# *Lomentaria pyramidalis*
**Kraft & Womersley**

**45.700**

**Techniques needed and plant shape**


**Classification** Phylum: Rhodophyta; Order: Rhodymeniales; Family: Lomentariaceae

***Descriptive name** red feather plant

**Features**

1. plants dark red, slimy, 50-200mm tall with several main, flattened branches (axes)
2. side branches mainly from the axis edge, pinched basally
3. mature female structures (cystocarps) urn-shaped, beaked, ***protuberant***, on axis surfaces and near bases of side branches

**Occurrences** near Perth, W Australia to Victoria

**Usual Habitat** on sea grasses and large brown algae

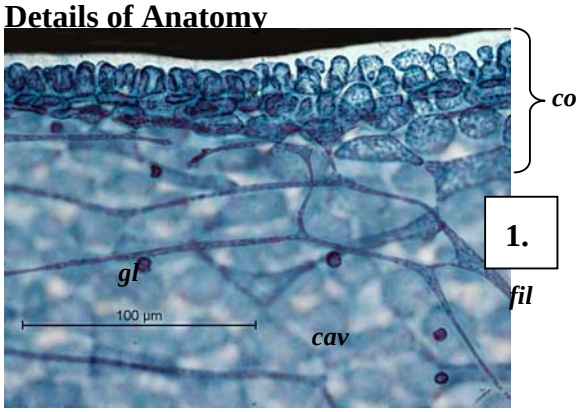
**Special requirements**

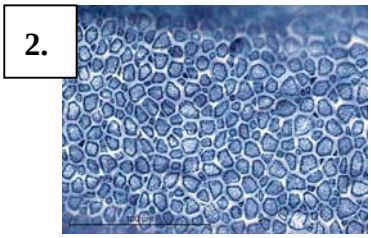
1. focus microscopically on and through the surface to find
   - outer layers (cortex) of large angular cells and few, scattered small cells (distinct rings or rosettes ***not*** apparent)
   - branch cores hollow, lined with interconnecting threads bearing tiny gland cells
   - branch constrictions ***solid***, of large cells with threads growing into cavities
2. sporangia in scattered patches (***sori***), divided tetrahedrally, ***growing from small, bunched cells*** protruding into the branch space

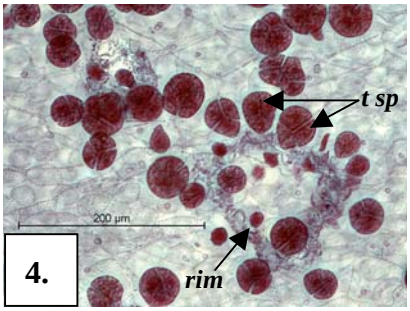
**Similar Species** *Lomentaria monochlamydea*, but that species is very small and sparsely branched

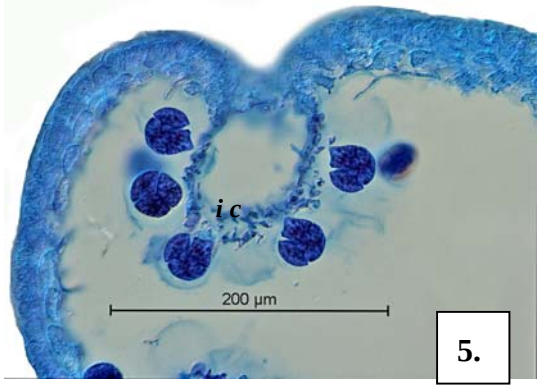
**Description in the Benthic Flora** Part IIIB, pages 138-140

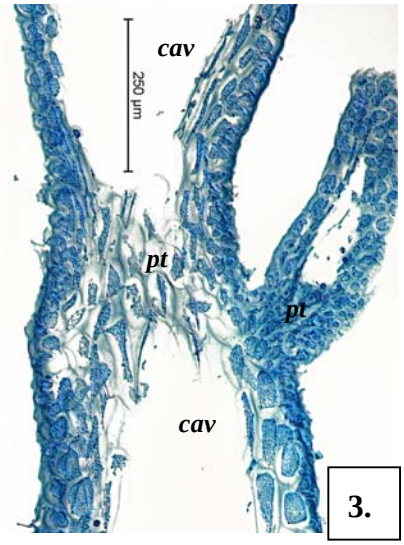
**Details of Anatomy**

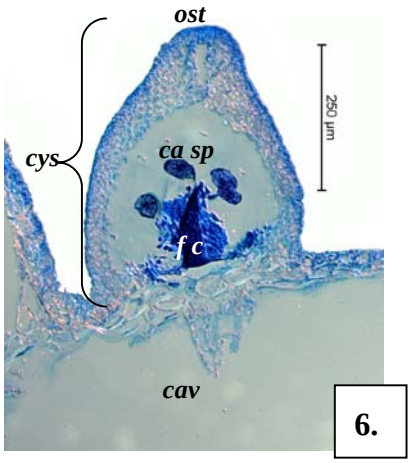


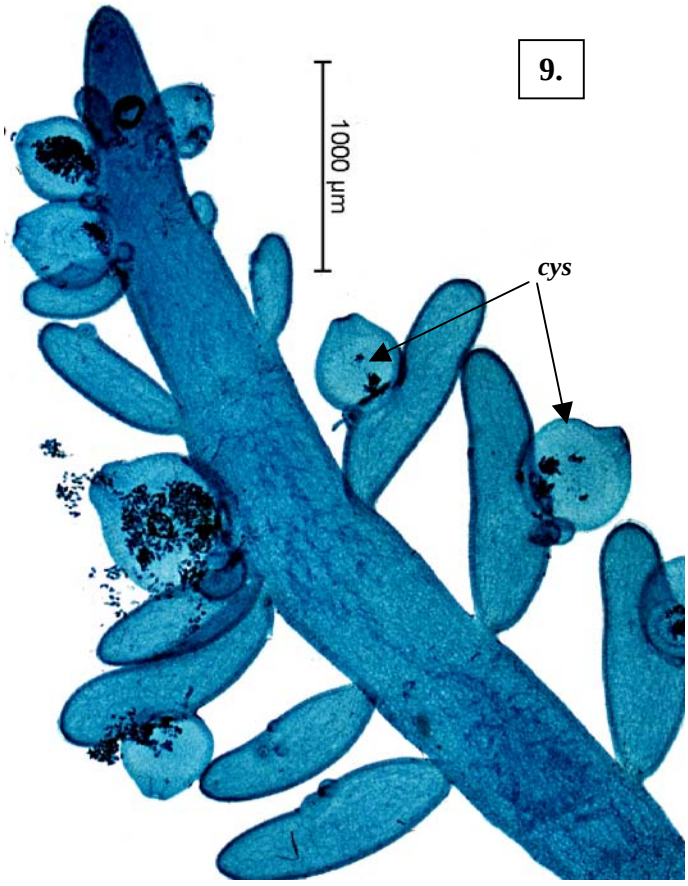



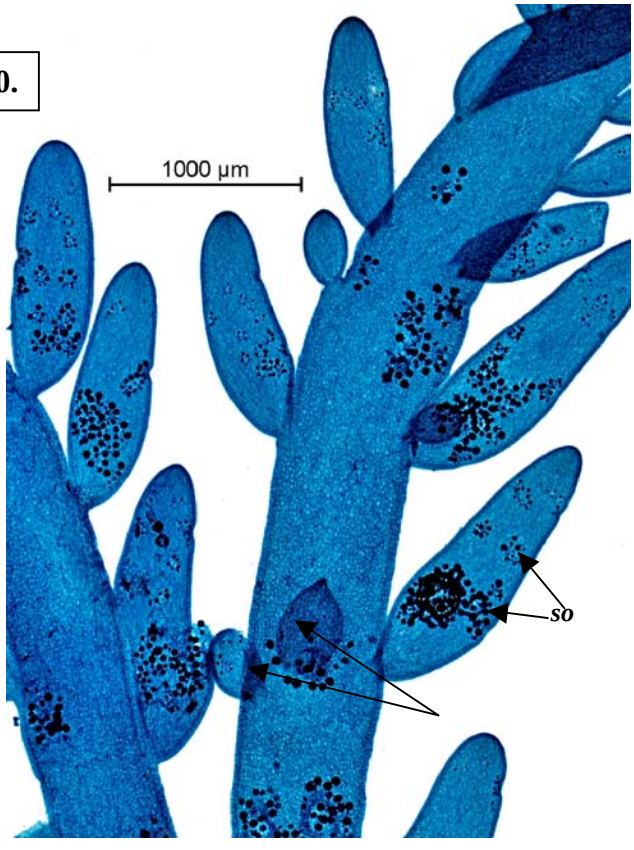

*Lomentaria pyramidalis* stained blue and viewed microscopically

1. branch edge with outer cell layers (cortex, *co*) of angular cells increasing in size with depth and joined to branched threads (*fil*) bearing glands (*gl*) lining the central cavity (*cav*) (A63027 slide 14780)
2. surface view of outer cells (A63027 slide 14780)
3. lengthwise section through solid partition (*pt*) between two branches: outermost layer of small cells, grading to larger cells and filaments towards the central cavity (*cav*) (A24438 slide 14772)
4. surface view of a patch (sorus, *so*) of tetrasporangia (*t sp*) looking through the rim (*rim*) of the depression where they protrude into the central space of the branch (A29273 slide 14764)
5. cross section of a sorus with the patch of cells (*i c*) bearing tetrasporangia protruding into the branch space (*cav*) (A51006 slide 14765)
6. lengthwise section through a protruding cystocarp (*cys*): fusion cell (*f c*), carposporangia (*ca sp*) and opening (*ost*) (A51006 slide 14765)

*Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed", R N Baldock, S Australian State Herbarium, July 2011



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7, 8.. two magnifications of drift plants from Port MacDonnell, S Australia (A63027)

9, 10. specimens stained blue and viewed microscopically

9. female plant with protuberant, beaked cystocarps (*cys*) on side branches (A29273 slide 14762)

10. sporangial plant with scattered patches (*sori*) of tetrasporangia and some side branches on the axis surface (arrowed) as well as edges (A29273 slide 14764)

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