



Preparing the Next Generation of Scientists: Expanded Opportunities for Undergraduate Research

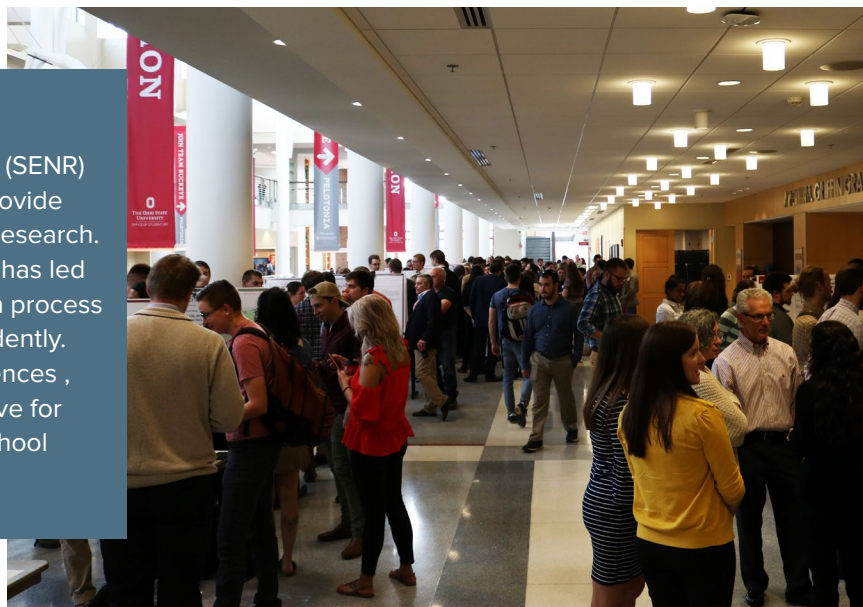
Impact Statement 2019

INVESTIGATORS

Lauren Pintor, Brian Lower, Renee Johnston, Nicole Jackson, Bill Peterman and the staff and students of the School of Environment & Natural Resources (SENR)

SUMMARY

The School of Environment and Natural Resources (SENR) Honors and Undergraduate Research Programs provide support for undergraduates to conduct mentored research. Our focus on hands-on, student-centered learning has led to gains in students' understanding of the research process and ability to conduct research and work independently. Our students regularly present research at conferences, coauthor journal articles, and have been competitive for jobs, scholarship and fellowships, and graduate school applications in STEM disciplines.



Environmental Professionals Network of SENR provides opportunities for students to showcase their scholarly research.

SITUATION

The 21st century economy demands higher levels of technical and scientific training and employers and graduate schools increasingly expect undergraduates to have **hands-on experience** designing, conducting, and synthesizing research. This is particularly true in environmental and natural resource management, where expertise from multiple disciplines is required to provide science-based solutions to complex problems. The applied and **interdisciplinary** research focus of SENR faculty and staff provide unique opportunities to engage undergraduates in a wide range of **applied research experiences** on topics including community development, ecosystem restoration, environmental policy, environmental law, environmental science, fisheries, forestry, natural resource management, parks and recreation, soil science, sustainable agriculture, sustainable business management, water science and wildlife.



49 students engaging in undergraduate research through SENR's honors program

10 students earning research distinction

27 students earning undergraduate research credit, and multiple STEP scholars

RESPONSE

To help prepare our students for future careers, SENR has aggressively developed and promoted research opportunities for undergraduates. Currently, there are 49 students engaging in undergraduate research through SENR's honors program, 10 students earning research distinction, and 27 students earning undergraduate research credit, and multiple STEP scholars. These programs help our students develop practical research skills, encourage global awareness, enrich their academic experience, develop **leadership skills** and instill a **commitment to community service**. Students acquire training in a wide range of research methods, and learn to communicate their results orally and in writing by presenting papers or posters at scientific meetings and by serving as **coauthors on the published papers**. These efforts encourage our students to gradually transition into independent scientists who are able to actively participate in research that is highly interdisciplinary in nature.



develop leadership skills

instill a commitment to community service



IMPACT

Our undergraduate student research programs have helped a large number of students achieve their goals of working as professional scientists. They have presented their work at scientific meetings, published in peer-reviewed journals, participated in summer fellowship and internship programs and won awards and scholarships for their work. Nine undergraduate students presented their research at the 2019 CFAES Undergraduate Research Forum. Two of these students won awards for their work. Several students presented at the 2019 Denman Forum and one student won awards for their work. Four students were awarded \$3,300 from the OARDC Undergraduate Seeds Grant Program. One student was awarded \$4,500 from Ohio State's Undergraduate Research Apprenticeship Program. One student was awarded the prestigious Udall Undergraduate Scholarship (\$7,000) and one student was awarded a Fulbright Award. Two students published research with their faculty mentors in peer-reviewed journals.

CONTACT

School of Environment and Natural Resources • 2021 Coffey Rd, Columbus, OH 43210
614-292-2265 • senr.osu.edu