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 is 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 Haplospondigion and Elachista

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

Description in the Benthic Flora

Part II, pages 82-83

Details of Anatomy

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)

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

Algae Revealed” R N Balock, S Australian State Herbarium, August 2005
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 (*med*), outer layer (*cortex, co*) with short assimilatory filaments, and emergent broad long assimilatory filaments (*lf*)