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July 2001

## The Probe, Issue 217 – July/August 2001

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# NADCA's Future Mission

Art Smith, NADCA Treasurer, editor *INTERACTIONS*  
(TWS, WDM WG Newsletter)

As we all know, time does not stand still. This is especially apparent in the wildlife damage field, and with NADCA. I think Mike Conover's initiation of this topic is certainly well timed, and needs our attention. Robert Schmidt has stated (*PROBE* #207 - if you have not read or have forgotten Robert's article, I strongly suggest you revisit it) where NADCA used to be — that is as the only voice representing a wide variety of people concerned with wildlife damage management.

Should NADCA disband? No, I don't think so. If I did, I'd simply stop subscribing and devote more time to The Wildlife Society's (TWS) Wildlife Damage Management Working Group (WG). However, the NADCA membership level has remained static for the past year. Meanwhile, the WG membership has increased about 10% each year for the past 3-4 years. If nothing is changed, NADCA will likely die a slow death. This view is supported by the questionnaire results in *PROBE* issue #209 (another good issue to review!).

Has NADCA lost some of its leadership in wildlife damage? I think the answer is yes. Although the Nuisance Wildlife Control Operators Association (NWCOA) is a very new organization, their voice for the private control operators is quite evident. I forecast nothing but increased membership and influence by this organization in the future. Meanwhile, the WG has published two techniques manuals, regularly hosts sessions at the annual TWS Conference, and is preparing to sponsor/host a biennial conference that will replace the Great Plains and Eastern Wildlife Damage Conferences (tentatively named the Wildlife Damage Management Conference, April 2003).

Despite these additions to the arena, however, NADCA has retained a much more diverse group of interests within its membership. It is this generalist structure which is NADCA's greatest strength, and which would be missed as a communication tool if it disbands. In the last *PROBE*, Mike Conover and John Baroch introduced what I consider to be good suggestions, both of which involve communications (also see Robert's article).

The last questionnaire focused on the immediate future of NADCA. I think we may be past that point, but we can use more member input.

Therefore, I suggest that a second questionnaire be sent out to the membership at large. The focus of this mailing would be on covering future projects, coordinating efforts with other groups, session hosting at the WG's 2003 or future Vertebrate Pest Conferences, etc., and discussing how members think we could get these things done.

Because of our diverse membership and experienced and structured leadership, NADCA can easily create and meet any of the ideas presented in those articles. However, nothing would last long without the involvement from members in addition to the elected officers. I think NADCA can be much more than another newsletter-generating-entity.

Certainly it was more in the past. We have already been polled and the results spoke clearly to avoid disbanding. Our strength is our diversity — we should use that to our advantage and to the advantage of the wildlife damage field as well.

## TWS Position Statement on Feral and Free-Ranging Domestic Cats

*The following position statement was approved by The Wildlife Society Council, March 2001.*

Feral and free-ranging domestic cats are exotic species to North America. Exotic species are recognized as one of the most widespread and serious threats to the integrity of native wildlife populations and natural ecosystems. Exotic species present special challenges for wildlife managers because their negative impacts are poorly understood by the general public, many exotic species have become such an accepted component of the environment that many people regard them as "natural," some exotic species have advocacy groups that promote their continued presence, and a few policies and laws that deal directly with their control. Perhaps no issue has captured more of the challenges for contemporary wildlife management than the impacts of feral or free-ranging human companion or domestic animals. The domestic cat is the companion animal that recently has attracted the most attention for its impact on wildlife species.

*Continued on page 3, col. 1*

# Feral Dog Trapping Primer

Dave Pauli, Humane Society of the United States Regional Director of the Northern Rockies Regional Office

Feral, under-socialized or wild dogs tend to be somewhat more difficult to capture than stray domestics. There are three basic concepts that differ from my advanced live-trapping techniques that should be applied to "feral" dogs. These are:

- 1) Gang Setting
- 2) Sanitized well-bedded sets
- 3) Good bait acceptance, with pre-baiting.

## 1) Gang Setting (saturation trapping):

Truly feral dogs have stronger pack (family unit) and territorial behavior than stray domestics. Utilize this trait against them by "gang setting" or setting numerous traps in any area where they are known to be. This enables you to catch the majority of the family unit before any members become "trap shy". This also enables you to use any captured family members as bait to catch the rest. A trapped family member can be watered, worried, and tarped with traps placed on all sides of the trap. Traps with auditory or other unique baits will also take members that hang around the trapped family member.

## 2) Sanitized and Well-Bedded Traps:

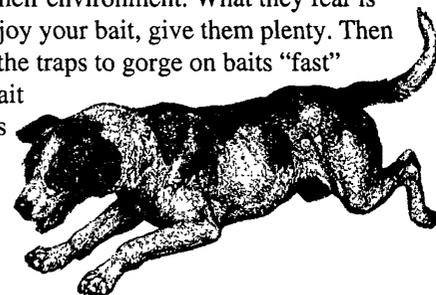
A well-bedded (stable) trap with one-quarter to one-half inch of floor covering is necessary to catch most under-socialized dogs. The trap is enhanced if it previously held a submissive animal or female in heat. If it contained a dominant animal you must sanitize the trap. If this is not possible, try introducing a domestic cat, rabbit or other "prey" animal into the trap to provide an interesting and fresh cover-up scent. The floor covering main-

tains the same tactile feel inside and outside the trap therefore reducing the animal's fear of stepping on an unfamiliar surface. The floor covering material also acts as an insulator to help protect the animal from extreme ambient temperatures.

## 3) Bait Acceptance:

Whenever possible, I like to establish bait stations for feral dogs several days to one week before actual trapping begins. If you are in a protected (theft free) area, it is best to pre-bait near and into a wired open live-trap. Canines do not fear the trap, it is just another obstacle in their environment. What they fear is anything new. Let them enjoy your bait, give them plenty. Then when they are all entering the traps to gorge on baits "fast" them for one day then re-bait and set all traps. Your traps should be full for the next few days.

Continued on page 3, col. 2



## CALENDAR OF UPCOMING EVENTS

**August 27-30, 2001 - Bird Strike 2001, The Westin Calgary, Calgary Alberta, Canada.** Deadlines: April 13, Presenter Proposals; June 1, Early Bird Registration. For information contact Bruce MacKinnon, e-mail [mackinb@tc.gc.ca](mailto:mackinb@tc.gc.ca), phone 613-990-0515, fax 613-990-0508

**September 9-14, 2001 - 3rd European Vertebrate Management Conference, Kibbutz Ma'ale Hachamisha, Israel.** Contact ORTRA LTD at e-mail [vert@otra.co.il](mailto:vert@otra.co.il), phone 972-3-6364444, fax 972-3-6384455

**September 12-15, 2001 - 91st International Association of Fish and Wildlife Agencies, Annual Meeting, The Hyatt Regency Wichita, Wichita, KS.** Contact Hannah Kirchner at 812-723-0088 or [hannah@kiva.net](mailto:hannah@kiva.net). Information can also be downloaded from [www.sso.org/iafwa](http://www.sso.org/iafwa)

**September 16-21, 2001: 3rd International Congress of Vector Ecology, Winterthur Conference Center, Barcelona, Spain.** The program will include papers, symposia, workshops, and poster sessions on vector ecology and control. For further information visit the Congress web page at <http://www.ove2001.org>

**September 25-29, 2001 - The Wildlife Society 8th Annual Conference, Reno-Tahoe, NV.** Information available at <http://www.wildlife.org>

**November 14-17 - 25th International Wildlife Rehabilitation Conference, Lake Buena Vista, FL.** Contact IWRC, 4437 Central Place, Suite B-4, Suisun, City, CA, email [iwrc@inreach.com](mailto:iwrc@inreach.com).

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Your contributions of articles to *The Probe* are welcome and encouraged. The deadline for submitting materials is the 15th of the month prior to publication. Opinions expressed in this publication are not necessarily those of NADCA.

## TWS Position Statement on Feral and Free-Ranging Domestic Cats

Domestic cats originated from an ancestral wild species, the European and African wild cat (*Felis silvestris*). The domestic cat (*Felis catus*) is now considered a separate species. The estimated numbers of pet cats in urban and rural regions of the United States have grown from 30 million in 1970 to nearly 65 million in 2000. Reliable estimates of the present total cat population are not available. Nationwide, approximately 30% of households have cats. In rural areas, approximately 60% of households have cats.

The impact of domestic cats on wildlife is difficult to quantify. However, a growing body of literature strongly suggests that domestic cats are a significant factor in the mortality of small mammals, birds, reptiles, and amphibians. Because free-ranging cats often receive food from humans, they can reach population levels that may create areas of abnormally high predation rates on wildlife. When the wildlife prey is a threatened or endangered species, the result may be extirpation or extinction. Effects of cat predation are most pronounced in island settings (both actual islands and islands of habitat), where prey populations are already low or stressed by other factors, or in natural areas where cat colonies are established. Competition with native predators, disease implications for wildlife populations, and pet owners' attitudes toward wildlife and wildlife management also are important issues.

Extensive popular debate over absolute numbers or types of prey taken is not productive. The number of cats is undeniably large. Even if conservative estimates of prey taken are considered, the number of prey animals killed is immense. Feeding cats does not deter them from killing wildlife as they do not always eat what they kill. Humans introduced cats to North America and they must be responsible for the control and removal of cats that prey on wildlife.

The policy of The Wildlife Society in regard to feral and free-ranging domestic cats is to:

1. Strongly support and encourage the humane elimination of feral cat colonies.
2. Support the passage and enforcement of local and state ordinances prohibiting the public feeding of feral cats, especially on public lands, and releasing of unwanted pets or feral cats into the wild.
3. Strongly support educational programs and materials that call for all pet cats to be kept indoors, in outdoor enclosures, or on a leash.
4. Support programs to educate and encourage pet owners to neuter or spay their cats, and encourage all pet adoption programs to require potential owners to spay or neuter their pet.
5. Support the development and dissemination of sound, helpful information on what individual cat owners can do to minimize predation by free-ranging cats.
6. Pledge to work with the conservation and animal welfare communities to educate the public about the negative impact of

free-ranging and feral cats on native wildlife, including birds, small mammals, reptiles, amphibians, and endangered species.

7. Support educational efforts to encourage the agricultural community to keep farm cat numbers at low, manageable levels and use alternative, environmentally safe rodent control methods.

8. Encourage researchers to develop better information on the impacts of feral and free-ranging cats on native wildlife populations.

9. Recognize that cats as pets have a long association with humans, and that responsible cat owners are to be encouraged to continue caring for the animals under their control.

10. Oppose the passage of any local or state ordinances that legalize the maintenance of "managed" (trap/neuter/release) free-ranging cat colonies.

— from TWS, *The Wildlifer*, May-June 2001



Continued from page 2, col. 2

## Feral Dog Trapping. . .

### Other Feral Tips:

**Baits:** Try "unique" baits like water, pork rind and electronic (auditory) baits. Put some bait under the floor and trap pan to prevent bait theft. Wire a "worry toy" (bone/rawhide/ball) to the trap pan. Have all bait fresh and edible.

**Lures:** Commercial lures, auditory calls, sight attractors can all increase trap success.

**Crowding:** In this instance, use the largest traps you have. Feral and wild canids don't like to be crowded.

**Trap Checks:** Check your traps with binoculars, don't walk up each time, don't bring along "guests" to run the trapline. Minimize traffic and human scent. (Bringing along a small dog can increase success because they may follow your dog's trail from set to set.

**Other:** Since 1998, the Northern Rockies Regional Office has worked on a prototype wild canid colony trap. The current 100 square foot model has two gravity drop doors fired by a canid specific mouth operated release. It has non-target escape ports and a backup protection cage for large racoons or bobcats. This prototype trap is still being field tested.

— reproduced with permission © 2001, Dave Pauli



The Editor thanks contributors to this issue: Guy Connolly, Michael Conover, Dave Pauli, and Art Smith.

# Wildlife and Highways: Seeking Solutions to an Ecological and Socio-Economic Dilemma

A symposium focusing on seeking solutions to the ecological and socio-economic dilemmas associated with wildlife and highways was held at the 7th annual meeting of the Wildlife Society. Over 22 speakers participated in the day-long symposium. The purpose of the symposium was to synthesize the current body of knowledge of the impacts of highways on wildlife. Symposium speakers identified and discussed the economic, social, and resource impacts of highways. Speakers also discussed the factors contributing to increased impacts and current research and management strategies that reduce the impacts of highways on wildlife. The information presented at the symposium served stimulus for creating an electronic information clearinghouse regarding the impacts of highways and other transportation systems for Department of Transportation, local governments, and public and private wildlife conservation and management agencies. The information presented at the symposium was published in a symposium proceeding (Messmer, T. A., and B. West [editors], 2000. *Wildlife and Highways: Seeking Solutions to an Ecological and Socio-economic Dilemma*. Berryman Institute, Logan, Utah) and is available in print and in electronic format from the Berryman Institute for Wildlife Damage Management ([www.BerrymanInstitute.org](http://www.BerrymanInstitute.org)). Below we present selected abstracts from the symposium.

## ***Dead on the road: mitigative models to address deer highway mortality***

*Bissonette, J. A., M. E. Lenert, and J. W. Haefner*

Deer mortality on U.S. highways appears to be much more pervasive than commonly realized. Between 0.75 to 1.5 million deer are killed on roads annually. However, seldom is road mortality considered an important variable in population dynamics or taken into consideration when setting harvest levels. We studied the rates and characteristics of mule deer (*Odocoileus hemionus*) highway mortality in Utah and developed three competing models to assess its impact on the local deer population. The models allowed us to examine how the population might respond to reductions in highway mortality. We investigated how strictly additive, partially compensated, and strictly compensatory mortality influenced our population projections. We selected the partially compensated model as most closely approximating actual mortality at our study site. Given the range of uncertainty inherent in each parameter value, we did an error analysis to assess predictions of the deterministic model. We predicted that a 60% reduction in highway mortality was necessary for the population to stabilize. A greater reduction was necessary for the population to increase. We demonstrated that pervasive highway mortality can influence long term population trajectories, especially in localized areas of high kill.

## ***Vehicle-deer collisions in Virginia: implications for management***

*West, B. C., J. A. Parkhurst, P. F. Scanlon, and M. Knox*

Populations of white-tailed deer have grown substantially in the eastern U.S. during the past 2 decades. This trend, in conjunction with a growing human population, has created greater potential for negative interactions between humans and deer. As perceived by the public, vehicle-deer collisions (VDCs) may be the most negative of these interactions because of the threat to human safety that may occur. Given these concerns, it seems prudent to assess the impact of VDCs on the public's attitude about deer and preferences for deer management. Here we report the results of a survey conducted within Virginia during 1995 and evaluated the actual incidents and perceived danger of

VDCs among respondents. Further, we examine the influence of an individual's experience with and perceptions of VDCs on their desires for future deer management. Finally, we discuss the status of Virginia's monitoring activities as it pertains to VDCs and caution against the reliability of data gleaned from such programs.



## ***A strategy for mitigating highway impacts on wildlife***

*Jackson, S. D. and C. R. Griffin*

Animal passage systems can be designed to facilitate movement of certain wildlife species across highways. Where the conservation of a particular species or group of species is concerned, specifically designed mitigation has proven successful for a number of species. However, the effectiveness of highway mitigation systems has not been evaluated with respect to the vast majority of wildlife. It is probable that some species do not require specific design features while other will require careful attention to factors such as placement, size, substrate, noise, temperature, light, and moisture. In areas where road and highway density is high, conservation of particular species may be of lesser concern than the maintenance of overall habitat connectivity. While it is impractical to design mitigation projects that account for the specific requirements of all species affected by a highway, it may be possible to develop a generalized strategy for making highways more permeable to wildlife passage for a larger number of species. This strategy will require use of a variety of techniques given that the specific requirements for particular species may be contradictory. Some of the most effective techniques for facilitating wildlife movement (i.e., overpasses) are also quite expensive. A practical strategy for mitigating highway impacts on wildlife movement may dictate that expensive elements be reserved for areas that are identified as important travel corridors or connections between areas of significant habitat, while inexpensive elements (amphibian and reptile tunnels) can be used at appropriate areas throughout the highway alignment. In developed areas, corridors and habitat connections may be readily apparent. For highway projects affecting a significant amount of undeveloped land, it may be necessary to conduct landscape analysis to identify "connective zones" for special migration attention.

## ***Seeking solutions to wildlife-highway conflicts using an advocacy-based approach***

*McMurtray, J.*

Transportation systems negatively impact wildlife by increasing direct and indirect mortality and by destroying, degrading, and fragmenting habitat. This paper guides citizen participation in the transportation planning process using Florida as a model. It describes Florida's transportation planning, road-building, and regulatory agencies, and how wildlife advocates can work with them to influence transportation decisions. A brief description of national legislations pertaining to transportation planning is included and some proposed innovative approaches to transportation planning are described.

*Continued on page 5, col. 1*

# Wildlife Damage Management in the News

## Hantavirus Moves to New England

The first case of hantavirus pulmonary syndrome (HPS), a rodent-borne viral infection, known to occur in New England has recently been confirmed. A 61-year-old, rural Vermont resident who, during the two months preceding hospitalization, had cleaned a mouse nest from a woodpile, observed mice in the basement, and trapped mice in the kitchen.

HPS was first described in 1993 after an outbreak of the illness in the southwestern United States. Of the 284 cases of HPS confirmed by the Centers for Disease Control, only 15 (5%) have occurred east of the Mississippi River. Although HPS-associated hantaviruses have been identified in other rodent species, the deer mouse (*Peromyscus maniculatus*) and the white-footed mouse (*P. leucopus*) are considered to be the primary rodent reservoirs.

— excerpted from *Pro-MED mail*  
([promed@promed.isid.harvard.edu](mailto:promed@promed.isid.harvard.edu)), July 20, 2001

## ORV'S May Exacerbate Hantavirus Infection

University of Utah researchers found 30% of the deer mice near the Bureau of Land Management's Little Sahara Recreational Area are infected with the hantavirus (*Sin Nombre virus*). This infection rate is three times that of similar habitats and the researchers hypothesize that this is a result of heavy ORV use in the area. They suggest that the abundance of dirt

roads in the recreation area create habitat islands which force deer mice into smaller pockets of vegetation. In these pockets of higher population density, mice come in contact with each other and fight more frequently, passing the disease through saliva and blood.

— excerpted from *Pro-MED mail*  
([promed@promed.isid.harvard.edu](mailto:promed@promed.isid.harvard.edu)), Feb. 17, 2001

## NWRC Research Program Manager Announced

Dr. Richard D. Curnow, Director, USDA/APHIS, National Wildlife Research Center (NWRC), has announced the selection of Dr. James Russell Mason as the new Program Manager for the Center's Mammal Research Program.

Russ has an M.A. and Ph.D. in the fields of Animal Learning and Sensory Perception. Russ joined NWRC in 1986, and served as Leader of NWRC's wildlife chemical senses research effort. Beginning in 1995, until 2001, he has been the Field Station Leader at our Predator Ecology Field Station in Logan/Millville, UT. This Field Station management experience will prove very beneficial in Russ' new capacity, as the majority of the Mammal Research Program.

Russ is nationally and internationally recognized in the field of wildlife behavior, wildlife sensory mechanisms, and related wildlife damage management issues.

— Guy Connolly

## Ever Wonder?

*What causes albino individuals to occur and does this condition occur within all vertebrate species?*

Albinism can occur in all vertebrate species (mammals, birds, fishes, reptiles and amphibians.)

Albino animals lack melanin, which is the dark pigment normally present in skin, hair, scales and feathers. As a result, albino animals have white skin and white hair, feathers or scales. The skin often appears pink owing to color reflected from underlying blood vessels. The irises of the eyes of albino animals appear pink, and the pupils appear red. These eye colors are the result of light reflected by blood in un-pigmented, vascular tissue within the eye.

Albino animals rarely survive in the wild because of the lack of both protective coloration and protection from the ultraviolet rays of the sun.

Albinism is a genetic defect that is inherited by a single pair of double recessive genes.

It has been calculated that, in the human population, one in 20,000 persons, of all races, are albinos. It has also been calculated that one in 70 persons is a heterozygous carrier of albinism.

Generally, the common laboratory white rats are albino Norway rats and white mice are albino house mice.

— Larry Sullivan



Continued from page 4, col. 2

## Wildlife and Highways

### Abstracts

#### *Modifying human behavior to reduce wildlife-vehicle collisions using temporary signing*

Messmer, T. A., C. W. Hendricks, and P. W. Kilmack

It has been estimated that over 700,000 vehicle-deer collisions (VDCs) occur annually. The property damage attributed to VDCs exceeds an estimated \$1.1 billion annually. Each year VDCs result in an estimated 29,000 human injuries and 211 human fatalities. The Federal Highway Administration places a monetary loss value of \$1.5 million on each human fatality. Although many states have implemented diverse management strategies to address this issue, VDCs continue to increase. We reviewed over 15,000 VDCs reports recorded in Utah by the Department of Transportation over a year period (1992-1997) to identify major contributing factors. Based on this review, we provide management recommendations which may be used to reduce the risk of VDCs in areas where big game populations engage in seasonal migrations. Lastly, we report on preliminary results of an experiment conducted in Utah to reduce VDCs along a high traffic volume highway that bisects a mule deer travel corridor to its winter range.

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## Membership Renewal and Application Form

### NATIONAL ANIMAL DAMAGE CONTROL ASSOCIATION

Mail to: Arthur E. Smith, Certified Wildlife Biologist, Game Harvest Surveys Coordinator, South Dakota Department of Game,  
Fish & Parks, 523 E. Capitol Avenue, Pierre, SD 57501

Name: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Home

Address: \_\_\_\_\_ Phone: (\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ Office

Additional Address Info: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP \_\_\_\_\_  
Please use 9-digit Zip Code

Dues: \$ \_\_\_\_\_ Donation: \$ \_\_\_\_\_ Total: \$ \_\_\_\_\_ Date: \_\_\_\_\_

Membership Class: Student \$10.00 Active \$20.00 Sponsor \$40.00 Patron \$100 (Circle one)

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