Techniques needed and shape

Classification

*Descriptive name

Features

Occurrences

Usual Habitat

Special requirements

Similar Species

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

Details of Anatomy

Griffithsia crassiuscula

C Agardh

Phylum: Rhodophyta; Order: Ceramiales; Family: Ceramiaceae

Tribe: Griffithsieae

large, red bead-alga

plants light red, 90-260mm tall, branches bead-like, spreading, forked many times; cells visible to the unaided eye, up to 6mm long, egg- or sausage-shaped, gradually becoming smaller towards plant tips

in estuarine conditions, often on seagrass

view plants microscopically to find

vegetative cells sausage- or egg-shaped, in bead-like threads gradually narrowing towards the tips

in female plants: mature female structures (cystocarps) forming lumps on one side of constrictions between vegetative cells. Two types exist:

type A: involucral cells 7-10, regular, incurved, radiating in a semicircle

type B: involucral cells 5-6, irregularly-lobed or apically notched, incurved

in male plants, cloud-like masses of spermatangia produced on minute branchlets in the constrictions of cells near plant tips, sterile involucral cells absent

in sporangial plants: tetrasporangia in minute branchlets massed in constrictions between ovogenerative cells near plant tips, peripheral branchlets with swollen, sterile cells forming a fence-like wrapping (involucre) around the tetrasporangial masses

Griffithsia grandis, but unique because of its size, pale colour and estuarine distribution

Griffithsia crassiuscula: mature female structures (cystocarps) stained blue and viewed microscopically

1. type A (slightly squashed by the slide preparation): about 11, regular involucral cells (arrowed, viewed from above) (slide 3113)

2. type B (at greater magnification, and viewed from the side): 6 swollen involucral cells (inv c), one of which is notched at the tip (slide 3114)

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

“Algae revealed”, R N Baldock, State Herbarium S Australia, December 2007; revised July 2014
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**Griffithsia crassiuscula** C Agardh

3. from American River Inlet, Kangaroo I., S Australia, A26686, 3-4m deep

4. sporangial plant (slide 3115): minute tetrasporangial branchlets, slightly displaced from the constriction between vegetative cells by the preparation of the slide, outer branchlets with swollen sterile cells

5. outer sporangial branchlet highly magnified (slide 3115): single tetrasporangium, swollen sterile cell, single basal stalk cell