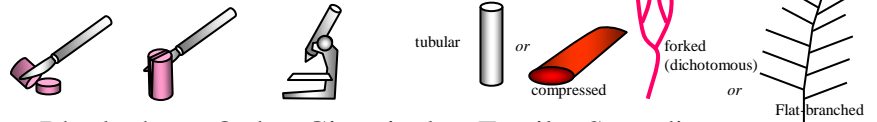


***Trematocarpus concinnus***  
(R Brown *ex* Turner) De Toni

45.400

**Techniques needed and shape**



**Classification**

Phylum: Rhodophyta; Order: Gigartinales; Family: Sarcodiaceae

**\*Descriptive name**

thin red spaghetti-weed

**Features**

plants red-brown, 40-150mm tall, forked tending to be flat-branched; branches thin, about ½ mm broad, linear, cylindrical to slightly compressed

**Occurrences**

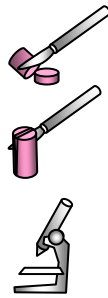
SE of S Australia to Victoria and E coast Tasmania

**Usual Habitat**

in shallow water or in intertidal pools on rough coasts

**Special requirements**

cut sections and view microscopically to find



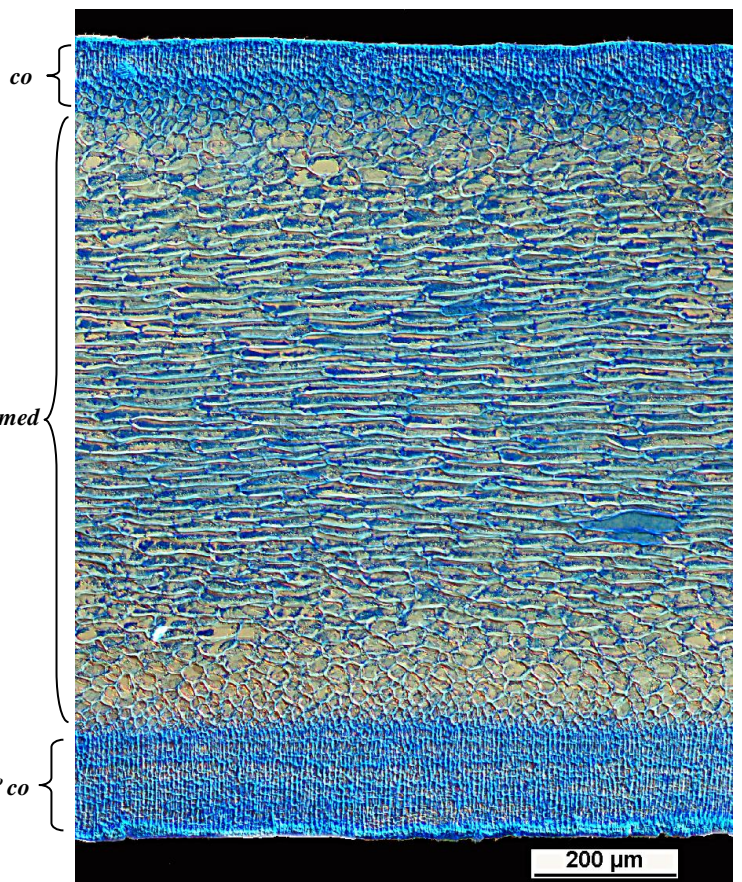
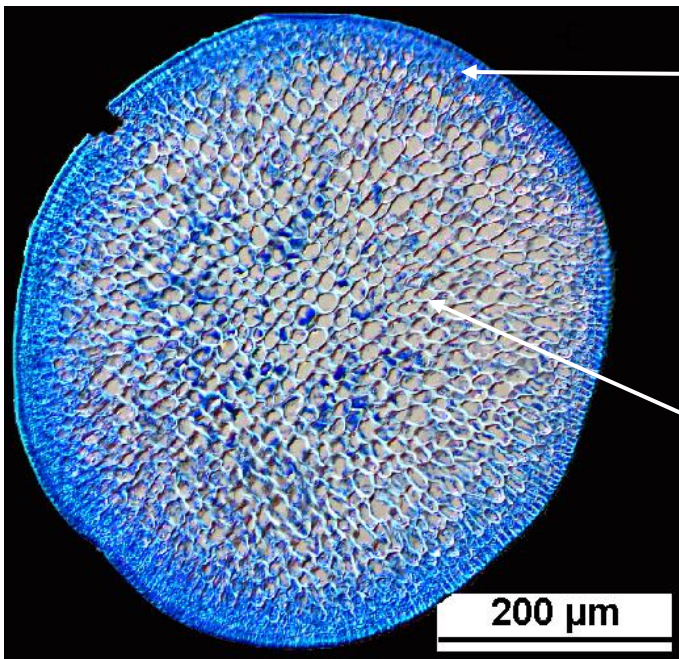
- in a cross section: **wide** central cores (medulla) of **large compact** cells, narrow outer-most layers (cortex) of small, egg-shaped cells
- in **lengthwise** sections of older branches: characteristic **elongate** cells in cores, bands of small cells forming a **secondary cortex**
- in cross sections through swollen, **protruding** mature female structures (cystocarps): basal network of threads with radiating threads (gonimoblast) ending in club-shaped to pear-shaped carposporangia; thick wall (pericarp) with an opening (ostiole)
- in cross sections through patches of sporangia near branch ends: cigar-shaped tetrasporangia divided across (zonate) mixed with outward facing short hairs (paraphyses)

**Similar Species**

*Melanthalia concinna* but that species has more compressed branches ending in thickened caps, and, internally, cores of ovoid (not elongate) cells. Tetrasporangia are divided into cross-shaped (cruciate) patterns

**Description in the Benthic Flora** Part IIIA, pages 316-320

**Details of Anatomy**



- 1.
- 2.

2° co

*Trematocarpus concinnus*, stained blue and viewed microscopically

1. cross section: wide core of large cells (medulla, **med**), narrow outer layer (cortex, **co**) of small cells (slide 12545)
2. lengthwise section of a mature branch: core cells (**med**), **elongate** in this view; bands of smaller, secondary cortex cells (**2° co**) (slide 12840)

\* Descriptive names are inventions to aid identification, and are not commonly used  
“Algae revealed”, R N Baldock, State Herbarium S Australia, March 2009; revised August 2014

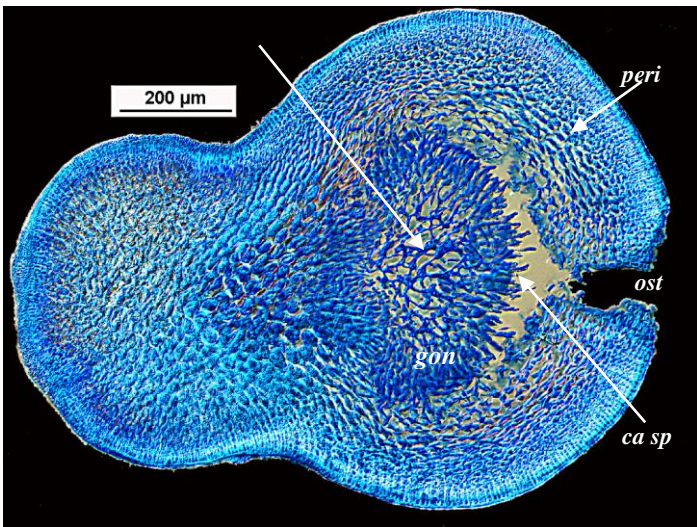
3.



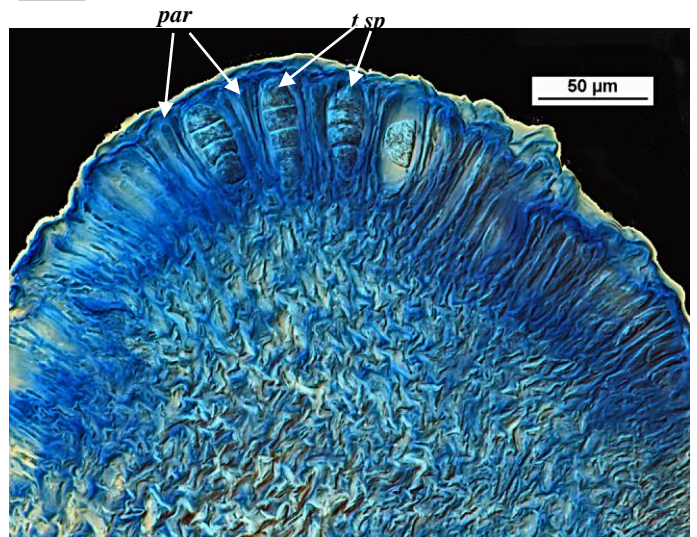
4.



5.



6.



*Trematocarpus concinnus* (R Brown ex Turner) De Toni:

3, 4 two specimens (A61617) in part shade and shallow water at the reef edge, Cape Northumberland, S Australia

5, 6. cross sections stained blue and viewed microscopically

5. mature female structure (cystocarp): net-like base (**arrowed**), radiating threads (gonimoblast, **gon**) ending in carposporangia (**ca sp**); thick cellular wall (pericarp, **peri**), opening (ostiole, **ost**) (slide 12842)

6. sporangial patch (sorus): tetrasporangia (**t sp**), hairs (paraphyses, **par**) (slide 12549)