Botryoglossum cartilagineum (Harvey & Greville) Papenfuss

A SPECIES WITH FEW RECORDS

45.880

MACRO PLANT

foliose

Techniques needed and shape

Classification Phylum: Rhodophyta; Order: Ceramiales; Family: Delesseriaceae
Tribe: Nitophylloideae; Group: Cryptopleura

***Descriptive name** dark red film-plant

Features plants dark red, 80-150mm tall, of flat elongate blades narrow basally broadening to 6-15 mm, edges ***smooth***, teeth ***absent***; branching irregular from blade ***edges***, in one ***flat*** surface; small, ***flask-shaped*** leaflets bearing tetrasporangia lie on the surface near the edges of fronds. Zig-zag runners of minute hydroid animals may lie on blade surfaces

Special requirements

1. view plant surfaces microscopically to find:
   growth occurs by divisions of cells along the ***margins*** of blades, microscopic veins ***absent***, blades initially ***3-layered***, many-layered closer to the plant base; flask-shaped leaflets bearing scattered tetrasporangia ***lie flat*** on the surface of blades
2. cut cross sections of mature blades near the base and view microscopically to see the stacks (***tiers***) of ***equal-sized*** cells

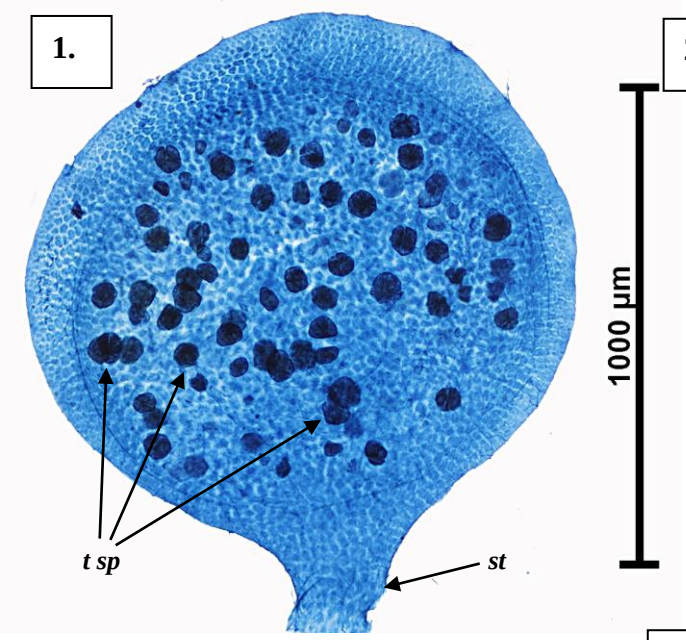
Occurrences Dongara to Swan R. region, W. Australia, Head of the Great Australian Bight, SA

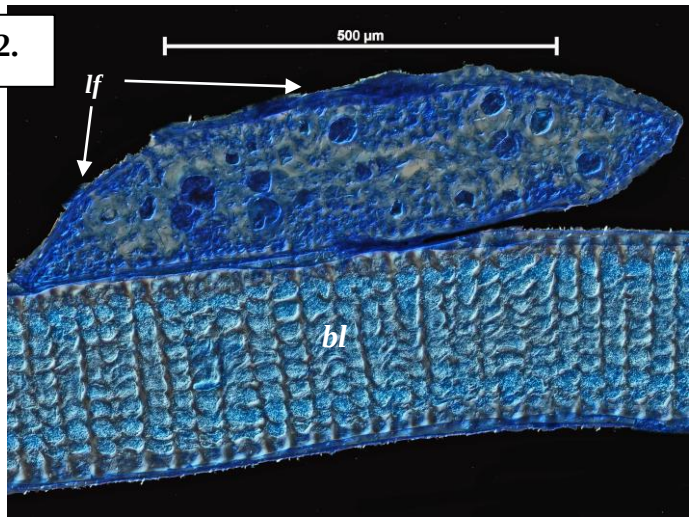
Usual Habitat 22m deep

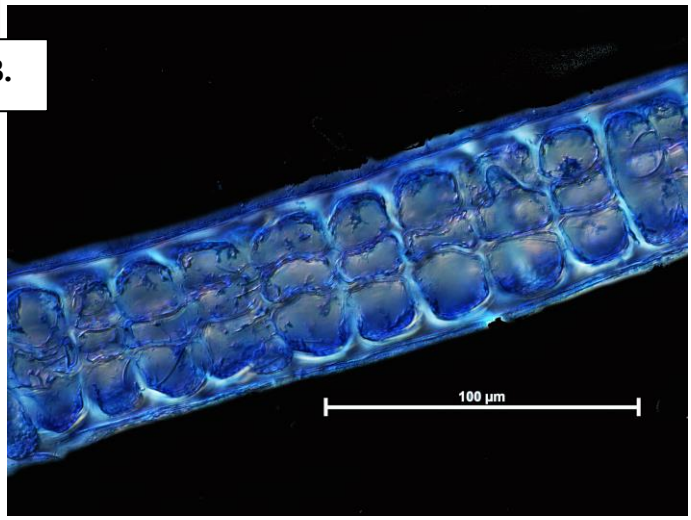
Similar Species readily identified if tetrasporangial leaflets are present

Description in the Benthic Flora Part IIID, pages 144-146. Note: the key on page 16, step 23 separates *Botryoglossum* on the presence of microscopic veins, but this refers to the type species, and ***not*** to *B. cartilagineum* which has no veins

Details of Anatomy





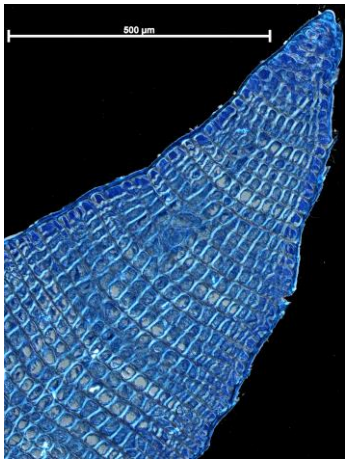


Botryoglossum cartilagineum, A50326, stained blue and viewed microscopically

1. detached tetrasporangial leaflet: embedded tetrasporangia (***t sp***), stalk (***st***) (slide 18061)
2. cross section of a blade: tetrasporangial leaflet (***lf***) lying flat on the surface of a blade (***bl***); stacks (tiers) of cells (slide 18060)
3. section through a blade edge: regular cell rows 3 tiers thick

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

4.



6.

7.

5.

Botryoglossum cartilagineum (Harvey & Greville) Papenfuss

4, 5. from Dongara, W. Australia (A61145): flat blades, narrower at their bases; fibrous base to the plant (arrowed)

6. surface microscope view of un-thickened blade tip: regular cell rows (slide 17403)

7. cross section of thickened plant base: concentric growth rings, radiating cell patterns (slide 17403)

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