NOAA Teacher at Sea
Cary Atwood
Onboard NOAA Ship ALBATROSS IV
July 25 - August 5, 2005

Log 4

Day 4
Date: July 28, 2005 Thursday
Time: 9:40 GMT 5:40 a.m. EDT
Latitude: 40° 58' N
Longitude: 67° 13' W
Visibility: undetermined
Wind direction: SSW (217 degrees)
Wind speed: 11 knots
Sea wave height: 0.4'
Swell wave height: 1.4'
Seawater temperature: 18°C
Sea level pressure: 1013.3 millibars
Cloud cover: Obscure, Fog, Haze, Dust

Question of the Day:
Lesser Shearwaters are common *pelagic* birds we often sea in great numbers near our ship. What does *pelagic* mean?

Answer to yesterday's question:
Astropectin species (sea stars) prey primarily on young scallops. *Asteria vulgaris*, another kind of sea star will prey upon adult scallops by wrapping themselves around the bivalves and tiring out their muscle. Once that is done, they will use their mouth to suck out and make a tasty meal of the scallop's soft, fleshy parts. Other scallop predators include crabs, lobsters, and some flounder species that eat small scallops. Wolf fish eat scallops as well.

Scientific Log
I am so pleased to have Dr. Dvora Hart on our cruise. She has given me a great deal of context regarding the scallop survey conducted aboard the Albatross IV. As an official operations research analyst, Dr. Hart is responsible for taking the raw data from the yearly scallop surveys and creating mathematical models of past and current surveys and projecting those numbers for future management decisions of the scallop fishery. Because the fishery is worth about $300 million annually to fishermen, and more than a billion dollars in retail, it is as valuable a fishery resource as the lobster industry. Together they represent the two most valuable fisheries on the New England coast.

Dr. Hart has worked for the Northeast Fisheries Science Center for over six years now. Having a strong math and statistics background has put her in a unique position to develop tools and models that help biologists understand the distribution of surf

invertebrates. Every three years, stock assessments are reported to local and regional fishery boards with recommendations for the management of scallops. Needless to say, the messenger is not always a popular person, especially when areas show diminishing populations and should be closed. However, armed with so much longitudinal data can be a benefit, too, in that areas in the past that have been overfished, if left alone, can, over the course of time recover. In order to make the scallop fishery a sustainable industry for all who depend on it for their livelihood, a person like

Davora has pioneered the mathematical modeling on scallops' fishery management. Her devotion and passion to this endeavor is clear, and one hopes that these management recommendations will enable fishermen to sustain their livelihood for years to come.

Until next time,
Ms. Atwood
The Scallop Lady