Guide to some harvested aquarium corals
Version 1.3
Guide to some commonly harvested aquarium corals - Version 1.3

Overview in life...

**SOLID DISKS WITH FLESHY POLyps AND PROMINENT SEPTAL TEETH**

- **Cynarina p5**
  - 5cm disc, 1-2cm deep, large, thick, white septal teeth usually visible through tissue. In Australia usually translucent green or red.

- **Acanthophyllia p6**
  - 5-10cm disc at top of 10cm curved horn. Tissue conceals septa. In Australia usually brown with blue / green trim.

- **Homophyllia p7**
  - 5cm disc, 1-2cm deep. Cycles of septa strongly unequal. Large, tall teeth at inner margins of primary septa. In Australia traded specimens are typically variegated green / red / orange.

- **Micromussa p8**
  - <5cm disc, 1-2cm deep. Cycles of septa slightly unequal. Teeth of primary septa less large / tall at inner margins.

- **Unidentified Lobophyllia p9**
  - 2-3cm disc, 1-2cm deep. Undescribed species traded as Homophyllia australis in West Australia and Northern Territory but now recognised as distinct on genetic and morphological grounds. Awaiting further work and formal description.

- **Lobophyllia p10**
  - 5-10cm disc, 1-2cm deep. Sometimes with more than one polyp. Septa cross a subtle raised rim - and fall away. Nealier, smoother than others in this group. Australian traded specimens are typically green or brown. See p10

**SMALL CORALS (USUALLY <6CM) NOT FLESHY, SMALL SEPTAL TEETH**

- **Heterocactus & Heteropsammia p13**
  - Small 1-3cm oval / sub-circular. Heteropsammia has 2mm hole at one end and smooth sides. Heterocactus has 2mm hole on underside and vertical ribs on sides. Heteropsammia may have multiple polyps centres. See page 13

- **Cycloseris p14**
  - Small 2-4cm, circular, with raised central disc. Underside is concave. Septal teeth small. Several species in Australia - industry favours green forms of Cycloseris cyclolites. See page 14

- **Diaceris p15**
  - Typically 2-6cm, sub-circular, thin / flat. Colony usually in the process of fragmenting asexually into pie-slice shaped daughter fragments. See p15

- **Truncatoflabellum p16**
  - Typically 4-6cm, flattened fan shape, with one or more pairs of root-like spines from sides. Base is a flattened "scar" from budding of daughter polyps. See p16

**MEANDERING CORALLITES / POLyps LIVE IN CURVED VALLEYS**

- **Catalaphyllia p11**
  - 10-20cm base, 1-2cm deep. Anemone like, covered with pink / purple tipped tentacles emerging from striated green background. Meandering valleys (skeleton) concealed - may form short cone. See p11

- **Trachyphyllia p12**
  - Typically 6-10cm, but can grow larger. Single polyp valleys start as simple figure "8" and become increasingly convoluted with size / age. Septal teeth small. Traded specimens usually bright green or variegated red, green and blue. See p12
Overview of skeletons…

Cynarina p5
Acanthophyllia p6
Homophyllia p7
Micromussa p8
Unidentified Lobophylliid p9

Heteropsammia p13
Heterocyathus p13
Cycloseris p14
Diaseris p15
Truncatoflabellum p16

Catalaphyllia p11
Trachyphyllia p12
**Species Account**

**Cynarina lacrymalis**

5cm disc, 1-2cm deep; **large white septal teeth** usually visible through tissue. In Australia usually green or red. Usually attached on reef walls and inter-reefal patches.

Field images: a, b, d, e; in captivity c, f
Acanthophyllia deshayesiana

5-10cm disc, 10-15 cm deep; conical, horn-like skeleton. Fleshy tissue obscures skeleton. In Australia usually a mixture of cream, blue, green & brown. Free-living cone buried in inter-reefal soft sediment.
**Homophyllia australis**

Typically ~5cm disc, 2-3 cm deep; sub-circular. Fleshy tissue obscures skeleton. Usually attached to lower reef slope or inter-reefal patches. Occurs throughout Great Barrier Reef, once abundant nearshore Mackay. Easily confused with Micromussa pacifica - see page 7 for explanation of distinctive characters.

In Australia traded specimens are usually variegated patterns of red, orange, green & other colours.
Micromussa pacifica

Like Homophyllia australis but slightly smaller with more regular / evenly sized cycles of septa (yellow arrows). Homophyllia australis has septa that alternate in size more clearly (green arrows) with higher, more widely space septal teeth (orange arrows) at the inner margins of the first / second cycle of septa (red arrows). Widely distributed in Australia often traded as Homophyllia australis - can be distinguished underwater by size of alternating septa.

Images a,b & c - Micromussa pacifica; images d, e & f - Homophyllia australis
Species Account

**Unidentified Lobophylliid**

Undescribed Lobophylliid best known from West Australian and Northern Territory coral fisheries. Differentiated from both Homophyllia australis and Micromussa pacifica based on ITS2 molecular marker and the shape / size of septal teeth.

Initial genetic sequencing shows that this coral (which has been collected in both Western Australia and Northern Territory, but not Queensland) is distinct from both Homophyllia australis and Micromussa pacifica, though its appearance is very similar to that of Micromussa pacifica.

These corals are generally small (<3.5 cm diameter) with **3-4 cycles of septa with strongly alternating sizes**. Underwater, the **larger septa** with pronounced septal teeth **along their entire length** are visible as ragged lines radiating out from the mouth and beyond the polyp wall.

Image a - unidentified Lobophylliid
image b - Micromussa pacifica
image c - Homophyllia australis
Lobophyllia vitiensis

Typically 5-10cm oval or irregular discs, 1-2 cm deep; fleshy tissue obscures skeleton. Slightly raised central rim on flat specimens. Occasionally polyps may have more than one mouth or secondary centres at periphery. In Australia traded specimens are usually green. Widespread, usually attached to reef walls or inter-reefal patches. See Huang et.al. 2016 for history of taxonomic name changes.
Catalaphyllia jardinei

Typically 10-20cm across, may have deep base buried in sediment; covered with pink / purple tipped anemone-like tentacles that conceal meandering valleys of the colony skeleton. Tentacles emerge from a fleshy oral disk with a striated green / cream colour. Found on soft sediment in inter-reef, back reef and protected reef flat habitats.
Trachyphyllia geoffroyi

Typically 6-10cm, but can grow larger. Start as simple figure '8' that become increasingly convoluted with size / age. Septal teeth small. Traded specimens usually bright green or variegated red, green and blue.

Found on soft sediment in inter-reefal or protected reef habitats.
**Heterocyathus aequicostatus & Heteropsammia cochlea**

Small 1-3cm oval / sub-circular, solitary polyps. Heteropsammia has smooth sides. Heterocyathus has vertical ribs on sides. These corals have a commensal relationship with a worm which moves the coral across the substrate by extending a proboscis through a large hole. Heterocyathus has respiration holes on the underside. Heteropsammia has respiration holes on the sides. Heteropsammia may have multiple polyps centres.

Typically found in soft sediment inter-reefally or in protected reef habitats.
Species Account

**Cycloseris spp.**

Free living discs. Small 3-6cm circular / sub-circular - some species subtly faceted. Usually with raised central disc. Underside is concave. Septal teeth small. Several species in Australian region - green morphs of Cycloseris cyclolites are commonly traded in the industry.

Found on sediment on lower reef slopes and inter-reefally.
**Species**

**Diaseris spp.**

**Account**

*Free-living.* Typically 2-7 cm, sub-circular, thin / flat. Usually in the process of fragmenting asexually into pie-slice shaped daughter fragments. Two species known from Australia - *Diaseris distorta* and *Diaseris fragilis*. Placed in the genus *Cycloseris* by some authors based on molecular evidence. See bibliography. Inter-reefal and protected lower reef slopes.
Species Account

Truncatoflabellum sp.

Free-living. Typically 4-6cm, flattened fan shape, with one or more pairs of root-like spines from sides. Base is a flattened ‘scar’ caused by budding of daughter polyps.

Inter-reefal.
Bibliography

Lobophyllidae (e.g., Homophyllia, Micromussa)


Trachyphyllia


Acanthophyllia


Euphylliidae