

Siphula Fr.
(DEUTEROMYCOTINA)

After Thomson (1984), Purvis, and Degelius

Rev. 5/94

Thallus fruticose/lobate, upright or prostrate, attached to substrate by a \pm well developed "rooting system", with "roots" terete, dendroid, 0.5-1.5 cm long, simple to complexly branching, often crowded and forming turfy clumps or becoming almost coralloid, little branched, laterally flattened to \pm terete; margins entire or lacerate, often sinuous and with or without slight lateral thickening at apices, surface white, creamish, pinkish or greenish, solid, corticate; cortex paraplectenchymatous; medulla white, compact; hyphae \pm longitudinally aligned.

Ascocarps and pycnidia unknown. Various phenolic substances (para and metadepsides, dibenzofurans, and(or) chromones (e.g. siphulin), occasionally zeorin. Photobiont Trebouxia. On dry soils and arctic/alpine peats, or (in the Southern Hemisphere) also on acid, leached bark in temperate rainforests and wet alpine sites.

Poorly developed material of S. ceratites could be misidentified as Cladonia uncialis, which has a more yellowgreen thallus composed of hollow podetia which are dichotomously branched with pointed apices and open axils. Thamnolia differs in having pointed apices, hollow, extended branches, a \pm prostrate habit and a different chemistry.

1. Stalks digitately divided above, below with granular soredia; without true cortex. Thallus white to yellowish, matt, caespitose; podetia at base simple, white, subcompressed, substrate, towards tips branched (ca. 2 cm long) and botryose/aggregated; tips turgid or subcylindrical, 0.5-0.8 mm thick. On quartz rock. Thallus K+ yellow then red (norstictic acid). Thallus mostly filled out with lax medulla, in which the hyphae run longitudinal to the surface; medullary hyphae 24 μ m thick; walls within; algal layer fairly thick in younger parts, thinner in older; older parts of thallus with fairly numerous soredia; soredia variable in size, mostly 21.5-65 μ m diam. Algae 8.5(10.5) μ m diam. Younger parts of thallus covered by thin amorphous stratum. Alaska (St. Paul Island, St. Lawrence Island).

..... S. dactyliza

1. Stalks simple or irregularly to sparingly dichotomously

branched, without soredia, with a paraplectenchymatous cortex.

Stalks to 7 cm tall, 2 mm broad, forming compact tufts, scattered or ± continuous in extensive patches; ± cylindrical or somewhat flattened, solid, longitudinally plicate or furrowed, particularly towards a ± rooting base, ascending to ± erect, and swollen at the nodes; surface chalk white, pale gray or ivory, turning grayish or yellowish gray in herbarium, ± rugose or scabridpruinose, C+ violetyellowbrown (C according to Thomson), K+ yellow to yellowbrown or orangish, KC+ yelloworange to yellowbrown, P; medulla UV± violetglaucous or ± yellow, containing siphulin and siphulitol. On shallow peat or gravelly soil in cold seepages, sometimes under water, below permanent or nearly permanent snowbanks, or in seepages or beside pools, high arctic, southwest to British Columbia, southeast to Labrador. S. ceratites

Literature

Degelius, G. 19___. Lichens from Alaska and the Aleutian Islands. Medd. fran Goteborgs Botaniska Tradgard 12: ____.

Galloway, D. 1985. Flora of New Zealand Lichens.

Purvis, O. W. 1992. Siphula. In: Purvis, et al., Lichen Flora of Great Britain and Ireland.

Rogers, 19 . Genera of Australian Lichens.

Thomson, J. W. 1984. American Arctic Lichens I. The Macrolichens. Columbia University Press, New York.