

Creep into the Deep: Discovering Deep-Sea Coral

SEAMAIL™

TO: Virtual Deep-Sea Science Team
FROM: Amy Baco-Taylor
SUBJECT: Collecting and Preserving Coral Samples

Hello Virtual Science Team,

I thought I'd tell you more about my work as a biologist. Biologists study living things—in my case, deep water corals. Here are two things I'm hoping to learn through this study:

- What kinds of corals are building these reefs?
- Is there something different about these corals that scientists haven't seen before that allows them to live in places we thought corals couldn't survive?
- Is there some other aspect of the ocean environment that lets these corals overcome the problems with the chemistry?

In order to answer these questions, we need to study the coral up close. We use the ROV to collect samples. When the ROV comes back to the ship, we work quickly to keep the samples' DNA safe.

First, we take photos of the coral pieces. Then one piece of the coral gets stored in an extremely cold freezer. Another gets put in a jar with a chemical called ethanol. These are the samples my lab will use when we are back on land to learn more about exactly what kind of corals are making the reefs.

Other samples get saved for scientists studying how coral reproduce or how they can live in water that seems bad for them. Some of the samples will even go to the Smithsonian Natural History Museum—an amazing museum in Washington D.C.

When we are finished preparing the pieces, they are all ready to go back to our labs on shore. Then it is time to relax before the ROV comes back with more samples!

Talk to you soon.

Amy

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Illustration by Paul Lopez

You don't have to have fancy equipment to study nature. Have you ever observed a small part of nature up close? Maybe you've looked at a dandelion or a pine cone or let an ant crawl on your arm. Maybe you even take photographs or draw them. When you look at nature carefully to answer questions, you are doing the same work scientists do!