**Mychodea hamata** Harvey

*Techniques needed and shape*

**Classification**

*Descriptive name*

**Features**

Phylum: Rhodophyta; Order: Gigartinales; Family: Mychodeaceae
Shepherds Crook Mychodea

1. plants red-brown, 100-200mm tall, of tangled clumps
2. main branches (axes) long, thin, 1-2mm wide, flat, gristly and irregularly branched
3. short side branches arise from edges of axes, and may be hooked at the tips
4. female structures (cystocarps) form swellings at the base of side branches

**Occurrences**

Kangaroo I., S Australia to Victoria and around Tasmania

**Usual Habitat**

commonly on sea grasses (mainly Amphibolis) also on algae in rock pools to 17m deep

**Similar Species**

*Hypnea ramentacea* has hooked branches and a tangled appearance, but branches are cylindrical (terete) and arise radially

**Description in the Benthic Flora**

Part IIIA, pages 456-459

**Special Requirements**

1. cut a cross section of a branch and view microscopically to find:
   - a single central thread in the core (medulla), becoming indistinguishable when surrounded by rhizoids
   - large cells, sometimes few in number, in the outer part of the core mixed with rhizoids at their margins
   - outermost (cortex) layers of very small cells in 2-3 rows, facing outwards, not forming rings in surface view

3. find female structures (cystocarps), forming swellings at the base of side branches.
   Cut a cross section to view:
   - central clusters of spores
   - an envelope of threads, but no opening (ostiole)

4. if possible, find sporangial plants with cigar-shaped tetrasporangia scattered near the surface, divided across into four spores (zonate)

**Details of Anatomy**

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

*“Algae revealed, R N Baldock, State Herbarium S Australia, December 2008; edited April 2014*
two magnifications of *Mychodea hamata* Harvey, (A44718), from jetty pylons, 3-4m deep, at Robe S Australia, showing the compressed, narrow branches and detail of some hooked side branches.

A cross section stained blue and viewed by interference microscope of the base of a fork in a branch with central threads (medullary filaments, *med fil*) large cells of the outer medulla (*o med*) and small cells of the outermost cortex (*co*). (A44718 slide 3735)

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"Algae revealed, R N Baldock, State Herbarium S Australia, December 2008; edited April 2014"