

Techniques needed and plant shape



MACRO
PLANT



Classification

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae
§ iridescent buttonweed; mottled discs

*Descriptive name

Features

plants dark red, mottled when fresh, reported by Edgar to be iridescent underwater, 40-140mm tall, of one to several disc-shaped blades attached by a short, thin stalk near Perth, W Australia to Victoria and E coast Tasmania

Occurrences

Usual Habitat

shallow water to 15m deep on rough water coasts

Special requirements



cut cross sections and view microscopically to find



decussate

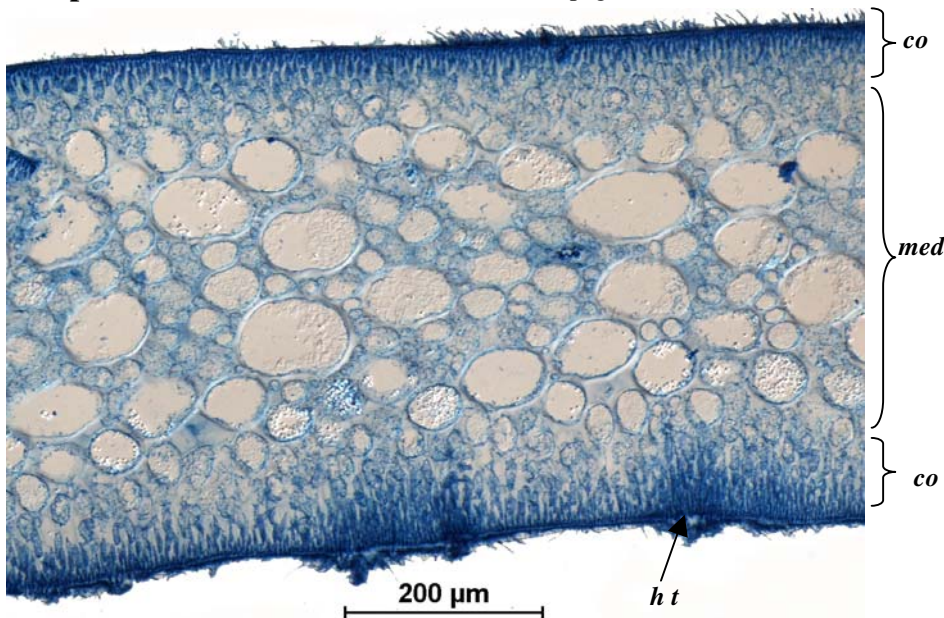
- narrow outer layers (cortex) of small cells, branched 2-3 times, facing outwards
- hair tufts growing from the cortex
- wide core (medulla) of a mix of large and smaller cells
- scattered patches of tetrasporangia, sporangia divided decussately, mixed with elongated cortical cells
- scattered, hemispherical mature female swellings (cystocarps) protruding outwards, with rows of small cells forming a thick wall (pericarp), single depressed external opening (ostiole) and mass of carposporangia

Similar Species

E. minuta was originally but erroneously thought to be the young stage of *Hymenocladia conspersa* from W Australia

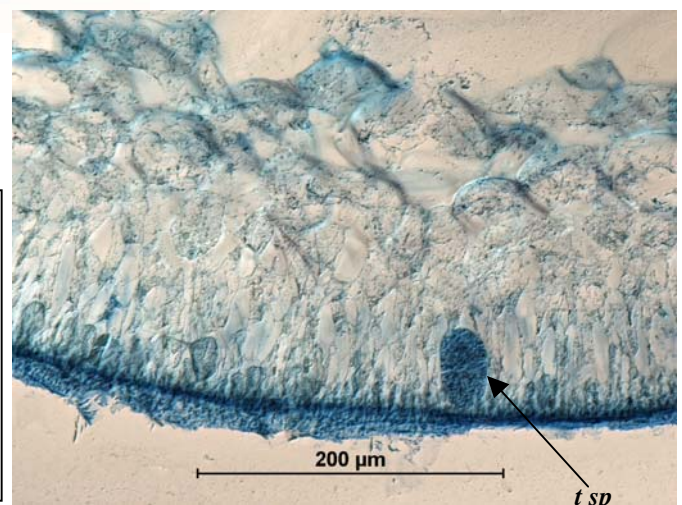
Description in the Benthic Flora

Part IIIB, pages 67, 68



1.

2.



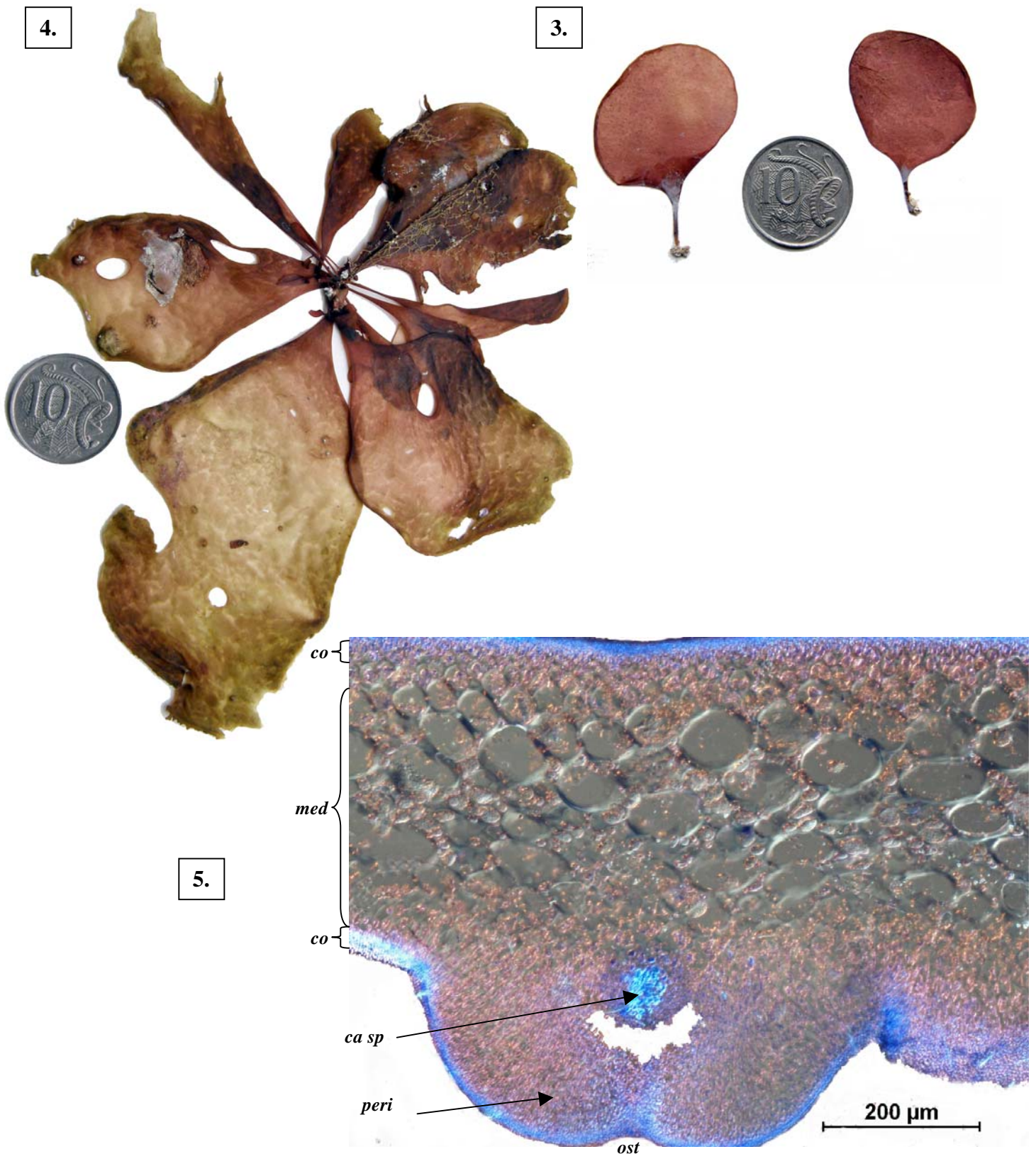
Cross sections of *Erythrymenia minuta* stained blue and viewed microscopically

1. blade showing outer layers (cortex, *co*) of small, branched cells facing outwards, tufts of hairs (*h*) and middle layer (medulla, *med*) of a mix of large and small cells (A22254 slide 14265)
2. edge of a blade showing tetrasporangia (*t sp*) amongst elongated cortex cells (A53673 slide 14285)

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

§ name used in Edgar, G. *Australian Marine Life, 2nd Ed.* (2008)

“Algae Revealed”, R N Baldock, S Australian State Herbarium November 2010



Erythrymenia minuta Kylin from South Australia

3. two specimens from 3-5m deep, Margaret Brock reef, Cape Jaffa (A42907) showing the characteristic basal, narrow stalk
4. a large, tattered plant, and divided plant, 8-10m deep, off Walker's Rock, Anxious Bay Eyre Peninsula (A53673)
5. cross section through a protruding mature female structure (cystocarp, *cys*) stained blue and viewed microscopically, showing the blade medulla (*med*), cortex (*co*), cystocarp cellular wall (pericarp, *peri*), carposporangial mass (*ca sp*) and depressed opening (ostiole, *ost*) (A41376 slide 14260)

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