**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. 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
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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
corona
co; oogonium, og;
stipuloides, st)