Measuring coral health using random surveys

The **aim** of this activity is to monitor the health of corals using the Coral Health Chart in a random survey as research technique.

ACARA curriculum links
Science understanding (ACSSU116)
Science inquiry skills (ACSIS124, ACSIS125, ACSIS126)
Science as a human endeavour (ACSHE119 & ACSHE223)

Instructions
- The most important part of a random survey is that it is truly random: don't pick the corals you like or because they are bleached.
- This activity can be conducted snorkelling or reef walking. If reef walking, it should be conducted on a low tide.
- The CoralWatch Virtual Reef Activity is a useful preparation for using the Coral Health Chart in the field.
- The CoralWatch data slate contains all required survey details. You can also create your own data slates by transcribing all the information onto blank waterproof paper. Make sure you don't miss any details!

Steps to take for a random survey
1. Read the instructions on the back of the Coral Health Chart.
2. Make sure you have all your equipment as listed.
3. Start with recording survey details on your data slate: name, date, time, GPS coordinates (if possible), water temperature, depth, activity and conditions.
4. Choose how often you will measure a coral colony (e.g. every 6 steps or 2 fin-kicks).
5. Begin in a clear direction drawing an imaginary line in your direction of travel.
6. Every 2 fin-kicks, measure the colour scores and coral type of the coral colony closest to you.
7. Repeat this for at least 20 corals.

Equipment
- If snorkelling - mask, snorkel and fins
- If reef walking - booties, hat and sunscreen
- Coral Health Chart
- Waterproof data slate with pencil
- Thermometer (if available)
- Underwater camera (if available)
- Viewing tube (if available)
- GPS to record locaiton coordinates (if available)


Example of CoralWatch data slate.
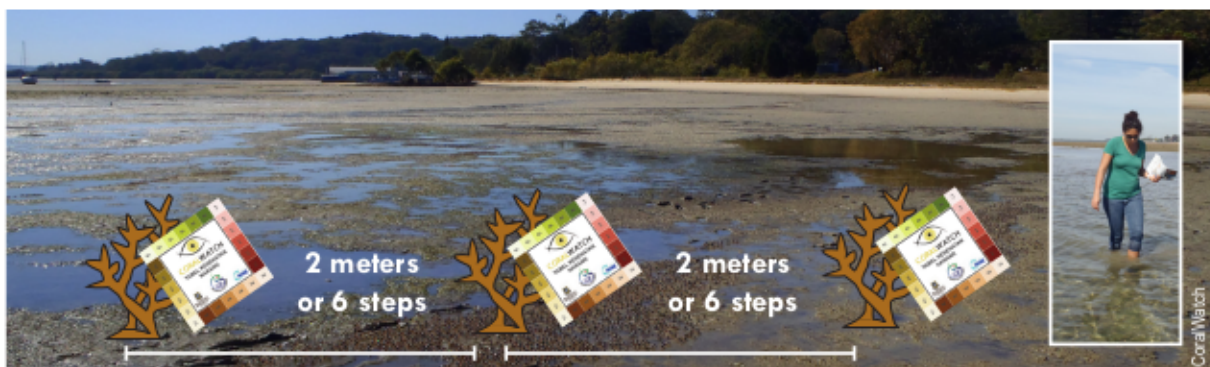
This reef walker has chosen to survey a coral every 6 steps (or 2 metres). You can choose to survey your corals closer together or further apart - as long as the distance you choose is consistent throughout the survey.

Field Component
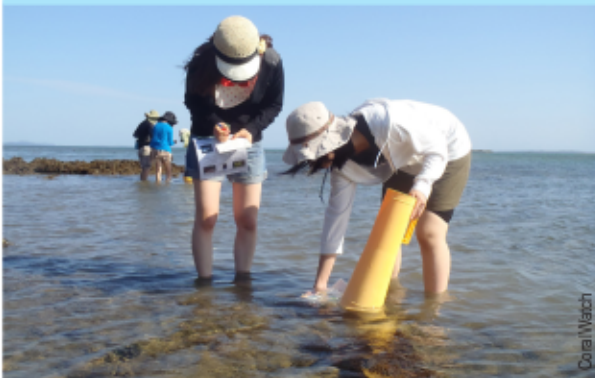
TIPS FOR CORALWATCH MONITORING

Collect data from 20 different coral colonies

Be careful - avoid touching marine life
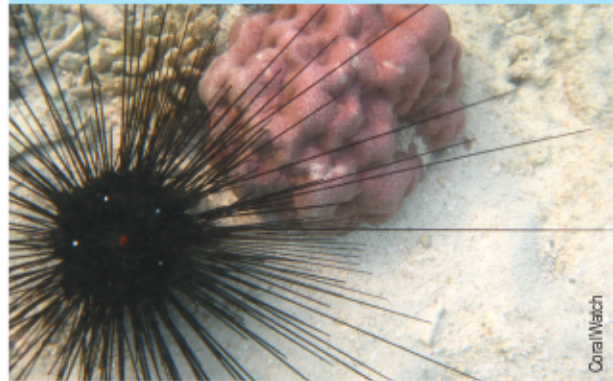
Stay together as a buddy team

Corals are fragile - please don't touch

Use a GPS for location accuracy

Use a torch when diving below 5 m/15 feet

Do not monitor blue corals

Blue corals bleach differently to other corals.

Don't measure the tips of corals

Growing tips of branching corals and the edges of plate corals are naturally pale.

CORALWATCH

CORALWATCH DO IT YOURSELF INSTRUCTIONS

Choose a SURVEY METHOD that suits you

The Coral Health Chart can be used while diving, snorkeling or reefwalking. You can choose a monitoring method that suits your skills, experience and location. Most people use the random survey method.

Random Survey – select corals randomly. Swim in an imaginary line and choose the closest coral after every second fin kick (or every second step when walking).

Transect Survey – select corals by following a line (transect) and record your findings every few meters. Make sure that the transect has no affect on marine life.

Easily Identified Corals – select corals you can easily recognise and return to. A permanent transect would give you the opportunity to monitor the same corals over time.

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B1	**Colour scores**
E6	The colours on the Coral Health Chart are based on the actual colours of bleached and healthy corals. Each colour square corresponds to the concentration of symbiotic algae living in the coral tissue, which is directly linked to coral health. The lightest and darkest scores are recorded to allow for natural colour variation across the coral.
E5	
E4	
E3	
E2	

Tips

- Due to colour loss at depth, use a torch when diving below 5m/15 feet.
- Monitor at least 20 corals per survey.
- Use a GPS if available and record co-ordinates OR select the location using our Data Entry Apps or online data entry form.
- Don't forget to record your name, country, name of reef, date and time of survey, depth, water temperature and weather.
- Corals are fragile animals, avoid touching or stepping on corals.
- When diving, secure your equipment and make sure you're properly weighted.

Convenient DATA ENTRY using Apps

Transfer your findings to our global database by using the CoralWatch website or our 'CoralWatch Data Entry' Apps.

CoralWatch Data Entry Apps allows you to:

- Enter CoralWatch data results on your phone.
- Record the GPS co-ordinates on the spot.
- View your survey results.
- Store your survey data, work offline and upload at a later time.
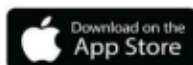
Available in English and Bahasa Indonesia.