



EYES OF THE REEF NETWORK

MONITORING NETWORK FOR CORAL BLEACHING & DISEASE, COTS AND MARINE INVASIVE SPECIES



Report Form Instruction Sheet

Thank you for participating in the Eyes of the Reef Monitoring Network. Your time and efforts as part of the Eyes of the Reef team are greatly appreciated. Your information is an important element of an early warning system for coral bleaching, coral disease, Crown-of-Thorns Sea Stars (COTS) and marine invasive species in Hawai'i.

A. Observer Information: Fill out the date and time of your visit and personal information. If you have previously sent in a report, you need not complete the personal information other than your name. Also indicate your status (resident, visitor, etc.) and, if pertinent, vessel and organization.

B. Site Information: Fill out the information as completely as possible and to the best of your knowledge. Latitude and longitude are very important, so if possible, please provide GPS coordinates.

- Reef Condition: *How much of the reef bottom is covered with live coral?* Visually estimate percent cover of coral (Table 1). *What is the most common type of coral?* Identify the 3 most abundant coral types by major group (Table 2.) by marking type with 1st, 2nd and 3rd.
- Estimated area: How large of an area is affected? Visually estimate size of area affected.

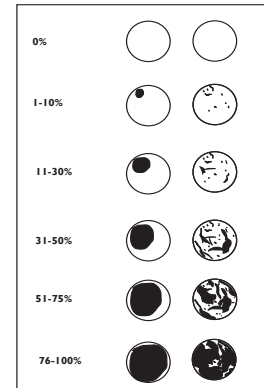


Table 1: Amount of live coral and/or affected coral.

This figure is designed to help you in estimating percentage cover. It can be used to estimate the percentage of living coral covering the seafloor (Sec. B: Reef Condition); and to estimate the percentage of living coral that is affected by bleaching, disease, or COTS.

CORAL BLEACHING & DISEASE REPORTING FORM: Sections C, D and E

C. Bleaching Information:

- Types of corals bleached: Please indicate the types of corals bleached by checking off relevant categories, using Table 2 as a reference. Some coral species are more susceptible to bleaching than others so not all types of coral may be bleached in an area.
- Percent of coral bleached: Indicate the proportion of live coral at the site that is bleached using Table 2 as a reference. For example, if there was only 11 - 30% of live coral cover at your site and all of it was bleached, than the percent bleached would be 76 - 100%. This will enable us to monitor the progress and severity of the bleaching at this site.
- Severity of bleaching: How white is the coral? Check the line that best describes the severity of the coral bleaching.
- Depth where bleaching was observed. Give the depth at which you observed the bleaching. Did bleaching only occur in shallow water or did it extend deeper? Bleaching is a result of warmer water temperatures and so water depth can play an important part in the amount of coral bleaching.

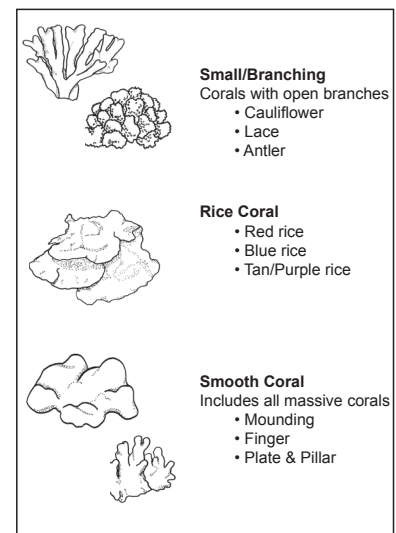


Table 2: Coral ID Key

This figure is a guide to the main shapes of corals. Coral structure is a good general indicator of the type of coral, although more experienced observers are encouraged to identify coral to higher levels of resolution (i.e. genus or species) where possible.

E. Crown of Thorns Information:

- Types of corals that are eaten by COTS: Please indicate the types of corals affected by COTS. COTS prefer certain species of corals, but do feed on other coral types. Providing correct coral types provide valuable information for understanding COTS damage to reefs in Hawai'i.
- Percent of coral diseased: Indicate the proportion of live coral that is diseased using Table 2 as a reference. For example, if the affected reef area had only 11 - 30% of live coral cover and half of it was diseased, than the percent diseased would be would be 31-50%. This will enable us to monitor the progress and severity of disease at this site.
- Estimated number of animals. Check the appropriate line.

MARINE INVASIVE: Sections C and D

C. Alien Species:

- What Species: Please indicate the invasive species you have found. Refer to your Eyes of the Reef Field Guide for keys to identifying the key invasive algae and invertebrates.
- Percent cover of Area Affected: How much of the bottom is covered with the alien species?
- Depth found: Record the depth at which the invasive species were found. If a large area give a range from shallowest to deepest.
- Description or Comments: Please add any additional comments or descriptions that may help assess the level of threat.

D. Bloom Information

- What type of organism is blooming: Please check if the invasive organism is algae, invertebrates, or other. Refer to your Eyes of the Reef Field Guide for keys to recognizing a bloom.
- Estimated area: How large of an area is affected? Visually estimate size of area affected.
- Depth found: Record the depth at which the invasive species were found. If a large area give a range from shallowest to deepest
- Describe: Please describe the organism to the best of your ability and add any additional comments that may help assess the level of threat.

How to send in your Report Forms

Two Ways:

- Download a copies of the reporting forms at <http://www.reefcheckhawaii.org/eyesofthereef.htm>
Complete the form, fold and tape it, affix a postage stamp and send to the address on the back.
- Fill out our online reporting form at <http://www.reefcheckhawaii.org/eyesofthereef.htm>

Mailing Address:

**Eyes of the Reef Network
Reef Check Hawai'i
P.O. Box 621
4224 Waialae Ave.
Honolulu, HI 96816**

Please direct any questions to:

Krista Heide
Program Coordinator, Reef Check Hawai'i
Phone: **(808) 953-4044**
Email: **contact@reefcheckhawaii.org**

Thank you for joining the Eyes of the Reef Network.



EYES OF THE REEF NETWORK

Coral Bleaching, Disease and COTS Reporting Form

Please direct any questions to **Krista Heide**, Program Coordinator, Reef Check Hawai'i

Phone: **(808) 953-4044** Email: **contact@reefcheckhawaii.org**

Online Forms: <http://www.reefcheckhawaii.org/eyesofthereef.htm>



A. OBSERVER INFORMATION

Observation Date: _____ Time: _____

Name: _____ Phone: _____ Email: _____

Address: _____

Observer Category: Resident Visitor Tourism Industry Commercial Research Education Other

Vessel/Organization (if applicable) _____

B. SITE INFORMATION

Island: O'ahu Kaua'i Maui Hawai'i Moloka'i Lana'i

Site Name: _____ Latitude: _____ Longitude: _____

Buoy #/Area of Reef: _____ Max. Depth: _____

Reef Condition: Percent Live Coral (Table 1)

Most Abundant Coral Types: Identify 1st, 2nd, & 3rd

0% 1-10% 11-30%
31-50% 51-75% 76-100%

Small/Branching _____ Rice _____ Other _____
Smooth Corals: Mounding _____ Finger _____ Plate & Pillar _____

ESTIMATED AREA AFFECTED _____

ARE PHOTOGRAPHS AVAILABLE? YES NO

C. BLEACHING INFORMATION

Min to Max depth Coral Bleaching was observed: _____

Type of Coral Bleached (Table 2)

Percent of Coral Bleached (Table 1)

Severity of Bleaching

Smooth: 0% 31-50% Spotty bleaching on upper surface
 Mounding Small/Branching 1-10% 51-75% Pale (very light brown, purple or yellow)
 Finger Rice 11-30% 76-100% Totally Bleached White
 Plate & Pillar Other _____ Bleached Coral with Algae

D. DISEASE INFORMATION

Min to Max depth Coral Disease was observed: _____

Type of Coral Affected (Table 2)

Percent of Coral Affected (Table 1)

Lesion Type

Smooth: 0% 31-50% Tissue Loss
 Mounding Small/Branching 1-10% 51-75% Growth Anomaly
 Finger Rice 11-30% 76-100% Discoloration
 Plate & Pillar Other _____

E. CROWN-OF-THORNS SEA STARS INFORMATION

Depth observed: _____

Type of Coral Affected (Table 2)

Percent of Coral Affected (Table 1)

Estimated # of Animals

Smooth: 0% 31-50% 1-50 251-500
 Mounding Small/Branching 1-10% 51-75% 51-100 501-1000
 Finger Rice 11-30% 76-100% 101-250 1000+
 Plate & Pillar Other _____



EYES OF THE REEF NETWORK

Marine Invasives Reporting Form

Please direct any questions to **Krista Heide**, Program Coordinator, Reef Check Hawai'i

Phone: **(808) 953-4044** Email: **contact@reefcheckhawaii.org**

Online Forms: <http://www.reefcheckhawaii.org/eyesofthereef.htm>



A. OBSERVER INFORMATION Observation Date: _____ Time: _____

Name: _____ Phone: _____ Email: _____

Address: _____

Observer Category: Resident Visitor Tourism Industry Commercial Research Education Other

Vessel/Organization (if applicable) _____

B. SITE INFORMATION Island: O'ahu Kaua'i Maui Hawai'i Moloka'i Lana'i

Site Name: _____ Latitude: _____ Longitude: _____

Buoy #/Area of Reef: _____ Max. Depth: _____

Reef Condition: Percent Live Coral (Table 1) | Most Abundant Coral Types: Identify 1st, 2nd, & 3rd

0% <input type="checkbox"/>	1-10% <input type="checkbox"/>	11-30% <input type="checkbox"/>	Small/Branching _____	Rice _____	Other _____
31-50% <input type="checkbox"/>	51-75% <input type="checkbox"/>	76-100% <input type="checkbox"/>	Smooth Corals: Mounding _____	Finger _____	Plate & Pillar _____

ESTIMATED AREA AFFECTED (Sq. Meters) _____ ARE PHOTOGRAPHS AVAILABLE? YES NO

C. ALIEN SPECIES

What species? (refer to the EOR Field Guide)	Percent of Area Affected	Description or Comments
<input type="checkbox"/> Prickly Seaweed (<i>Acanthophora spicifera</i>)	<input type="checkbox"/> 0%	_____
<input type="checkbox"/> Leather Mudweed (<i>Avrainvillea amaldelpha</i>)	<input type="checkbox"/> 1-10%	_____
<input type="checkbox"/> Gorilla Seaweed (<i>Gracilaria salicornia</i>)	<input type="checkbox"/> 11-30%	_____
<input type="checkbox"/> Hookweed (<i>Hypnea musciformis</i>)	<input type="checkbox"/> 31-50%	_____
<input type="checkbox"/> Smothering Seaweed (<i>Kappaphycus</i> and <i>Eucheuma</i> spp.)	<input type="checkbox"/> 51-75%	_____
<input type="checkbox"/> Cassiopea sp. (upside-down jellyfish)	<input type="checkbox"/> 76-100%	_____
<input type="checkbox"/> Carijoa sp. (Snowflake coral)		_____

Min-Max Depth

D. BLOOM INFORMATION

What type of organism is blooming? (Refer to EOR Field Guide)

Algae Invertebrate Other

Min-Max Depth

Describe:

Percent Cover of Affected Area

0%
 1-10%
 11-30%
 31-50%
 51-75%
 76-100%

Table 1: Percent Cover

This figure is to help estimate percent cover. It can be used to determine what proportion of the reef is covered with live coral (& coral cover) (Section B) or how much of the area is covered with invasive organisms (Section C, D).

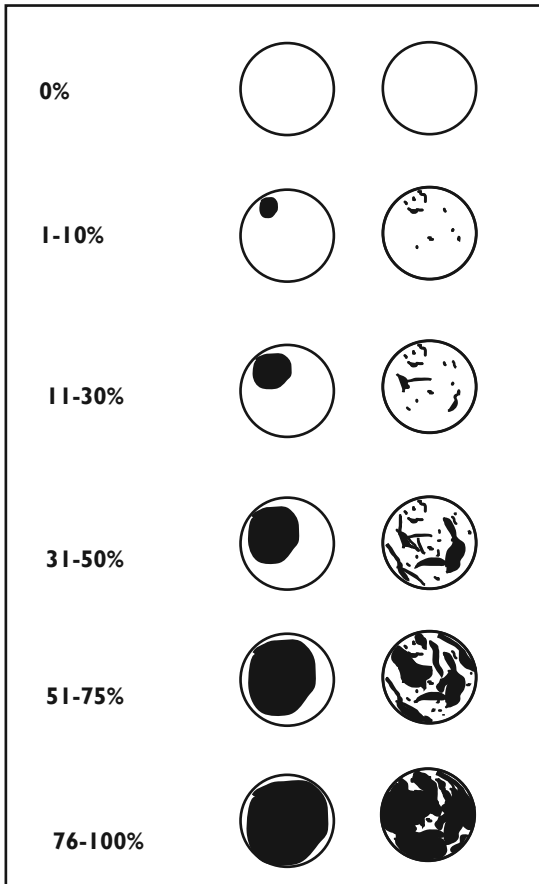
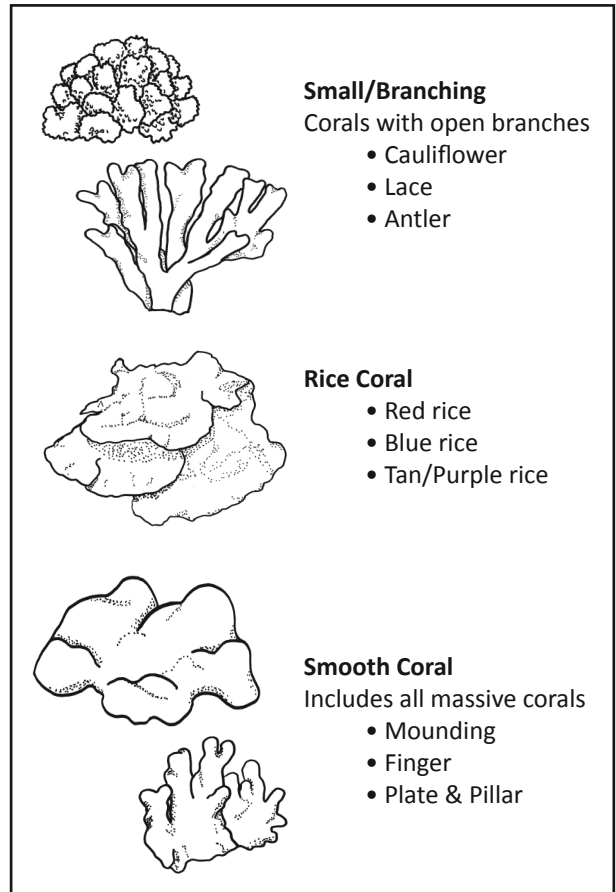


Table 2: Coral ID Key

The table below helps identify major groups of corals found in Hawai'i by shape. More experienced observers are encouraged to identify by family, genus and/or species.



Fold, tape and mail this form to Eyes of the Reef Network, Reef Check Hawai'i using the self-addressed panel below. You may also report online at <http://www.reefcheckhawaii.org/eyesofthereef.htm>

Place
First Class
Stamp
Here

Eyes of the Reef Network
Reef Check Hawai'i
P.O. Box 621
4224 Waialae Ave.
Honolulu, HI 96816