

**Techniques needed and shape**



**Classification**

Phylum: Rhodophyta; Order: Gigartinales; Family: Nizymeniaceae  
mini Red Straps

**\*Descriptive name**

**Features**

plants red-brown, about 150mm tall, spreading, branches *compressed*, linear, mostly about 2mm wide. Short, spreading side branches, *narrower basally*, arise irregularly from the *edges* of main branches. Mature female structures (cystocarps) on branch surfaces are small and ball-shaped

**Occurrences**

West I., near Victor Harbor S Australia to Victoria and around Tasmania

**Usual Habitat**

a deep species of rough water coasts

**Special requirements**



view microscopically to find

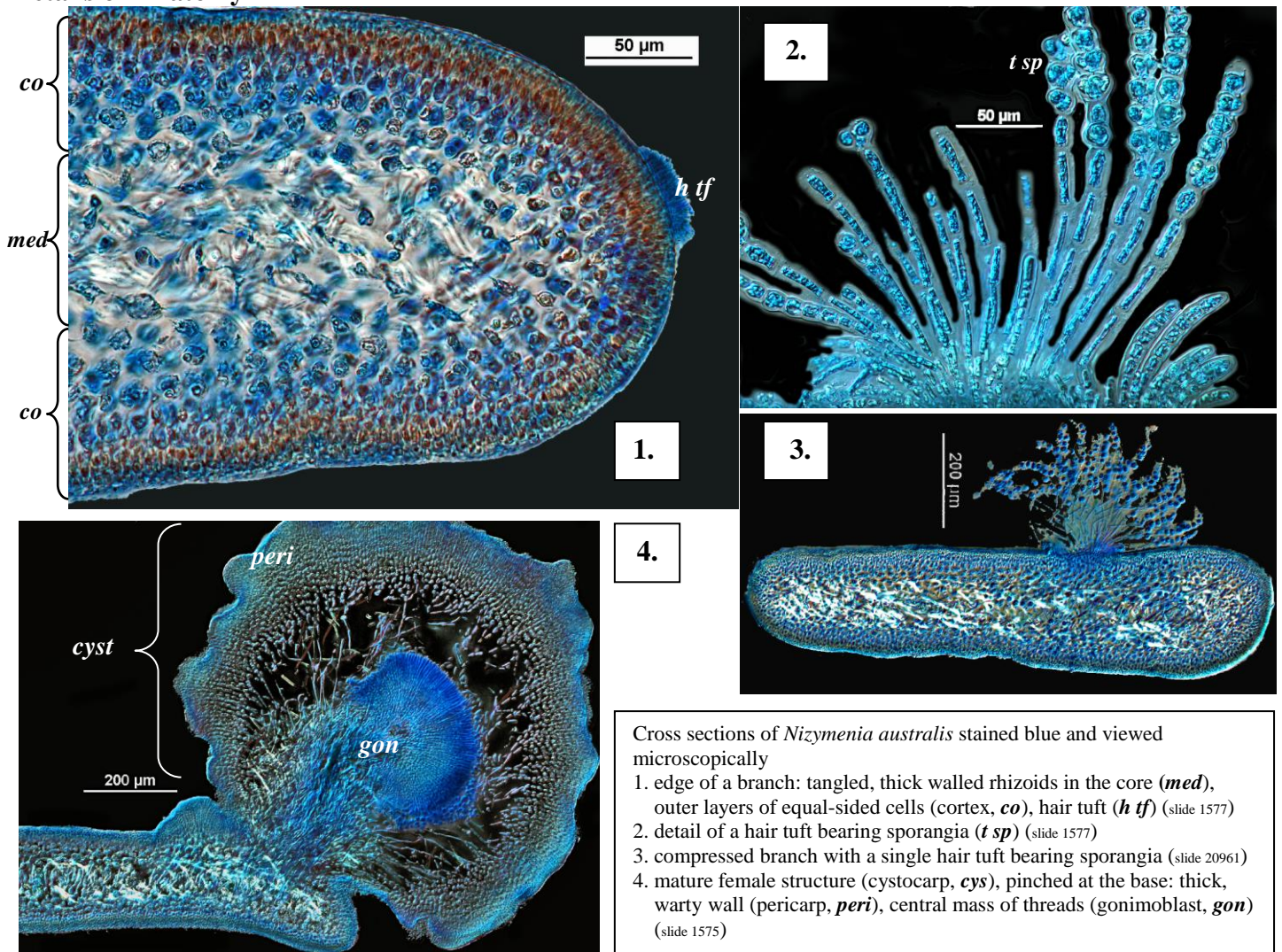
- in cross sections: a core (medulla) of *thick-walled*, entangled *rhizoids*, outer layers (cortex) of equal-sided cells decreasing in size outwards
- in sporangiate plants: minute *tufts* of unbranched hairs on branch surfaces bearing groups of 1-3 sporangia, a feature of the Family Nizymeniaceae; sporangia divided irregularly in a cross (cruciate) pattern
- in swollen mature female structures (cystocarps): each *pinched* at the base, walls thick, surface *smooth or warty*, amoeba-like (fusion) cell central, spores at ends of radiating threads (gonimoblast)

**Similar Species**

*Nizymania conferta* (previously *Stenocladia australis*); but that species is more compact, with slenderer branches and a prominent central filament when viewed microscopically

**Description in the Benthic Flora** Part IIIA, pages 403-405

**Details of Anatomy**



Cross sections of *Nizymania australis* stained blue and viewed microscopically  
 1. edge of a branch: tangled, thick walled rhizoids in the core (*med*), outer layers of equal-sided cells (cortex, *co*), hair tuft (*h tf*) (slide 1577)  
 2. detail of a hair tuft bearing sporangia (*t sp*) (slide 1577)  
 3. compressed branch with a single hair tuft bearing sporangia (slide 20961)  
 4. mature female structure (cystocarp, *cys*), pinched at the base: thick, warty wall (pericarp, *peri*), central mass of threads (gonimoblast, *gon*) (slide 1575)

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



5.



6.

7.



*Nizymenia australis* Sonder from S Australia

5. from 10-12m deep, Knight Point, Horseshoe Bay (A71821)

6, 7. two magnifications of a specimen 20m deep, West I. (A32651)

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