SURG Coral Health Project

Coral Health Chart (CHC)

www.coralwatch.org

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CORALWATCH:

- Provides hands on monitoring and education tools to increase awareness of reef threats
- Encourages behavioural change towards a more sustainable future
- Enables the opportunity for everyone to participate in a global project that monitors the effects of a change global climate

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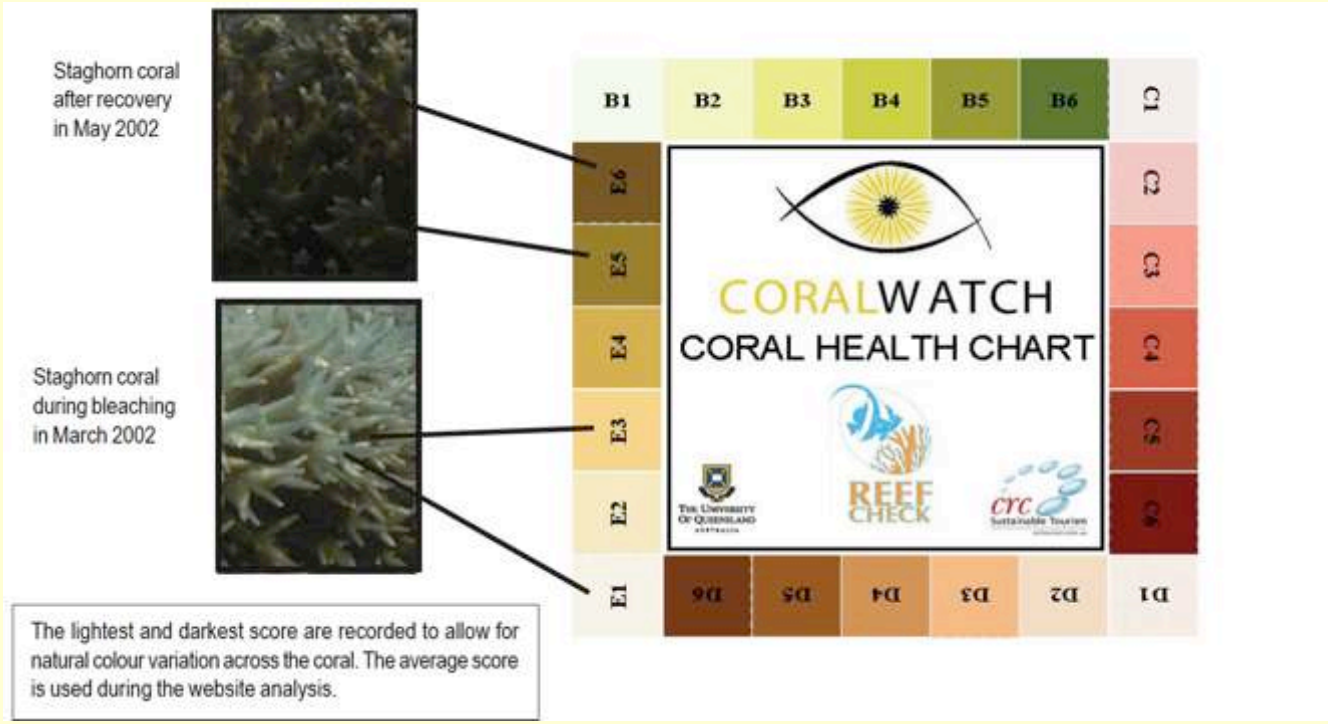
Coral Health Chart



Used to assign the darkest and lightest colour scores across the colony

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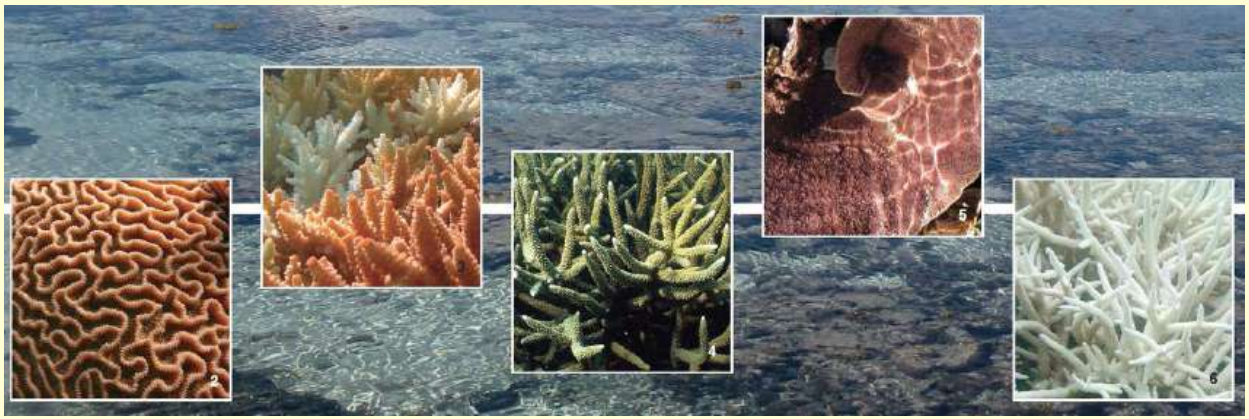
Coral Health Chart

Avoid the growing tips of branching and outer margins of plate/encrusting corals, these areas are normally white

Don’t be to concerned with exact colour, we are more interested in the variation in the intensity of the colour – the number on the CHC

Avoid regions with high concentrations of fluorescent pigment



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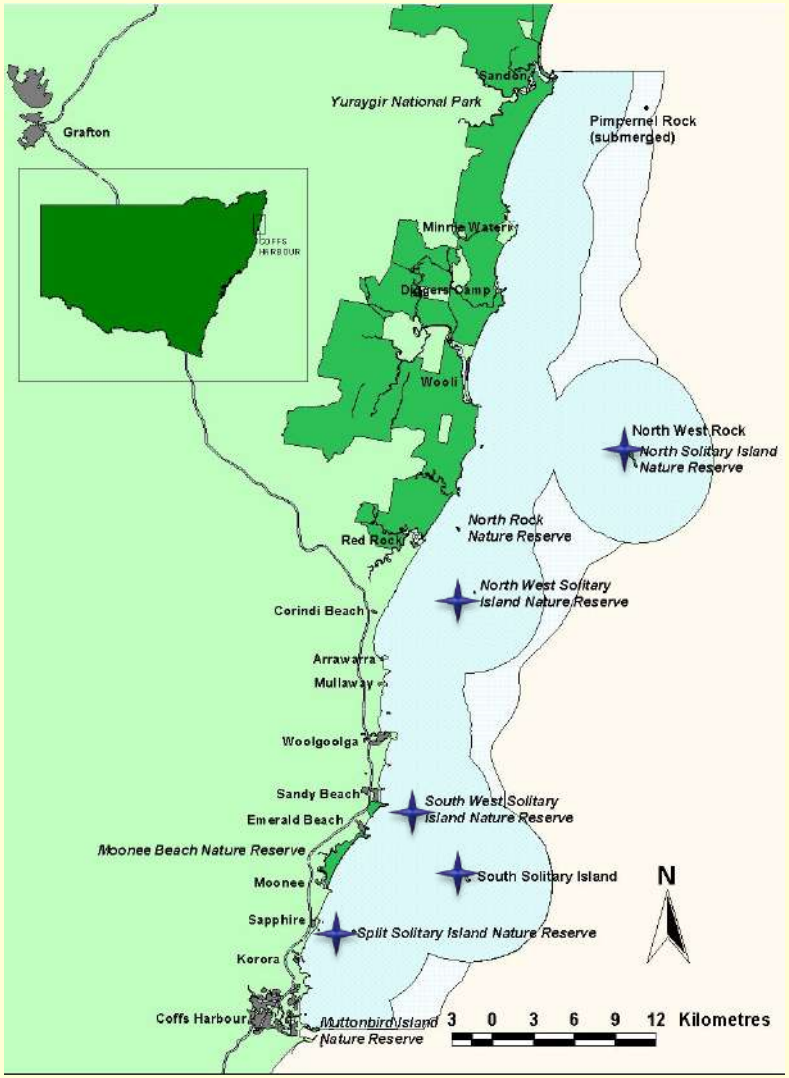
Survey design

- Five island locations
- Four 2m x 20m belt transects per island
- Surveyed twice yearly (winter and summer)



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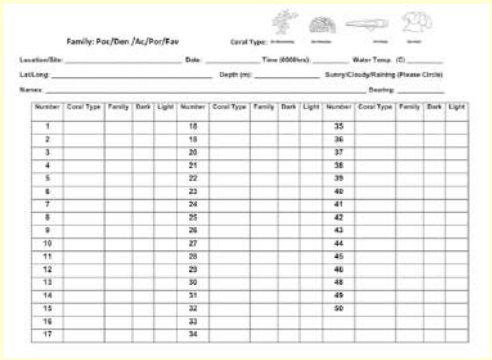
Survey methods

- Transects must not overlap
- Two divers per transect
- Observe all corals (>100mm) along the transect assigning a maximum and minimum colour intensity using the CHC
- Enter CHC scores, coral type & family category onto datasheet
- Record a maximum of 25 corals per diver (50 per transect)



Family: Poc/Den /Ac/Por/Fav Coral Type:

Location/Site: Date: Time (0000hrs) Water Temp. (C)

Lat/Long: Depth (m): Sunny/Cloudy/Raining (Please Circle)

Names: Bearing:

Number	Coral Type	Family	Bark	Light	Number	Coral Type	Family	Bark	Light	Number	Coral Type	Family	Bark	Light
1					18					35				
2					19					36				
3					20					37				
4					21					38				
5					22					39				
6					23					40				
7					24					41				
8					25					42				
9					26					43				
10					27					44				
11					28					45				
12					29					46				
13					30					48				
14					31					49				
15					32					50				
16					33									
17					34									

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Survey equipment

- Tape
- Slate and datasheet
- Coral health chart
- Coral identification charts
- Torch (standardises light)

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CORALWATCH - Methods

TIPS

- Remain parallel to each other
- Be neutrally buoyant 1m above the bottom
- Use lungs to control body position
- Swim against the current
- Use an arm distance to gauge width of the transect (1m either side of transect)
- Avoid scoring adjacent to scarred or recently dead areas

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DATASHEET

Family: Poc/Den /Ac/Por/Fav **Coral Type:** Br=Branching Bo=Boulder Pl=Plate So=Soft

Location/Site: _____ **Date:** _____ **Time (0000hrs):** _____ **Water Temp. (C)** _____

Lat/Long: _____ **Depth (m):** _____ **Sunny/Cloudy/Raining (Please Circle)**

Names: _____ **Bearing:** _____

Number	Coral Type	Family	Dark	Light	Number	Coral Type	Family	Dark	Light	Number	Coral Type	Family	Dark	Light
1					18					35				
2					18					36				
3					20					37				
4					21					38				
5					22					39				
6					23					40				
7					24					41				
8					25					42				
9					26					43				
10					27					44				
11					28					45				
12					29					46				
13					30					48				
14					31					49				
15					32					50				
16					33									
17					34									

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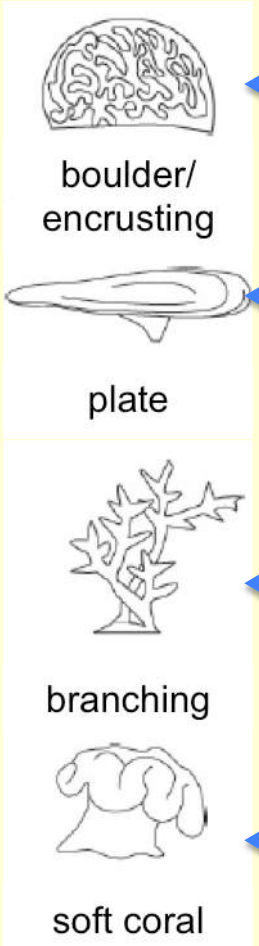
Coral Types



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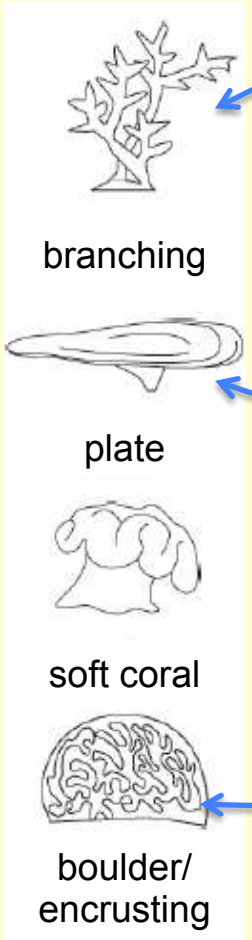
Coral Types - SIMP



SURG - Targeted Coral Families

Pocilloporidae - Pocillopora & Stylophora

Colonies variable; branches have blunt or slightly flattened ends as if squeezed slightly at the tips. Corallites small and usually with hoods

Colonies made of knobby branches covered in skeltal bumps called verrucae. Corallites immersed or among the verrucae. A fine 'fuzz' of tentacles is often present.

Dendrophylliidae - Turbinaria

[illegible] contorted plates, often tiered, corallites round (2.5-6mm), tubular or level with the colony surface. Surface texture smooth between corallites.

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Coral Types - SIMP

branching

SURG - Targeted Coral Families

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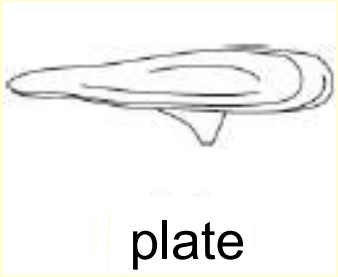
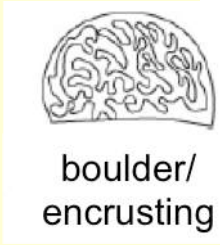
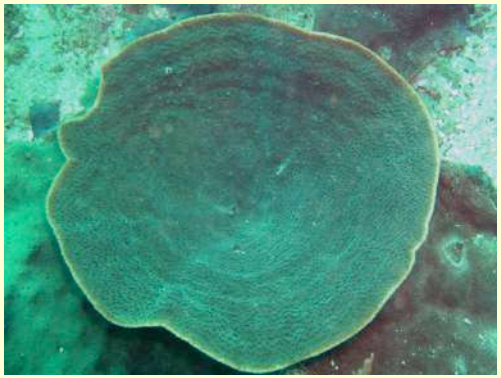
Coral Types - SIMP





Dendrophylliidae - Turbinaria

Thin, contorted plates, often tiered, corallites round (2.5-6mm), tubular or level with the colony surface. Surface texture smooth between corallites.



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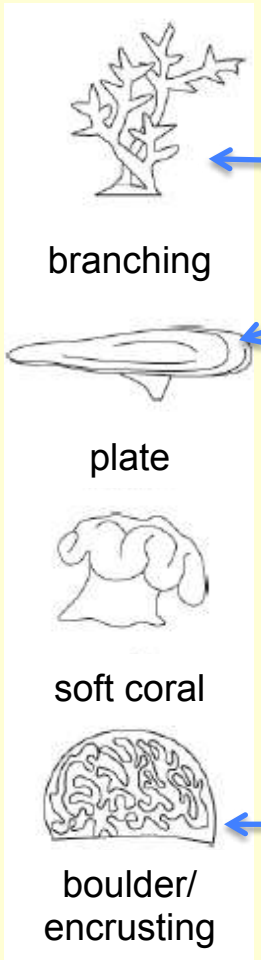
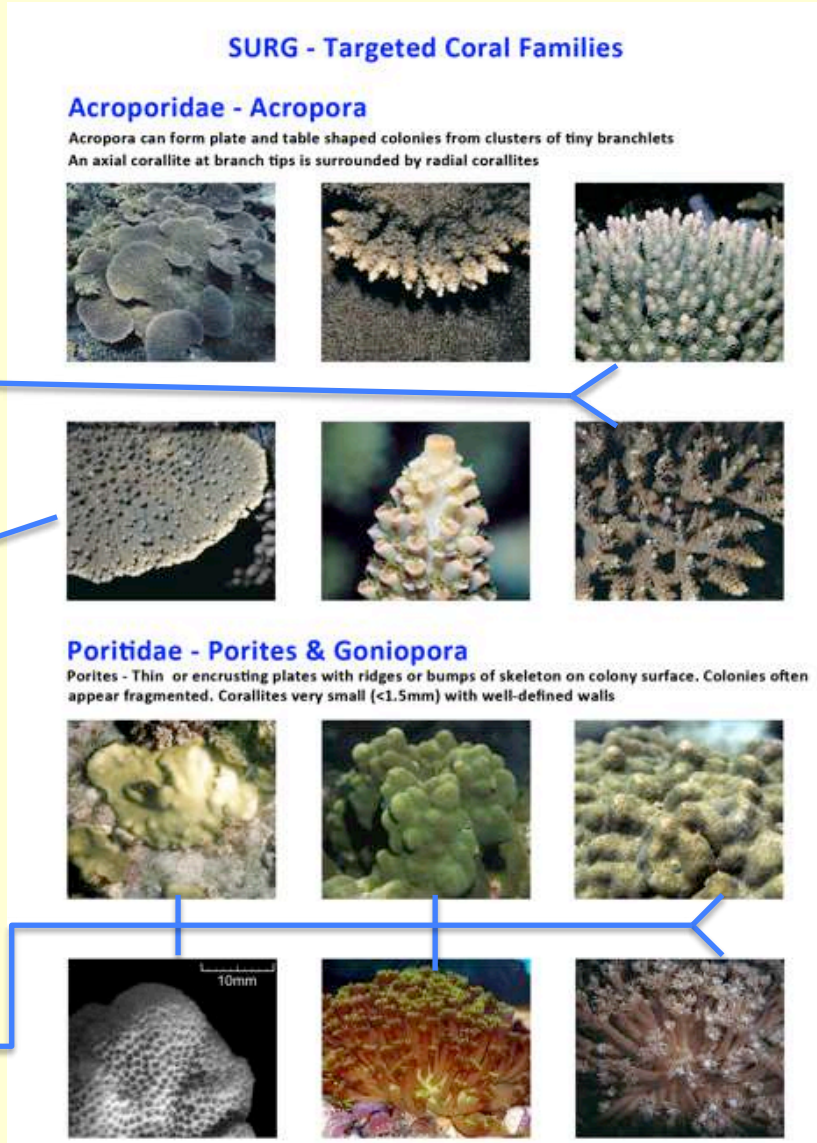
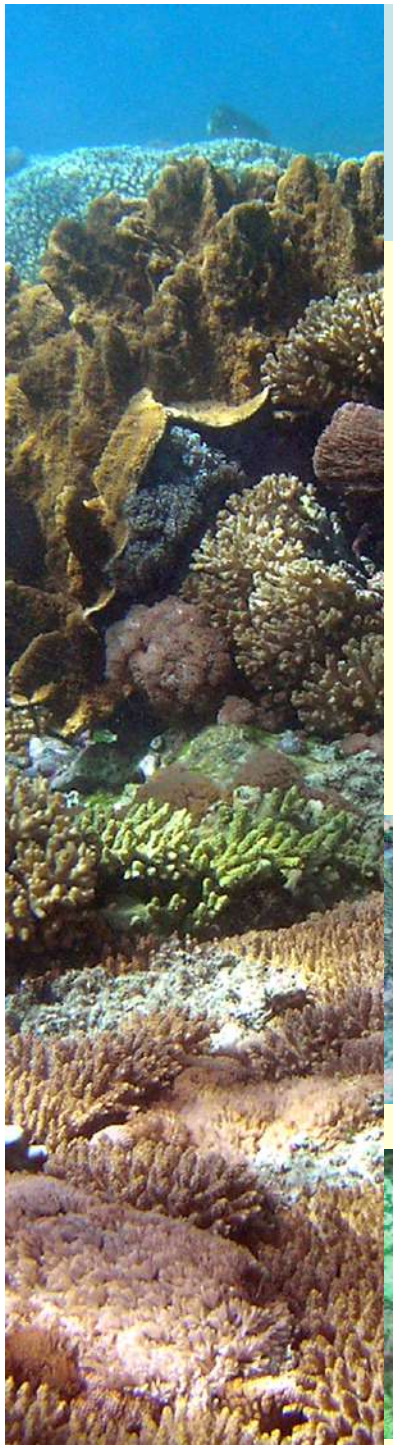
Coral Types - SIMP







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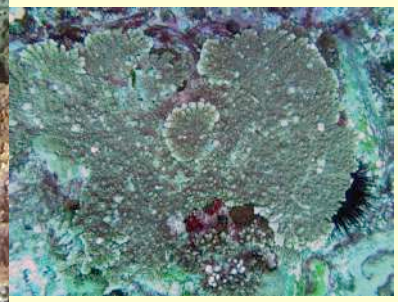
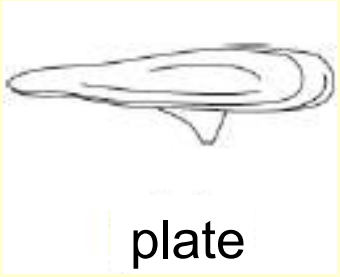
Coral Types - SIMP





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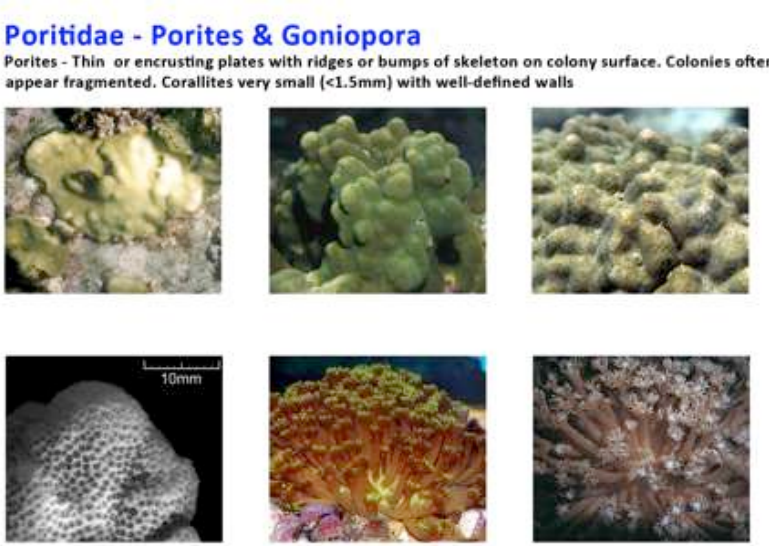
Coral Types - SIMP

boulder/
encrusting



Porites sp

Goniopora sp

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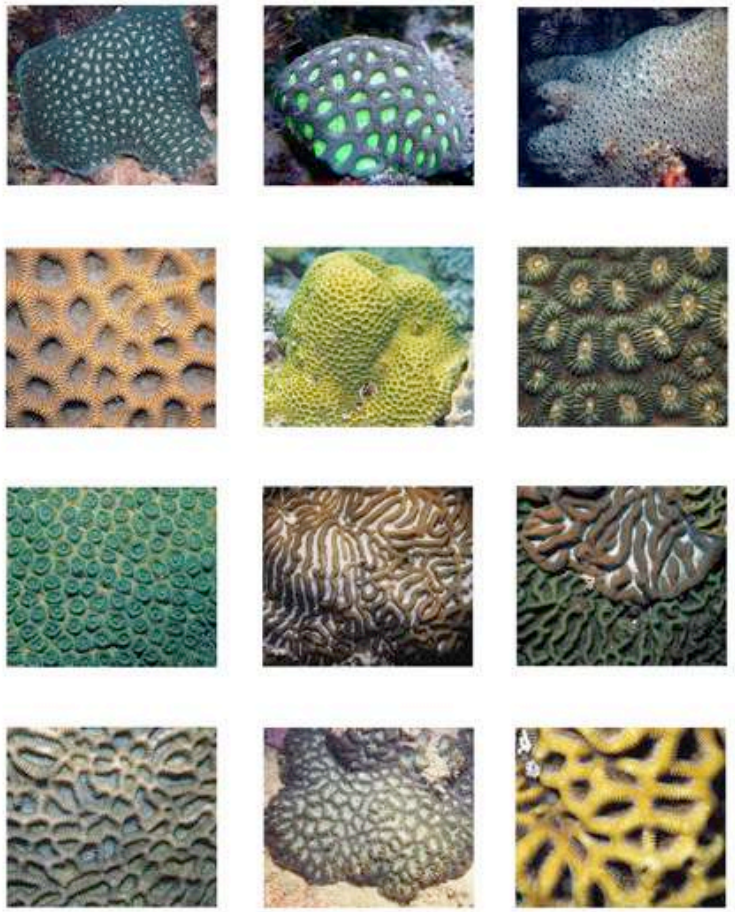
Coral Types - SIMP

boulder/
encrusting

SURG - Targeted Coral Families

Faviidae - Goniastrea, Favites & Favia

Colonies can typically form mounds, encrusting, thick plates & domes. Some species can form short or long meandering valleys from 4-20mm wide. Others have corallites forming cones or tubes in which corallites may be rounded to sub-angular.



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Coral Types
- SIMP

Sarcophyton

Soft coral

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Tips for monitoring corals

- Maintain excellent buoyancy control – use your lungs to move up and down through the water
- Take your time and only dive to your capabilities
- Stay off the bottom
- Maintain a head down fins up body position
- Use modified swimming techniques
- Try not to touch the corals – polyps retract causing changes in pigment intensity