



NOAA Teacher at Sea
Thomas Nassif
Onboard NOAA Ship NANCY FOSTER
July 15 – 30, 2005

Log 8

Day 8: Friday, July 22, 2005
Latitude: 33°46'N
Longitude: 77°00'W
Visibility: 10 nautical miles (nm)
Wind direction: 242°
Wind speed: 13 kts
Sea wave height: 2'
Swell wave height: 3-4'
Sea water temperature: 30°C (86°F)
Sea level pressure: 1017.2 mb
Cloud cover: 5/8, cumulus, stratocumulus, and cirrus



Science & Technology Log

Today the divers explored Lobster Rock, collecting a total of 23 lionfish for the flow through aquarium aboard the ship. Water from the ocean flows into and out of the tank through pipes on the deck to simulate the ocean environment. This brings the total lionfish count to 55, most of which they plan to bring back to the NOAA marine laboratory aquarium at Beaufort.



Today I also interviewed the Chief Scientist, Paula Whitfield. Most amazing to me was how her life story evolved from a childhood fascination with Jacques Cousteau to her current passion for lionfish research. Paula grew up watching the underwater videos of Jacques Cousteau, and it was at that point that she knew she wanted to become a diver. "I was a diver first, but the more I dove, the

more I was formulating questions in my mind...I was curious about everything that had to do with water and marine life." She worked for a sea grass ecologist for many years, not running the show, but she saw how the scientific process worked. Her desire to

become a marine biologist grew stronger, and that's when she decided to return to school to get her graduate degree.

So how did Paula become one of the leading scientists in lionfish research? She responds: "It stemmed from my recreational diving – I was diving constantly in my spare time, and working for a charter boat business that attracted recreational divers from all over the world." And then one day she began seeing lionfish off the coast of North Carolina, which was very unusual for this area. Paula knew they were Pacific fish, but she needed proof that lionfish were now in the Atlantic. "From that point on, I collected evidence through photographs and lionfish specimens to prove that it was really happening." Paula was finally able to convince NOAA when a world-renown scorpion fish expert confirmed that her collected specimens were lionfish.

Once Paula was aboard a diving ship, and she was ordered to do a routine dive to the ocean bottom. The first thing she saw was right angle patterns, which hardly exist in nature. All of the sudden Paula saw a porthole lying in the sand. Back then she wasn't a technical diver with



all the fancy gear she has today. So she clutched the porthole with her knees and climbed up the anchor line. When Paula reached the surface, everyone aboard the ship stared at her in disbelief when she said: "I think it's a wreck. I have a porthole." She fondly remembers feeling "excited to be the first person to dive a virgin shipwreck."

What Paula finds most fascinating about lionfish is how they established themselves in such large numbers in the Atlantic within a short period of time. Because of this she calls lionfish the "ultimate survivors." But overall, she feels very affectionate towards all sea creatures, including "everything from sea spiders and feather dusters to larger fish because it's such a different world down there. It's important for us to know how we're affecting that world in order to make a positive change."

Paula's words of advice for those who want to become marine biologists: "I think it's important if you can become a diver – just to be able to put your head in the water to see what's going on is more rewarding than just dropping sensors into the ocean. It opens more doors, and by seeing the environment firsthand you are able to formulate more questions about it. All this helps you become a better marine biologist, even if you don't dive all the time."

PICTURE CAPTIONS

LIONFISH + LOBSTER: A lionfish and two lobsters pose for the camera at Lobster Rock. Today the divers collected a total of 23 lionfish from this dive site. Photo taken by Doug Kesling.

BUCKET OF LIONFISH: Recently collected lionfish from the ocean floor are transferred to a flow through aquarium aboard the ship. Photo taken by Thomas Nassif.

DEEP SEA EXPLORER: Diver and Marine Biologist Paula Whitfield swims alongside a lionfish, the focus of her research. Photo taken by Doug Kesling.