



***Burmannia championii* Thwaites (Dioscoreales: Burmanniaceae), a new addition to the flora of Karnataka**

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Burmannia championii Thwaites is a small, white, filamentous, saprophytic herb belonging to the family Burmanniaceae. This has been recorded in an evergreen forest patch at Kathalekan near Jog Falls of Uttara Kannada (North Canara) District and at Karani of Shimoga District. Both the localities are in the central Western Ghats region in Karnataka. The voucher specimen of the collection has been deposited at the herbarium of Regional Medical Research Centre (ICMR), Belgaum (RMRC 00506) (Image 1). The identification has been confirmed by comparing with the authentic specimens housed at Madras Herbarium (MH), Botanical Survey of India, Southern Circle, Coimbatore.

The family Burmanniaceae is represented by 17 genera and 125 species (Hajra 1988). They are distributed in the tropics and sub tropics of both hemispheres. In India, it is represented by two genera (*Burmannia* and *Haplothismia*) and 10 species. The genus *Burmannia* comprises about 57 species (Shu 2010) distributed in tropics of both hemispheres, southern United States, southern Brazil, Bolivia, Mozambique, southern China, Southeast Asia, Japan and southern Australia. Nine species of *Burmannia* have been reported from India, of which three are endemic.

B. championii was reported earlier from Sri Lanka, Malayan peninsula, southern China and Japan (Hajra 1988). It was reported from Taiwan recently by Hsieh & Ohashi (2000). Trimén & Hooker (1984) mentioned this plant as endemic to Sri Lanka and reported it to be rare in moist low lands. In India, *B. championii* is recorded only from Andaman and Nicobar Islands (Balakrishnan 1976) and Kerala (Joseph et al. 1980). This report of the plant from Karnataka is after a gap of 30 years since its report from Kerala. The report gains importance as Balakrishnan et al. (1983) reported *B. championii* to be endangered in the Indian subcontinent.

The plant was observed in September 2008, as undergrowth in a swampy relic forest called *Myristica swamp* in Kathalekan (Uttara Kannada District) with a population of several individuals. It was growing amongst decaying litter and wet soil in the swamp and adjoining areas. The plant appeared as a small herb with terminal capitate inflorescence. The same plant was observed during the same field visit at Karani area of Shimoga District in an evergreen forest patch dominated by the trees of *Poeciloneuron indicum* Bedd. The detailed description of the plant with photographs (Images 2-5) are provided to enable its easy identification.

***Burmannia championii* Thw.**

Enum. Pl. Zeyl. 325. 1864; Hook. f., Fl. Brit. India 5: 666.1890; Jonker *I.c.* 38; Balakrishnan in Bull. Bot. Surv. India. 18(1-4): 230-231. 1976; Joseph, Ansari et Mohanan in Journ. Bombay Nat. Hist. Soc. 76: 552-553. 1980.

Specimens examined: 19.ix.2008, Kathalekan,

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Image 1. Herbarium sheet of *Burmattia championii* with accession number RMRC 00506.

Uttara Kannada District, Karnataka, India, coll. Divakar K. Mesta, Harsha V. Hegde and Vinayak Upadhyay, 506 (RMRC); 14.x.1979, Madampatty forest, Palghat District, Kerala, India, coll. N.C. Nair, 126012 (MH).

It is a saprophytic herb with underground tuber of about 1cm long and 0.6cm diameter. Stem 7-15 cm high and 1mm in diameter, simple, slender, white. Scales 2-4 mm long, lanciolate, spirally arranged; basal scales shorter. Bracts 3-4 mm long, acute. Inflorescence terminal, capitate or sub-capitate, 2-7-flowered. Flowers bisexual, tubular, wingless; up to 1.2cm long, white. Outer perianth lobe up to 3mm, erect, acute; inner perianth lobe 1.5mm long, minutely pubescent. Anthers sessile, halfway down the tube. Ovary to 3mm, oblong-ovoid; style thick, filiform; stigma 3-lobed, funnel shaped.

Flowering and fruiting: July-September, in the present localities (Kathalekan and Karani) these plants were in flower during September.

The family Burmanniaceae in general and *B. championii* in particular, are less studied as evidenced by the scanty literature. Hsieh & Ohashi (2000) worked

on SEM of the pollens from the Taiwan specimen. In the similar work, Chakrapani & Raj (1971) reported the pollen morphology of 19 species of *Burmattia*, including *B. championii*. The phylogeny and evolution of Burmanniaceae was reported by Merckx et al. (2006) based on nuclear and mitochondrial data. However, they did not consider *B. championii* in their study. There are no reports either on chemical constituents or medicinal uses of *B. championii*. Even though, *B. coelestis* is reported to be used medicinally by Santals in India (Hajra 1988); details are not available. Hence avenues are open to work further on this species.

In addition to the earlier report on distribution of the plant in India, our report gives its further extension to the north of Kerala, forming a new addition to the flora of Karnataka. It also throws light on possible likelihood of its occurrence elsewhere in the evergreen forests of Western Ghats.

Note: During late monsoon, several individuals of *B. championii* shoot up from the subterranean tubers, especially in the wet, littered forest floor. The note on the MH herbarium sheet also indicates it as 'most common'. Even though it is a common herb in the ground layer of evergreen forests, it may have lost the attention of botanists due to its appearance like fungal fruiting body and its short life span.

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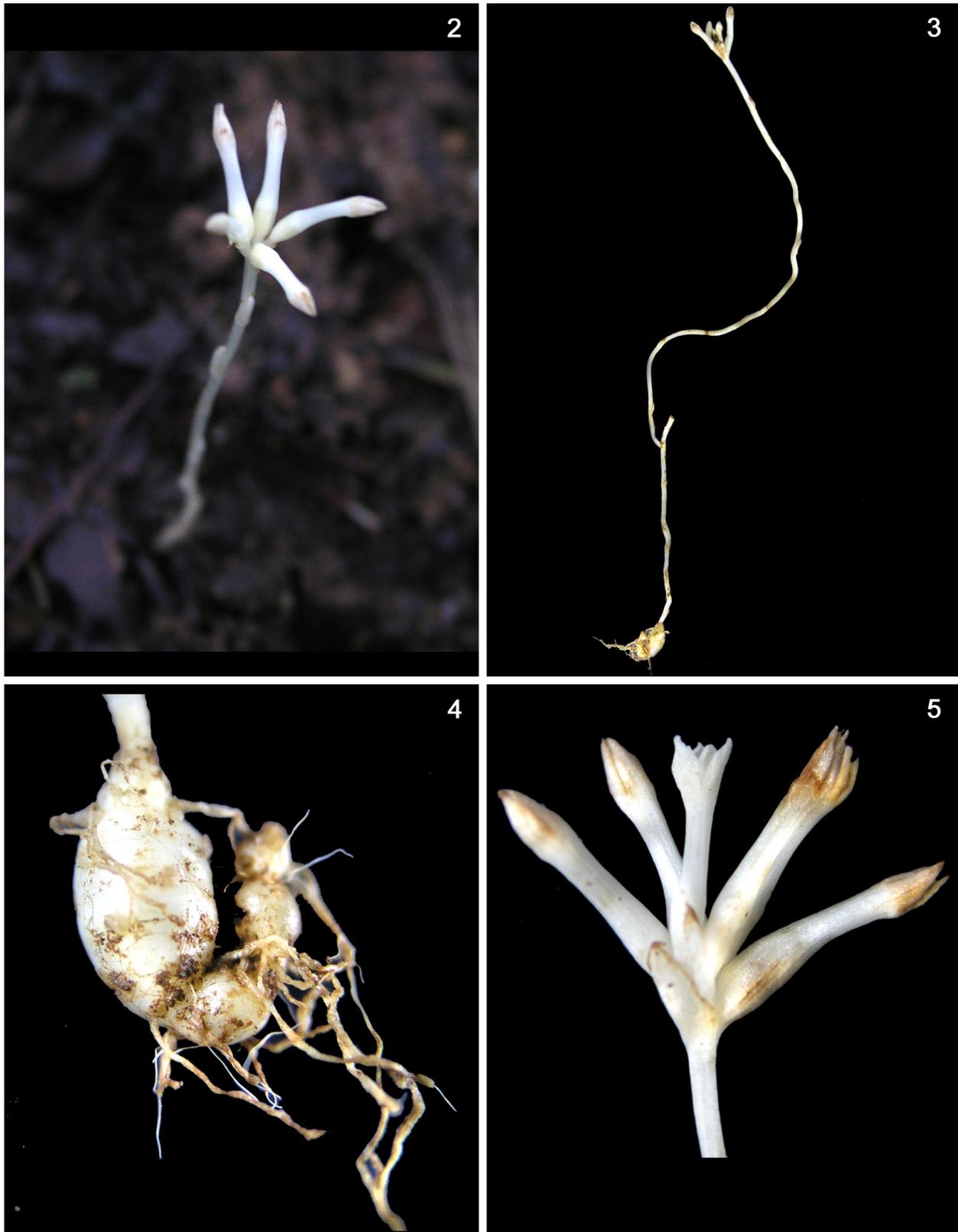


Image 2-5. *Burmannia championii* Thw.
2 - Habit; 3 - Plant with intact tuber; 4 - Tuber; 5 - Inflorescence

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