Preparing Future Professionals

IN WILDLIFE EDUCATION, DO THE ENDS JUSTIFY THE MEANS?

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The recent release of a comprehensive report on wildlife education in North America marks the culmination of a two-year effort by The Wildlife Society’s ad hoc Committee on Collegiate Wildlife Programs. TWS Council formed the group essentially to answer one complex question: Is wildlife education doing all it can to prepare wildlife professionals to do their jobs?

To find the answer, our committee of nearly two dozen TWS members in Canada and the United States polled college administrators, students, teachers, and employers to assess the quality of education in wildlife management and conservation. We scrutinized curricula, assessed the merits of theoretical and experiential coursework, analyzed the role of certification programs in steering wildlife education, and talked with employers to learn whether new hires are prepared to serve as effective wildlife professionals.

This Leadership Letter broadly summarizes our findings (available in full online). What we discovered is surprising, at times discouraging, and ultimately inspiring. Clearly there are problems with wildlife education today, but as this issue of The Wildlife Professional shows, there are also practical solutions that we all can and should promote.

A Broad Reach

In North America, university and college wildlife programs exist in virtually every state and province. Several thousand educational institutions offer coursework in the loosely defined “wildlife area,” with specialized degree or certificate programs in wildlife biology and management available at no fewer than 500 schools. That represents at least four times more wildlife education programs than TWS had previously recognized—a gratifying discovery. Cultural, demographic, and economic shifts in recent decades, however, have changed the face of traditional wildlife education. Among the most significant trends:

Urbanization of Students. Many students enrolling in today’s wildlife programs have little or no experience with fieldwork, natural history, wildlife-habitat relationships, and consumptive and non-consumptive uses. Students today tend to be from urban backgrounds, and have obtained much of their knowledge of wildlife from the Internet or television. Such virtual realities transfer into the classroom, where students appear to be more dependent on web-based learning. This in turn requires instructors to keep abreast of the rapidly advancing information technology field so as to remain connected to their students, a time-consuming task.

Non-traditional Curricula. In the past, wildlife coursework focused on biology, game and fisheries management, and other traditional fields of study required for certification from groups such as TWS and the American Fisheries Society (AFS), as well as for listing in the National Association of University Fishers and Wildlife Programs (NAUFWP). In recent years, however, wildlife education has been shifting into non-traditional areas such as environmental science, often offered at schools that are not members of NAUFWP. As public interest in all aspects of the environment has increased, many university and college programs have attempted to capture new students by becoming more all-encompassing in their teaching and changing their names from game or wildlife management to wildlife conservation, ecology, or natural resource conservation. As long as the biological component of such programs remains strong, certification in professional societies is achievable. Yet only about one-quarter of the wildlife programs in North America provide coursework that would enable graduates to seek TWS certification, and few schools promote this credential. As a result, the link between today’s college wildlife programs and the mission of TWS has weakened.

Multiple Pressures. Changes in educational programming for college wildlife programs are tied to several inter-related factors. These include institutional demands, program-specific core requirements, the overriding importance of research dollars in determining faculty expertise and interests, and training needs as expressed by employers. Each of these can be affected by credit-hour allocations, national and international standards, declining budgets, increasing costs for schools and students, and non-traditional
student backgrounds and experience. Furthermore, shifting societal views on wildlife can affect funding, enrollment, and other factors critical to developing quality wildlife education programs.

**Employers’ Needs.** Most graduates in North America find employment with state, federal, or provincial wildlife agencies, universities, and non-government organizations or consulting firms. The needs of these employers have become more varied, with more emphasis on collaboration, transparency in decision making, and systems-based approaches to wildlife and habitat management. As graduates from today’s wildlife programs seek employment, many of them experience gaps between what their academic programs provide and what employers actually need. In particular, many employers feel that graduates lack proficiency in oral and written communication, the ability to interact with stakeholders, and working as part of a team, all of which are essential to mastering the job requirements of the wildlife profession.

**The Path toward Progress**

Academic programming in the wildlife field must continue to evolve so that graduates enter the work force with appropriate knowledge and skills. Though there is no “perfect” wildlife program, TWS certification requirements for coursework represent the core areas of competency that should be present in any high-quality wildlife program. Beyond that core, schools must develop a different educational model, one that transfers knowledge (principles, methods, and facts) in ways that simultaneously develop awareness, experience, and basic skills for meeting the demands of chosen career paths. This model should also recognize that more than one level of competence is necessary for successful entry to the profession.

To bolster the efforts of academic institutions, the entire wildlife profession must help prepare future wildlife professionals for complex, interdisciplinary, ecosystem-based jobs in conservation. What follows are some of the strategies that schools, professional societies, and employers can follow to enhance the skills of tomorrow’s wildlife professionals.

**Colleges and Universities.** Academic institutions need to provide comprehensive wildlife programs that prepare students for the varied demands of today’s employers and enable students to meet professional certification requirements. To achieve this, schools should:

- Work collaboratively with hiring agencies to assess their needs and tailor curricula to meet those needs.
- Offer experiential learning through hands-on field courses, cooperative education programs, and internships. We encourage schools to hire cooperative education coordinators and revamp curricula to make co-op placements a requirement in degree programs. There is no better teaching tool than real-world field experience.
- Emphasize teamwork, communications, stakeholder interactions, and understanding the cultural and political sensitivities of managing wildlife and habitats. Such skills can help young professionals understand stakeholders and develop science-based solutions to management problems, gaining a greater chance of public acceptance.
- Develop areas of specialization such as adaptive wildlife management or habitat modeling, which are increasingly important to conservation.
- Continue to provide strong foundations in all key academic areas defined by TWS certification, which are critical for effective wildlife education.
- Ensure that a strong foundation in basic science and ecology is complemented by an understanding of the North American Model of Wildlife Conservation. An appreciation of how the Model evolved can help students develop a personal and ethical connection to natural resource management.

**Professional Societies.** Professional societies can also take a leadership role in improving wildlife education. For example, they should re-evaluate and regularly update their certification programs to ensure that they define the competencies needed to be an effective wildlife professional. TWS is in the process of reviewing its certification program and may consider offering specialized certifications to recognize areas of expertise.

**Employers.** Public and private employers must stay engaged in curriculum discussions and support programs that will adequately train future wildlife professionals. Because entry-level employees are not finished products, employers should encourage continuing education and professional development by supporting employees’ participation in workshops and attendance at professional conferences.

Of course the ultimate responsibility for professional development lies with each individual. Those entering this challenging field must foster their own personal growth by seeking to improve their knowledge and skills throughout their careers. Such commitment and dedication—nourished by a solid educational foundation and ongoing support from employers and professional societies—will make it clear that the ends do justify the means.