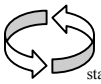
Scinaia proliferata Huisman

A SPECIES WITH FEW RECORDS

45.130

Techniques needed and plant shape



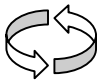


Classification

Phylum: Rhodophyta; Order: Nemaliales; Family: Scinaiaceae

(as Family: Galaxauraceae in the Flora. Huisman (Algae of Australia: Nemaliales, 2006) placed members of Galaxauraceae lacking lime into the new Family: Scinaiaceae)

Life cycles



only plants belonging to the mature sexual phase (gametophytes), upright and relatively large, are described below.

The asexual spore phase (sporophyte) known only for several other species may consist of microscopic, tufted threads but is unknown for this species.

Features

plants small, about 50 mm tall, red-brown, gristly (cartilaginous) when dry, branches 12 mm wide, tubular, forked every 3-11 mm

Special requirements


view microscopically to find

- vague rings (rosettes) of small, colourless surface cells around larger, balloon-shaped cells (utricles)
- in a cross section a ***narrow*** central mass of twisted threads ***radiating*** outwards and ending in tufts of small pigmented cells with ***colourless*** ovoid cells (utricles) on the very surface (outer cortex layer)

Occurrences

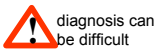
only known from the original (type) collection from Nora Creina, S Australia. Could possibly be only a variety of *Scinaia acuta* Wynne (as *S. australis* (Setchell) Huisman, in the Benthic Flora)

Usual Habitat

on small stones, 4-6 m deep

Similar Species

Scinaia acuta (= S. australis in the Marine Flora), but that species is larger, softer in texture and branching is more regularly forked. There are also minute female reproductive details separating the species. Different from *Gloiophloea* spp because of the colourless cells (utricles) in the outer (cortex) layer

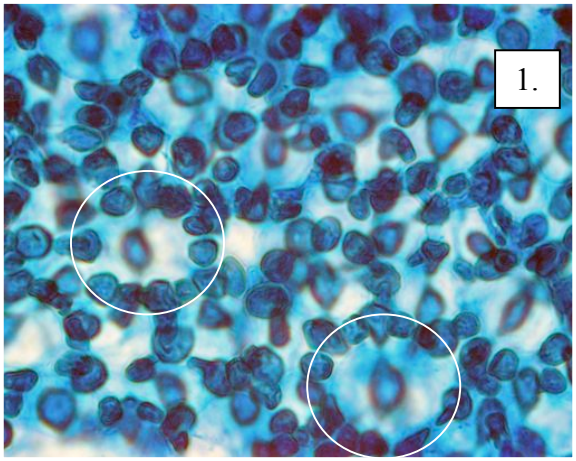


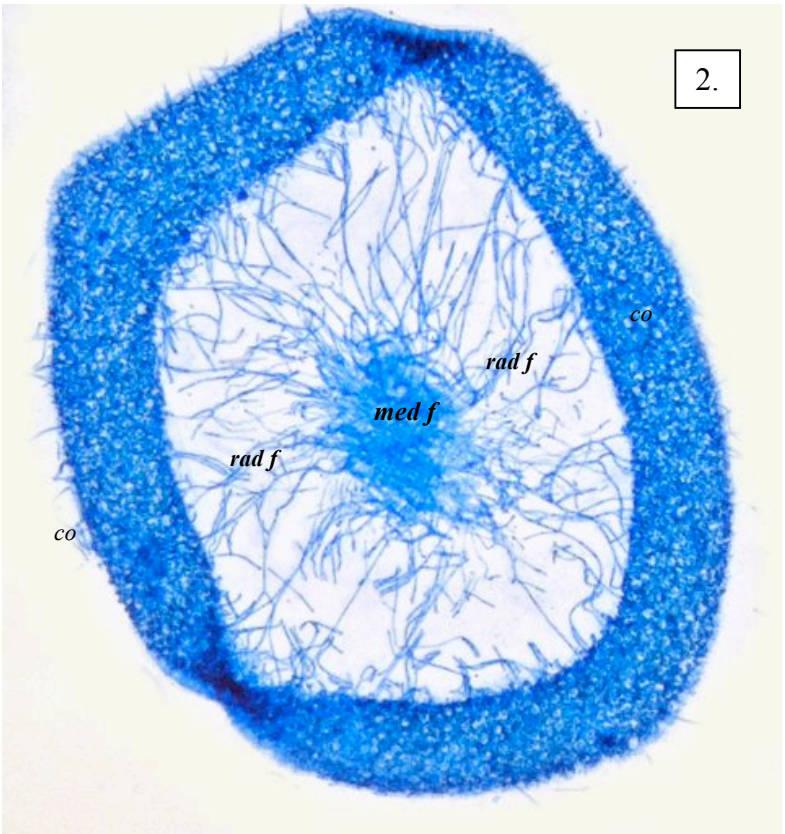
Description in the Benthic Flora

Part IIIA, pages104-107

Details of Anatomy

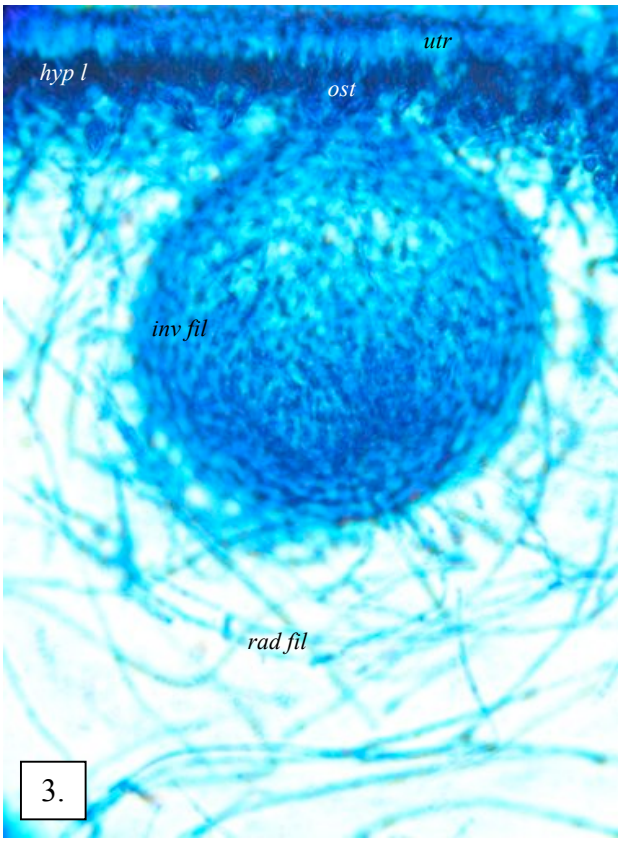
note: no microscope material being available, *S. acuta,* similar anatomically, has been used as a proxy

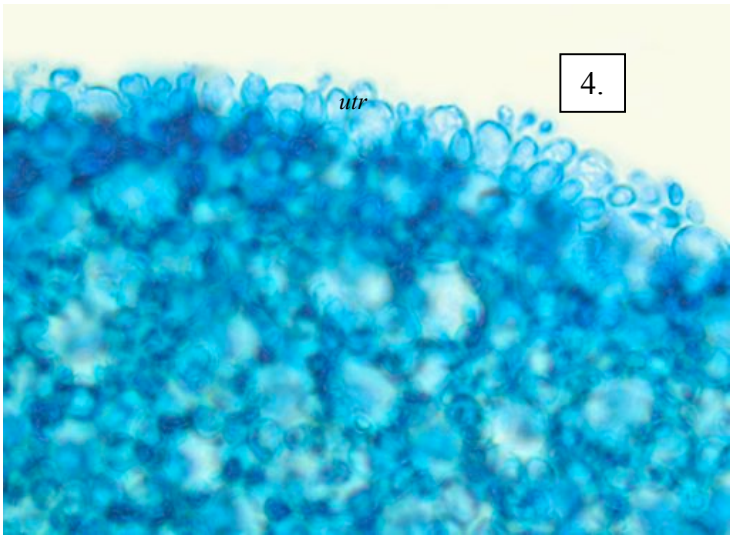




Scinaia acuta A66757 slide 16155 acting as a proxy for *S. proliferata,* stained blue and viewed microscopically

1. surface cell rosettes (indicated by rings)
2. slightly squashed slice across a branch with central mass of intertwined threads (medullary filaments, *med f*) radiating filaments (*rad f*) and slightly flattened outer layer (cortex, *co*)





Scinaia acuta A66757 slide 16155 acting as a proxy for *S. proliferata,* stained blue and viewed microscopically

3. cross section of part of a branch through a cystocarp, showing surface layer of colourless cells (utricles, *utr*), layer of pigmented cells below the surface (hypodermal layer, *hyp l*), cystocarp with an opening (ostiole, *ost*), and wrapping (involucre, *inv fil*) of threads, radiating threads of the medulla (*rad fil*)
4. slanting view of the surface layer in detail, with some colourless cells (utricles, *utr*) on the surface

Scinaia australis Huisman A46012 on small stones, 4-6 m deep Nora Creina, SA