

BEES Faculty List, September 2009

<b>Faculty member</b>	<b>Department</b>	<b>Research interests</b>
Andrew Baldwin	Environmental Science and Technology	Wetland plant ecology, with emphasis on seed banks and seed dispersal; wetland restoration
Pedro Barbosa	Entomology	Insect community ecology
Alexa Bely	Biology	Evolution of regeneration and segmentation mechanisms in annelids; asexual reproduction; animal body plan evolution
Gerald Borgia	Biology	Evolution of mate choice; social structure and patterns of aid-giving behavior; sociobiology
Karen Carleton	Biology	Evolution of vision and visual communication
Catherine Carr	Biology	Cellular mechanisms of sound localization in birds; evolution of the auditory system
Cristian Castillo-Davis	Biology	The genetic basis of phenotypic change, the evolution of gene regulation and gene networks, computational biology and statistics
Priscila Chaverri	Plant Sciences & Landscape Architecture	Systematics and evolution of fungi
Janet Chernela	Anthropology	Indigenous environmental education, ecotourism, community-level conservation, and policy development
Todd Cooke	Cell Biology and Molecular Genetics	Comparative analysis of developmental mechanisms in green plants
Michael Cummings	UMAICS & Biology	Molecular evolution, bioinformatics, and computational biology
Lindley Darden	Philosophy	Reasoning strategies in molecular biology; The concept of mechanism in biolog; Experimental strategies for discovering mechanisms
Charles Delwiche	Cell Biology and Molecular Genetics	Phylogeny and evolution of algae
Jim Dietz	Biology	Behavioral ecology and conservation biology of neotropical mammals
Galen Dively, Professor Emeritus	Entomology	Integrated pest management, effects of trans- genic crops on target and nontarget species
Michele Dudash	Biology	Plant population biology; plant-pollinator interactions; evolution of plant mating systems and life-history strategies; conservation and restoration biology
William Fagan	Biology	Conservation biology, community ecology, theoretical ecology

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Charles Fenster	Biology	Evolutionary process, evolutionary genetics, plant-pollinator interactions
Irwin Forseth	Biology	Plant physiological ecology; heliotropism; nitrogen metabolism
Douglas Gill	Biology	Population dynamics; evolution of life-history parameters; host-parasite coevolution; plant-animal interactions
Dan Gruner	Entomology	Biodiversity; community ecology; food webs and trophic interactions; invasion ecology
Eric Haag	Biology	Evolution of development and sex
David Hawthorne	Entomology	Interaction of genetic and ecological forces and the evolutionary consequences of those interactions
Richard Highton, Professor Emeritus	Biology	Systematics and molecular evolution of plethodontid salamanders
David Inouye	Biology	Plant demography; plant-ant mutualisms; behavior and ecology of bumblebees; pollination biology; ecological effects of climate change
Fatimah Jackson	Anthropology	Effects of specific human cultural behaviors, particularly dietary practices, on human biological diversity and human microevolution; patterns of genetic variation between Africa and the African Diaspora
Bruce James	Environmental Science & Technology	Ecosystem function, natural resource conservation, agricultural production, and environmental quality
William Jeffery	Biology	Evolution of developmental mechanisms in chordates
Thomas Kocher	Biology	Evolution of African cichlid fishes
Bill Lamp	Entomology	Herbivore impact and plant tolerance in crop-insect systems; aquatic entomology and ecology
Paul Leisnham	Environmental Science and Technology	Population and community ecology of disease-vector mosquitoes; how key vectors are affected by environmental changes
Karen Lips	Biology	Conservation and ecology of amphibians and reptiles; emerging infectious disease and global change
Carlos Machado	Biology	Evolutionary genetics and genomics of species divergence; plant-insect coevolution

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Charles Mitter	Entomology	Phylogenetic approach to understanding the extraordinary diversity of insect-plant interactions
Cynthia Moss	Psychology	Understanding auditory information processing and sensorimotor integration in vertebrates
Stephen Mount	Cell Biology and Molecular Genetics	How multicellular organisms accomplish the correct processing of RNA from protein-coding genes
Maile Neel	Plant Science & Landscape Architecture & Entomology	Conservation ecology, conservation genetics, reserve selection and design, landscape ecology
Mary Ann Ottinger	Animal and Avian Sciences	Neuroendocrine regulation of endocrine and behavioral aspects of reproduction, with emphasis on the avian system
Margaret Palmer	Entomology	Hydrodynamics and dispersal of aquatic invertebrates; stream ecology and marine benthic ecology
Leslie Pick	Entomology	Evolution and function of Hox genes as regulators of the animal body plan; Insulin receptor regulation in the CNS; <i>Drosophila</i> pattern formation during embryogenesis
Arthur Popper	Biology	Basic structure and function of the auditory system in vertebrates, with particular interest in the ear of fishes and its sensory hair cells.
Karen Prestegard	Geology	Sediment transport and depositional processes in mountain gravel-bed streams
Michael Raupp	Entomology	Mechanisms by which plants escape attack from herbivorous insects
Marjorie Reaka	Biology	Dynamics of coral reef communities
James Reggia	Computer Science	Neural Modeling, artificial intelligence, cellular automata, Evolutionary Computation
Paula Shrewsbury	Entomology	Integrated Pest Management (IPM) of insect pests of ornamental plants and turfgrass
Jeffrey Shultz	Entomology	Evolutionary morphology and phylogeny of arthropods, especially arachnids; Mating systems in harvestmen
Daphne Soares	Biology	Evolution of sensory neural codes, constraints involved in modifying neural circuits that underlie behavior
Jiuxhou Song	Animal and Avian Sciences	Bioinformatics, statistical genomics, biopathway analysis, gene regulatory network

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Frank Siewerdt	Animal and Avian Sciences	Quantitative and population genetics, conservation genetics, selection theory, genetic improvement of farm animals, applied statistical methods and experimental designs for the biological sciences
William Stricklin	Animal and Avian Sciences	Role of animal behavior in food animal production systems and animal welfare
Barbara Thorne	Entomology	Social insect biology, genetics, and evolution
Sara Via	Biology & Entomology	Evolutionary biology, evolutionary and ecological genetics, coevolution, population biology
Ronald Weiner, Professor Emeritus	Cell Biology and Molecular Genetics	How prokaryotes adhere to and colonize marine surfaces
Gerald Wilkinson	Biology	Behavioral ecology and evolution; social behavior and communication in bats; sexual selection and evolution in stalk-eyed flies
David Yager	Psychology	Auditory systems in insects; behaviors related to hearing, especially predator-prey interactions; neuroethology

<b>Adjunct faculty member</b>	<b>Affiliation</b>	<b>Research interests</b>
Jon Ballou	National Zoological Park	Genetic management of small populations, including reintroduction programs; pedigree analysis; fitness effects of inbreeding and outbreeding
Michael Braun	National Museum of Natural History	Molecular evolutionary genetics; molecular phylogenetics of birds; speciation; dynamics of hybrid zones; genetic structure of populations; Neotropical ornithology
Allen Collins	National Systematics Laboratory, NMNH/NOAA	Documenting and understanding the origin of the biodiversity of cnidarians and sponges
William DiMichele	National Museum of Natural History	Fossil plants of late Paleozoic and early Mesozoic age (240-350 million years old); Paleoecology and evolutionary biology
Jay Evans	USDA Beltsville Agricultural Research Center (BARC)	Insect comparative genomics and host-parasite interactions

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Robert Fleischer	Smithsonian National Museum of Natural History - Genetics Laboratory	Evolutionary genetics, molecular genetics, ornithology
Anson Hines	Smithsonian Environmental Research Center	Ecology of marine and estuarine invertebrates; predator-prey interactions
Thomas Holtz	Geology	Vertebrate paleobiology; phylogeny and functional anatomy of dinosaurs, with focus of Theropoda; ecomorphology of terrestrial vertebrate predators; Mesozoic paleobiogeography
Gene Hunt	National Museum of Natural History	Morphologic evolution in deep-sea Ostracoda; Variation and phenotypic evolution; Analytical methods in paleontology
Devra Kleiman	National Zoological Park	Social and reproductive behavior of mammals, especially monogamy; conservation biology, especially reintroduction programs; planning and evaluation of conservation programs
Conrad Labandeira	National Museum of Natural History	Plant-insect herbivore and coevolutionary associations in the fossil record; early evolution of terrestrial ecosystems; effects on insect herbivores and pollinators of the angiosperm radiation
Peter Leimgruber	National Zoological Park	Application of Geographic Information Systems (GIS) and satellite tracking techniques to the conservation and management of endangered charismatic fauna
Peter Marra	Smithsonian Migratory Bird Center at the National Zoological Park	Population, behavioral and conservation ecology of vertebrates
Stephen O'Brien	Laboratory of Genomic Diversity	Molecular genetics, population genetics, developmental and cell biology, immunology and reproductive physiology
Cynthia Parr	UMIACS, Computer Science and Electrical Engineering, UMBC	Evolutionary ecology; ornithology; biological information visualization; bioinformatics
Benjamin Rosenthal	Animal Parasitic Diseases Laboratory USDA	Molecular systematics and comparative population genetics of parasitic organisms that threaten food safety and security
John Sauer	USGS Patuxent Wildlife Research Center	Population Ecology; Survey Design and Analysis; Development of Statistical Methods for Estimation of Population Change; Ecological Modeling; Avian Ecology

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Arlin Stoltzfus	Center for Advanced Research in Biotechnology, UMBI	Molecular evolution, bioinformatics, and evolutionary genetics
Hans Sues	National Museum of Natural History	Evolutionary morphology and phylogeny of Mesozoic terrestrial vertebrates, especially archosaurian reptiles and non-mammalian synapsids; changes in continental ecosystems through time
Kaci Thompson	College of Chemical and Life Sciences & Conservation and Research Center	Mammalian behavioral development; social influences on reproductive physiology
Scott Wing	Department of Paleobiology, NMNH	Climatic and floral changes across the Paleocene/Eocene boundary; abundance and diversity of angiosperms in the Late Cretaceous; fossil plant assemblages
Elizabeth Zimmer	Smithsonian Laboratory of Analytical Biology	Molecular systematics of plants, ribosomal DNA and angiosperm systematics