

Early Warning Systems: Community Based Monitoring



Photo: CoralWatch Website

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Early Warning Systems

Community Based Monitoring: Section Outline

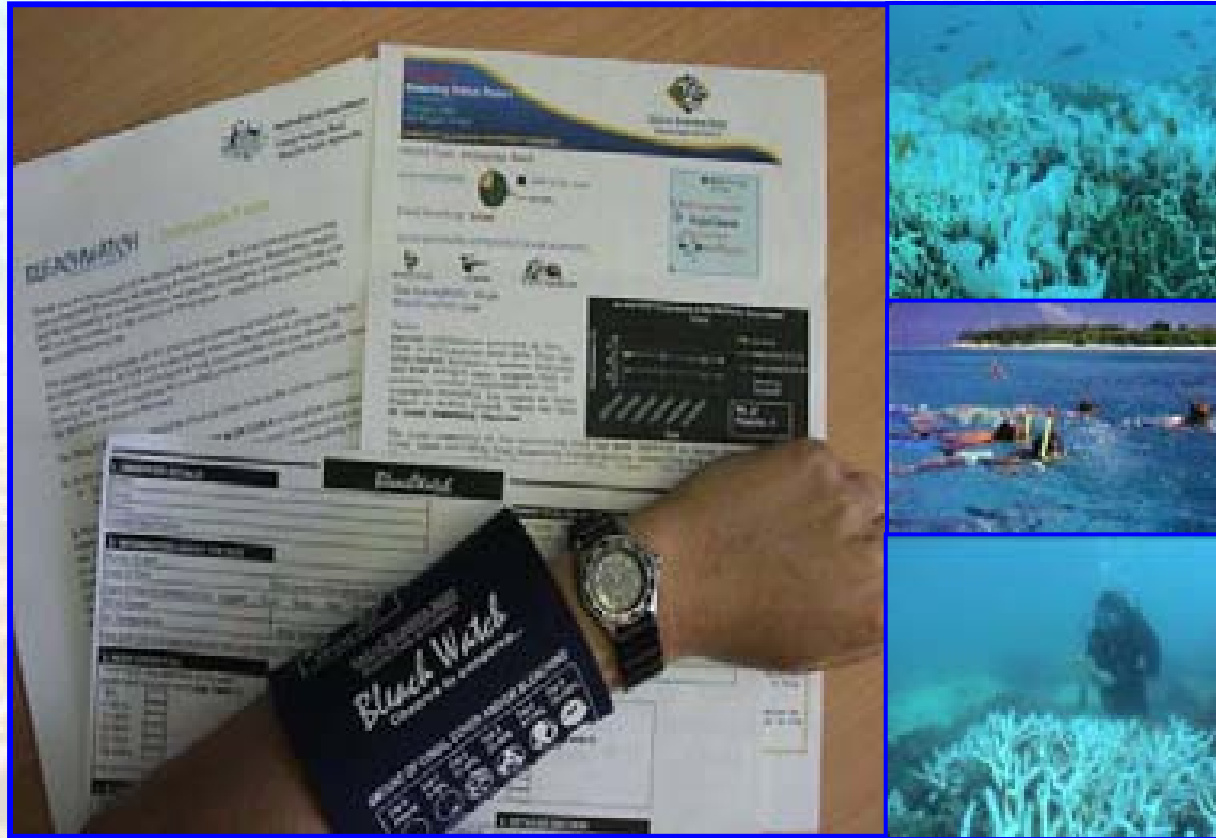
- Why Community Based Monitoring?
- Examples of Community Based Monitoring Programs
- In Depth: Florida Keys NMS BleachWatch
- Making the Data Available Globally - Reefbase

Why Support Community-based Monitoring for Bleaching or other Impacts to Coral Reefs?

- Engage the Community in Education and Conservation
- Many eyes on the Reef vs just yours!
- Provides “early warning” of Bleaching and other events
- Inexpensive way of Monitoring over large area
- Opportunity for Communication
- Promotes Awareness & Stewardship



Examples: GBRMPA BleachWatch



Australian Government
Great Barrier Reef
Marine Park Authority



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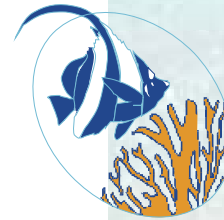
Examples: Hawai'i Eyes on the Reef



EOTR Hawai'i Goes Beyond Bleaching

- Coral Bleaching
- Coral Disease
- Crown of Thorns (COTS) Outbreak
- Invasive Species

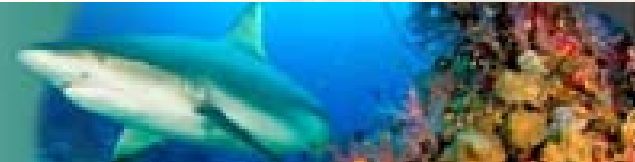
Lots of Options



Reef Check



Project AWARE
Divers Conserving Underwater Environments™



ReefBase :: A Global Information System For Coral Reefs

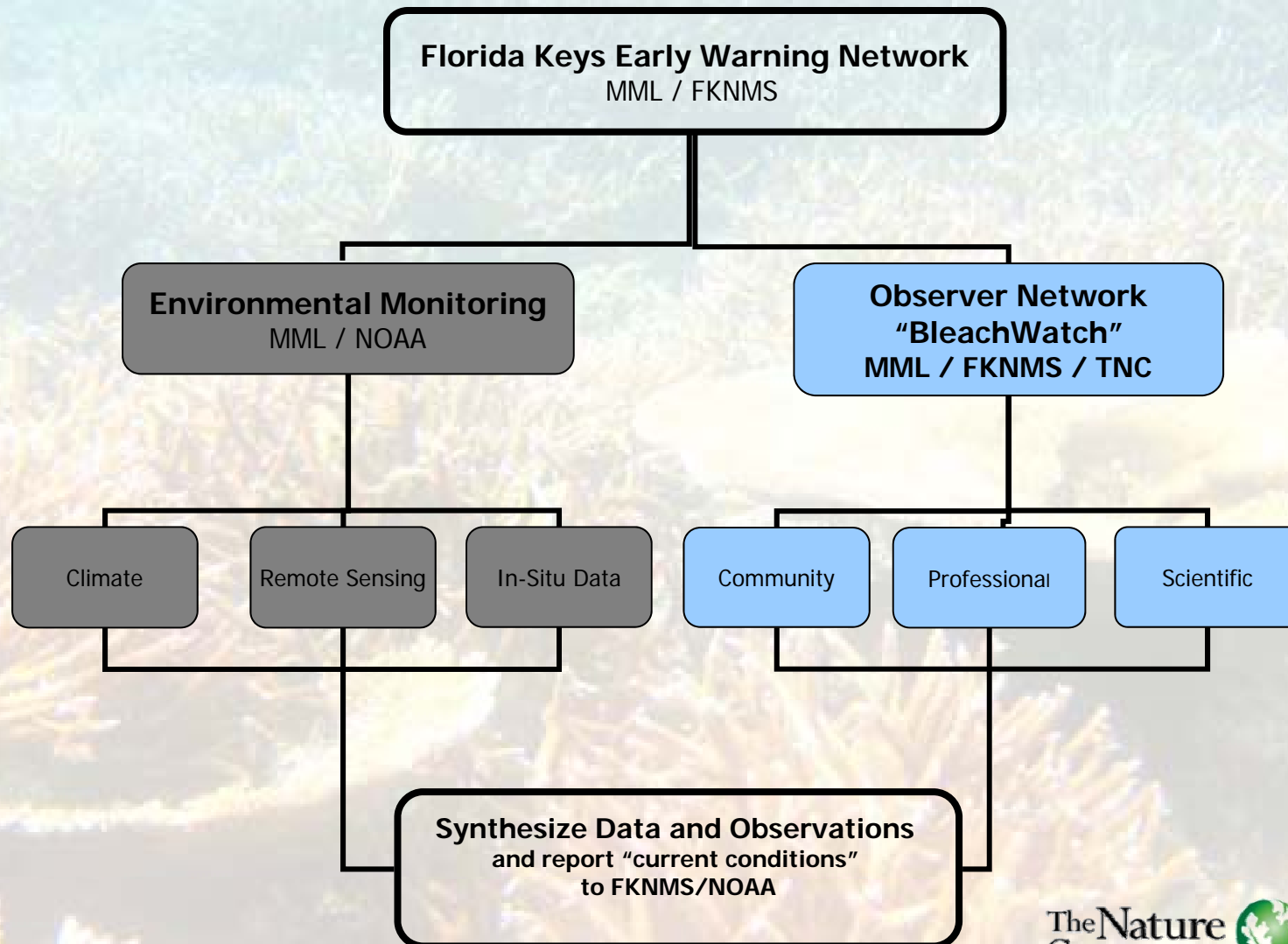


One Goal

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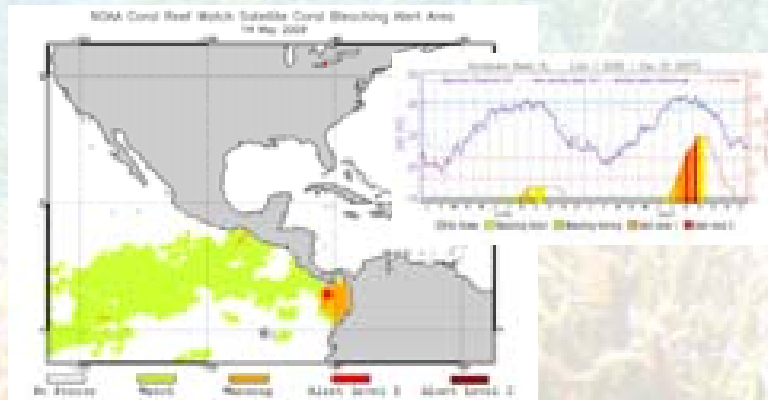


In Depth Example: FKNMS - BleachWatch



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Goal 1: Monitor Environmental Conditions



Satellite Information



Goal 2: Provide Alert when Bleaching Conditions Occur

In Depth Example: FKNMS - BleachWatch

Goal 3: Involve the Community in Monitoring Coral Reef Health
BleachWatch Observers Network

Community

Anyone that reports bleaching/no bleaching
(residents, tourist, pilots, any eyes on the water)

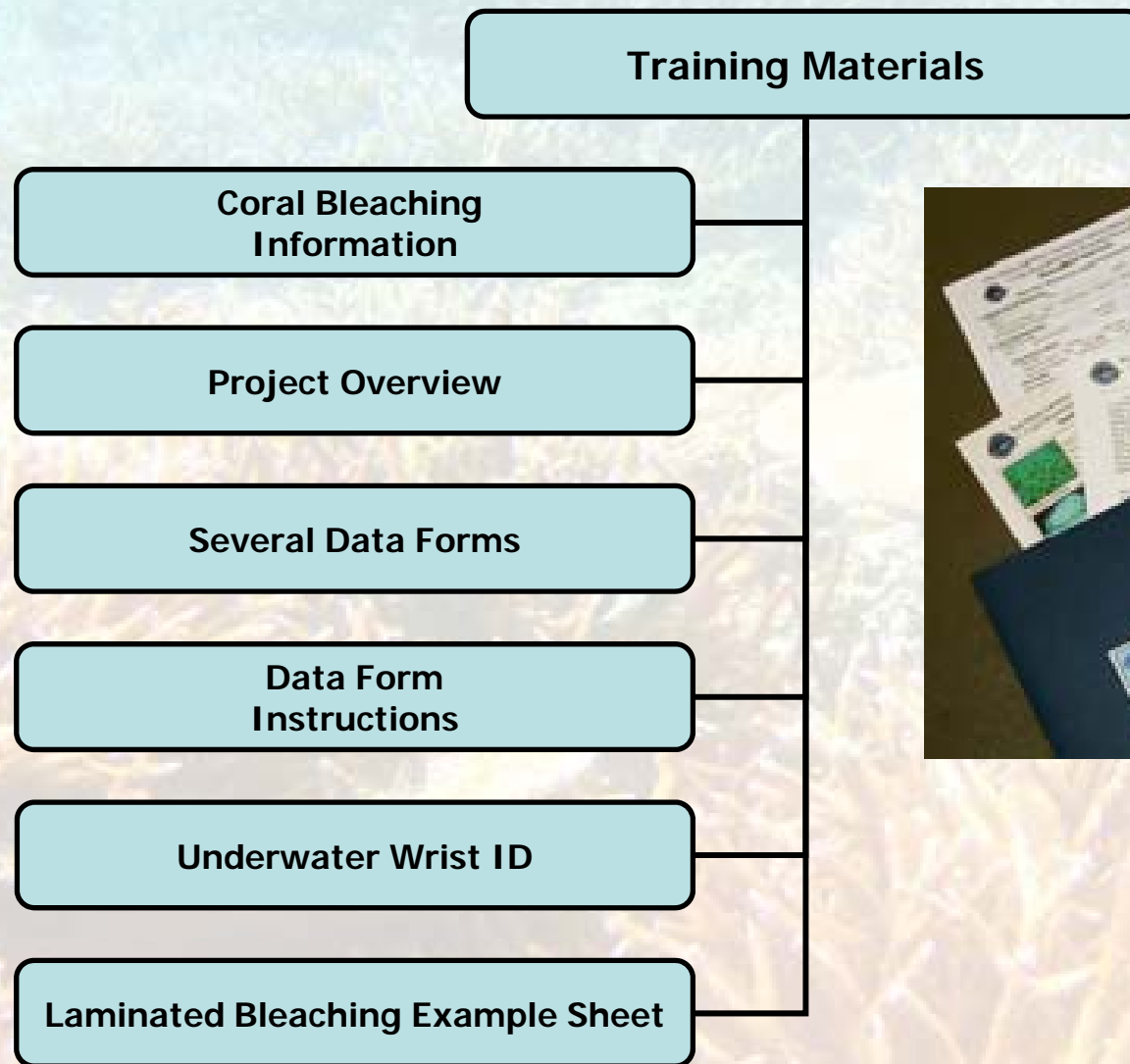
Professional

Observers who complete a short training session
(FKNMS Team Ocean & Reef Medics, OA Boy Scouts,
dive operators, dive clubs, marine life collectors)

Scientific

Federal, State, Private and Academic Researchers
(Sanctuary DARP and other staff, FWRI, Continual
scientific surveys, FRRP, etc...)

Goal 3: Involve the Community in Monitoring Coral Reef Health BleachWatch Observers Network



Goal 3: Involve the Community in Monitoring Coral Reef Health

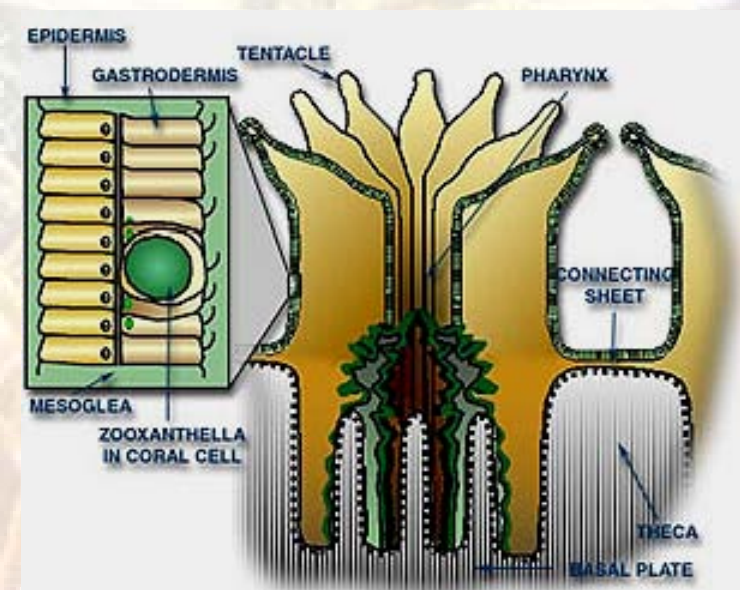
BleachWatch Observers Network

- Explanation of Early Warning Program
- Short Coral Biology Lesson

What is a Zooxanthellae and its importance?

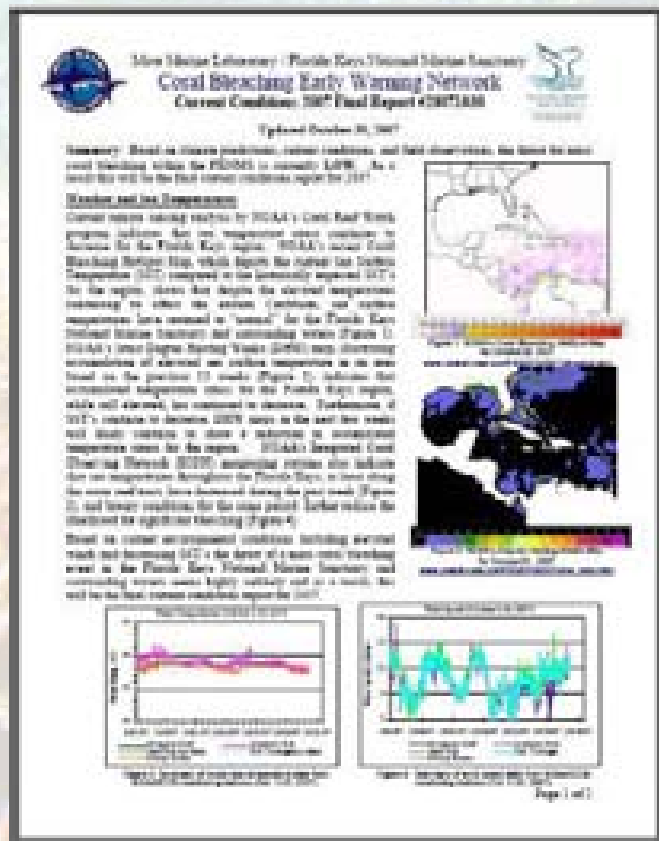
Difference between bleaching, disease, and predation

- How To Fill Out Data Form



In Depth Example: FKNMS - BleachWatch

Goal 4: Provide *Current Conditions* Summarizing Community Feedback and Environmental Conditions

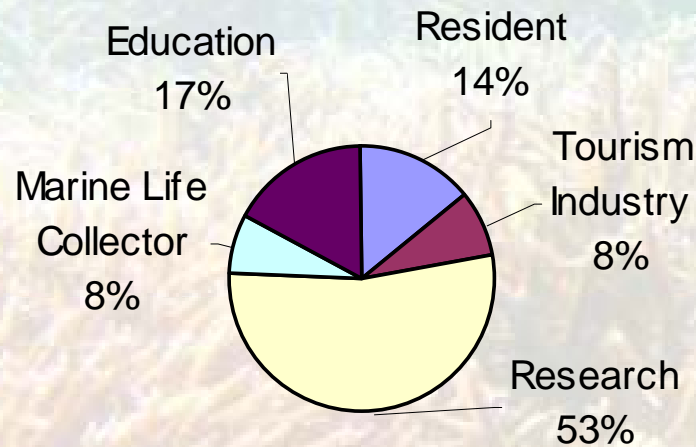


- Updated According to Environmental Conditions
- Outlook for future bleaching events
- Sea Temperature Information
- Relevant Weather Conditions
- NOAA's HotSpot Maps and DHW Maps
- Summary of Field Data from Observers

In Depth Example: FKNMS - BleachWatch

The 2007 Quick Summary

Percent of Reports by Observer Type
May 1 - October 18, 2007



- Received 264 reports
- Over 100 volunteers trained to date
- Over 50 volunteers reported for 2007
- At least 25 volunteers reported every 2 weeks
- 8 Current Conditions Reports distributed
- Great relationships with several organizations

Making the Data Available Globally

ReefBase :: A Global Information System For Coral Reefs

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Home Projects & Partners Global Database GIS & Maps Key Topics Resource Center

Search

ReefBase > Global Database > Resources > Overview

Resources - Overview

Resources

- ☐ Overview
- ☐ Coral Reefs
- ☐ Reef Fish
- ☐ Reef Fisheries
- ☐ Biodiversity

Status

- ☐ Coral Reefs
- ☐ Reef Fish
- ☐ Reef Fisheries

Threats

- ☐ Natural
- ☐ Human
- ☐ Climate
- ☐ Bleaching
- ☐ Reefs At Risk

Management

- ☐ Monitoring
- ☐ Protected Areas
- ☐ Legislation
- ☐ Capacity
- ☐ Gaps
- ☐ Recommendations

ReefGIS Online Map

Photo Gallery

Region: Global Country: Costa Rica Search

Overview Statistics

Search Result: 1 records

1. Costa Rica

The Pacific coastline of both Costa Rica and Panama is strongly affected by extremes of water temperature associated with warm El Niño (~33°C) events and more frequent cool upwelling episodes (~15°C). These restrict offshore reef development in many areas, while terrestrial runoff greatly restricts reef development on mainland coasts. In general, reef development is sporadic and mostly at point locations around offshore islands. Most reefs in this region consist of shallow (less than 10 meters) sub-tidal Pocillopora banks bound

www.reefbase.org

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