

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

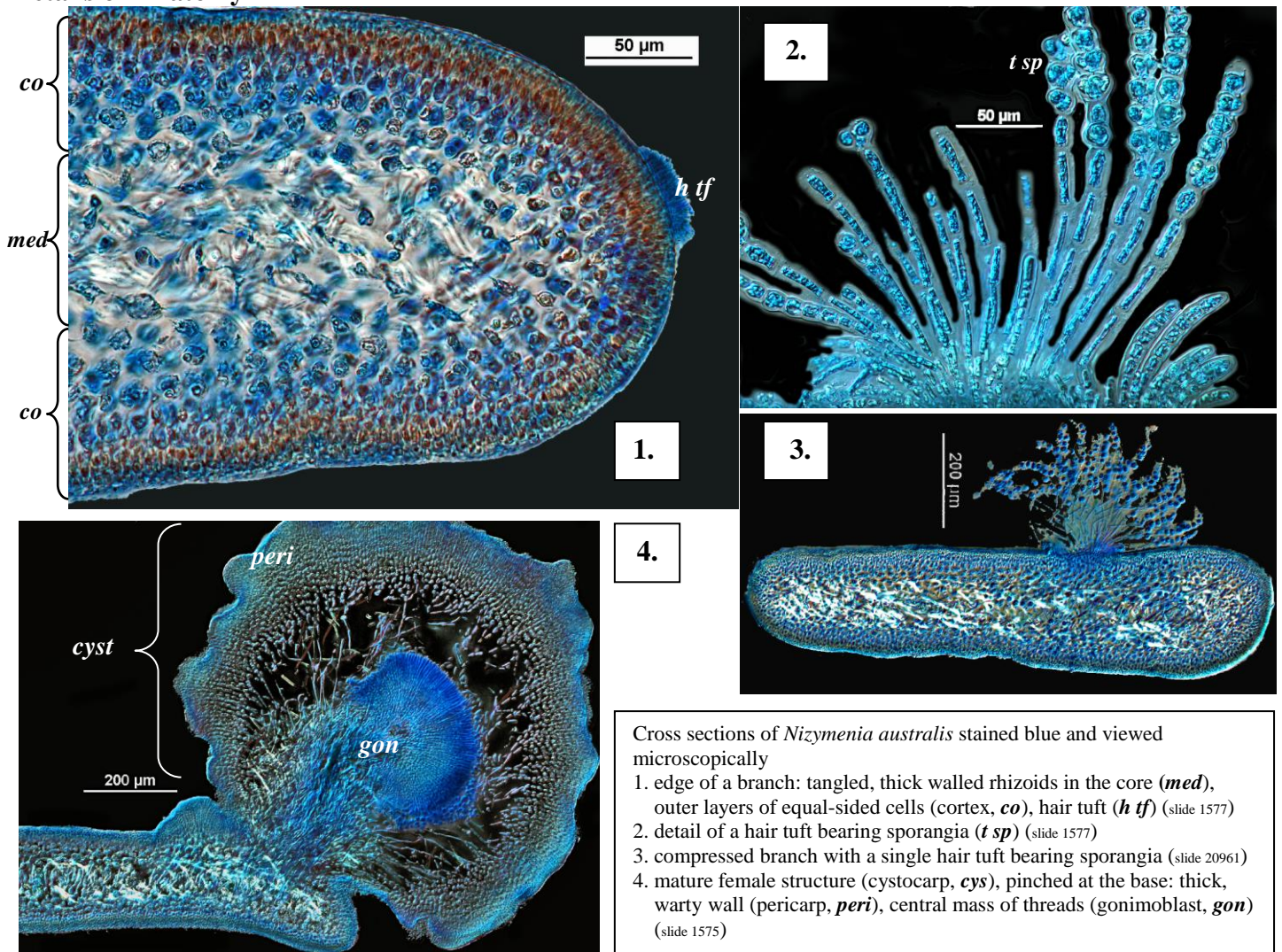
- in cross sections: a core (medulla) of *thick-walled*, entangled *rhizoids*, outer layers (cortex) of equal-sided cells decreasing in size outwards
- in sporangiate plants: minute *tufts* of unbranched hairs on branch surfaces bearing groups of 1-3 sporangia, a feature of the Family Nizymeniaceae; 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)

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