

Techniques needed and plant shape



filament

MICRO
PLANT



Classification

Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae;
Tribe: Callithamnieae

*Descriptive name

sea grass red epiphyte

Features



plants red-grey, to 50mm tall, on sea grass; main branches (axes) with radial side tufts

Special requirements

view microscopically to find

- upright main branches (axes) forked, in lower parts densely clad (corticated) in **rhizoids**, arising from the basal cells of short, radially arranged side branches, some side branches near the plant tips branched on their lower (**abaxial**) sides only
- carposporophytes (products of fertilisation), of 1-2 **bunches** of carposporangia on a **short** fusion cell attached to the lower cells of naked (**ecorticate**) side branches, wrapping (involucre) of branches **absent**
- tiny male spermatangial branches on the **upper** (adaxial) sides of short, side branches
- **stalkless** tetrahedrally divided tetrasporangia on lower cells of side branches



Warning: numerous stalked protozoans can attached to plants and be mistaken for sporangia

Occurrences

only known from Tiparra Reef, S Australia

Usual Habitat

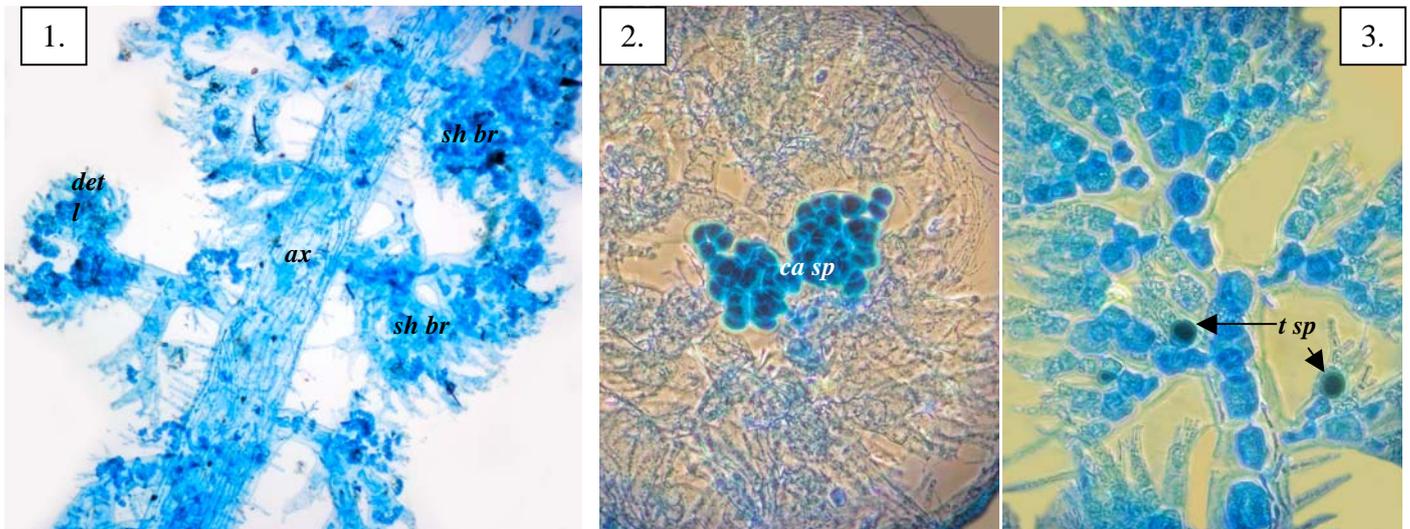
on *Posidonia* and *Amphibolis Antarctica*, 5m deep

Similar Species

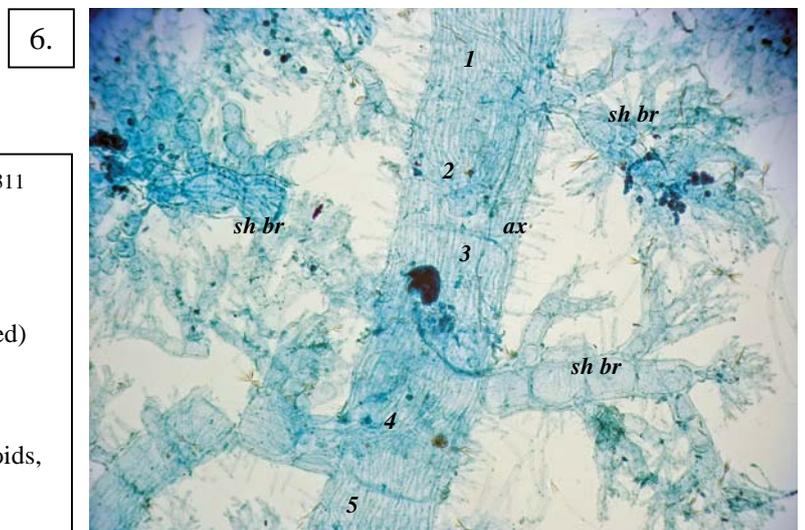
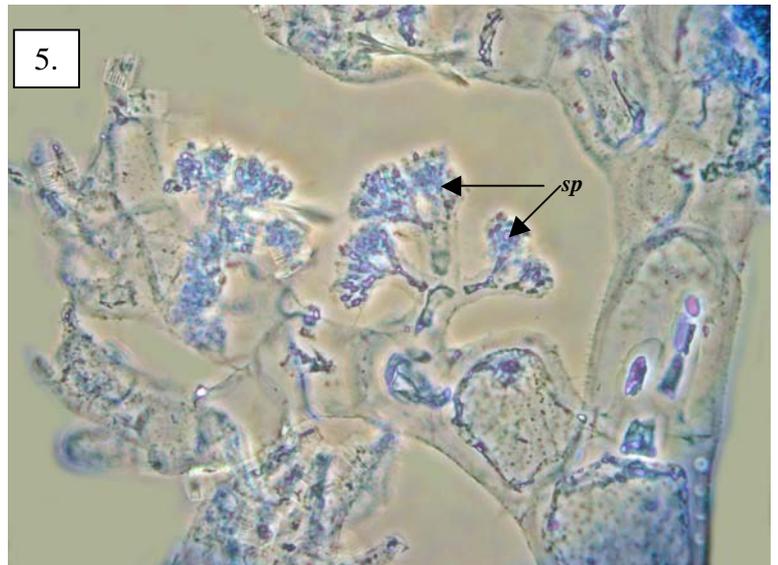
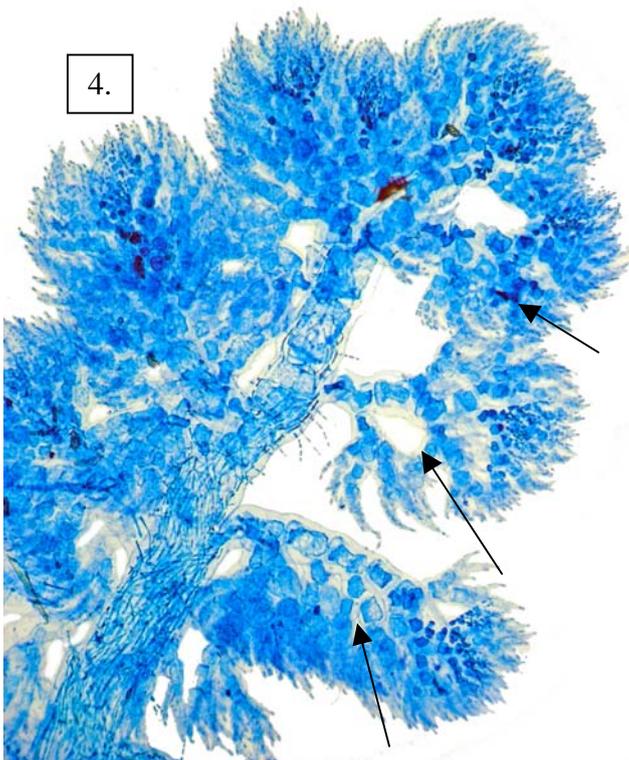
Hirsutithallia laricina, but that species has longer, naked side branches with wider basal cells, carposporangia are larger, upper short branches branched on all sides

Description in the Benthic Flora Part IIIC, pages 260, 262-263

Details of Anatomy



- 1, 2. *Hirsutithallia abaxialis* A37311 stained blue and viewed microscopically at different magnifications
1. main branch (axis, *ax*) clad (corticated) with rhizoids and short (determinate) branches, (*sh br*) (slide 3473)
 2. lobed carposporophyte (product of fertilisation) (*ca sp*) (slide 15726)
 3. young (undivided), stalkless tetrasporangia (*t sp*) on lower cells of a naked side branch (A377712 slide 3472)



Hirsutithallia abaxialis E M Wollaston & Womersley A37311
from Tiparra Reef, S Australia

4. whole plants on sea grass leaves

5-7. specimens stained blue and viewed microscopically,
showing

- 5. branching on lower sides of side branches (arrowed)
(slide 10753)
- 4. fine, branched spermatangial structures (*sp*) (slide
15726)
- 5. main branch (axis, *ax*) clad (corticated) with rhizoids,
large cells showing through near the axis tip
(1.2.3.4.5), and short side branches (*sh br*)