

Structure and Function

The Response Network

- National & Regional Coordinators
- Expert Working Group
- A Model Response
 - Levels I & II
 - Level III
- Incident Command System
 - Basic Structure
 - Application to an Outbreak Investigation

Response Network Overview



Regional Coordinator

- Serves as point of contact & source of local knowledge
- Receives and verifies reports, conducts interviews, and determines need for further response
- Coordinates investigations as needed
- Collaborates with National Coordinator to make advanced plans for the region & interacts with local authorities
- Appoints Incident Commander

Preplanning List

Items to have in place BEFORE an investigation

- Permits
- List of contacts
- Information from labs where samples will be sent for analyses
- Boat rental/charter information
- Dive safety measures

Response Hierarchy

Module 2

Level ILevel IILevel III





Incident Occurs – Level I

Module 2

A possible anomaly is observed in the field





Monitoring Team

Initial Response and Assessment

Level I Data, taken by Regional Coordinators, reflects notification of a possible Coral Disease Incident



Level I Data- Coral Disease Incident Report

Case ID #	(Administrative Use Only)
* Required Information *Observer Information Name Address Tele Email	Location of Suspected Disease Incident *Geographic Locality (site, city, county, state) Name of Reef Reef type, if known
Affiliation Date of Observation (mm/dd/yy)	GPS Coordinates (include degrees, minutes, seconds, and NSEW) How many times have you dived on this reef?
Occurence Details- click checkbox Leave Blank if Unknown Single Location? Yes No Throughout Reef? Yes No Multiple Reefs? Yes No "Recent Change? Yes No "Previously Observed? Yes No How many coral colonies? Coral types affected	Species Affected (list all) Genus Species Species Common Name(s)
	, Describe Types (e.g. branching, boulder)



Regional Coordinator Interview Checklist

Interviewer Contact Information
Name Address
Phone: email
Affiliation Date of interview (mm/dd/yy)
Was Case Number Assigned?
Contacted "Observer"? Yes No Date (mm/dd/yy)
Comments:
Verified Level I Report? T Yes No
Comments:
Asked if there were unusual observations? TYes TNo
Comments
Verified where Observer obtained Level I Form? T Yes T No
Comments:
Was Level II information acquired? 🦵 Yes, complete 🦵 Yes, partial 🧮 No
Comments:
Level II Form Attached? Tes To
Contacted Level II Observer/Team? Tes TNo
Comments: date (mm/dd/yy)

Contacted Expert Ad	visory T	'eam? ┌ Ye	5	, No	•	Module 2
Comments:				date	(mm/dd/yy)	_
Types of feedback	E.	phone call	E,	Email	∏ letter ∏ webpage	info

Comments:

Case Identification Number Generation SSCC##-mmddyy-XXX,#### (Group ID)-(Date)-(species, sample#)	
Group ID	Species, Sample number
SS-two letter State Designation (e.g. FL, PR, VI, HI) CC, two letter site designation (to be generated)	XXX_ use the first letter of the genus and first two of the species, e.g., Porites lobata, Plo



Level I Response: Interview

Module 2

Regional Coordinator

- Interviews Observer
- Verifies information on Level I data sheet

 Determines case is closed
 OR
 Conducts a Level II Consultation
- National Coordinator & other experts contacted
 Final steps taken to secure permits

Level II Response initiated



Module 2

Case Closed*

- 1. Already reported
- 2. Lack of credibility
- 3. Non-disease observation
- 4. Unable to contact observer





Module 2

6. Photograph/video details

Module 2

Level II Recommendation

- 1. New observation
- 2. Insufficient information
- 3. Species at risk (multiple)
- 4. Magnitude
- 5. Expansion of earlier observation
- 6. Photograph/video details



Module 2

Level II Consultation

- 1. Strength of observation
- 2. Magnitude supported by surveys, photos, prevalence data
- 3. Boat/staff in area with specific knowledge



Module 2

3. Regional Coordinator deploys reconnaissance team for Level II investigation to obtain further information



Level II Data – Coral Disease Incident Report

Case ID#_

Level II Observer (orInterviewer) Information:	Reef Descriptors:	Coral Species Affected:	Data Collected at Reef Site:	
Name Address	Reef Name	Genus Species Common name	Water clarity Map drawing of site Quantitative transects/survey of reef area	
Tele Email Affiliation Date of Observation (mm/dd/yy)	Semi-quantitative extent of the affected areas Adjacent Reef Information Location relative to affected reef:	Coral Species Not Affected:	Signs of recent reef disturbance Photographs	
Background Information: Case ID # (provided by Regional Coordinator)	Data Collected on Boat: GPS coordinates Weather	Describe	 c. healthy coral tissue from another coral d. other species e. water f. nearby sediment/soil/sand Depth 	
Level I Data Sheet attached Yes No (provided by Regional Coordinator) Date of Level I Observation (mm/dd/yy)	Water temperature Sea state	Description of Affected Coral Tier 1: Color change Yes No Unk	Description of Diseased Tissue on Affected Coral Tier 2:	
Characteristics of Affected Reefs: 1. Are corallivores present (give species)? ; if absent go to 2. 2. Is there overgrowth (competition)? yes; if no go to 3.	f. Reef relief – high; low g. Rugosity – high; low h. Cover – percentage	Tissue loss YesNoUnk Skeletal damage YesNoUnk Growth anomaly YesNoUnk Describe	Color Size Distribution Number Polyps	
 Suspect disease present? no; if yes, answer following questions: a. Reef type (circle appropriate descriptors): inshore, offshore, bank, patch, barrier, emergent, submergent b. Provide any missing information in Level I 	 i. Species associations j. Macroalgae? present; absent k. Distribution of affected corals l. Prevalence of affected corals 	Additional Information - Provide Narrative Description of Diseased Coral		
Report	m. Recently dead colonies – if yes is there algal cover? If yesthen what is the estimate of days of algae growth (7-10 days?); No	Thank you for participating in the Level II resp information/ samples in support of the CDHC R will be used to further the study of coral disease. F http://www.coral.noaa.gov/coral_disease/cdhc.shtm	onse to a recent report of coral disease and collecting apid Response to Coral Disease. Your information or additional information please see the webpage: <u>al</u>	

Level II Information

- Determine the severity of the incident
 - Prevalence- Current number of the population affected by the disease (old and new)
 - Incidence- Frequency with which the disease increases from base line (new occurrence)
 - Rate of Progression
 - Communicability

If further investigation is needed:

Module 2

Expert Working Group / National Coordinator consider the evidence and recommend to

1. Close the case based on a final diagnosis or plan of action

or

2. Proceed with a Level III Response



www.oceanservice.noaa.gov



www.coralcay.org/images

Level II Response

Case Closed*

- 1. Observations not supported during Level II response
- 2. Within normal (known) background
- 3. Non-diseased agent (ie.boat trauma, hurricane damage)
- 4. Referral to another response team (bleaching, grounding, fish kills)
- 5. Adequate information obtained in Level II

*Final Response to Closed Cases

- 1. Referral
- 2. Notify resource managers

Level III Consultation

1. Strength of observation

Decision

- 2. Magnitude: distribution (multiple reefs), frequency, multiple species, higher than expected proportion of colonies affected or mortality rates
- 3. New/unusual condition
- 4. Temporal irregularity
- 5. Relative importance of species at risk
- 6. Population/community impacts

Level III Response

- 1. Activate Investigative Response Team
- 2. Notify resource managers

Level II Response

Module 2

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Level II Response

Module 2

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Level III Response

Module 2

1.Activate Investigative Response Team

2.Notify resource managers

Level III Response

- 4. If evidence warrants a Level III Outbreak Investigation, Regional Coordinator informs National Coordinator.
- Incident Briefing ends the initial response phase and launches the ICS process

Incident Command System (ICS)

- Management tool used by Federal (State) emergency responders
- Planned event, natural disaster, or terrorist attack
- Used to investigate the causes/ prevention measures for an emergency
- Application to an Outbreak Investigation

Incident Command System Model



Incident Commander

Module 2

Qualifications:

- Preferably a diver
- Aware of history/ characteristics for outbreak region
- Familiar with collection of coral and sensitivity of samples
- Experienced in other response efforts
- Has established local contacts with boat charters, dive companies, etc.

Incident Commander Responsibilities

- Contacts members & conducts site-specific training
- Develops Site Safety Plan
- Conducts briefings & debriefings daily
- Ensures proper equipment is available to teams (Logistics Chief)
- Develops Dive Plan & Incident Action Plan (Planning Chief)
- Manages the Incident Action Plan
- Synthesizes information collected and reports back



Incident History

Once incident is identified, Incident Commander continues examining potential causes:

- Weather over last few months
- Unusual incidents e.g., oil spills
- New manufacturing or utility
- Possible overflow of water systems, etc.