

The changing face of wildlife damage management

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ON BEHALF of the Wildlife Services program, I'm pleased to provide some thoughts for this initial issue of *Human–Wildlife Conflicts* regarding the changing face of wildlife damage management. Having been in this profession for more than 25 years, I have witnessed firsthand the growth and evolution of wildlife damage management programs across the country. The entire field of wildlife damage management has been in a period of change during the past 15 to 20 years. Wildlife damage managers making decisions in today's environment must now consider a wide range of legitimate public interests that often conflict with one another. These include wildlife and natural resource conservation, biological diversity, and the welfare of animals, as well as the use of wildlife for enjoyment, recreation, and livelihood.



Over the years, the need for effective and environmentally sound wildlife damage management methods has risen dramatically. Public scrutiny of these methods has also increased substantially. This situation is the result of at least 5 major trends that can be expected to continue during the coming years: (1) increasing suburban development; (2) adaptable and overabundant wildlife species; (3) a shift in public attitudes regarding the welfare of animals; (4) increasing media interest in wildlife issues; and (5) new advances in wildlife research and technology. These trends have led to new opportunities for those of us in the wildlife damage management profession.

Twenty years ago, wildlife damage management around the country focused almost entirely on protecting livestock and other agricultural resources from damage caused by predators or birds. Today, in addition to continuing to protect agricultural resources, wildlife damage management professionals are also involved in activities to protect public health and safety, property, threatened and endangered species, and other natural resources from damage or conflicts caused by wildlife, as well as dealing with the impacts of invasive wildlife. As the range and extent of wildlife damage has increased over the years, a need has arisen for increased research to identify new methods to help manage these problems. Within the Wildlife Services (WS) program, this is accomplished through our National Wildlife Research Center (NWRC), which is

headquartered on the foothills campus of Colorado State University in Fort Collins, Colorado, and with its 9 research field stations located throughout the United States. WS research over the last 10 years has led to the development of new repellents such as methyl anthranilate to prevent damage by Canada geese; new toxicants such as acetaminophen, which was found to be highly effective against invasive brown tree snakes in Guam; citric acid to combat the invasive coqui tree frog in Hawaii; egg-laying inhibitors such as nicarbazin to prevent nesting success of Canada geese in urban and suburban areas; the use of low-level laser lights to disperse roosting birds; electronic trap monitoring devices that can bounce a signal off a satellite

when a trap has closed, alerting a trapper through a message sent to a cell phone, beeper, or computer; and numerous other innovative tools identified through research.

At the NWRC, we have a slogan that says, "Solutions to problems depend upon knowledge which only research can provide." Nowhere is this more evident than in the field of wildlife damage management. New problems and conflicts with wildlife require increasingly new and unique research approaches to identify and develop effective and acceptable methods of control. At a time when more than two-thirds of all Americans consider themselves to be environmentalists, it is essential that new, innovative solutions to these problems be identified and that each response to wildlife damage be conducted professionally, and in an ecologically valid and biologically sound manner.

Over the years, I have witnessed an increasing amount of professionalism in the wildlife damage management field. Not too long ago, there were relatively few, if any, colleges or universities that offered courses in wildlife damage management. Today, numerous institutions routinely offer coursework and degree programs in this field. The importance and necessity of integrating human dimensions into the decision-making process has also rapidly expanded. The entire field of wildlife damage management has evolved from a segment that was not formally recognized as a part of the wildlife

management profession years ago to one today where this field is not only recognized as a critical component, but also is valued by the professional wildlife management community. Today, wildlife damage working groups are one of the most heavily attended committee meetings at professional wildlife meetings such as those of The Wildlife Society, the North American Wildlife and Natural Resources Conference, and the Association of Fish and Wildlife Agencies. The evolution of the wildlife damage management field was highlighted during the early 1990s with the establishment of the Jack H. Berryman Institute for Wildlife Damage Management at Utah State University and later at Mississippi State University.

Wildlife management programs have been extremely successful over the years, resulting in increasing populations, and in some cases, overpopulations of species, such as white-tailed deer, elk, coyotes, wolves, and other predators, as well as beavers; fish-eating birds, blackbirds, feral swine, and others. Add in the threat from vertebrate-invasive species, such as brown tree snakes in Guam; introduced tree frogs in Hawaii, Florida, and other States; nutria in much of the southern and eastern United States; giant Gambian pouched rats in the Florida Keys; and an increased threat from diseases transmitted by wildlife, such as chronic wasting disease, West Nile virus, avian

influenza, bovine tuberculosis, rabies, plague, and a number of other diseases, and it becomes clear why there is such a demand for wildlife damage management professionals to address these threats and conflicts.

Those of us involved in the wildlife damage management profession realize that wildlife management decisions are not always made on the basis of effectiveness or sound biological rationale. Organizations and groups with different goals often exert public and political pressures that can affect or influence the decision-making process. As a result, knowledge in just wildlife biology is no longer enough. Today's wildlife damage management professionals must also be well-versed in economics, sociology, public relations, and political science.

We have all witnessed the changing face of wildlife damage management over the years: more innovative control methods, increased emphasis on research, more public scrutiny, increased professionalism, better science, and expanding wildlife populations for numerous species throughout the country. These changes have been the catalyst for rapid growth and new opportunities. Based on the way the wildlife damage management field has evolved over the years, I believe that our profession is well-poised to meet the wildlife damage challenges that will face us in the future. ❄