

The Diversity Project

An International Integrative Undergraduate Research Program for Under-represented Students

Join us for an exciting summer research in the Coral Triangle. You'll experience a new part of the world, see the amazing biodiversity of coral reefs, learn to apply cutting edge genetic techniques to the understanding of the origins of marine biodiversity, and develop skills that will further your career development, no matter what your career path is. All that, and it doesn't cost a thing! Project locations include Indonesia, Malaysia and the Philippines.

Our destination in 2012 will be Bali, Indonesia!

Participating Students will:

1. Be provided with transportation from your home to Bali.
2. Receive housing in Bali.
3. Have all field expenses covered while doing field collections in Indonesia.
4. Receive a \$3000 stipend.

Go to the <http://www.eeb.ucla.edu/Faculty/Barber/TDP/application.htm> to apply. **Application deadline for Summer 2012 participation is January 1st, 2012**

Program Overview: The summer of 2005 marked the beginning of a new research opportunity for undergraduate students. Founded by Dr. Paul Barber at Boston University, the Diversity Project is a 10-week educational program is designed to increase participation of under- represented minority students in the biological sciences through an integrated research experience that combines field work on the colorful and diverse coral reefs of the Coral Triangle with cutting edge molecular genetic research. In 2008, The Diversity Project was expanded through an NSF PIRE grant, in collaboration with Old Dominion University and Duke University.

Students will join a research team comprised of Dr. Barber, Dr. Chris Meyer, and an international team of faculty, postdocs, and graduate students. Students will participate in field work in Indonesia, Malaysia or the Philippines. In addition, students will be trained to apply genetic techniques to the samples collected in the field to gather data that will help improve our understanding of the origins of marine biodiversity in the Coral Triangle, as well as the conservation of this biodiversity hotspot. Hands-on field and laboratory research will be complemented by mentoring on career development, ranging from successfully applying to graduate school to choosing a career. Through funding from the NSF PIRE program, The Diversity Project will run through summer of 2012.

Project Summary: Understanding the origins of high marine biodiversity in the Coral Triangle.

The Coral Triangle is the center of the world's marine biodiversity with an unprecedented wealth of marine species. However, scientists don't understand why diversity in this region is so high. Traditionally it is believed that speciation results from divergence of populations separated by a physical barrier to dispersal, such as a river or mountain range. Although this model of speciation works well in terrestrial ecosystems, it is unclear whether similar mechanisms operate in marine environments because most marine organisms have a pelagic dispersal stage, where larvae enter into the plankton, potentially dispersing great distances on ocean currents. Because of pelagic larval dispersal, it is believed that there should be limited barriers to dispersal in the oceans, and limited opportunities for the creation of new species. Thus, there is a paradox of high biodiversity in an environment that should have limited opportunities for speciation. Over the next five years, funded by a National Science Foundation grant, we will try to answer this paradox, integrating ecology, physical oceanography, and molecular genetic techniques to explore the evolution of marine biodiversity in the Indo-Pacific.