

PHYSMA

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Physma A.Massal., *Neagen. Lich.* 6 (1854); the name is probably from the Greek *physao* (to blow up, distend), and *-ma* (to indicate result of an action); in reference to the lobes which usually swell strongly when moistened.

Type: *P. boryanum* (Pers.) A.Massal.

Thallus foliose, leathery, gelatinous and swelling when wet, lacinate to lobate, spreading to pulvinate. Lobes elongate, oblong or flabellate; margins \pm thickened, entire, crenate or incised. Upper surface smooth, wrinkled or ridged, \pm pruinose, whitish, leaden grey, olivaceous, brown or blackening; cortical layer paraplectenchymatous, poorly developed or absent, sometimes replaced by anastomosing hyphae below. Medulla homoiomerous. Lower surface rhizinate, pale tan to black. Cyanobiont *Nostoc* scattered and often in dense packets below upper cortex, \pm surrounded by hyphae. Ascomata apothecial, lecanorine, \pm sessile; disc concave to flat, reddish brown; thalline exciple thick. Ascospores simple, ellipsoidal; irregular episporium \pm present. Conidiomata pycnidial, immersed; apices \pm emergent, spot-shaped or papilliform. Conidia rod-shaped.

Physma is principally a tropical genus, but a few species grow in temperate regions. About eleven species are recognised, but the genus is poorly understood and badly in need of revision. It is closely allied to *Ramalodium*, but can be distinguished from most species of that genus by the presence of a thalline exciple. *Ramalodium succulentum*, however, has immersed apothecia which sometimes appear to have a thalline exciple and may cause some confusion. Some *Physma* species can also be separated from *Ramalodium* by the presence of a well-developed cortical layer, but in other species this structure is either poorly developed or absent. Generic delimitation of the two genera needs further study.

A.Henssen, A review of the genera of the Collemataceae with simple spores (excluding *Physma*), *Lichenologist* 3: 29 (1965); A.Hue, *Physma*, *Bull. Soc. Linn. Normandie* 9(5): 119–138 (1906); E.A.Vainio, Lichenes Insularum Philippinarum 3, *Ann. Akad. Sci. Fenn. Ser. A* 15(6): 44–48 (1920).

1 Laminal and/or marginal white pruina present; rhizines whitish to tan

2. P. chilense

1: Pruina absent; rhizines black

2 Thallus isidiate

3. P. pseudoisidiatum

2: Thallus not isidiate

1. P. byrsaecum