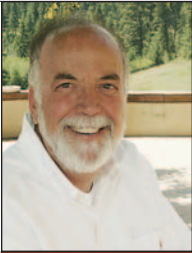


B&C PROFESSORS' CORNER

Sound Biology and Policy – Key Elements in Wildlife Management and Conservation



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The Boone and Crockett Club's Professor Program is a growing and important component of wildlife conservation because the programs contribute to the education of future leaders in the wildlife profession. This column is the third and

final essay examining the role of Boone and Crockett Professors. In the first column (Spring 2011), Dr. Tarla R. Peterson, Professional Member and Boone and Crockett Chair of Wildlife and Conservation at Texas A&M University, introduced the three-part series and discussed how academic research benefited conservation by providing knowledge that could be used in practical and theoretical applications. Dr. William "Bill" Porter, Professional Member and Boone and Crockett Professor of Wildlife Conservation at Michigan State University, followed (Summer 2011) by discussing how we teach and mentor students, especially graduate students, who are the future of the profession. He wrote about the capture of animals (the part all students love) and the analytical work that follows (often loved less, but more important) that allows us to better understand life history characteristics of wildlife. In my opinion, this is the heart and soul of good management; a solid understanding of the conditions responsible for viable wildlife populations. Sound policy related to conservation can only prosper if it is based on science, which is the theme of this essay.

Wildlife management and conservation is complex, often messy, and requires cooperation among all stakeholders. Consider the triad of the profession: wildlife, its habitat, and the human dimensions that influence both. Each of these could be, and often are, separate disciplines. The human dimensions part of the profession includes law, policy, human attitudes, communication, information and education, sociology, economics, and psychology while the other two relate

to biology and an understanding of habitat requirements. Wildlife management is a process that involves all of the disciplines; it would not be successful if any were eliminated. Thus, describing a "typical wildlifer" would be difficult because of the array of responsibilities involved and the importance of incorporating all of them into the process of management; however, that is what needs to be done for effective management and conservation. For example, consider all of the advances in wildlife management that have been made due to hunting, one of the primary tools used in the profession. Because hunters alter populations, biologists have been able to use harvest rates, or lack thereof, to deter-

U.S., may kill twice as many mammals as birds, and have contributed to wildlife declines and extinctions worldwide) but scientists have not been effective in educating the public about TNR. A key aspect of the B & C Professors program is to instill the importance of effective communication to our students. Without it, the science will not be heard and poor policies will result. The Wildlife Society (the professional society for wildlife biologists) and others, including Boone and Crockett Fellows, are making scientific data available to policymakers, and policy is slowly changing—changes that would not be made without solid science. Other exotics (e.g., feral horses, burros, pigs)

also alter and destroy wildlife habitat and compete for resources. Only science will be able to lay the foundation for changes to be made in the policies as to how these and other exotics are managed.

All policies are not in the national limelight but are important for direct wildlife management at local and regional levels. For example, Boone and Crockett Fellows at the University of Montana have influenced policy at various levels by

providing scientific data to towns and cities on ways to minimize negative wildlife-human interactions; they've enhanced techniques to determine the diet of predators of livestock, developed new ways for citizens to participate in data collection in National Parks and elsewhere and have established acceptable ways to translocate large mammals in ranching communities, among others. Most of these will not lead to new laws or acts, but the laws and acts that are passed in relation to these issues will be enhanced by the science that addresses each issue. Developing sound policies is most often accomplished by lawyers and politicians, but they will be operating in a vacuum or with false information generated from emotions that will lead to poor policy if biology is not considered in their deliberations. We all need to work together to enhance wildlife management worldwide, and by educating highly trained scientists, Boone and Crockett Fellows will be welcomed in any policy discussion related to the management and conservation of our wildlife resources. ■

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mine numerous life history characteristics about populations including survival rates (one of the most important values to understand populations), understanding density dependence and predator/prey relationships, habitat enhancement, and even adaptive management, among others. These aspects of biology have been incorporated into policy in many game and fish departments worldwide to better understand populations.

Wildlife science has also directed (both in support of or opposition to) other policies such as the trap-neuter-release (TNR) program, management of wild horses and burros, endangered species, hunting regulations, climate change, and just about anything in the world of wildlife. The TNR is an unsuccessful attempt to manage the overpopulation of feral cats. The TNR program is endorsed by feral cat advocates but opposed by wildlife scientists. As such, there is controversy as to the utility of TNR programs that is further confused with a mix of money, politics, emotions, and animal rights. Simply put, feral cats are a threat to native wildlife and their habitats (i.e. cats are the most significant invasive species affecting birds, account for the most anthropogenic causes of bird mortality in the