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NOTE

ON THE DISCOVERY OF *DIMERIA HOHENACKERI* (POACEAE) FROM THE ANDAMAN ISLANDS, A HITHERTO KNOWN ENDEMIC AND ENDANGERED GRASS SPECIES OF SOUTHWESTERN PENINSULAR INDIA

Mudavath Chennakesavulu Naik, Midigesi Anil Kumar & Boyina Ravi Prasad Rao

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During the floristic explorations held from 2013 to 2015, as a part of the Department of Biotechnology sponsored research project in Rutland Island, southern Andamans, we collected some curious grass specimens. After critical study, we identified it as *Dimeria hohenackeri* Hochst ex Miq., which is so far known as an endemic species of peninsular India distributed in Kerala, Karnataka and Maharashtra. Perusal of the literature pertaining to the flora of the Andaman & Nicobar Islands (Pandey & Diwakar 2008; Prasad et al. 2009) revealed that this species has not been recorded from the region and hence forms a new distribution record for the Andaman Islands. Discovery of the species in the Andaman Islands carries phylogeographical significance as it was so far known to be distributed only in mainland India. The species also has conservation significance as it is listed as 'Endangered' by the IUCN Red List (Watve 2011). Updated nomenclature, description and distribution along with photographs are provided. Representative specimens are deposited in S.K. University Herbarium (SKU). Abbreviations used for collectors are: BR (for B. Ravi Prasad Rao) and MCN (for M. Chennakesavulu Naik).

Taxonomic Treatment: *Dimeria* R.Br. (Poaceae) is represented by about 65 species (Teerwatananon et al. 2014) and is adapted to arid habitats from India to China, Korea, Indonesia, Micronesia, and northern Australia and to Sri Lanka and Madagascar (Bor 1953; Clayton et al. 2006 onwards; Raj et al. 2015), indicating the region as a centre of speciation. Over 50% of the species (34

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out of 65) are endemic to peninsular India (Raj et al. 2015); 14 species were reported from Southeast Asia; 14 species from Indo-China, Malaysia and China (Camus & Camus 1922; Chen & Phillips 2006).

Dimeria hohenackeri

Hochst ex Miq. In Verth., Ned. Inst. 3, 4: 35. 1851; Hook.f., Fl. Brit. India 7: 103. 1896; Fisch. in Gamble, Fl. Pres. Madras 1713 1934; Bor, Kew Bull. 7(4): 570. 1953; Bor, Grass, Burma, Ceylon, India and Pakistan 142. 1960; B.D. Sharma et al. Fl. Karnataka Analysis 327, 1984; B.G. Kulk., Fl. Sindhudurg 522. 1988; Karthikeyan et al. Fl. Ind. Enum. Mono. 210. 1989; Almeida, Fl. Sawantwadi 2: 124. 1990; Sreekumar & Nair, Fl. Kerala-Grasses. 90. 1991; Lakshminarasimhan in Sharma et al. Fl. Maharashtra Monocot. 468. 1996; Bhat & Nagendran, Sedges and Grass. 269. 2001; Yadav & Sardesai, Fl. Kolhapur 576. 2002 (Images 1 & 2).

Specimens examined: 48932 (SKU), 21.vii.2014,

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Image 1. *Dimeria hohenackeri*: Floral parts

A - Ligule; B - Raceme; C - Rachis; D - Spikelet; E - Lower glume; F - Upper glume; G - Lemma; H - Palea; I - Anther; J - Gynoecium; K - Caryopsis.

11°27'02.72"N & 92°38'32.67"E, 326m, Rutland Island, South Andaman Islands, India, coll. B. Ravi Prasad Rao and M. Chennakesavulu Naik.

Annuals. Culms up to 30–40 cm high, erect; nodes sparsely villous. Leaf sheath rounded; up to 4.5×0.5 cm, glabrous; ligule a membranous rim, ca. 1mm long, fimbriate at apex. Leaf blade linear-lanceolate, up to 8×0.4 cm, rounded at base, acuminate at apex, sparsely covered with tubercle-based hairs on both surfaces.

Racemes 2 or rarely 3, digitate; each up to 6cm long; rachis trigonous; slender; ca. 0.3mm wide. Spikelets strongly compressed, linear-lanceolate, ca. 3.3×1 mm, parallel to the rachis, awned, shortly pedicelled; pedicels ca. 0.3–0.5 mm long. Callus short, hairy; hairs ca. 0.3mm long. Lower florets barren, epaleate. Upper florets fertile, hermaphrodite. Lower glumes of fertile florets linear-lanceolate, ca. 3.1×1 mm; acute at apex, chartaceous, 1-nerved. Upper glumes oblong-

lanceolate, ca. 3.3×1.8 mm; margin hyaline, ciliate along margins, acute to acuminate at apex, chartaceous, 1-nerved; hairy on back; hairs ca 0.5–3 mm long. Upper lemma oblong, ca. 2.8×1 mm, notched at apex, awned in sinus, delicate, hyaline, 1-nerved; lobes acute at apex; awn up to 12mm long, geniculate, scabrid, ca. 3.5mm long; column glabrous. Stamens 2; anthers ca. 1mm long, yellow. Ovary oblong; stigma ca. 1.2mm long, yellowish-white. Caryopsis oblong; 1.9mm long, reddish-brown.

Flowering & fruiting: September–December.

Habitat: Found along rocky hill slopes; rare.

Distribution: India—peninsular India, and the Andaman Islands.

References

- Bor, N.L. (1953).** Notes on Asiatic grasses XI. The genus *Dimeria* R. Br. in India and Burma. *Kew Bulletin* 1952(7): 553–592.
- Camus, E.G. & A. Camus (1922).** Graminees, pp. 202–650. In: Lecomte, H. & H. Humbert (eds.). *Flore Generale de L'Indo-Chine*, 7. Masson, Paris.
- Chen, S.L. & S.M. Phillips (2006).** *Dimeria*, pp. 614–616. In: Zhengyi, W., P.H. Raven & D.Y. Hong (eds.). *Flora of China*, 22. Science Press, Beijing and Peoples Republic of China and Missouri Botanical Garden Press, St. Louis, Missouri.
- Clayton, W.D., M.S. Vorontsova, K.T. Harman & H. Williamson (2006 Onwards).** Grassbase - *The Online World Grass Flora*. Retrieved on 2 March 2015.
- Pandey, R.P. & P.G. Diwakar (2008).** An integrated check-list Flora of Andaman & Nicobar Islands, India. *Journal of Economic and Taxonomic Botany* 32: 403–500.
- Prasad, P.R.C., C.S. Reddy, R.K.V. Lakshmi, P.V. Kumari & S.H. Raza (2009).** Angiosperms of North Andaman, Andaman and Nicobar Islands, India. *Check List* 5(2): 254–269.
- Raj, M.S.K., M. Sivadasan, A.H. Alfarhan, & J.F. Veldkamp (2015).** *Dimeria raviana* (Poaceae: Panicoideae), a new species from south Western Ghats, India. *Phytotaxa* 195: 193–196.
- Teerawatananon, A., V. Boontia, B. Chantarasuwan, T.R. Hodkinson & S. Sungkaew (2014).** A taxonomic revision of the genus *Dimeria* (Poaceae: Panicoideae) in Thailand. *Phytotaxa* 186: 137–147.
- Watve, A. (2011).** *Dimeria hohenackeri*. The IUCN Red List of Threatened Species 2011: e.T177100A7362500. <http://dx.doi.org/10.2305/IUCN.UK.2011-1.RLTS.T177100A7362500.en>. Downloaded on 17 December 2016.

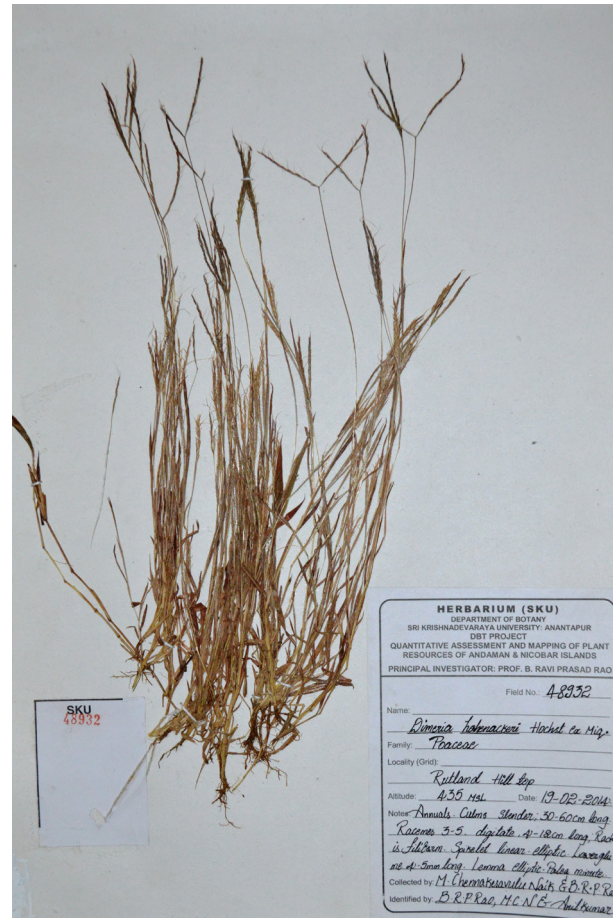


Image 2. Herbarium image of *Dimeria hohenackeri*.



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