

CATAGONIACEAE

(B.J. O'Shea)

A monotypic family (Buck & Ireland 1985) placed in the Leucodontales.

Catagonium Müll.Hal in Broth. (Fig. XX)

One species with two varieties in Africa: *C. nitens* var. *nitens* (Brid.) Cardot recorded from East Africa (Tanzania and Uganda), Swaziland and the Indian Ocean islands (Comores, Madagascar, Mauritius and Réunion), and *C. nitens* var. *maritimum* (Hook.) S.H.Lin recorded from South Africa (Cape, Natal and Transvaal) and Swaziland. A genus of four species with a circum-Antarctic distribution, extending into the mountainous tropics.

Plants small to medium sized, forming dense soft mats, yellowish-green to golden.

Primary stems short, creeping, secondary stems spreading or pendent, 4--15 cm long, irregularly branched, often bearing papillose rhizoids. **Leaves** complanate, appearing 2-ranked, ovate-oblong, conduplicate or deeply concave, 1.0--2.5 mm long, apex obtuse-rounded and short piliferous to mucronate, tips often reflexed, base slightly auriculate; margins plane, entire; costae variable, absent or short forked; median cells linear-vermicular, rather thick-walled, smooth; alar region undifferentiated. **Dioicous**. **Perichaetia** lateral. **Seta** to 2.5 mm long, smooth. **Capsule** inclined to nodding, oblong-cylindrical, 1.6--3.2 mm long, \pm asymmetric. **Operculum** short-rostrate. **Peristome** double, exostome teeth 16, cross-striate below, papillose distally; endostome lightly papillose, basal membrane high, segments 16, keeled and perforate, cilia 1-3. **Calyptra** cucullate, smooth and naked. **Spores** spherical, smooth to finely papillose.

HABITAT. Rocks, damp shaded cliffs, earth, or soil banks, rarely on tree trunks, decayed logs or tree bases; mostly from forests, 180--2200 m.

DISCUSSION. *Catagonium* is characterized by the soft glossy mats, leaves strongly complanate, 2-ranked and oblong-ovate with short piliferous to mucronate apices, subauriculate leaf bases and short, mostly forked or occasionally single costae. Sporophytes are rare. Given the rather fragile nature of the stems and leaves, reproduction is likely asexual via propagula. The two African species can be differentiated by the following: *C. nitens* var. *nitens* - leaves conduplicate and complanate, and leaf apices piliferous, and *C. nitens* var. *maritimum* - leaves concave and sometimes terete and leaf apices mucronate.

LITERATURE. **Buck, W. R & Ireland, R. R. 1985.** A reclassification of the Plagiotheciaceae. *Nova Hedwigia* 41: 89-125. **Lin, S.-H. 1984.** A taxonomic revision of Phyllogoniaceae (Bryopsida). Part II. *Journal of the Taiwan Museum* 37(2): 1-54 [keys, detailed descriptions, illustrations, maps].