Dictyota alternifida
J. Agardh

24.390

Techniques needed and plant shape

MACRO PLANT

Classification Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Dictyoteae

***Descriptive name** fringed fork-tips

Features

1. plants olive-brown, branches ***flat*** and ***forked*** (dichotomous)
2. bases with narrow ***fringing blades***
3. sporangia in ***scattered*** patches near the tips

Variations

1. wider branches in some
2. surface may be obscured by fouling growth

Special requirements

1. investigate the tips microscopically to find the ***single*** apical cell
2. slice a section across a blade to find the middle layer (medulla) of a ***single*** row of large cells and outer layer (cortex) of a ***single*** row of small cells

Occurrences from Head of the Bight, S Australia to Victoria and the N coast of Tasmania

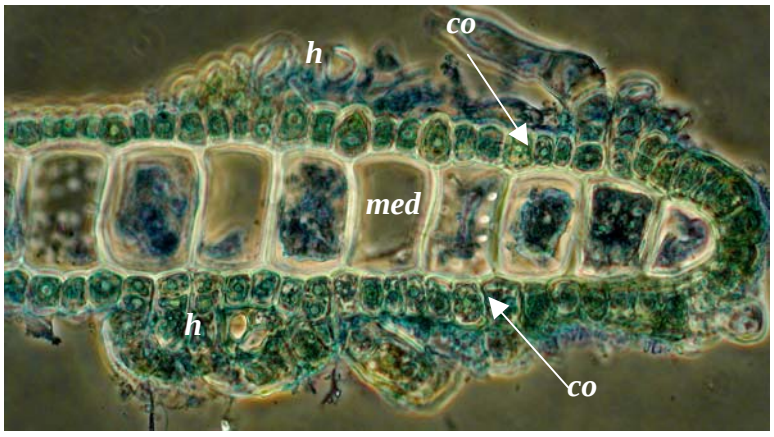
Usual Habitat a common species, in low intertidal pools or shallow water on rocks, to 33m deep, often associated with sand,

Similar Species

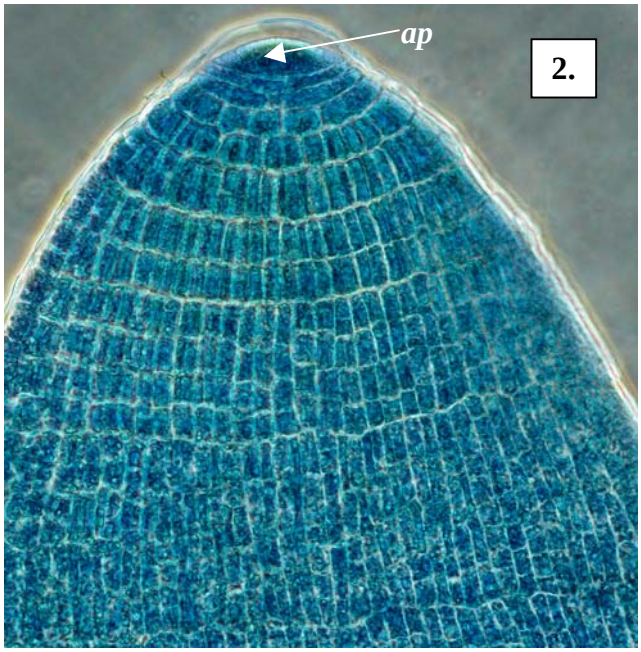
1. *Dictyota fenestrata* has broader branches (to 4mm wide) and occurs in deeper water.
2. *Dilophus fastigiatus* has similar branching, but pressed specimens are darker brown. Like *Dictyota*, young blades have a single row of cells in the medulla and cortex, when seen in sectional view, but in *Dilophus* there are 2-4 cells ***at least at the edges***.

Description in the Benthic Flora Part II, page 198

Details of Anatomy



1.



1. cross section of a blade, showing the outer layer (cortex, *co*) consisting of a single row of small cells. The middle layer (medulla, *med*) consists of a single layer of large cells. The clumps of cells on the surface are hair tufts (h) (slide 9559)
2. tip of a blade showing a lens-shaped apical cell (*ap*) that will continue the growth of new branches. (slide 9559)

3.

4.

3. *Dictyota alternifida* J. Agardh, (A22562), from Coffin Bay, S. Australia, in the upper intertidal, just outside Kellidie Bay
4. a specimen stained blue, showing the fringing branches (proliferations) at the base, characteristic of this species (slide 9378)