

DEPARTMENT OF ZOOLOGY

Mission

The Department of Zoology at Oklahoma State University promotes the advancement and dissemination of knowledge pertaining to animal life, including its origins, diversity, conservation, and management. We prepare students for careers in medicine, veterinary medicine, wildlife and fisheries conservation environmental education, and related fields. We conduct field and laboratory research into various areas of zoology, with particular emphasis on ecology and conservation. In addition, we provide crucial course work and collaborative research support to other disciplines on campus, including botany, renewable natural resources, genetics, and microbiology.

Vision

Faculty in the Department of Zoology will continue their dedication to quality instruction, research, and mentoring. We will strengthen key areas of our programs, including fisheries management, along with improved programs in renewable natural resources and conservation biology. Additional emphasis will address problems resulting from habitat fragmentation and its impact on state and regional populations of wild, free-living vertebrates. We will strengthen research through expanding collaboration with researchers inside and outside the Department. We will seek new faculty positions to enhance our capabilities in research and teaching and better to meet changing needs and expectations of our graduate and undergraduate students.

Core Values

The Department of Zoology ascribes to the general core values of:

Excellence - We seek excellence in all our endeavors, and we are committed to continuous improvement.

Integrity - We are committed to the principles of truth and honesty, and we will be equitable, ethical, and professional.

Service - We believe that serving others is a noble and worthy endeavor.

Intellectual Freedom - We believe in ethical and scholarly questioning in an environment that respects the rights of all to pursue knowledge freely.

Diversity - We respect others and value diversity of opinion, freedom of expression, and other ethnic and cultural backgrounds.

Stewardship of Resources - We are dedicated to the efficient and effective use of resources. We accept the responsibility of the public's trust and are accountable for our actions.

Goals, Critical Success Factors, Objectives, and Strategies

Goal 1: Enhance environment for research, scholarship, and creative activities.

Critical Success Factors:

- Maintain and expand Departmental Seminar program from 6-7 seminars/semester to 10 seminars/semester.
- Obtain an average of \$175,000 of extramural funds per year for each research FTE.
- Publish an average of at least 1.5 refereed journal articles per research FTE per year.
- Publish at least 5 articles/year in top zoological journals.
- Present an average of at least 2 professional paper/posters per research FTE per year.
- Encourage faculty leadership in national and regional professional organizations so that at least 5 faculty serve as officers, board members, editors, associate editors, or committee chairs.
- Maintain vehicles and other equipment purchased with start-up.

Objectives:

Objective 1.1: Obtain more partnered support for outside seminar speakers.

Strategies:

- Invite other units on campus to recommend speakers.
- Arrange to share expenses for interdisciplinary speakers.

Objective 1.2: Increased extramural support for research and scholarship.

Strategies:

- Encourage more collaboration in writing grant proposals.
- Use research support as key criterion in A & D's.

Objective 1.3: Facilitate more interdepartmental and intercollegiate research.

Strategies:

- Plan areas of research priorities with PI's from other units on campus.
- Encourage development of research areas around important and unique ecological processes and study sites.

Objective 1.4: Develop a recharge account for vehicle maintenance.

Strategies:

- Persist in efforts to allow sustainable use of vehicles purchased by new faculty with start-up money.

Goal 2: Reward, retention, and promotion of outstanding faculty members.

Critical Success Factors:

- Outstanding faculty members do not leave for other universities.
- Faculty salaries remain competitive by rank at least within Big 12.
- Merit based raises insure that outstanding faculty receive raises substantially higher than average.
- Develop and use innovative teaching methods and technology.
- If made available, mid-year raises for retention of outstanding faculty.
- Funds raised to endow chairs and professorships.
- Increased publicity about accomplishments of outstanding faculty members.

Objectives:

Objective 2.1: Maintain merit-based raise programs.

Strategies:

- Continue and refine departmental procedures for merit based raises.
- Coordinate recommendations between Department Head and Personnel Committee for raise recommendations based on merit.

Objective 2.2: Recruit top-quality competitive faculty.

Strategies:

- Gain approval for vacant position in fisheries biology.
- Emphasize productivity and collegiality in department as recruiting tools.

Objective 2.3: Create endowed professorships and chairs.

Strategies:

- Identify competitive criteria for endowments.
- Pursue endowed chairs through appropriated funds.
- Pursue endowed chairs through large donors.

Objective 2.4: Maintain and expand recognition program for outstanding faculty members as shown by their contributions to research and teaching.

Strategies:

- Regularly provide OSU News Bureau with research projects of widespread interest.
- Nominate high performing faculty for awards, other recognition.

Objective 2.5: Support and reward faculty for innovative teaching, including technological advances and distance learning.

Strategies:

- Nominate faculty for teaching awards.
- Investigate establishment of special departmental award.

Objective 2.6: Improve opportunities for research release time for junior and senior faculty members.

Strategies:

- Increase flexibility in teaching assignments.
- Provide 1 research semester free of teaching for tenure track faculty.
- Encourage blocking and stacking of teaching assignments.

Goal 3: Reward, retention, and promotion of outstanding staff.

Critical Success Factors:

- Outstanding staff members do not leave for other jobs.
- Staff salaries competitive with comparable regional positions
- Merit based raises insure that outstanding staff members receive raises substantially higher than average.
- If made available, mid-year raises for retention of outstanding staff.
- Publicize accomplishments of outstanding staff members.

Objectives:

Objective 3.1: Maintain merit-based raise programs.

Strategies:

- Continue independent performance ratings by Personnel Committee and Head.
- Ensure that at least 50% of all raises are based on merit.

Objective 3.2: Assure supportive supervision and mentoring of new staff members.

Strategies:

- Recruit staff and retain members with good interpersonal skills.
- Administrative Assistant to provide support and mentoring.

Objective 3.3: Develop and implement recognition program for outstanding staff members.

Strategies:

- Nominate high performing staff for awards.
- Encourage staff to participate on Staff Advisory Council.

Objective 3.4: Periodically review and evaluate task assignments and performance.

Strategies:

- Do annual review of tasks and reassign where appropriate.
- Develop and maintain planning calendar for all deadlines.

Goal 4: Expand number of tenure-track faculty.

Critical Success Factors:

- Increase numbers of tenure-track faculty.
- Maintain successful tenure bids for minorities and women that are comparable to proportion of successful tenure bids for non-minority and men faculty members.
- Prioritize replacement and new faculty positions in accordance with teaching needs and research emphases of the Department with the advice and consent of Zoology Council.

Objectives:

Objective 4.1: Successfully compete for funds for new faculty positions as they become available.

Strategies:

- Make strongest case possible to College for positions.

Objective 4.2: Aggressively recruit minority and women faculty members, particularly in disciplines in which they are most underrepresented.

Strategies:

- Advertise positions in minority publications.
- Maintain supportive, collegial atmosphere for new faculty.

Objective 4.3: Create and maintain a collegial, supportive departmental culture for all faculty, including minority and female faculty.

Strategies:

- Emphasize high level of collegiality as recruiting tool for new faculty.
- Hire new faculty who appreciate and maintain collegiality.
- Continue to encourage and support collegiality among faculty, including minority and female faculty, and discourage conditions that lead to factionalism and resentment.

Objective 4.4: Recognize and reward accomplishments of outstanding faculty including minority and female faculty members.

Strategies:

- Publicize research findings of outstanding faculty.
- Publicize outstanding teaching.
- Reward outstanding research and teaching.

Goal 5: Increase diversity of students and faculty in the Department.

Critical Success Factors:

- Increase the number of qualified minority undergraduate and graduate students.
- Increase numbers of minority and women faculty members in under-represented disciplines.
- Maintain successful tenure bids for minorities and women that are comparable to proportion of successful tenure bids for non-minority and men faculty members. Increase the number of minority graduate students.

Objectives:

Objective 5.1: Contact Native American tribal government and environmental offices to attract Native American students to the program. Visit Tribes to discuss undergraduate and graduate programs with interested parties.

Strategies:

- Emphasize how Departmental expertise in ecotoxicology, conservation, and related areas can benefit Native Americans.
- Promote careers in ecologically-oriented professions for Native Americans.

Objective 5.2: Develop displays/departmental brochures for distribution to minority colleges and universities. Offer to visit these institutions to discuss the OSU program with interested parties.

Strategies:

- Assign responsibilities for development of displays and brochures.
- Encourage faculty and students to promote programs to minorities.

Objective 5.3: Offer classes that highlight the cultural importance of natural resources for Native Americans and which can train individuals for roles in Tribal environmental offices.

Strategies:

- Propose and develop interdisciplinary courses between Zoology and Sociology, History.

Objective 5.4: Seek to develop research partnerships with Tribes to address environmental issues of concern and provide research opportunities for Native American graduate candidates.

Strategies:

- Work with Ecotoxicology and Water Research Lab on pollution problems that affect Tribes.
- Work with Oklahoma Cooperative Fish and Wildlife Research Unit to increase recruitment and support for Native Americans.

Goal 6: Student Development: innovative, interdisciplinary programs and teaching and advising.

Critical Success Factors:

- Recognition and rewards for faculty members working in innovative or interdisciplinary areas.
- Development and maintenance of sufficient breadth of courses.
- Enhancement of undergraduate and graduate student advising through evaluation and support.
- Achieving external recognition for innovative and interdisciplinary programs.
- Increase the number of undergraduate student presentations at scientific meetings.
- Sponsor a seminar by at least 1 Departmental alumnus each year.

Objectives:

Objective 6.1: Development of an interdisciplinary program in conservation, ecology and management.

Strategies:

- Create curriculum for interdisciplinary program.
- Create interdisciplinary program for improved recruitment of competitive students.

Objective 6.2: Strengthen program capabilities in fisheries management and population biology.

Strategies:

- Recruit fisheries biologist/population specialist.

Objective 6.3: Develop capability in human dimensions in conservation (social science applied to conservation and environmental problems).

Strategies:

- Create faculty position in human dimensions in conservation.
- Recruit competitive faculty member in human dimensions.
- Develop course in human dimensions in conservation.

Objective 6.4: Develop a system of rewards and recognition for faculty members working in innovative or interdisciplinary programs, including achievement of tenure and promotion.

Strategies:

- Increase flexibility in faculty assignments.

- Increase flexibility in A & D's and in merit raises to include work in innovative and interdisciplinary programs.

Objective 6.5: Explore the possibility of developing a center or institute for interdisciplinary programs in conservation, ecology, and management.

Strategies:

- Create committee to explore program possibilities.
- Collaborate with other disciplines on campus regarding center or institute.

Objective 6.6: Regularly evaluate departmental advising effectiveness, advising technology, and other support needs for faculty and staff.

Strategies:

- Maintain experienced staff advisors.
- Improve coordination of advisement with other biology departments.

Objective 6.7: Increase the extent and quality of interaction between individual faculty members and students by developing new activities involving both faculty and students outside the classroom.

Strategies:

- Encourage development of more intern programs with agencies and non-governmental organizations for students.
- Promote more involvement by undergraduate students in lab and field projects with faculty and graduate students.
- Continue faculty and student participation in receptions for seminar speakers and job candidates.

Objective 6.8: Seek additional ways to recognize and celebrate the academic accomplishments of undergraduate students by, for example, providing travel support to enable students who have completed research projects to attend national meetings.

Strategies:

- Seek additional financial support for travel to national meetings by faculty and students.

Objective 6.9: Promote undergraduate attendance and participation in the Departmental seminar series.

Strategies:

- Encourage faculty to provide incentives for undergraduate attendance in Departmental Seminars.
- Announce Departmental Seminars in more undergraduate classes.

Objective 6.10: Highlight accomplishments and career paths of Departmental alumni through seminars and meetings with student societies.

Strategies:

- Develop and maintain list of accomplishments by Departmental graduates.
- Post list on Departmental website.

Goal 7: Improve the academic experience of undergraduates by providing an environment for enhanced learning.

Critical Success Factors:

- Achieve and maintain a faculty:student ratio of 1:15 or better for all three primary degree programs combined.
- Achieve a graduation rate of at least 75% in each degree program.
- Build into each degree program a body of knowledge and the critical thinking skills needed for success in each field.
- Achieve an acceptance rate of at least the national average for students who apply to professional schools.
- Achieve a high level of accountability of administration, faculty, staff, and graduate students for attainment of the goal.
- Expand the range and types of courses that utilize state of the art delivery strategies.

Objectives:

Objective 7.1: Evaluate the content and relevance of courses offered in the Department and assess how well they prepare students for super division courses and graduate study.

Strategies:

- Charge Undergraduate Committee with review of courses.
- Coordinate assessment of how well courses prepare students.

Objective 7.2: Create specific written guidelines to implement critical thinking skills in every Departmental course.

Strategies:

- Charge Undergraduate Committee with review of critical content component for all undergraduate courses.
- Charge Graduate Committee with review of critical content of every graduate course.

Objective 7.3: Promote undergraduate involvement in student chapters of professional societies.

Strategies:

- Have advisors encourage student involvement in professional societies.
- Encourage faculty to promote student involvement in professional societies.

Objective 7.4: Encourage alumni to keep in touch via Departmental websites and use their professional achievements to recruit and retain competitive undergraduate students.

Strategies:

- Improve means of contacting alumni.
- Encourage alumni to visit Departmental website and post career information there.

Objective 7.5: Write a proposal for NSF's Research Experiences for Undergraduates (REU) Program.

Strategies:

- Assign responsibility for developing proposal.
- Award faculty obtaining grants.

Goal 8: Increase quality of graduate students and their research.

Critical Success Factors:

- Quality, quantity, and diversity of graduate applicants increase.
- Stipends for teaching assistants at least average for Big 12.
- High success in recruiting and retaining of best applicants.
- Publication of at least one refereed article by at least 75% of our graduate students who write a thesis or dissertation.

Objectives:

Objective 8.1: Offer graduate assistantships at competitive levels.

Strategies:

- Encourage Central Administration and College to increase funds available for teaching assistantships.
- Investigate options for improving assistantship support through more efficient use of existing funds.

Objective 8.2: Create more endowed graduate scholarships through partnerships with collaborative institutions.

Strategies:

- Coordinate information on graduate scholarships with regional comprehensive universities.
- Initiate or encourage fundraising for endowed graduate scholarships.

Objective 8.3: Establish institutional funding for innovative research, particularly for pilot projects.

Strategies:

- Develop plan for using portion of existing budget for pilot project and innovative research.
- Initiate or encourage fundraising for innovative research and pilot projects.

Objective 8.4: Publicize research findings by outstanding graduate students.

Strategies:

- Make results of graduate student research known to OSU News Group.
- Encourage and promote popular publications for wider audiences.

Goal 9: Maintain high levels of Departmental outreach and service.

Critical Success Factors:

- Increase number of undergraduates enrolled in Wildlife Communications option.
- Document the number of faculty presentations to off campus groups and schools to track trends in outreach and establish baselines for future comparison.
- Develop and present an outreach program that highlights career opportunities in Zoology within the next 3 years.
- Develop a collaborative linkage that focuses on environmental issues with at least 1 Native American Tribe within the next three years.

Objectives:

Objective 9.1: Maintain linkages with area public schools by continuing to give presentations in classrooms and tours of OSU Collection of Vertebrates (COV) to school and public groups.

Strategies:

- Continue to give tours of the COV to school and public groups.
- Document and report tours of COV given to school and public groups.

Objective 9.2: Maintain relationships with area zoos (OKC and Tulsa), museums (Omniplex), and Libraries (Stillwater Public Library) by continuing to provide specimens, text, and expertise for exhibits and presentations on the fauna of Oklahoma.

Strategies:

- Continue efforts to collaborate with Museum and Zoo officials on joint educational and research interests.
- Initiate ad hoc program for joint sponsorship of seminar speakers.

Objective 9.3: Maintain accreditation by the American Society of Mammalogists for OSU COV.

Strategies:

- Maintain standards required for accreditation.

Objective 9.4: Develop outreach programs on Oklahoma Natural History for area public schools and youth groups (e.g., Boy and Girl Scouts, Audubon camps).

Strategies:

- Work with OSU extension on Outreach.
- Work with Oklahoma Master Naturalist Program.

Objective 9.5: Promote community awareness of the unique natural history of Oklahoma and the Central Plains region and the importance of conservation of Oklahoma and regional ecosystems.

Strategies:

- Establish partnership with Natural Heritage Program.
- Establish partnership with Master Naturalist Program.

Objective 9.6: Continue to provide expertise and aquatic bioassays services to public and private entities through the Ecotoxicology and Water Quality Research Laboratory.

Strategies:

- Maintain and promote bioassays for municipalities and industry.

Objective 9.7: Enhance and expand relationships with Tribal Groups for research and education on issues in relation to environmental contamination on Tribal Lands.

Strategies:

- Continue to answer requests for assistance from Tribal Groups regarding concerns over contamination and other environmental problems.

Goal 10: Expansion and renovation of physical facilities for instruction, research and creative activities.

Critical Success Factors:

- LSW air quality meets safe, federal standards.
- Fans for fume hoods have adequate pull.
- Research labs of sufficient space.
- Compliance with federal standards for animal welfare.
- All classrooms have sufficient instructional technology.

Objectives:

Objective 10.1: Physical Plant correct fume hood/air intake problem on roof.

Strategies:

- Have Physical Plant install enhanced fans on roof.

Objective 10.2: Ensure sufficient pull for fume hoods.

Strategies:

- Have Physical Plant install enhanced fans on roof.
- Phase out and replace old fume hoods.

Objective 10.3: Annual review of research space for increase efficiency.

Strategies:

- Charge Planning Committee with annual review of research space.
- Faculty who require additional research space may request some from Department Head in consultation with Planning Committee.

Objective 10.4: Improved partnership with Animal Care & Use Committee.

Strategies:

- Establish Non-Centralized Facility in LSW.
- Clarify inspection criteria and challenge arbitrary rulings.

Objective 10.5: Provide Lap top computers to all teaching faculty plus sufficient projectors.

Strategies:

- Develop plan to increase lap top computers and projectors from existing Departmental funds.
- Seek external funds for more computers and projectors.

Goal 11: Establish a departmental degree program at OSU-Tulsa.

Critical Success Factors:

- Secure and fill Zoology faculty positions at OSU-Tulsa.
- Develop acceptable 5 year plan for Zoology at OSU-Tulsa.
- Core courses for Zoology degree in place at OSU-Tulsa.

Objectives:

Objective 11.1: Put in place a set of upper-division courses at OSU-Tulsa.

Strategies:

- Establish 4 faculty positions in Zoology at OSU-Tulsa.

Objective 11.2: Develop and offer major in Zoology at OSU-Tulsa.

Strategies:

- Ensure that all courses for B.S. in Zoology can be provided at OSU-Tulsa.

Objective 11.3: Establish teaching labs for lab-based courses at OSU-Tulsa.

Strategies:

- Coordinate development of teaching labs for all required Zoology courses at OSU-Tulsa.
- Provide teaching assistants for labs at OSU-Tulsa.

Goal 12: Insure recognition through communication of achievements.

Critical Success Factors:

- Increased publicity for achievements of faculty and students.
- Increase use of the Departmental website as a recruiting tool.

Objectives:

Objective 12.1: Encourage faculty members to inform OSU News Bureau of research findings of interest to general public.

Strategies:

- Integrate “communication to public” into annual A & D.
- Reward faculty and student initiatives in favorable publicity.

Objective 12.2: Encourage faculty and graduate students to publish popular versions of research on topics of interest and concern to the general public.

Strategies:

- Devise acceptable way to count popular publications as form of creative activities.
- Reward faculty for popular publications of research.

Objective 12.3: Implement a new design for the Departmental website within the next year.

Strategies:

- Assign responsibility for new Departmental website.
- Reward and recognize work on Departmental website.