

§ *Halopeltis (Rhodymenia) cuneata*  
Harvey

45.660

Techniques needed and plant shape



MACRO  
PLANT



Classification

Phylum: Rhodophyta; Order: Rhodymeniales; Family: Rhodymeniaceae

\*Descriptive name

§ Tasmanian red forkweed; red wedge-blades

Features

1. plants dark red, 40-200 mm tall, broader than tall, of a blade, divided into broad **wedge-shaped** lobes, a short, narrow stalk basally, sometimes tattered (lacinate) or with small holes
2. **female** blades speckled with pustulate, dark cystocarps
3. tiny surface bladelets (spatula-shaped proliferations) **absent**

Occurrences

E and SE Tasmania

Usual Habitat

on rock or on the introduced gastropod *Maoriculpus roseus* 10-15m deep

Special requirements



1. cut cross sections of blades and examine microscopically to find
  - narrow outer (cortical) layers of small cells, grading rapidly to larger inner (medulla) of **2 irregular rows** of large, relatively thick-walled cells mixed with smaller cells, and some spaces between cells
  - pustulate mature female structures (cystocarps) protruding from blades with inner loosely arranged large cells and outer rows of small cells forming a wall (pericarp), single depressed external opening (ostiole), mass of carposporangia with a small group of basal nutritive cells
2. male and sporangial plants are unknown

Similar Species

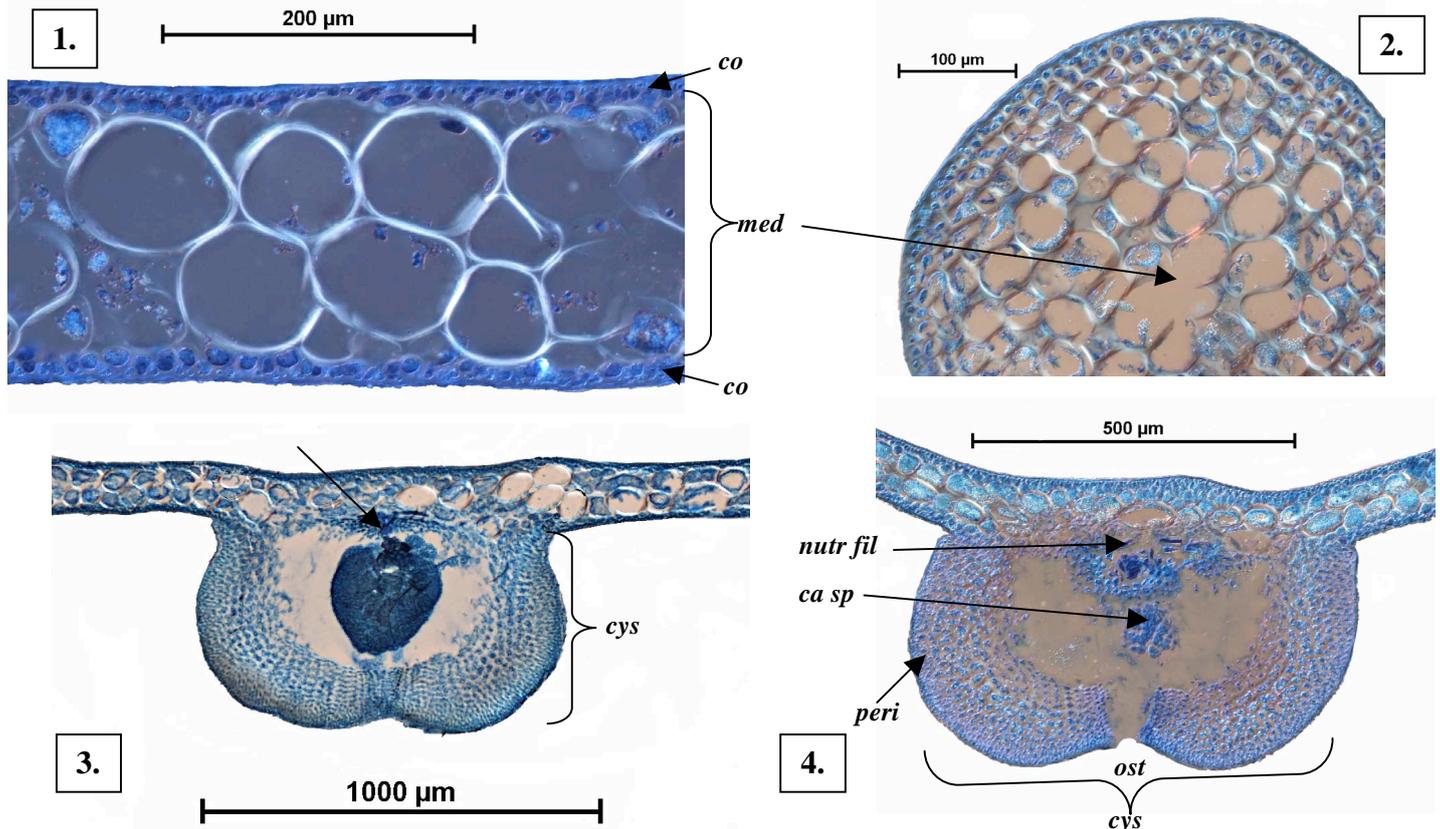


*Rhodymenia halymenioides*. § Saunders & McDonald have merged *R. halymenioides* with *R. cuneata*

Description in the Benthic Flora

Part IIIB, pages 84-86; as *Rhodymenia cuneata* in the Marine Benthic Flora

§NOTE: Saunders, G W & B McDonald (2010) *Botany* vol. 88, pp 639-667 using DNA sequencing found hidden species within existing members of *Rhodymenia*. This required renaming some of the species described in the Marine Benthic Flora of SA

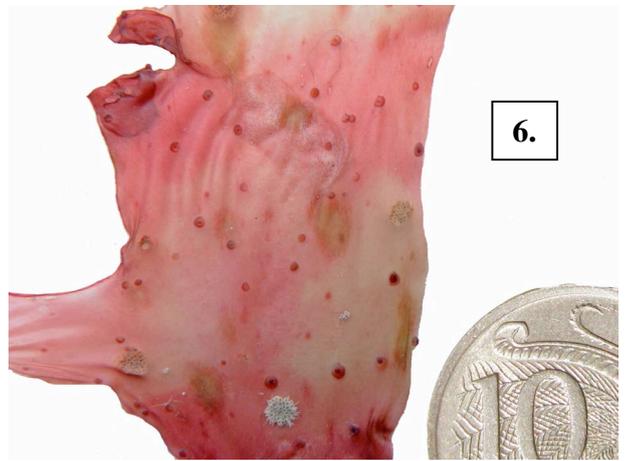


Cross sections of *Halopeltis cuneata* stained blue and viewed microscopically

1. blade with narrow outer layers (cortex, *co*) of small cells and core of 2 irregular rows of **large**, relatively thick-walled cells mixed with smaller ones and some spaces between cells (A61375 slide 1234)
2. basal stalk with larger medulla (A42162 slide 14334)
- 3, 4. cystocarps protruding from blades (*bl*) with central masses of carposporangia (*ca sp*) attached to basal nutritive tissue (*nutr fil*), cellular wall (pericarp, *peri*) of rows of small cells and depressed opening (ostiole, *ost*) (A61375 slide 12342 & A64252 slide 15222 respectively)

§name used by Edgar, G (2008) in Australian Marine Life (2<sup>nd</sup> ed.).

\*Descriptive names are inventions to aid identification, and are not commonly used  
“Algae Revealed”, R N Baldock, State Herbarium S Australia, November 2010; edit. November 2013



Variations in shape of *Halopeltis cuneata* Harvey from Tasmania

- 5-7. on the gastropod *Maoriculpus roseus*, 12m deep, from Sloping I., Frederick Henry Bay, Tasman Pen., (A61375) showing, at different magnifications, tattered, wedge-shaped lobes speckled with mature female structures (cystocarps) and narrow basal stalk
- 8, 9. two magnifications of a plant 2-5m deep, Sarah I., Bathurst Channel showing many broad lobes and detail of cystocarps on lobes with holes (A64252)
- 10. from 19m deep, Great Taylor Bay, Bruny I., showing a wedge-shaped blade divided into lobes (A64252)

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