# *Myriactula caespitosa* *Womersley* & Skinner

**A SPECIES WITH FEW RECORDS**

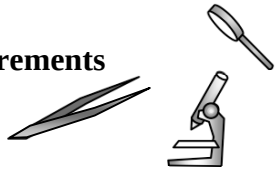
**34.130**

**Techniques needed and shape**


**Classification** Phylum: Phaeophyta; Order: Chordariales; Family: Leathesiaceae

***Descriptive name** slime tufts

**Features**
**Special requirements**



plants brown, of slimy tufts about 1mm tall on the brown alga *Scytosiphon*
tease out a slimy tuft from the host plant and view microscopically to find:

- basal layer of filaments that ***penetrate*** the host
- middle (medullary) layer, pinched where it exits the host made of ***slimy***, colourless, branched filaments
- outer (cortex) layer with slightly swollen, ***loose***, coloured, photosynthetic (assimilatory) filaments of determinate growth (about 20 cells long)
- colourless (phaeophycean) ***hairs*** that arise from the inner medullary filaments but extend well beyond the general plant body
- ***thin*** sporangia with many compartments in a single row (plurilocular sporangia), forming a ***definite layer*** in the cortex

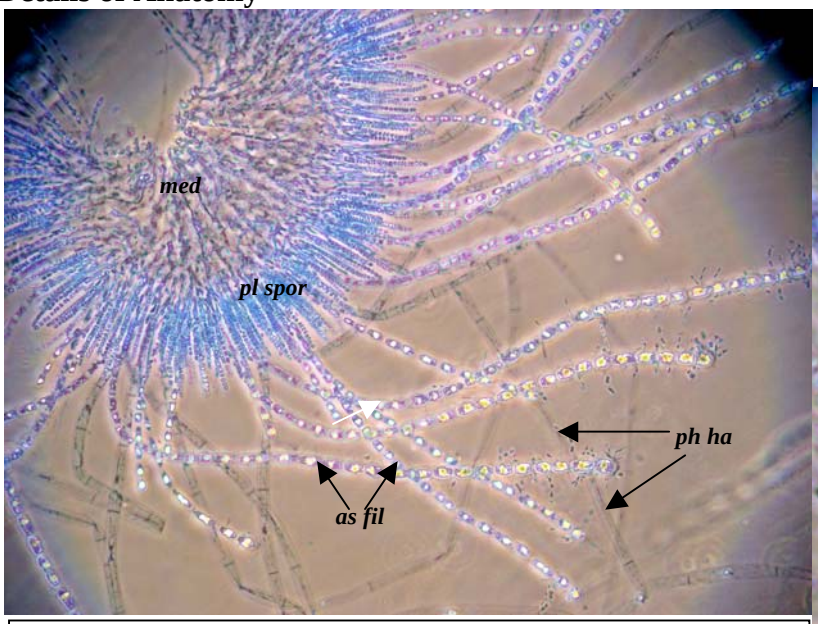
**Occurrences** only known on *Scytosiphon* from Wanna (Pt Lincoln), S. Australia; probably more widespread but unobserved because of its diminutive nature.

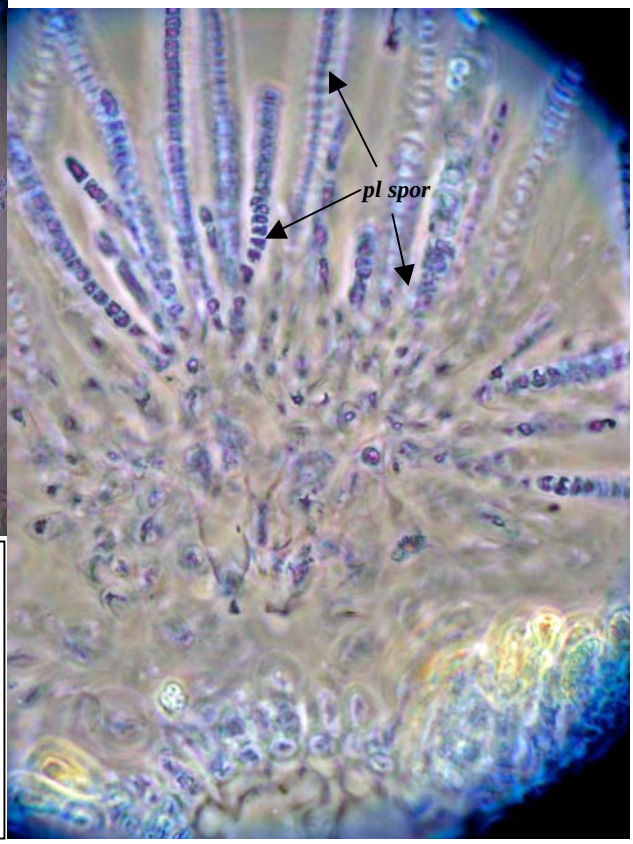
**Usual Habitat** on *Scytosiphon*, in the lower intertidal

**Similar Species** other epiphytic/partially parasitic members of the Chordariales such as *Elachista*, but that genus lacks hairs, or *Strepsithalia* which has a more diffuse body, or *Corynophloea* producing only a basal layer on the host.
The host plant (basophyte) can often be used to separate these genera.

**Description in the Benthic Flora** Part II, pages 91-94

**Details of Anatomy**



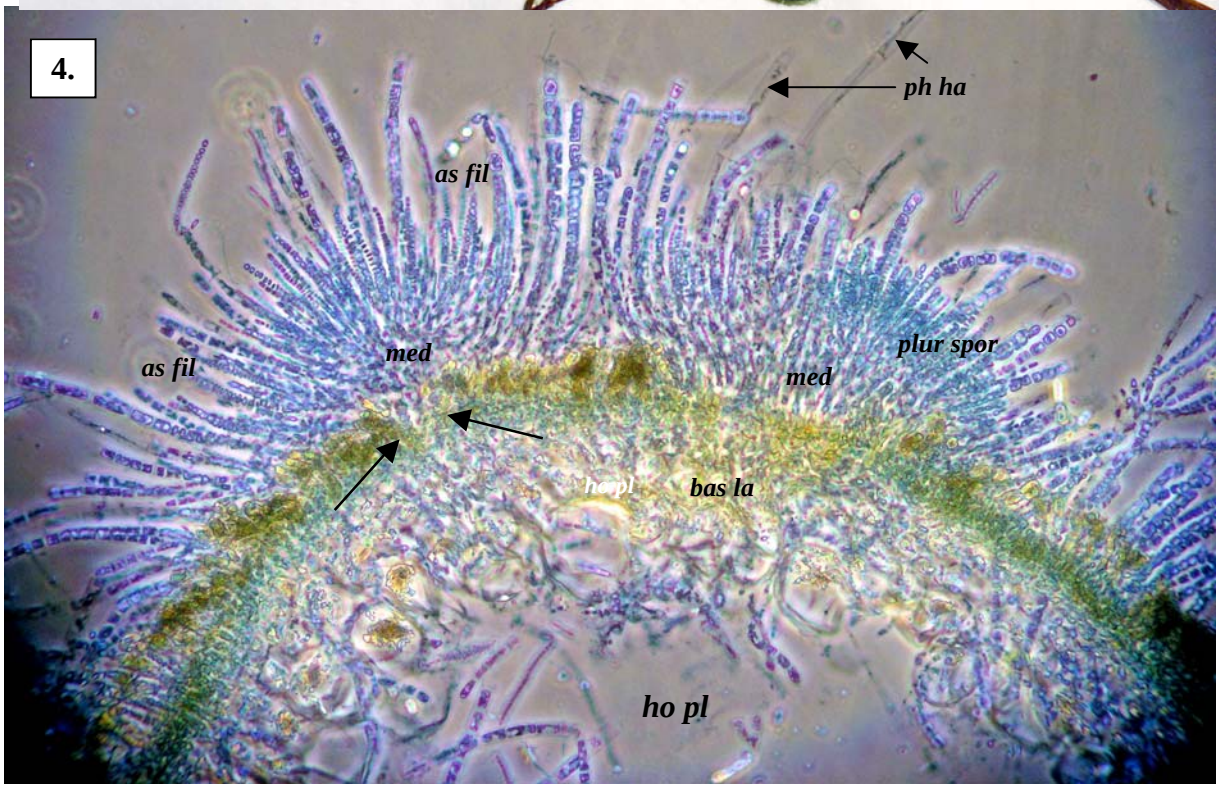

1. 2. Pieces of *Myriactula caespitosa* removed from their host plant Scytosiphon, stained blue and viewed microscopically at two magnifications to show the core (medulla, *med*) of threads, the outer layer (cortex, *co*) with distinct band of many-compartmented sporangia (plurilocular sporangia, *pl spor*), long, coloured threads (assimilatory filaments, *as fil*) and delicate, colourless hairs (phaeophycean hairs, *ph ha*)
   1. whole plant (A31873, slide 9130)
   2. detail of cortical threads and sporangia (A31873 slide 1503)

* Descriptive names are inventions to aid identification, and are not commonly used

**3.**

3. Plants of *Myriactula caespitosa Womersley &* Skinner, A31873, (arrowed) on *Scytosiphon*

**4.**




4. Cross section of a host plant *Scytosiphon* (*ho pl*), bearing several plants of *Myriactula caespitosa*, (A31873, slide 1503), showing masses of filaments of the basal layer (*bas la*) ***within*** the host, pinched part of the medulla (arrowed) where the plant enters the host, expanding filaments of the medulla external to the host (*med*), sporangial layer (*plur spor*), chains of cells forming the assimilatory filaments (*as fil*)and a few colourless phaeophycean hairs (*ph ha*)

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"Algae Revealed" R N Baldock, S Australian State Herbarium, August 2005