

SURG Coral Health Project

Coral Health Chart (CHC)



The screenshot shows the CoralWatch website with a coral reef background. The top navigation bar includes links: HOME, PROJECT, MONITORING, DATA, EDUCATION, DOWNLOAD, MEDIA, SUSTAINABILITY, LINKS, and CONTACT. The main content area features a search bar, a 'REQUEST free Coral Health Chart' button, a 'Welcome to CoralWatch' banner with an image of a hand holding a Coral Health Chart, and a 'CoralWatch Latest News' section. The left sidebar contains links to 'Coral Reefs and Climate Change', 'NEW! Coral Reefs and Climate Change Video Series', 'Read more about CoralWatch Education Materials', 'ORDER FORM (all materials)', 'facebook', 'twitter', and 'Support / Collaborators'. The right sidebar includes a 'DONATE' button, 'Enter data', 'Monitoring Sites', 'Coral Health Chart PADI Distinctive Specialty', 'TAKE OUR Reef Quiz', and 'Corals At Your Doorstep Moreton Bay, Australia'. The footer text reads 'Coralwatch up-to-date'.

HOME PROJECT MONITORING DATA EDUCATION DOWNLOAD MEDIA SUSTAINABILITY LINKS CONTACT

Search...

REQUEST free Coral Health Chart

Welcome to CoralWatch

CoralWatch Latest News
Our second edition of the book *Coral Reefs and Climate Change* will be released on December 14, 2012

DONATE

Enter data

Monitoring Sites

Coral Health Chart PADI Distinctive Specialty

TAKE OUR Reef Quiz

Corals At Your Doorstep
Moreton Bay, Australia

NEW! Coral Reefs and Climate Change Video Series accompanying the book. Available now!

Read more about CoralWatch Education Materials

ORDER FORM (all materials)

facebook **twitter**

Support / Collaborators

CoralWatch integrates global monitoring of coral bleaching with education about coral reef conservation. We are based at The University of Queensland, in Brisbane, Australia. In 2002, CoralWatch developed and validated the Coral Health Chart (Siebeck et al. Monitoring coral bleaching using a colour reference card. *Coral Reefs* 2006;25:453-460). The chart standardises changes in coral colour, providing a simple way to quantify bleaching and monitor coral health. The Coral Health Chart is used by dive centres, scientists, school groups, and tourists. Anyone can contribute to our global database! You don't need extensive training – just download a *Do it Yourself Kit*, request a Coral Health Chart, and you are ready to go!

Coralwatch up-to-date

www.coralwatch.org



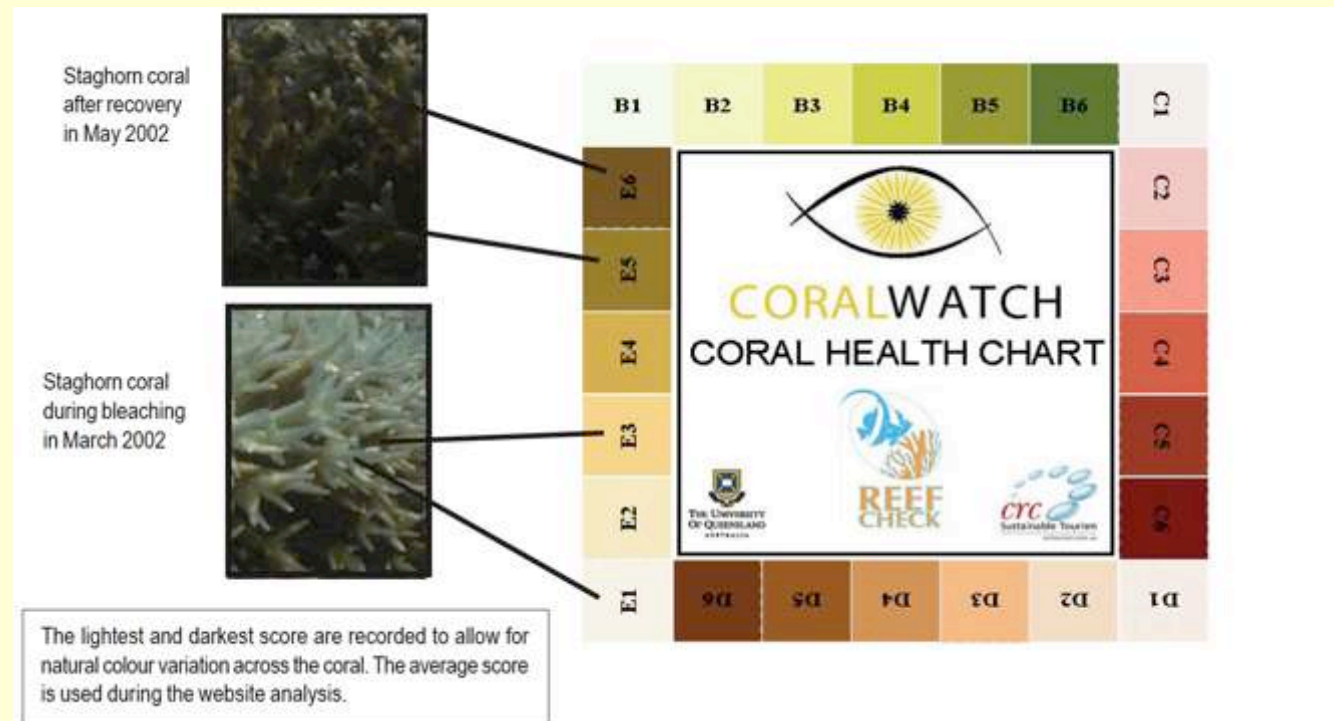
SURG Coral Health Project

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

SURG Coral Health Project

Coral Health Chart



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

SURG Coral Health Project

Coral Health Chart

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

Don't be too concerned with exact colour, we are more interested in the variation in the intensity of the colour - the number on the CHC

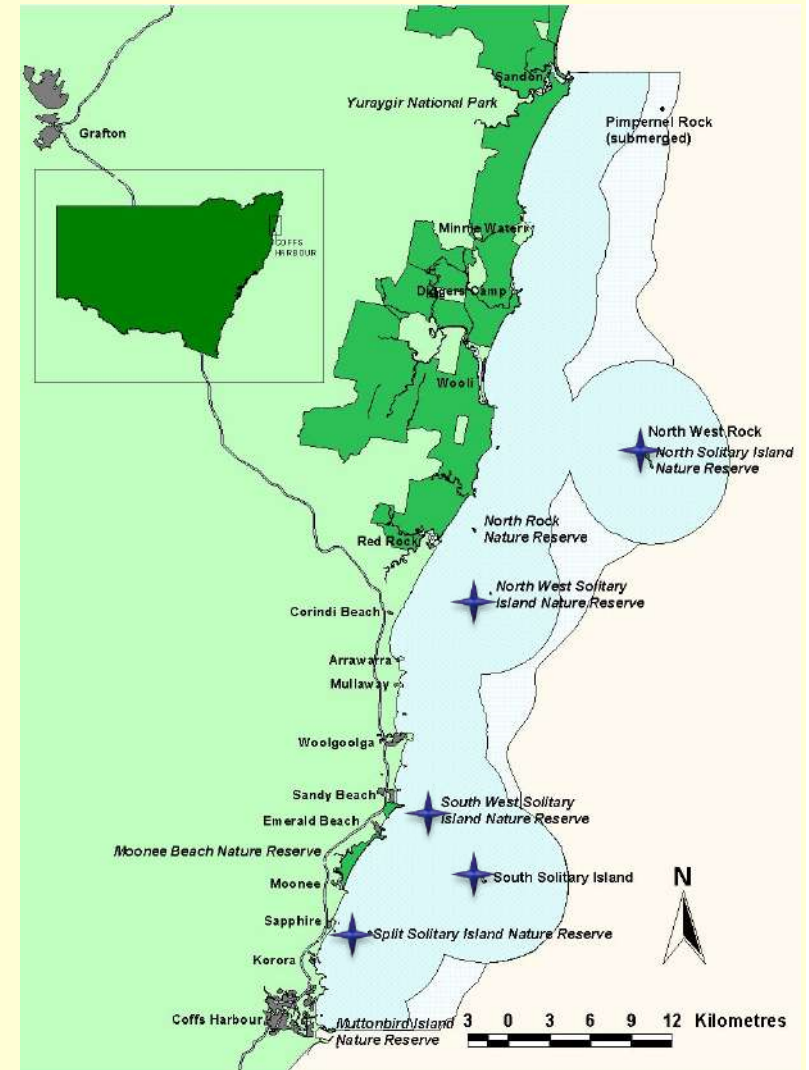
Avoid regions with high concentrations of fluorescent pigment



SURG Coral Health Project

Survey design



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



SURG Coral Health Project

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/Rainy (Please Circle)

Notes: _____

Number	Coral Type	Family	Back	Light	Number	Coral Type	Family	Back	Light	Number	Coral Type	Family	Back	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									



SURG Coral Health Project

Survey equipment

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





SURG Coral Health Project

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

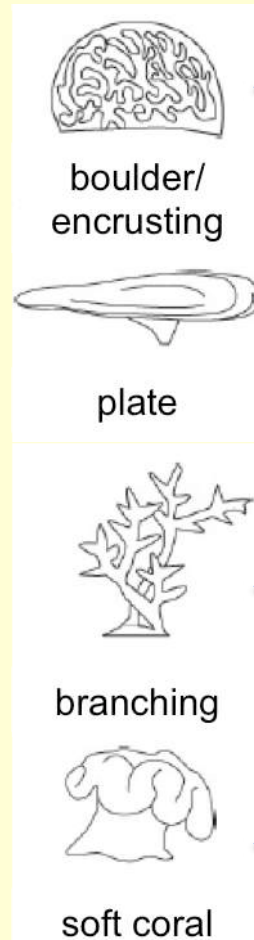


A vertical photograph of a coral reef. The reef is covered in various types of coral, including large, brown, branching structures and smaller, green, branching structures. The water is clear and blue.

[illegible][illegible]

SURG Coral Health Project

Coral Types

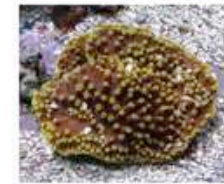
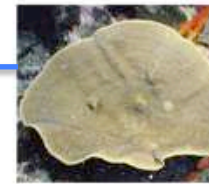


SURG - Targeted Coral Families Coral Morphologies

Boulder/Encrusting



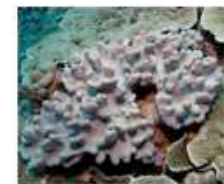
Plate /Foliose



Branching



Soft



SURG Coral Health Project

Coral Types - SIMP



branching



plate



soft coral

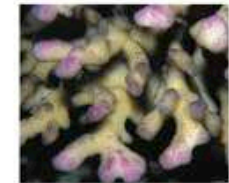


boulder/
encrusting

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

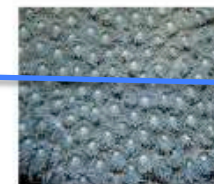
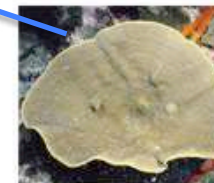


Colonies made of knobby branches covered in skeletal bumps called verrucae. Corallites immersed or among the verrucae. A fine 'fuzz' of tentacles is often present.



Dendrophylliidae - Turbinaria

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



SURG Coral Health Project

Coral Types - SIMP



branching

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

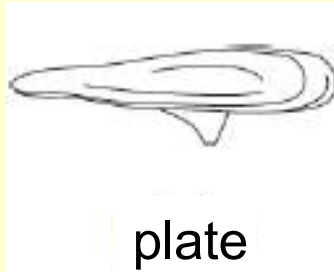


Colonies made of knobby branches covered in skeletal bumps called verrucae. Corallites immersed or among the verrucae. A fine 'fuzz' of tentacles is often present.



SURG Coral Health Project

Coral Types - SIMP



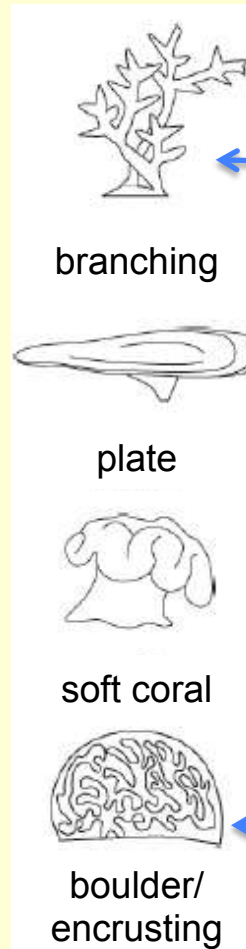
Dendrophylliidae - Turbinaria

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



SURG Coral Health Project

Coral Types - SIMP



SURG - Targeted Coral Families

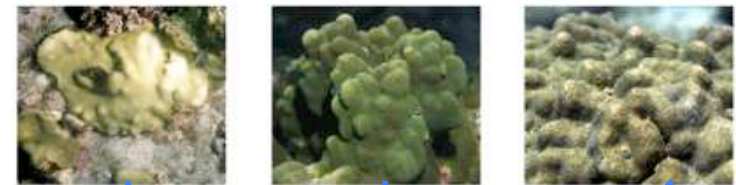
Acroporidae - Acropora

Acropora can form plate and table shaped colonies from clusters of tiny branchlets. An axial corallite at branch tips is surrounded by radial corallites.



Poritidae - Porites & Goniopora

Porites - Thin or encrusting plates with ridges or bumps of skeleton on colony surface. Colonies often appear fragmented. Corallites very small (<1.5mm) with well-defined walls.



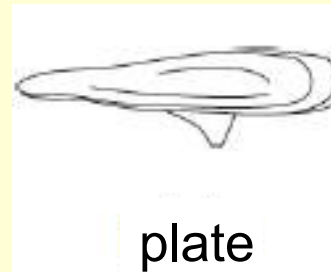
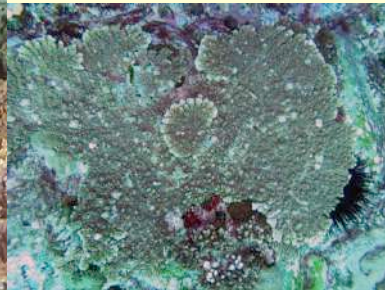
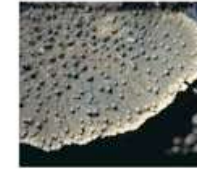
SURG Coral Health Project

Coral Types - SIMP

SURG - Targeted Coral Families

Acroporidae - Acropora

Acropora can form plate and table shaped colonies from clusters of tiny branchlets
An axial corallite at branch tips is surrounded by radial corallites



SURG Coral Health Project

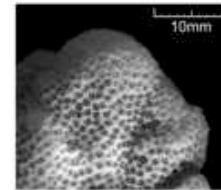
Coral Types - SIMP



boulder/
encrusting

Poritidae - Porites & Goniopora

Porites - Thin or encrusting plates with ridges or bumps of skeleton on colony surface. Colonies often appear fragmented. Corallites very small (<1.5mm) with well-defined walls



Porites sp



Goniopora sp

SURG Coral Health Project

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.



SURG Coral Health Project

Coral Types - SIMP



Sarcophyton



Soft coral



SURG Coral Health Project

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

