Aeginetia indica L. var. alba Santapau (Orobanchaceae) and Scutellaria discolor Colebr. (Lamiaceae): New additions to the flora of Garhwal Himalaya, Uttarakhand

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Received: 04.09.2018; Revised: 13.09.2018 Accepted:10.10.2018
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Abstract: Updation of the floristic inventories at the regional scale through new discoveries and new distributional records is a necessary prerequisite to assess the conservation status of plant species. The present account communicates new distributional record of Aeginetia indica L. var. alba Santapau (Orobanchaceae) and Scutellaria discolor Colebr. (Lamiaceae) from Garhwal Himalaya. A brief description based on field characters, phenology, local distribution and figures has been provided for easy identification

Keywords: Flora • New additions • Mandakini alley • Garhwal

Introduction

Garhwal is part of the Western Himalayan phytogeographic zone of India (Hooker, 1904; Chatterjee, 1962) and is one of the two administrative divisions of Uttarakhand state. The breathtaking snow capped mountain peaks of world repute, emporium of bio- resources, places of aesthetic values, socio-cultural diversity, famous Hindu pilgrimage places, etc., define the significance of this landscape within Indian Himalayan Region (IHR). This biodiversity rich area has been extensively explored by a number of workers since long past to document its biotic wealth. Some of the significant floristic contributions particularly from Garhwal region are associated with Kanjilal (1928), Raizada and Saxena (1978), Semwal and Gaur (1981), Kala and Gaur (1982), Sharma and Gaur (1983), Naithani (1984, 1985), Wadhw et al. (1987), Gaur (1987, 1999), Negi et al. (1988), Samant (1993), Uniwal and Rao (1993), Hajra and Balodi (1995), Kala et al. (1998), Rawat et al. (2001), Singh and Prakash (2002), Pusalkar and Singh (2012), Tiwari et al. (2015), Rawat et al. (2016a) and Kumar et al. (2016). Updation of the floristic inventories at the regional scale through new discoveries and new distributional records is a necessary prerequisite to assess the conservation status of plant species. Thorough collection, identification and documentation of plants from any smaller ecoregion is an essential step that evaluates the total

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biodiversity wealth of the district, state and country (Singh, 2016; Rawat et al., 2016b). During the course of floristic exploration in the Garhwal Himalaya (Uttarakhand state, India), the authors came across several notable plant species with their extended distribution including Aquilegia nivalis (Baker) Falc. ex B.D. Jacks. (Ranunculaceae), Arenaria curvifolia Majumdar (Caryophyllaceae), Dendrobiun moniliforme (L.) Sw. (Orchidaceae), Dipcadi serotinum (L.) Medik. (Asparagaceae), Dicranostigma lactucoides Hook.f. & Thomson (Papaveraceae), Doronicum falconeri C.B. Clarke ex Hook.f. (Asteraceae), Exacum paucisquamum (C.B. Clarke) Klack. (Gentianaceae), Goodyera viridiflora (Blume) Blume (Orchidaceae), Gentiana seginoides Burkhill (Gentianaceae), G. tetrasepala Biswas (Gentianaceae), Sarcopyramis napolensis Wall. (Melastomaceae), Tetrastigma affine (Gagnep. ex Osmanst) Raizada & H.O. Saxena (Vitaceae), etc. (Rawat and Rana, 2007; Rawat et al., 2009, 2016c, 2016d; Rana et al., 2011, Rana and Rawat, 2012; Rawat et al., 2016a; Tiwari et al., 2015a, 2015b, 2016a, 2016b).

During recent floristic explorations as stated above the authors have spotted some populations of Aeginertia indica L. var. alba Santapau (Orobanchaceae) and Scutellaria discolor Colebr. (Lamiaceae) in the Manakini valley, Rudraprayag, Garhwal Himalaya. These taxa, hitherto known to occur in Kumaon Division (Uniyal et al., 2007) of Uttarakhand Himalaya, is reported here as new additions for Garhwal Himalayan flora. The voucher specimens are deposited and maintained at the Herbarium of Department of Botany, HNB Garhwal University, Srinagar (Garhwal), Uttarakhand (GUH).

**Observation**

**Aeginertia indica** L. var. **alba** Santapau, Kew Bull. 3: 491–492. 1948. [family: Orobanchaceae]

Herbs, leafless, parasite on roots; stem subterranean with suckers. Scape solitary or branched at base, glabrous, 15–20 cm long. Flowers solitary, emerging from axils of bracts, 2.7–9 cm long, pale white. Calyx spathaceous, ca. 4 cm long. Corolla tubular–campanulate, ca. 3 cm across, incurved; lobes spreading, subequal, suborbicular. Stamens 4, included. Ovary 1-celled. Style slender; stigma pale yellow. Capsule conical–globose, sub 2-valved, 1.7–3 cm long. Seeds ellipsoid, yellowish-white. (Fig 1).

**Flowering and fruiting:** September–November.

**Ecology:** Grows in shady habitats or in rock crevices; three populations each with ca. 13–15 individuals were observed during the present study (1000–1300 m).

**Status:** Aeginertia indica var. alba has not yet been assessed for the IUCN Red List but the occurrence of the taxon is ‘rare’ in the Garhwal Himalaya.

**Distribution:** Maharashtra and Uttarakhand [Kumaon and Garhwal (present study)].

**Figure 1 Aeginertia indica** L. var. **alba** Santapau

**Specimen examined:** Uttarakhand, Garhwal Himalaya, Mandakini valley, Guptkashi, 09.09. 2007, C.S. Rana 19592 (GUH!).

**Scutellaria discolor** Colebr

**Distribution:** Arunachal Pradesh, Himachal Pradesh, Sikkim and Uttarakhand [Kumaon and Garhwal (present study)].

**Specimen examined:** Uttarakhand, Garhwal Himalaya, Mandakini valley, Kamera, 09.09.2007 C.S. Rana 19593 (GUH!).

**Acknowledgement**

The authors are grateful to Prof. R.D. Gaur (Retd.), Department of Botany and Microbiology, HNB Garhwal University for his continuous support and encouragement. CSR is thankful to the colleagues at Dabur Research and Development Centre (DRDC), Dabur India Limited for their support time to time. We also thank to Dr. R.M. Painuli, Museum Curator, Herbarium of Department of Botany (GUH), H.N.B Garhwal University for his co-operation.

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