

Zonaria spiralis
(J Agardh) Papenfuss

34.390



Techniques needed and plant shape



MACRO
PLANT

Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

***Descriptive name**

twisted fan plant; § spiral fanweed

Features



1. plants dark brown, 30-150mm long, lower branches *felty*, upper of flat, *twisted* blades 1-2mm wide
2. blade tips *fan-shaped* edged with a line of dark dividing cells (meristem)

Special requirements



1. view the line of dark dividing cells at the fan edges and concentric lines of hairs
2. slice a young blade across to view the several rows of *equal-sized* cells middle (medullary) cells and 1-2 rows of outer (cortex), smaller cells
3. view the detail of surface cells that occur in *pairs*

Occurrences

from W Australia, to Victoria

Usual Habitat

on hard surfaces in deep water (to 38m) or in shaded shallow water

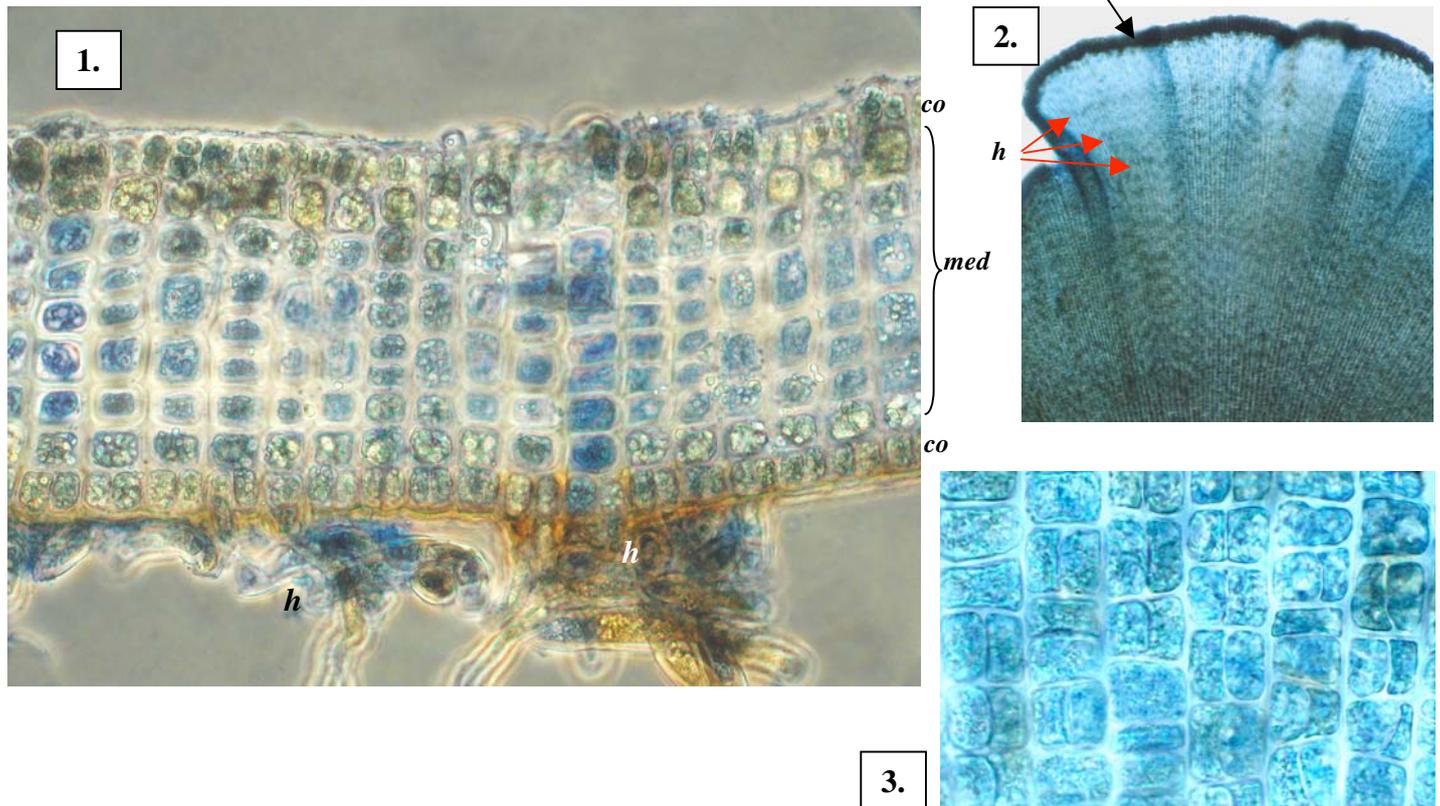
Similar Species

1. *Zonaria turneriana*, but in this species, blades are wider and not twisted
2. *Zonaria angustata*, but in this species, blades are not twisted, and there are no hairs in the reproductive patches (sori)

All 3 species have similar young plants with wide, flat blades

Description in the Benthic Flora Part II, pages 250-252, 254

Details of Anatomy



Zonaria spiralis stained blue and viewed microscopically

1. cross section with 6 rows of equal-sized cells of the inner layer (medulla, *med*), outer (cortex, *co*) rows of *paired* cells, and hair tufts (*h*) (slide 9889)
2. edge of a blade with dark, fringing line of dividing cells (meristem, *mer*) and (vague) concentric lines of hairs (*h*) (slide 9889)
3. detail of surface cells showing pairing of some, characteristic of the genus

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, July 2003



4, 5 two magnifications of *Zonaria spiralis* (J Agardh) Papenfuss (A2888b): a plant cast up at Pennington Bay, Kangaroo I., S. Australia, showing characteristic spiral blades

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