

Discosporangium mesarthrocarpum (Meneghini) Hauck

AN INTRODUCED OR ADVENTIVE SPECIES

A SPECIES WITH FEW RECORDS

34.300

Techniques needed and plant shape



MICRO PLANT

filament



Classification

*Descriptive name

Features

Special requirements

Phylum: Phaeophyta; Order: Sphacelariales; Family: Choristocarpaceae
micro brown tufts



plants green-brown, forming tufts about 15mm tall on other algae



view microscopically to see

- threads with prominent apical cells containing dense contents
- **single** lines of cells, unusual for this Order in which longitudinal walls are common)
- sporangia, **stalkless**, initially dividing into pairs of compartments, but finally forming **plates** or **discs** of many tiny compartments (plurilocular condition)

Occurrences

originally from the Adriatic and Gulf of Naples, found in S. Australia on algae growing on artificial tyre reefs at Grange and Glenelg, 18-20m deep on other algae

Usual Habitat

Similar Species

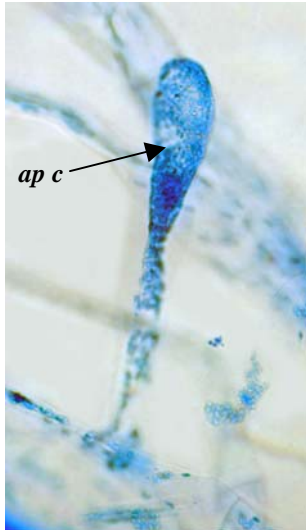
many filamentous brown algae, but *Discosporangium* has distinctive apical cells, disc-like chloroplasts and unique sporangia

Description in the Benthic Flora

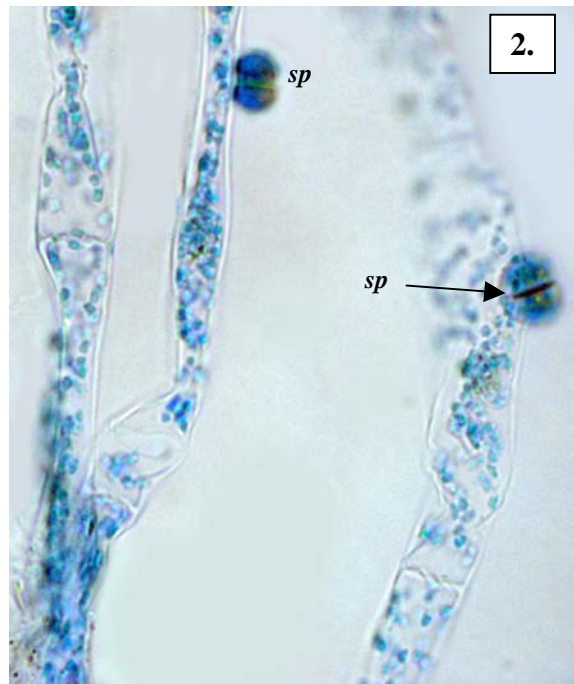
Part II pages 146-147, 149; Part IIID Appendix (of introduced species)

Details of Anatomy

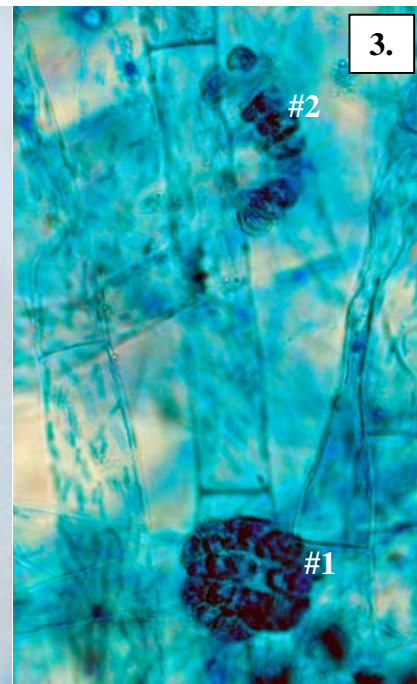
1.



2.



3.



Discosporangium mesarthrocarpum stained blue and viewed microscopically at different magnifications showing

1. densely staining apical cell (*ap c*) of a short side branch (A57406, slide 10255)
2. early paired compartments of two developing sporangia (*sp*), and disc-shaped plastids in vegetative cells (A56425, slide 10072)
3. later sporangial stages (#1 surface view, #2 side view) with 2 pads or discs composed of tiny compartments (distinctive plurilocular sporangia) (A57406, slide 10255)

* Descriptive names are inventions to aid identification, and are not commonly used
"Algae Revealed" R N Baldock, S Australian State Herbarium, September 2005

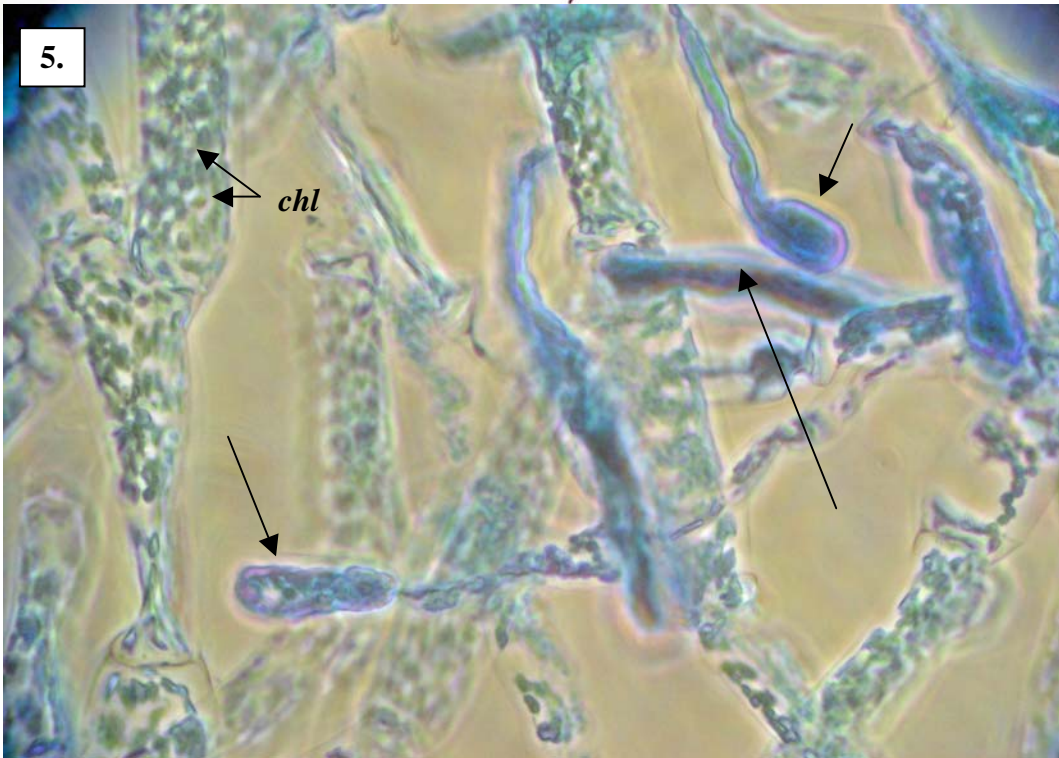
4.



4. *Discosporangium mesarthrocarpum* (Meneghini) Hauck, (A57486), (arrowed, one piece detached) on the red alga *Micropeuce*



5.



5. *Discosporangium mesarthrocarpum* (Meneghini) Hauck, (A56425, slide 9087) stained blue and highly magnified to show the mass of filaments making up the plant body, the dense apical cells (arrowed) and disc-shaped chloroplasts (*chl*)