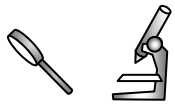
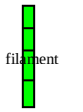
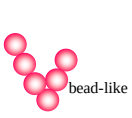
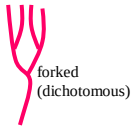
Griffithsia grandis Kützing

45.800.68

Techniques needed and shape





Classification Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae
Tribe: Griffithsieae

***Descriptive name** dark red bead alga

Features 

plants ***dark*** red, 80-140mm tall, bead-like, cells visible to the unaided eye, up to ***6mm long***, ***egg***- or -***ball-shaped***; branches forked several times

Occurrences West Coast, S Australia to Victoria and around Tasmania

Usual Habitat often in deep water (30m), on pebbles or other algae

Special requirements 

view plants microscopically to find

- ball- or egg-shaped vegetative cells in bead-like threads gradually narrowing towards the tips
- in female plants: mature female structures (cystocarps) forming bumps on one side in the constriction between vegetative cells, each with a minute disc-shaped cell producing ***4-7*** two-celled ***involucral branches*** radiating in a semicircle, consisting of an inconspicuous, small basal cell and large, ***swollen***, often ***lobed*** or apically ***notched***, ***incurved*** apical cell
- in male plants, cloud-like masses of spermatangia produced on minute branchlets in the constrictions of vegetative cells near plant tips, involucral cells ***absent***
- in sporangial plants: masses of minute branchlets in the constrictions of vegetative cells near plant tips; some with ***sterile*** (involucral) cells about ***twice the size*** of tetrasporangia

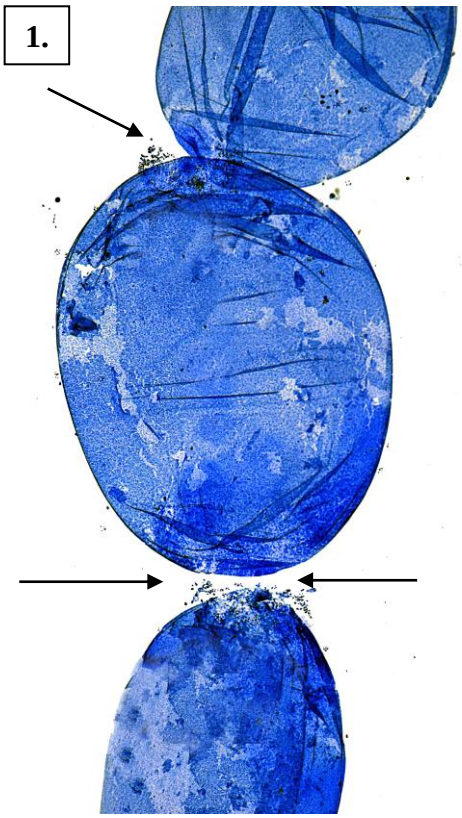
Similar Species 

very similar to *Griffithsia monilis* and *Griffithsia ovalis* but generally darker red, with smaller tetrasporangia and fewer and smaller involucral cells.

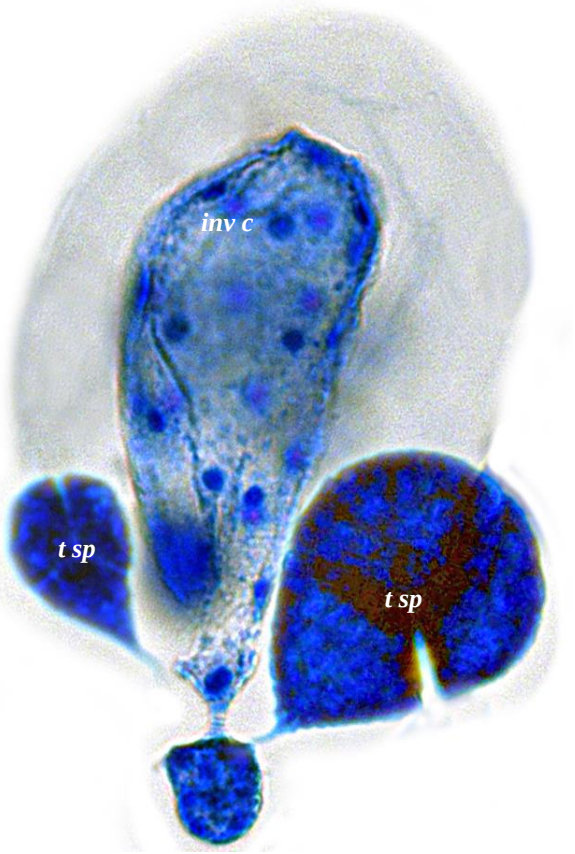
Description in the Benthic Flora Part IIIC, pages 327, 330-333

Details of Anatomy

1.



2.

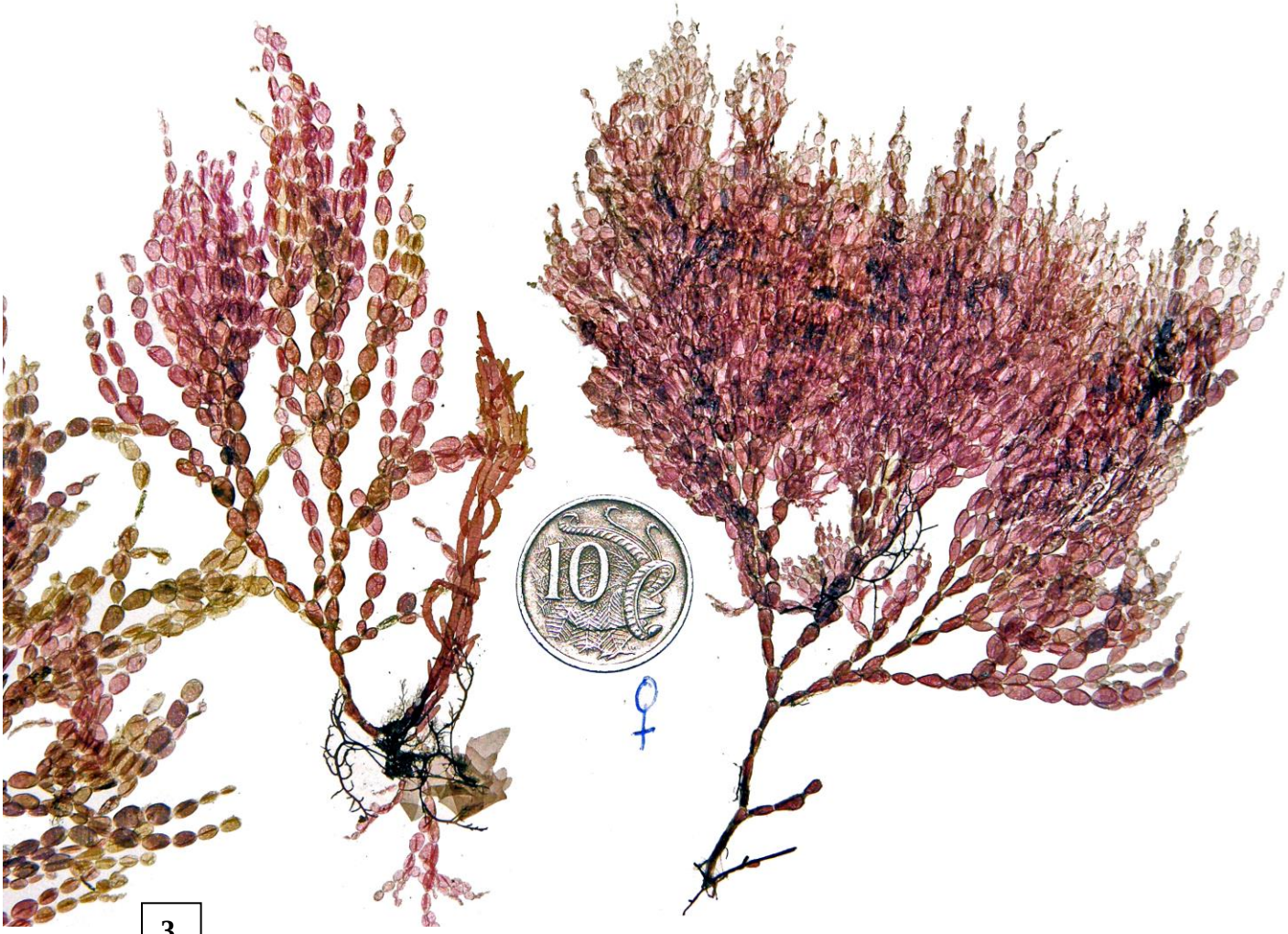


Griffithsia grandis (slide 16713) stained blue and viewed microscopically

1. clusters of tetrasporangia (arrowed) on minute branchlets in the constriction between vegetative cells
2. detail of tetrasporangial branchlets; sterile (involucral) cell (***inv c***), a young and a mature tetrasporangium (***t sp***)

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

"Algae revealed", R N Baldock, State Herbarium S Australia, December 2007; revised August 2014



3.

4.

Griffithsia grandis Kützing

3. from 5-8m deep, Arch Rocks E of Ninepin Point, Tasmania A63928
4. from 2-3m deep, Godfrey I., Guichen Bay, S Australia A46108

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