CYSTOPHORA AT A GLANCE – IDENTIFYING ONLY THOSE SPECIES THAT HAVE EASILY RECOGNISABLE FEATURES

1.0 IF YOUR SPECIMEN HAS FLOATS (VESICLES) ⚠ floats are not always present on specimens

1.1 VESICLES SPHERICAL

C. botryocystis –
grape-like bunches of vesicles at bases of laterals

C. congesta –
(dried specimen) numerous, spherical vesicles, 3-7 mm across, single on short side branches at bases of secondary axes

⚠ **But vesicles may be totally absent on some specimens!**

C. racemosa –
1(-2) spherical to slightly egg-shaped vesicles 3-8 mm across, on stalks at the base of laterals

C. monilifera –
1 (-2) vesicles roughly spherical 3-6 mm across at the base of laterals

C. grevillei –
1(-2) spherical to slightly egg-shaped vesicles 5-10 mm across on long stalks at the base of laterals

C. subfarcinata –
small globe-shaped vesicles usually abundant, 2-4 mm across, amongst clustered ramuli

⚠ **but, vesicles may be totally absent on specimens from rough water habitats**

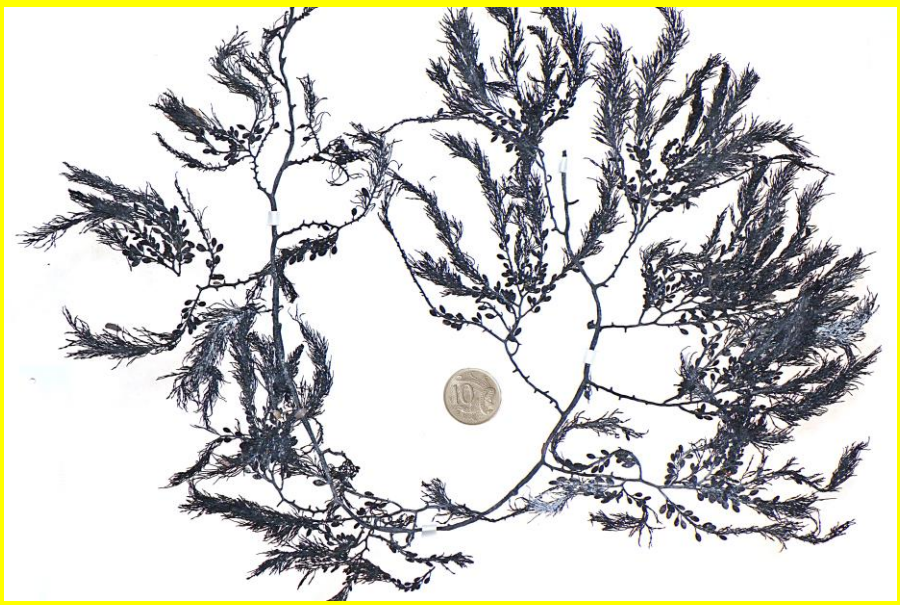
C. platylobium –
single, spherical vesicles 5-15 mm across at the base of laterals

Baldock, R.N. (2018). *Cystophora* at a glance: identifying only those species that have easily identifiable characteristics. 8 pages. *Algae Revealed*. Adelaide: State Herbarium of South Australia. flora.sa.gov.au/algae_revealed

1.2 VESICLES EGG-SHAPED

C. retorta –
vesicles usually absent, or rare, ***but*** occasionally plentiful!
When present, egg-shaped, 5-14 mm long, on stalks at the base of laterals and often ***asymmetric*** ("lop-sided")

C. expansa –
small vesicles, egg-shaped or spindle-shaped, 3-5 mm long, ***scattered throughout*** laterals



C. polycystidea –
bunches of small, egg-shaped vesicles 3-5 mm long occur at ***bases of laterals***

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2.0. IF YOUR SPECIMEN HAS A UNIQUE AXIS (MAIN BRANCH)
2.1 AXES STRAP-SHAPED

C. moniliformis –
axis thick, strap-like, up to 20 mm wide, lateral branches at edges

C. platylobium –
axis thick, compressed, up to 15 mm wide, lateral branches flat and almost as wide as the axis

C. retorta –
axis narrow, up to 7 mm wide, strap-like, laterals stiff

C. harveyi –
axis narrow, up to 8 mm wide, strap-like when dry, but lens-shaped in cross section when fresh,

with peg-like stubs of old side branches on the face of the axis

probably restricted to SW of WA

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2.2 AXES IN CROSS SECTION ARE SQUARE OR RECTANGULAR

C. siliquosa – axis up to 5 mm wide and about as thick as wide

C. gracilis – axis up to 4 mm wide

2.3 AXES WITH FLANGES

C. congesta–
axis up to 10 mm wide, with a broad flange running into side branches

C. retroflexa–
axis up to 10 mm wide, with a broad flange running into side branches

2.4 IF BASES OF LATERAL BRANCHES FORM DOWNWARD-POINTING, PLECTRA-LIKE STUBS

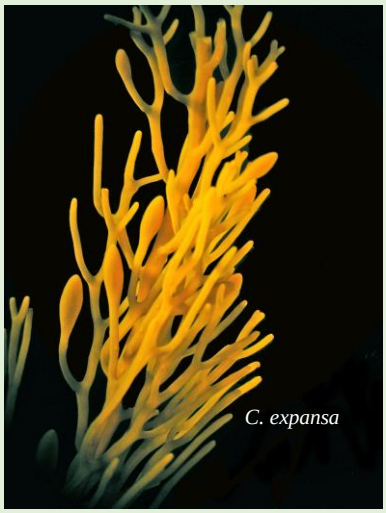
C. brownii
axis coarse, up to 10 mm wide and 4 mm thick, laterals with stubby ultimate branches (ramuli) branched in one flat surface

C. monilifera–
axis about 8 mm wide and 2 mm thick, laterals branched in 3 untidy rows, ramuli long and slender

3.0 IF YOUR SPECIMEN HAS SIDE BRANCHES WITH RADIALLY BRANCHED ULTIMATE BRANCHES (RAMULI)

C. botryocystis

C. congesta



C. expansa

C. polycystidea

4.0 IF FERTILE BRANCHLETS (RECEPTACLES) HAVE STRIKING CHARACTERISTICS

4.1 RECEPTACLE WITH A WIRY, STERILE TIP

C. cymodoceae – receptacle bead-like, ending in a wiry tip

C. gracilis – *receptacle* narrow

C. expansa – receptacle with prominent bulges

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C. subfarcinata –
receptacle flattened,
sterile tip long

C. tenuis –
receptacle with bulges

4.2 RECEPTACLES WITH BEAD-LIKE PARTS SEPARATED BY LONG STERILE PARTS

C. cuspidata

C. polycystidea

4.3 RECEPTACLES WITH A WAVY OUTLINE

C retorta

C siliquosa

both species have similar receptacles: use the square axis of *C. siliquosa* to separate the two species

4.4 RECEPTACLES FLAT (COMPRESSED)

C grevillei
receptacles thin

C. platylobium –
receptacles lance-shaped

C. racemosa –
receptacles spindle-shaped

C xiphocarpa –
receptacles long and flexuous