, 2013); further the previous report of the species is only from Sindhudurg and Ratnagiri districts of Maharashtra state (Mishra

& Singh, 2001), and the newly reported sites are also from the two districts. Kas Plateau is made of high level ferricrete rock and is situated at an elevation of c. 1200 m in Satara district, which restricts the possibility of presence of the species in Kas Reservoir plateau.

Dipcadi with nine species in India (Deb & Dasgupta, 1981) exhibits more than 50% endemism to Maharashtra. However, the habitat of almost all these endemics are perpetually exposed to developmental activities leading to permanent extinction of type localities of all the four species, viz. *D. concanense*, *D. maharashtrensis*, *D. minor* and *D. saxorum* (Mishra & Singh, 2001; Rao & al., 2003). Nevertheless, *D. concanense* is standing tall against all the threats, but this may not be very easily possible in other cases. Further since the human activities are increasing everyday and the lateritic plateaus are diminishing day by day it is not too far that *D. concanense* is also prone to revert to its earlier 'extinct' status. Conservation of this scanty population is therefore of immediate concern.

Specimens examined : INDIA, Maharashtra, Bombay, *s. die*, Dalzell *s.n.* (K, image!); Malbar-Konkan, *s. die*, Stocks & Law *s.n.* (CAL); Ratnagiri district, Rajapur, 25.08.2013, Sameer Patil 200677 (BSI); Sindhudurg district, Kasarde, 25.07.2012, Sameer Patil 200676 (BSI).

ACKNOWLEDGEMENTS

I am thankful to Dr. P. Singh, Director, Botanical Survey of India, Kolkata and Dr. P. Lakshminarasimhan, Scientist In-charge, Botanical Survey of India, Pune for facilities and encouragement. I also thank Dr. W. Arisdason, Scientist 'C', Botanical Survey of India, Kolkata, for critically going through the paper.

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