

## ***Primula kingii* G. Watt (Primulaceae) – a new record for West Bengal, India**

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[Received Revised 07.10.2012; Accepted 10.10.2012]

### **Abstract**

*Primula kingii* G. Watt (Primulaceae) has been reported here for the first time from the State of West Bengal, India. Also, it is the recollection of the species from the Indian territory nearly after a century. A detailed taxonomic description along with photographs is provided for its easy recognition. The species was found growing in a very small patch on marshy and confined area of Jorpokhari of Neora Valley National Park in Kalimpong Sub-Division of Darjeeling District of West Bengal at an altitude of 3400 m.

**Key words:** *Primula kingii*, Neora Valley, West Bengal, New record

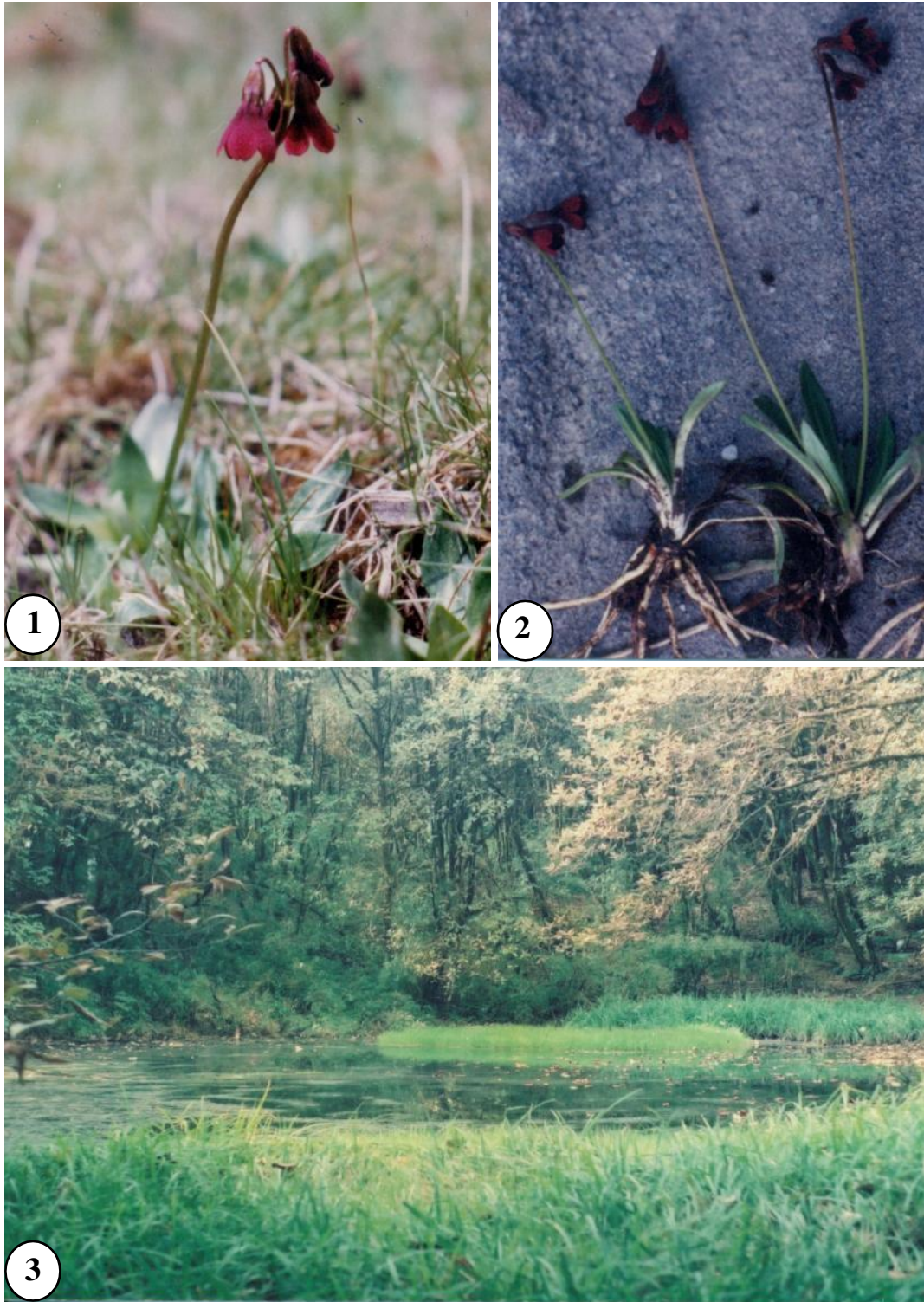
### **INTRODUCTION**

*Primula kingii* G. Watt (Primulaceae), in India, is recognized long time back by Watt (1882) and Hooker (1882) from some places of Sikkim such as Gnathang, Joluk, Kupup, Nathula and Sherathang within an altitudinal range of 3500 – 4265 m a.m.s.l. Leaving this apart, there was no any recent record of this species from any part of the country. This is one highly attractive species with its dark brownish-red flowers.

Recently, Grierson & Long (1999) explored the flora of Bhutan and recorded this species from Ha, Bumthang and Sakden Districts of Bhutan. They also reported it from Yatung and Rinchengang of Chumbi Valley of Tibetan Autonomous Region (TAR). Excepting this, there is no any reference of distribution of this species in any part of the globe.

I.B. Balfour & W.W. Smith recognized *Primula gageana* in 1915 from Sikkim, which is turned to be the superfluous name for *P. kingii*. The species is strictly endemic to a small region of Eastern Himalaya.

In 1994, while floristically exploring the Neora Valley National Park in the Darjeeling district of West Bengal, authors came across this attractive species growing confined in marshy and swampy ground of Jorpokhari Lake just below the Rechila peak. Being confined and very small population structure, only few specimens were collected for further study and processing. After thorough literature and herbarium perusal, its identity was ascertained to *Primula kingii* Watt. While identifying and matching the specimen at CAL, authors also came across few landmark herbarium sheets of the species from the then erstwhile Royal Kingdom of Sikkim (Na-tong) being collected long time back by Sir J.D. Hooker during his mammoth exploration



**PLATE I:** *Primula kingii* G. Wight: **Fig. 1.** Flowering plant in the habitat; **Fig. 2.** Bunch of rigid roots; **Fig. 3.** The habitat - 'Jorepokri; in Neora Valley National Park at 3040 m.

of flora of British-India. The fresh collection of this species after such a long time by these authors further confirms its rediscovery, and also the extended distribution from Tibet, Sikkim to West Bengal. Further, this communication contributes to the addition of one more endemic and rare species to the flora of the Indian state of West Bengal.

The species needs to be treated as a 'Critically Endangered' plant.

### TAXONOMIC TREATMENT

*Primula kingii* G. Watt, J. Linn. Soc. 20: 9. 1881 (mss.; 1884); Fl. Brit. India 3: 491. 1882; Fl. Bhutan 2(2): 538. 1999. *Primula gageana* I.B. Balfour & W.W. Smith, Not. Bot. Gar. Edinb. 9: 18. 1915.

Small marshy herb with a rigid root-stock, 8 – 13 cm high, glabrous. Leaves radical; lamina 6.5 – 9 x 1 – 1.7 cm, elliptic-lanceolate, thick, entire or obscurely crenulate, acute, base broad and sheathing, membranous, midrib thick, pale when dry. Scapes 5 – 10 cm long, 2 – 4 flowered. Bracts subulate. Pedicels upto 1 cm long, puberulous. Flowers 1 – 1.6 x 0.5 – 1.4 cm, bell-shaped, attractive; calyx narrowly campanulate, 5-partite, puberulous; corolla funnel-shaped, dark brownish red, obscurely 5-lobed, puberulous outside, lobes retuse; ovary globose with a 5-lobed crown.

**Flowering:** September – October

**Exsiccatae:** West Bengal: Jorpokhari of Neora Valley National Park, 3040 m, *PC Rai & AP Das 0797 & 1180*; dated 20.10.1994. [**PLATE I, Figs. 1 - 3**]

**Status:** Extremely rare. This part of the globe has been aptly explored botanically many times since the period of Clarke (1867, 1885). Hooker (1872–1897), Gamble (1875), Prain (1903), Cowan & Cowan (1929) also explored this region. In recent past too many botanists including Hara (1966, 1971), Biswas (1966), Matthew (1969, 1981), Ohasi (1975), Guha (1983), Bhujel (1996), Majumdar *et al* (1984), Pradhan & Rai (1983–85), Das (1986, 1995, 2004), Rai (2002), U. Rai (2006), and Ghosh (2006) have explored this area but none reported the existence of this species in the State of West Bengal. The perusal of literature and our field assessment in the field ascertained that the occurrence of this species is very rare, endemic to Darjeeling, Sikkim, Bhutan and Tibet Autonomous Region, and a new record as well to the flora of West Bengal.

**Local Distribution:** Found only at Jorpokhari. 3040 m.

**Distribution:** INDIA (Darjeeling Hills in West Bengal, Sikkim); BHUTAN; TAR (Yatung and Rinchengang of Chumbi Valley).

### Acknowledgements

The authors are grateful to the Vice Chancellor of EILM Sikkim University and Head of the Department of Botany, North Bengal University, for research support and the laboratory facilities. The authors are thankful to the Department of Forest, Government of West Bengal for financial assistance. NESPON, Siliguri is duly acknowledged for assisting in field works. Thanks are also due to the Director, Botanical Survey of India for Library and Herbarium facilities.

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