

Techniques needed and plant shape



MACRO PLANT



Classification

Phylum: Rhodophyta; Order: Gracilariales; Family: Gracilariaceae
 § fleshy red curdiea; slashed red straps

*Descriptive name

Features

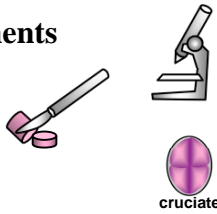


1. dark red brown, 200-600mm tall, growing **upright**, irregularly **flat-branched** (branching from margins), branches **tough**, drying gristly, **flattened**, narrower at base
2. mature female structures (cystocarps) ball-shaped, about 1mm across, on margins, often in a line

Occurrences

Usual Habitat

Special requirements



New Zealand? From central W Australian coast to NSW and around Tasmania
 a deep water species (to 70m) on rock, in rough water

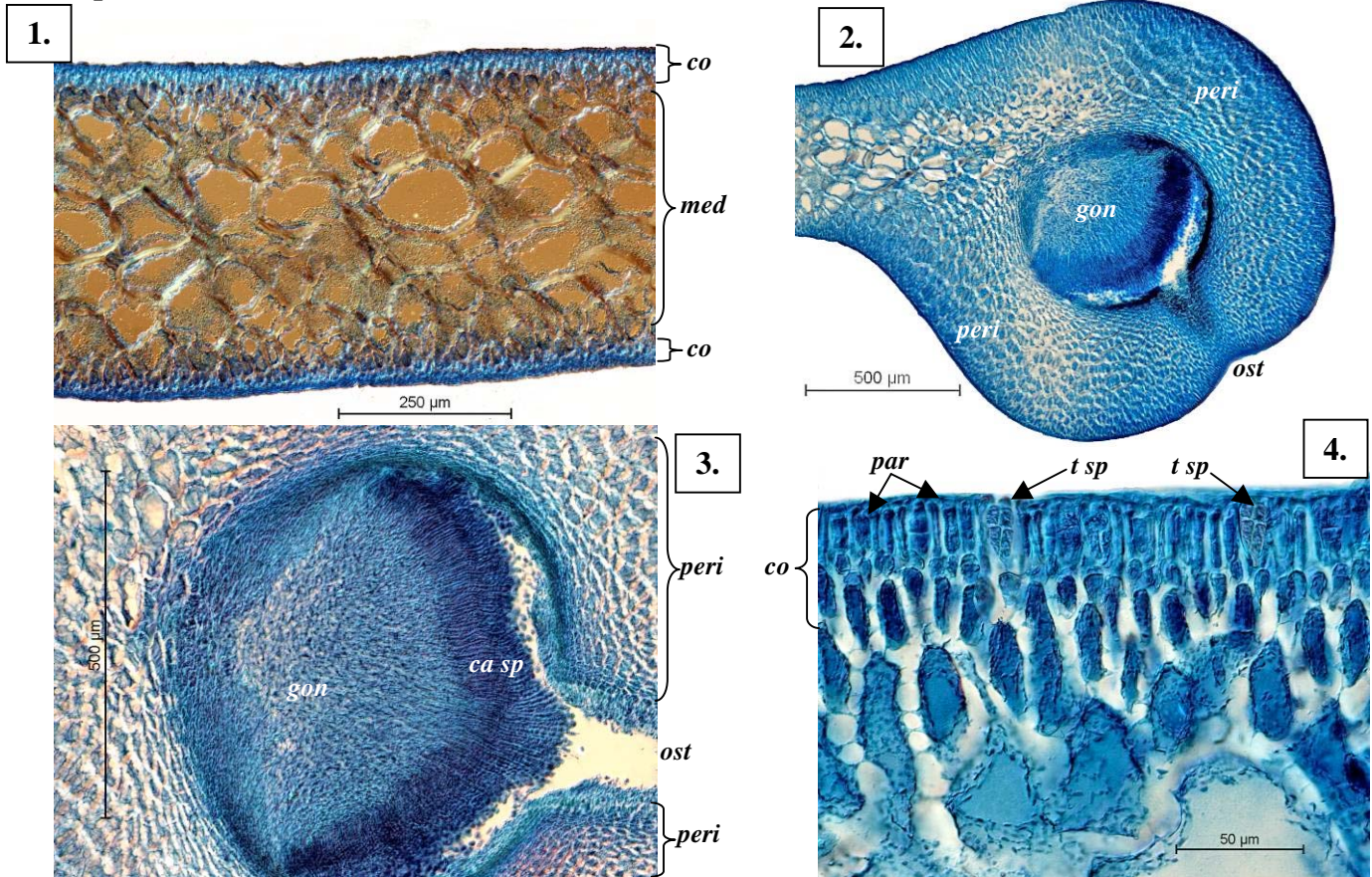
1. cut cross sections of blades and view microscopically the wide core of large, **equal-sided cells** with **thick walls**, grading to outer layers, of much smaller cells, **equal** in thickness on **both sides** of the blade
2. cut sections and view microscopically
 - cystocarps with central mass of threads ending in **short** bead-like **chains** of carposporangia, surrounded by a thick wall of diamond-shaped cells and a single opening
 - patches of tetrahedrally-divided sporangia mixed with hairs ending in a swollen cell

Similar Species

Curdiea obesa, but plants lie flat, the cortex is thicker on the upper surface and sponge often grows on the lower surface of fronds in that species

Description in the Benthic Flora

Part IIIB, pages 38 - 41



Cross sections of *Curdiea angustata* stained blue and viewed microscopically

1. branch with core (medulla, *med*) of large, thick-walled cells, equal outer layers (cortex, *co*) of small cells (A47003 slide 13444)
- 2, 3. two magnifications of a cystocarp (*cys*) at branch edge: central mass of threads (gonimoblast, *gon*) ending in short chains of carposporangia (*ca sp*), thick wall (pericarp, *peri*) of diamond-shaped cells and single opening (ostiole, *ost*) (A47003 slide 13445)
4. detail of a patch (sorus) of tetrasporangia divided in a cross-shape pattern amongst hairs (paraphyses, *par*) ending in a swollen cell (A63260 slide 14017)

*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 April 2011

5.



6.



7.



Different magnifications of pressed, drift specimens of *Curdiea angustata* (Sonder) Millar from S Australia
 5. from Cape Lannes (A63260)
 6. from Stinky Bay, Nora Creina (A63562)
 7. detail of lines of cystocarps at margins of flat branches (A60797)

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