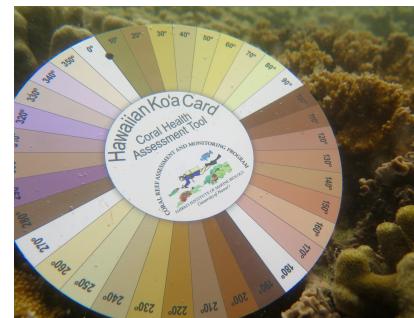


Kokua Corals! Caring for our coral reefs

Mankind is at a pivotal point in history where the decisions we make in the next decade will determine the direction of the future of our coral reefs. Sound management strategies based on scientific research will increasingly play a more and more important role in the future of Hawai'i's reefs. We can all play an important role in assuring our reefs have a fighting chance.



Your decisions matter!

The solutions for our coral reefs are tied to the land. We must reduce our carbon emissions. We can lessen our carbon impact in many different ways.

Buy local, think global!

What is the cost of every product you buy to the environment? How was it made? How far did it travel? Buy local foods that aren't associated with the carbon travel costs.

Practice conscious purchasing!

How long will you use it? Is it recyclable?

Eat lower on the food chain!

It takes 10 pounds of corn or soybeans to make one pound of beef or pork and plenty of precious water. Eating less meats not only protects the planet but also your health.

Be a part of the solution!

Support new earth friendly technology as it becomes available. Practicing sustainability is caring for our reefs.

Reduce your carbon footprint



The Hawaiian Ko'a Card

a coral health assessment tool

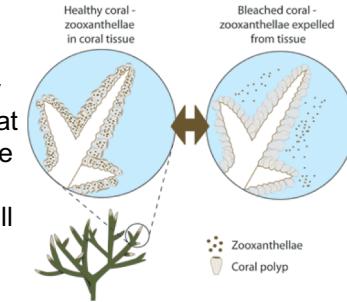
Climate change impacts on coral reefs

Climate change is occurring at alarming rate. Carbon released through human activity is changing ocean chemistry and increasing temperatures globally. Largely due to rapid increases in temperature, coral bleaching events have increased in frequency and severity. As of 2018, nearly 50% of reefs worldwide have died.



What is coral bleaching?

Corals are animals that house photosynthetic algae, called zooxanthellae. These give corals their colors and provide most of the energy they require. Coral bleaching is a stress response that results in the loss of zooxanthellae, revealing the white skeleton. If stressful conditions persist, corals do not get the energy they require and will die. Widespread coral bleaching events have impacted nearly every coral reef region in the world and are directly linked to increasing seawater temperatures due to climate change.



Courtesy of Great Barrier Reef Marine Park Authority

Get Involved! Make a difference!

The Hawaiian Ko'a card is developed to record changes in coral color of Hawaiian corals and provide a tool for people to monitor coral color as an indicator of coral health. The Ko'a card was design for use by everyone, including the community, citizen scientists, researchers, students, resource managers, recreational users and visitors!



Connect with us!

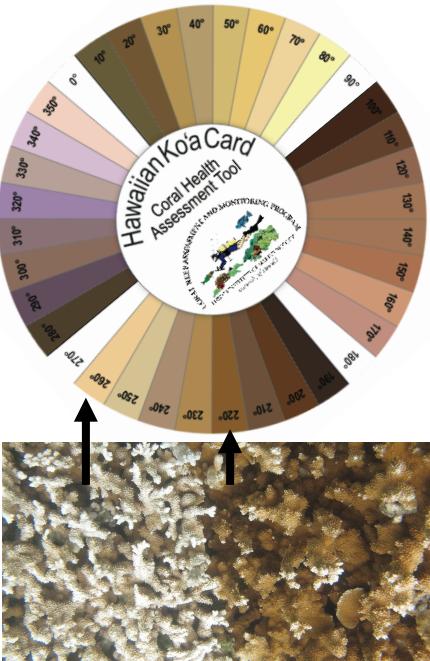
Learn more about the Hawaiian Ko'a Card at CoralReefEcologyLab.com



HAWAII COMMUNITY FOUNDATION

How to use the Hawaiian Ko'a Card

Use the Hawaiian Ko'a Card to monitor changes on your reef!



1. Select survey technique
2. Choose a coral and select the lightest and darkest area
3. Hold the Ko'a Card next to selected areas and find the closest matching colors
4. Record the matching color numbers, coral morphology, and species for each coral
5. Report data to Eyes of the Reef network: www.EORHawaii.org

Coral color health scores

These color scores are based on actual colors of bleached and healthy Hawaiian corals. Each color sector corresponds to the density and performance of the symbiotic algae living in the coral tissue, which is linked to coral health. The lightest and darkest scores are recorded to allow for natural color variation across the coral.

Surveying Techniques

The Hawaiian Ko'a Card can be used while diving, snorkeling, or wading. Choose a monitoring method that suits your skills, experience, and location.

Broad Scale

Define your survey area (*example: 20x20 ft*). Record the amount of live coral cover and the percentage of bleaching in that area.



Useful tips while using the Ko'a Card

- Monitor at least 20 corals per survey
- Color is lost with depth. Use a light when diving below 5m/15ft
- When available, use a GPS to record coordinates
- Remember to record and report:
Your name, place, name of the reef, date and time of survey, depth, water temperature, and weather
- Corals are fragile animals, please do not touch or step on corals

Transect

Select corals by following a line (transect) and record your findings every meter. Record transect length.

Individual Corals

Select corals randomly and determine coral color. A permanent transect or tagged corals would allow you to monitor the same corals over time.

Coral Morphology and Species

Coral morphology is the overall shape of the coral colony. Select the closest matching morphology. By recording the type and species of coral, we can better understand which corals bleach first or not at all.

Branching



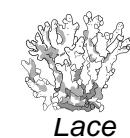
Finger



Cauliflower



Rice



Lace



© Keoki Stender



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Mounding



Mound



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Lobe



© Yolanda Shoultz

Encrusting



Sandpaper



© Keoki Stender



Blue rice



© Jason Attebery
www.meridienphotography.com

Enter your data!

Share your findings with the Hawaiian community by reporting your data to the Eyes of the Reef Network or through the Hawaiian Ko'a Card App.

On the Hawaiian Ko'a Card App:

- Take a quiz to train your eye and become a coral health expert
- Enter your coral color data on your phone
- Record GPS coordinates
- Upload photos
- View your survey results
- Compare your data with others



Alert! Potential Bleaching!

Email alerts that notify you when your region is 70% likely to experience a local bleaching event!
Sign up here: www.XXXXX.com

What you can do:

- Conduct additional surveys to confirm if a bleaching event is occurring
- Spread the word – inspire others to help monitor your reefs
- Report to Eyes of the Reef network: www.EORhawaii.org