

Request to Plan a Doctoral Program in Fisheries and Wildlife Sciences at North Carolina State University

Introduction

North Carolina State University requests approval to plan a doctoral program in Fisheries and Wildlife Sciences (CIP: 03.0101).

Program Description

The Fisheries and Wildlife Sciences program (FWP) will offer doctoral education that integrates the study of wild terrestrial and aquatic organisms, their management as important natural resources, and their conservation. In a world where rapidly expanding human populations place stress on natural and human dominated ecosystems, new knowledge and expertise must be generated at a rapid pace to successfully sustain a balanced biosphere and acceptable lifestyles. The funded research of the Fisheries and Wildlife Program faculty continually generates important new knowledge addressing key environmental issues ranging from advanced technical solutions (pathogen detection, identification of critical habitat, etc.), to novel integrated philosophical and scientific approaches to challenges at the human/wildlife interface. Doctoral students in the Fisheries and Wildlife Sciences will have the opportunity to participate in and gain valuable experience from this research. The Fisheries and Wildlife Sciences Doctorate is designed to prepare creative scholars with a solid foundation in use of the scientific method, and the integration of new knowledge into practical applications to meet the conservation challenges of the 21st century. Graduates will have the tools to lead efforts to counter declining biodiversity, the collapse of global fisheries, the spread of invasive exotic species, and the impact of diseases capable of devastating wild populations or spreading to domestic stock, and humans. The successful doctoral candidate will understand the need to integrate human socio-political and economic interests into research and development activities including subsistence and recreational use of fish and wildlife.

The Fisheries and Wildlife Sciences Doctoral Program will expand the frontiers of knowledge through provision of graduates with broad-based expertise in applied ecology, quantitative methods, and human dimensions in the conservation and management of fish and wildlife. Doctoral candidates will also contribute significantly to helping public and private agencies solve complex environmental problems and be good stewards of the land through their teaching and outreach skills.

The Fisheries and Wildlife Sciences Doctoral program will graduate students who are highly qualified to become national leaders in the creation of new knowledge and understanding about ecosystem function, the biota sustained therein and the importance of these natural resources to humans. The doctoral candidates will become the leaders in higher education, natural resources policy and human dimensions of fisheries and wildlife conservation. They will also be leaders in developing strategies to sustain the health and well being of wild populations of all animal species. NCSU Fisheries and Wildlife

Sciences Doctorates will be qualified to lead university research and teaching programs, state and federal natural resources management agencies, wildlife health laboratories, non-government research and advocacy groups, and serve as private sector consultants.

Program Review

The review process for requests to plan is designed to determine if the proposal is developed to the stage appropriate for taking to the Graduate Council and if so what are the issues that may need further attention. Proposals to plan doctoral programs are reviewed internally. The concerns from the reviewers were summarized in a letter to the Chancellor prior to the presentation to the Graduate Council. That summary follows:

The readers recognize the strength of the master's program in this area and the other doctoral programs the proposed program will be able to draw on. There was a concern that this program might draw students away from current programs. This is addressed in the proposal and I recognize that the expectation is of additional students who would want this distinct degree program. On the other hand it is an issue that deserves continuing attention.

On the related issue of graduate student support, there is the expectation of some reallocation of support for doctoral students in the new degree. This suggests that there may be some reduction or movement from other programs. It is certainly reasonable to do reallocations as well as seek additional outside funds but the basis of this in relations to bringing in new students could be further clarified.

Another issue is the demand for students with doctorates in this area by governmental and business firms. Since a lot of masters-trained students will also seek these jobs it may be wise to do some more detailed analysis of the demand for doctoral-trained graduates in this field, recognizing that it is not an easy thing to do.

There did not appear to be a reference to the doctoral program in Marine Biology at UNCW. Do the faculty see UNCW's program as unrelated to the kind of work that will be done in the proposed program?

Graduate Council

The Graduate Council had, as a basis for its consideration, the proposal to plan the program, the summary letter to the Chancellor, and a presentation to the Council by representatives of the program.

Response

Representatives made the case that this is a logical extension of work already being done at NCSU with strong undergraduate and masters programs in place and the cooperative involvement of other departments such as zoology, vet. Medicine, forestry, entomology, toxicology, agricultural economics, and agricultural engineering. In fact, a doctoral program will further strengthen the undergraduate and masters programs. No other campus in UNC offers work in this area, and the proposed doctoral program is much

broader than the Marine Biology program at UNCW and includes human-natural environment interactions.

The infrastructure of administrative and research support is in place and with a couple new faculty positions and some additional administrative support the program can be launched. The program has well established relationships with state agencies, federal agencies and private organizations. As in many other fields, the baby boomers are retiring in this and related fields and will need to be replaced. Employment is available at the federal level, state level, in academia, and in private organizations.

Recommendation by the Graduate Council

After consideration of the issues raised by previous reviewers and Council members, the Graduate Council voted, without dissent, to recommend approval for North Carolina State University to plan a doctoral program in Fisheries and Wildlife Sciences.

Issues to Address in Planning

The proposal should continue to refine the analysis of demand for graduates of this program.

Recommendation

The General Administration recommends that the Board of Governors approve the request from North Carolina State University to plan a doctoral program in Fisheries and Wildlife Sciences.

Approved to be Recommended for Planning to the Committee on Educational Planning, Policies, and Programs.



Acting Senior Vice President for AA Alan Mabe

January 4, 2006