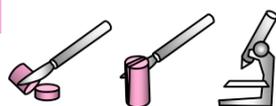
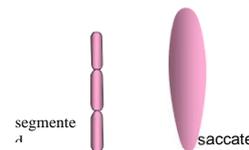


Webervanbossea kaliformis
(J Agardh) De Toni

45.660



MACRO
PLANT



Techniques needed and plant shape

Classification

*Descriptive name

Features

Occurrences

Usual Habitat

Special requirements

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae
branched sausage weed

1. plants dark brown-red, slimy, 100-250mm tall, of hollow, sausage-shaped, jointed segments, 20-40mm long in main branches (axes) decreasing in size towards tips
2. side branching irregular, some arising from any position along a segment

Isles of St Francis, S Australia to Victoria

a deep water species (collected to 38m)



1. focus through the surface of segment walls microscopically to find threads of the inner layers with secretory cells

2. cut cross sections and examine segment walls to find

- outer (cortical) cells small, branched 2-3 times, facing outwards
- inner (medulla) cells large, in a single row
- raised patches of tetrasporangia, sporangia divided decussately, mixed with hairlike outer (cortical) cells (paraphyses)
- mature female structures (cystocarps) protruding mainly into the segment space, a prominent row of large medulla cells at the base, rows of cells forming a wall (pericarp), single external opening (ostiole), mass of carposporangia with basal pyramid of small nutritive cells and threads largely dissolving with age



3. cut a lengthwise section through a joint and view microscopically to see a single row of large cells separating adjacent segments

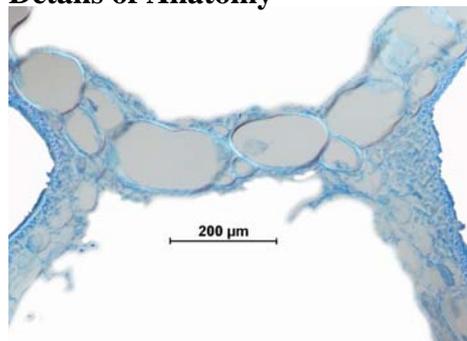
Similar Species

Coelarthurum spp with smaller axial segments and no paraphyses amongst tetrasporangia; *Rhabdonia clavigera*, and *Erythroclonium* sp with a central thread

Description in the Benthic Flora

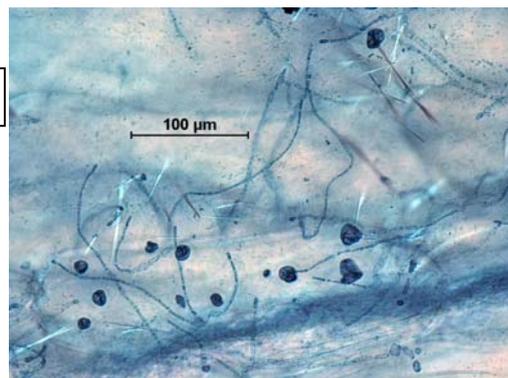
Part IIIB, pages 62, 63

Details of Anatomy



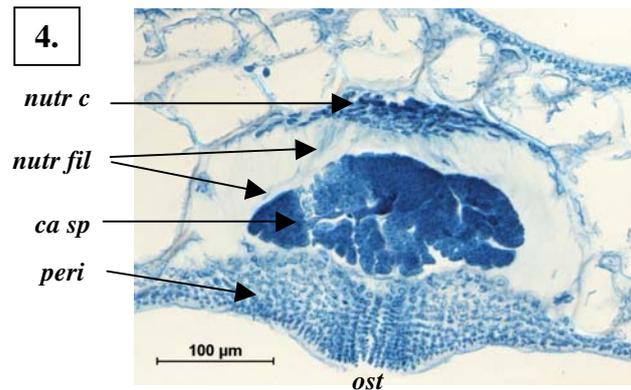
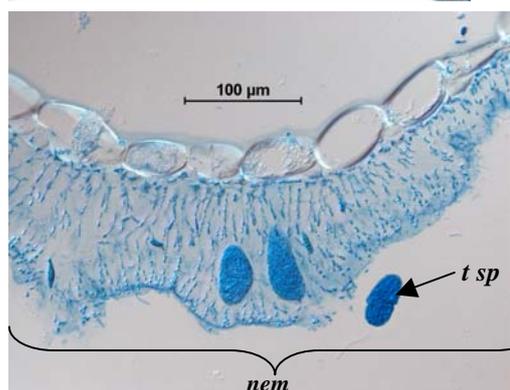
1.

2.



3.

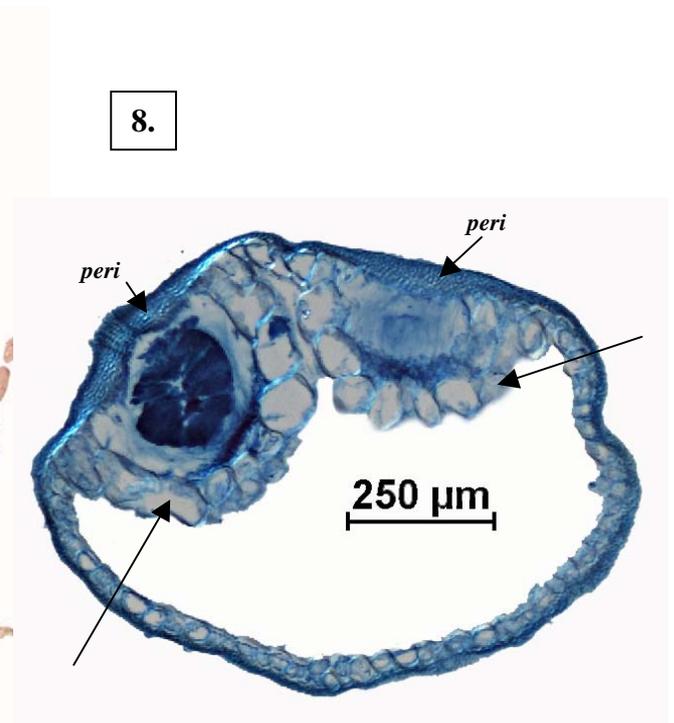
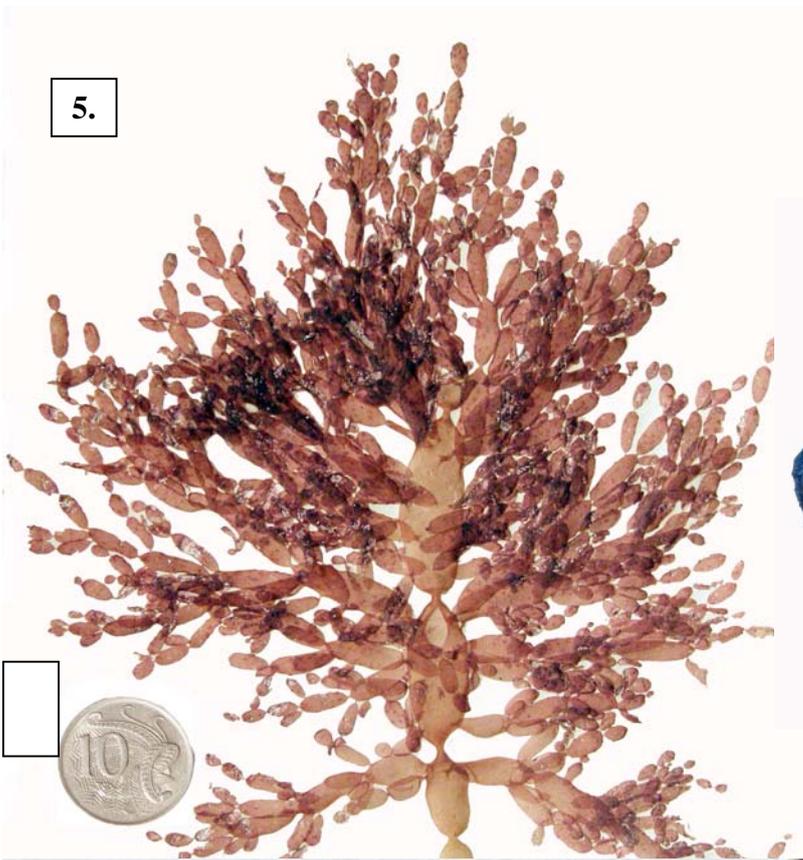
4.



Webervanbossea kaliformis stained blue and viewed microscopically

1. lengthwise section through a joint showing the single layer of large cells separating adjacent segments (A38107 slide 14651)
2. surface view of threads from the inner part of the medulla, bearing secretory cells (A38107 slide 14650)
3. cross section of a segment wall through a raised patch (nemathecium, *nem*) of tetrasporangia (*t sp*) mixed with extremely fine, branched threads (A38107 slide 14652)
4. cross section through a cystocarp protruding largely into the segment space, with basal pyramid of nutritive cells (*nutr c*), nutritive threads (*nutr fil*) starting to dissolve, carposporangial mass (*ca sp*), rows of cells in the (pericarp, *peri*) and external opening (ostiole, *ost*)

*Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium November 2010



Webervanbossea kaliformis (J Agardh) De Toni from South Australia

5, 6. drift specimen from Vivonne Bay, Kangaroo I. (A10650a). Darker spots are cystocarps.

7. preserved (bleached and coloured) specimen (A10650) showing irregular branching pattern

8. cross section of a segment through 2 cystocarps, stained blue and viewed microscopically, showing cystocarps protruding largely into the segment space, basal layer of large cells (arrowed) and rows of small cells forming an outer wall or pericarp (*per*) (A38107 slide 14653)