



## The world is our laboratory

Whether observing elephants in Tanzania, sampling spiders in Dominica or unraveling a malaria genome in the research lab, Earlham Biology students engage scientific study around the world. This global experience is one of the distinctive features of the Earlham Biology Department. By the time they graduate, most students have studied biology off campus — the lake across town, Oak Ridge National Laboratory or on a different continent.

### Other recent projects and their locations:

- Extreme microbes in Yellowstone
- Population dynamics of endangered iguanas in the Exuma Islands
- Marine community ecology in St. John, Virgin Islands
- Edge effects on tree size in Indiana woodlands
- Manakin Lekking behavior in Amazonia

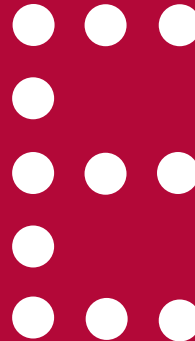
## Students prepared for further study and high-level careers

Earlham is ranked 12th among 1,469 institutions of higher learning in the U.S. in the percentage of graduates who go on to receive Ph.D.s in the biological sciences. Of those receiving Ph.D.s in the medical sciences, Earlham ranks 7th, and in the life sciences in general, Earlham ranks 8th.



# Earlham Facts

- Founded in 1847 by the Society of Friends. Earlham is rooted in the ideals of Quakerism.
- 1,200 undergraduate students representing 44 states and 71 countries
- Male 45%, Female 55%
- 12:1 student-to-faculty ratio
- More than 70 percent of every graduating class participates in an off-campus study program.
- More than 75 percent of Earlham graduates pursue an advanced degree.



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For information, contact:

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Earlham welcomes all who come to seek for truth in a diverse community that accords respect to every individual. Each is asked to contribute to the understanding of all.

# Biology

@ Earlham College



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## Cool Toys

Both students and faculty have access to a wide variety of resources for doing biology: a tissue culture facility, cryotome, automated DNA sequencer and genetic analyzer, SEM, fluorescent microscopes, a regional natural history museum, 800 acres of field laboratories and a herbarium.

## Beyond Earlham

The Earlham Biology Department has a distinguished record of graduating students who go on to become doctors and veterinarians. We have a 90 percent acceptance rate among our students who apply to medical school.

In addition, our graduates have received prestigious national awards including Fulbright, Goldwater, National Science Foundation and Watson fellowships and scholarships. They earn their graduate degrees at such institutions as Berkeley, Chicago, Cornell, Duke, Harvard, Johns Hopkins, Purdue, Stanford and Yale universities; and at the universities of Colorado, Indiana, Michigan, New Mexico and Pennsylvania. They obtain positions in research labs, zoos, environmental facilities and classrooms.

## Our students DO biology: A look at the program

Biology students at Earlham learn science by “doing” science. This begins in the first semester of the first year. As students progress in their undergraduate careers, they learn increasingly sophisticated techniques and develop both depth and breadth of knowledge. They work collaboratively and use multiple perspectives on a problem. They analyze and interpret data, learn to use the research literature to answer questions and become proficient at writing like scientists. Students realize the culmination of this learning when they present their work at regional or national conferences.

### The Senior Capstone

In their last year of college, graduating seniors consolidate their experiences through a student-led seminar and comprehensive examinations. These provide opportunities for students to pursue their interests and integrate their learning among a community of peers and future professionals.

With a global perspective and hands-on experience, graduates are ready for medical or other professional schools, graduate research programs or entry to the workforce.

For more information about Earlham College’s Biology Department, visit [www.earlham.edu/biology](http://www.earlham.edu/biology).

## Our students are ready to meet an uncertain future

There is no doubt that our world is rapidly changing: global warming, emerging diseases and threats to biodiversity are just a few examples. The department’s approach to preparing students to face this unknown future is to offer a balanced curriculum, one that has depth in ecology and evolution, organismal behavior and physiology and cellular and molecular biology.



“Earlham, and the Biology program in particular, have been indispensable in my personal and intellectual development. The dedication of the faculty to excellence in teaching is complemented by an emphasis on collaborative student-faculty research. Thus, students graduate from the program not only with good preparation as lifelong learners, but also with practical research experiences that contribute greatly to their ability as young scientists.”

— Aaron Savit '07 is a National Science Foundation Fellow and is working on his Ph.D. in Evolutionary Biology at the University of Chicago.

## Earlham Biology Graduates — Where are they now?

**Karlina Merkens '04**  
Ph.D. student, Scripps Institution of Oceanography, UCSD

Karti is working in the Marine Physical Laboratory of SIO. She uses passive acoustic data to study marine mammals in the California Current Ecosystem.

**Benjamin Williams '01**  
Ph.D. '08, Harvard University

Ben earned his Ph.D. from the Division of Medical Sciences at Harvard Medical School and studied chromosome interactions and dynamics. He is a postdoctoral fellow at the Fred Hutchinson Research Center in Seattle, Washington.

**Colin M. Orians '84**  
Ph.D. '90, Pennsylvania State University

Colin is a professor of biology at Tufts University where his plant ecology research covers a diversity of research topics: defense mechanisms against insect herbivores, physiological ecology of green roofs and carbon sequestration of Northeastern forests.

**Carter Van Waes '80**  
Ph.D. Immunology '85, M.D. '87, University of Chicago  
Otolaryngology '93, University of Michigan

Carter conducts research and clinical trials for patients with head and neck cancer as Chief of the Head and Neck Surgery Branch and serves as Clinical Director of the National Institutes of Health, Bethesda, Maryland.

**Polly A. Penhale '70**  
M.S. '72 and Ph.D. '76, North Carolina State University

Polly is the Environmental Officer in the Office of Polar Programs, National Science Foundation, where her work focuses on environmental stewardship and international science policy in Antarctica.



“Biology at Earlham is an exciting place to be. Students work closely with faculty in classes, labs and offices. We come to know our students as persons and can therefore better meet their unique educational goals and needs. This leads to an environment of growth and discovery that is rewarding for students and faculty alike.”

— Amy Mulnix, Ph.D., Professor of Biology,  
Biology Department Convener