

***Lophosiphonia obscura***  
(C Agardh) Falkenberg *in* Schmitz & Falkenberg

**A SPECIES WITH FEW RECORDS**

**AN INTRODUCED OR ADVENTIVE SPECIES**

45.940.35

**Techniques needed and plant shape**



**Classification**

Division: Rhodophyta; Family: Rhodomelaceae; Group: Lophosiphoniaeae mangrove creeper

**\*Descriptive name**

**Features**



plants red-brown of tiny threads running along mangrove pneumatophores

**Special requirements**



view microscopically to find



- **horizontal** threads (of indeterminate growth), **curved** at the tips running along mangrove pneumatophores, producing, **irregularly**, short upright threads of limited (determinate) growth on the upper (**dorsal**) side, often ending in hair-like branches (**trichoblasts**), rhizoids with much branched ends on the under- (**ventral**-) side, cell contents in **direct connection** to the runner cells
- in a cross section slice, view the **6** (pericentral) cells flanking a central filament  
reproductive organs not known for Australian plants

**Occurrences**

Mediterranean and Atlantic Europe, NW Indian Ocean, W tropical Atlantic, and Queensland. Known only from near Wallaroo in southern Australia on mangrove pneumatophores

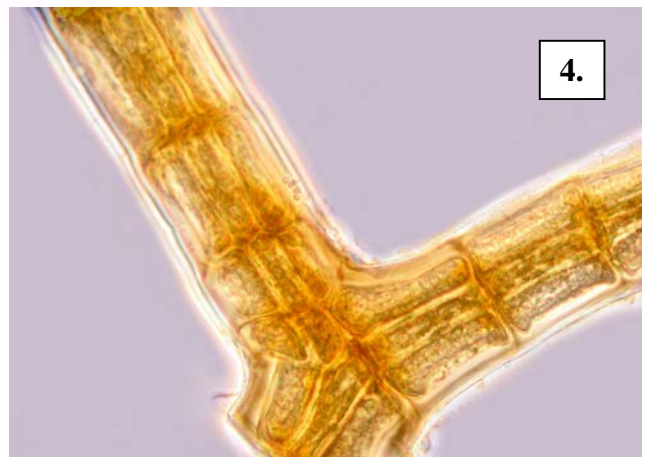
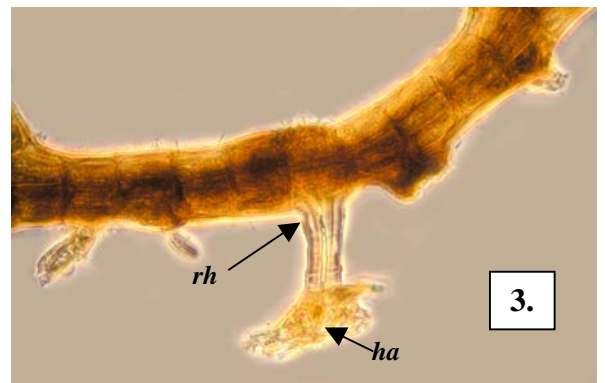
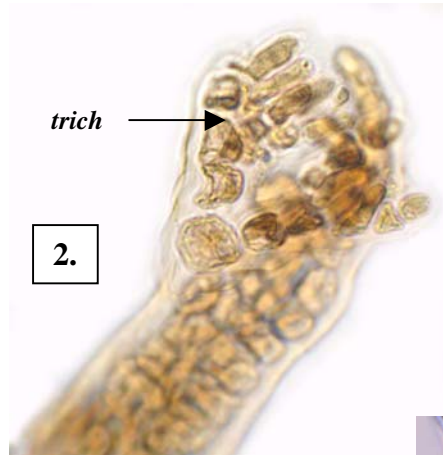
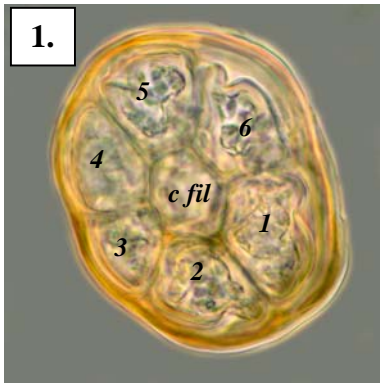
**Usual Habitat**

**Similar Species**

creeping *Polysiphonia* spp, but these are branched radially; the tribe Herposiphoniaeae, but species in this have an alternating sequence of determinate and indeterminate upright branches; *Lophosiphonia prostrata*, but this has 4 flanking (pericentral) cells and grows on the Zonarieae (flat-forked brown algae)

**Description in the Benthic Flora** Part IIID, pages 335, 336

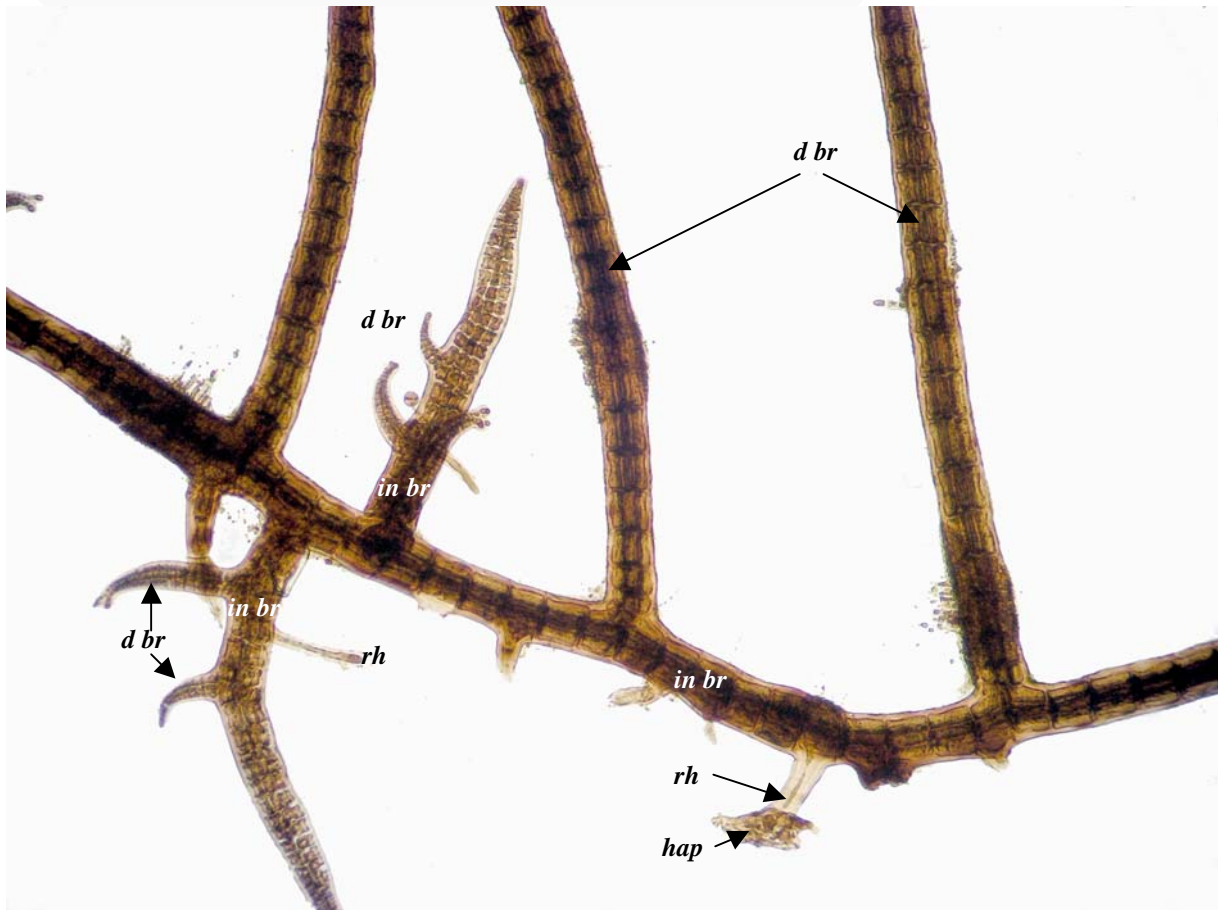
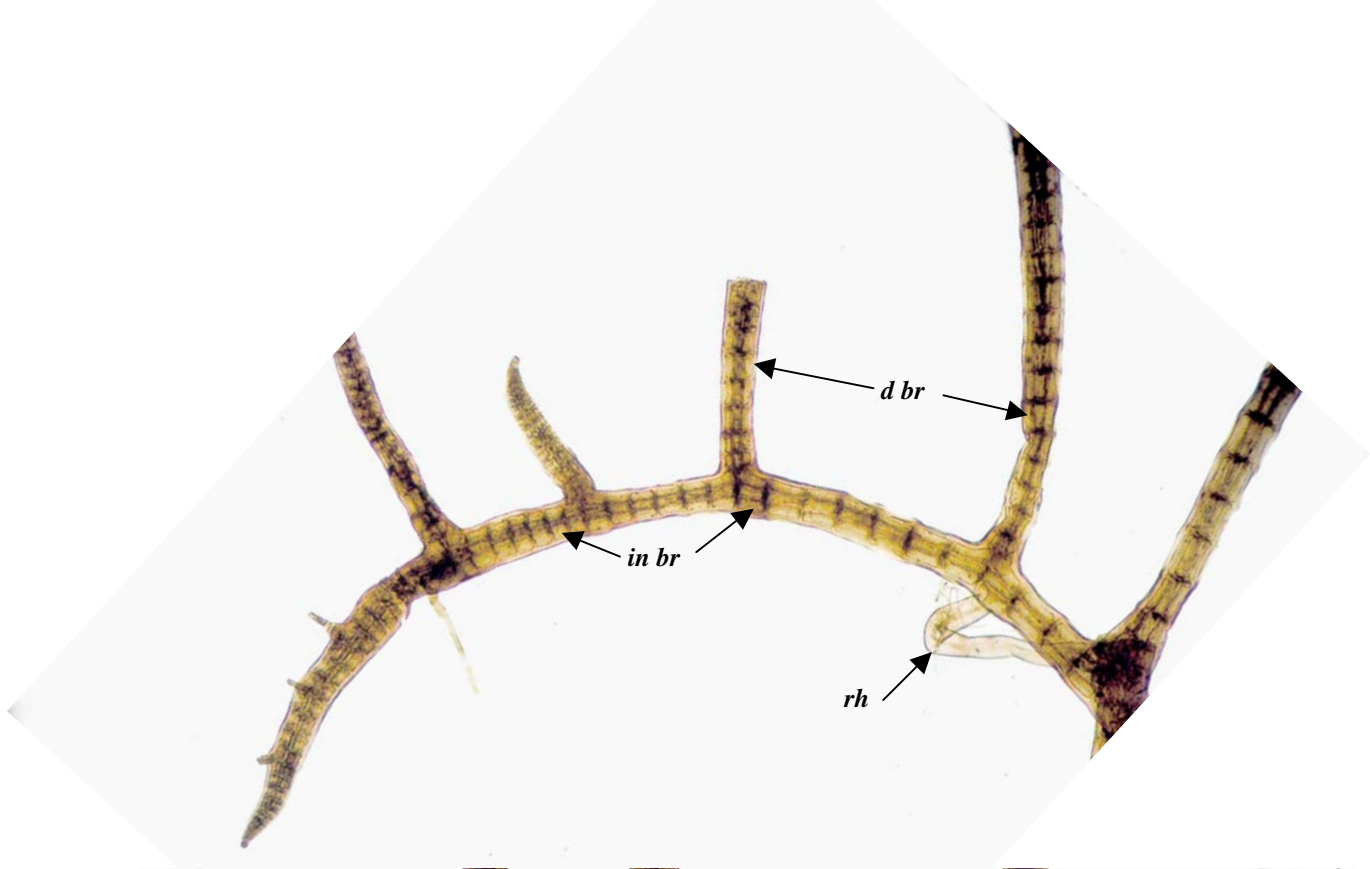
**Details of Anatomy**



*Lophosiphonia obscura* A69062 viewed with phase contrast microscopy

1. cross section showing the central filament (*c fil*) and the **6** flanking (pericentral) cells (*1-6*) characteristic of the species (slide 20221)
2. tip of a branch showing **the curved growth** and an un-expanded hair-like special branch (trichoblast, *trich*) (slide 20221)
3. rhizoid (*rh*) with contents continuous with a runner cell, ending in a much-branched basal attachment pad (hapteron, *ha*) (slide 20223)
4. branch showing the **internal** (endogenous) origin of a branch (slide 20222)

\* Descriptive names are inventions to aid identification, and are not commonly used  
"Algae Revealed" R N Baldock, S Australian State Herbarium, April 2007



- 5, 6. Two magnified views of plants of *Lophosiphonia obscura* (A69062 slide 20223) on Southern Grey mangrove pneumatophores 5km S of Wallaroo, S. Australia, showing
- the characteristic horizontal, continuously growing (indeterminate) branch (*in br*) and upright branches of lesser (determinate) growth (*d br*)
  - rhizoids (*rh*) and attachment pad (hapteron, *ha*)
  - two small indeterminate branches showing the pattern of branching characteristic of the genus — dorsal side producing determinate branches and ventral side producing rhizoids

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