

Lamprothamnion
papulosum
(Wallroth) J. Groves

50.790



MACRO
PLANT



Techniques needed and plant shape

Classification

Phylum: Charophyta; Family: Characeae

***Descriptive name**

stonewort

Features



plants green, 50-300mm tall, sometimes encrusted and grey-green, rough to the touch, of fine, slender unbranched stalks (axes), regularly ringed with short spiky branchlets. Dark specks (eggs" or oogonia) may be visible

Variations

ball-shaped starch bulbils may be present near the basal rhizoids

Special requirements:



1. view the rings of upward pointing branchlets microscopically: 6-8 occur in each ring and there are 3-5 segments to a branchlet
2. view the single-celled spikes (*stipuloides*) pointing **downwards** at each ring. They arise **opposite** the bases of a branchlet, in a **single** ring
3. similarly, some of the joints of the branchlets also have spikes, called **bract-cells**, arising in a ring and often pointing upwards
4. view the egg-shaped female structures (oogonia) at the bases of branchlets. They have an envelope of 10-15 colourless, spirally wound cells, capped with button-like (coronal) cells, and, internally a single, large, almost black cell
- (5. view the male structures (antheridia) if present (not illustrated in this sheet): these are orange, small and ball-shaped, with an ornamented surface made of 8 shield-shaped pieces. See the Benthic Flora Part I, Fig. 102K.)

Occurrences

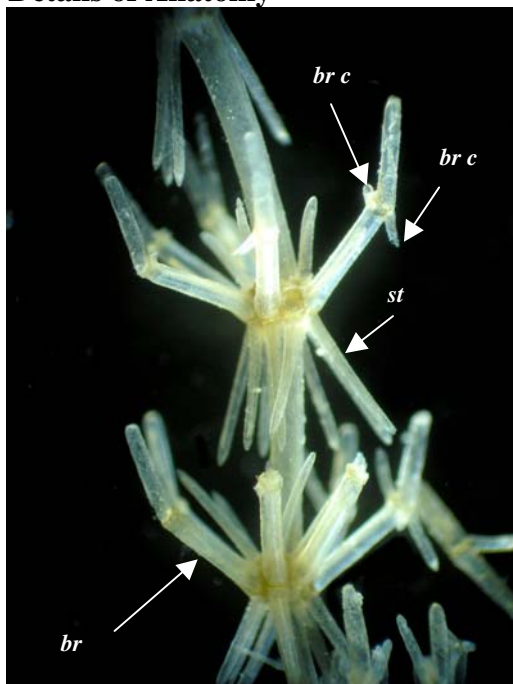
worldwide distribution in coastal regions. In southern Australia, in the Coorong, West Lakes and Gippsland lakes, Victoria

Usual Habitat

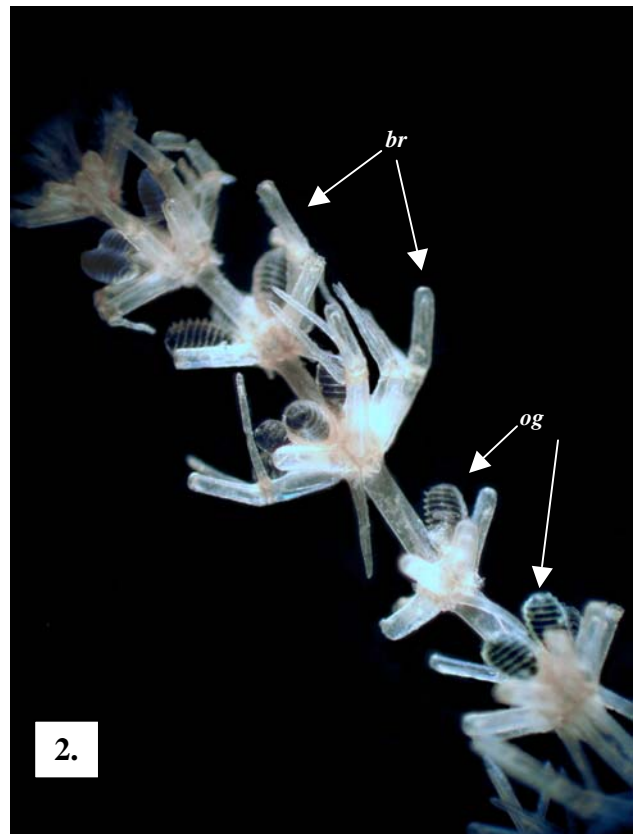
in shallow, calm waters ranging in salinity from low (10‰) to extreme (104‰).

Description in the Benthic Flora Part I, pages 298-300

Details of Anatomy



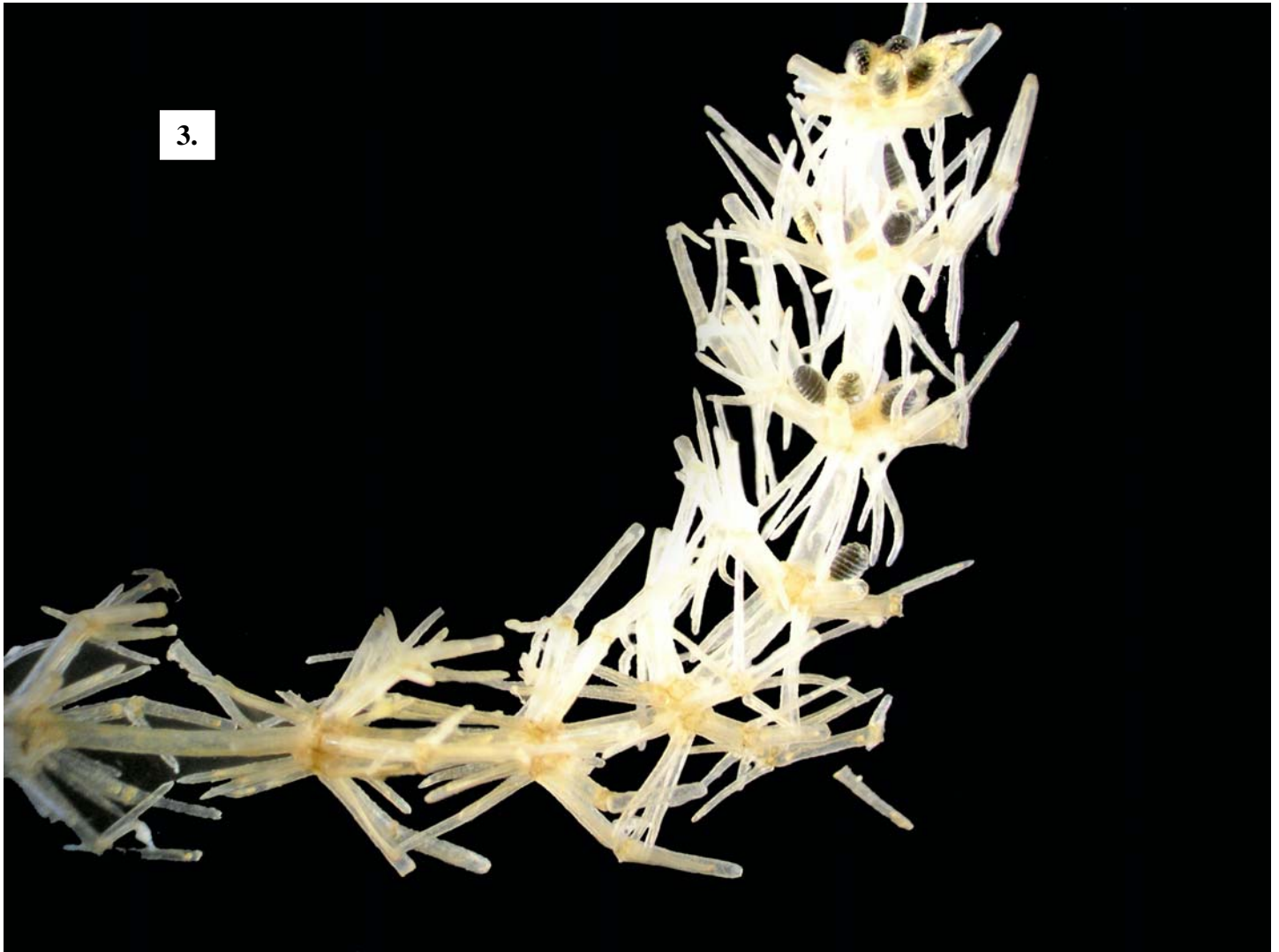
1.



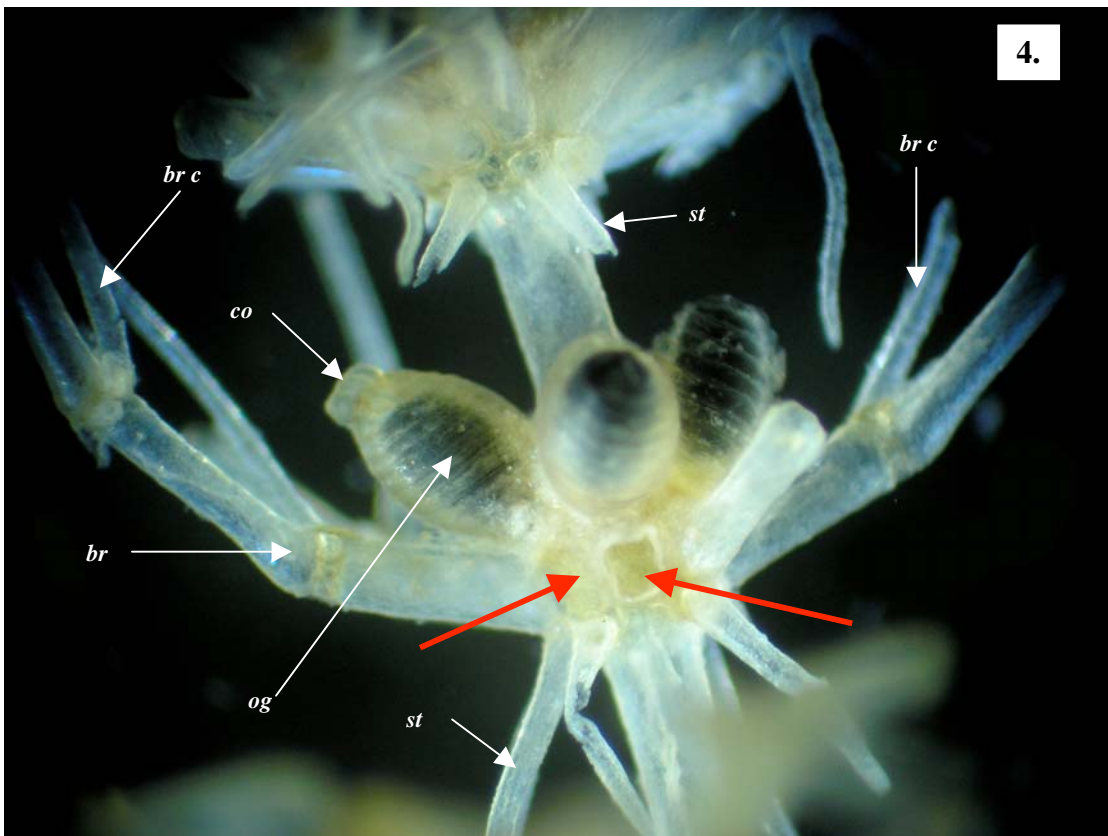
2.

1,2. preserved, bleached specimens of *Lamprothamnion papulosum* (A20410), from Karatta Lake, Robe, S. Australia showing the microscopic parts (bract cells, *br c*; branchlets, *br*; corona *co*; oogonium, *og*; stipuloides, *st*)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed" R N Baldock, S Australian State Herbarium, July 2005



3.



4.

3, 4. two magnifications of a preserved, bleached specimen of *Lamprothamnion papulosum* (A20410), from Karatta Lake, Robe, S. Australia. Magnified view of oogonia. Scars left after branchlets have been removed to display the oogonia are arrowed in red. (bract cells, *br c*; branchlets, *br*; corona *co*; oogonium, *og*; stipuloides, *st*)

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