

# **BOY SCOUT OCEANOGRAPHY MERIT BADGE PROGRAM**

## **SEPTEMBER 17, 2005**

Troop 1345 (Burke, VA), Troop 191 (King George, VA),  
Troop 13 (Hampton, VA), and Troop 94 (Yorktown, VA)

*Photos taken by Gabriel Franke, CCPO Administrator*



Captain Richard Cox invited the Scouts onto the bridge of the R/V *Fay Slover*.



Laura Gibson, mate on the *Slover*, answered questions while preparing the Rosette/CTD.



The Scouts prepared to deploy the Rosette/CTD.





Olga Polyakov, CCPO research scientist, instructed the Scouts on water sampling with a CTD, which measures conductivity, temperature, and depth.



Olga and the Scouts moved the Rosette/CTD into position.



The Rosette/CTD was guided off the stern of the *Slover* for lowering into the Elizabeth River.



Olga explained how the water column is sampled using the Niskin bottles on the Rosette.





At left, Patrick Curry, *Slover* mate, told the Scouts how the CTD sensors relay data back to the ship's computers while underwater.



Patrick and Olga assisted the Scouts with bringing the Rosette/CTD back on board.



Dr. Eileen Hofmann, CCPO professor, and a Scout hung the Niskin bottles from the Rosette/CTD to drain the water for sampling.



Laura and one of the Scouts disconnected the cable after deployment.





Patrick and Laura prepared the Scouts for a plankton net tow.



Two Scouts attached the plankton net to the cable.



The plankton net was guided out to avoid swinging.

The plankton net was launched from the stern of the *Slover*. The attached canister collected samples caught in the net.







While the plankton net was being towed, Laura and the Scouts discussed what sort of samples might be collected.



Dr. Hofmann watched as the Scouts prepared to bring the plankton net back on board.



After the net was secured back on board, it was sprayed down with a hose to remove any organisms trapped in the net. This allows them to fall into the sample canister.



Dr. Hofmann described the organisms in the Petri dish before the Scouts viewed them under the microscope.





An eager Scout investigated the sample collected from the plankton tow.



The participants took a closer look at the sample in the canister.



While the Scouts took turns viewing the sample through the microscope, Dr. Hofmann identified some of the organisms as various species of copepods and algal aggregates.







Troop leaders and chaperones were equally interested and asked many questions.

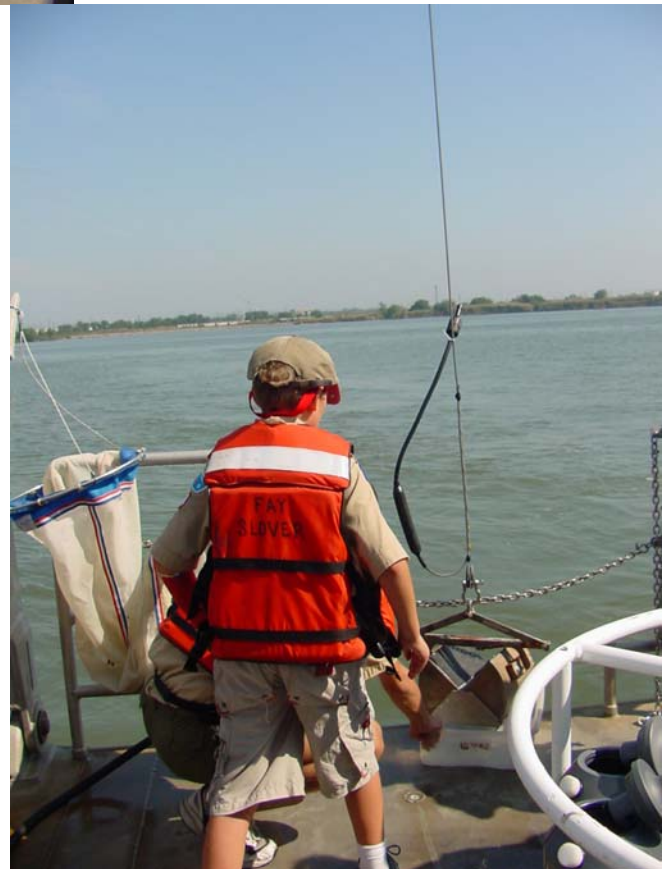


Dr. Hofmann showed the copepods in a settled sample after a Scout asked how many were contained in the sample.



The Scouts prepared to do a bottom mud grab, which is a method for sediment sampling.

The equipment was deployed with a cable connected to the A-frame, much like the Rosette/CTD and plankton net deployments.







The Scout guided the cable as the equipment was lowered down to the bottom to grab a sample of mud.

The Scouts waited while a sediment sample was being collected.





The equipment was brought back up and guided over to the plastic tray.

Laura releases the mud grab to dispense the sample into the plastic tray.







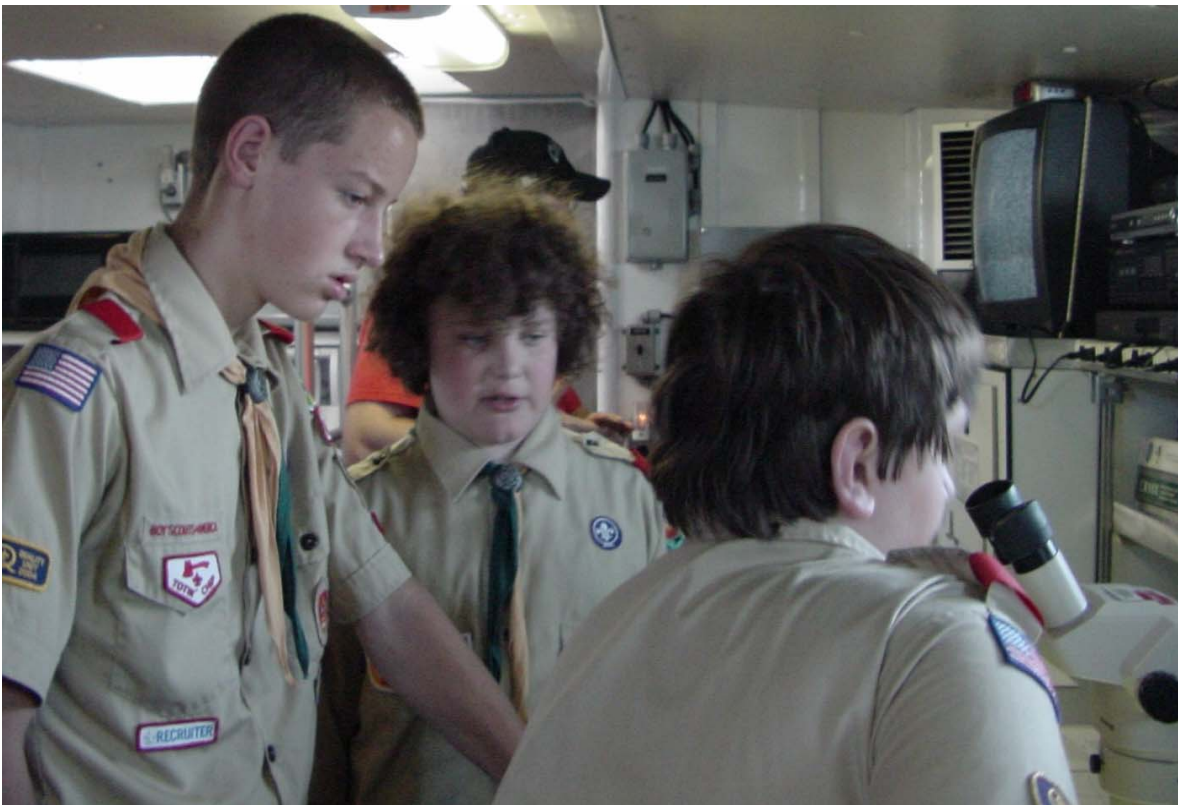
Dr. Hofmann is the first to dig into the sediment.



A mud crab and polychaete worms were found in the sample.



The feel and the smell (caused by sulfur) of the sediment were unfamiliar but interesting.



The Scouts continued to check out the sample under the microscope.





Laura and Olga answered many questions and interacted with the chaperones, as well as the Scouts.



One Scout was particularly interested in the sediment sample.



A few Scouts took a break on the return leg of the cruise. It was a warm day, and many Scouts had gotten a very early start. Downtown Norfolk is silhouetted in the middle.



Olga enjoyed working with the Scouts and sharing her experience with them.





Even adults sometimes like to play in the mud!



A view of the Battleship *Wisconsin* and Nauticus, the National Maritime Center, from the *Slover*.



Views from either side of the bridge. Capt. Cox welcomed the participants and spent time answering questions about the *Slover*.

