

Techniques needed and plant shape




Classification

Phylum: Phaeophyta; Order: Chordariales; Family: Leathsiaceae
Wireweed-fuzz

***Descriptive name**

Features

 plants form tiny brown tufts about 2mm tall on *Amphibolis*

Occurrences

only known on *Amphibolis* from Victor Harbor, S. Australia, probably more widespread but unobserved because of its diminutive nature.

Special requirements



1. view microscopically the *tiny tufts* of loosely entwined threads that make up the fluffy plant body (thallus)
2. plants consist of
 - a basal layer of entwined filaments, difficult to see,
 - a middle (medullary) layer of colourless, filaments, occasionally forked,
 - an outer (cortical) layer with **coloured** photosynthetic (assimilatory) **filaments of determinate growth**
 - **colourless** (phaeophycean) hairs extending well beyond the general plant body often produced at the tips of assimilatory filaments
3. view the characteristic sporangia with many compartments (plurilocular sporangia). They are **thin**, with a single rank of compartments broken by occasional paired compartments

Usual Habitat

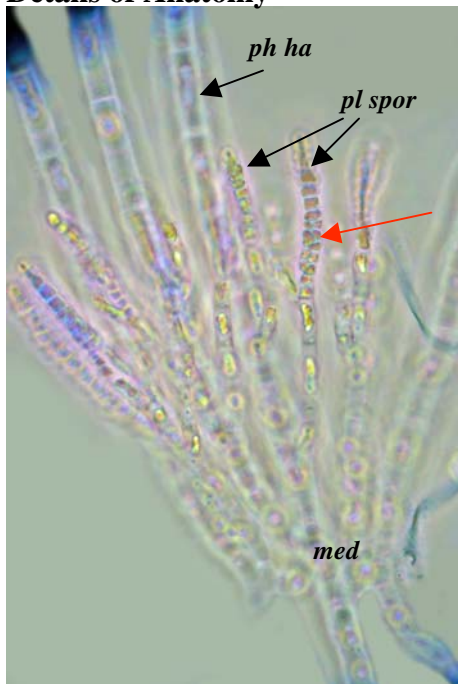
on *Amphibolis*, 5-7m deep

Similar Species

other **epiphytic** members of the Chordariales especially in the Leathsiaceae. The host plant can often be used to separate these groups with similar shape but different life cycles

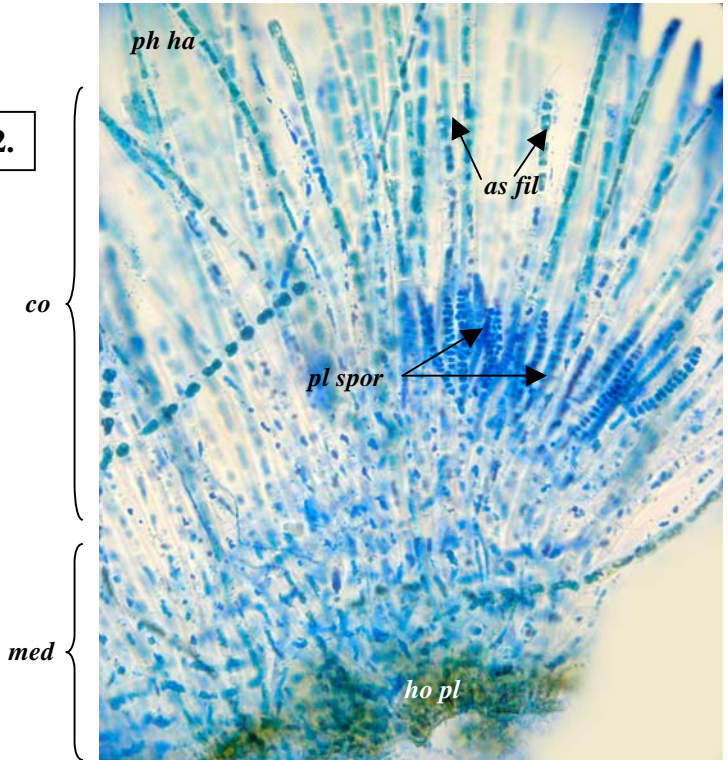
Description in the Benthic Flora Part II, pages 87-89

Details of Anatomy



1.

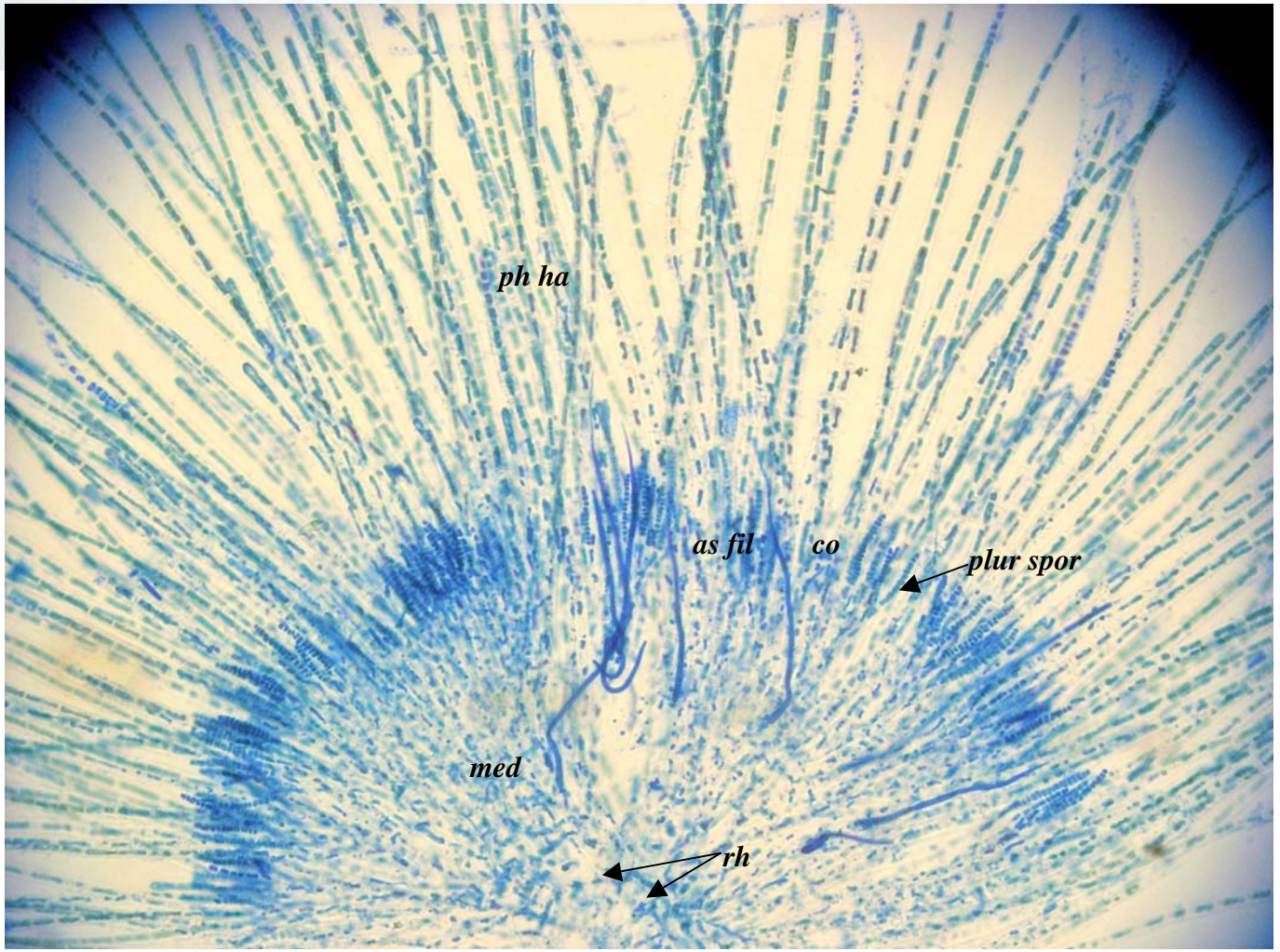
2.



1, 2. Microscope views at two magnifications of detached pieces of plant stained with aniline blue (A52820 slide 6736) showing host plant (*ho pl*), mass of inner threads (medulla, *med*), outer layer (cortex, *co*) of coloured threads (assimilatory filaments, *as fil*), some continuing as colourless hairs (phaeophycean hairs, *ph ha*) and many-compartmented sporangia (plurilocular sporangia, *pl spor*) consisting of a single row of compartments broken by occasional paired compartments (red arrowed)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed" R N Baldock, S Australian State Herbarium, August 2005

3. *Acrotrichium amphibolis* Womersley & Skinner, A52820 plants (arrowed), on a stem of *Amphibolis*, mixed with tubular and an encrusting red algal epiphytes.



4. A detached plant of *Acrotrichium amphibolis*, (A52820, slide 6736) stained blue and viewed microscopically, showing the inner layer (medulla, *med*) with some irregular rhizoids (*rh*) visible, outer layer (cortex, *co*) with short photosynthetic filaments (assimilatory filaments, *as fil*), many-compartmented sporangia (plurilocular sporangia, *plur spor*) and special hairs (phaeophyceyan hairs, *ph ha*)

* Descriptive names are inventions to aid identification, and are not commonly used
 "Algae Revealed" R N Baldock, S Australian State Herbarium, August 2005