

Sonderopelta coriacea

Womersley & Sinkora

45.240



**MACRO
PLANT**



Techniques needed and shape

Classification

Phylum: Rhodophyta; Order: Gigartinales; Family: Peyssonneliaceae
§red sea fan

*Descriptive name

Features

1. plants dark red, 50-200mm long and sometimes broader.
2. a single or several split leathery, flat, fan-shaped blades spread from a short stalk of interwoven threads;
3. blades have a thicker margin and concentric rings. The underside is felty with a covering of yellowish rhizoids

Occurrences

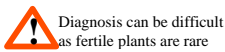
New Zealand. In Australia, from the Great Australian Bight to Port Phillip, Victoria in deep water or reef shaded overhangs or caves

Usual Habitat

Special requirements



1. cut a cross section along a radius of a blade and view microscopically to find threads (multicellular filaments) arising near the blade underside, curving upwards and downwards to form two asymmetric layers and rhizoids on the underside
2. if possible cut a section through patches (nemathecia) on upper blade surfaces of sporangial plants. Tetrasporangia are divided in a cross (cruciate) pattern and lack intermingled hairs a feature separating *Peyssonnelia* from *Sonderopelta*

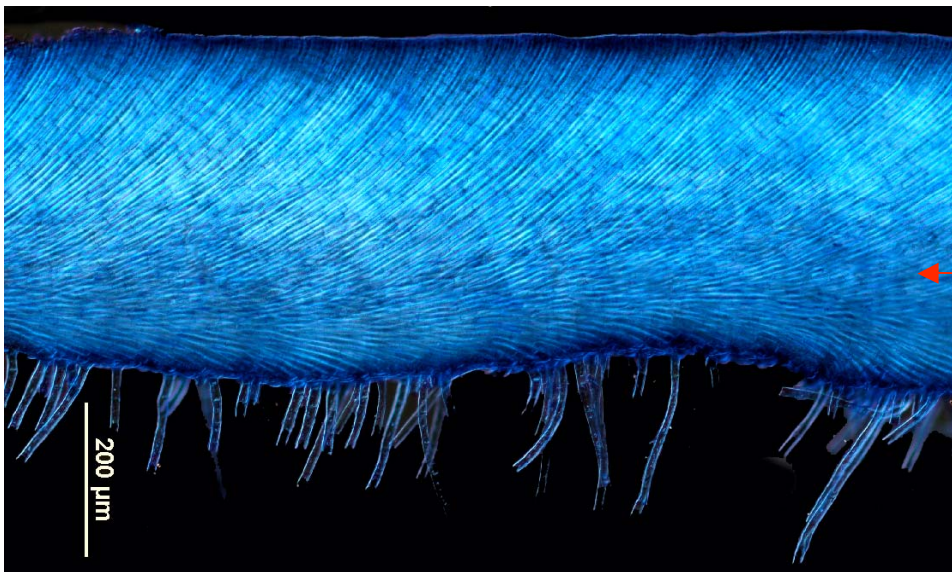


Similar Species

Peyssonnelia novae-hollandiae, but that species is mainly prostrate, has internal threads that curve upwards only and tetrasporangia are intermingled with hairs

Description in the Benthic Flora Part IIIA, pages 151-153, 156

Details of Anatomy



1.

threads curve upwards

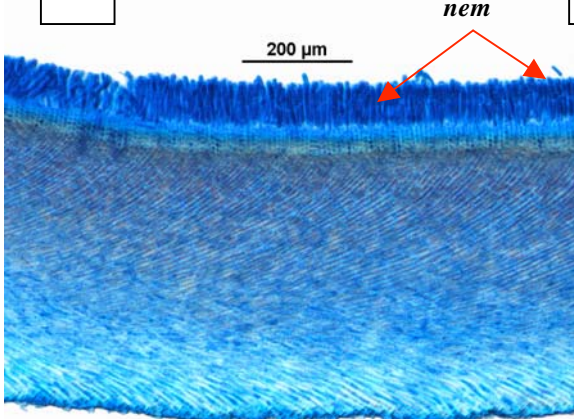
origin of threads

threads curve downwards

rhizoids

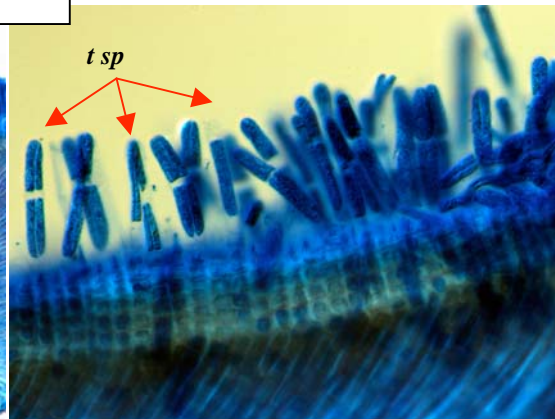
a radial cross section of a *Sonderopelta coriacea* blade (A71832 slide 20492) stained blue and viewed with highly polarised light to accentuate the internal asymmetric regions of multicellular threads

2.



nem

3.



t sp

two magnifications of a radial cross section through a patch (nemathecium, *nem*) of tetrasporangia (*t sp*) of *Sonderopelta coriacea* (A61477 slide 12560) stained blue, showing elongate tetrasporangia divided in a cross (cruciate) pattern and absence of hairs

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

§ name used in Edgar, G. *Australian Marine Life*, 2nd Ed. (2008)

“Algae Revealed” R N Baldock, S Australian State Herbarium November 2009

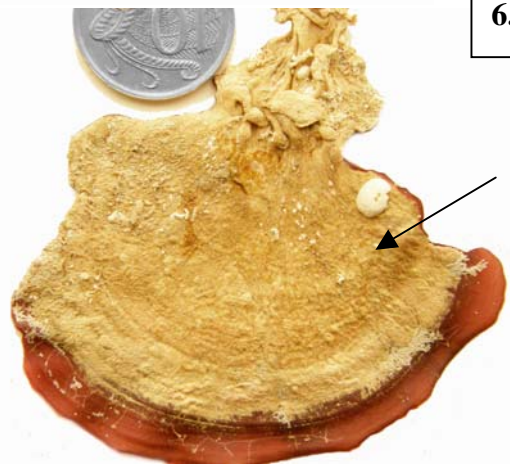
4.



5.



6.



rhizoids forming a felty layer on the under-side of a blade



7.

4 -6. different magnifications and upper and lower surfaces of specimens of *Sonderopelta coriacea* Womersley & Sinkora (A56402) from 1m deep, in a shaded pool, Nora Creina Point, S Australia
 7. a plant with single large blade (A70365) from Althorpe I., S Australia

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