Techniques needed and shape

Classification

Phylum: Rhodophyta; Family: Delesseriaceae; Tribe: Delesserioideae
Group: Dicroglossum

*Descriptive name

red film alga

Features

plants red, fading to a brown colour, 20-40mm tall of thin, forked, flat-branched, narrow blades about 3mm wide with ruffled edges; central mid-ribs present, smaller veins absent, teeth absent. Heart-shaped bladelets bearing reproductive structures arise from the mid rib

Occurrences

Fremantle, W Australia to Vivonne Bay Kangaroo I., S Australia

Usual Habitat

usually epiphytic on the seagrass Amphibolis and other algae

Similar Species

Hemineura protendens, Phytimophora and Apoglossum, but these have either smaller veins, marginal teeth or differences in the origins of branches

Description in the Benthic Flora

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Special Requirements

under the microscope find

- a single hemispherical apical cell continuing the growth of blades by producing a central thread and regular arching lines of cells
- branching from blade edges, reflected in the forked branching of mid-ribs
- reproductive structures on blades and heart-shaped bladelets on mid-ribs
- female structures (cystocarps) sunken in blades, opening on one side
- male spermatangia in elongate clusters both sides of mid-ribs
- scattered tetrasporangia massed over mid-ribs mostly in bladelets

Details of Anatomy

Surface microscope views of Dicroglossum crispatulum stained blue

1. blade tip with apical cell (arrowed), mid-rib forming (m rib) and regular arching lines of cells (slide 17191)
2. forked (dichotomous) mid-rib indicative of the origin of branching from the blade edges (exogenous) (slide 17191)
3. sunken cystocarp (cys) on the mid-rib of a bladelet (slide 17193)
4. spermatangial masses both sides of a mid-rib of a blade (slide 17193)
two drift specimens of *Dicroglossum crispatulum* (Harvey) A. Millar & Huisman

5. from Vivonne Bay, Kangaroo I., S Australia (*A10718*)
6. from 10km E of Eucla, W Australia (*A19285*)

7, 8. surface microscope views at two magnifications of a tetrasporangial specimen stained blue:
7. clusters of mature sporangia on either side of the mid-rib of a main blade, ruffled edges, stalked bladelets bearing developing tetrasporangia arising from the mid-rib (*slide 17191*)
8. surface view of tetrasporangia adjacent to the leaflet mid-rib (*slide 17191*)