

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



plants are rare

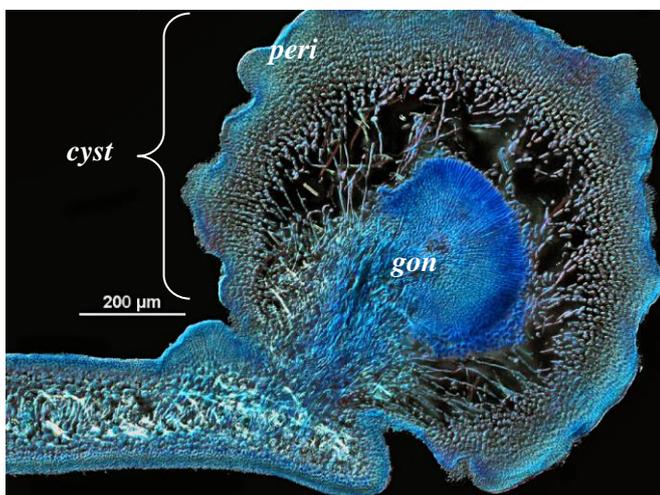
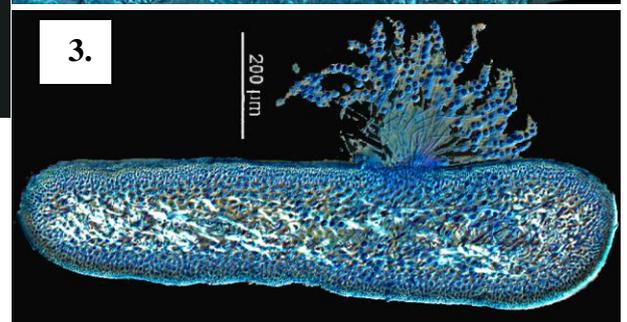
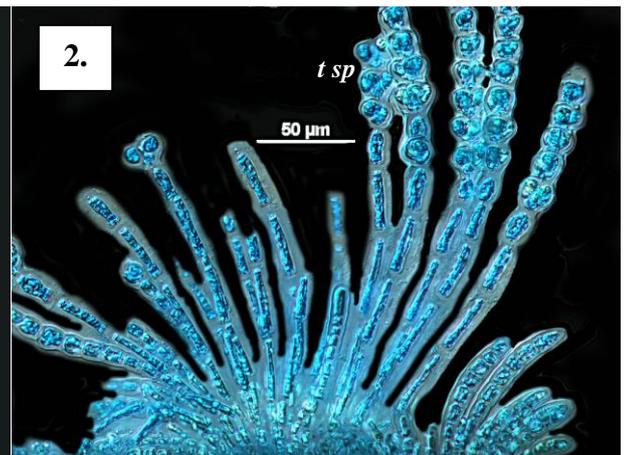
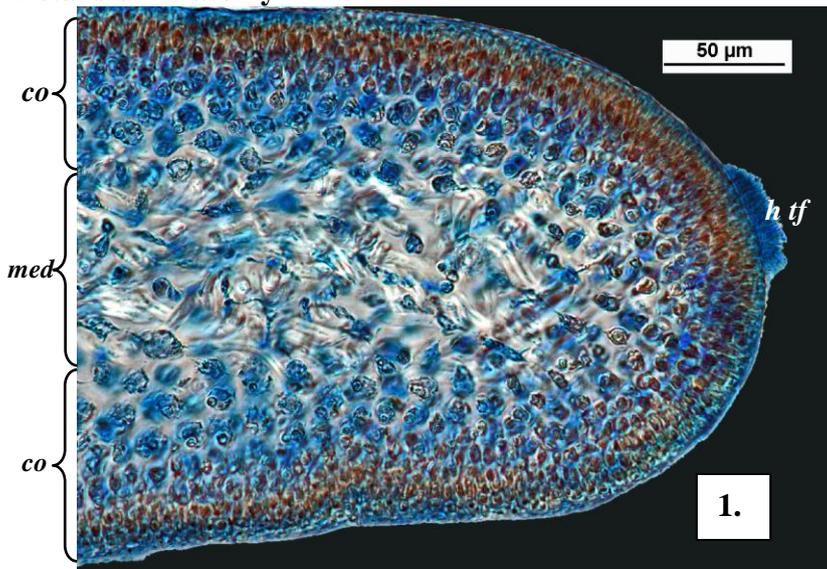
- in cross sections: a core (medulla) of **thick-walled**, entangled **rhizoids**, outer layers (cortex) of equal-sided cells decreasing in size outwards
- in sporangiate plants: minute **tufts** of unbranched hairs on branch surfaces bearing groups of 1-3 sporangia, a feature of the Family Nizymeniaceae;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



4.

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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