

**Techniques needed and shape**



**MACRO  
PLANT**



**Classification**

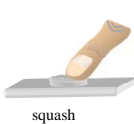
**\*Descriptive name**

**Features**

**Occurrences**

**Usual Habitat**

**Special requirements**



Phylum: Rhodophyta; Order: Gigartinales; Family: Kallymeniaceae  
shot-hole weed; §pitted red lettuce

1. plants are rose red to red brown, 100-500mm tall, usually with broad but thin blades arising from a very short stalk, or a single blade, **lobed** above
  2. blades are gelatinous, firm when fresh but rapidly **disintegrate**
  3. blades centres have a **mix** of small and large holes, blade **edges** small holes only
- West Coast S Australia to southern NSW and SE Tasmania  
generally in deep water (40m) on calm to rough water coasts  
make squashes of tissue of different plants under the microscope to see

- **thread like** cells developing from the pointed ends of star-shaped (**stellate**) cells with very thin contents located in the core or medulla
- **small**, often **angular** cells in several layers of the outermost parts (cortex)
- numerous, young, amoeba-like female structures (carpogonial branch systems, **cbs**) in the cortex with dense contents each with **8-16 corkscrew** shaped threads (carpogonia and trichogynes)
- **scattered** tetrasporangia divided in a cross (**cruciate**) pattern

**Similar Species**

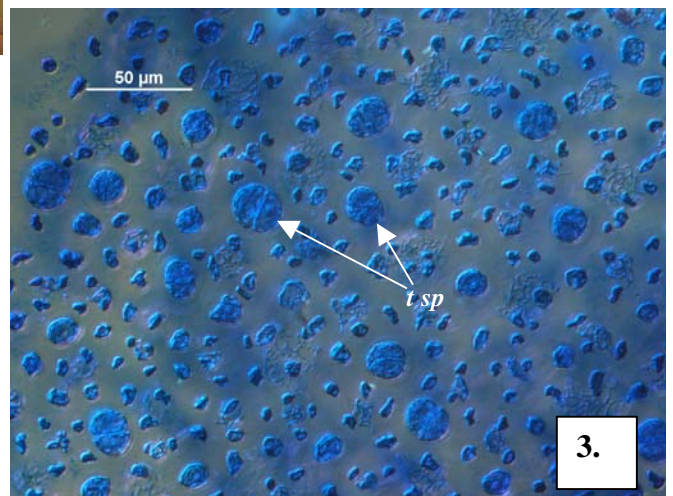
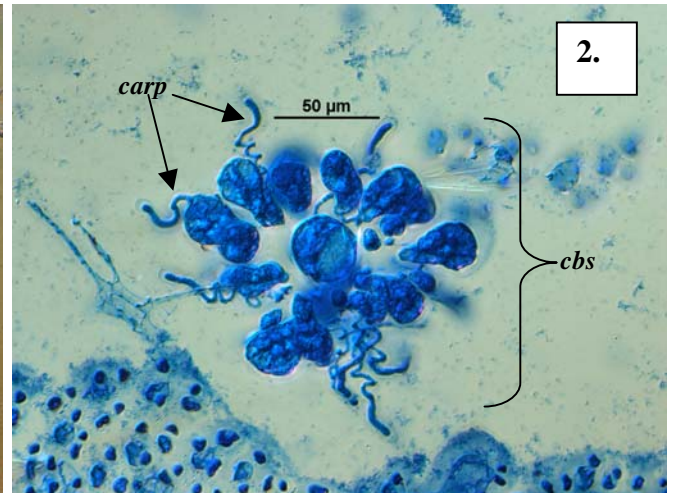
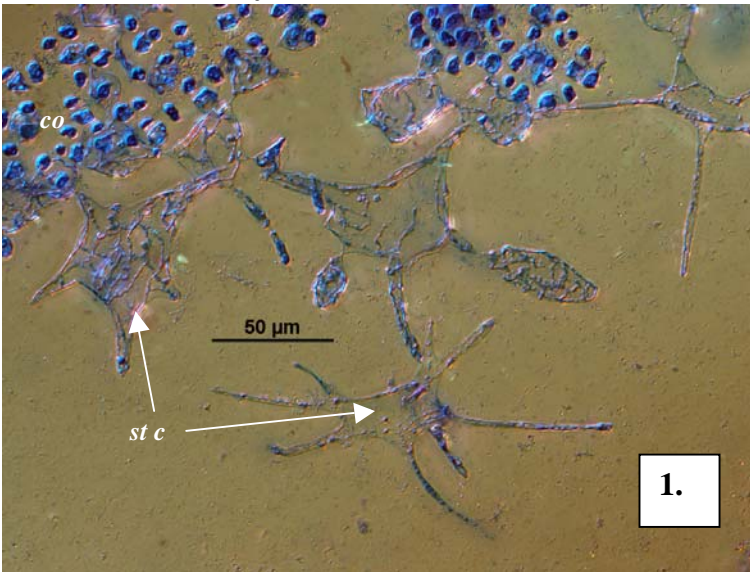


Diagnosis can be difficult

*Kallymenia cribrrosa*, which has a **mix** of large and small holes **throughout** the blade and **single** carpogonia in each carpogonial branch system

**Description in the Benthic Flora Part IIIA, pages 232-234**

**Details of Anatomy**



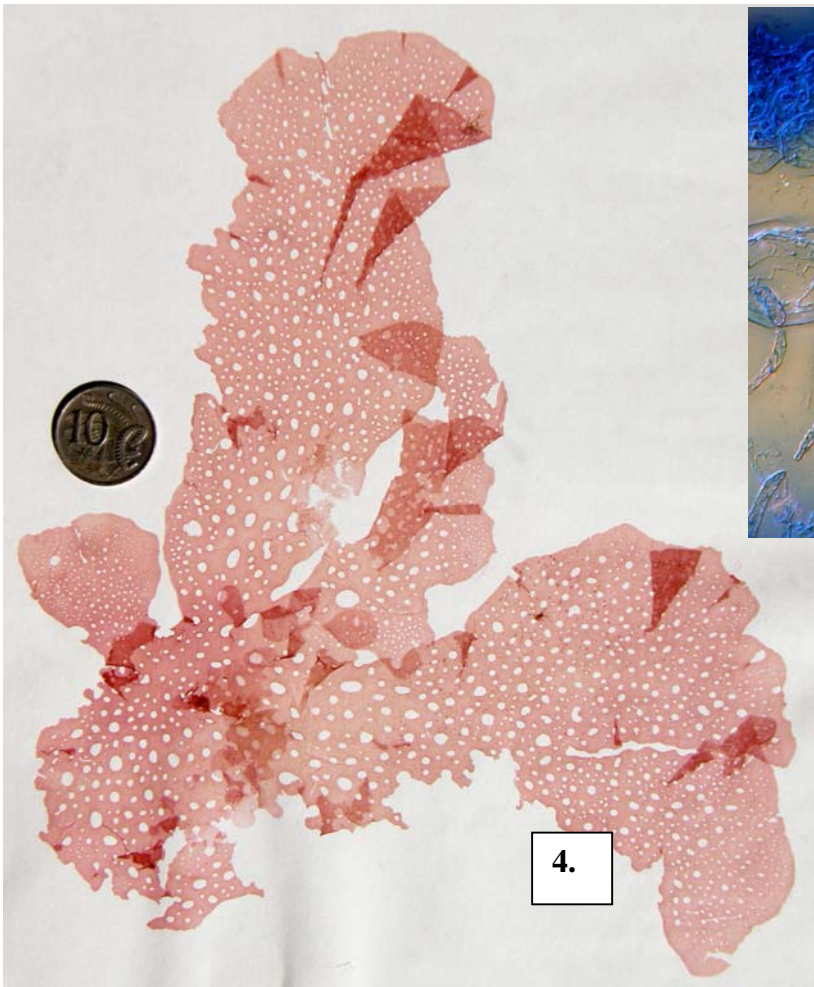
Squashes of *Kallymenia cribrogloea* (A34764) stained blue and viewed microscopically showing:

1. star-shaped (stellate) cells (*st c*) some ending in thin arms from the core (medulla) of the blade and small, angular outermost (cortex) cells (*co*) (slide 2937).
2. a young female structure (*cbs*) with 8 carpogonia ending in corkscrew shaped trichogynes (slide 2937)
3. surface view of tetrasporangia (*t sp*) amongst angular cortex cells (slide 2930)

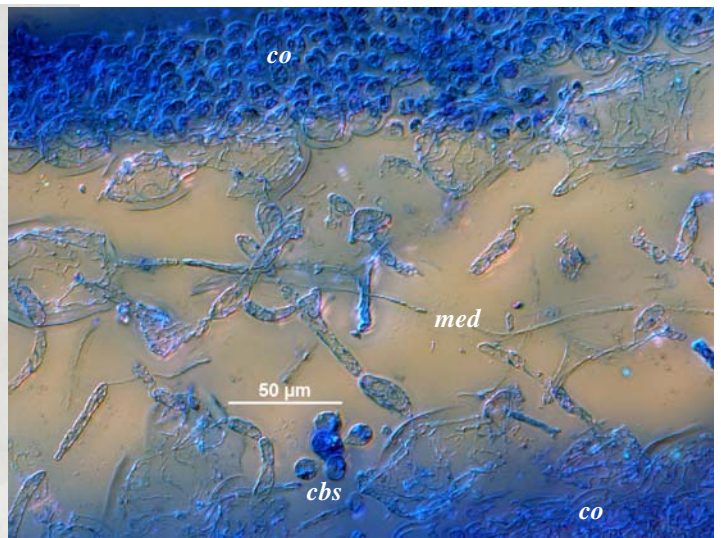
Descriptive names are inventions to aid identification, and are not commonly used.

§name used by Edgar, G (2008) in Australian Marine Life (2<sup>nd</sup> ed.).

Prepared March 2009



4.

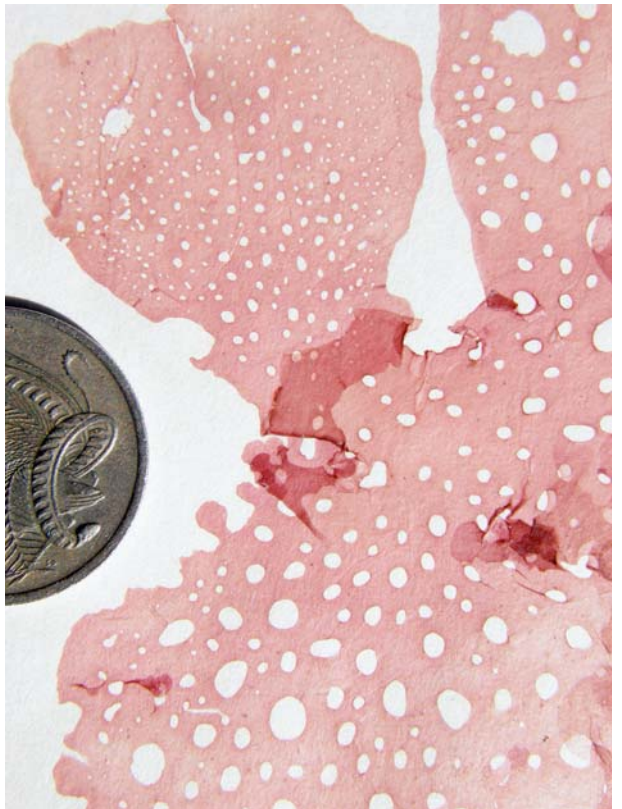


7.



6.

5.



South Australian specimens of *Kallymenia cribrogloea* Womersley & Norris at different magnifications  
 4.-5. from Muston, American River inlet, Kangaroo I. (A38171)  
 6. from Great Taylor Bay, Bruny I., Tasmania (A35158) on the introduced Screw shell, *Maoriculpus roseus*, showing the mix of hole sizes in the blade middle, but only small holes on the edge, characteristic of this species  
 7. a cross section stained blue and viewed microscopically showing the loose mass of threads in the core (medulla, *med*), a young female structure (*cbs*) and small cells of the outer (cortex) layer (*co*) (A35158 slide 2953)