**Techniques needed**

**Classification**
Phylum: Chlorophyta; Order: Cladophorales; Family: Cladophoraceae

*Descriptive name*
green tidal-flat mats

**Features**
plants consist of mats or loose, fine entangled threads 50-100mm long, in calm water in the intertidal on sand or mud

**Special requirements**
1. threads light green, **unbranched, irregularly** curved or twisted
2. short rhizoids protrude **irregularly** from threads
3. **chloroplasts, net-like** with several to many pyrenoids
4. cells **box-shaped, 16-22μm** wide: L/B dimensions = 1.0-1.5

**Occurrences**
cosmopolitan. In southern Australia, Proper Bay, Pt Lincoln, S Australia to Tasmania

**Usual Habitat**
in the intertidal of sheltered waters

**Similar Species**
other thread-like (filamentous) algae such as *Ulothrix* (but that has a parietal chloroplast — one that partly encircles the inside of the cell wall); and *Cladophora* (but that has branched filaments). *Rhizoclonium curvatum* also has curved threads and rhizoids, but in that species they are in **regular** positions, and cells are **wider**

**Description in the Benthic Flora**
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**Details of Anatomy**

* Rhizoclonium riparium (A52996 slide 7447) stained blue and viewed microscopically showing
1. some cells dividing (arrowed) and others (1,2,3,4) with the more usual box-shape where L/B = 1-1.5
2. junction of two curved portions with a rhizoid (rh). (The bright discs are epiphytic diatoms (dia) on the surface of the thread)
Descriptive names are inventions to aid identification, and are not commonly used.

*Algae Revealed* R N Baldock, S Australian State Herbarium, June 2007

3. *Rhizoclonium riparium* (Roth) Harvey

   from Lake Butler, Robe in shaded mid intertidal areas (A54295)

4. a single thread stained blue and viewed microscopically to show two curved sections with a rhizoid at their junction (A52996, slide 7447)