

what can I do with a major in Ecology & Evolution

The Ecology & Evolution (E&E) major Ecology provides students with interdisciplinary skills necessary for understanding and solving problems in ecology, evolution, behavior, and physiology. Ecologists study the relationships and evolutionary adaptations of plants and animals to their environments by examining past and present patterns of abundance, distribution, and diversity at the individual, population, community, ecosystem, and global levels.

Some Characteristics of Ecology & Evolution Majors:

- ◆ Enjoys working with animals
- ◆ Interest in nature/working outdoors
- ◆ Desire to restore and conserve wildlife & habitats
- ◆ Desire for intellectual growth
- ◆ Interest in government, academic, or private jobs
- ◆ Prefers variety of work environment & schedule
- ◆ Precision and attention to details
- ◆ Inquisitive

What You Gain From Studying Ecology & Evolution:

Knowledge:

The Ecology and Evolution major prepares students to pursue graduate studies in ecology, evolution, biology, genetics, or veterinary and other health profession schools. Acquired skills will strengthen the ability to ask inquiry-based questions, conduct field work, problem solve, use statistics and computational science to analyze data, and communicate information effectively.

Skills:

- ◆ Critical thinking and problem solving
- ◆ Work independently and on a team
- ◆ Field observation & data collection
- ◆ Operate scientific equipment
- ◆ Research, analyze, and organize information
- ◆ Accuracy and precision
- ◆ Oral and written communication

Participate in Student & Professional Organizations:

Student (Sponsored by Bio. Sci. Dept):

Biology Club Tri-Beta Honors Society
Birding & Ornithology Club
Ecology Club
Pre-Vet Club

Professional:

American Society of Mammalogists
American Zoo and Aquarium Association
Ecological Society of America
Society for Conservation Biology
The Wildlife Society

Careers in Ecology and Evolution:

Employment:

Ecology and Evolution concepts can be applied to: wildlife & fisheries management, science ed., conservation & restoration of habitats, agriculture, animal science, law & policy, sustainable energy, environmental studies, and ecology, forensic, genetic, and molecular based research. Many entry level E&E jobs accept a Bachelor's degree. You can advance from entry level to higher-level positions with additional education.

Need Bachelor's Degree

Agriculturist	Oceanographer
Animal trainer	Park ranger
Biochemist	Photographer
Biologist (Fisheries, marine, plant, wildlife)	Science writer
Biostatistician	Soil analyst
Botanist	Water quality tech
Ecologist	Zoo keeper
Educator	Zoologist
Engineer	<u>Need Further Education</u>
Entomologist	Physician
Environ. scientist	Professor
Forester	Public health tech
Geneticist	Toxicologist
Horticulturist	Veterinarian (dom- estic or wildlife)
Lab tech	Wildlife specialist
Naturalist	

Learn More About Ecology & Evolution Careers:

Biological Sciences Advisors: Langley A258
www.biology.pitt.edu/undergraduate/advising

- ◆ Join the Bio. Newsletter for announcements
- ◆ Get advising info. before & after declaring major
- ◆ Learn about field courses & day field trips
- ◆ Inquire about research & internship opportunities

Career Development: WPU 2nd Floor
www.careers.pitt.edu/

- ◆ Meet with a Career Counselor (in person or virtual)
- ◆ Take interest inventories and self-assessment tests
- ◆ Assistance w/ CVs, resumes, & cover letters
- ◆ Internship placement (guaranteed)
- ◆ Employment search – via Future Links & Pitt
- ◆ Job shadowing program
- ◆ Career fairs

What You Can Do Now:

- ◆ Gain research experience by teaming with a Biology (or related field) professor and conducting research
- ◆ Get an internship at a wildlife agency, nature conservancy, the DNR, National Park Service, or the Bureau of Land Management
- ◆ Participate in day trips to shadow wildlife biologists
- ◆ Get a part-time job in a lab, zoo, vet clinic, animal hospital, wildlife rehab, or wildlife/environ. agency.
- ◆ Take a field course at Pymatuning Lab of Ecology
- ◆ Get a summer job as a field tech, a zoo keeper, or at an environ. dept. to work outdoors with wildlife
- ◆ Study abroad to broaden cultural perspective and gain international experience

Ways To Acquire Skills in Ecology & Evolution:

Internships

Internships provide hands-on experience in an area that interests you as a potential career. To find a biology related internship speak with a Bio. Sci. advisor or a Career Development advisor, and visit the links below.

- ◆ www.biology.pitt.edu/undergraduate/research/outsid-e-pitt
- ◆ www.biology.pitt.edu/undergraduate/research-internships/starting-intern

Research

Various opportunities exist for students to participate in research experiences outside of the classroom to develop an understanding of inquiry based research. Research can be performed on campus during the term for credit or no credit, or during the summer as part of an undergraduate research experience program (REU, fellowship, co-op) on or off-campus. Check deadlines early.

- ◆ www.biology.pitt.edu/undergraduate/research
- ◆ www.asundergrad.pitt.edu/our/research
- ◆ www.undergradresearch.pitt.edu/research-opportunities/
- ◆ www.fws.gov/northeast/youth/college.html

Undergraduate Teaching Assistant (UTA)

Being an undergraduate teaching assistant is a terrific way to share your knowledge, gain confidence, and prepare yourself for leadership roles. Many courses utilize UTAs, and you should contact the instructor directly.

<http://www.biology.pitt.edu/undergraduate/uta>

Places E&E Majors Have Interned:

Animal Rescue League	Pittsburgh Zoo
AVETS Emergency Hospital	Vet. Clinics
Carnegie Science Center	Western PA
GAI Consultants	Conservancy
National Aviary	Wildlife Rehab.

Tutoring & Study Resources

Academic Resource Center	Learning Communities
Calculus & Statistics Labs	Math Assistance Ctr.
Fish Bowl – CHEM Dept.	Writing Center

This handout provides a brief sample of skills, jobs, and tips for individuals pursuing a degree in this major. It is not an exhaustive listing, but it gives initial insight into a particular career field that would employ the skills and knowledge gained through this major. Contact the Biological Sciences Advisors if you have any questions.