Haraldiophyllum nottii
(Norris & Wynne) Wynne

AN INTRODUCED OR ADVENTIVE SPECIES

45.880

Techniques needed and shape

MACRO
PLANT

flat-bladed

foliose

Classification Phylum: Rhodophyta; Family: Delesseriaceae; Tribe: Nitophylloideae; Group: Nitophyllum

***Descriptive name** red film alga

Features plants red, fading to a rose colour, 20-70mm tall with short, narrow stalks, ***membranous***, forked, ***flat-branched*** blades about 8mm wide at stalk tips. Veins on blades ***absent***, spines along edges ***rare***

Occurrences Washington state, USA. In Australia, from Apollo Bay to Westernport Bay Victoria and SE Tasmania. Possibly an introduced species.

Usual Habitat on solid substrates near port facilities in shallow to moderately deep water

Similar Species *Nitophyllum pulchellum*, from W. Australia; obscure differences in groups of cover cells over developing female structures (procarps) separates this from *Haraldiophyllum*

WARNING: Diagnosis of this feature is best left to experts

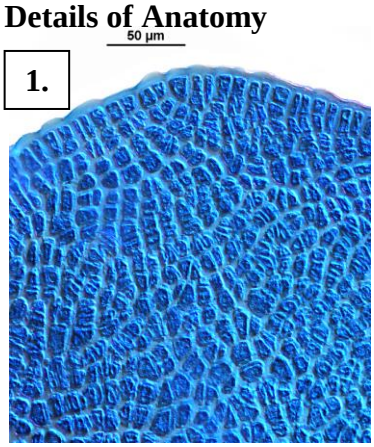
Description in the Benthic Flora Part IIID, pages 129-130; Part IIID, Appendix, Page 499

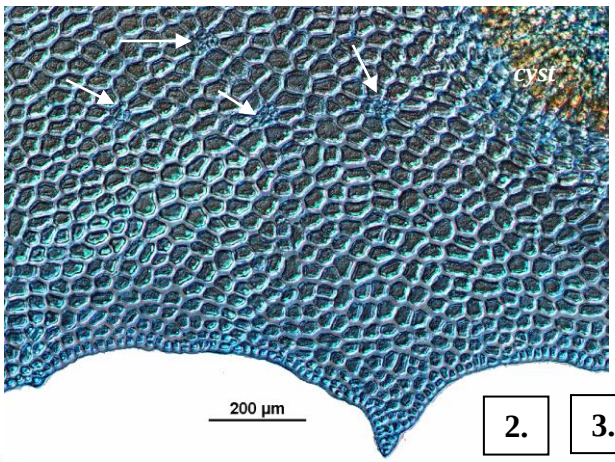
Special Requirements

1. under the microscope find the random pattern of cells, ***lack*** of veins in blades that are ***one cell thick***, edge cells that continue the growth of the blade and a ***few*** minute teeth
2. in female plants, find scattered swollen female structures (cystocarps) with an opening on one side
3. find scattered patches (sori) of tetrasporangia divided tetrahedrally

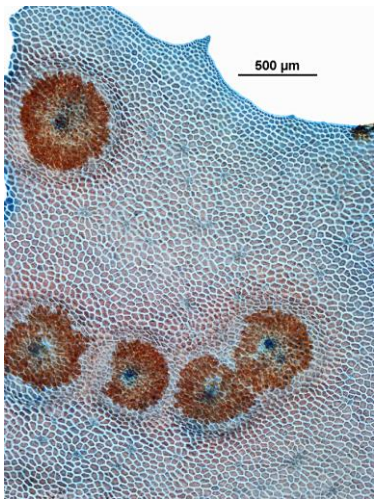
Details of Anatomy

1.

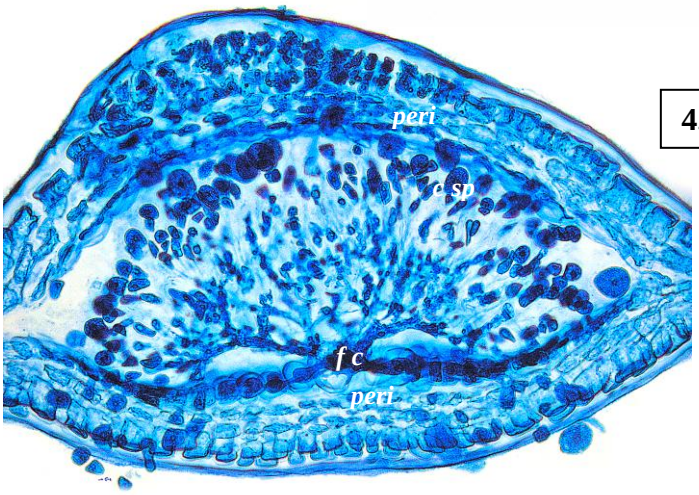


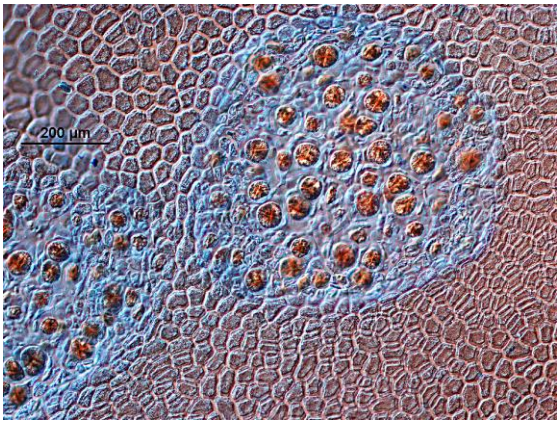


2. **3.**



4. **5.**





Haraldiophyllum nottii stained blue and viewed microscopically

1. a blade tip showing edge cells that continue the growth of the blade, and lack of veins (slide 18277)
2. edge of a blade with a rare spine, groups of cells (arrowed) covering developing female structures (procarps) and the edge of a fully developed cystocarp (*cyst*) (slide 18283)
3. a blade with mature cystocarps (slide 18283)
4. cross section of a cystocarp with a wall of cells (pericarp, *peri*), basal fusion cell (*f c*), and terminal carposporangia (*c sp*). The opening (ostiole) is not in view. (slide 17451)
5. surface detailed view of clusters (sori) of tetrasporangia (slide 18283)

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

"Algae revealed", R N Baldock, State Herbarium S Australia, September 2005, modified January 2009; edited April 2014

6.

7.

Haraldiophyllum nottii (Norris & Wynne) Wynne

6, 7. two magnifications of a specimen on *Aeodes*, 2-3m deep, Kingston Beach Tasmania, with tetrasporangial patches (A68278)

8. specimens 2-3m deep on a vertical rock face, Taroona Tasmania (A46142)

8.

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