Hapalospongidion capitatum Womersley

A SPECIES WITH FEW RECORDS

34.070

Techniques needed and plant shape

MICRO PLANT

filament

Classification Phylum: Phaeophyta; Order:Chordariales; Family: Ralfsiaceae

***Descriptive name** rock scale

Features plants consist of tiny patches with emerging hairs, encrusting rocks

Special requirements

view dissected pieces of the thin crusts microscopically to find:

- erect ***unbranched*** threads with brown plastids
- irregular shaped spore sacs (sporangia) with one to several rows of compartments (loculi) that develop ***below the tip*** of filaments, but may become terminal through loss of the filament cells above

Occurrences only known from Frenchmen Bay, King George Sound, W. Australia, but probably more widespread because of its cryptic nature

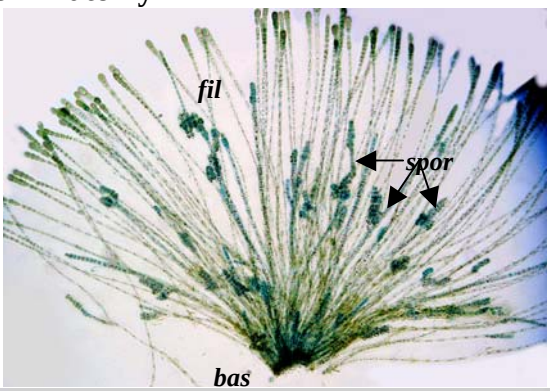
Usual Habitat on granite, in the mid intertidal

Similar Species may be initially confused with other encrusting brown algae such as *Myrionema* species, but these are very small and grow on other algae (epiphytic); *Ralfsia* but erect filaments adhere together in this genus; and *Pseudolithoderma* but these have large sporangia with single compartments, or ***terminal*** ones with many compartments

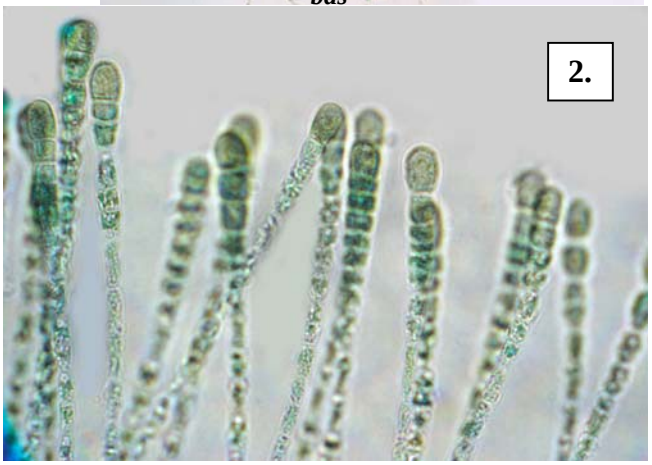
Description in the Benthic Flora Part II, pages 55, 57-58

Details of Anatomy

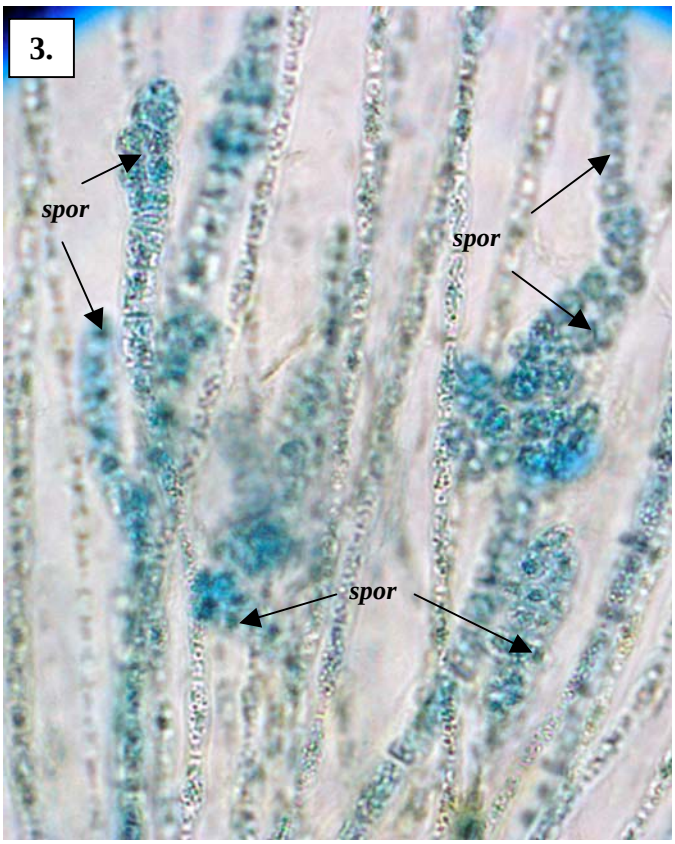
1.



2.

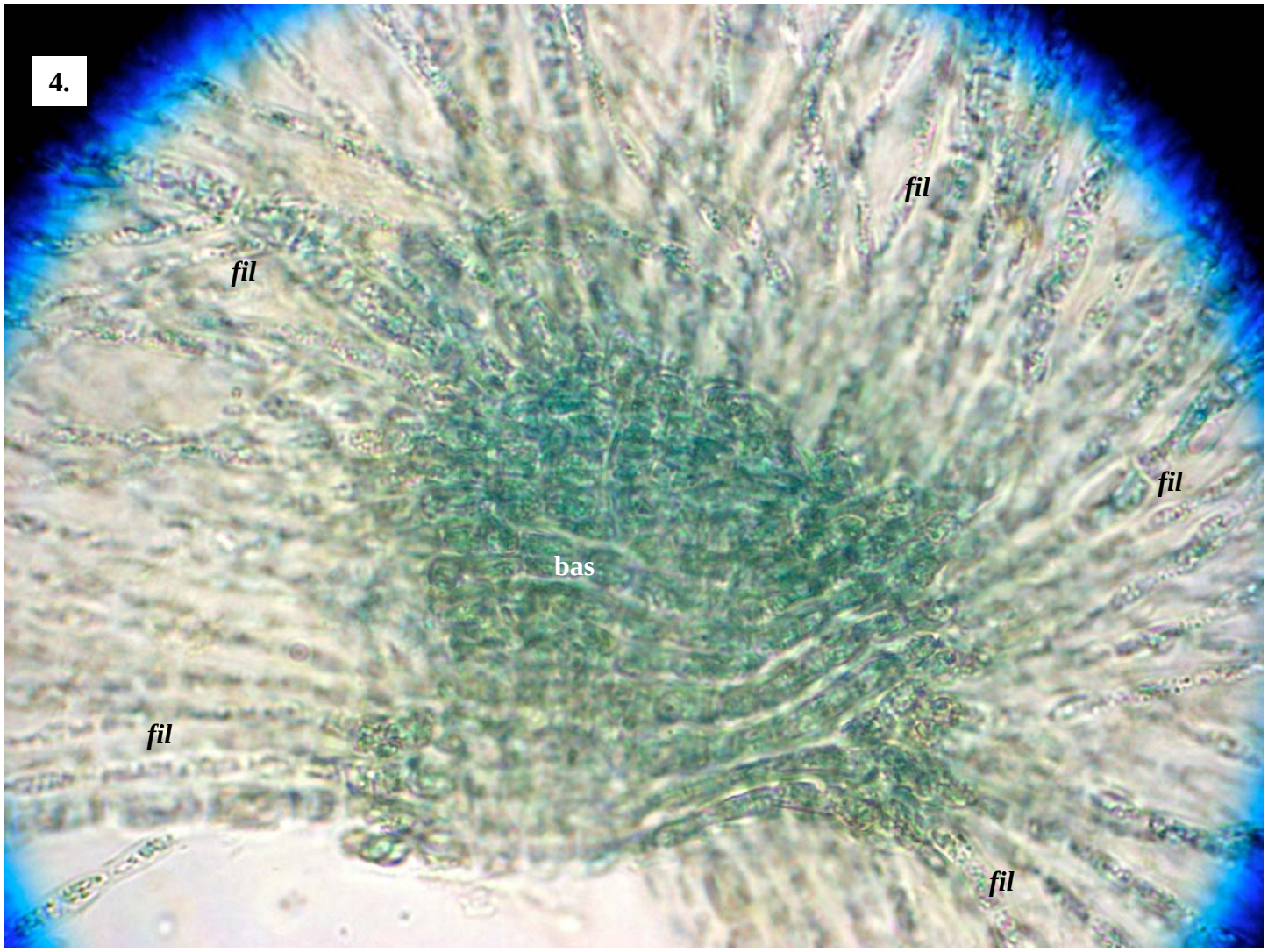


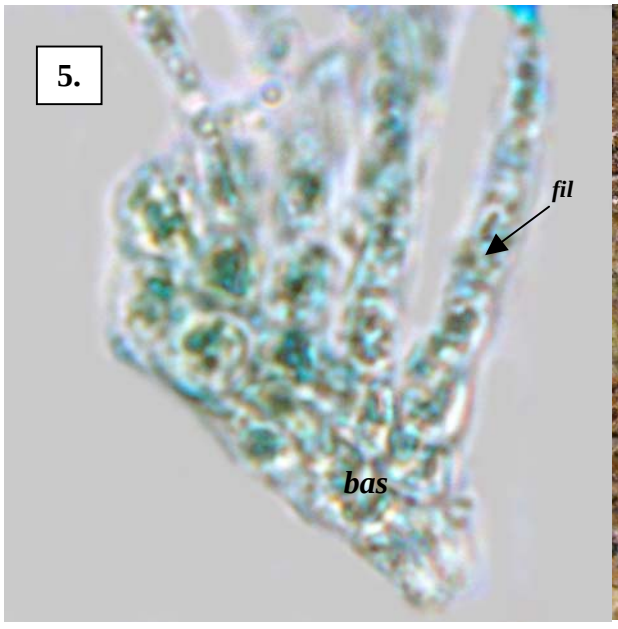
3.



Microscope views of dissected plants stained blue (A51653, slide 6430):
1. whole tuft with basal encrusting pad (*bas*) and spore sacs (sporangia**,** *spor*) amongst the photosynthetic filaments (*fil*)
2. detail of the swollen tips of the filaments, characteristic of the species
3. a mass of filaments and irregularly shaped sporangia

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





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4, 5..Microscope views of dissected plants (A51653) stained blue:
4. portion of a basal encrusting pad (*bas*) with erect photosynthetic (assimilatory) filaments (*fil*) splayed sideways (slide 6430)
5. highly magnified fragment showing the box-shape of the basal layer cells and rows of cells of erect filaments (slide 6431)
6. Plants attached to granite rock (red arrowed)

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"Algae Revealed" R N Baldock, S Australian State Herbarium August 2005