



# Make Your Dives Count. Monitor Coral Reefs.

According to World Resources Institute, human activity threatens the health of nearly 60 percent of the world's coral reefs. Add to that the estimated 30 percent of all coral reefs that are already dead or severely damaged and it's easy to see that coral reefs are in desperate need of attention if they are to survive for future generations.

Now you can quickly and easily get involved with Project AWARE's CoralWatch monitoring activities to make a difference and protect coral reef ecosystems.

## What is CoralWatch?

CoralWatch is a simple, non-invasive method to assess and monitor coral reef health with respect to coral bleaching. The CoralWatch method uses a Coral Health Chart with a series of colours that volunteers match with actual coral colour to determine different stages of coral bleaching and recovery.

## What is coral bleaching?

Coral bleaching is the whitening of coral due to a loss of symbiotic algae living within the coral tissue. In healthy coral, algae supplies energy and provides colour. During bleaching events, coral expels the algae from their tissue which changes the colour of the coral. As coral expels more algae the coral becomes lighter in colour.

## Why monitor reefs?

Monitoring is most effective over months and even years. With divers and snorkelers regularly visiting sites, scientists at the University of Queensland, Australia, will be able to answer questions such as how long it takes for reefs to recover from bleaching and if the health of the reef declines over a certain number of bleaching events?

## What happens to my results?

Once your data is submitted a graph is produced representing the overall health of your monitored dive site. All submitted data is analysed and made available on [www.coralwatch.org](http://www.coralwatch.org) in a graphic format that makes it easy to see the overall health of the site. With multiple monitoring regions around the world scientists will not only be able to compare the condition of a single reef over time, they'll be able to compare the condition of many different reefs at any single time.

## How do I get involved?

Contact a registered Project AWARE CoralWatch Operator in your area or contact Project AWARE directly for assistance. Select a monitoring site and prepare your waterproof slate (see example). Make a note of the date, water temperature, depth, name of the reef and location. Also make note of anything else you think might be important like rubbish found, visibility and conditions, environmental damage seen, etc.

## Survey Methods:

You can choose one of three monitoring methods depending upon your skills, experience and location:

**Random Survey** – select corals randomly, such as choosing the coral closest to you every second fin kick. Make sure your selection is truly random.

**Quadrant or Transect Survey** – select your corals by marking a square area (quadrant) or following a line (transect). Make sure that marking your boundary has no effect on marine life in that area. Then assess the corals within the quadrant or on the transect line.

**Easily Identified Corals** – select corals that you can easily identify and return to on each dive.



[www.projectaware.org](http://www.projectaware.org)

Project AWARE Foundation is the dive industry's leading nonprofit environmental organisation

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## How to Use the Chart to Monitor Coral Reefs:

### 1. Select a coral.

Note: You can use the chart with branching, boulder, plate or soft coral but not blue/purple corals or fire coral. The colour in these corals is associated with pigments and does not vary in bleaching events.

### 2. Look down at the coral and select the overall lightest area, avoiding the tips of branching corals.

Note: Due to colour loss at depth, you should shine a torch on both the coral and the chart if you're below 5 metres/15 feet. This will give you the true colour you need to make a correct assessment.

### 3. Hold the Chart next to the lightest area of the coral and then rotate the Chart until you find the closest colour match.

Note: You're looking to assess overall health so you want to record the lightest section of the coral not just a small patch or isolated damage, such as an area of fin damage. You'll do the same when you assess the darkest patch.

### 4. Record the matching colour code and coral type on your slate.

### 5. Repeat steps 2 to 5 for the overall darkest area of the coral.

## Submit Data:

Log on to [www.projectaware.org](http://www.projectaware.org) and submit your data or fax back a CoralWatch Data Sheet to your local Project AWARE office. Visit [www.projectaware.org](http://www.projectaware.org) to find out about other monitoring events and activities.

## Sustainable Diving Tips - Some Hints and Tips:

### Get secure

As with any dive, you'll want to secure your equipment and make sure you're properly weighted. You don't want to harm the coral you're monitoring.

### Move slowly

When diving, move slowly through the water and make sure you're neutrally buoyant. This keeps your fins further from the reef. A swipe of a fin or a touch with your hand could harm fragile organisms. Dive carefully as aquatic creatures, particularly corals, are extremely fragile.

### Look don't touch

Avoid touching coral while monitoring and adjust your buoyancy or monitor coral over a sandy bottom.

### Increase your skills

The PADI Peak Performance Buoyancy Specialty course and AWARE Coral Reef Conservation Specialty course are great ways to learn sustainable dive techniques and expand your knowledge. You can learn more by visiting Project AWARE ([www.projectaware.org](http://www.projectaware.org)) and getting involved with the Protect the Living Reef campaign.

With the help of the CoralWatch Charts anyone can monitor coral reef health. Through regular monitoring and data submission, you can help establish the factors influencing coral health.

Project AWARE is the dive industry's leading nonprofit environmental organisation dedicated to conserving underwater environments through education, advocacy and action. Project AWARE Foundation offices located in Australia, United States, Japan, the United Kingdom and Switzerland combines efforts to conserve aquatic resources in 175 countries of the world.

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Coral no	COLOUR CODE		CORAL TYPE			
	Lightest	Darkest	Branching	Boulder	Plate	Soft
1						
2						
3						
4						
5						

08/12/06 - 9.30am  
 Similan Islands - Richelieu Rocks  
 Water - 24 degrees  
 Depth - 14m  
 Cloudy

## WRITE DOWN:

1. date and time
2. location
3. water temperature
4. depth
5. weather conditions

example of prepared underwater slate



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