

## ENDOCARPON

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*Endocarpon* Hedw., *Descr. Micr.-Anal. Musc. Frond.* 2: 56 (1789); from the Greek *endon* (within) and *karpus* (a fruit), in reference to the immersed perithecia of this genus.

Type: *E. pusillum* Hedw.

Thallus squamose. Squamae solitary, contiguous or imbricate, loosely or closely appressed, rounded to irregular, entire to deeply lobate, corticate above and (usually) below, attached to the substratum by rhizines, rhizohyphal mats or holdfast-like aggregates of rhizohyphae. Perithecia semi-immersed to (usually) immersed, without an involucrellum, containing minute globose-cuboid to bacilliform cells of the thalline algae. Asci 1 or 2-spored (–8-spored; not in Australia), thin-walled; apex not or only slightly thickened. Ascospores muriform, thin-walled, ±colourless to dark brown. Conidiomata pycnidia, immersed with a simple or convoluted conidiogenous layer. Conidia simple, bacilliform to filiform.

A genus of c. 70 species in arid to cool-temperate regions; very uncommon in the tropics. Twelve taxa are known in Australia, seven of which are apparently endemic; most inhabit sandy soils in arid and semi-arid regions where their ability to colonise large areas undoubtedly plays a significant role in soil conservation; also occasionally growing on rock or bryophytes, rarely on bark.

Some species of *Endocarpon* are rather similar to *Placidium* in outward appearance, distribution and ecology. However, the latter lacks hymenial algae and usually lacks rhizines, and the perithecia produce asci with eight simple colourless ascospores.

Sterile specimens are often very difficult, if not impossible, to identify.

P.M.McCarthy, The lichen genus *Endocarpon* Hedwig in Australia, *Lichenologist* 23: 27–52 (1991); H.Harada, A taxonomic study of the lichen genus *Endocarpon* (Verrucariaceae) in Japan, *Nova Hedwigia* 56: 335–353 (1993).