

**Yorke Peninsula  
Algae Identification Slates**

**BENTHIC ALGAL SURVEY CODES  
(REVISED) used by REEF WATCH**

PLANTS	brown	red	green
The leathery kelp <i>Ecklonia radiata</i>	BKelp		
Other canopy forming plants	BBig (>20cm)	RBig (>20cm)	GBig (>20cm)
Smaller plants	BSmall (<20cm)	RSsmall (<20cm)	GSmall (<20cm)
Coralline algae		RCoral	
Sea lettuce			GLettuce
All seagrass			GRass

ANIMALS	Sponges and other animals attached to reef	ATtan
	Mussel beds	MUssels
	Mobile animals	MOban
COVER	Turfing – “moss” (<2cm)	TUrf
	Encrusting - "paint"	ENcr
	Rock or rubble	ROck
	Sand, mud or deep silt (>5cm thick)	SANd
	Missing data	DDd



**WARNING:** Algae identification may be difficult and should be checked with full description of species. Dimensions in captions to photos are common maximum heights (unless otherwise specified) for southern Australia.

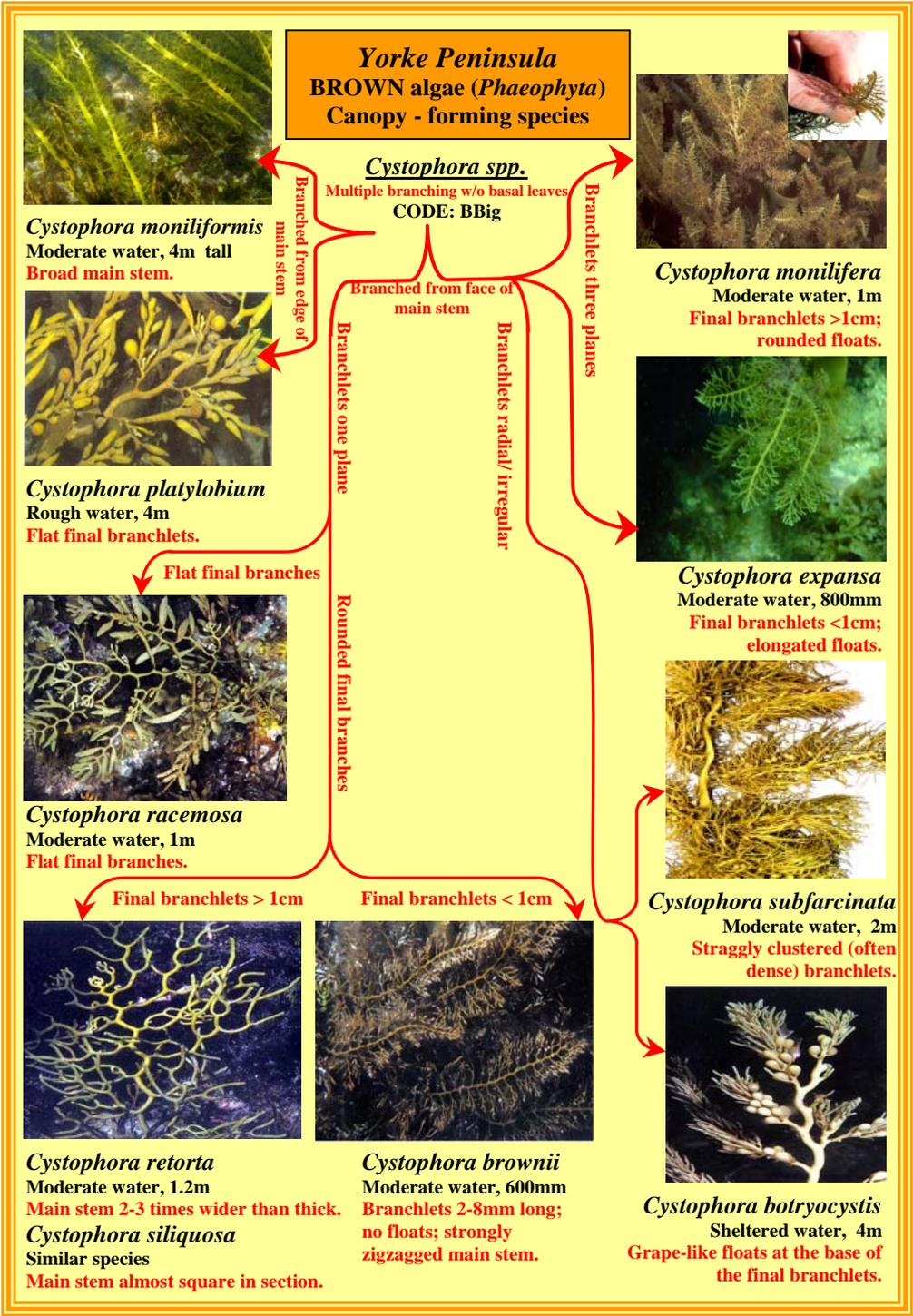
Reef Watch encourages divers to identify algae more specifically wherever possible. For further information [www.reefwatch.asn.au](http://www.reefwatch.asn.au)

Produced in cooperation with State Herbarium (Adelaide) & Reef Watch  
Images provided by D. Muirhead, G. Edgar, J. Brook and R. N. Baldock



**Government  
of South Australia**

A joint initiative of the  
Department for Environment and Heritage  
Northern and Yorke Natural Resources  
Management Board





**Yorke Peninsula**  
**BROWN algae (*Phaeophyta*)**  
**Canopy - forming species**

CODE: BBig.

*Sargassum* spp.

Sheltered to exposed reef, 1m

With basal leaves at bottom of main stem.

Fertile upper branches grown annually (spring), often missing

Basal leaves often leafy (perennial bottom part)



WARNING:  
 Identification is difficult



Sub-genus *Phyllotrichia*

Basal leaves, slender flat and divided.

cross-section of stalks = 

Sub-genus *Arthrophycus*.

Basal leaves are large.

cross-section of stalks = 

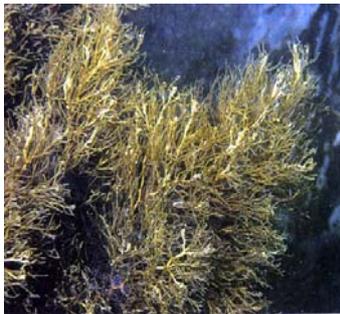
Sub-genus *Sargassum*  
 Basal leaves often slender.  
 cross-section of stalks = 

Multiple branching around the main stem; without basal leaves.

*Caulocystis cephalornithos*

Sheltered reef, 1m

Floats are cigar shaped.



*Acrocarpia paniculata*  
 Exposed reef, 1.50m  
 No gas floats.

*Caulocystis* spp.



*Caulocystis uvifera*  
 Sheltered reef, 600mm  
 Floats are egg-shaped.

**Yorke Peninsula**  
**BROWN algae (*Phaeophyta*)**  
**Canopy forming species**



*Carpoglossum confluens*  
 Moderate reef, 2m  
**No appendages inside branch edges.**  
 CODE: BBig



*Ecklonia radiata* (Kelp)  
 Sheltered to exposed reef, 2m  
**Rubbery trunk and broad, flat, blades.**  
 CODE: BKelp



*Hormosira banksii* (Neptune's Necklace)  
 Exposed intertidal reef, 300mm  
**Consists of chains of balls.**  
 CODE: BBig



*Seirococcus/Scytothalia*  
 Exposed reef, 2m  
**Strap-like branches.**  
 CODE: BBig

*Scytothalia dorycarpa*  
**Larger beaked appendages**



*Scytothalia dorycarpa*  
**Fine peg-like appendages.**



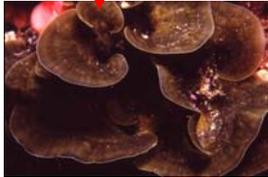
*Scaberia agardhii*  
 Sheltered reef/seagrass, 2m  
**Warty surface .**  
 CODE: BBig





Cell layers needed for accurate identification

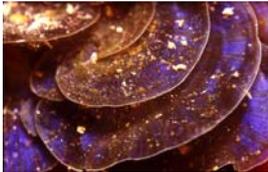
**Yorke Peninsula**  
**BROWN algae (*Phaeophyta*)**  
**Medium to small understory**



*Lobophora variegata*  
140mm diameter  
Bracket-like flat lobes.  
CODE: BSmall



*Dictyopteris muelleri*  
400mm  
Forked tips, obvious mid-rib and chevron stripes.  
CODE: BBig



*Distromium flabellatum*  
Similar but thinner than *Lobophora*; May fluoresce with radiating blue lines.  
CODE: BSmall



*Dictyota dichotoma*  
200mm  
Flat forked blades, can be fluorescing blue underwater.  
CODE: BSmall



*Colpomenia* sp.  
100mm across  
Papery, hollow, often torn.  
CODE: BSmall



*Zonaria turneriana*  
250mm  
Tiny twisted fan-shaped tips.  
CODE: BBig



Basal, hooked tendrils.



*Lobospira bicuspidata*  
200mm  
Spirally twisted thallus; tiny horned tips.  
CODE: BSmall



*Zonaria spiralis*  
150mm  
Narrow fan-shaped tips with branches regularly twisted spirally.  
CODE: BSmall



*Pachydictyon* spp.  
200mm  
Flat, forked tips.  
CODE: BSmall



**Yorke Peninsula  
GREEN algae (Chlorophyta)**



*Codium pomoides*  
50mm diameter  
**Ball-shaped, hard.**  
CODE:GSmall



*Codium* spp. (forked)  
400mm  
**Dark, velvet surface.**  
CODE: GBig  
Requires microscope detail for  
identification to species



*Dictyosphaeria sericea*  
50mm  
**Irregular lobe.**  
CODE: GSmall



*Ulva* spp.  
300mm  
**Sea lettuce; two  
cell layers thick.**  
CODE: GLettuce

*Enteromorpha* spp.  
400mm  
**Hollow tubular  
fronds.**  
CODE: GLettuce



*Caulerpa flexilis*  
400mm  
**Fern-like.**  
CODE: GBig



*Caulerpa obscura*  
300mm  
**Dark green, shaggy,  
mini pine trees.**  
CODE: GBig



*Caulerpa brownii*  
200mm  
**Erect axes densely covered by  
branchlets.**  
CODE: GSmall



*Caulerpa cactoides*  
Sand and seagrass beds, 400mm  
**Large (10-20mm) club-shaped  
branchlets.**  
CODE: GBig



*Caulerpa geminata*  
150mm  
**Small (2-4mm) ovoid  
branchlets.**  
CODE: GSmall



*P. dilatatum*



*P. mertensii*

**Yorke Peninsula  
RED algae (Rhodophyta)  
Foliaceous Species**



**WARNING:** Identification of red algae to species is difficult



*Plocamium* spp.  
500mm  
Species are separated on the pattern of flat, toothed side branches.  
CODE: RBig



*P. preissianum*



*P. angustum*



*Asparagopsis armata.*  
250mm  
Pink, with barbed lower branches.  
CODE: RBig



*Euptilota articulata*  
350 mm  
Flat-branched; Tips feathery.  
CODE: RBig



*Phacelocarpus peperocarpus*  
500mm  
Narrow fishbone axes.  
CODE: RBig



*Gelidium australe*  
200mm  
Thick mats; rounded axes.  
CODE: RSmall



*Melanthalia obtusata*  
600mm  
Dark-purple with flat, divided tips (2-4mm);Leathery.  
CODE: RBig



*Pterocladia lucida*  
400mm  
Thick mats in places.  
CODE: RBig



**NOT A RED ALGA**  
*Orthoscuticella ventricosa* is a bryozoan animal colony, **Crunchy to touch.**



**Yorke Peninsula  
RED algae (Rhodophyta)  
limey, rough or leathery**



**WARNING:**  
Identification of red algae  
to species is difficult

**Calcareous red algae  
CODE: RCoral**



***Haliptilon roseum*  
120mm  
Flat-branching; stalk-  
joints; box-shaped.**

***Metagoniolithon stelliferum*  
150mm  
Seagrass epiphyte; long cylindrical  
pieces between joints.**



***Cheilosporum sagittatum*  
50mm  
Sections are arrow-headed.**

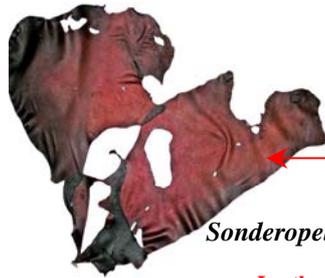


***Amphiroa anceps*  
200mm  
Branches flat; forked tips.**

**Red encrusting coralline algae  
Pink, limey crusts or knobs on rocks,  
sponges and plants.  
CODE: REnc**



***Osmundaria prolifera*  
500mm  
Leathery, flat, twisted, surface rough.  
CODE: RBig**



***Pachymenia orbicularis*  
900 mm  
Rubbery texture.  
CODE: RBig**

***Sonderopelta coriacea*  
250mm  
Leathery, fan-shaped  
(*Sonderopelta* has an underside  
mat of hairs).  
CODE: RBig**



***Botryocladia obovata*  
200mm  
Dense clusters of grape-like branches.  
CODE: RSmall**



***Thamnoclonium dichotomum*  
300mm  
Warty, divided branches covered with sponge.  
CODE: RBig**