Range, Wildlife and Fisheries  
Texas Tech University  

Graduate Program Review  
Daniel Edge  

11 April 2006  DRAFT  

Program Overview and Vision  

The Range, Wildlife and Fisheries Department (RWFD) mission is to provide the highest standards of excellence in learning, research and engagement on all aspects for natural resource management and environmental sciences. The unit is well organized for meeting this mission. Faculty include expertise in vegetation ecology and management, fire ecology, and most major subdisciplines in wildlife and fisheries. The program is particularly strong in habitat ecology and management, and population dynamics. The Texas Cooperative Fish and Wildlife Research Unit represents an important collaborative research and graduate training agreement among the TTU, USGS and Texas Department of Wildlife and Parks. Other collaborative relationships across campus add strength in areas not represented on the faculty. The Department has a planning process that provides for curriculum review and revision and identifies strategic opportunities for future program direction. The unit's vision is consistent with its mission, and the number of graduate students currently enrolled represent the size of program targeted in the strategic plan.  

Grade Assessment: Good to Excellent  

Faculty Productivity  

The RWFD faculty members have a good to excellent record of productivity. Many faculty members have an excellent record of scholarly achievement, publishing several articles per year in top tier international journals. Other faculty members are less productive but most still maintain a good record of scholarship. The unit has a good record of grants and contracts; several faculty members maintain large research programs with several graduate students each. Most grants and contracts, as is common with similar programs across the country, are applied research projects with state or federal natural resources agencies; nationally competitive awards such as NSF, USDA NRI or EPA STAR grants are uncommon. Average graduate student load is about 2-3 students per faculty member. Teaching load is 3 to 4 courses per year, which is consistent with similar programs across the country. Several faculty members have received national awards from professional societies, elevating the national standing of the program. Several faculty members have also received teaching awards from the college, university and professional societies. Level of service is appropriate for teaching-research
appointments. Several faculty members have held elected office in professional societies or served on the editorial boards for professional journals.

Grade Assessment: Good to Excellent

Quality and Quantity of Graduate Students and Graduates

The RWFD attracts high quality graduate students that are successful. Student profiles of incoming students are typical of programs across the country where students are selected based on academic excellence and skills that match research project needs. Verbal GRE scores of recent applicants are perhaps a little low. The department, like most across the country where admission into the program is dependent on project funding, discourages applications from potential students until they receive encouragement from a faculty member willing to support them. Thus, the program acceptance rate is relatively high. Undoubtedly, a large number of inquiries do not result in an application to the program. The gender and racial composition of the graduate students is predominately Caucasian males. However, international students provide substantially more racial and ethnic diversity in the program. The program has an excellent record of job placement at both the M.S. and Ph.D. levels. Most students publish one of more journal articles from their theses or dissertations and give one or more professional presentations at state, regional or national meetings. The department has a good program for training teaching assistants and provides excellent teaching experience for Ph.Ds. Support for most graduate students appears to be adequate although stipend levels are lower than many similar programs across the country. The program is currently near or at capacity, which is dependent on the number of funded projects. Increasing the number of graduate students will require additional faculty or providing incentives to faculty to increase the number of grants and contracts.

Grade Assessment: Good to Excellent

Curriculum and Programs of Study

The curriculum and program of study is comparable to similar programs around the country. The diverse nature of fish, wildlife and [range?] disciplines typically precludes a standard series of courses at the graduate level. Programs of study are determined by the students’ graduate committee and provide the knowledge and skills necessary to have a successful research project. Probably the most common course work across all degrees is statistics because of the quantitative nature of the disciplines. Course offerings and frequency are adequate for meeting program needs. Like many programs around the country that teach substantial numbers of undergraduates, the program’s graduate course offerings are largely dependent on split-level (piggy-back) courses. A common complain among graduate students was the quality of these split-level courses. Students reported higher satisfaction for such courses that had graduate only discussion sessions.

Grade Assessment: Good to Excellent
Facilities and Resources

Facilities are typically good and similar to other programs around the country. All graduate students currently have good office space. However, once the old Animal Science Building is demolished, office space for graduate students will be substantially constrained. Laboratory space is adequate, but as is typical in many places around the country, labs appear to have been designed without input from people who were to use them. Modern research equipment is either owned by the department or is readily accessible across campus through collaborative relationships with faculty in other departments. The department has a large inventory of field vehicles and qualified support staff to repair or fabricate field equipment. Department has adequate computer facilities, mostly provide by grants and contracts. Information technology needs are currently being met by a student employee. The department maintains a larger support staff than many programs around the country.

Grade Assessment: Good to Excellent

Recommendations

1. Grow graduate student program by expanding the research enterprise.
   a. Consider strategic investments in post-doctoral researchers who could assist research teams in submitting additional proposals and mentor graduate students.
   b. Provide incentives from special line item, research incentives awards, HEAF funds, and Graduate Tuition Rebate to encourage faculty to develop additional proposals.
   c. Transfer some of the teaching load among tenured faculty with strong research programs to faculty members who have demonstrated excellence and interest in teaching over research.
   d. Hire additional faculty.
   e. Support national effort to increase funding of the national Cooperative Fish and Wildlife Research Unit program via dialog with state congressional delegation. Increased national funding would allow current vacancy in coop unit to be refilled.

2. Enhance diversity among faculty and students.
   a. Actively recruit female and non-white graduate students.
   b. Actively seek to fill faculty appointments with women and minorities to serve as mentors to a more diverse graduate student pool.
   c. Actively groom undergraduates of color for graduate work.

3. Increase rigor of split-level courses.
   a. Seek ways to make courses more compelling learning experiences for graduate students by increasing opportunities for dialog or other means of enhancing critical thinking. Additional assignments or questions on exams are not challenging or interesting to graduate students.