

Techniques needed and plant shape



Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

*Descriptive name

rolled-edge fan-plant

Features

1. plants brown, up to 250mm across, of *fan-shaped* lobes with some lime on the upper surface
- 2 blade edges are *in-rolled* upwards and inward.
- 3 *concentric bands* of hairs are prominent.
4. continuous or broken patches of sporangia occur on the *underside* of blades

Variations

Special requirements.



blades may become divided into wedge-shaped pieces
slice the blade across to view microscopically

- 2 rows of cells; the upper cells *taller* than the lower ones
- *concentric* bands of hairs on *both* sides of the blade
- sporangia in *rows* with a flimsy cover (indusium), clustered into concentric bands or broken patches (sori) on the *lower side* of the blade only

Occurrences

tropics and sub-tropics of E Atlantic and Japan. In Australia, from the west coast of W Australia and Pt Sinclair, S. Australia

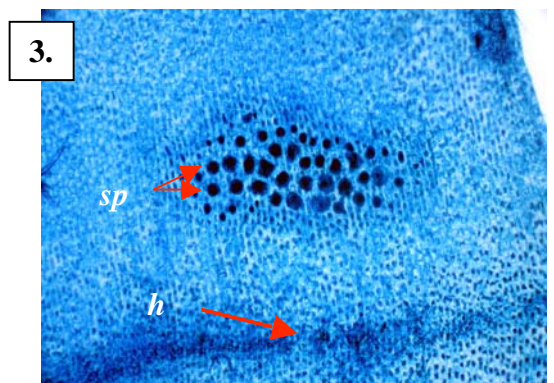
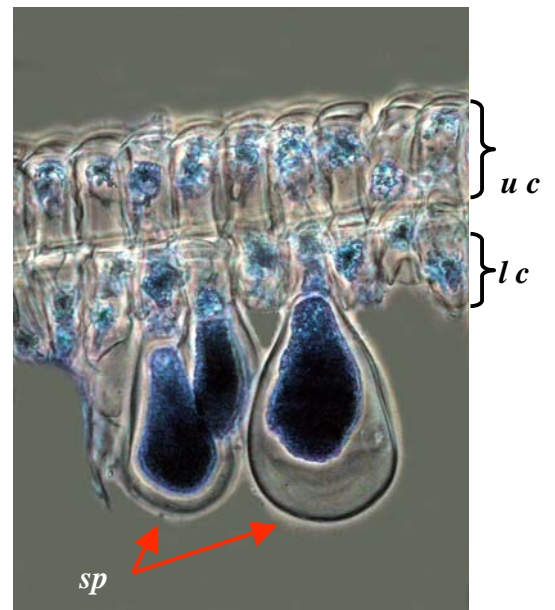
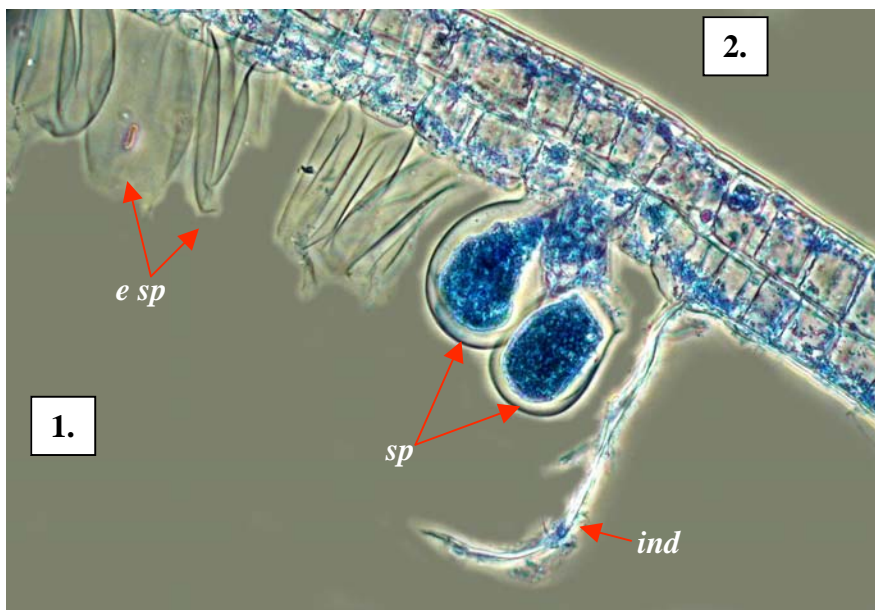
Usual Habitat

Similar Species

Padina elegans, but that species has sporangia on the *upper* side of the blade; cells of the upper layer are *shorter* than those of the lower layer

Description in the Benthic Flora Part II, pages 218, 219, 221

Details of Anatomy



- 1., 2. two views of a cross section of *Padina sanctae-crucis* (A13892 slide 9677) through a sporangial cluster (sorus) on the underside of a blade, stained blue and viewed microscopically, showing
 - complete sporangia (*sp*) and empty sporangial cases (*e sp*)
 - remnant of the flimsy covering (indusium, *ind*)
 - taller upper cells (*u c*) than lower cells (*l c*)
3. surface view of a blade with a band of hairs (*h*) and a sporangial sorus with *lines* of sporangia (*sp*)



Padina sanctae-crucis Børgesen
(A69287)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed" R N Baldock, S Australian State Herbarium, July 2003