POGO Visiting Professorship 2011

During March, 2012 Dr. Walker Smith visited the Institute of Oceanography in Nha Trang, Viet Nam. Nha Trang is a city on the south-central coast of Viet Nam, and is well known for its marine reserves, reefs and fisheries. The Institute is one of Viet Nam’s leading research facilities, and has a building dedicated to marine plankton that was built with Danish assistance ten years ago. Faculty in Marine Plankton have numerous ongoing projects with various European and Asian countries as well as the United States. Many of these projects deal with the distribution, ecology, and effects of harmful algal blooms in coastal waters.

The course was designed to introduce students to the concepts of fluorescence and its use in oceanography. Topics covered included fluorescence of chlorophyll, active fluorescence, fluorescence from space, and fluorescence in other applications that ranged from chemical procedures to applications in flow cytometry. Discussions also included how fluorescence is being used to assess biological and oceanographic impacts of climate change. The students were from a variety of backgrounds and institutions, including one from Denmark, one from the historic city of Hue, and one from Ho Chi Minh City. Students included beginning students as well as recent Ph.D.’s. In addition to the expected challenges with language (English was used in class by the instructor), there were also challenges in academic backgrounds and experiences. Happily, the students worked well together and helped each other with tasks with which some were less familiar. A short presentation by Dr. Doan Nhu Hai on his use of fluorescence in Vietnamese coastal waters was included.

The course involved both lectures and laboratories. Because the concentration was on phytoplankton fluorescence, many of the laboratories would overlap from one day to the next, as students were asked to monitor growth and changes in fluorescence through time. We also were able to sample in the field to look at spatial patterns of variable fluorescence. The field trips provided a welcome addition to laboratory studies and a vivid contrast in using fluorescence in different settings.

Smith commented that he “found the students to be exceptionally well trained and inquisitive. It was fun showing them new procedures, and seeing them absorb ideas and apply them to their own research areas, whether it was vascular plant physiology or algal growth and ecology”. He also was impressed by the students’ capabilities and desire to learn.

One of the final elements of the course was an overnight trip north along the coast, where we sampled and enjoyed the village setting. This was a wonderful opportunity for both students and instructor to experience the slower pace of Viet Nam and its beauty.
Professor and trainees of the 2011 Visiting Professorship

Field work conducted as part of the training course