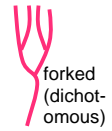




MACRO PLANT



flat-bladed



forked (dichotomous)

Techniques needed and plant shape

Classification

Division: Phaeophyta; Family: Dictyotaceae; Tribe: Dictyoteae

*Descriptive name

alternately-branched brown forked tips

Features



1. plants are olive-brown to dark brown, 50-150mm long
2. branching is *alternate*, forked only at the very tips
3. branches are *2-4mm* broad

Special requirements



- 1 view the blades microscopically to find
 - single, *lens-shaped* apical cells that continue the growth of the blade
 - if possible, *large* sporangia, 100-160µm across, on the blade surface, scattered *sparsely* or in small *packets*
 - if possible, scattered patches of male cells, looking like pustules
2. slice a blade across and view microscopically the middle (medulla) layer of a *single* row of large cells, outer (cortex) layer of a *single* row of small cells and sparse clusters of stubby hairs on the surface



Occurrences

an infrequent species, from Marion Bay, S Australia to Low Head, Tasmania on rock, 3-13m deep

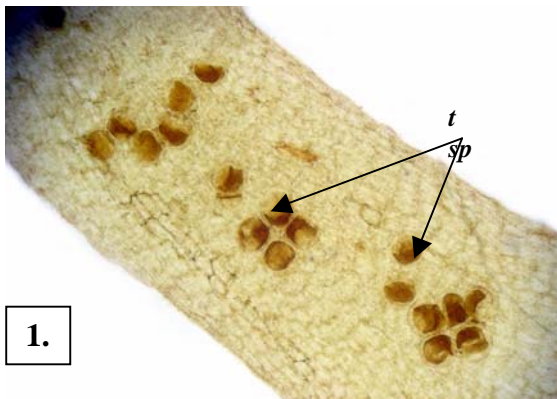
Usual Habitat

Similar Species

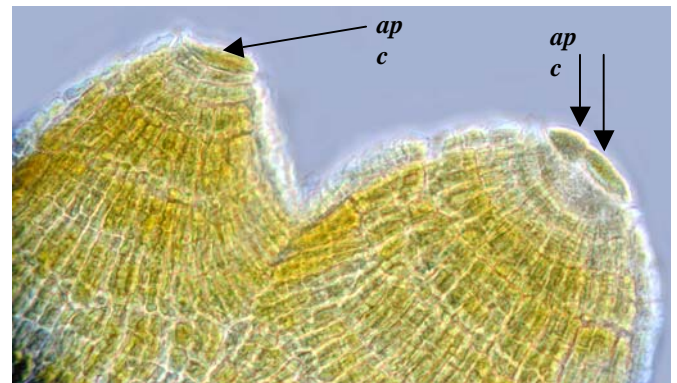
Dictyota alternifida, but fronds are narrower (1-2mm broad), sporangia are smaller and side tufts develop in that species

Description in the Benthic Flora Part II, pages 197-198

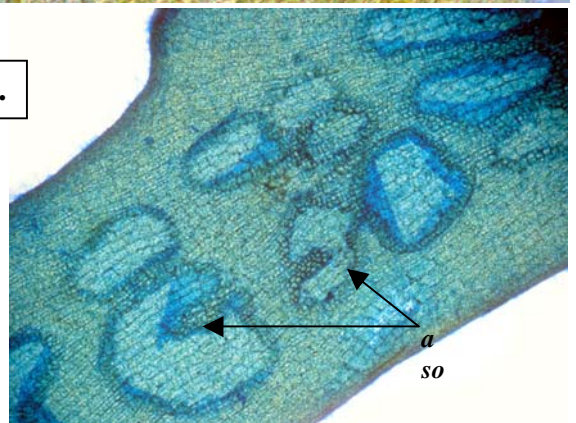
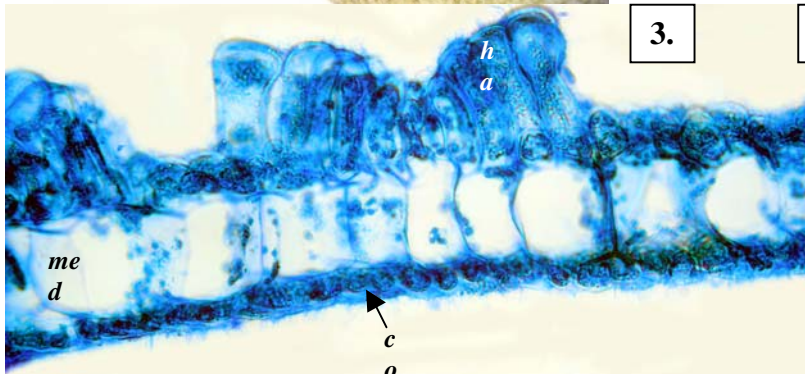
Details of Anatomy



2.

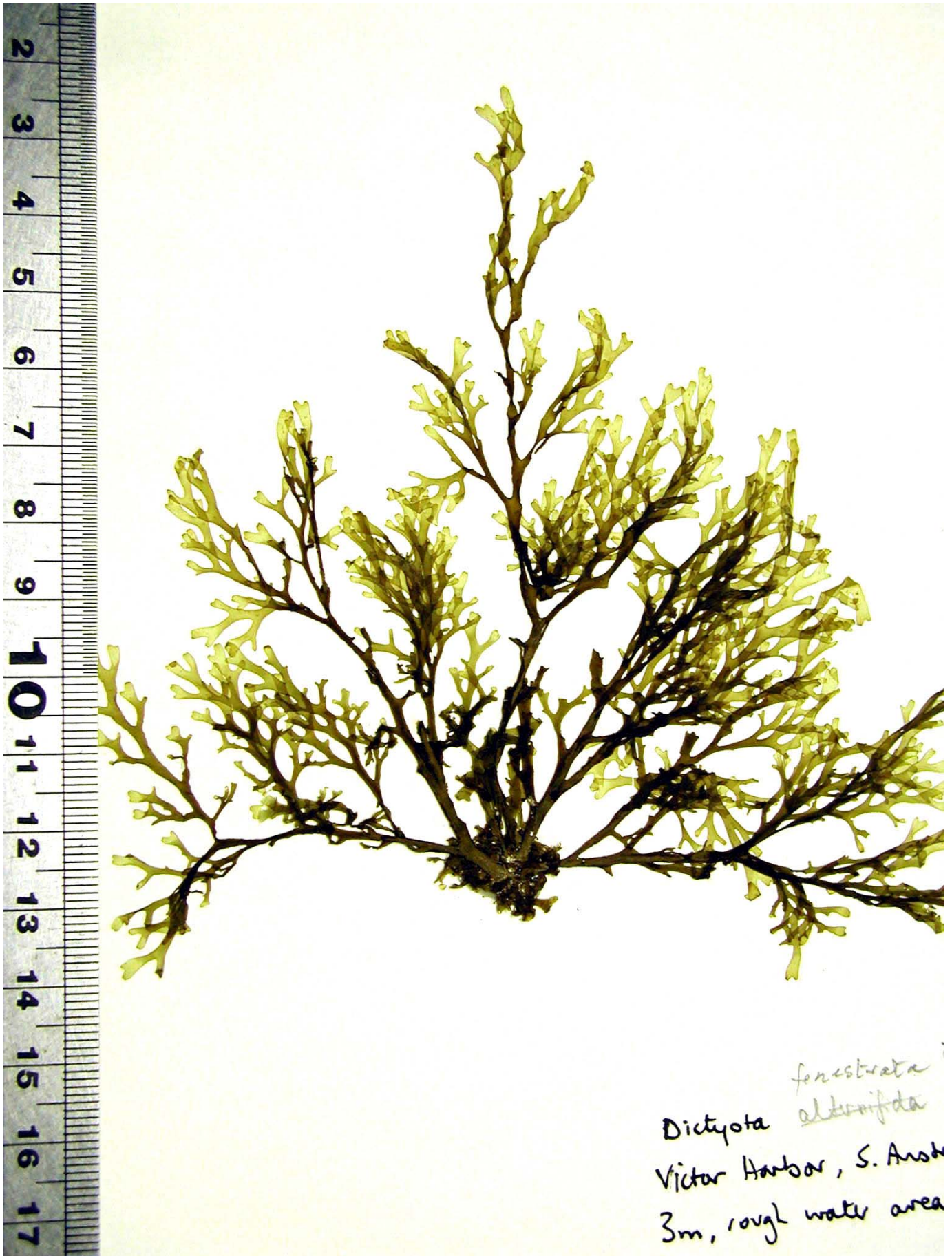


4.



Dictyota fenestrata (A47111)

1. showing scattered packets of large sporangia (tetrasporangia, *t sp*) on the blade surface (slide 9388)
 2. with lens-shaped apical cells (*ap c*) (slide 9389)
- a specimen (A68179) viewed microscopically
3. cross section showing the middle layer of large cells (medulla, *med*), outer layer of small cells (cortex, *co*), and protruding hairs tuft (*ha*) (slide 18065)
 4. surface view of pustulate male clusters (antheridial sori, *a so*) (slide 18066)



Dictyota fenestrata
Victor Harbor, S. Austr
3m, rough water area

Dictyota fenestrata J Agardh, (A63058), 3m deep,
from Victor Harbor, S Australia

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