



***Leptolejeunea epiphylla* (Lejeuneaceae):
 An addition to the Western Ghats**

During a bryophyte survey, *Leptolejeunea epiphylla* was collected at Mundanthurai and Palode in the Western Ghats, India. In both localities it was found to inhabit the leaves of *Arenga wightii* Griff., an endemic, understorey palm, commonly seen in evergreen and riparian forests of the southern Western Ghats. This record is an addition to the liverwort flora (especially to the epiphyllous flora) of the Indian mainland because in India, this species was so far known only from the Andaman and Nicobar Islands. It is one among the 11 species of *Leptolejeunea* (Spruce) Schiffn. so far known to occur in India (Dey & Singh, 2010). The species is briefly described and illustrated, and its distribution is mapped.

Leptolejeunea epiphylla (Mitt.) Steph., *Sp. Hepat.* 5: 380. 1913 (Fig. 1)

Lejeunea epiphylla Mitt., *J. Proc. Linn. Soc., Bot.* 5: 118. 1861. Type: Ceylon, Padacumbra, s.d., Gardner 1495 (NY).

Plants dioicous, 7–12 mm long, pale green. **Stems** prostrate, irregularly 2-pinnately branched, 0.06–0.07 mm in cross section, with 7 cortical cells surrounding 3 smaller medullary ones. **Leaves** obliquely to transversely spreading, 0.4–0.48 × 0.24–0.32 mm, oblong-ovate, subsymmetric, obtuse to broadly acuminate at apex; cells quadrate-hexagonal, with minute trigones and distinct intermediate thickenings which are often nodular; apical and median cells 20–30 × 16–20 µm; basal ones 30–40 × 20–24 µm; ocelli 4–6 per leaf, seriate to scattered; apical ones 20–24 × 16–20 µm; basal ones 50–60 × 30–40 µm; lobules 80–120 × 60–80 µm, oblong, obliquely ascending, with a hyaline papilla at the apex or base at inner side of second tooth. **Underleaves** distant, ca. 0.2 × 0.3 mm, 3–4 × as broad as stem, deeply 2-lobed,

with a basal disc; lobes wide-spreading, 4 or 5 cells long, uniseriate, roughly quadrate at base, with a tuft of hyaline rhizoids in middle. **Perianth** not seen.

Habitat: Folicolous, on *Arenga wightii* Griff. (Arecaceae), an endemic, understorey palm commonly seen in the evergreen and riparian forests of South Western Ghats, 150–250 m.

Distribution: Africa, China, Indonesia, Japan, New Caledonia, the Philippines, Sri Lanka, Thailand and India: Andaman & Nicobar Isl. and Western Ghats of Kerala (Thiruvananthapuram) and Tamil Nadu (Tirunelveli), rare.

Specimens examined: Western Ghats, Tamil Nadu, Tirunelveli Dist., Mundanthurai, Ullar, ca 250 m, 15 Feb 2011, K.C. Kariyappa 5979; Kerala, Thiruvananthapuram Dist., Palode, JNTBGRI, ca 150 m, 7 Dec 2011, K.C. Kariyappa 6145(SCCN).

Acknowledgements

We thank the Tamil Nadu State Forest Department and the Director (JNTBGRI) for permission to explore the study area and the campus, respectively, and the Principal, Scott Christian College, for facilities.

Literature cited

Dey, M. and D.K. Singh 2010. Two new epiphyllous *Leptolejeunea* (Hepaticae: *Lejeuneaceae*) from Eastern Himalaya, India. *Taiwania*, 55: 355–362.

Submitted: 21 April 2014, *Accepted:* 14 Oct. 2014
 Sectional Editor: William R. Buck

K.C. Kariyappa¹ & A.E.D. Daniels^{1,2}

¹ Bryology Laboratory, Department of Botany & Research Centre, Scott Christian College, Nagercoil 629003, Tamil Nadu, India

² E-mail: dulipdaniels@yahoo.co.uk

PLATE 7

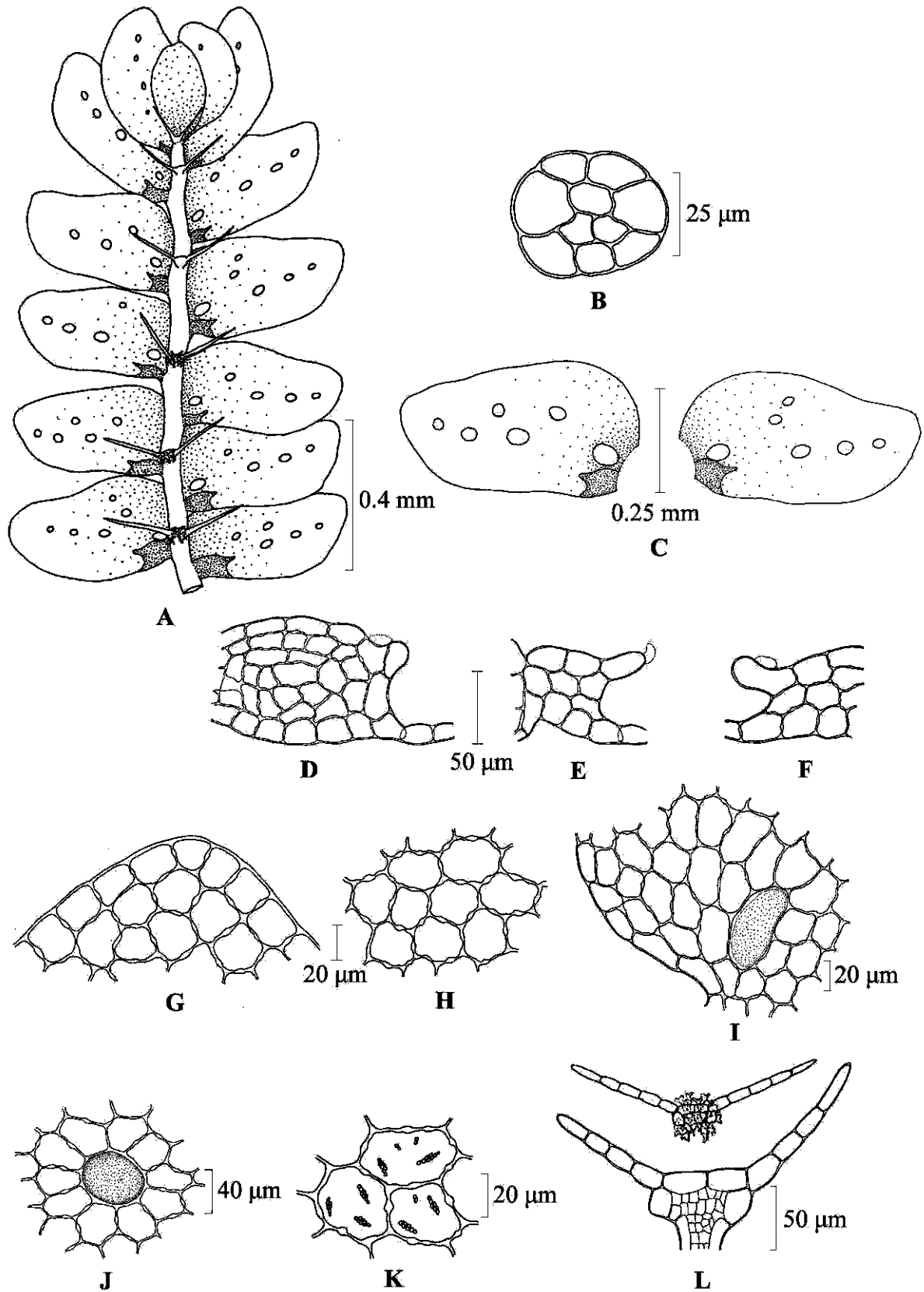


Figure 1: *Leptolejeunea epiphylla* (Mitt.) Steph., from Western Ghats (K.C. Kariyappa 5979): (A) plant, (B) cross section of stem, (C) leaves, (D–F) leaf lobules, (G) leaf apical cells, (H) leaf median cells, (I) leaf basal cells, (J) ocellus, (K) oil bodies, and (L) underleaves.