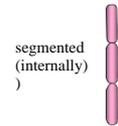


MACRO PLANT



Techniques needed and plant shape

Classification

*Descriptive name

Features



Phylum: Rhodophyta; Order: Rhodymeniales; Family: Champiaceae
straight-sided worm weed

1. plants red to red-purple, 50-150+ mm tall, tufted, branching irregular, dense
2. branches cylindrical or slightly flattened, 1.0-2.5mm wide, straight or slightly curved, pinched basally, segmented internally, **not** markedly pinched at partitions
4. mature female structures (cystocarps) ball- or urn-shaped, protruding, about 1mm wide near Perth W Australia to S NSW and around Tasmania

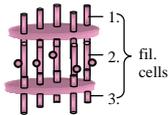
Occurrences

Usual Habitat

Special requirements



1. focus microscopically on the surface and internally to find
 - surface cells large, with several straight sides (**polygonal**)
 - segment cores hollow, partitions between segments **1 cell thick**
 - threads of thin cells passing **both in the centre and edges** of segment spaces, **3 thread cells** between partitions, middle cell with a gland
2. mature female structures (cystocarps) with
 - central mass of egg-shaped cells (carposporangia)
 - of inner cells of wall (pericarp) **star-shaped**, widely spaced
 - single prominent external opening (ostiole)
4. sporangia **scattered** in the outer part of the medulla, divided **tetrahedrally**

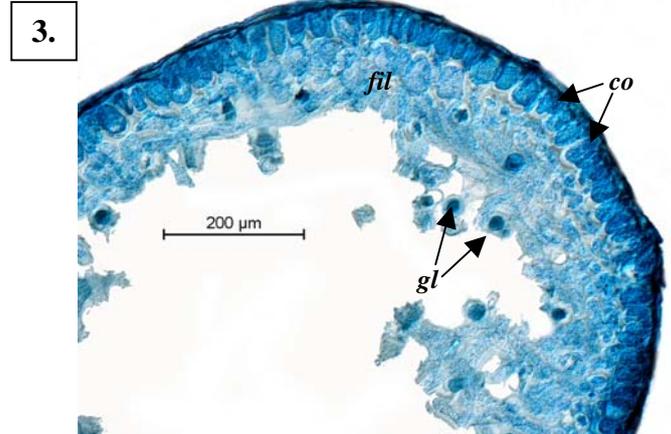
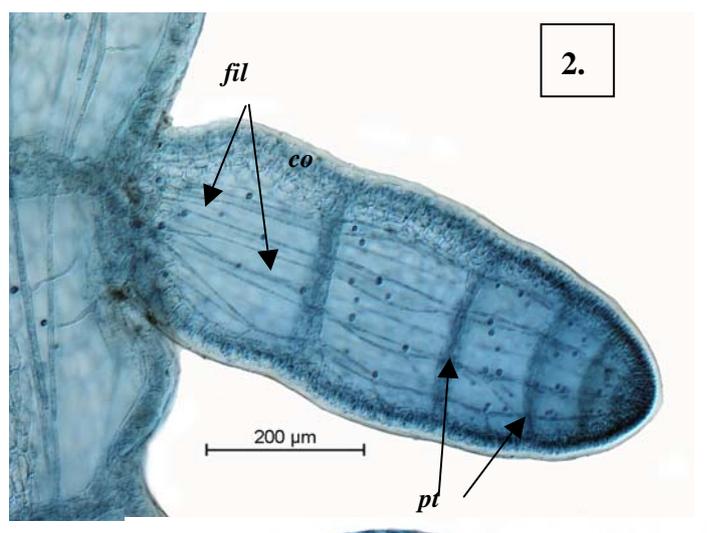
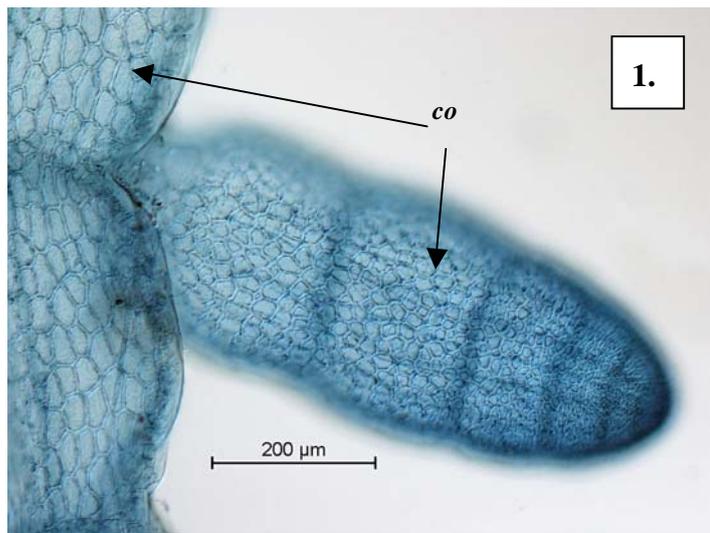


Similar Species

Champia insignis but that species has branches 2mm wide with short basal stalks

Description in the Benthic Flora

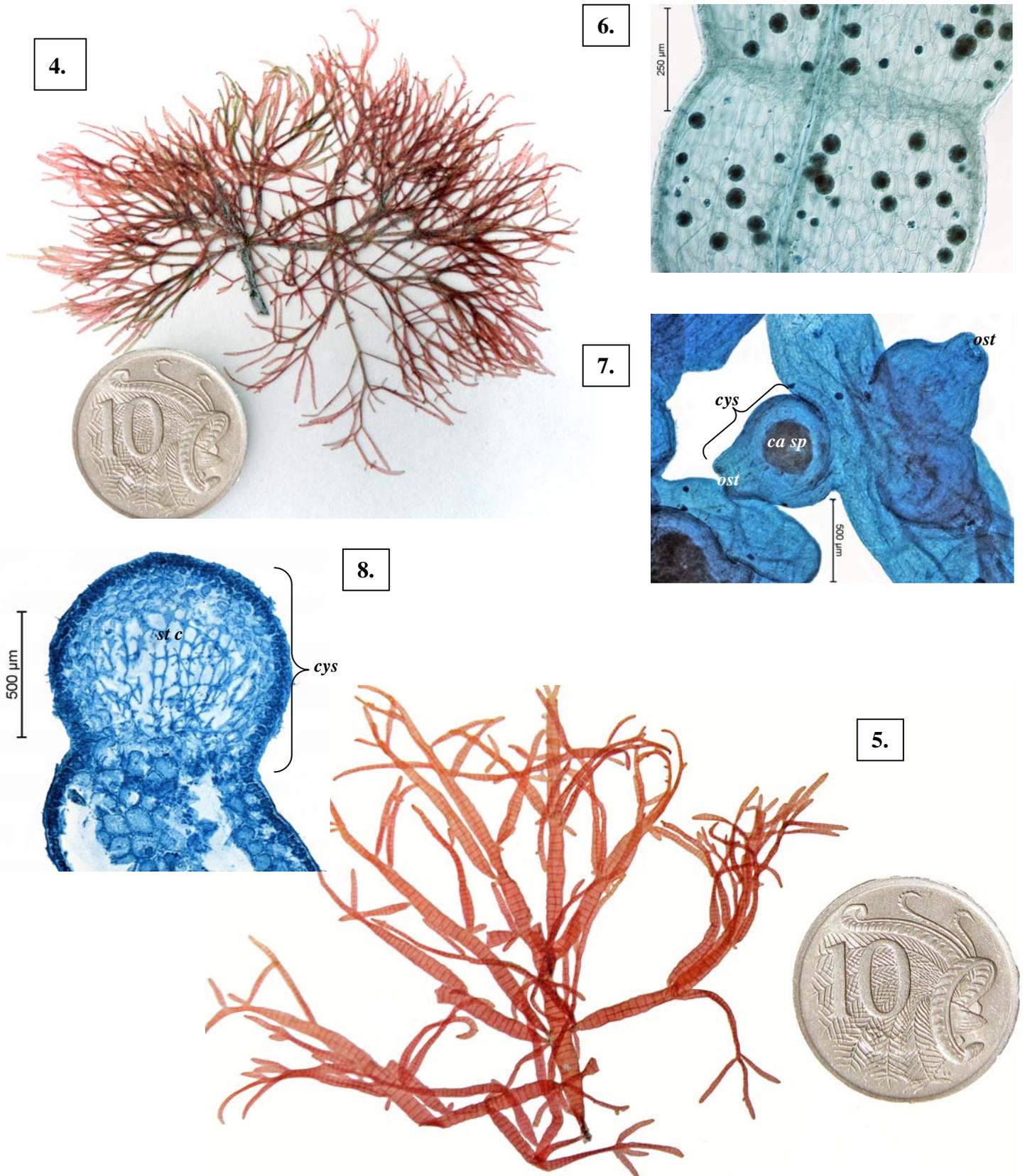
Part IIIB, pages 120, 121,123



Champia viridis stained blue and viewed microscopically

- 1, 2. surface view (#1) and internal view (#2) of a side branch showing branch pinched at the base, pavement-like outer cells (cortex, *co*) in surface view, obvious internal partitions (*pt*) and fine threads (*fil*) bearing dot-like glands running throughout the whole of intervening spaces (A42991 slide 4626)
3. part of a cross section, showing threads (*fil*) with glands (*gl*) running through most of the central space and single layer of large cortical cells (*co*) (A42991 slide 4627)

*Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium April 2011



- 4, 5. *Champia viridis* (Harvey) Reedman & Womersley from Pearson I., West Coast S Australia: #4., 35m deep (A34014); #5., 30-35m deep, showing internal segmentation and straight sides
- 6.- 8. specimens stained blue and viewed microscopically
6. surface view with scattered tetrasporangia (branch slightly creased in the mid-line) (A46651 slide 5356)
7. surface view of a cluster of flask-shaped cystocarps (*cys*), with central mass of carposporangia (*ca sp*) and single openings (ostioles, *ost*) (A44564 slide 15209)
8. cross section of a cystocarp (*cys*) showing internal, widely-separated star-shaped cells (*st c*) (A63830 slide 15014)

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