Homoeostrichus canaliculatus (J Agardh) J Agardh

34.390

Techniques needed and plant shape

MACRO PLANT

Classification Division: Phaeophyta; Family: Dictyotaceae; Tribe: Zonarieae

***Descriptive name** deepwater split fronds

Features

1. plants brown to grey-brown, 100-200mm long, densely branched
2. branches twisted, and matted together into a stalk at the base
3. main branches (axes) are ***flat*** but ***split*** lengthwise at the tips into forked, linear branches about 1mm wide that ***twist***
4. the surface becomes ***felty*** below

(† reproductive features are unknown)

Occurrences from Nora Creina, S. Australia to Port Phillip, Victoria

Special requirements

Diagnosis can be difficult

1 view the blades microscopically to find
- frond tips are ***flat***, and grow from a ***row*** of several cells, but this is obscured by the rapid splitting lengthwise into linear forked sections
- surface cells are in ***rows***

2. slice a blade **<u>across</u>** and view microscopically:
- blades are 6-7 cells thick
- cells are in ***regular*** stacks and ***equal*** in size in this view

3. slice a blade ***<u>lengthwise</u>*** and view microscopically:
- middle (medulla) cells, still in sracks, but elongate in this view
- outermost (cortical) cells are small in this view and ***4-6*** sit above each medullary cell

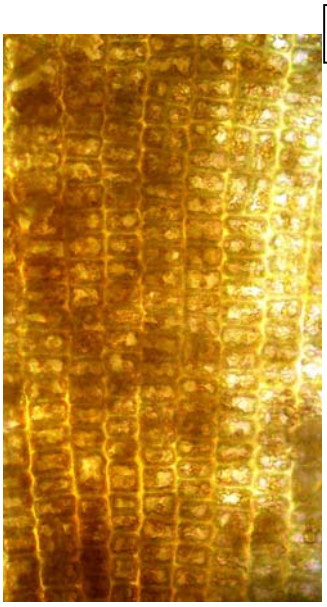
Occurrences SE of S Australia to Victoria

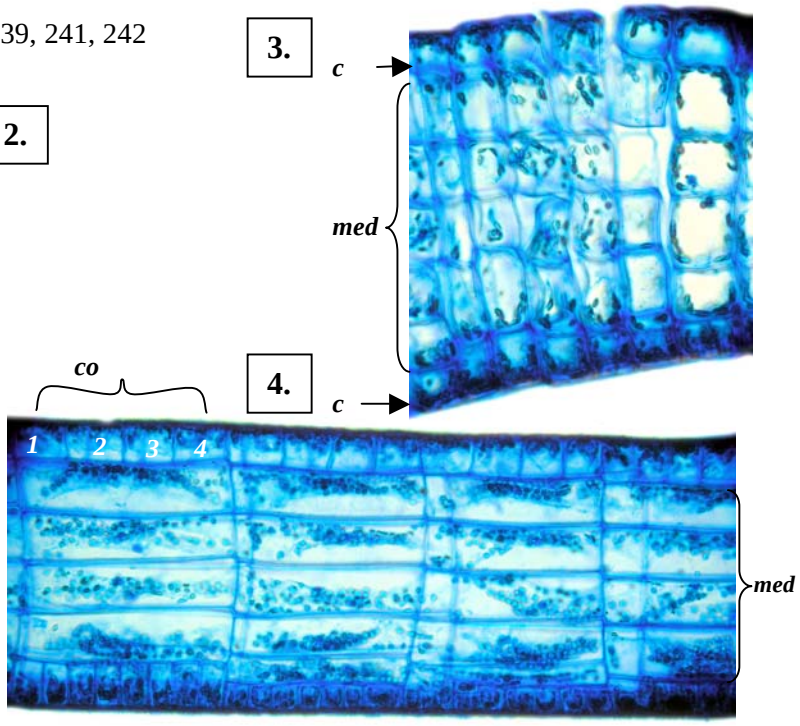
Usual Habitat probably a deep water species of rough-water coasts

Similar Species -

Description in the Benthic Flora Part II, pages 239, 241, 242

Details of Anatomy





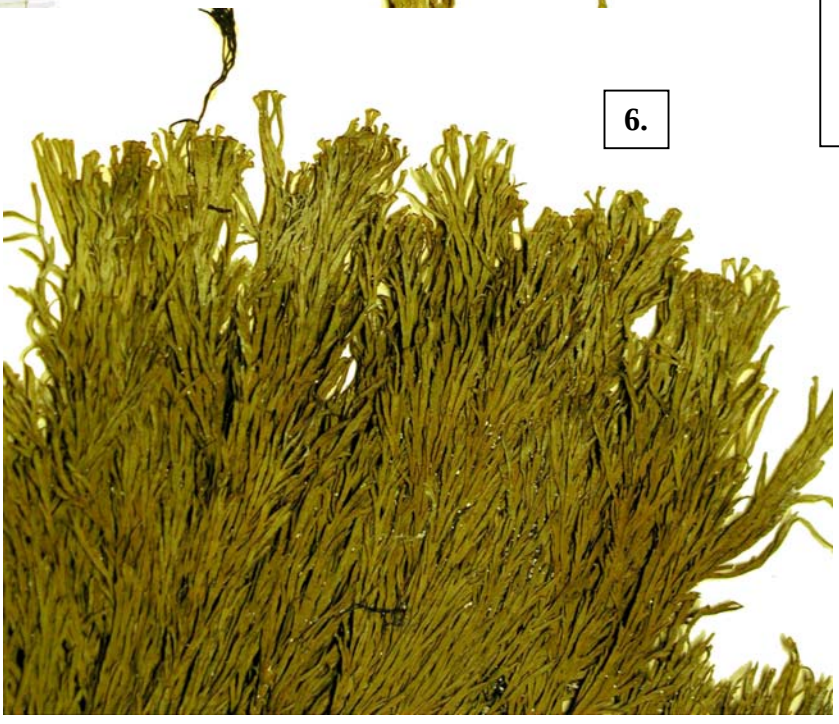
1, 2. a preserved (bleached) specimen of *Homoeostrichus caniculatus* (A18976) viewed microscopically
1. a plant tip showing the splitting of flat fronds into linear, forked pieces
2. frond surface to show rows of surface (cortical) cells

3.-4. *Homoeostrichus caniculatus* (A18976 slide 9856), stained blue and viewed microscopically
3. a ***cross section*** of a blade with ***stacks*** of ***6-7*** cells consisting of outer (cortical, *co*) and middle (medullary, *med*) cells, equal size ***in this view***
4. a ***lengthwise*** section. Medulla cells are still in tiers but are elongate ***in this view***; cortical cells are small, ***4-6*** alie to above each medulla cell

* Descriptive names are inventions to aid identification, and are not commonly used

"Algae Revealed" R N Baldock, S Australian State, July 2003

5.



6.

5.-6. Two magnifications of *Homoeostrichus caniculatus* (J Agardh) J Agardh, (A18976); a drift specimen from Port MacDonnell, S Australia

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