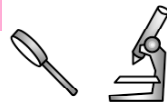


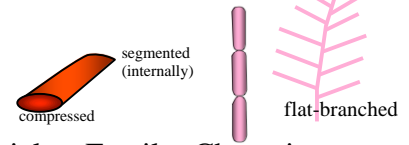
# Champia insignis Lucas

45.680

## Techniques needed and plant shape



MACRO PLANT



## Classification

\*Descriptive name

## Features

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Champiaceae  
flat-branched worm weed

1. plants red brown, 60-180mm tall, main branches (axes) one to several, 3-5mm wide with side branches mostly *opposite*, some in tufts of 2-3
2. branches *flattened*, 3-5mm wide, *markedly* pinched basally into a short, slender stalk, segmented internally and constricted at partitions
3. mature female structures (cystocarps) ball- or urn-shaped, protruding, about 0.7mm wide Tasmania

## Occurrences

## Usual Habitat

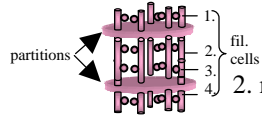
## Special requirements



on rock in shallow water



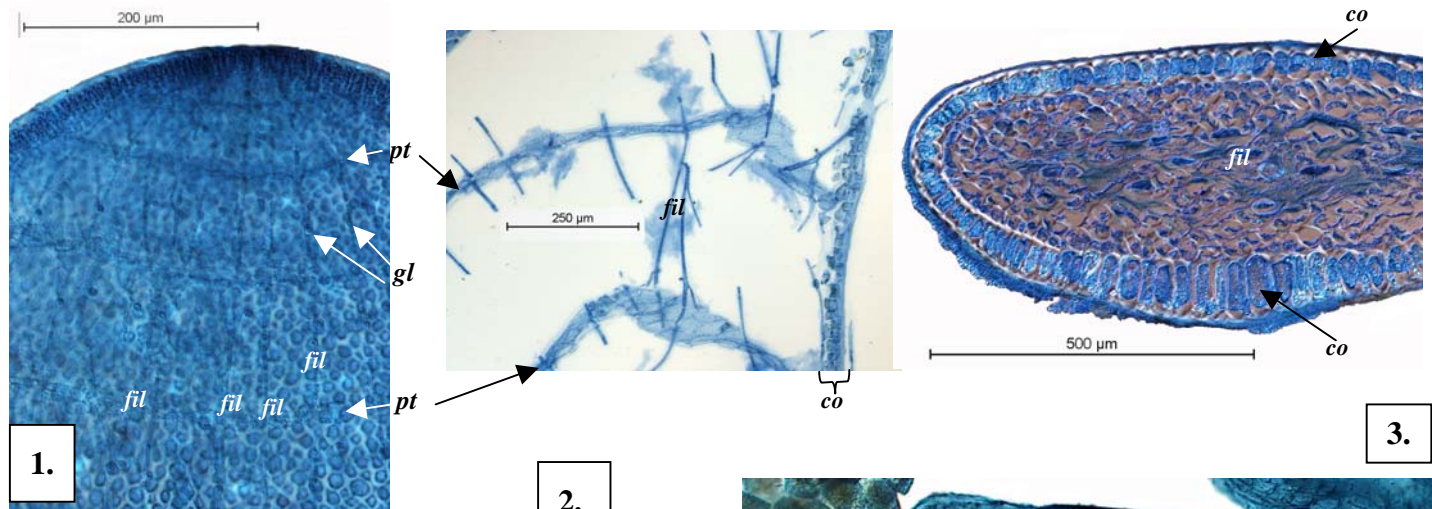
1. focus microscopically on the surface and internally to find
  - surface cells large, with several straight sides (*polygonal*)
  - segment cores hollow, filled with threads when old, partitions between segments *1 cell thick* with threads of thin cells passing *both in the centre and edges* of segment spaces, *1-2 thread cells* between partitions, each 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

## Description in the Benthic Flora

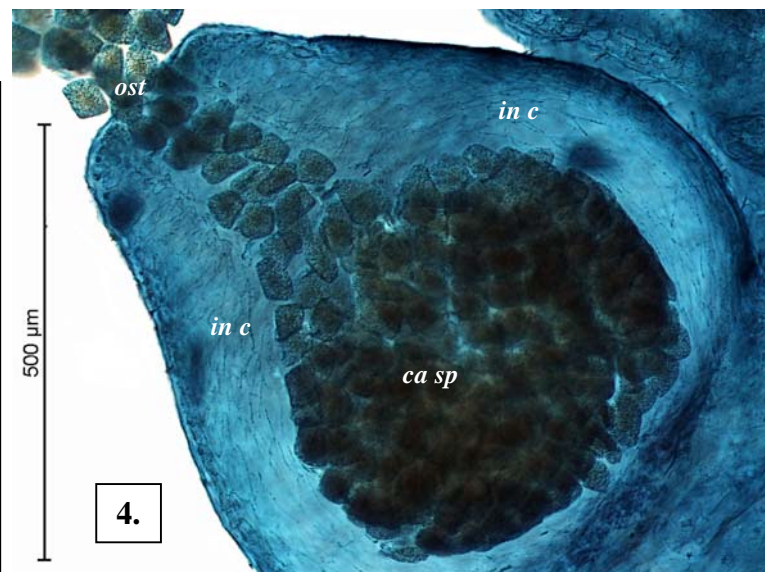
*Champia viridis* but that species has narrower branches, short basal stalks absent  
Part IIIB, pages 122-125



## Champia insignis stained blue and viewed microscopically

1- 3. A55565

1. apex, focusing through the single layer of rounded outer (cortical) cells to find numerous threads (filaments, *fil*) some with dark-staining glands (*gl*) passing through cross partitions (*pt*) (slide 15207)
2. lengthwise section through part of a branch, showing single layer of cortical cells (*co*), partitions (*pt*) one cell thick penetrated by threads (*fil*) lying both in the centre and margins of segments (slide 14660)
3. cross section of flattened (compressed) old branch with cortex of larger cells on the underside and segment space filled with threads (*fil*) (slide 15206)
4. mature female structure (cystocarp) with central mass of carposporangia (*ca sp*), some escaping through the opening (ostiole, *ost*) and inner wall of cobweb like cells (*in c*) (A44564 slide 15209)

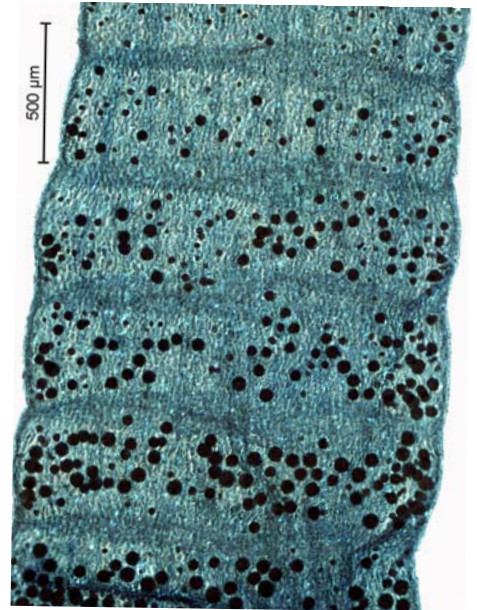


\*Descriptive names are inventions to aid identification, and are not commonly used  
"Algae Revealed", R N Baldock, S Australian State Herbarium April 2011





5.



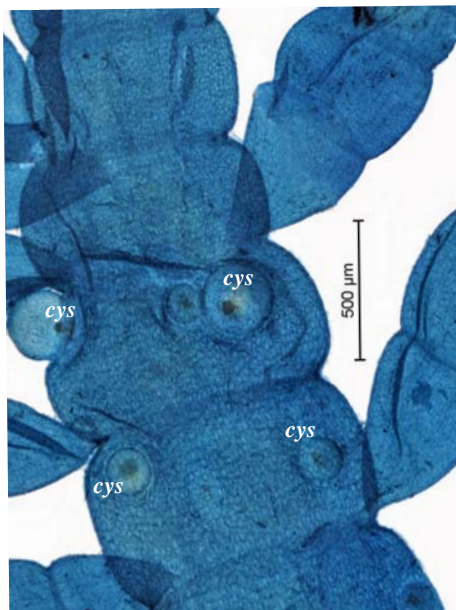
8.



7.



6.



9.

*Champia insignis* Lucas from Tasmania

- 5. from Cod Rock, Bicheno, 6m deep (A55565)
- 6, 7. two magnifications of a specimen from Blackmans Bay, 2-10m, on pebbles, showing branching mainly from the edges of flattened main branches (axes) (A68740)
- 8, 9. surface views of specimens stained blue and viewed microscopically
  - 8. segments with scattered tetrasporangia (A55565 slide 15207)
  - 9. young cystocarps (*cys*) and side branches with slender basal stalks (A63929 slide 15208)