

***Pachydictyon paniculatum***  
(J Agardh) J Agardh

24.390

**Techniques needed and plant shape**



MACRO  
PLANT



**Classification**

Division: Phaeophyta; Family: Dictyotaceae; Tribe: Dictyoteae

**\*Descriptive name**

tufted fork-tips; banded fork-tips; §stringy forkweed

**Features**

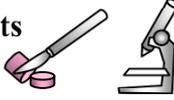


1. plants **dark brown** and grow on larger algae (epiphytic)
2. main blades are **thin** with **tufts** of **narrow** blades forked at their tips
3. dark flecks may occur in **rows** across blades

**Variations**

tufts may be denuded by grazing, making specimens look like *Dictyota*

**Special requirements**



1. view the **single** protruding cell at blade tips that continues the growth of blades
2. note the parallel (**fastigate**) orientation of blade branches
3. cut a slice across a blade at the **base** of the plant and view the **several layers** of small outer (cortical) cells and single layer of large inner (medulla)

**Occurrences**

from central W Australia to Sydney, NSW

**Usual Habitat**

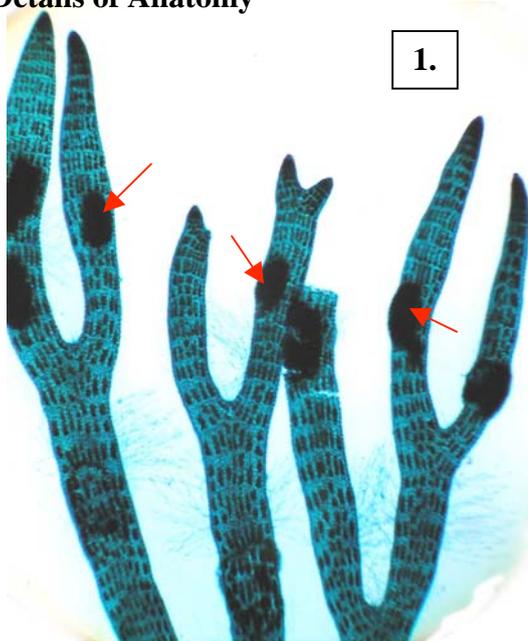
a common species on large algae, often fucoids,

**Similar Species**

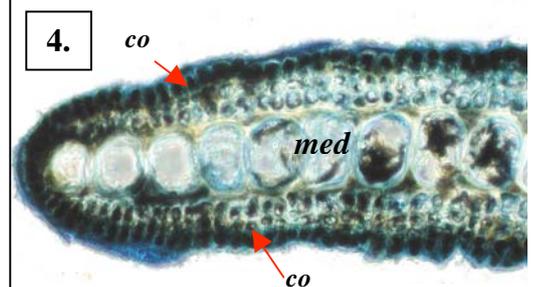
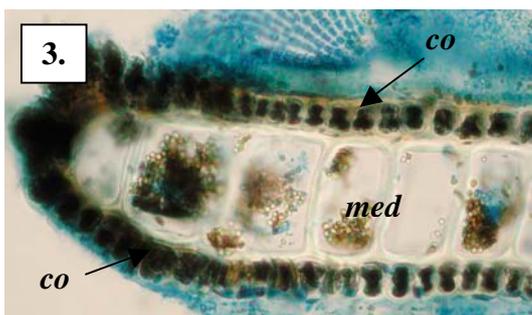
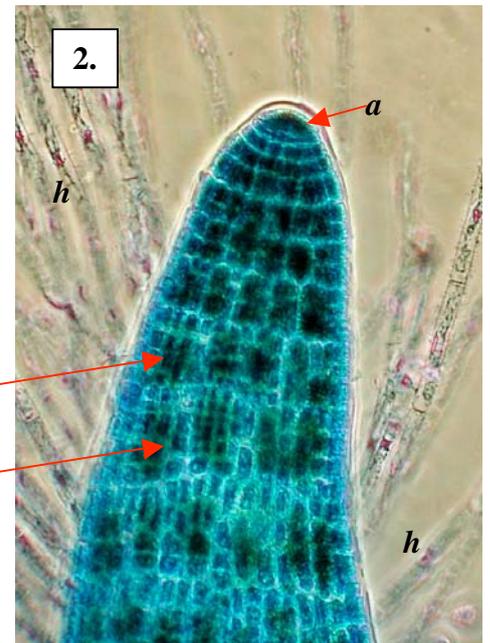
*Pachydictyon polycladum*, but this grows on seagrasses, and the blades are narrow and spreading (**divaricate**). Superficially like *Dictyota dichotoma* when young, but this species has no dark flecks in rows on blades, and only a single row of cortical cells

**Description in the Benthic Flora Part II, pages 211-212**

**Details of Anatomy**



1. Upper part of a plant showing
  - the parallel orientation (fastigate branching) of the forked fronds.
  - bands of dark flecks
  - dark patches (arrowed) near the tips are clusters (sori) of male structures (slide 9613)
2. Tip of a blade showing the single apical cell (*a*) flecked bands (arrowed), and colourless hairs (*h*) (slide 9613)
3. Slice through a **young** blade showing the middle (medulla, *med*) a **single** row of large cells, and a **single** layer of small cells in the outer (cortex, *co*) region. The blue-stained material of the blade surface consists of bacteria and other epiphytic organisms (slide 9611)
4. Slice through an **older** blade showing the large-celled middle (medulla, *med*) layer, with an outer (cortex, *co*) region that has developed **several** columns of small cells (slide 9611)



\* 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

5.



6.



7.



Specimens of *Pachydictyon paniculatum* (J Agardh) J Agardh, from S Australia

5. on other large brown algae, in shallow rock pools, Carpenters Rocks S Australia (A35178)

6, 7. two magnifications of a plant from the intertidal, Mexican Hat, West Coast (A74803)

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