



**NOAA Teacher at Sea
Christopher Monsour
Onboard NOAA Ship OSCAR ELTON SETTE
June 12 – July 12, 2007**

NOAA Teacher at Sea: Chris Monsour
NOAA Ship OSCAR ELTON SETTE
Mission: Lobster Survey Western Hawaiian Islands
Day 14: Tuesday, June 26th, 2007

Science Log

Today we hauled our first set of lobster traps at Necker Island. I must say the Chief Scientist was right when he said there would be less lobster here. I think we may have caught 25 lobsters out of 160 traps. Very disappointing numbers, less than one lobster per trap. It is possible that the traps were in too deep of water and the substrate being sand made conditions unfavorable. We will be here for 13 more days or for 13 more sets, depending on how you want to look at it. A majority of what we caught today were different types of crustaceans and bluestriped snapper.

The bluestriped snapper is a non-native species that was brought to Hawaii from French Polynesia in the 1950's. The fish's native distribution is the Indo-Pacific from east Africa - Tuamotus; north to southern Japan; south to New Caledonia. The fish was brought to Hawaii to fill a vacant niche in the reef community, a shallow water snapper. The



Above is an example of the bluestriped snapper that was caught off of Necker Island. This species has become a nuisance since it was introduced to the Hawaiian Islands.

The bluestriped snapper does not have a good reputation. In Hawaii, the bluestriped snapper share the same habitat with native fishes and this may result in competition for habitat use and food sources. Evidence has been documented which suggests that bluestriped snapper may displace native fish from important refuge habitat. However this remains a controversial topic and more research investigating the ecological niche of *L. kasmira* is needed. From what I saw today though, the most common fish brought up from the traps was the bluestriped snapper.

When I searched the internet for “bluestriped snapper” and “Hawaii”, I found that many of the links discussed the fish as being a great aquarium fish and really no other use. Yes, I will admit the fish are great to look at, but what will be the future impact? The discussion of the bluestriped snapper led into a discussion of the problems which exists in Lake Erie with the invasive round gobi, zebra mussel, and purple loosestrife. The main



NOAA Teacher at Sea Chris Monsour holds up an example of a sponge crab that was captured off Necker Island.

difference here in Hawaii is that this species was introduced intentionally and the impact is yet to be seen. Granted, it has been over 50 years since the bluestriped snapper was introduced, but most of the people I have talked to on the ship see it as a nuisance and not a threat.

Today, as mentioned earlier, I saw more species of crustaceans, especially crabs. There were two groups that I have been seeing quite a

bit and that is hermit crab and sponge crab. Anyone who has explored a tide pool is familiar with the hermit crab. Although an external skeleton like other crabs covers their front parts, their long soft tails are not protected. Hence, they use empty snail shells for protection and are very difficult to remove.

The other species that has really caught my attention is the sleepy sponge crab. The sleepy sponge crab is considered to be the most evolutionary primitive of the true crabs. As I found out, they are very slow moving and nocturnal. They use their hindmost legs to carry a piece of sponge over its back. The crab uses the sponge for camouflage and within the sponge is living a whole myriad of other organisms like sea stars and forminifera (algae). Unfortunately as I



One of the many hermit crabs that was caught during OSCAR ELTON SETTE's cruise of the North West Hawaiian Islands poses for a picture.

found out, when the sponge comes off the back of the crab, you can't put it back on.

Personal Log

I was posed this question by the CO (commanding officer) of the ship. **What does a Teacher at Sea do on a transit day after a hard week of lobstering at Maro Reef?** Transit days are spent catching up on reading, laundry and rest. I finished up one book and read the first half on another. On Sunday at twilight we had a pyrotechnic display on the fantail of the ship. Essentially we had to get rid of the expired flares, so we had a good time setting them off. Then on Monday before we set the gear, we had four sets of drills which included a quarters escape drill. Right now though, I am glad to see Necker Island, the first land I have seen in a long time (it resembles Abe Lincoln's profile). So with this I will be posting another log in a few days.

Questions of the Day

1. What type of relationship exists between the sponge crab, the sponge on it's back, and anything living in the sponge? Commensalism, mutualism, or parasitism?

A hui hou,...

Chris