**Dictyota dichotoma**  
(Hudson) Lamouroux

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)

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* 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 (A6102h)
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)

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