



## MUSEUM OF ZOOLOGY

Collections of organisms and genetic resources that provide a tangible record and crucial means to understanding the origins, evolution, and conservation of biodiversity

The University of Michigan Museum of Zoology (UMMZ) serves as the nucleus for the study of animal diversity on campus, focusing on the evolutionary origins of the planet's animal species, the genetic information they contain and the ecosystems they form. Initiated in 1837, the collections have grown over time as scientific expeditions by U-M biologists and many others have entrusted archival research materials, collected from every region of the world, to its care.

Museum collections provide the best record we have of life on earth, and their value continues to increase in a fast-changing world where most projections envisage profound ecological and faunal turnover by the end of the century. The UMMZ's mission is grounded in basic research—but it is also informed by such projections, applying its resources and expertise to track the scope of change in natural ecosystems through time and to train future leaders in biodiversity and conservation. Students and researchers derive inestimable benefits from being able to access the UMMZ collection to study first-hand the diversity of organisms from all habitats and regions of the world.

As part of the Department of Ecology and Evolutionary Biology (EEB), the UMMZ houses world-class collections that support a multi-faceted departmental research and teaching program. The collections are irreplaceable, many coming from locations, habitats, and ecosystems that subsequently have been drastically altered by human activity. They include representatives of extinct species and populations, which provide otherwise unavailable data for studying the effects of environmental change on the distributions, appearances, and genetic features of the world's animals. Undergraduate and graduate students have the opportunity to study these valuable resources working alongside faculty who are among the leading scientists and scholars in their fields.

To continue its role as a center of scientific research, training, and public knowledge, the UMMZ must create opportunities for undergraduate students to gain experience in biodiversity collection development and, to attract the very best scholars, must support graduate students with their research. Gifts to bring in visiting experts and speakers, as well as to purchase cutting-edge equipment, will enable us to sustain our position as one of the nation's leading research museums.

## UNDERGRADUATE SUMMER CURATORIAL ASSISTANTSHIPS

Undergraduate engagement in biodiversity collection development is a vital part of the UMMZ's educational mission. Students receive training in the knowledge, skills and operational competencies required by a research museum. Working in collections exposes our students to the sheer diversity of life on earth—thousands of species of birds/snakes/fishes (including extinct taxa) collected from all around the world—which can only be fully experienced in museums. Indeed, a number of leading biodiversity researchers have attributed their career choice to formative undergraduate experiences in university natural history collections. A gift of \$30,000 would provide the resources for the UMMZ to initiate a new program of summer assistantships to enable undergraduates interested in animal biodiversity to have a fully immersive research museum experience. Gifts of \$5,000 would support students who depend on income from summer jobs with opportunities to gain this important experience.



**"The value of [UMMZ] to science and science communication is almost indescribable. As technology changes, we're discovering ways to get new information out of [the specimens] to learn what the climate was back then and how things have changed over time. We also learn different methods of preserving these animals in the wild and how to save them."**

*—Charlie Engelman, '14*

## PROFESSORSHIP OF ORNITHOLOGY

The UMMZ bird collection is an extraordinary resource. Specimens date from 1837 and encompass approximately two-thirds of the planet's bird species. At present, the collection lacks a dedicated curator, and it is imperative that the UMMZ recruit a world expert in bird biodiversity to fill this crucial faculty-curator position. A gift of \$2.5M would establish a Named Endowed Professorship in Ornithology and provide the resources for the UMMZ to compete with other institutions to attract a distinguished scholar in the field. It would also guarantee the survival and growth of a highly regarded program in ornithology at the University of Michigan.

## GRADUATE STUDENT FIELD COLLECTION SPONSORSHIP

The UMMZ is proud of its record of attracting and training excellent graduate students who initiate and develop their own research programs. From its inception, the UMMZ has had a global frame of reference. A significant portion of its research and collection efforts are directed toward geographically distant faunas—a large fraction of them tropical—where most of the planet's biodiversity is concentrated. For their research to be successful, many of our graduate students must spend weeks or months in the field, becoming familiar with their study organisms, setting up long-term experiments, and sampling material for detailed analyses back in the laboratory and for installation in the UMMZ's collections. Some of our students blog about their fieldwork, including the sampling of mosquitos in Cameroon, howler monkeys in Mexico, colobus monkeys in Uganda, captive snails in the London Zoo, and wild snails in Oregon. Such world-class biodiversity research by graduate students is dependent on funding support of \$30,000 each year. Gifts of \$5,000 per student will enable them to travel to remote study sites, perform detailed experiments, and enrich our collections.

## UNDERGRADUATE SUMMER ANIMAL DIVERSITY WEB ASSISTANTSHIPS

Biodiversity education is currently undergoing explosive online growth and one of the main players—The Animal Diversity Web—is based in the UMMZ. This award-winning site is an online searchable database of animal natural history, distribution and classification. In partnership with the U-M School of Education, the ADW has developed innovative approaches to teaching K-12 students about biodiversity, climate change, and how scientists think about the world. The ADW serves an exceptionally wide global audience and currently provides more than 1.5 million pages of content to more than 315,000 site visitors monthly, including primary and secondary school students. Many of our undergraduates are interested in both online education and biodiversity. A gift of \$20,000 would enable us to initiate a new program of summer assistantships for students to engage with our onsite ADW experts and develop expertise in site content and outreach activities. Gifts of \$5,000 would enable students who otherwise might not be able to forego paid summer employment to gain this important experience.

## UMMZ STRATEGIC FUND

Gifts of all sizes are helpful in addressing emergent issues and opportunities for the UMMZ and its museum program. In past years, such funds have been used to:

- Provide seed money for pilot projects by faculty-curators
- Purchase new equipment to enhance our educational and research activities
- Fund travel to professional meetings for students and collection managers
- Fund seminars by visiting scholars
- Underwrite extraordinary UMMZ publications, such as the Fishes of the Greater Mekong System with Species List and Photographic Atlas

## WAYS TO FUND YOUR GIFT

Your gifts of cash, pledges, or appreciated securities change lives. Wills, estate, and planned gifts allow you to create a lasting legacy that will enable the best and brightest minds to experience a liberal arts education, solve problems in a changing world, and yield ideas and innovations that will make a difference in Michigan and around the globe.

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