

The genus *Drepanolejeunea* (Marchantiophyta: Lejeuneaceae) in India with a note on three new additions from Eastern Himalaya

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Abstract: Diversity of the genus *Drepanolejeunea* (Spruce) Schiffn. in India has been reviewed and three species, viz. *D. longii* Grolle & R.L.Zhu, *D. siamensis* (Bischl.) Grolle & R.L.Zhu and *D. tibetana* (P.C.Wu & J.S.Lou) Grolle & R.L.Zhu, are recorded for the first time in Indian bryoflora from Eastern Himalaya. A key to the Indian species of the genus has been provided and the newly recorded taxa have been described and illustrated.

Keywords: *Drepanolejeunea*, India, New Additions, Eastern Himalaya.

Introduction

The genus *Drepanolejeunea* (Spruce) Schiffn. is represented in the Indian bryoflora by 13 species distributed in Eastern Himalaya, the Western Ghats and the Andaman & Nicobar Islands (Udar & Awasthi 1982, 1984, Grolle & Zhu 2000, Zhu & So 2001, Singh et al. 2006, Singh & Nath 2007, Asthana & Shukla 2009, Dey & Singh 2010). The studies on the genus in India dates back to Mitten (1861), who reported *Lejeunea angustifolia* Mitt. [= *Drepanolejeunea angustifolia* (Mitt.) Grolle] and *Lejeunea pulla* Mitt. [= *Drepanolejeunea pulla* (Mitt.) Grolle] from Sikkim in Eastern Himalaya. Stephani (1899) described *Leptolejeunea erecta* Steph. [= *Drepanolejeunea erecta* (Steph.) Mizut.] from Darjeeling in Eastern Himalaya. Herzog (1950) described *Strepsilejeunea ocellata* Herzog [= *Drepanolejeunea herzogii* R.L.Zhu & M.L.So] from Darjeeling. Pandé et al. (1957) described *Drepanolejeunea foliicola* Horik. from Rimbic near Darjeeling. Hattori (1966) recorded *D. erecta* from Sikkim. Udar and Awasthi (1982) revised the genus in India and described five species and one variety. These are *D. angustifolia* (from Sikkim in Eastern Himalaya and Tamil Nadu in Western Ghats), *D. erecta* (from Darjeeling, Meghalaya and Sikkim in Eastern Himalaya), *D. pulla* (from Sikkim in Eastern Himalaya), *D. ternatensis* (Gottsche) Steph. and *D. ternatensis* var. *lancispina* Herzog (= *D. ternatensis*) (from Tamil Nadu in Western Ghats) and *D.*

vesiculosa (Mitt.) Steph. (from Meghalaya in Eastern Himalaya). Later they (Udar & Awasthi, 1984) described *Rhaphidolejeunea yunnanensis* P.C.Chen [= *Drepanolejeunea yunnanensis* (P.C.Chen) Grolle & R.L.Zhu] from Arunachal Pradesh and West Bengal in Eastern Himalaya and Karnataka in Western Ghats. Grolle and Zhu (2000) recorded *Drepanolejeunea spicata* (Steph.) Grolle & R.L.Zhu from Assam in Eastern Himalaya. Singh and Nath (2007) described two new species from Meghalaya in Eastern Himalaya, viz. *Drepanolejeunea longifolia* A.P.Singh & V.Nath and *Drepanolejeunea mawtmiana* A.P.Singh & V.Nath. Recently Asthana and Shukla (2009) recorded two more species from India, viz. *Drepanolejeunea pentadactyla* (Mont.) Steph. and *Drepanolejeunea fleischeri* (Steph.) Grolle & R.L.Zhu from Karnataka in Western Ghats. Later Dey and Singh (2010) recorded *D. fleischeri* from Arunachal Pradesh and West Bengal in Eastern Himalaya as well.

The ongoing studies on the liverworts of Eastern Himalaya revealed three more species of the genus, hitherto unknown in Indian bryoflora. These are *D. longii* Grolle & R.L.Zhu, *D. siamensis* (Bischl.) Grolle & R.L.Zhu and *D. tibetana* (P.C.Wu & J.S.Lou) Grolle & R.L.Zhu. Of these, *D. longii*, so far known from Bhutan and Nepal (Grolle & Zhu 1999, Zhu & Long 2003), was recorded from Barsey Rhododendron Sanctuary and *D. siamensis*, earlier known from Thailand and Kampuchea (Bischler