

ANIMAL BEHAVIOR

The scientific study of behavioral evolution

RELATED STUDENT ORGANIZATION

Animal Behavior Club

CAREER PATHS

A network of more than 375 animal behavior graduates creates recognition for Bucknell in the field. This network and other contacts give faculty an advantage in helping students find internships and jobs.

Career paths include but are not limited to research, veterinary, medical, zoo, museum or foundation work; communications; law; industry; foreign service and education.

Recent alumni have secured the following sampling of positions:

- Veterinarian Tech, Ramsey Vet Clinic
- Field Assistant, Pennsylvania Game Commission
- Program Manager, National Environmental Education Foundation
- Instructor, Wildlife Conservation Society, Bronx Zoo
- Research Assistant, Yerkes National Primate Research Center
- Animal Care Specialist, United States Military
- KidScience Coordinator, Pittsburgh Zoo

PROGRAM DETAILS

- Bucknell established the first undergraduate animal behavior program 40 years ago. It is a joint program of the biology and psychology departments.
- The program balances scientific training with a strong liberal arts education.
- Unlike animal science — a field associated with the use of animals for human needs — the study of animal behavior at Bucknell emphasizes the evolution of animal life.
- In the last decade, three animal behavior students have received Marshall Fellowships for advanced study in the UK, three have received Rotary International Fellowships, nine have received National Science Foundation Fellowships and one has received a Truman Fellowship.

FACULTY

Animal behavior faculty members work closely with students in classrooms, labs and in the field to engage them in learning and research. The faculty members themselves are active researchers who frequently publish their work in peer-reviewed journals.

CORE FACULTY

Elizabeth Capaldi Evans, biology

Ph.D. Michigan State

Scholarly interests: ecology and behavior of social insects, neuroethology

Donald C. Dearborn, biology

Ph.D. University of Missouri

Scholarly interests: behavioral ecology, ornithology, conservation biology

Peter Judge, psychology

Ph.D. University of Georgia

Scholarly interests: primate social behavior and cognition

continued

GRANTS/AWARDS

Faculty in the animal behavior program have recently received grants and awards from:

National Science Foundation

Pennsylvania Department of Agriculture

U.S. Fish and Wildlife Service

SELECTED FACULTY PUBLICATIONS

Animal behavior faculty members have recently published their work in the following professional journals:

- *American Journal of Primatology*
- *Animal Behaviour*
- *Appetite*
- *Developmental Psychobiology*
- *Ecology*
- *Hormones and Behavior*
- *Journal of Avian Biology*
- *Journal of Evolutionary Biology*
- *Journal of the Acoustical Society of America*
- *Physiology and Behavior*

QUICK FACTS

Number of faculty: 3 core, 4 affiliated

Average number of majors per class year: 10

AFFILIATED FACULTY

Warren Abrahamson, biology

Ph.D. Harvard

Scholarly interests: conservation biology, plant-animal interaction, evolutionary ecology

Owen Floody, psychology

Ph.D. Rockefeller

Scholarly interests: neuroendocrine mechanism of communication and reproduction

Kevin Myers, psychology

Ph.D. Duke

Scholarly interests: animal learning, reward, appetite and eating behavior

DeeAnn Reeder, biology

Ph.D. UC-Davis

Scholarly interests: stress physiology, hormones, behavior and energetics of wild mammals

FACILITIES AND RESOURCES

Primates: Colonies of hamadryas baboons, lion-tailed macaques, squirrel monkeys and capuchins

Birds: Two outdoor aviaries, equipment for field research, video playback equipment, molecular zoology lab equipped to use DNA markers

Rodents: Rats and other rodents available for the study of learning and motivation, communication and reproduction

Bats: Flight cage and hibernation chambers for insectivorous bats

Insects: Eight colonies of honey bees kept in standard deep Langstroth hives; specialized observation hive laboratory; beekeeping equipment; insect collection equipment; microscopy suite with Nikon stereomicroscopes with photography attachment and fiber optic lights; histology laboratory for analysis of insect anatomy, including an ice maker, slide warmers, microtomes, distiller, incubator and fume hood

UNDERGRADUATE RESEARCH

Students in Bucknell's animal behavior program have collaborated with faculty on hundreds of publications in scientific journals. The number of conference papers and reports is even larger. These are just a few of the many recent research projects undertaken by our students:

- Picture Recognition of Food in Lion-Tailed Macaques
- Localization of the Genome of Deformed Wing Virus (DWV) in the Brains of Honeybees
- Climate, Food and Reproductive Success of Alaskan Seabirds

continued

UNDERGRADUATE RESEARCH *continued*

- Behavior and Physiology of Hibernating Bats
- Witnessing Reconciliation Reduces Anxiety in Baboon Bystanders
- Sexual Selection and the Exhaustion of Between-male Variation in Ornaments

COURSES OFFERED

Bucknell's animal behavior program includes courses in biology, psychology, chemistry, physics and mathematics. Animal behavior-related courses include the following core courses and upper-level electives.

Core Courses

Animal Behavior	Research Methods in Learning
Learning	Introduction to Molecules and Cells
Physiological Psychology	Organismal Biology
Research Methods in Animal Behavior Biology	Genetics
Research Methods in Physiological Psychology	Population and Community

Upper-level electives

Comparative Animal Cognition	Vertebrate Anatomy
Behavioral Ecology	Mammalogy
Organic Evolution	Comparative Physiology
Neuroethology	Sensory Physiology
Community/Ecosystem Ecology	Appetite and Eating Behavior
Tropical Ecology	Advanced Psychological Statistics
Social Insects	Neural Plasticity
Plant-Animal Interactions	Invertebrate Zoology
Ornithology	General Entomology
Primate Behavior and Ecology	Systematic Biology
Conservation Biology	Topics in Animal Behavior
Behavioral Neuroendocrinology	Independent Research

To view the entire Bucknell University catalog, see www.bucknell.edu/catalog.

INTERNSHIPS

Bucknell works closely with students to help them arrange for internships in such areas as wildlife studies and administration. Recently, animal behavior majors have had internships in zoo design, aquarium administration, research in physiology and anatomy, grant-making and nature photography. Locations include:

- Smithsonian Environmental Research Center
- Dumond Conservancy/ Monkey Jungle
- New York Aquarium

STUDY ABROAD

Animal behavior majors most often select East Africa, Central America, New Zealand and Australia as environments that can augment their study of animal life. One student recently studied in Ecuador.

GRADUATE AND PROFESSIONAL SCHOOL

The acceptance rate for majors who elect to apply to graduate school is almost 100 percent. Recent Bucknell animal behavior graduates have enrolled in:

- Duke University
- Dartmouth College
- University of Pennsylvania
- Columbia University
- Medical University of South Carolina
- University of Chicago
- Emory University



Visit the animal behavior website at www.bucknell.edu/animalbehavior

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