

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, 100-300mm tall, usually with a **single** broad but thin blade perforated by a **mix** of small and large holes (to 5mm across)
 2. blades are gelatinous, firm when fresh but rapidly **disintegrate**
- central coast of W Australia to Victoria and around Tasmania
from shallow to deep water (40m) on moderate 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**, round 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 with a **single** thread (carpogonium and trichogyne)
- **scattered** tetrasporangia divided in a cross (**cruciate**) pattern



Similar Species

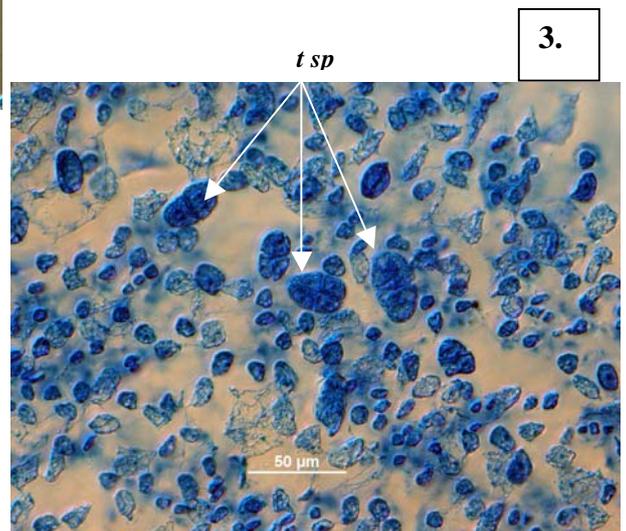
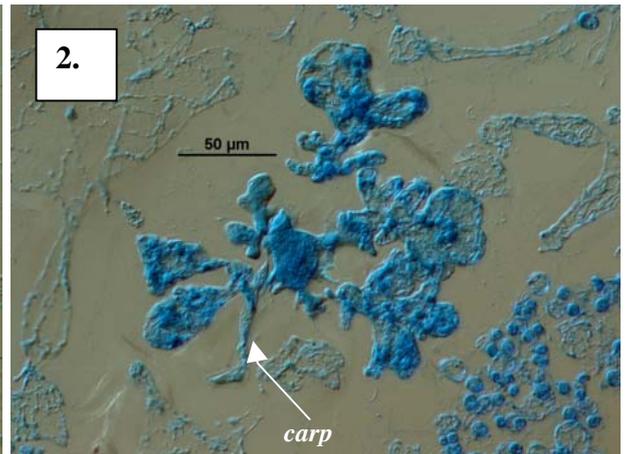
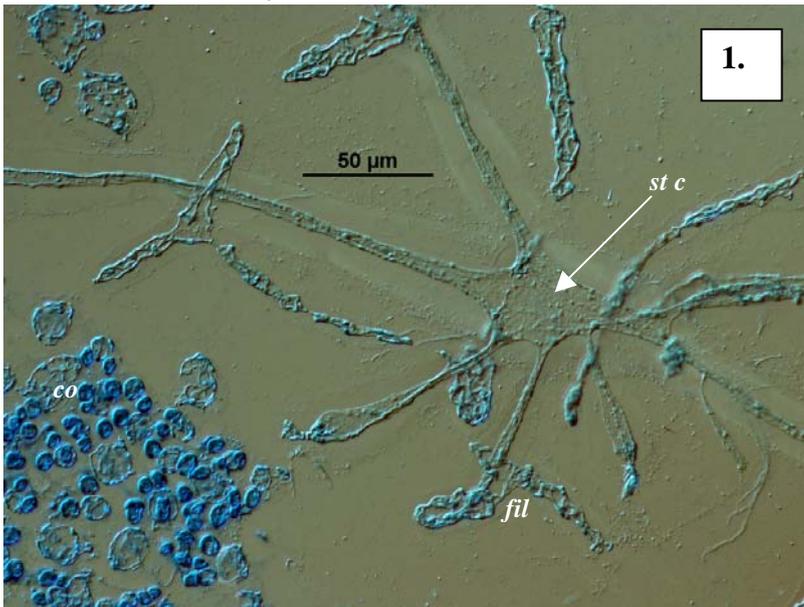


Diagnosis can be difficult

Kallymenia cribrigloea, that has a **mix** of large and small holes in the centre but only small holes at the **edge** of blade and **many** carpogonia in each cbs

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

Details of Anatomy



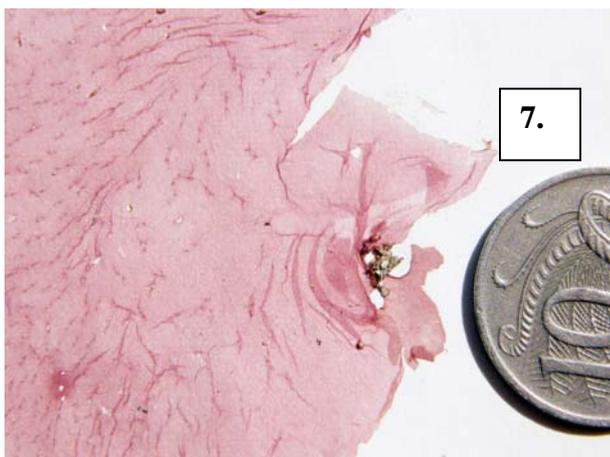
Squashes of *Kallymenia cribrosa* (A34775) stained blue and viewed microscopically showing:

1. a star-shaped (stellate) cell (*st c*) with thin contents, arms extending into threads (filaments, *fil*) and outermost (cortical) cells (*co*) (slide 2933)
2. a young female structure (carpogonial branch system, *cbs*) with a single thread like carpogonium (*carp*) characteristic of this species (slide 2933)
3. tetrasporangia (*t sp*) in various stages of dividing into a cross-shaped (cruciate) pattern (slide 2934)

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

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

Prepared March 2009



South Australian specimens of *Kallymenia cribrosa* Harvey at different magnifications

4. from 2-3m deep, off Muston, American River inlet, Kangaroo I. (A42405)
5. detail of mixed sizes of holes in the same blade
6. detail of the mixed sizes of holes in the blade from Elliston, West Coast (A37360)
7. detail of the base of a blade with few perforations and a very short stalk, from 22m deep at Waldegrave I., (A35829)

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