



Kurt Hanselmann, second from left, with students from the University of Namibia.

KURT HANSELMANN

Calling on an international approach to answer ocean questions | by Teresa Messmore

Swiss scientist Kurt Hanselmann arrived in Namibia to teach chemical and biological oceanography assuming he could easily access the Internet and basic lab equipment. Not so.

Such are the circumstances in many developing countries, where students are eager to learn, but resources can be extremely limited.

The Scientific Committee on Oceanic Research (SCOR), based at the University of Delaware, is working to improve marine education in Africa and other parts of the world where research programs are still getting off the ground. The organization is sending established scientists to teach short courses and provide on-site training and mentorship through its SCOR Visiting Scholars program.

"We find it's a very effective mechanism, for a small amount of money, to help develop capacity," SCOR Executive Director Ed Urban says. "Many students can benefit."

Hanselmann was one of the first SCOR Visiting Scholars, traveling from his native Switzerland in 2010 and 2011 to instruct students at the University of Namibia's Sam Nujoma Marine and Coastal Resources Research Centre in Henties Bay. At that time, the facility was a few years old but still lacking the glassware, chemicals and instruments commonly found in marine research laboratories.

Hanselmann, a microbial ecologist at ETH Zurich, quickly adapted his course to make good use of the natural ecosystems along the Namibian coast and took students out into the field, for example, showing them transitions from high- to low-oxygen environments in

nearby marshes. When he returned home, he arranged to ship used equipment and books to the facility to improve future research camps that he helped initiate and fund through the Agouron Institute.

The SCOR Visiting Scholars program is supported by the National Science Foundation and pays for a select few scientists' transportation to developing countries each year to teach and mentor students, with the local host providing lodging and the scientists donating their time. So far, courses offered include identifying red tide organisms in Ghana, physical oceanography modeling in South Africa and the science of coastal lagoons in Morocco.

René Swift of the United Kingdom went to South Africa and Namibia to train colleagues on how to use acoustic devices to listen to whales and dolphins. He worked with the Namibian Ministry of Fisheries and Marine Research to create an improved detection system to determine the distribution and abundance of marine mammals.

The Visiting Scholars program is one of several SCOR activities underway worldwide. The non-governmental science organization was formed by the International Council for Science in 1957 to explore scientific questions about the ocean that require an international approach. About 250 scientists from 35 nations participate in SCOR projects each year.

Other SCOR focus areas include financing travel for researchers from developing countries to attend international scientific meetings and find opportunities for joint research. The organization also aims to involve African scientists and students in ocean observation, deploying and maintaining equipment used to collect information where data has traditionally been limited.

"It's to the advantage of everyone if people in developing regions are able to participate," Urban says.

Moving forward, Urban and SCOR partners are trying to build up marine research along Africa's east coast, including in South Africa, Madagascar and Mozambique, where there are some marine science activities but no large laboratories or ships. Places like Somalia are well known to have coastal issues with piracy, and other social problems such as poverty, hunger and political instability can obviously push science lower on the list of government priorities.

Still, SCOR and its international partner organizations continue to make inroads throughout the continent to encourage collaboration between neighboring countries. The idea is that in many developing regions, one institution doesn't have all the resources—so they will benefit from pooling resources.

"We're trying to encourage institutions in the region to band together and share resources in a way that will make more research and training possible," Urban says.



View of the Namibian coast at Henties Bay.

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