



Environmental Studies in Woods Hole & at Sea

Sea Education Association | SEA Semester • P.O. Box 6 • Woods Hole, MA 02543 • 800.552.3633 • www.sea.edu

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FOR IMMEDIATE RELEASE:

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Recent discovery of ocean “Plastisphere” made possible through plastics collection efforts aboard SEA Semester® undergraduate student voyages.

SEA Semester® study abroad programs provide rare opportunity for undergraduates to conduct hands-on, field-based research in burgeoning field of ocean plastics.

Woods Hole, MA, February 28, 2014—The recent discovery of the ocean “Plastisphere”, an ecological community of microbial organisms living on plastic debris in the oceans (www.sea.edu/plastisphere), resulted from the samples collected by undergraduate students studying abroad with SEA Semester®, operated by Sea Education Association (SEA) in Woods Hole, Massachusetts. Dr. Erik Zettler, Associate Dean for Institutional Relations and Research and a Professor of Oceanography at SEA, recently published a paper detailing the Plastisphere discovery in the journal *Environmental Science & Technology* in collaboration with Dr. Tracy Mincer, an Associate Scientist at Woods Hole Oceanographic Institution and Dr. Linda Amaral-Zettler, Associate Scientist at the Marine Biological Laboratory and Associate Professor at Brown University. The trio is currently presenting the latest results of this research at the Ocean Sciences Meeting in Honolulu, an annual gathering of the top oceanographers in the world. According to Dr. Zettler, “The research we are presenting here in Hawaii could not have been done without the hard work of the undergraduate researchers who continue to contribute to the project. There are over 5,000 marine scientists from around the world here and we were very happy with the interest in and feedback during the dedicated session we organized on ‘The Science of Plastic Marine Debris and other Anthropogenic Influences’. Four presentations resulted directly from SEA sampling efforts and research, and we were joined by colleagues from around the world reporting on their related projects.” Due to growing interest in ocean pollution and its environmental and human impacts, the science of ocean plastics is a rapidly evolving field, fast becoming an important topic in ocean environmental research.

SEA’s collection of over twenty-five years’ worth of plastics specimens—gathered during SEA Semester® undergraduate voyages—is aiding this and other research conducted by oceanographers across the world. SEA possesses one of the most complete long-term data sets of plastic marine debris in the world. Since 1986, plastics data has been consistently collected by undergraduate students aboard SEA sailing school vessels in the same ocean locales throughout the North Atlantic Ocean and since 2001, in the Pacific Ocean.

While SEA Semester® (www.sea.edu/programs) offers a wide variety of undergraduate study abroad programs and all voyages collect and study plastic marine debris, the *Marine Biodiversity and Conservation* program has dovetailed most directly into the Plastisphere research. In the last two years, nine undergraduate students have conducted research projects on the Plastisphere during this program, with at least five students returning to SEA and other organizations in Woods Hole as interns to further their research for their undergraduate studies. One of these students is Ethan Edson, a junior at

Northeastern University in Boston. Edson, currently working towards his Bachelor of Science degree as a Marine and Environmental Science major, participated in SEA Semester's *Marine Biology and Conservation* program in the spring of 2013. Edson's SEA Semester research project was based on the Plastisphere studies. Of his experience with SEA Semester, Edson says, "SEA Semester opened my eyes to marine and oceanographic research. My time there really helped to solidify my interests. To be out there [at sea], getting your own samples, doing the processing on your own, and not just using specimens out of a mail-order catalog- that really helped open my eyes to the plastic pollution in the ocean." As part of Northeastern University's experiential-focused curriculum, Edson is spending this spring semester working at Woods Hole Oceanographic Institution in an internship studying the distribution and threats of Harmful Algal Blooms in the Gulf of Maine. Following graduation, Edson plans to attend graduate school, continuing to pursue a career in Biological Oceanography.

Unlike any other study abroad program, SEA Semester® (www.sea.edu/programs) includes both on-shore and at-sea components, wherein students spend the first portion of a semester on SEA's campus in Woods Hole, taking courses ranging from biological oceanography and ocean science to public policy, nautical science and maritime history. These on-shore courses prepare students for the next portion of the program: sailing aboard one of SEA's sailing school vessels, where, in addition to conducting hands-on, field-based research projects, they also work as members of the ship's crew. Rigorous academics combined with the adventure of sailing aboard a tall ship create a truly one-of-a-kind study abroad program. All SEA Semester® programs are accredited through Boston University, so students may receive up to 18 semester credits in lower and upper division coursework. While the program is renowned for its excellence in the sciences, all SEA Semester® programs are interdisciplinary and welcome students from any major. Students also gain valuable experience in other, less definable areas, such as leadership training, group dynamics, and team-building: all areas that help students develop into well-rounded, confident, open-minded and contributing members of society.

About Sea Education Association/SEA Semester®

Creating Ocean Scholars, Stewards & Leaders Since 1971

Sea Education Association (SEA) is an internationally recognized leader in undergraduate ocean education. For more than 40 years and over one million nautical miles sailed, SEA has educated students about the world's oceans through its fully accredited study abroad program, SEA Semester®.

SEA Semester® is the leading off-campus Environmental Studies program focused on the oceans. SEA Semester creates environmentally literate leaders who are prepared to address the defining issue of the twenty-first century: the human impact on the environment. SEA looks for motivated students of all majors who are passionate about learning, willing to seek out new challenges, and eager to become part of a unique learning community.

SEA/SEA Semester® is based on Cape Cod in the oceanographic research community of Woods Hole, Massachusetts and has two research vessels: the SSV *Corwith Cramer*, operating in the Atlantic Ocean, and the SSV *Robert C. Seamans*, operating in the Pacific.

For more information on SEA Semester® programs, please visit www.sea.edu/programs, or contact one of our Admissions Counselors at 800-552-3633 x770 or admissions@sea.edu.

For more information and to schedule interviews, please contact:

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