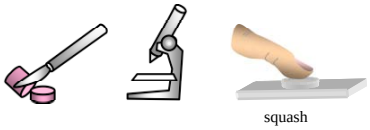
Aeodes nitidissima J Agardh

45.280

Techniques needed and shape



Classification Phylum: Rhodophyta; Order: Gigartinales; Family: Halymeniaceae

***Descriptive name** red sheets

Features

1. plants are red to yellowish, drying with a surface sheen, 50-150mm tall, with lobes about 30mm broad, and also much smaller, narrow marginal lobes
2. there is an unobtrusive, tiny, off-centre basal stalk appearing almost at the frond edge

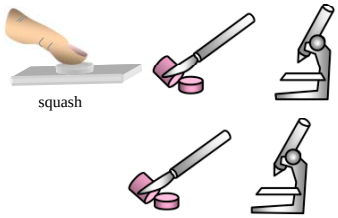
Occurrences New Zealand and SE Tasmania.

Usual Habitat on rock in shallow water and the lower intertidal

Similar Species *Pachymenia orbicularis*, but there is a definite basal stalk in that species

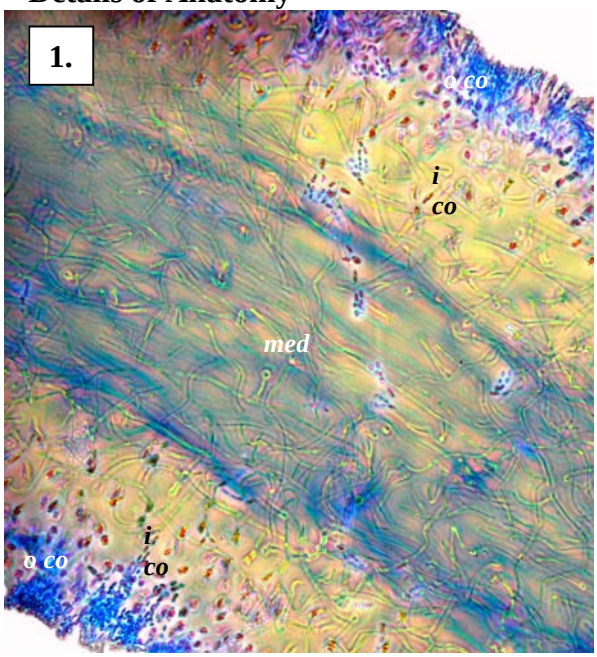
Description in the Benthic Flora Part IIIA, pages 210-213

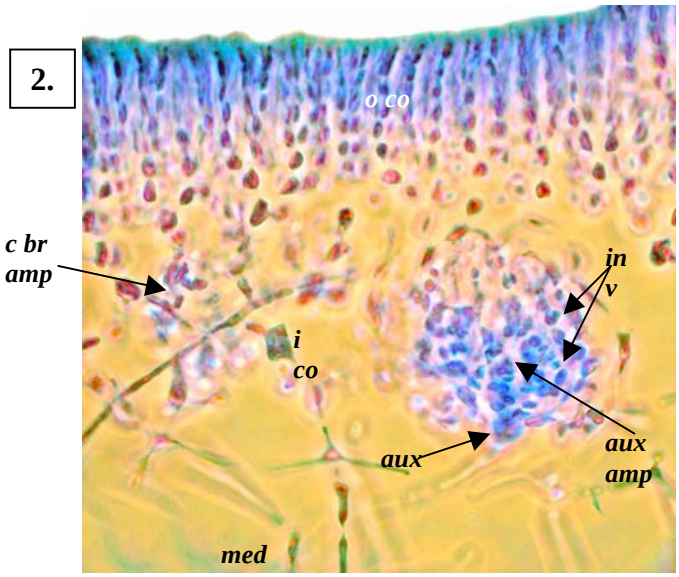
Special Requirements

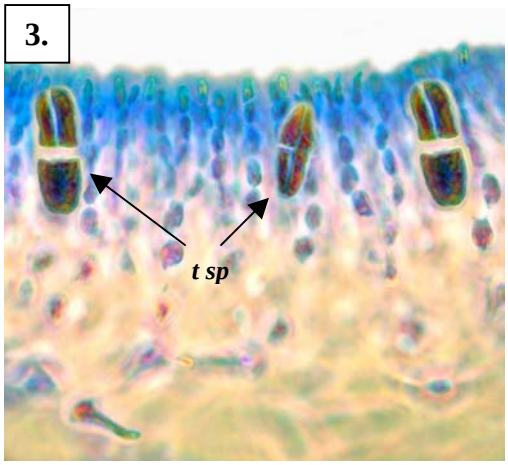


1. cut a cross section or make a tissue squash and view microscopically to find:
   - the core (medulla) of irregular ***thin*** threads
   - outer (cortex) layers of ***few, widely-spaced*** inner cells and outer chains of about 6-8 ***outwardly facing*** small cells, forked every ***2-4 cells***
   - bright (***refractive***) spidery (***ganglionic***) cells are ***absent***
2. if possible, cut a cross section of a female plant to find the products of fertilisation
   - numerous ball-shaped structures (the intermediate-sized ones are auxiliary cell ampullae) in the inner cortex each with a ***prominent*** basal (auxiliary) cell
   - enveloped by chains of small cells (involucre)
3. if possible, cut a cross section of a sporangial plant to find scattered, ***elongate*** tetrasporangia divided in a cross (cruciate) pattern amongst the outer cortical cells

Details of Anatomy







Cross sections of *Aeodes nitidissima* stained blue and viewed microscopically showing:

1. the core of loosely arranged fine threads (medulla, *med*) and outer layers of sparse, well separated cells (inner cortex, *in co*) and outwardly facing chains of small cells (outer cortex, *o co*) (A29861 slide 11691)
2. the cortex with young female structures (carpogonial branch ampulla, *c br amp*; auxiliary cell ampulla, *aux amp* with basal auxiliary cell (*aux*) and involucre, *inv* of chains of cells) (A27934 slide 11798)
3. cortex of a sporangial plant with tetrasporangia (*t sp*) in various stages of dividing in a cross (cruciate) pattern (colourized for better contrast) (A61729 slide 13015)

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

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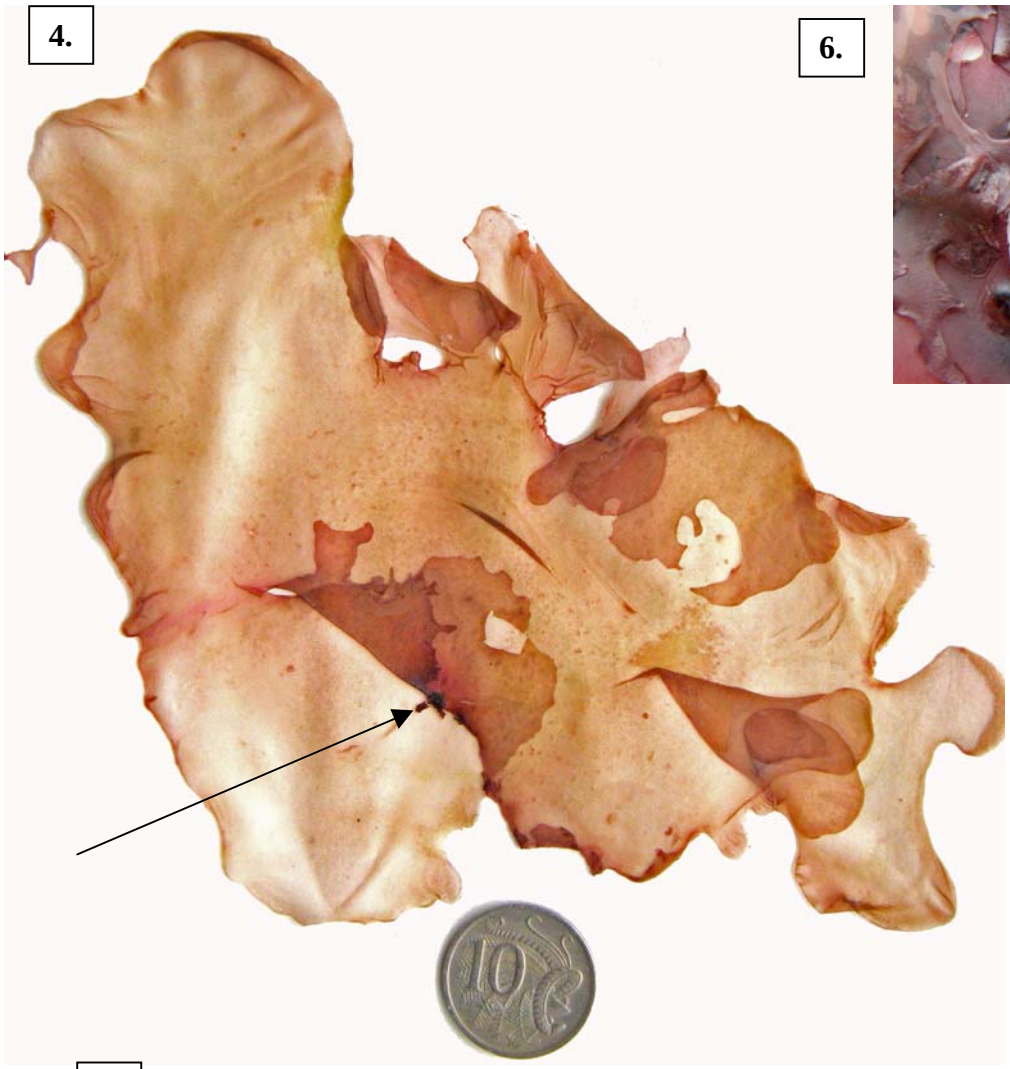

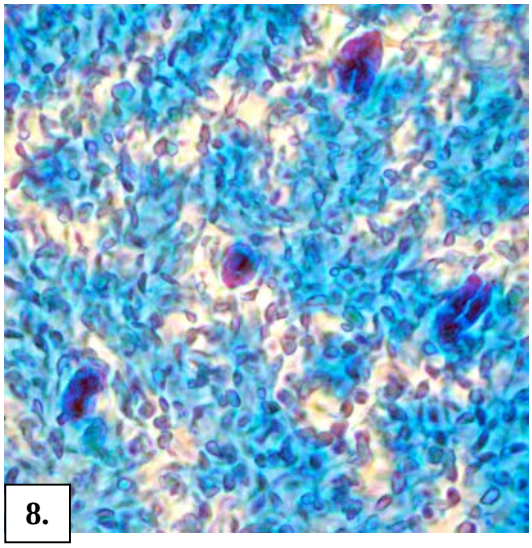

4-6.	specimens of *Aeodes nitidissima* J Agardh (A61525) from in the lower intertidal at Tarooma, Tasmania, showing the colour range, tiny basal stalk (arrowed) and sizes of lobes
7.	detail of the narrow marginal projections in a specimen (A61266) from Hobart South Arm, Tasmania
8.	a tissue squash stained blue and viewed microscopically (surface view) showing scattered tetrasporangia amongst cortical cells (A17857 slide 11950)

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