



TEXAS A&M UNIVERSITY

Ecology &
Conservation Biology

A close-up photograph of a blue heron in flight, showing its long neck, sharp beak, and yellow eye. The bird is flying against a blurred green background of foliage.

ECOLOGY AND CONSERVATION BIOLOGY STRATEGIC PLAN

2025-2030

EXECUTIVE SUMMARY

The Department of Ecology and Conservation Biology (ECCB) at Texas A&M University has developed a strategic plan to guide its growth, research, educational programs, and stakeholder engagement from 2025 to 2030. This plan is structured around ECCB's two core pillars: **Pillar 1: Delivering on Our Research and Education Mission** and **Pillar 2: Delivering Solutions that Benefit Our Stakeholders**.

Our plan includes five strategic initiatives—Enhance Research Productivity, Elevate Student Experience, Grow Undergraduate Programs, Strengthen Collaborations with External Partners, and Be a Best Place to Work and Learn—aligning with ECCB's mission of advancing conservation science and education. Through measurable goals, key performance indicators, and regular progress reviews, ECCB aims to achieve academic and research excellence while fostering an inclusive environment and impactful community engagement.

MISSION AND VISION

MISSION

The Department of Ecology and Conservation Biology (ECCB) conducts interdisciplinary research across all levels of biodiversity, from genes to ecosystems, to confront the grand challenge of conserving natural resources in a rapidly changing world. This research is integrated with undergraduate and graduate teaching programs to prepare the next generation of leaders in conservation science.

VISION

We strive for preeminence among academic programs in ecology and conservation biology. Our faculty are dedicated to advancing interdisciplinary research and teaching, informing conservation and management solutions, and preparing students as future leaders that will solve complex environmental problems in Texas and across the world.



VALUES

We are a research-driven department dedicated to enhancing the educational experience of our students. By integrating world-class research with student development, we ensure students contribute meaningfully to cutting-edge discoveries. Our focus on impactful research fosters a dynamic learning environment through an optimized curriculum, premier facilities, modern laboratories, and diverse research portfolios.

We attract and retain top scholars, cultivate leadership, and engage in high-visibility research—forming the basis of our first pillar: **delivering on our research and education mission**. While national recognition is important, our overarching priority is the quality and impact of our work. Strong publications, innovative programs, and the recognition of our faculty and students naturally enhance our visibility and reputation.

We also prioritize delivering solutions for stakeholders. Our faculty provide leadership in ecology and conservation, translating research into evidence-based policies that address real-world environmental challenges. This commitment reflects our second pillar: **delivering solutions that benefit our stakeholders**.

These two pillars — advancing our research and education mission and delivering impactful solutions for our stakeholders — guide our department’s research, teaching, and stakeholder solutions, ensuring our values are consistently reflected in everything we do.



PILLAR 1: DELIVERING ON OUR RESEARCH AND EDUCATION MISSION

Research Leadership

We prioritize impactful research that advances ecological knowledge and informs conservation practices, providing evidence-based guidance to decision-makers.

Diverse Expertise

Our faculty's diverse expertise in ecosystem science, landscape ecology, organismal biology, and conservation addresses complex environmental issues and supports robust teaching and research programs.

Educational Excellence

We deliver world-class education, fostering scientific thinking, professional skills, and career readiness in our students.

Student Success

We emphasize high-impact learning, research opportunities, and career development, creating an inclusive academic culture that values diverse perspectives.

PILLAR 2: DELIVERING SOLUTIONS THAT BENEFIT OUR STAKEHOLDERS

Scientific Leadership

Our faculty provides the scientific foundation and leadership that keep Texas A&M at the forefront of ecology and conservation biology.

Durable Solutions

We translate research into practical solutions and policies that address real-world ecological and conservation challenges.

Local and Global Impact

By engaging stakeholders locally and globally, we are committed to significantly impacting conservation efforts worldwide.

STRATEGIC PLAN PROCESS | ECCB

This strategic plan, developed through a year-long collaborative process, provides a clear roadmap for building on ECCB's strengths and achieving our community's shared aspirations. In Fall 2023, ECCB faculty, staff, and graduate students initiated a strategic planning effort to sustain and elevate the department's position as a leading academic unit. Professional facilitators guided the faculty through a SOAR analysis, culminating in a retreat in March 2024. This retreat fostered meaningful discussions and set the stage for defining actionable objectives. A detailed report delivered in May 2024 informed the development of key strategic documents.

The faculty drafted two versions of the strategic plan: (1) a comprehensive, long-form version outlining actionable steps for the department's various responsibilities and ambitions and (2) this summary plan designed for broader audiences. Faculty reviewed and refined the drafts between July and December 2024. As a 'living document,' this summary strategic plan is aspirational and aligned with the overarching goals of Texas A&M University and the College of Agriculture and Life Sciences (COALS). We will regularly review the plan to ensure it remains responsive to ECCB's evolving needs and opportunities while upholding our commitment to the two strategic pillars: advancing our research and education mission and delivering impactful solutions for our stakeholders.



STRATEGIC INITIATIVES

Our strategic plan focuses on five key initiatives with SMART goals to drive success: (1) enhancing research productivity through improved metrics, funding, and visibility; (2) elevating the student experience with expanded research, learning opportunities, and scholarships; (3) growing undergraduate enrollment emphasizing new and revised tracks of study; (4) strengthening external collaborations through advisory boards, partnerships, and funding; and (5) fostering a supportive and transparent workplace to ensure satisfaction and professional development.

STRATEGIC INITIATIVE 1: ENHANCE RESEARCH PRODUCTIVITY

By 2030, ECCB aims to elevate its research stature by exceeding current baseline metrics in publication performance, securing research funding, enhancing research and collections infrastructure, fostering collaborative and interdisciplinary projects, and increasing research visibility and outreach.

1. Increase publication metrics

- **Objectives:** Boost ECCB faculty publication metrics by 25% over the next five years.
- **Strategies:** Provide grant writing workshops, financial incentives for high-impact publications, and mentorship for early-career faculty.
- **Progress Tracking:** Measure faculty metrics annually (e.g., H-index, citations, publication count) and include these in faculty evaluations.

2. Secure more external research funding

- **Objectives:** Increase external research funding by 50% over the next five years.
- **Strategies:**
 - Increase the rate of proposal submissions to federal and state funding opportunities, foundations, and private sector funding.
 - Increase the rate of proposal submissions to internal funding opportunities, especially AgriLife funding initiatives.
- **Progress Tracking:** Track total annual funding awarded, aiming for a 4-5% increase yearly.

3. Expand critical research infrastructure

- **Objectives:** Improve and sustain support for departmental research infrastructure, including the Biodiversity Research and Teaching Collections (BRTC), the S.M. Tracy Herbarium (SMTH), and common core laboratories by 2030.

- **Strategies:**
 - Invest in ECCB's natural history collection infrastructure (BRTC and SMTH), including personnel, while seeking partnerships for sustained funding and resources.
 - Modernize shared equipment in ECCB common core laboratories.
 - Leverage teaching support funds and lab fees for integration of teaching, research, and outreach.
 - Continue to work with the administration to place BRTC and SMTH into funding priorities.
- **Progress Tracking:**
 - Annually monitor new acquisitions and improvements to research infrastructure.
 - By 2030, achieve levels of support for biodiversity collections comparable to those at peer institutions, aided by grant funding from faculty that directly support the BRTC and SMTH.

4. Increase research visibility

- **Objectives:** Raise research visibility through media, conferences, and public outreach by 25% by 2030.
- **Strategies:**
 - Increase media presence, conference participation, and public seminars.
 - Secure funding to hire a permanent communications coordinator.
- **Progress Tracking:** Track media mentions, conference attendance, and public events annually.



STRATEGIC INITIATIVE 2: ELEVATE STUDENT EXPERIENCE

By 2030, ECCB aims to enhance the academic experience for undergraduate students, graduate students, and postdoctoral trainees by fostering research, professional growth, and engagement above current baseline metrics. The department will cultivate a culture of academic excellence, service, and leadership through high-impact learning opportunities, including internships, education abroad, faculty-mentored research, and prestigious fellowships.

1. Enhance support for graduate and postdoctoral trainee excellence

- **Objectives:**
 - Increase prestigious fellowships by 25%.
 - Require PhD students to publish as lead authors before graduation.
- **Strategies:** Provide fellowship application workshops and research publication support.
- **Progress Tracking:** Monitor fellowship awards and publication rates annually.

2. Enhance high-impact learning opportunities for undergraduates

- **Objectives:**
 - Integrate experiential learning into 25% of courses by 2030.
 - Increase undergraduate participation in research, internships, and study abroad by 15-20%.
- **Strategies:**
 - Update curricula to enhance experiential learning, modern tools, methodologies, and fieldwork.
 - Further develop assistantships, capstone projects, and research internships.
 - Partner with education abroad programs and collaborators to expand opportunities.
- **Progress Tracking:** Annually track courses with high-impact components to evaluate participation rates in research, internships, and study abroad.

3. Increase access and awareness of internal and external opportunities for all students and trainees

- **Objectives:**
 - Implement an outreach plan by 2026 to promote research, internships, and study abroad.
 - Raise an additional \$50,000 annually for scholarships by 2030.
- **Strategies:**
 - Use newsletters, workshops, and online resources to increase awareness.
 - Conduct fundraising campaigns, pursue grants, and engage donors to secure funding.
- **Progress Tracking:** Monitor engagement metrics, applications, and scholarship funds raised and awarded annually.

STRATEGIC INITIATIVE 3: GROW OUR UNDERGRADUATE PROGRAMS

ECCB will continue to increase its majors by driving enrollment growth across all academic tracks, with targeted recruitment efforts for existing, revised, and newly introduced study tracks. We aim to increase overall undergraduate enrollment above current baseline metrics by 10% annually by increasing enrollment across all academic Tracks, with targeted growth in the accredited Forestry Resources Track, launching Pre-Med and Pre-Dental Tracks, and revising the Ecoinformatics Track.

1. Increase overall undergraduate enrollment

- **Objectives:** Achieve an annual growth rate in undergraduate enrollment to reach 175 entering students annually by 2030.
- **Strategies:** Launch targeted recruitment campaigns and build relationships with feeder schools.
- **Progress Tracking:** Monitor enrollment numbers annually.

2. Increase Forestry Resources Track enrollment

- **Objectives:** Increase Forestry Track enrollment by 10% annually for five years
- **Strategies:** Promote scholarships and forestry career pathways through marketing campaigns.
- **Progress Tracking:** Track annual enrollment growth.

3. Expand Pre-Professional Tracks

- **Objectives:** Attract students with new Pre-Med and Pre-Dental Tracks by 2026
- **Strategies:** Develop and finalize curricula that meet pre-health requirements
- **Progress Tracking:** Measure enrollment in these tracks beginning Fall 2026.

4. Revise the Ecoinformatics Track

- **Objectives:** Rebrand the Ecoinformatics Track as a Conservation Science and Technology Track by 2026.
- **Strategies:** Revise the curriculum to highlight state-of-the-art technologies that support evidence-based policy development, meet evolving industry demands, and drive scientific innovation.
- **Progress Tracking:** Finalize curriculum updates by 2026 and monitor enrollment trends to evaluate the track's impact and success.

STRATEGIC INITIATIVE 4: STRENGTHEN COLLABORATIONS WITH EXTERNAL PARTNERS

ECCB will strengthen its relationships with external stakeholders by building a structured advisory board, increasing external collaboration, improving high-visibility communications, and securing additional funding, ensuring the department's long-term growth and success.

1. Establish and convene an External Advisory Board

- **Objectives:** Form an advisory board by 2025 to strengthen collaboration with stakeholders.
- **Strategies:** Recruit diverse members from government, non-profits, and academia
- **Progress Tracking:** Finalize board membership by Spring 2025 and hold annual meetings.

2. Expand external partnerships

- **Objectives:** Secure two new partnerships annually to enhance research and student experiences.
- **Strategies:** Build partnerships with conservation organizations, government, and private industry.
- **Progress Tracking:** Track new partnerships and collaborations annually.

3. Enhance stakeholder communication

- **Objectives:** Develop an outreach strategy by Fall 2025 to improve stakeholder communication.
- **Strategies:** Create newsletters, continue updates to the ECCB website, and engage more consistently through social media.
- **Progress Tracking:** Track engagement metrics, aiming for 20% annual growth.

4. Enhance interdisciplinary and external collaborations

- **Objectives:** Establish a minimum of five new interdisciplinary research collaborations by 2030.
- **Strategies:**
 - Focus on forming collaborations within Texas A&M University and with external organizations.
 - Boost external funding with collaborators and partners by 25% by 2030.
 - Request advisory board to develop targeted funding proposals.
- **Progress Tracking:** Track interdisciplinary grants and joint publications annually.

STRATEGIC INITIATIVE 5: BE A BEST PLACE TO WORK AND LEARN

ECCB will continue to foster and strengthen an inclusive, supportive, and productive work environment where all department members—faculty, staff, researchers, postdoctoral fellows, and students—feel valued and supported. This will be achieved by emphasizing manageable workloads, fair and objective teaching evaluations, consistent assignment distribution, transparent communication, and professional development opportunities for everyone in ECCB.

1. Improve department satisfaction

- **Objectives:** Achieve 90% satisfaction among faculty and staff by 2030.
- **Strategies:** Conduct climate surveys annually and address key concerns.
- **Progress Tracking:** Monitor satisfaction survey results, aiming for high rates of satisfaction in all regards.

2. Enhance workload management

- **Objectives:** Ensure balanced distribution of teaching, research, and service duties
- **Strategies:** Develop workload plans and streamline under-enrolled courses
- **Progress Tracking:** Annually review workload data and satisfaction surveys.

3. Increase transparency in assignments

- **Objectives:** Implement a transparent system for teaching and service assignments by 2026.
- **Strategies:** Publish guidelines in a departmental handbook and update regularly
- **Progress Tracking:** Gather feedback on transparency and update annually.

4. Enhance communication

- **Objectives:** Establish centralized communication through weekly newsletters by Spring 2025.
- **Strategies:** Consolidate updates, events, and opportunities into a single newsletter.
- **Progress Tracking:** Track engagement and feedback on communication effectiveness.

5. Support professional development

- **Objectives:** Provide tailored professional development for staff, researchers, and postdocs by 2026.
- **Strategies:** Offer workshops, mentorship programs, and career development resources.
- **Progress Tracking:** Track participation and satisfaction levels annually.



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**DEPARTMENT OF ECOLOGY AND
CONSERVATION BIOLOGY**

**WILDLIFE, FISHERIES AND ECOLOGICAL
SCIENCES BUILDING**

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