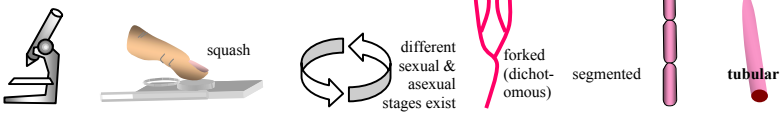
Scinaia arborealis Huisman

45.130

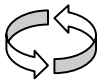
Techniques needed and plant shape



Classification

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

Life cycles

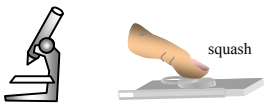


only plants belonging to the mature sexual phase (gametophytes), upright and relatively large, are described below.
The asexual spore phase (sporophyte) known only for several other species may consist of microscopic, tufted threads but is unknown for this species.

Features

plants 50-200 mm tall, grey-red to dark red or brownish; branches 1.5-3.0 mm wide, forked about every 10-30 mm, and pinched at the forks into cigar-shaped segments

Special requirements



view microscopically to find

- in surface view, focus through the outermost compact, colourless cells arranged in a honey-comb pattern, to well-separated bunches of small, coloured, ball-shaped cells just beneath (Figs 1-2)
- in a tissue squash, find the central mass of fine, twisted threads, ends ***radiating*** outwards to bunches of ***coloured,*** ball-shaped cells at their tips beneath the outermost, colourless, compact surface layer

Occurrences

S W Australia, southern Australia but not Tasmania, to N NSW and Norfolk I

Usual Habitat

possibly a deepwater species, but many plants are collected as drift

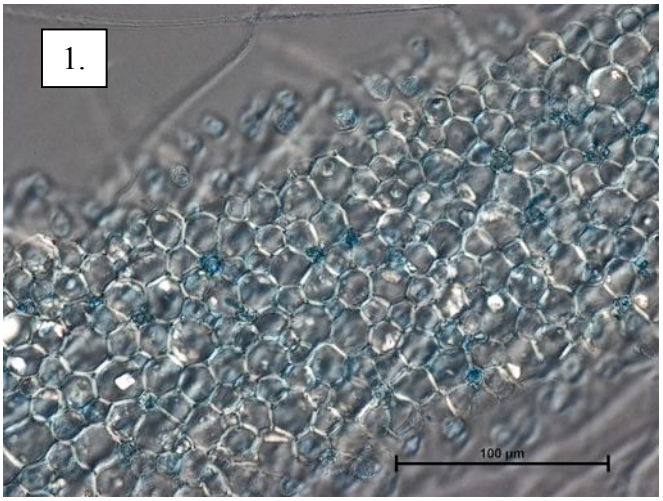
Similar Species

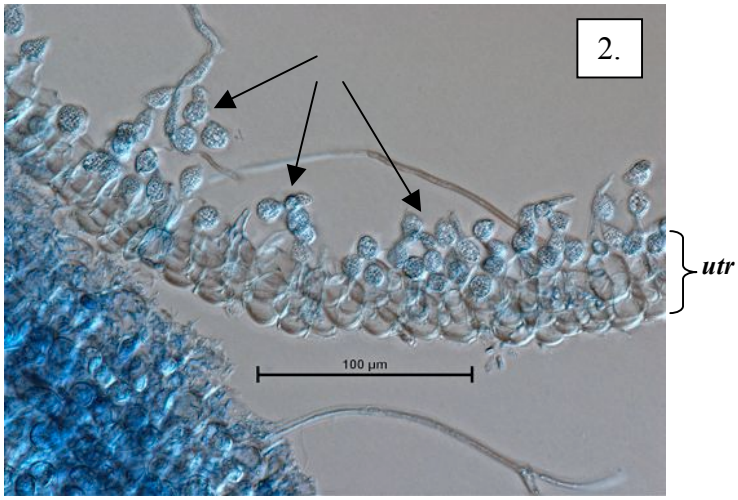
constrictions at the forks are similar to *S. moniliformis*, but that species has inflated segments 3-5 mm wide

Description in the Benthic Flora

Part IIIA, pages102, 103-104

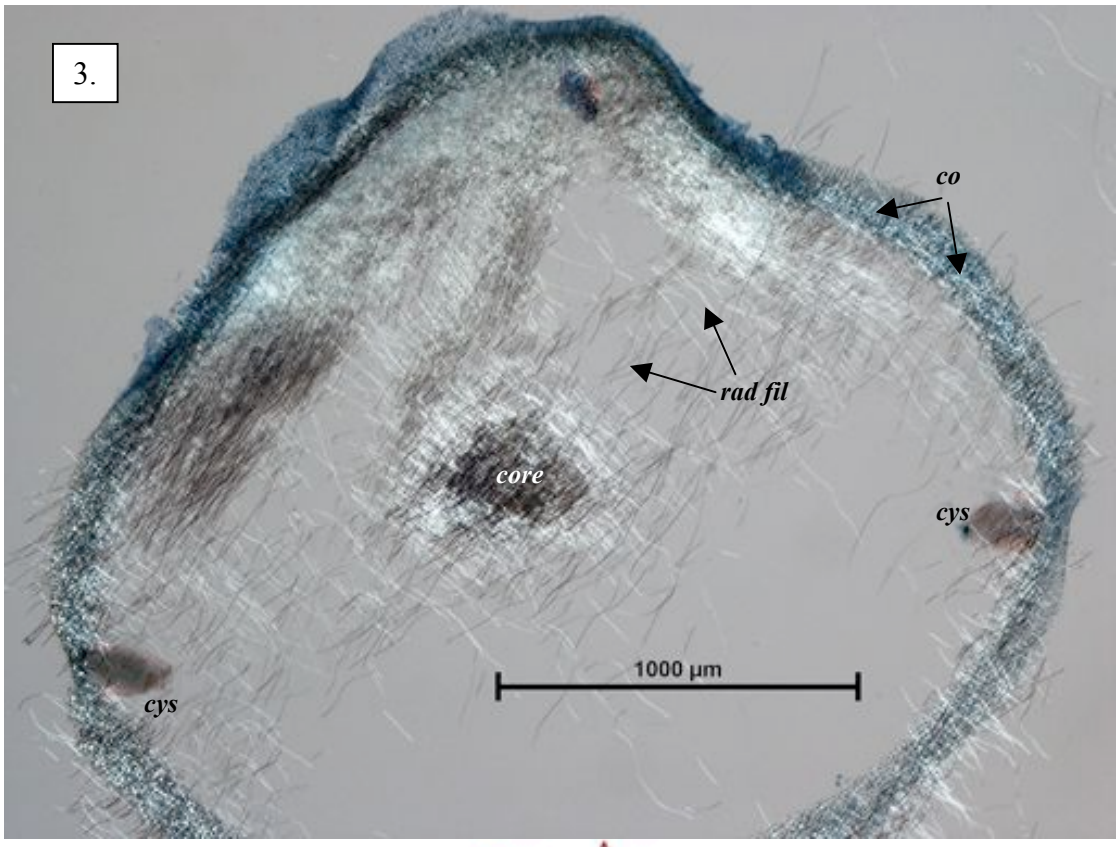
Details of Anatomy





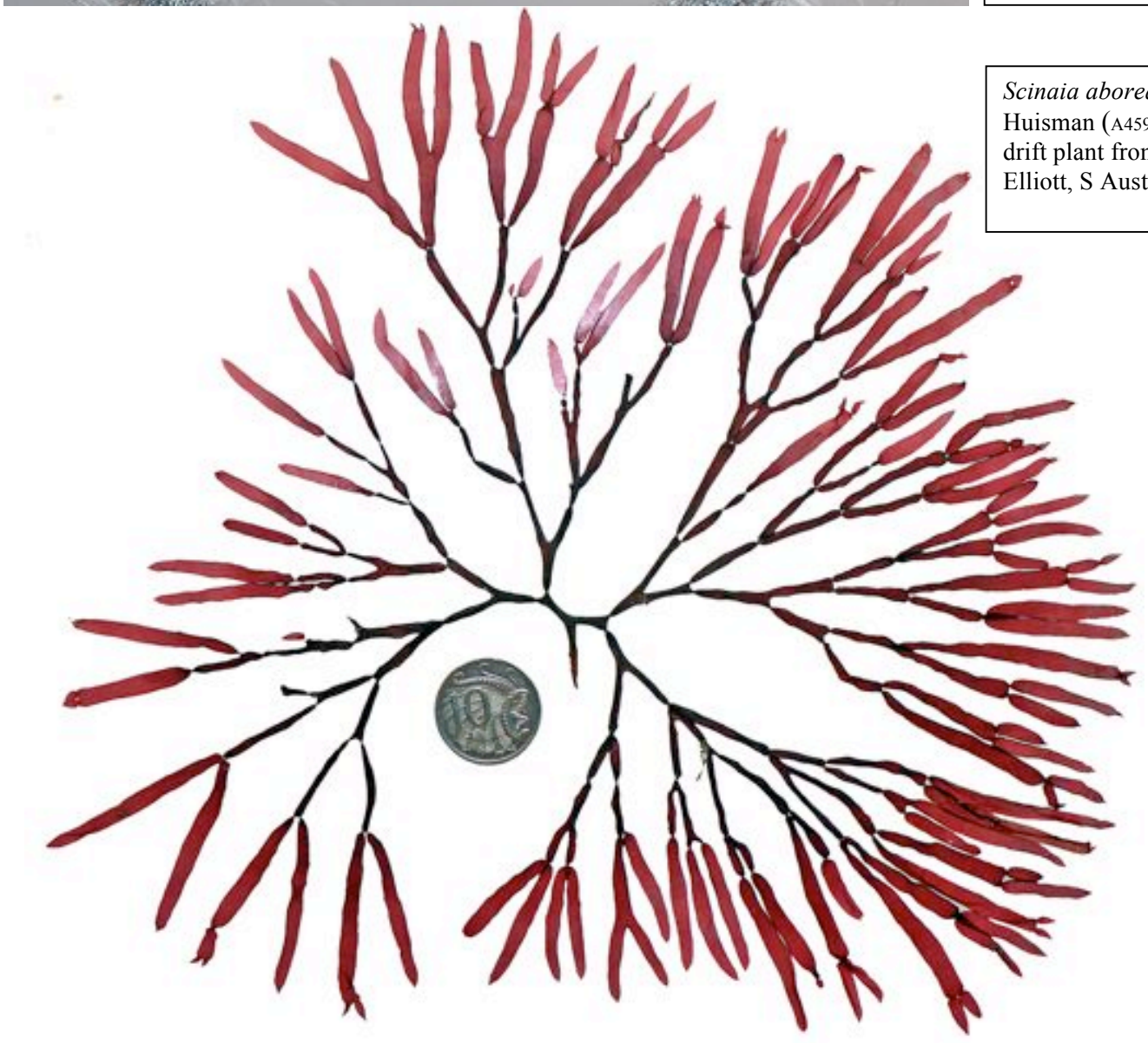
Scinaia aborealis Huisman A31015, slide 11522:

1. surface view of colourless cells in a compact honey-comb pattern
2. part section through the outermost layer showing compact, colourless cells (utricles, *utr*) and tufts of small, ball-shaped coloured cells beneath (arrowed)



Scinaia aborealis (A31015 slide 11522):

3. cross section with narrow central core of fine threads, radiating threads (*rad fil*), compact outer layer (cortex, *co*) and in-growing female reproductive structures (cystocarps, *cys)*



Scinaia aborealis Huisman (A45969): drift plant from Port Elliott, S Australia