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OBTAINING ASSISTANCE TO CONTROL WILDLIFE DAMAGE

Introduction

The Wildlife Society (TWS) policy statement for wildlife damage control (1992) states: "Prevention or control of wildlife damage . . . is an essential and responsible part of wildlife management." The role of wildlife damage control in our society is changing and so is public perception of it. This change is recognized among wildlife managers and researchers.

Efforts are under way to make the wildlife damage control profession more responsive to concerns of society. Formal petition for the establishment of a Wildlife Damage Working Group within TWS was made to the Wildlife Society Council on March 21, 1993 and the following day the council approved interim status for the working group.

Wildlife damage control professionals should be prepared to promptly supply the best information available to solve conflicts between people and wildlife. Often, the most urgently needed information is where to go for assistance when a problem arises.

This chapter provides options for obtaining assistance. It tells who does what to minimize conflicts between people and wild animals, and it gives

suggestions for obtaining self-help information and/or reaching people who can provide onsite help.

Background

Wildlife managers and agricultural specialists are often familiar with damage caused by wild animals to livestock, crops, and other types of private and public property. Conover and Decker (1991) surveyed wildlife managers and agricultural specialists throughout the United States and concluded that damage caused by wild animals was a major agricultural problem. Twenty-seven species were cited as causing the greatest problems. From a national perspective, deer reportedly caused the most damage, followed by elk, raccoons, beavers, blackbirds, and coyotes.

Damage by wild animals to ornamental plants, buildings, roads, and other structures can be serious. Some of the most costly problems are caused by house mice, Norway and roof rats, beavers, and deer (see chapters on these species in this handbook). Wild animals also cause nuisance problems, particularly in urban areas. Problems range from feces left on golf course greens by ducks and geese and garbage containers overturned by

raccoons, to disturbing sounds made as small mammals move in attics and walls. Chapters in this handbook provide information about nuisance problems caused by bats, tree squirrels, raccoons, woodpeckers, ducks and geese, and other problem species.

Under some conditions wild animals are reservoirs of diseases, presenting a threat to other wildlife populations, to domestic animals, and to human health (See **Wildlife Diseases and Humans**, Friend 1987, Davidson and Nettles 1988). Also, public safety is at risk from automobile and aircraft collisions with wild animals (Dolbeer et al. 1989, Hansen 1983).

People usually enjoy having wild animals near their homes and most are willing to tolerate moderate damage from wildlife. Some people are able to control wildlife damage on their own. Others, before acting on their own, need information about the life histories of the animals causing problems, the legal status of the animals, and suggestions about controlling damage. Still others need professional, onsite help to solve wildlife damage problems. There are programs available to meet the needs of do-it-yourself wildlife managers and onsite assistance for people who need more help.



PREVENTION AND CONTROL OF WILDLIFE DAMAGE — 1994

**Cooperative Extension Division
Institute of Agriculture and Natural Resources
University of Nebraska - Lincoln**

**United States Department of Agriculture
Animal and Plant Health Inspection Service
Animal Damage Control**

**Great Plains Agricultural Council
Wildlife Committee**

Obtaining Assistance

Table 1 shows whom to contact for information, permits, and hands-on assistance. Mailing addresses and telephone numbers of coordinating offices for federal and state agencies are listed in the National Wildlife Federation Conservation Directory, which is published annually. Some key national groups and telephone numbers are listed below in the section on "Groups That Help Prevent and Control Wildlife Damage." Private pest control operators and local offices of government agencies that help control wildlife damage may be found in public telephone directories.

Keep in mind that permits may be required **before** control activities are initiated. When there is a possibility that endangered species or migratory birds will be affected, contact the US Fish and Wildlife Service. When game animals are involved, contact your state wildlife management agency. When aquatic habitats such as wetlands or streams may be affected, contact the US Army Corps of Engineers and your state environmental regulatory agency.

Special materials may be required to prevent and control wildlife damage. Chapters on individual species list information about such materials. Most items will be available from hardware and gardening supply stores. When pesticides are used, read labels carefully. You may need to contact USDA-APHIS-Animal Damage Control (ADC) or the Extension Service for explanation of some applications. The Pocatello Supply Depot operated by USDA-APHIS-ADC provides some chemical control agents for wildlife (see section below on the ADC Program). The **Pesticides** section in this handbook provides more details.

Effective techniques for controlling damage from wild animals do not exist for all situations. Information about research to solve special problems or international issues related to wildlife damage control may be obtained from the Denver Wildlife Research Center or the Jack H.

Berryman Institute of Wildlife Damage Management at Utah State University. A section on wildlife damage research is presented below.

Attracting wildlife through feeding and habitat enhancement has gained popularity in recent years. This has resulted in greater appreciation of wildlife among urban residents and provides educational opportunities. Conflicts may develop, however, when wild animals concentrate near feeders and protected sites.

The key to enhancing urban wildlife is careful planning to develop compatible situations where the needs of wild animals are met without creating intolerable situations for people. Keep in mind that wild animals enjoyed by some people may cause problems for neighbors. The fox that one family likes to see in the backyard may be a serious problem for neighbors raising chickens, and the deer that people enjoy viewing from a distance may be a safety hazard on roads or may cause serious damage to ornamental plants and gardens in the community.

Groups that Help Prevent and Control Wildlife Damage

Cooperative Extension Service

The Cooperative Extension Service is a good place to start when you have a problem with wild animals and do not know where to obtain help. The extension service provides a wide range of information on prevention and control of wildlife damage through local agents in most counties and specialists at many state universities. Extension wildlife activities are coordinated nationally through the Natural Resources and Rural Development Program (202-720-5468). Local extension service offices are listed in government sections of telephone directories.

Animal Damage Control Program

USDA-APHIS provides operational and technical assistance to reduce conflicts between people and wildlife

through the nationwide ADC program. Help is available to states, individuals, and public and private organizations when wild animals damage livestock, poultry, beneficial wildlife, or crops including forests and rangelands. Help is also available when wild animals threaten human health and safety.

The ADC program includes a deputy administrator (202-720-2054), headquarters support staff, the Denver Wildlife Research Center, and the Pocatello Supply Depot. Operational activities are managed within most states through the eastern and western regional offices, and individual state offices. The Denver Wildlife Research Center (DWRC) (303-236-7826) is a major research facility devoted to improving methods and materials for vertebrate damage control. The Pocatello Supply Depot at Pocatello, Idaho (208-236-6920), manufactures and sells some toxicants, fumigants, and other products for wildlife damage management.

Fish and Wildlife Service

The US Fish and Wildlife Service has primary responsibility for managing endangered species and migratory birds. Contact the agency about required permits before initiating control activities that involve these species (Office of Management Authority, 800-358-2104).

State Wildlife and Fish Management Agencies

State wildlife and fish management agencies are responsible for managing most resident species of wildlife and fish, as well as migratory species while they are within state borders. Often permits are required from the state agency before species listed as game animals, furbearers, or game fishes can be controlled. Permits may also be required if species are involved that are considered rare or endangered by the state. Check with your local state wildlife and fish management agency when you obtain a permit for control from the US Fish and Wildlife Service.

Table 1. Sources of information (I), permits (P), and hands-on assistance (A) for wildlife damage control. The National Wildlife Federation *Conservation Directory* lists addresses and telephone numbers for coordinating offices for federal and state agencies. Public telephone directories list local government offices and private pest control operators.

SPECIES	USDA-APHIS-Animal Damage Control	Extension Service	US Fish and Wildlife Service	State wildlife and fish management agencies	Local animal control agencies	Private pest control operators
Mammal Predators						
Badgers	I	I		P		A
Bears	IA	I		IP		
Bobcats and lynx	IA	I		IP		
Cougars	IA	I		IP		
Coyotes	IA	I		IP		
Feral house cats	I	I		I	A	A
Feral dogs	IA	I		I	A	A
Foxes	IA	I		IP	A	
Opossums	IA	I		I	A	A
Otters	I	I		IP		
Raccoons	IA	I		IP	A	A
Skunks	IA	I		IP	A	A
Weasels	IA	I		IP		
Wolves	IA	I	P	IP		
Small Mammals						
Bats	I	I	P	I	A	A
Beavers	IA	I		IP		A
House mice	I	I			IA	A
Moles	I	I				A
Muskrats	IA	I		IP		A
Pocket gophers	I	I				A
Prairie dogs	IA	I	I	I		A
Norway rats	I	I			IA	A
Roof rats	I	I			IA	A
Rabbits	IA	I	I	IP	IA	A
Tree squirrels	I	I		P	IA	A
Voles	I	I				A
Big Game Mammals						
Bison	I	I		P		
Deer	I	I		IPA		A
Elk		I		IPA		
Feral swine	I	IA		IP		
Moose		I		IPA		
Pronghorns		I		IPA		
Birds						
Blackbirds	IA	I	I	I	I	A
Crows	IA	I	I	I		A
Ducks and geese	IA	I	IP	IP		A
Eagles	IA	I	IP	IP		
Egrets, herons, and cormorants	IA	I	IP	IP		
Hawks, falcons, and owls	IA	I	IP	IP		
Magpies	IA	I	I			
Pigeons	IA	I			I	A
House sparrows	IA	I			I	A
Starlings	IA	I			I	A
Turkeys		I		IP		
Woodpeckers	IA	I	IP	IP	I	A
Reptiles						
Alligators	I	I		IP		A
Snakes	I	I		I	I	A

Local Animal Control Authorities

The local animal control authority, public health service, or animal welfare organization, may be able to provide assistance with damage caused by urban wildlife, in situations in which humans are threatened by wildlife, and with free-ranging dogs and cats. Refer to government sections of your local public telephone directory.

Professional Pest Control Operators

Private pest control operators located throughout the United States provide a wide range of wildlife damage control supplies and services. Consult your telephone directory for local pest control operators. The National Animal Damage Control Association and the Urban Wildlife Management Association may be able to provide contacts for special control situations.

Research to Understand and Minimize Wildlife Damage

Research on ways to minimize damage caused by wild animals dates back to the nineteenth century. In the United States, most research on damaging wildlife has been conducted and/or funded by government agencies. Major research efforts date back to the establishment of the Section of Economic Ornithology within the US Department of Agriculture in 1885 (US Fish and Wildlife Service 1981). The section grew, and in 1905 became the Bureau of Biological Survey. The survey and cooperating universities conducted studies of pocket gophers and ground squirrels. The survey also supported research on predatory animals, mainly aimed at eliminating them to satisfy demands of the growing western livestock industry.

Controversy about controlling coyotes and other wild animals increased from the late 1920s through the 1970s. Opposition to control changed from a fringe position opposed to wild animal suffering in the 1930s to a well-organized, national movement concerned with environmental issues and animal welfare. The emphasis of wildlife damage control research also

shifted from lethal control to nonlethal control techniques that include more studies of predator behavior.

Numbers of wildlife professionals involved in wildlife damage control declined through the 1960s and 1970s as controversy increased. By 1978 only 41 of 450 US and Canadian university and college wildlife faculty members surveyed reported an emphasis in the ecology and control of damaging vertebrates (Blaskiewicz and Kenny 1978).

In recent years, most research relating to problem wildlife has been conducted by personnel of the Denver Wildlife Research Center (DWRC) or has been supported by grants from the center. In 1986, the DWRC was transferred from the Fish and Wildlife Service to the Animal and Plant Health Inspection Service (APHIS).

The DWRC has national and international programs devoted to providing scientific information on wildlife damage, existing control practices, and alternative methods for reducing damage. About half of the staff is based in Denver; the rest are located at field stations on university campuses and other sites in the United States and cooperating countries.

The DWRC has cooperative ties with several universities. Colorado State University in Fort Collins has been a close cooperator with DWRC for many years. DWRC staff serve as instructors in some courses and advise and support research studies by university students. The DWRC has been particularly involved in short courses on wildlife damage research and management for foreign students. APHIS plans to move the DWRC headquarters to the Colorado State University campus. A master plan has been completed and construction of an animal facility was initiated in 1993.

Cornell University, in Ithaca, New York, has cooperated for five years with DWRC in conducting research on deer damage and its management. The university, along with the New York Cooperative Fish and Wildlife Research Unit, has conducted research on a variety of wildlife damage

problems ranging from biological studies of pine voles to human perceptions of wildlife damage and control.

The Monell Chemical Senses Center on the Philadelphia campus of the University of Pennsylvania is a nonprofit research institute devoted exclusively to studies of taste, smell, and the common chemical sense. This institute has been involved with wildlife damage research since its inception in 1968. The DWRC has maintained a field station at the center since 1978. The center has focused on the role of the chemical sense in wildlife damage management, including bait shyness, food-aversion learning, attractancy, and repellency.

The University of Florida at Gainesville has worked cooperatively with a Gainesville-based field station of the DWRC on research leading to cultivars of blueberries that might improve resistance to depredation by some species of birds

The DWRC staff also work in collaboration with the Gainesville-based field station and Louisiana State University's Rice Research Station to study and control blackbird damage to rice. Research efforts are also devoted to the control of beaver damage in waterways.

Mississippi State University, in Starkville, has had a strong interest in wildlife damage research for many years, partly through the US Fish and Wildlife Service Cooperative Research Unit on the campus. Since the establishment of a field station of the DWRC on campus in 1988, the research has focused particularly on bird depredations to aquaculture. The Maine Cooperative Fish and Wildlife Research Unit has also had interest in cormorant depredations in aquaculture. The DWRC has assisted in the development and production of radiotelemetry equipment to allow tracking of movements of cormorants for both the Maine and Mississippi studies.

Bowling Green State University, in Ohio, has a strong research and educational program in wildlife damage management. The DWRC has cooperated in this program by sponsoring

research activities, and by classroom lectures and discussion. Plans are being developed to form close working relationships between the University and the DWRC field station at nearby Sandusky, Ohio. In the past, the field station program focused on blackbird population dynamics and damage to corn. More recent research has emphasized gull problems at airports and at sanitary landfills. The present leadership of Bowling Green State University is strongly supportive of continued programs in wildlife damage management.

North Dakota State University in Fargo has worked cooperatively with DWRC on reducing blackbird damage to sunflowers. The University has a long-term plant-breeding program that has produced two high-yield cultivars of sunflower that exhibit resistance to blackbird damage. Research at the field station is presently focused on alteration of cattail marshes to make them unsuitable as roosts for blackbirds and more suitable for other migratory birds.

Some cooperative studies are being conducted on the efficacy of DRC-1339 for blackbird control with the Jack H. Berryman Institute of Wildlife Damage Management at Utah State University, in Logan (801-797-2436). This new institute offers a broad research and graduate educational program focusing on innovative approaches to controlling wildlife damage. The purpose of the institute is to help wildlife damage management specialists and researchers do their jobs better and to foster communication.

Utah State University is also the site of a field station of DWRC that focuses primarily on predator control methods and their alternatives. The station is uniquely equipped with large penned areas for the study of coyote behavior. This station, along with its university-based cooperators, has been the source of many studies contributing to our present understanding of coyote biology, behavior, physiology, and population dynamics.

Washington State University in Pullman has had an active interest in a

broad range of wildlife damage issues for many years, including the development of bird-repellent methods, animal-restraining systems, humane trapping standards, and control of rodent damage to orchards. The recent addition of a DWRC field station at the university is strengthening the program, particularly in rodent problems and their control. The Pullman station is closely tied with a DWRC field station at Olympia, which has focused for many years on wildlife damage to forests by species such as deer, mountain beavers, voles, and pocket gophers. These research programs assess the efficacy of existing control and look at repellent devices, food aversion learning, and chemical repellent systems. The work is also closely coordinated with the field station at Monell Chemical Senses Center in Philadelphia.

The University of California, at both Berkeley and Davis, as well as the University System's Research and Extension Center at Hopland, has had a strong and broad research and educational program in wildlife damage under the leadership of Dr. Walter Howard, professor emeritus of the University of California at Davis. The Berkeley scientific staff has had particular interest in deer damage and population dynamics, whereas the Hopland Center has contributed much to understanding and managing predator problems. The recent addition of a DWRC field station at the Berkeley location is providing opportunities for studies of predator behavior and population dynamics as well as alternative control approaches. Some of these projects are coordinated with studies of coyotes at Yellowstone National Park and the University of Montana at Bozeman.

In addition to field stations and collaborating scientists, DWRC has contracts with universities and other organizations to conduct research. Arizona State University in Tempe has contracted to conduct studies on food aversion learning as it relates to predator management. Several universities have participated in studies of contraception as a wildlife damage management tool. These include studies at

Rutgers University in New Brunswick, New Jersey, on hormonal approaches to contraception of deer and studies at Baylor Medical College in Waco, Texas, and Pennsylvania State University in State College, Pennsylvania, on immunologically based approaches to contraception of deer. The DWRC has also supported student research at the University of Missouri-Columbia on human perceptions of goose management.

Although the DWRC continues to cooperate with universities, it has not cooperated formally with all universities that have an interest in or active research or educational programs in wildlife damage management. For example, the University of Nebraska-Lincoln has strong research and educational programs in wildlife damage management, as does Kansas State University in Manhattan. Both of these universities would be suitable candidates for closer cooperative efforts in the future. In general, cooperative research ties with universities have provided opportunities to assess new approaches to wildlife management. The ties have also served as recruitment pools for scientists and support staff for professional groups involved in wildlife damage management. The numerous cooperative ties with DWRC attest to a broad and continuing interest in wildlife damage management by many universities.

The director of the DWRC (303-236-7820), can serve as a source for further contacts with any of the universities and research programs described above.

Summary

An overview of sources of information about wildlife damage management is presented in Table 1. The table is not comprehensive because laws and services vary from state to state. Good starting places for information are local Cooperative Extension offices, state wildlife management agencies, and animal control authorities. They may refer you to USDA-APHIS-ADC or private wildlife damage control services in your area.

For Additional Information

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