

Techniques needed and plant shape



Classification

Phylum: Phaeophyta; Order: Chordariales; Family: Elachistaceae

\*Descriptive name

Eelgrass fuzz

Features



plants form brown tufts about 15mm tall, often in many patches on the leaves of *Heterozostera/Zostera*

Special requirements



1. view microscopically the **tufts** of loosely entwined threads that make up the fuzzy plant body (thallus)
2. plants consist of a basal layer of entwined filaments, difficult to see, a middle (medullary) layer of colourless, forked filaments, and an obscure outer (cortical) layer of 2 types of coloured photosynthetic (assimilatory) filaments:
  - shorter (determinate) ones of about 20 cells;
  - relatively long ones vastly exceeding the tufts
3. view the characteristic sporangia of 2 kinds:
  - one with many compartments (plurilocular sporangia) lying part-way along the long assimilatory filament
  - the other sausage-shaped with a single-compartment (unilocular sporangia)

Occurrences

only known on *Heterozostera* leaves from Aldinga S. Australia, Port Arlington, Victoria, and West Point Tasmania, probably more widespread but unobserved because of its diminutive nature. Womersley page 82 reports that it occurs only for about 6 weeks in August-September.

Usual Habitat

on *Heterozostera*, in shallow pools

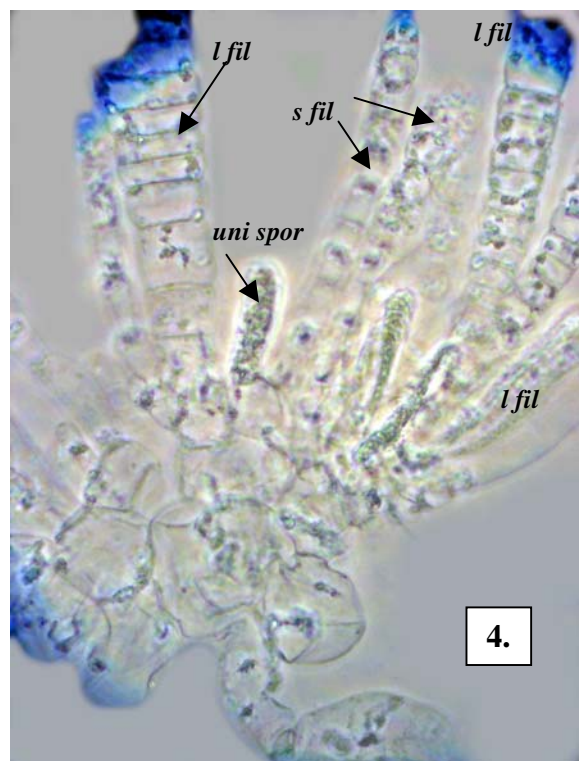
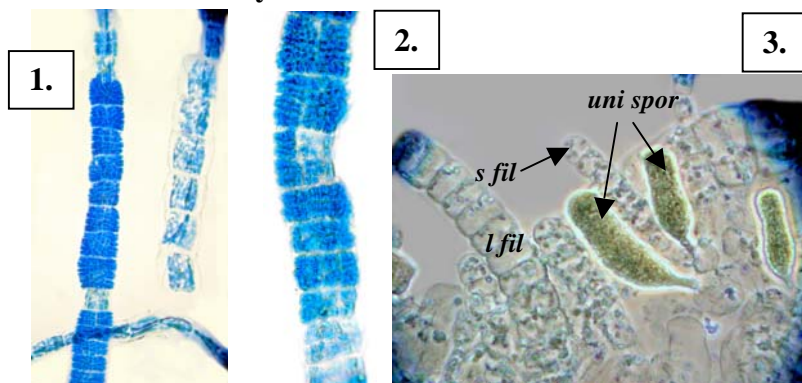
Similar Species

other **epiphytic** members of the Chordariales such as *Haplospongidion* and *Elachista*

The host plant (basophyte) can often be used to separate these groups.

Description in the Benthic Flora Part II, pages 82-83

Details of Anatomy



- Microscope views of plants stained blue (A50811 slide 6251)
1. plurilocular sporangium lying partway along a long assimilatory filament
  2. higher magnification of plurilocular sporangia, showing the ranks and rows of divisions formed above underlying filament cells
  3. single-compartment sporangia (unilocular sporangia, *uni spor*) and short assimilatory filaments (*s fil*) making up the plant cortex
  4. outer parts showing only the very bases of the broader long-assimilatory filament (*l fil*), short assimilatory filament (*s fil*) and unilocular sporangia (*uni spor*)

5. *Halothrix ephemeralis*, Skinner, A57762,  
(arrowed) on *Zostera/Heterozostera*



6. *Halothrix ephemeralis* Skinner, (A32664, slide  
6254):  
whole plant at the edge of a *Heterozostera* leaf  
blade (*lf*), showing the middle layer of  
filaments (medulla, *med*), outer layer (cortex,  
*co*) with short assimilatory filaments, and  
emergent broad long assimilatory filaments (*l  
fil*)

