**Classification**

Phylum: Chlorophyta; Order: Derbesiales; Family: Derbesiaceae

*Descriptive name*

green threads (spore plant) and green eyeballs (sexual plant)

**Features of the spore plant**

plants bright green, 10-40mm tall on rock, threadlike, sparsely branched with no visible cross-walls

**Features of the sexual plant**

plants only 3-10mm tall, balloon-shaped, on encrusting red coralline algae (previously called *Halicystis marina*)

**Variations**

chloroplasts may be lens-shaped or circular

**Special requirements:**

1. view the rarely-divided (coenocytic) threads, 30-40μm wide
2. find the dark, egg-shaped spore sacs (sporangia) 80-105μm long, cut off from the filaments by a double partition.
3. view the chloroplasts that have no central spots (pyrenoids)

**Usual Habitat**

from S. Australia to Bruny I., Tasmania and Victoria, in shaded pools

**Similar Species**

many filamentous algae such as *Cladophora* resemble the spore stage, but *Derbesia* spp have practically no cross walls *Derbesia tenuissima* has thicker filaments (50-80μm), larger chloroplasts with pyrenoids and larger, more spherical sporangia.

**Description in the Benthic Flora** Part I, pages 289-291

**Details of Anatomy**

1. filaments stained with aniline blue to highlight their sparse branching, absence of cross walls and 3 dark sporangia (slide 2725)
2. detail of an egg-shaped sporangium with the double partition in the neck (arrowed) (slide 2725)
3. highly magnified, rounded chloroplasts of the sexual phase (*Halicystis ovalis*), of *Derbesia marina*, showing the lack of a central dark pyrenoid (slide 15100)

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

§ name used in Edgar, G. *Australian Marine Life, 2nd Ed.* (2008)

“Algae Revealed” R N Baldock, S Australian State Herbarium, July 2005
The spore stage of *Derbesia marina* (Lyngbye) Solier (A52839) from Nora Creina, S. Australia

The sexual stage (*Halicystis ovalis*) of *Derbesia marina* (A63938), Ninepin Pt, SE Tasmania

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