FYRE First Year Research Experience

Hank Stevens in Botany is looking for First Year students to become part his research projects through the new FYRE program.

To apply, e-mail Martha Weber at weberme@muohio.edu.

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Ecology FYRE- STEM

More information about ongoing projects on Hank's web site http://www.cas.muohio.edu/~stevenmh/

Microbiology research opportunity: Effects of temperature on Escherichia coli evolution

How temperature influences evolutionary rates is of central importance to the fields of microbiology and evolutionary biology. Whether scientists are interested in the gut flora of vertebrates, the biodiversity of the world's tropical zones, or global warming, understanding how temperature influences the evolution of traits and species is critical for understanding these systems. *Escherichia coli* is a superb model organism to study how temperature influences genetic diversification. In our lab, students will learn simple lab techniques and straightforward experimental designs to test hypotheses about diversification and evolution. In addition, students would learn simple methods of data analysis, data display, and presentation. Previous work by undergraduates in my lab has been published in the journal "Genetics;" a PDF of this article is available at my web site under the link for publications.

Plant biofuels research opportunity: Heat content of different plant species from different locations

Switchgrass and other herbaceous plants can be burned directly as biofuel for heat. However, how the heat content differs among different species of grasses and weeds remains unknown. This project will measure the heat content of several important plant species collected at different times of the year and from different areas of southwest Ohio. Students would learn to prepare plant samples, and measure heat content to discover how plant heat content differs in selected species, and differs from plants grown in different locations.