

**Techniques needed and shape**



**Classification**

Phylum: Rhodophyta; Order: Gigartinales; Family: Halymeniaceae  
Z-weed (from a whim of the authors for a genus last in the alphabet!)

**\*Descriptive name**  
**Features**

1. plants are soft, red to light red-brown with several cylindrical main branches (axes) about 3mm wide
2. shorter side branches *tapering at* both ends, arise *radially* from the axes
3. final branches about 1mm wide are *numerous* short and *spine-like* or elongate and curved upwards

**Occurrences**

Kangaroo I., S Australia to Victoria and SE Tasmania

**Usual Habitat**

in shallow pools on rough coasts, but common only in restricted localities

**Similar Species**

possibly *Lomentaria australis* **because** of the pinching at the base of branches, but that species is slippery and small surface cells are arranged in rings (rosettes) about larger ones

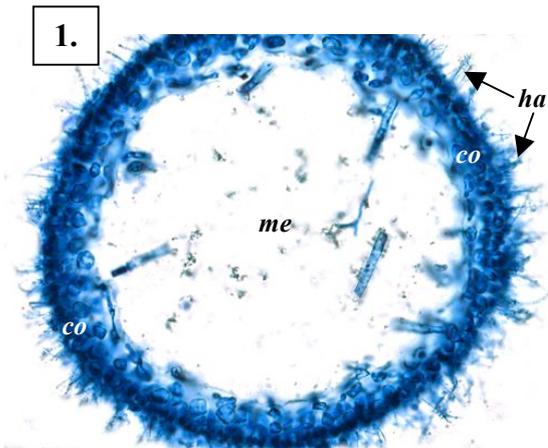
**Description in the Benthic Flora** Part IIIA, pages 183, 186-188

**Special Requirements**



1. focus microscopically through the branch tips to see the *several* apical cell producing:
  - 6-10 *rows* of small surface (cortex) cells often with very fine protruding hairs
  - *sparse* chains of thread-like cells lying in a *large space* in the central core (medulla)
2. focus microscopically through the side branches of female plants to find:
  - numerous *surface* openings (ostioles) with a definite *cell ring*
  - *clear* balls (auxiliary cell ampullae) beneath the rings, with a *few* spidery threads
  - mature products of fertilisation – cystocarps – with several compact masses of sporangia attached to *prominent* (auxiliary) cell
3. find sporangial plants with scattered tetrasporangia visible in surface view. These sporangia are divided in a cross (cruciate) pattern

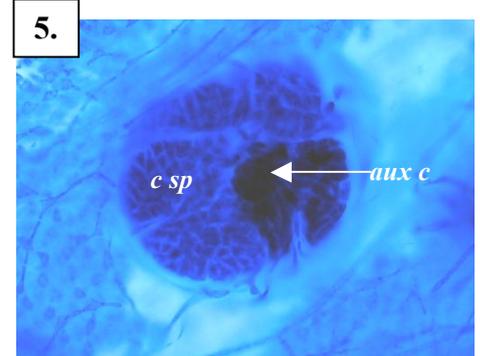
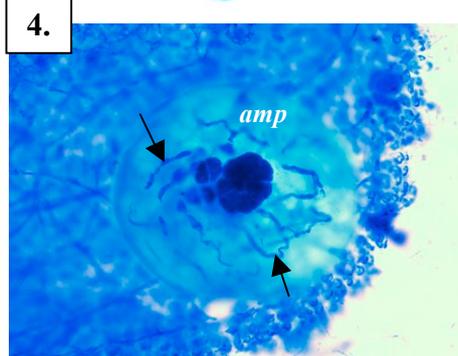
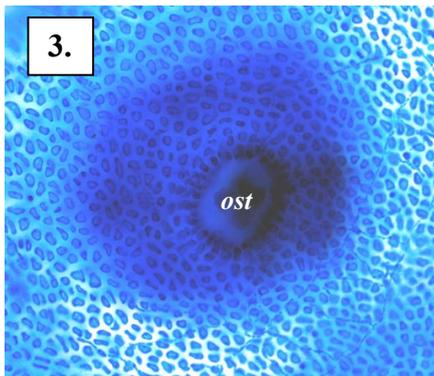
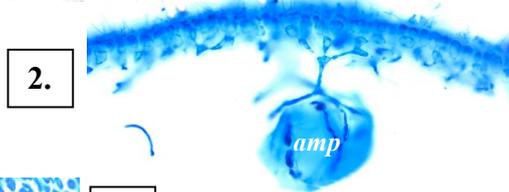
**Details of Anatomy**



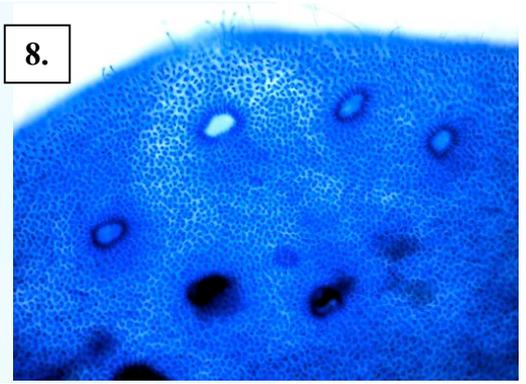
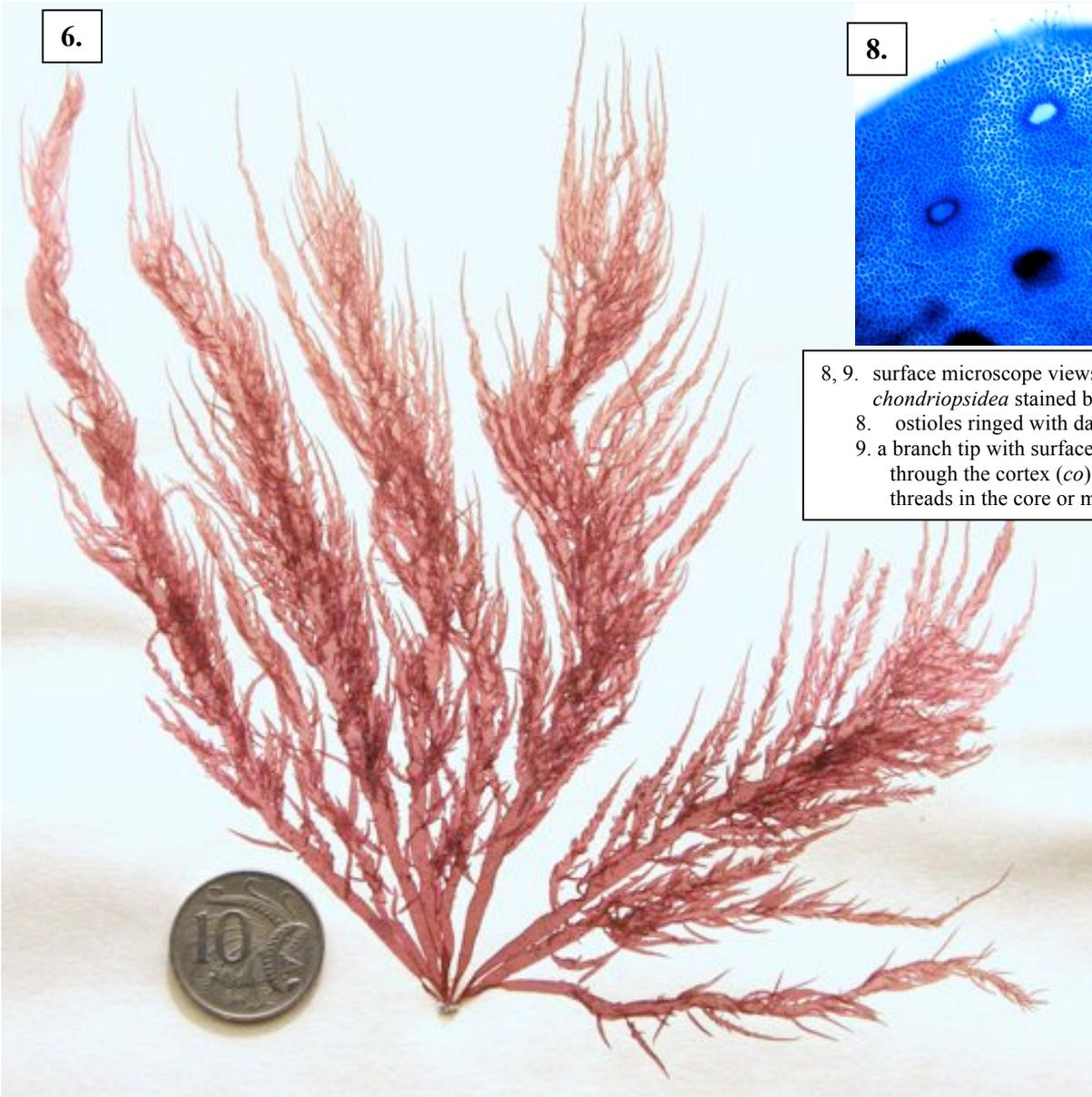
- 1-2. Cross sections of *Zymurgia chondriopsidea* stained blue and viewed microscopically:
1. showing the compact surface cells (cortex, *co*) with protruding hairs (*ha*) and large central space (medulla, *med*) with sparse, scattered threads (A28525 slide 11840)
  2. part of the cortex with a gelatinous ball (ampulla, *amp*) hanging into the medulla (A42761 slide 11846)

3-5. surface microscopic views of female structures

3. an ostiole (*ost*) with prominent ring of cells (A42761 slide 11845)
4. focussing into the medulla, a clear ball shape (ampulla, *amp*) with developing sporangia and sparse threads (arrowed) (A42761 slide 11845)
5. a maturing cystocarp with masses of carposporangia (*c sp*) and prominent auxiliary cell (*aux c*)

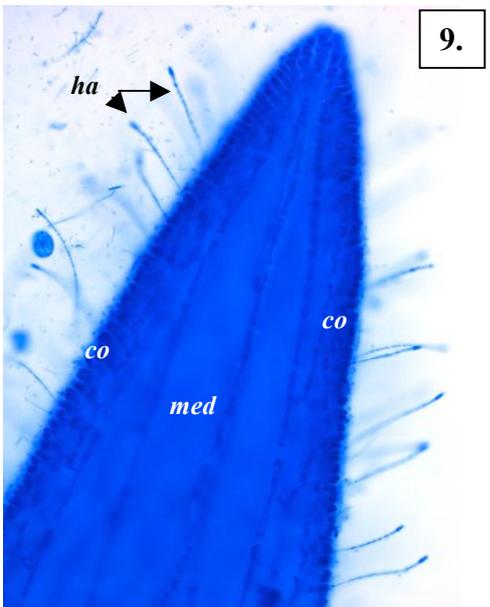


\* Descriptive names are inventions to aid identification, and are not commonly used.  
"Algae revealed", R N Baldock, State Herbarium, S Australia, June 2008



8, 9. surface microscope views of *Zymurgia chondriopsidea* stained blue (A28529 slide 11839)  
 8. ostioles ringed with darkly staining cells  
 9. a branch tip with surface hairs (*ha*), focussed through the cortex (*co*) to show the several threads in the core or medulla (*med*)

6, 7. Two magnifications of *Zymurgia chondriopsidea* (J Agardh) Lewis & Kraft, A19049, from shallow water at Robe, S Australia, showing curving side branches pinched off at the base (arrowed)



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