Heterostroma nereidiis
Kraft & M J Wynne

A SPECIES WITH FEW RECORDS

45.940.42

Techniques needed and plant shape



MACRO
PLANT


Classification Division: Rhodophyta; Order: Ceramiales Family: Rhodomelaceae; Tribe: Pterosiphonieae

***Descriptive name** red-brown serrated blades

Features  plants dark red of narrow blades, 10-40mm long ***flat-branched***, with tiny ***serrated edges*** that may develop into side branches

Special requirements view the plants microscopically to find

- tiny branched threads (***trichoblasts***) mainly at tips of reproductive organs, irregular, ***alternating*** serrations at blade edges often with trichoblasts at tips, ***veins*** running through the centre of fronds and branching to tips of serrations

 *growth occurs by coalescing of separate filaments(= veins) into a flat frond, difficult to appreciate on first observations*

- tetrasporangial structures (stichidia) in clusters at frond edges, twisted because of the large, spirally arranged tetrahedrally divided sporangia
- egg-shaped cystocarps (products of fertilisation) with ***narrow*** openings (ostioles) ***protruding*** from the frond surface

Occurrences Houtman Abrolhos to Rottnest I., W. Australia and Elliston S. Australia, possibly more widespread as it is easily overlooked because of its resemblance to common foliose algae

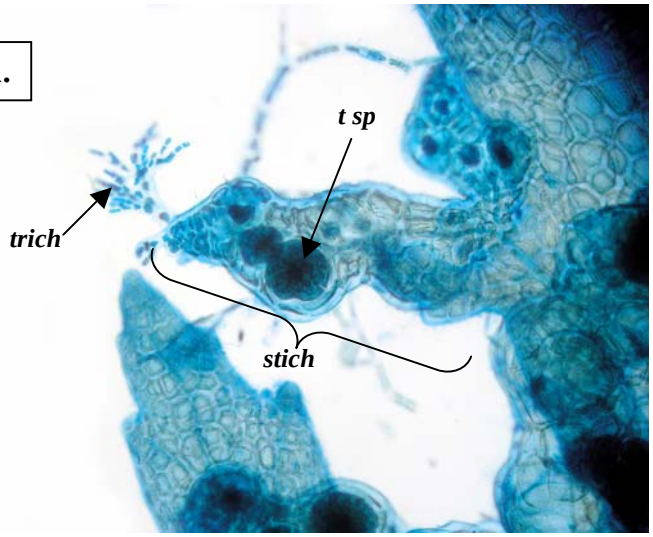
Usual Habitat on limestone 10-12m deep, on the brown alga *Zonaria* and seagrass

Similar Species other foliose algae with serrated edges such as *Dictyomenia*, and superficially, the foliose Delesseriaceae (but that Family does not have trichoblasts)

Description in the Benthic Flora Part IIID, page 342-344

Details of Anatomy

1.



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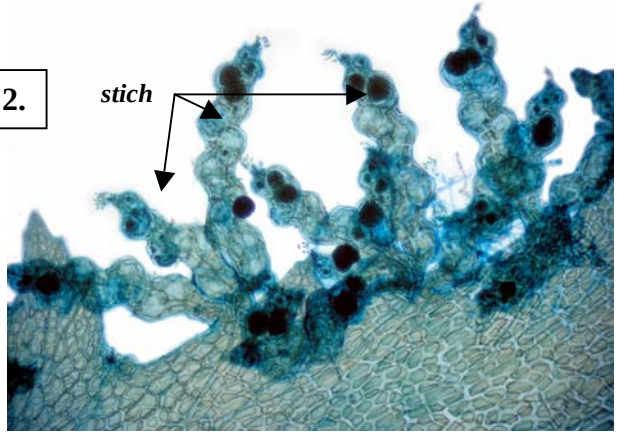

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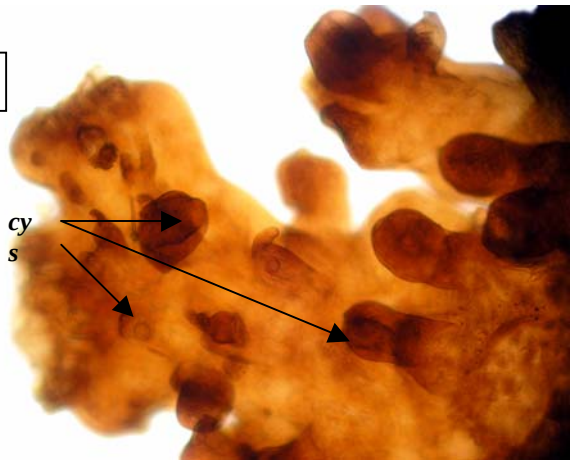


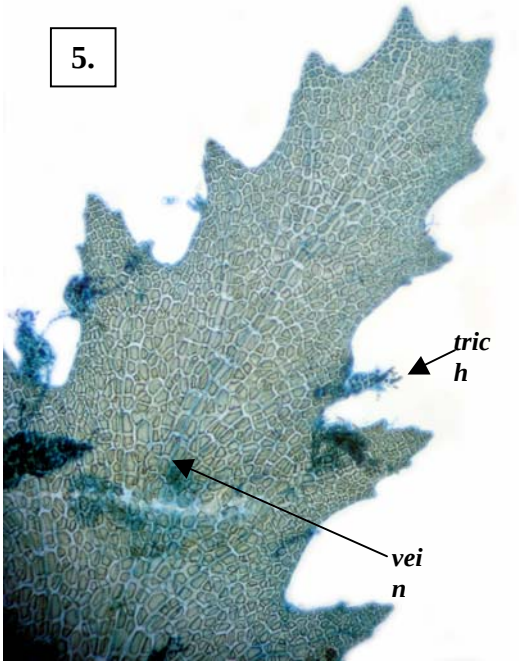
Heterostroma nereidiis and viewed microscopically

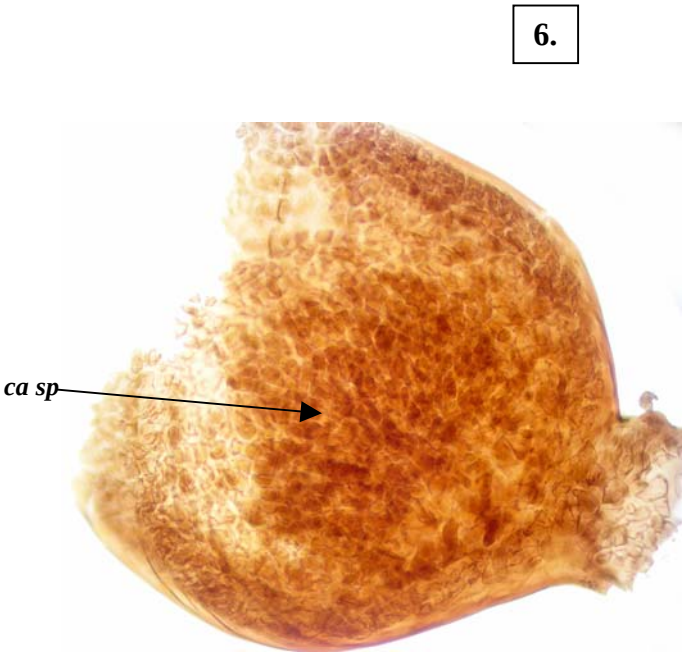
1.-2. different magnifications of the marginal clusters stained blue of tetrasporangial structures (stichidia, *stich*) ending in trichoblasts (*trich*), twisted because of the large sporangia (*t sp*) in spirals inside (A34969 slide 19253)

3. surface view of a frond with protruding products of fertilisation (cystocarps, *cys*) (A60238 slide 11582)

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

"Algae Revealed" R N Baldock, S Australian State Herbarium, April 2007





4. *Heterostroma nereidiis* A34969 from Elliston Bay SA 10-12m deep on limestone

5, 6. specimens viewed microscopically

5. A34969 slide 19253 stained blue, showing the alternating serrations at the frond margin, some ending in trichoblasts (*trich*) and veins connecting to apical cells

6. A60238 slide 11582 showing a detached cystocarp with a mass of spores (carposporangia, *ca sp*) inside

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