



The University of Michigan Biological Station

THE POWER

Located in a forested and water-rich region of northern Michigan, the University of Michigan Biological Station (UMBS) combines world-class research and training facilities, a renowned faculty, a vibrant community of graduate and undergraduate student scholars, and something no other field station on earth can offer—a body of data and research about a globally important ecosystem acquired by student-faculty teams living and working at one site for over a century. This unique institution attracts students, postdoctoral investigators, and faculty-level researchers from across the U.S. and around the world. Working at the intersection of biology, fresh water ecology and atmospheric science, these scholars have made groundbreaking contributions to our understanding of how humans, climate and other factors interact to determine the composition and health of the natural systems that support life and human well-being. More than a biological station, this “northern campus” of one of the world’s leading research universities fosters unparalleled learning and research experiences in a field setting where colleagues collaborate across generational and disciplinary boundaries to advance the knowledge we need to better understand and sustain environmental systems.

THE OPPORTUNITIES

Since its founding in 1909, the UMBS has hosted a world-class faculty that has nurtured young scientists and naturalists. Small, field-based classes provide opportunities for students to participate in advanced research projects focused on biological and environmental topics, offering a truly integrated program of field research and scientific discovery. UMBS alumni have contributed over 3,000 peer-reviewed papers to the scientific and policy community and now occupy key positions in universities, research agencies, schools, health professions and businesses. More than 600 former students hold positions in academic institutions and government agencies alone. As the human population and its influence on the natural world grows, the UMBS seeks to extend its reach beyond its current role as the principal environmental observatory within the Great Lakes Basin and become a “global station” for addressing problems of environmental sustainability in the age of climate change.

THE IMPACT

Seeking resources to enable the most promising faculty and student researchers to study and learn at the UMBS—regardless of their financial need—is our highest priority. Other priorities include establishing a permanent year-round faculty; developing new interdisciplinary research and teaching programs; and embracing a more integrated and solutions-based approach to addressing the world’s great environmental and resource challenges. The UMBS is already a world-class center for research and training in interdisciplinary field studies of water-land-climate systems. We seek to integrate these field-course activities with emerging UMBS programs in environmental sustainability research. We also seek to promote a carbon-neutral campus that reflects the mission and priorities of the Station while providing a “living laboratory” for the study and implementation of more environmentally sensitive and sustainable practices.

Naming the University of Michigan Biological Station

\$10M Named endowed

\$500,000 annually/\$300,000 expendable

The UMBS has long been recognized as one of the world’s premier field laboratories. Its education and research programs are situated within 10,000 acres of protected land that is at the geographic center of one of the most diverse and ecologically important freshwater basins on earth. Here students and faculty live, work and study together surrounded by vast areas of forest, wetland, lake, and riverine habitats. In addition to field-based classes, students participate in world-class research projects in an integrated field research and teaching program that serves as a national model for training future field biologists and environmental scientists.

Today, most of our research and teaching programs take place from April through August, timed to coincide with U-M's summer break and reflecting the reality that our campus is not fully winterized. To create our own permanent faculty of scientists who can focus their research year-round at the Biological Station, help to build our infrastructure and attract grants, and mentor students, we are seeking a \$10 million endowment. This endowment would enable us to fulfill our vision of becoming a global center for the study of complex ecological systems and the challenges and opportunities they present to a human population now reaching the limits of its sustainability. Those who wish to be part of this exciting endeavor have a number of other options for annual or expendable support as well.

- 3 UMBS-based Research Faculty Positions: **\$2M endowed each/ \$100,000 annually each**
- 10 Graduate Student Fellowships: **\$200,000 endowed per student/ \$10,000 annually per student**
- 15 Undergraduate Student Scholarships: **\$200,000 endowed per student/ \$10,000 annually per student**
- Funding to develop a “blueprint” for transforming the UMBS campus to a carbon- and waste-neutral campus, U-M's first such campus and first among major field stations nationally: **\$300,000 expendable**

Graduate Student Summer Fellowships

***\$2M endowed; \$200,000 endowed per student
\$10,000 annually per student***

Graduate students from U-M and institutions world-wide use the UMBS for field research focused on environmental sustainability topics. These prestigious, named fellowships would provide resources to attract new researchers (graduate students plus their academic advisors) to the UMBS. Resultant publications, environmental data and increased knowledge of ecosystems, organisms, and climate impacts in the upper Great Lakes region would advance sustainability sciences, produce new leaders in science and policy, and provide information needed for improved management decisions. Graduate students often spend an entire summer on site conducting field research central to their dissertation or thesis. We are seeking gifts to award 10 new graduate fellowships.

Undergraduate Student Scholarships

\$200,000 endowed per student/

\$10,000 annually per student

Enabling the most promising students to spend the summer at the UMBS is our highest priority. Students who attend the summer session not only have expenses for tuition and residential fees, but also forego opportunities to earn income for the next academic year. We must be able to offer full scholarships to promising and motivated students so that they will benefit from the Biological Station's immersive, research-intensive field programs. Tuition, room and board for an 8-week summer program is \$10,000 per student. Scholarship support would help us to attract a larger, more diverse group of students, to increase participation in field-based courses uniquely suited to the UMBS, and to utilize our facilities more efficiently. Our goal is to be able to offer scholarship support to 50 talented students each summer.

Design for Carbon- and Waste-Neutral UMBS Campus

\$300,000 expendable

Technology exists to transform the UMBS into a facility producing no net release of carbon dioxide or other climate-warming gases in its operations. Re-designing and re-building the UMBS as a carbon-neutral field station is consistent with our overall focus on the impacts of climate change on environmental systems. It is also an ideal "Leaders and Best" project that would engage and attract students, serve as a highly visible example of "climate friendly" human development and function as the first major carbon-neutral field station in the world. To determine accurate costs to achieve this goal, we will need funding to support a comprehensive assessment that addresses UMBS-specific needs, location and current facility conditions.

Acquiring Sensitive Lands and Habitats

\$100,000 expendable

The UMBS has identified 10 parcels for acquisition, nine of which are situated within ("in-holdings") or adjacent to existing U-M real estate. The tenth site, "Mud Lake Bog," is under private ownership but contains rare and endangered plants and has been used by Biological Station researchers since 1920. These parcels range in size from 40 to 200 acres and all constitute sensitive habitats, most of which are presently used by our students and researchers. Acquisition of these parcels would protect in-holdings and adjacent lands from development that could compromise our training and research mission. Moreover, it would guarantee that valuable habitats and ecosystems, which are the subjects of current or past research, remain accessible to our students and researchers in perpetuity.

Visiting Researcher Fellowship

\$25,000 annually

These fellowships would be awarded to successful applicants for either first-time visits by researchers planning to initiate research at the Biological Station, or to established UMBS researchers wishing to spend sabbaticals or other leaves on-site to expand their research. These named fellowships would serve to bring new faculty-level researchers and perspectives to the UMBS, thereby advancing our scientific impacts and broadening the diversity of our senior researchers.

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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