



**NOAA Teacher at Sea**  
**Ruth S. Meadows**  
**Onboard NOAA Ship *Henry B. Bigelow***  
**June 11 – July 18, 2009**

**NOAA Teacher at Sea: Ruth S. Meadows**

NOAA Ship *Henry B. Bigelow*

Mission: Census of Marine Life (MAR- ECO)

Geographical Area: Mid- Atlantic Ridge Charlie- Gibbs Fracture Zone

Date: Friday, June 26, 2009

**Weather Data from the Bridge**

Temperature: 10.8°C

Humidity: 83%

Wind: 20.11 kts

**Science and Technology Log**

We are collecting lots of specimens for the scientists to take back with them and study further. Some of the animals are very abundant, showing up in every trawl, and others are rarer.



**A *Cyclothone*, commonly known as a bristlemouth or anglemouth**

The most common fish collected is the *Cyclothone*. This small fish (1 – 2 inches in length) is the most abundant vertebrate (has a backbone) in the world. We have caught them by the hundreds at all depths. It has a large mouth for such a small fish.



***Chauliodus sloani*, commonly known as a viperfish**

*Chauliodus sloani*, commonly known as a viperfish, is larger than the Cyclothone. It normally lives in deep water from 1000 to 2000 meters but it can migrate to shallower water during the night. We try to collect samples both at night and in the daytime so we can compare the depths the organisms are found. As you can see these fish have very large teeth. This one had a copper color to most of its body. My finger is at the bottom of the jaw so you can have an idea of the size of the teeth.

Check out more information at the following website:

[http://animaldiversity.ummz.umich.edu/site/accounts/information/Chauliodus\\_sloani.html](http://animaldiversity.ummz.umich.edu/site/accounts/information/Chauliodus_sloani.html)

One of the most interesting fish caught so far is an anglerfish. We have only caught three since they are not as abundant as many of the other types of fish. When the first one was brought out of the net, Dr. Mike Vecchione immediately knew it was a female. I asked how he knew so quickly because the sex of the other types of fish we previously caught could not be identified by just looking at it. The male angler fish is very small when it is young. When he finds a female, he attaches to her side and most of his organs disintegrate so he is totally dependent on the female for food. When the female is ready to lay her eggs, the male is right there ready to fertilize them.



**An anglerfish—see the bioluminescent tip of the lure located at the top of the head? (Both of these pictures were taken by David Shale who is a professional photographer from England.)**

She has her own “fishing pole” and lure located at the top of her head. The tip of the lure has a bioluminescent organ that glows with a blue- green light. The fish uses this like a fishing lure, waving it back and forth to attract its next meal. The jaw can be extended to an incredible size and the fish can swallow prey twice as large as it is. Food in this area of the ocean can be scarce at times, so the anglerfish can stock up on food when she finds it.

For more information check out this website: <http://www.seasky.org/deep-sea/anglerfish.html>

### **Personal Log**

It took five days of travel to arrive at our first sampling location. During this time we had a chance to get to know each other and to rest up for the work to come. Everybody enjoys the

outdoors and when the sun is shining there are usually at least some people on deck looking for animals or just enjoying the day.



**Dr. John Galbraith looks for animals.**



**A nap in a hammock is just what Zach Baldwin needs.**



**Reading and enjoying the fresh air at sea on the flying bridge**