



**Techniques needed and shape**

**Classification**

**\*Descriptive name**

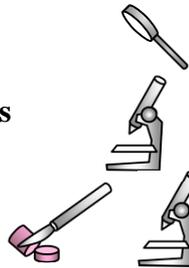
**Features**

**Occurrences**

**Special requirements**

Phylum: Rhodophyta; Order: Gigartinales; Family: Areschougiaceae  
blubber weed (suggested by Gerry Kraft's daughters, describing the plant's texture)

1. plants are red, grey or bleach yellow, *fairly soft* when fresh and 100-230mm tall
2. a basal holdfast with finger-like often orange extensions occurs
3. branches 10-40mm apart, tubular (*cylindrical*), *pinched* at the base, tapering to a *point*  
a common species from W Australia to Tasmania



1. view the tips microscopically to locate the several apical cells producing 5-15 *internal strands* visible when stained blue through the outer layers
2. cut a cross section and view microscopically to find
  - the *broad* central core (medulla) of *fine threads* running *lengthwise* and *short* connecting cross-threads
  - outer layers (cortex) of inner large cells with *many* side connections and outer small cells
3. if possible find the products of fertilisation in female plants (cystocarps),
  - cut a cross section of the swollen parts of the branch and view microscopically
  - cystocarps are found in the medulla with an envelope of threads
  - a *large* fusion cell bearing carposporangia is central in the cystocarp
4. if possible, cut a cross section through a sporangial plant to view the scattered, small, cigar-shaped tetrasporangia in the outer (cortex) layers, divided in rows (zonately)

**Usual Habitat**

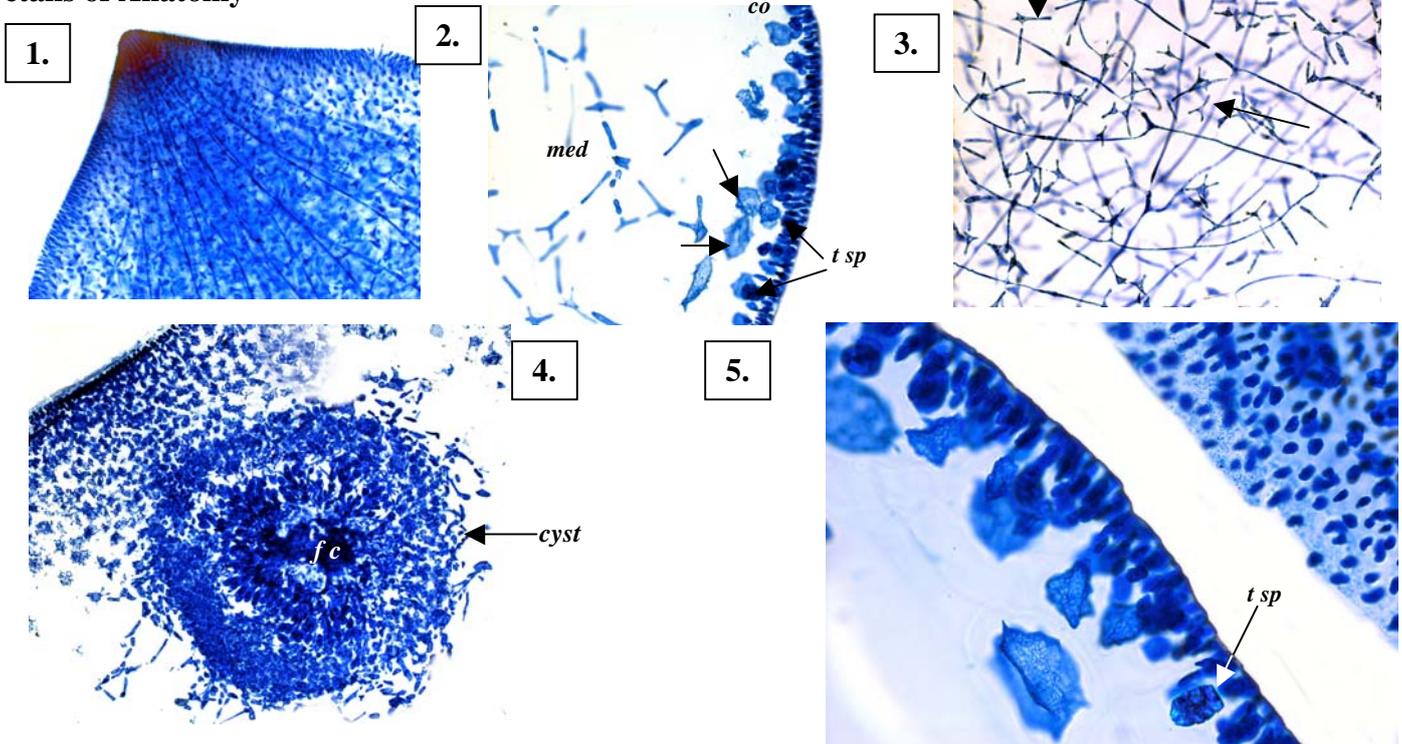
found in a variety of depths and wave energies

**Similar Species**

superficially like other members of the Areschougiaceae, but with a distinctive base and wider, softer, lighter coloured branches

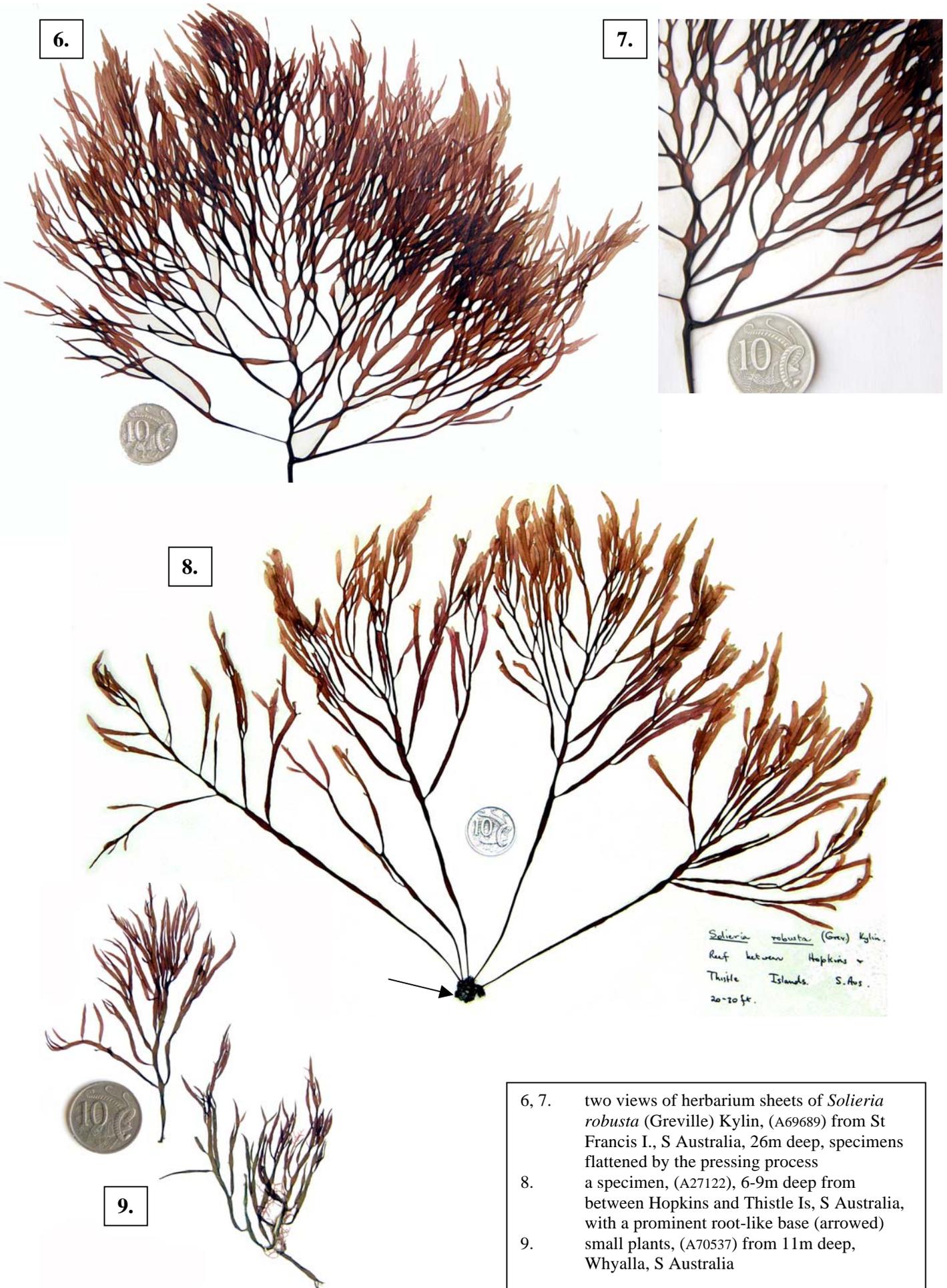
**Description in the Benthic Flora** Part IIIA, pages 340-343

**Details of Anatomy**



*Solieria robusta* (C Agardh) Silva stained blue and viewed microscopically:

1. a pointed branch tip focussed through the outer cell layers to show the lines of fine threads in the core (A37805 slide 3804)
2. a cross section of a sporangial plant showing a wide core (medulla, *med*) of threads and narrow outer layer (cortex, *co*) of large cells with side connections (arrowed), outermost small cells and scattered, darkly stained tetrasporangia (*t sp*) (A19139 slide 3803)
3. threads extracted from the medulla, showing the extremely fine threads and shorter cross threads (arrowed) (A37805 slide 3804)
4. cross section of a branch with cystocarp (*cyst*) in the core (medulla), showing a large fusion cell (*fc*) and envelope of threads (A37805 slide 3805)
5. two views of the outer (cortex): LHS a cross section with tetrasporangium (*t sp*); RHS a surface view of cells (A19139 slide 3803)



6, 7. two views of herbarium sheets of *Solieria robusta* (Greville) Kylin, (A69689) from St Francis I., S Australia, 26m deep, specimens flattened by the pressing process

8. a specimen, (A27122), 6-9m deep from between Hopkins and Thistle Is, S Australia, with a prominent root-like base (arrowed)

9. small plants, (A70537) from 11m deep, Whyalla, S Australia

\* Descriptive names are inventions to aid identification, and are not commonly used  
 "Algae Revealed" R N Baldock, S Australian State Herbarium, February 2008