



BACKGROUND

The world's growing population means an increased strain on our natural resources and repercussions on our environment. The College of Agriculture and Life Sciences recognizes that agriculture and a healthy environment must go hand-in-hand, which is why we are committed to environmental sustainability and restoring the health of our ecosystems.

From preserving biodiversity to addressing the economic impact of climate change, our faculty and students are discovering innovative ways to protect our environment.

LEAD BY EXAMPLE: CURRENT EFFORTS

Through our research, extension programs, and teaching, our college and agencies are involved in many facets of maintaining our natural resources and protecting our environment and its many inhabitants. A few of our efforts include:

• Biodiversity and Wildlife

Our Biodiversity Research and Teaching Collections is home to more than 1 million specimens such as birds, mammals, reptiles, fishes, and amphibians. It could be best described as the "Smithsonian Institution" of wildlife, located right here in at Texas A&M University. These collections aid our faculty in identifying new species, such as the two new species of toxic Caribbean clingfish discovered just last year.

Not only are we discovering new species, but we are also protecting those that are endangered. We are the only American member of the International Union for Conservation of Nature's Red List Partnership, aimed at evaluating the conservation status of more than 76,000 plant and animal species.

• Vector-borne Diseases

Insect- and tick-transmitted diseases can infect humans, animals, and plants, resulting in millions of dollars in increased health care costs, increased veterinary costs for animals, and lost agricultural productivity. We are uniquely positioned to develop solutions for these diseases, including pest surveillance, public education, vaccine production, and resistant plant varieties.

• Climate Change

Climate change and its effects – higher temperatures, changes in precipitations patterns, rising sea levels, and more frequent weather-related disasters – pose global risks for agriculture, food, and water supplies. Lead by the Nobel-Prize winning faculty
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FAST FACTS

- The world's population is expected to increase by 33%, reaching 9 billion people by 2050
- By 2025, 1.8 billion people are expected to be living in regions with limited water resources
- It is estimated that invasive species cost the U.S. more than \$120 billion in damages each year



AVAILABLE RESOURCES

Biodiversity and Wildlife

- Dr. Kirk Winemiller, Wildlife and Fisheries Sciences
- Dr. Thomas Lacher, Wildlife and Fisheries Sciences



Vector-borne Diseases

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Climate Change

- Dr. Bruce McCarl, Agricultural Economics



Community Outreach

- Dr. Amanda Stronza, Recreation, Parks, and Tourism Sciences

Photography and Videography

- B-roll of ecosystems, laboratories, classrooms, etc. For examples, visit <https://www.youtube.com/watch?v=KpnBj8z2Bhw>
- Still photography <https://www.flickr.com/photos/agrilife/sets/72157622426463532>
- Recent stock photography taken for most departments in the past two years
- Boiler plate text for all academic departments and agencies



member Dr. Bruce McCarl, our research focuses on climate change adaption and mitigation as well as analyzing the policies associated with climate change.

• Community Outreach

Educating the public is a key component of protecting our environment. The Texas Master Naturalist is a program dedicated to training volunteers on the beneficial management of natural resources and natural areas. Since its establishment in 1997, this program has provided more than 2 million hours of service valued at more than \$40 million.

Not only are we actively reaching the citizens of Texas, our faculty are also reaching global communities. In Botswana, the Ecoexist Team is decreasing human-elephant conflict by mapping elephant pathways to water and then working with farmers to adjust agricultural techniques based on the tracking.

SUPPORTING THE CAPITAL CAMPAIGN: WHY IT MATTERS

We only have one Earth and its resources are finite. As part of our land-grant mission, it is our duty to help protect the natural resources, environment, and its inhabitants with our research, extension programs, and by educating our future leaders. Whether it is passing protective environmental regulations, discovering new species of fish, or educating the public on wildlife protection, the college is actively addressing this global issue.

One way to support our efforts to protect the environment is by investing in the updating of the Biodiversity Research and Teaching Collections. These collections hold more than 1 million specimens from Texas, Mexico, the Gulf of Mexico, and South America. The collections are used by scientists and educators ranging from anthropology to zoology, from local school to international research centers. However, the collections are at risk due to lack of a proper museum building, perpetually low operating funds, and lack of assistant curatorial staff. Support for this beloved institution is paramount to ensure that these irreplaceable collections remain accessible to users throughout Texas and beyond.

CAPITAL CAMPAIGN THEMES ADDRESSED

- Making a difference in the lives of Texans and people across the globe.
- A comprehensive research university with instructional and research programs ranging from Anthropology to Zoonotic Disease.
- The model of a world class public university that is meeting the challenges of today and creating innovations that define the future
- Conducting research that expands understanding, solves problems, and creates economic opportunities.
- Committed to disciplinary excellence and multi-disciplinary collaboration.
- Preparing outstanding state, national and international leaders of tomorrow
- Engaged in multi-disciplinary educational and research initiatives to address the issues of today and meet the challenges of tomorrow

