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 2970*).

Phylum: Rhodophyta; Order: Gigartinales; Family: Kallymeniaceae

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.

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

**Similar Species**

Diagnosis can be difficult.

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

**Details of Anatomy**
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)

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