The National Animal Damage Control Association (NADCA) has a long history of organizing and supporting the professional wildlife damage management community. In recent years, additional organizations have emerged to support this professional community. These "newcomers" include the Wildlife Damage Management Working Group of The Wildlife Society (WDM Working Group), the multiple state and national organizations supporting the nuisance wildlife control operator (NWCO), Wildlife Control Technology magazine, and many other organizations.

The WDM Working Group (open exclusively to members of The Wildlife Society with an interest in wildlife damage management) and the NWCO organizations (with membership primarily made up of part- and full-time small business operators) have an encouraging record of expansion and accomplishments. The WDM Working Group has sponsored and organized national symposia, developed position statements, and facilitated the communication of wildlife damage management techniques through the academic and government agency wildlife communities. The NWCO groups have developed oversight networks, new business insurance packages, codes of ethics, training programs, and participation in state regulation and rule-making processes affecting NWCOs.

More established organizations have established programs to assist wildlife damage managers. Thus, you have more articles on nuisance wildlife management in magazines like The American Trapper and Trapper and Predator Caller. The Humane Society of the United States sponsors workshops on beaver, urban geese, and deer management, as well as training programs on wildlife euthanasia. The Vertebrate Pest Council sponsors workshops every other year in California for managers interested in preventing damage caused by rodents, carnivores, and birds to agricultural crops, serving over 1,200 participants in 1999.

These actions and activities are welcome and needed. Unfortunately, these specialty associations and activities prosper at the expense of a generalist wildlife damage organization, NADCA.

Options under consideration could include maintaining our current structure and function, closer collaboration with other organizations, development of an electronic (Web-based) presence, and others.

The importance and utility of NADCA in developing and nurturing an environment in which the profession of wildlife damage management could thrive cannot be denied. Many leaders of NWCO groups and the WDM Working Group came from the ranks of NADCA. NADCA was the first stage of the continuing evolution of the profession. We have entered a new stage with the successful emergence of the WDM Working Group, NWCO associations, and other groups in meeting specific needs of specialties within wildlife damage management.

Since all of us have a finite amount of time and resources to dedicate to professional organizations, it is predictable that NADCA is affected by the movement of volunteers into these new organizations. It is time to discuss the future role of NADCA, if any, within this evolutionary process.

The leadership of NADCA is discussing our future. Options under consideration could include maintaining our current structure and function, closer collaboration with other organizations, development of an electronic (World Wide Web-based) presence, and others. For example, NADCA could focus on developing training workshops of interest to NWCOs or wildlife biologists, perhaps held in conjunction with other existing meetings such as the WCT Seminar or the Vertebrate Pest Conference, with registration discounts for NADCA members. Notification of these training courses could be through WCT Magazine, the WDAMAGE listserver, or specific electronic or paper mailings.

Another example could be the development of NADCA as an Internet presence, with some web pages and functions available for all to see, and others reserved for members only. An increasing number of NADCA members have direct access to the Internet, and many others have indirect access through schools and libraries.

A third example is for NADCA to change its focus from a generalist organization to a specialist one. There is a niche for an organization whose specific role is to develop and maintain a "bridge" between regulatory agencies, NWCOs, academia, and others. The importance of NADCA in developing and nurturing an environment in which the profession of wildlife damage management could thrive cannot be denied. Many leaders of NWCO groups and the WDM Working Group came from the ranks of NADCA. NADCA was the first stage of the continuing evolution of the profession. We have entered a new stage with the successful emergence of the WDM Working Group, NWCO associations, and other groups in meeting specific needs of specialties within wildlife damage management.

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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.
Position Announcement

Wildlife Ecologist - Urban Wildlife & Urban-Human Conflict Management Illinois Natural History Survey, Urbana-Champaign, IL

Duties: Initiate and maintain grant-funded research related to ecology and management of wildlife in conflict with human interests. Serve as Principal Investigator on urban wildlife issues, crop damage, and nuisance wildlife for the Center for Wildlife Ecology. Expertise in wildlife diseases would be an asset.

Qualifications: Requires Ph.D. in wildlife ecology or closely related field. Must have experience in design, interpretation, and publication of research focusing on wildlife in conflict with human interests, and should be familiar with wildlife management in the Midwest. Prior experience with a wildlife management agency preferred.

Salary: $43,000 to $56,000, plus benefits associated with University and State Universities Retirement System

Application: Submit cover letter, CV, statement of research interests, and names and contact info. of 4 professional references by Dec. 30 to Sue Key, Human Resource Manager, PRF 636, Ill. Nat. History Survey, 607 E. Peabody Dr., Champaign, IL 61820, phone (217) 244-7790. For additional information, contact Dr. Tim Van Deelen, Search Chair, (217) 333-6856 or email deelen@mail.inhs.uiuc.edu.

Personnel Changes in USDA-Wildlife Services

Two new State Directors have been named for USDA-APHIS-Wildlife Services. They are Andy Montoney in Ohio and Mike Pitzler in Hawaii. Montoney replaces Doug Andrews, who retired last summer. Pitzler is the first state director the agency had in Hawaii. The WS program was directed by Congress to establish a State Director position in Hawaii some time ago, but Congress didn’t supply the funds for this until recently. Previously, WS work in Hawaii has been administered by the Washington State Director, Gary Oldenburg.

John Plaggemeyer, veteran wildlife damage management specialist in North Dakota, will retire on January 1. He and other ND field men were invaluable in assisting with tests of NaCN toxic collars conducted by Denver Wildlife Research Center predator biologists in the 1970s, according to NADCA member Guy Connolly. John will be honored at a dinner in Bismarck on December 10.

Another great veteran, Charley Williams, retired in Texas on August 31 after 36 years as a Specialist and Troubleshooter in the TX Wildlife Damage Management program. He assisted DWRC researchers with 1080 Livestock Protection Collar field tests in the late 1970s and subsequently became the most experienced LPC user in the Texas program. His retirement party in Adamsville, TX on October 19 was attended by more than 70 well-wishers, most of whom were employees of the Texas program.

In Memoriam

Guy R. Hodge, 54, a nationally recognized expert in rehabilitating wildlife in oil spills and in the humane control of urban wildlife, as well as an avid ornithologist, died September 18, 1999 in Falls Church, Virginia of complications due to liver failure. Those who have attended various wildlife conferences over the years may recall Guy as the large, soft spoken gentleman from The Humane Society of the United States (HSUS). To those of us who took the time to meet and know him, he is recalled as a kind and gentle soul with a great sense of humor, honest sincerity in his convictions, and a passion for bird watching that he would gladly share with anyone who wanted to tag along. We may have agreed on some things and disagreed on others, but we did so professionally and with mutual respect. I always respected him for his professionalism and admired him for the strength of his convictions. Hodge was the director of data and information services at HSUS, where he had been employed since 1971. Hodge influenced thousands of animal control officers, animal shelter workers, and wildlife rehabilitators throughout the U.S. He was the editor of The Pocket Guide to the Humane Control of Wildlife in Cities and Towns and a co-editor of Wild Neighbors, A Humane Approach to Living With Wildlife. Hodge was one of America’s master birders and was one of the few who had observed nearly seven hundred species in the forty-eight contiguous states. He was the program director for The HSUS radio show, “Animal Talk,” and hosted the “Ask Guy” segment of the PBS show, “Living With Animals.” He is survived by a sister and a brother, both of Pennsylvania.

—submitted by Mike Dwyer, Director of Operations, Critter Control, Inc.
**Book Review: Stephen Vantassel, NWCO Correspondent**


Buck Peterson has created a rather unusual book. It is the most unusual book I have ever reviewed. My problem is how to classify the book. On the one hand, it is satire and humor. On the other hand, the book provides solid information on wildlife, if you are astute enough to recognize it. The basic focus of the book is looking at the question of how wildlife will survive in the new millennium. With so many pressures on traditional wildlife habitat, the author speculates how animals will adapt/change in order to survive in the new millennium.

The book opens with some general discussion concerning the future of wildlife in the U.S. It points out that every fourteen seconds a new American emerges, succinctly reminding us that greater human population results in less room for wildlife. The theme of species at risk runs throughout the entire book. While the author treats it in a humorous fashion, species extinction is not a funny matter and he doesn’t think it is either. He just uses humor to get our attention. Peterson gives an overview of the nature of human-animal conflicts. I loved the question “How do you know an animal is going to kill you?” The answer is “When you are face-to-face to pupils larger than yours.” Don’t worry—there is more to the answer, but I think you should read it for yourself. The second chapter describes how to view wildlife in the new millennium. Here, as in the previous chapter, the author mixes information with satire. For example, in the section on armadillos, the author's illustrator, J. Angus “Sourdough” McLean, shows an armadillo wearing a snorkel. The joke requires you to know that armadillos cross streams by walking on the bottom.

Overall, I found the book humorous in various places and thought-provoking at others. I think this sort of writing is rather difficult to write and at times to read. How many people can simultaneously inform, provoke, or cause you to laugh, all in various lines? If the book can get people to think about our natural wildlife resources more, then I am glad it was written. The author should be commended for taking some shots at some so-called environmental groups and politicians, although I must say that it was Republicans that took the most heat. As a long time resident in “liberalville” known as Massachusetts, I can assure you that Democrats don’t have the corner on environmental policy. We have been dominated by democrats (does Kennedy and Kerry ring a bell?) for decades, and Massachusetts is certainly no Garden of Eden. I also would have liked to see a little less sexual innuendo. This is no playboy book, but I thought the image of footprints behind a sheep was totally unnecessary.

If you are looking for a humorous, sometimes satirical look at the impact of our present “management” practices toward wildlife, then this is a book you’ll want to consider. You can obtain the book at Amazon.com for somewhat less than the retail price, according to the publicist. Just remember to factor in shipping charges to determine the total cost savings. Individuals can purchase the book directly from Longstreet by calling (800) 927-1488. The publicist also tells me that the author is developing a website that will contain a great deal of information about urban wildlife, sprawl, etc. that will be up and running within the next few weeks. The URL is <http://www.buckpeterson.com>. If you have any questions, or would like to contact Buck, please contact Mark Owen, Publicist; Longstreet Press, 2140 Newmarket Pkwy., Suite 122, Marietta, GA 30067, phone (770) 690-1010, fax (770) 859-9894, or webs site http://www.lspress.com.

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**Euthanasia Chamber Available**

Pioneer Wildlife Control of Westwood, MA is producing a new CO2 gas chamber made out of plexiglass. People can get more information by contacting: Kyle McDowell, Pioneer Wildlife Control, P.O. Box 307, Westwood MA 02090, phone: (860) 774-5034 or (413) 783-4462, or email kyle@pioneerwildlife.com.
Abstracts from the 6th Annual Conference of The Wildlife Society – September 1999, Austin, TX

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Public health significance of bat rabies in Texas
Alexander, James L.
Texas Department of Health, San Angelo, TX
The first documented human death due to a bat strain of rabies virus contracted from other than vampire bats occurred in Texas in 1951. Since then four more human deaths in the state have been attributed to bat strains of rabies. A review of the case histories of the last three deaths will be provided. Since 1995, more than 300 rabid bats have been found in Texas resulting in numerous human exposures. Statistical data on the bat species submitted to the laboratory and the rabies virus strains identified will be provided. The cost of human post-exposure treatment due to exposure to rabid bats or for bats in which a negative laboratory result could not be obtained will be estimated for 1995-1998. The seasonal characteristics of bat rabies and submissions of laboratory specimens will also be described and the implications for public education discussed.

Effectiveness of hot sauce® and deer away® repellents for deterring elk browsing on aspen trees
*Dept. Fishery and Wildlife Biology, Colorado State University, Fort Collins, CO
In western North America, large concentrations of elk (Cervus elaphus) can have detrimental impacts on aspen (Populus tremuloides) regeneration and clone survival. In some situations, management intervention to protect aspen sprouts is needed. We conducted an experiment to evaluate the effectiveness of Hot Sauce Animal Repellent® (HS) and Deer Away® (DA) in deterring elk from browsing aspen sprouts during summer. We examined the responses of elk browsing on aspen sprouts at 3 levels of HS (0.062%, 0.62%, and 6.2%) and one level of DA at 2 time periods (2 and 5 weeks post-application). High concentration HS (6.2%) and DA were the most effective repellents; browsing on aspen sprouts was reduced by 45% and 27%, respectively compared to controls. Elk browsing on aspen sprouts decreased linearly (P < 0.001) with increased concentration of HS. Levels of elk browsing on aspen sprouts was similar (P = 0.249) for repellent treatments applied 2 and 5 weeks prior to exposure to elk. We conclude that HS (6.2%) and DA will provide protection of aspen sprouts from browsing by elk for at least 5 weeks during the growing season, but current economic costs limit the practicability of large-scale use of these repellents.

Evaluation of GnRH-toxin conjugate as an irreversible contraceptive in female mule deer
*Colorado Division of Wildlife, Fort Collins, CO
Overabundant wild ungulates often cause problems that are ecological, economical, or political in scope, and resolving such problems requires regulating the growth of their populations. Traditional methods of control such as hunting, culling, and relocating may not be feasible or publicly acceptable. As a result, there is growing interest in controlling the growth of wildlife populations by influencing fertility. One of the most promising new approaches to wildlife contraception involves linking a synthetic analog of GnRH to a cytotoxin that selectively destroys gonadotroph cells thereby preventing gamete production by the ovaries and testes. Here, we conducted research with captive female mule deer (Odocoileus hemionus) to determine the optimum dose of GnRH-toxin conjugate during different phases of reproduction and initiated a long-term investigation of treatment effectiveness, duration, and side effects. Our results indicate a marked difference in the optimum dose of GnRH-toxin conjugate during the breeding season, anestrus, and pregnancy. Treatment of mule deer during the breeding season, markedly reduced gonadotroph levels with no apparent physiological side effects.

A new anthraquinone based avian foraging repellent
Blackwell, Bradley F., Thomas W. Seamans, and Richard A. Dolbeer
USDA/APHIS Wildlife Services, National Wildlife Research Center, Sandusky, Ohio
There is an increasing need for nonlethal methods of reducing conflicts between bird populations and humans at airports and in agricultural and other settings. We evaluated a new anthraquinone (AQ)-based avian foraging repellent (Flight Control™ [FC], 50% AQ, a.i.) as an avian repellent for Canada geese (Branta canadensis) in 2 experiments, and as a seed treatment against brown-headed cowbirds (Molothrus ater) and sandhill cranes (Grus canadensis). In a 7-day test with captive geese, grazing in control plots was 2.5 times (P < 0.01) that in treated (4.5 L/ha FC) plots. Next, we hypothesized that the addition of a plant growth regulator (Stronghold™ [SH]) might enhance the effectiveness of FC by minimizing the exposure of new, untreated grass. In a 3-phase experiment, geese showed no preference (P = 0.777) for foraging in untreated than treated (0.5% g/g FC) whole-kernel corn. In summary, FC was an effective turf treatment against grazing by Canada geese when combined with a plant growth regulator, and shows promise as an avian foraging repellent for use on seeds.

The Editor thanks the following contributors to this issue: Guy Connolly, Richard Dolbeer, Tim Van WyDeelen, Yanin Walker, Robert H. Schmidt, Mike Dwyer, and Stephen Vanissel. Send your contributions to The Probe, 4070 University Road, Hopland, CA 95449.
Abstracts from the 6th Annual Conference of The Wildlife Society

Nutria eradication in Maryland - partnerships at the private, state, and federal levels

Bounds, Dixie L.*, Keith M. Weaver, and Robert C. Colona
*Maryland Cooperative Fish and Wildlife Research Unit, Princess Anne, MD

Nutria (Myocastor coypus) were first introduced in the United States in 1899 and have since been introduced in 22 states nationwide. During the 1940s, nutria were introduced in Maryland for fur farming. However, fluctuations in fur markets resulted in decreased demand for nutria pelts and nutria were either released or escaped from captivity. Nutria are highly prolific and without natural predators populations increased dramatically. Nutria are now found throughout Maryland and are causing damage to marsh and wetland areas. Seventeen federal, state, and private organizations worked together to develop a plan to address marsh loss and nutria eradication in Maryland. The plan includes four components: public education, nutria management, research, and wetland restoration. The goals of the nutria plan are to eradicate this exotic species from Maryland and to restore wetlands damaged by nutria. The total estimated cost of the 3-year pilot plan is $2.9 million. In addition, the federal, state and private partners have agreed to contribute almost $1 million of in-kind contributions including vehicles, boats, equipment and staff time. Representative Wayne Gilcrest introduced a bill in Congress to authorize this pilot program which passed both the House and Senate and was signed by President Clinton on October 30, 1998 (Public Law 105-322). Recommendations, research, and management activities by the Maryland partnerships will be presented.

Bobcats as biological control agents for rabbit and nutria on Singing River Island, Mississippi

Bowman, Jacob L.*, Michael J. Chamberlain, Bruce D. Leopold, and Bruce W. Ploowman
Dept. Wildlife and Fisheries*, Mississippi State University, Mississippi State, MS

Singing River Island, Mississippi experienced extensive rabbit (Sylvilagus spp.) and nutria (Myocastor coypus) damage in early 1990’s. Federal and state officials examined numerous options to reduce damage. However, hunting and/or trapping were not viable options because of potential public opinion, and logistics of organizing and safely conducting a rabbit hunt or nutria trapping on the island. Thus, Mississippi State University was contacted about using bobcats (Lynx rufus) as a biological control agent. One male bobcat was released in spring, 1994. This male subsequently disappeared. Two spayed adult female bobcats were introduced to the island during January 1995-1996. We established a monitoring program to ensure that bobcats were present on the island and that the rabbit and nutria populations were reduced. We documented presence of bobcats by searches for tracks and scat, and bait stations equipped with infrared monitors with remote cameras. We monitored rabbit and nutria populations by pellet group counts 3 times/year. Vegetative recovery was documented at fixed photo-points. Results of the monitoring documented that 2 bobcats remained on the island. Rabbit abundance was reduced 12-fold by 1997 and stabilized in 1997-1998. Nutria abundance followed a similar trend, with a 6-fold decrease by 1997 and stabilized in 1997-1998. Additionally, vegetation conditions have improved with many grassy replaced by shrubs.

Putting bat conflicts in the U.S. in perspective: Why all the fuss?

USDA-APHIS-Wildlife Services*, Castleton, NY

Bats play a unique and integral ecological role in both urban and rural environments throughout the United States. Though often misunderstood, recent education and conservation efforts by state and federal fish and wildlife agencies and organizations have resulted in a new appreciation and understanding of the important role bats play in the environment. However, several bat species, particularly those that have adapted to urban/suburban landscapes, are of concern because they cause property damage and may threaten human health and safety. Accumulation of droppings and urine and their associated odor, bat related zoonotic diseases such as histoplasmosis and rabies, and general fear of bats often results in conflicts. In this presentation, we will characterize bat-related conflicts throughout the U.S. based on an analysis of: (1) requests for technical assistance recorded by USDA, Wildlife Services and (2) a survey of key personnel in state fish and wildlife agencies. Species responsible for damage, frequency and magnitude of bat-related damage, and recommendations offered to resolve or mitigate problems will provide context for ranking bat conflicts in comparison to other wildlife damage. Helping the public find practical, effective solutions to commensal bat problems complements and supplements ongoing conservation efforts by increasing the tolerance and appreciation for bats. Ultimately, this information could help facilitate ongoing efforts to provide solutions to commensal bat problems.

Ecology and management of urban Canada goose

Conover, Michael R.
Berryman Institute and Fisheries & Wildlife Department, Utah State University, Logan, UT

Within the last few decades, urban Canada goose (Branta canadensis) populations have become established in many metropolitan areas across North America. Urban Canada geese have developed different behaviors than migratory geese which allow them to exploit resources in the urban environment. For these reasons, urban goose forage in different areas and have different diets than migratory geese even when roosting together. Urban goose populations exhibit the characteristics of an exotic population colonizing new habitat. Urban goose have high reproductive and low natural mortality rates. Their populations continue to increase. Public opinion about urban Canada geese is divided; some people want more urban geese, and others want fewer. Under present conditions, management of urban goose populations will be difficult and contentious.

Using citizen task forces to educate communities about wildlife management issues

Curtis, Paul D.*, and Rebecca J. Stout
*Dept. Natural Resources, Cornell University, Ithaca, NY

Citizen Task Forces and similar public participation methods are venues for incorporating public input into wildlife management decisions. Typically, the purpose of these participation methods is to bring stakeholders who have opposing views face-to-face in order to reach agreements, or ultimately consensus, about managing problem wildlife species in their community. The wildlife management agency then
Continued from page 1, col. 2

Abstracts from the 6th Annual Conference of The Wildlife Society

Furbearer trapping, public opinion and responsible wildlife management: Why we shouldn't ignore consumptive use and public education

Dwyer, Chris P.*, and Samara Trusso
*Ohio Division of Wildlife, Crane Creek Wildlife Research Station, Oak Harbor, OH

Changes in American society are drifting from a rural/utilitarian background where hunting, fishing and trapping were once more common, to a society where human contact with wildlife is minimal and largely non-consumptive. This shift in the amount and type of contact the American public has with wildlife, and their opinion regarding consumptive and other uses of wildlife, will affect the way state and federal resource agencies manage wildlife populations in the future.

Examples of public opinion influencing wildlife management are evident in Massachusetts, Arizona, Colorado and California, where ballot initiatives have imposed severe restrictions on trapping as a management tool. In many of these states, the new restrictions have also resulted in the termination of new or ongoing projects that required the use of capture devices for wildlife research (e.g., capture, mark and release; provide animals for population modeling), the protection of endangered species and the control of nuisance wildlife. Future wildlife professionals must recognize the value of an informed public when implementing wildlife management programs that are potentially controversial. This paper discusses the development of Best Management Practices (BMPs) for Trapping in the United States as a way to improve animal welfare while maintaining acceptable levels of capture efficiency. BMPs will also be used to foster the public's understanding and acceptance of modern capture devices and their role in wildlife management. The BMPs will be based on scientific research being conducted by The International Association of Fish and Wildlife Agencies, with support and assistance from the U.S. Department of Agriculture, and more than 20 state agencies and trapper organizations. An educational outreach program, funded by a Federal Aid Grant from the U.S. Fish and Wildlife Service, is being developed for use in all regions of the U.S. This outreach program will be used to inform the public about the role of regulated trapping in furbearer management, nuisance control, endangered species protection and reintroduction programs. Public education about wildlife management, especially controversial programs, is a long-term process that will continue to be more cost effective than fighting ballot or legislative initiatives. Progressive outreach strategies will increase the public's confidence and opinion of their agency's ability to manage wildlife. Retaining the ability for public agencies to use tools such as trapping or hunting to manage wildlife will likely determine whether present and future professionals continue to focus their careers on resource issues and maximizing public appreciation for wildlife, or concentrate their time trying to reduce human-wildlife conflicts.

Educating the public about wildlife population dynamics: A key to managing problem species

Dolbeer, Richard A.
USDA National Wildlife Research Center, Sandusky, Ohio

Concurrent increases in human and wildlife populations inevitably lead to conflicts, some of which must be resolved by reducing wildlife numbers. To justify and defend lethal or reproductive control programs to solve wildlife-human conflicts, biologists must have a sound understanding of the population status and dynamics of the problem species. Models are essential to project how populations will respond to proposed management actions, providing a scientific foundation to counter the emotional debates that often arise. However, the output from these models must be presented in a straightforward, non-technical manner that can be intuitively grasped by the general public. Four population models (PM1-PM4) for predicting population responses are described, each of which provide simple graphic output highlighting key population responses of concern to the public. PM1 and PM2 explore the relative efficacy of reproductive and lethal control for vertebrate species over 10-year intervals. PM3 simulates population responses to actual management actions through 10-year intervals. PM4 simulates population changes for a species at weekly intervals over an annual cycle, exploring the immediate 1-year impact of population management actions. Population simulations using PM1 and PM2 demonstrated that for most vertebrate pest species, lethal control would be more efficient than reproductive control in reducing population levels. Reproductive control is more efficient than lethal control only for some rodent and small bird species with high reproductive rates and low survival rates. A simulation (PM3) of the removal of 47,000 laughing gulls (Larus atricilla) from the Long Island-New Jersey population accurately predicted the 33% decline of the population over 5 years. A simulation (PM4) of the annual cycle of the common grackle (Quiscalus quiscula) population in the eastern United States demonstrated why removing 4.2 million birds in 1 winter had no discernible impact on subsequent breeding populations. Understanding the population dynamics of wildlife species is the cornerstone to successful management, and population models will be essential for this task in the years to come.

Abstracts to be continued in next issue

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Membership Renewal and Application Form
NATIONAL ANIMAL DAMAGE CONTROL ASSOCIATION

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