

Undergraduate Research at Texas A&M

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Undergraduate Research Program in the Ecological Systems Laboratory

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Dr. Hsiao-Hsuan (Rose) Wang, an Assistant Research Scientist in the Ecological Systems Laboratory of the Department of Wildlife and Fisheries Sciences, directs an undergraduate research program that demonstrates the advantages of collaborative research. In this program, undergraduate students participate in ecological research with an emphasis on enhancing their quantitative and computational skills through hands-on experience collecting, organizing, analyzing and interpreting ecological data. The overall goal is to enhance their ability to develop as researchers in ecology and related fields. Dr. Wang hopes this program will serve as a model for involving undergraduate students in an integral part of the Aggie experience: enhancing Texas A&M's status as a Tier-One Research Institution through research and discovery. To achieve this goal, the students have taken many opportunities to present their research results:

The program started in spring 2015 with eight undergraduate students from four different departments (Civil Engineering, Ecosystem Science and Management, Plant Pathology and Microbiology, and Wildlife and Fisheries Sciences). Dr. Wang's students have been able to present their research at various venues, including several organized by LAUNCH: Undergraduate Research. They had the opportunity to synthesize and present their findings during the 2015 Student Research Week in March and again during The Sixth Big Thicket and West Gulf Coastal Plain Science Conference in April. They subsequently submitted two manuscripts for publication in a peer-reviewed journal in May 2015, both of which have been accepted for publication this year. During the summer semester of 2015 five of the students continued working on their research projects, presenting their results during the Summer 2015 Undergraduate Research Poster Session, and again helped prepare a manuscript for publication in another peer-reviewed journal, which was published in 2015.

In fall of 2015, sixteen students from four departments (Animal Science, Ecosystem Science and Management, Plant Pathology and Microbiology, and Wildlife and Fisheries Sciences) joined in the program; five are 2015-2016 Undergraduate Research Scholars, eight are ABS Conservation Scholars, and one is a Texas Sea Grant Scholar. In October these students were excited to share their research experiences with other undergraduates during the 2015 Sigma Xi/LAUNCH Undergraduate Research Expo. There are seven research projects under way for this academic year, and the students presented preliminary results during the Texas Chapter of the Wildlife Society Annual Meeting last week (February 18-20), and plan to present their updated findings at the 2016 Student Research Week next March, the Ecological Integration Symposium next April, and the Ecological Society of America Annual Meeting next August. Descriptions of these projects can be found at <http://wfsc.tamu.edu/facilities/ecological-systems-laboratory/>. Dr. Wang can be contacted at hsuan006@tamu.edu.

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