

VALIDATION OF LEIOSPOROCEROTACEAE (ANTHOCEROTOPHYTA)

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Anthoceros dussii Steph., a species described from Martinique in the Lesser Antilles (Stephani 1893), was later found to be widely distributed, though scattered, in the neotropics including Mexico, the West Indies and Ecuador (Gradstein 2001). Systematically it proved to be a highly isolated taxon, and Hässel de Menéndez (1986) established the monotypic genus *Leiosporoceros* Hässel to accommodate it. At the same time she placed this genus in the separate family Leiosporocerotaceae and then in the monotypic order Leiosporocerotales (Hässel de Menéndez 1988).

Subsequent cladistic (Hyvönen & Piippo 1993) and molecular (Duff *et al.* 2004, 2007) studies led to the conclusion that *Leiosporoceros* occupies the most basal position amongst the hornworts, and consequently it was placed almost simultaneously in the separate class Leiosporocerotopsida by Stotler and Crandal-Stotler (2005) and Frey and Stech (2005), the first two authors publishing this name only two months earlier and thus having priority. This taxonomic concept has gained wide acceptance, and currently the monotypic class, order and family accommodating the genus *Leiosporoceros* is firmly rooted in the recent classifications of the Anthocerotophyta (Renzaglia *et al.* 2008; Frey & Stech 2009). The only problem in this sequence of supra-generic taxa based on *Leiosporoceros* is that the family Leiosporocerotaceae is invalidly published. When establishing this family, Hässel de Menéndez (1986) proposed a combined generic-familial description. Such a case is not covered by the current Code because Art. 42.1 of it allows only the publication of a combined generic and specific description. On the other hand, according to Art. 34.1(d) 'a name

is not validly published by the mere mention of the subordinate taxa included in the taxon concerned' (McNeill *et al.* 2006). Therefore the family is herein described separately, in Latin, to fulfil the requirements of the ICBN. An analogical case arose with *Pseudoditrichum mirabile* Steere & Z. Iwats. when a new species, genus and family were simultaneously published (Steere & Iwatsuki 1974) and the family Pseudoditrichaceae Steere & Z. Iwats. had to be validated in a separate publication (Steere & Iwatsuki 1976).

Leiosporocerotaceae Hässel *ex* Ochyra, *fam. nov.*

Leiosporocerotaceae Hässel, J. Bryol. **14**: 255. 1986, *nom. inval.* [Art. 34.1(d)].

Ab aliis familiis Anthocerotophytorum thallis solidis rosulatisque marginibus lobatis in sectione transversali biconvexis, capsulis profunde sulcatis, stomatiferis, sporis ovoideis, pellucidis, laevibus laesuris unicis praeditis et pseudoelateribus aureis, longis, parietibus incrassatis distinguitur.

TYPE: *Leiosporoceros* Hässel.

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