Help protect Guam’s reefs by reporting coral reef impacts!

Don’t forget! When you get out on the water, enable the GPS on your camera.

What to include in your report:
• Activity (Diving, snorkeling, swimming, fishing, etc.)
• Date and location (Beach name, dive site, closest landmark, etc.) – GPS coordinates if available
• Type of impact:
  • Type(s) of coral (or other organism) impacted
  • Depth of observed impact
  • Number or percent of impacted colonies
  • Description of impact, such as:
    ✓ Severity of bleaching (mild, moderate, severe)
    ✓ Shape, size, and color of lesions or abnormality
    ✓ Number and size of crown of thorns sea stars
    ✓ Type and amount of marine debris

If you see something, say something!
Text 688-DAWR (3297) if you witness marine preserve violations, someone damaging corals, dangerous marine debris, or other immediate concerns of this nature.

Coral reef etiquette:
1. Never touch, kick, or stand on coral. Practice neutral buoyancy.
2. Don’t feed fish – it disturbs their natural behavior.
3. If you see litter near or in the water (or anywhere!) pick it up.
4. Wear reef safe sunscreen.

Report coral reef impacts at EORMarianas.org

See more Floor and Coral Reef Ecology: http://www.guamreeflife.com
What to include in your report:

- **Location and depth** of bleaching
- **Type(s) of coral** (or other organisms) bleached
- **Number** of bleached colonies
- **Severity** of bleaching:
  - **MILD:** 1-10% of coral colonies are pale or bleached
  - **MODERATE:** 10-50% of all colonies are pale or bleached
  - **SEVERE:** 51%-90% of all colonies are bleached
  - **VERY SEVERE:** Over 90% of all colonies are bleached

How to identify bleaching:

- **Paling:** upper and/or most exposed surfaces will be lighter color than rest of colony – look at the bottom of the colony or between branches to detect a difference in color
- Upper surfaces or whole colony will be **bright white** if fully bleached – colony appears to “glow”
- Bleached corals can also “**fluoresce**” like a highlighter
- Look closely at polyps – bleached corals are alive, tissue is intact
- **Recently dead** corals will be bare, white skeleton with some thin, usually bright green algae
- White tips of branching colonies are growth tips, **not** bleaching

Report coral reef impacts at [EORmarianas.org](http://EORmarianas.org)
**CORAL ABNORMALITIES**

What to include in your report:

- **Location and depth** of abnormality
- **Type(s) of coral** (or other organisms) affected
- **Number** of affected colonies
- **Description** of abnormalities:
  - LESIONS? What do they look like? How big?
  - COLORATION? Tissue loss?
  - DISTINCT FEATURES of the abnormalities?

**Growth anomalies:** Excess skeletal growth, paler tissue, corallites are different size, shape, or density

**Pigmentation response:** Often bright pink, near bite marks

**Irregular bleaching:** tissue still present, pattern unlike thermal bleaching

**Black/grey death**

**Ulcerative white spots**

- **White syndrome:** tissue loss resulting in bare skeleton, irregular pattern, may see dead coral with algae in center of affected area

- **Colored band diseases:** black band or brown band between bare skeleton and living tissue; skeletal eroding band has “black specks” on skeleton

Photos by L. Raymundo, D. Burdick, and R. Miller

Funded by NOAA CRCP grant no. NA13NOS4820012

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What to include in your report:

- **Location and depth** of nuisance species
- **Type(s) of nuisance species:**
  - ANGEL HAIR ALGAE (*Chaetomorpha*)
  - GOLDEN NOODLE ALGAE (*Chrysocystis, Chrysophaeum*)
  - CYANOBACTERIA
  - TERPIOS
  - DRUPELLA SNAIL
- **Estimated total area** affected (m²)
- **Type(s) of coral** affected (if applicable)
- **Number** of affected colonies (if applicable)

### Angel hair algae
- bright green, thin and stringy, like tangled “fishing line”

### Golden noodle algae
- yellowish green, slimy, falls apart easily

### Cyanobacteria
- blooms after heavy rain, forms “slime blanket”

### Terpios
- grey sponge, hard sheets, no protruding parts

### Drupella snail
- pink/red algae on shell, often on branching corals, leaves bare skeleton

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**CROWN OF THORNS SEA STARS (COTS)**

What to include in your report:

- **Location and depth** of COTS
- **Estimated size** (diameter)
- **Estimated number** of COTS
- **Type(s) of coral** affected

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**ECHINODERM DISEASE**

What to include in your report:

- **Location and depth** of diseased echinoderm(s)
- **Type(s) of echinoderm(s)** affected:
  - BALATE (Sea cucumbers)
  - SEA STARS
  - URCHINS
- **Estimated number** of diseased echinoderms
- **Description** of lesions (color, size, etc.)

**MARINE DEBRIS**

What to include in your report:

- **Location and depth** of debris
- **Type(s) of marine debris**:
  - PLASTIC
  - FISHING GEAR
  - METAL
  - OTHER
- **Estimated total area** affected (m²)
- **Approximate number** of items per m²
- **Type(s) of coral** affected (if applicable)
- **Number** of affected colonies (if applicable)

**OTHER REEF IMPACTS**

What to include in your report:

- **Location and depth** of observed impact
- **Type(s) of impact**:
  - RECREATIONAL MISUSE
  - REEF GRAFFITI
  - LOW TIDE EXPOSURE
  - ANCHOR DAMAGE
  - EROSION/SEDIMENTATION
  - ILLEGAL FISHING
  - MARINE LIFE HARASSMENT
  - OTHER
- **Description** of impact
- **Type(s) of coral** affected (if applicable)
- **Number** of affected colonies (if applicable)

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