

Dictyota dichotoma
(Hudson) Lamouroux

34.390



MACRO
PLANT



Techniques needed and plant shape

Classification

Phylum: Phaeophyta; Family: Dictyotaceae; Tribe: Dictyoteae

***Descriptive name**

variable fork-tips; German name: common forked tongue; § brown forkweed

Features



1. plants medium-brown of flat blades branching **regularly** into two's (dichotomous)
2. underwater, plants often **iridescent blue**
3. sporangia in **scattered** patches on blades

Variations

1. a narrow variety, var. *intricata* (C. Agardh) Greville, with relatively long distances between branching, is common in **sheltered**
2. the lower branches may be occasionally **fringed** if the plant has been heavily grazed

Special requirements



1. investigate the tips microscopically to find the **single** apical cell
2. essential to cut a slice of a branch and view microscopically.
The middle (medulla) cells are large and in **1 layer**, and the outer cells (cortex) are small and in a **single** cell layer

Occurrences

worldwide.

Usual Habitat

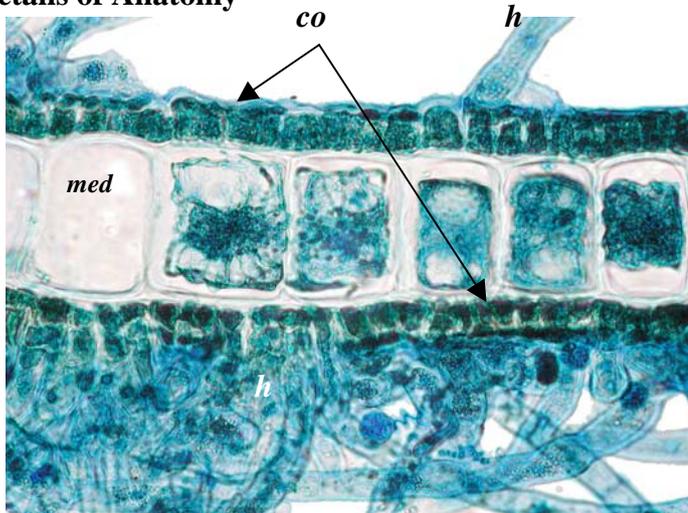
widespread in shallow water to 21m, on hard surfaces.

Similar Species

1. narrow forms (var. *intricata*, for example) are similar to *D. furcellata*
2. broad forms similar to *Dilophus robustus*, but at the edges of branches the inner cells (medulla) of *Dilophus* are in 2-3 layers whereas *Dictyota* has one layer

Description in the Benthic Flora Part II, pages 194-196

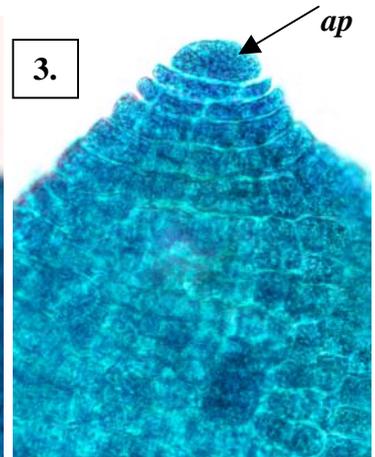
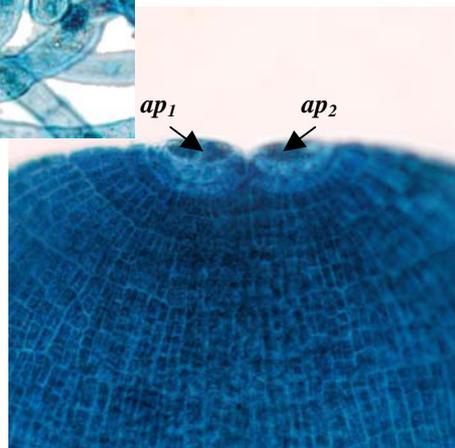
Details of Anatomy



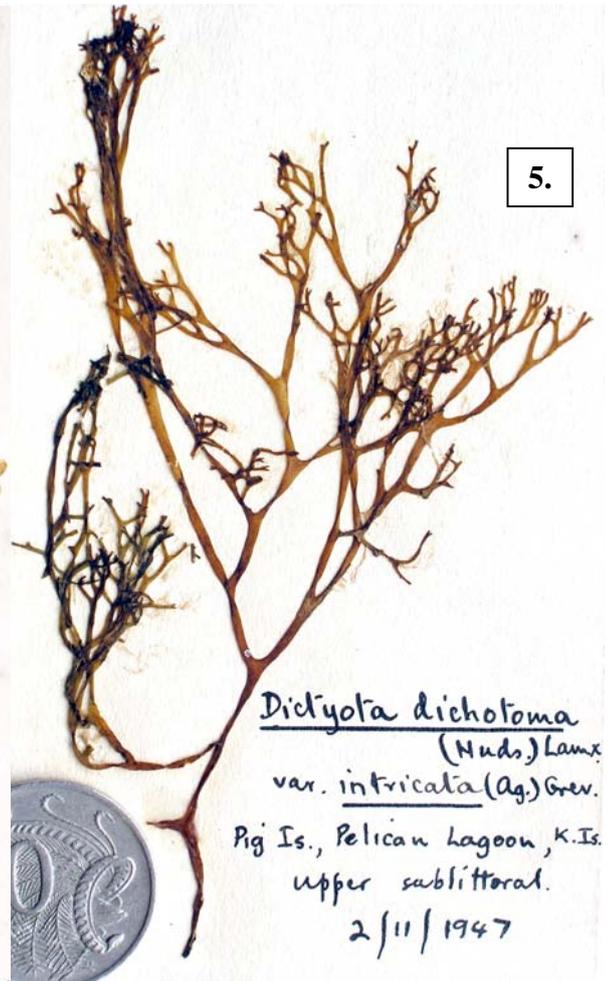
1. a slice through a blade showing single layers of small surface (cortex, *co*) cells, large middle (medulla, *med*) cells, and masses of hairs (*h*), (slide 9644)
2. apical cell of a blade has divided forming 2 cells (*ap₁*, *ap₂*) that will produce the characteristic forked branching pattern of plants (slide 9645)
3. blade tip showing protruding, lens-shaped apical cell (*ap*) that continues the growth of the blade (slide 9645)

1.

2.



* 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



- Dictyota dichotoma* (Hudson) Lamouroux: variations in form, all from Kangaroo I., S Australia
4. broad bladed form, from E side of Ballast Head, in shallow water (A6102b)
 5. narrow bladed form (var. *intricata*), from Pig I., Pelican Lagoon, in shallow water (A66196m)
 6. medium bladed form, from Vivonne Bay, in shaded intertidal pools (A10606c)