The COSM's main focus is on educating college and graduate students while engaging in scientific research. We also do whatever we can to "put the best talent in the pipeline" through educational outreach programs that get school children excited about science. "It's important to motivate children to think of science as a career and to increase their interest in science," said Dean Crawley.

In addition to pilot programs such as Brian Helmuth's partnership with Satchel Ford School (see article, this page) and the Electron Microscopy Center's Internet-based outreach efforts (see EMC article on pages 6 and 7), the COSM has made itself available to schools throughout South Carolina for classroom visits. Jerry Cowley leads the effort for these road shows, where he takes graduate students to classrooms and they talk about their work and perform demonstrations.

Marine Scientists Use the Internet to Connect a Third-Grade Classroom to an Underwater Laboratory

"Kids are natural-born scientists," said Brian Helmuth, an assistant professor in the Department of Biological Sciences and Marine Science Program. "Somewhere along the way many of them lose that spark. Our challenge is to find out how to keep that spark alive."

Helmuth has already discovered one way. He's part of a presently unfunded educational outreach program that links third graders at Satchel Ford Elementary School in Columbia to research being conducted in his lab. For example, Helmuth was part of a team of researchers who spent 10 days living in Aquarius, a permanent underwater laboratory lying 50 feet below the ocean's surface in waters off the Florida Keys. Using a cell phone, the Internet, and cameras, the children were in daily contact with the aquanauts, including Helmuth.

"Students would check in on us by e-mailing questions," said Helmuth. "They also watched us do our work on live Internet cameras. In the middle of the mission we used a cell phone, the Internet, and cameras for a live broadcast in which I spoke to the students directly. We couldn't have done this 10 years ago."

"It never ceases to amaze me how children are young scientists. They ask how pressure works, how we keep water from coming into habitat. They ask, who does this animal eat? How does it live? They're at a stage where they're questioning everything. Those are exactly the kinds of questions we as scientists want to ask," Helmuth said. "We're trying to find out how to keep this excitement alive until they can enter college and pursue science as a career."