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The Probe: Newsletter of the National Animal Damage Control Association

Wildlife Damage Management, Internet Center for

April 1999

# The Probe, Issue 199 – April 1999

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**NPRIL 1999** 

**ISSUE 19** 

# American White Pelicans: The latest avian problem for southeastern catfish producers

D. Tommy King, USDA/APHIS/WS, National Wildlife Research Center, Mississippi Research Station, Mississippi State University, MS 39762

**O**opulations of American White Pelicans (Pelecanus erythrorhynchos) wintering in and migrating through the southeastern U.S. have been increasing over the last several years. Like Doublecrested Cormorants, it didn't take pelicans long to discover that southeastern aquaculture provides prime foraging sites for fish eating birds. In 1990, Wildlife Services offices in Arkansas, Louisiana, and Mississippi began receiving complaints concerning American White Pelicans foraging in catfish ponds. Pelicans are usually present in the southeast from November through May, but since 1995 several hundred pelicans have remained in Louisiana and Mississippi until late June. Over 1000 pelicans have been observed foraging in one 15-acre pond in Mississippi. A catfish producer in south Louisiana estimated annual predation costs (i.e. pyrotechnics and ammunition, road maintenance, vehicle maintenance, labor costs for bird chasers, and fish loss) primarily from American White Pelicans at \$173,282. Although little is known about pelican energetic demands, it is thought that pelicans probably consume between 1 - 3 lbs. of food per day. Catfish up to 13.4 in. in length in stomachs and several > 21 in. catfish stuck in throats were found during stomach analyses of pelicans collected from the delta region of Mississippi. Some of these pelicans apparently tried to swallow these large catfish tail first and the pectoral spines of the catfish pierced the pelican's throat, preventing swallowing. Understandably, the presence of large numbers of wintering pelicans is an unwelcome sight to catfish producers.

#### Loafing and Foraging Strategies

Pelican loafing groups may vary in size from <100 to several thousand. In Arkansas and the delta region of Mississippi, pelicans loaf in flooded agricultural fields when the Mississippi River is high and sand bars and mud flats are inundated. When the Mississippi River is low and there are few available flooded fields, pelicans loaf on exposed mud flats and sand bars in the river and large lakes. Agricultural fields intentionally flooded for wintering waterfowl use seem particularly attractive to pelicans. Most pelican loafing sites in the southeast are open flat areas with little, if any, surrounding vegetation. In the delta region of Mississippi, pelicans seem to be wary and usually abandon a loafing site if the

area is disturbed by increased human activity. In south Louisiana however, pelicans seem less wary and have used the same crawfish pond levees as loafing sites for the past several years despite human activity. American White Pelicans use a variety of foraging techniques such as foraging singly, in small groups (2-25 birds), or in large groups(>25 birds). When foraging singly, or in small groups, pelicans usually dip their bills searching for food as they swim. When cooperatively foraging, pelicans usually attempt to herd their prey toward shallow water by swimming side by side and synchronously dipping their bills. Pelicans have been known to fly up to 200 miles from a breeding colony to a forage site and prefer to forage in shallow water. Due to the relatively shallow pond depth and high fish stocking rates used by most catfish producers in the southeast, catfish ponds seem to be a near perfect foraging environment for pelicans.

#### **Population Status**

Most pelican biologists believe that American White Pelicans are separated into 3 generally distinct populations: pelicans that winter in the southeastern U.S. and breed east of the Rocky Mountains; a small population in the Rocky Mountains; and a population west of the Rocky Mountains. In 1981, the entire North American population of American White Pelicans was estimated at 109,000, with about 77,000 birds east of the Rocky Mountains. Although published data on the status of the pelican population since 1981 is lacking, the current eastern population is estimated at 80,000-130,000 birds.

In the United States, the largest known breeding colonies of American White Pelicans east of the Rocky Mountains are at Chase Lake National Wildlife Refuge, North Dakota and Marsh Lake, Minnesota. It is believed that each year these 2 colonies produce approximately 85% of the young of the eastern U.S. population. Until 1996 the colony at Marsh Lake, Minnesota was the only large pelican colony with an active banding program. All pelican bands that have been recovered in the delta region of Mississippi and south Louisiana between 1990 and 1996 are from the Marsh Lake colony. Therefore, we know that pelicans from Marsh Lake are impacting SE aquaculture. However, to properly

Continued on page 7, col. 1

# **CALENDAR OF UPCOMING EVENTS**

May 9-13, 1999: Bird Strike Committee USA / Bird Strike Committee Canada, Delta Pacific Resort & Conference Center, Richmond, British Columbia. For information on call for papers, registration, and field trips contact: Bruce MacKinnon, Transport Canada, phone (613) 990-0515, or email <mackinb@tc.gc.ca>. Exhibitors wishing to display products should contact Jeff Marley at Margo Supplies Ltd., phone (403) 652-1932. Book hotel rooms by calling (800) 268-1133.

May 11-12, 1999: Workshop: Solving Conflicts with Beaver, Turning Stone Resort Casino, Verona, NY. Sponsored by Beavers: Wetlands & Wildlife and The Humane Society of the U.S. in cooperation with U.S. Fish and Wildlife Service. Focuses specifically on non-lethal management solutions to beaver problems, including live-trapping; however, a session on humane euthanasia is scheduled. Registration (\$120 for both days) due by April 20. Lodging accommodations can be reserved (Turning Stone Casino Resort, \$75 per night; or The Inn at Turning Stone, \$59) by calling (800) 771-7711 before April 27. For more information, contact Sharon or Joseph Brown by fax at (518)568-6046, email <br/>beavers@telenet.net>, or see web site: http:// www.telenet.net/~beavers.

May 23-27, 1999: North American Aquatic Furbearer Symposium, Mississippi State University, Starkville, Miss. Presentations (papers and posters) will be given on ecology, economics, human dimensions, policy issues, population estimates, or techniques related to aquatic and semi-aquatic furbearers (beaver, mink, otter, nutria, muskrat, and raccoon). A variety of field trips are planned. Peer-edited symposium proceedings will be published. For conference information and registration forms, visit website at: http://www.cfr.msstate.edu/naafs/ naafs.htm, or contact Richard B. Minnis, MS Coop. Fish & Wildlife Research Unit, phone (601)325-3158.

June 28-July 2, 1999: 2nd International Wildlife Management Congress, Hungary. To include a plenary session "Issues in Wildlife-Human Conflicts." Contact: Dr. E. Lee Fitzhugh, Extension Wildlife Specialist, UC Davis, phone (530) 752-1496, email <elfitzhugh@ucdavis.edu>.

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September 7-11, 1999: 6th Annual Conference of The Wildlife Society, Austin, TX. Conference will include the following symposia: "Educating the Public on Wildlife Damage Management Issues" (1/2 day); "Balancing Social and Ecological Factors in Management of Urban/Suburban Wildlife" (1/2 day); and "Bats and Humans: Education, Conservation, Controversy and Conflict" (1/2 day). Contact The Wildlife Society national office, phone (301) 897-9770, email <lorraine@wildlife.org, or visit website http://www.wildlife.org.

#### In Memoriam William D. Fitzwater (1917-1999)

**B** ill Fitzwater, co-founder of NADCA and founding Editor of THE PROBE, died in Albuquerque, NM on February 18 at the age of 81. He had been limited in pursuing activities he enjoyed during his retirement, including writing, photography, and traveling, as a result of a stroke he suffered in September 1992.

Bill is survived by his wife of 56 years, Ann; two sons, three daughters, 11 grandchildren, and one great-grandchild. Born April 25, 1917 in Brooklyn, N.Y., he received his B.S. and M.S. degrees in wildlife management from the New York State College of Forestry in Syracuse in 1939 and 1941. During World War II he served with the U.S. Army Medical Corps in New Guinea and the Philippines.

His career in wildlife damage control started as Mammal Control Agent in the New York-Ohio District of the Predator and Rodent Control, U. S. Fish & Wildlife Service. He moved upward to Assistant District Agent for the 8 north-central states, and then became Regional Biologist for the Southwest Region (Region II) in 1960. In 1966, he spent 9 months in Jodhpur, India as a UNESCO consultant on desert gerbil control. From 1968 to 1971 he was Extension Wildlife Specialist at the University of California, Davis, during which time he had a 3-month assignment on weaver finch control in the Dominican Republic and Haiti sponsored by UNFAO. He then joined the staff of the newly-formed Environmental Protection Agency in Washington, D.C., setting up training programs for pesticide applicators including an assignment in the U.S. Virgin Islands. He retired in 1978 and soon became an active participant in the formation of NADCA.

At the inception of NADCA, Bill served both as Secretary/ Treasurer of the organization as well as editor of THE PROBE newsletter. He continued in his Secretary/Treasurer duties until convincing Wes Jones to take over the Treasurer job in 1986, and then bowed out of the secretarial role at the end of 1989. He produced and distributed every issue of THE PROBE from Issue #1 in September 1979 to Issue #103 in August 1990.

Bill's body was donated to the UNM Medical School. His family will celebrate his life at a gathering at some future date. Contributions in Bill's name may be made to ABQ Stroke Club, c/ o Easter Seals Society, 2819 Richmond NE, Albuquerque NM 87107, or The Salvation Army, 411 Broadway SE, Albuquerque NM 87102, or to a charity of one's choice. Condolences may be sent to his family at: 7104 Bellrose NE, Albuquerque NM 87110.

A future issue of THE PROBE will honor Bill's many years of service and dedication to our professional association.

### Abstracts from the 5th Annual Conference of The Wildlife Society (continued from the March 1999 Issue, #198)

Defining Elements of Feasibility for White-Tailed Deer Fertility Control Programs

P.A. Salmon and H.B. Underwood U.S.G.S. Biological Resources Div'n., College of Environ. Science & Forestry, Syracuse, NY

Renewed interest in non-lethal methods for managing overabundant white-tailed deer populations has arisen in the wake of contraceptives that act through the immune system. No formal guidelines are available to managers for assessing the feasibility of fertility control programs, however. We examined several aspects of deer biology and site-specific factors that affect feasibility of fertility control programs. This study was conducted at Morristown National Historical Park, in north-central New Jersey. We characterized deer density and herd composition on a seasonal basis from 1996-98 using distance sampling methods. In addition, we compared deer encounter rates between land cover-types (i.e., forest and field) and between moving vehicles and those derived from bait stations. Finally, we marked a small sample of deer to assess heterogeneity in individual encounter rates. We found that feasibility, using available technology, is most affected by the scope of the program (i.e., 50 or 500 deer) and access to animals (i.e., cover-type utilization and behavior). The integration of these two factors determines the encounter rate with deer and the effort (i.e., people, time and money) required to achieve population objectives. Because not all elements of feasibility can be assessed beforehand, we developed simultaneous models to explore the following hypotheses: (1): scope decreases and feasibility improves to a diminishing point after implementation; (2) access to animals and feasibility declines as very accessible individuals are rendered infertile; and (3), feasibility erodes over time as encounter rates decline with lowered population sizes. Implications for using fertility control as a population reduction tool or a population maintenance tool are discussed.

# Effects of Immunocontraception on White-tailed Deer Fawns

L.A. Thiele<sup>\*</sup>, R.E. Naugle, A.T. Rutberg, and L.W. Adams. \*Biological Resource Engineering, Univ. of Maryland, College Park

The PZP (porcine zona pellucida) immunocontraceptive vaccine can be used to reduce fertility in white-tailed deer, but methods of delivering and administering the vaccine in the field are still being studied. Fawn capture and tagging facilitates population studies and, where feasible, provides a good opportunity to administer initial PZP vaccinations. We examined the effects of treating newborn fawns with PZP at the National Institute of Standards and Technology in Gaithersburg, MD. Thirty-seven female fawns were captured in 1996, of which 21 received 32.5 mg PZP in phosphate buffer + 0.25cc FCA, and 16 received 32.5 mg PZP in phosphate buffer + 0.25cc FIA + Carbopol, of which 25 received remotely delivered booster injections of 65 mg PZP + 0.25cc FCA and 19 were left as untreated controls. Eighty-seven percent and 74% of the FCA-treated fawns and control fawns, respectively, survived to weaning (Nov. 1, 1997). Fawn production was monitored for the 1996-treated fawns in the sprig of 1998. In addition, birthdate, birth weight, and overwinter survival were examined for all fawns captured in 1997 (n=89), allowing comparison of fawns whose mothers had been treated with PZP with fawns of untreated mothers.

The use of PZP as a fertility inhibitor can only be deemed a safe and ethical method of reducing fawn numbers if it does not jeopardize fawn health and survival.



### Does Immunocontraception Affect Rutting Behavior in White-tailed Deer?

#### F.D. Verret and H.B. Underwood

U.S.G.S. Biological Resources Div'n., College of Environ. Science & Forestry, Syracuse, NY

Interest in the application of fertility control for ungulate population management has been revived through the development of immunological contraceptive agents like porcine zona pellucida (PZP). However, studies documenting the use of PZP on captive white-tailed deer have suggested that PZP may extend the breeding season as treated females continue to ovulate through  $\geq 3$  estrous cycles. We examined scraping behavior of free-ranging male white-tailed deer on Fire Island, a barrier island off the coast of Long Island, NY. We monitored scrapes in two populations of deer: one which has undergone several years of fertility control using PZP, and another which has not. A minimum of 30 scrapes was identified and monitored for activity each month from November 1995 to March 1996 (excluding January 1996). Z-tests demonstrated no difference in the proportion of active scrapes between treatment and control populations for November (p=0.36) or December (p=0.82). However, highly significant differences (p<0.001) in the proportion of active scrapes emerged during February and March suggesting an extension of the breeding season for the treated population. This suggestion was further supported by detailed herd composition estimates which revealed a significant (p<0.05) increase in the number of neonatal fawns in the treated population during August and September. We attributed the lack of efficacy of PZP treatment to both technological difficulties of vaccine delivery, and to dose-related problems associated with polyestrous breeders like white-tailed deer. By using simulation models, we explore physiologic and demographic implications for herd management through immunological contraception.

# Effects of Sociological and Land-Use Factors on Deer Damage and Management in Virginia

B.C. West and J.A. Parkhurst Fisheries & Wildlife Sciences, Virginia Tech, Blacksburg The management of overabundant white-tailed deer populations has received increasing attention from wildlife managers during the past de-

cade. However, little research has been previously accomplished to

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### Booklet & Video Review: Stephen Vantassel, NWCO Correspondent

#### Booklet Review:

"Managing Canada Geese in Urban Environments: A Technical Guide" by Arthur E. Smith, Scott R. Craven and Paul D. Curtis (1999). Jack Berryman Institute Publication 16, and Cornell University Cooperative Extension, Ithaca, NY. 42 pages. \$10.00 (postpaid)

ne area of animal damage control that will require more NWCO attention in the coming years is the managing of Canada geese. Although almost hunted to extinction earlier in this century, the geese have made a remarkable comeback. Complaints are definitely on the rise. Severity of goose problems range from fecal material on lawns to the threat of birdaircraft strikes. This booklet was created to act as an information clearing house on the available techniques for handling/ resolving Canada goose problems. The booklet can be divided into three basic sections. The first section dutifully explains the present Canada goose problem and why it needs to be addressed. The authors then provide a two-page natural history of the birds, placing special attention on information useful for controlling geese. The authors then outline the difficulties that need to be addressed before an effective goose management strategy can be implemented. Suggestions are given to help leaders address and minimize the political ramifications of the chosen management techniques. I was disappointed that the authors mistakenly referred to animal rights groups as "animal welfare" groups. Perhaps the authors were trying to be kind. But their use of this inaccurate language can give the less-astute reader the impression that hunters and biologists aren't concerned with animal welfare as well.

The second section, which represents the lion's share of the booklet, lays out the various control techniques presently available. The techniques are organized in order of how adversely the technique will impact the geese. The first technique listed is the discontinuance of feeding, while the last technique is active hunting. In short, the techniques move from the nonlethal to the lethal. The authors have clearly done their homework. The reader will be pleasantly surprised at the way the authors blended accuracy, brevity and clarity. Each technique is explained and then the reader is informed as to its relative effectiveness. The authors also explain details that make the techniques work more effectively, and they even warn you of actions that do the reverse. I was particularly impressed that they provide information on potential costs of a technique, such as how much it would cost to use border collies to haze geese. This type of information can be extremely useful to NWCOs looking to provide consultation or estimating a job. The authors are also to be commended for warning how some of the techniques may cause unwanted effects, such as moving the geese to another area where they are not wanted. The third section consists of three appendices. In some publications, appendices are little more than filler. Such is not the case in this booklet.

Here, the authors have compiled appendices that will greatly simplify any NWCO's need for easy access to information. The first appendix consists of a grid on equipment suppliers. In an instant you can see which suppliers sell various control products. The second appendix lists the addresses and phone numbers of the listed suppliers in Appendix 1. The authors have also added phone numbers of the USDA Wildlife Services by state, and the Canadian wildlife offices for each province. I thought these government additions were a nice touch. The third appendix summarizes the techniques so you can easily peruse them noting the strengths and weaknesses, relative cost (little, medium high), and when the technique should be instituted. To my mind, the appendices alone make the booklet well worth the cost. I give the booklet an animal damage control grade of "A+". It is a must-have publication that will clearly educate anyone looking to enter the goose control business. After reading this document you will have greater confidence in explaining the pros and cons of each potential control option. As can be expected, the authors have included a comprehensive bibliography, if you desire to check out the primary sources.

The text was professionally laid out and easy to read. Photos and line drawings were clear and understandable. My one complaint here concerns the choice of some of the photos. I thought a photo of a propane cannon and people feeding geese would have been better replaced with photos on landscape design that discouraged geese. Another photo that could have been included would be one of how to properly hold a goose. In and of themselves, the photos published are fine. But if there were budgetary concerns, I would have thought using other photos would have added more informational value. Nevertheless, I can assure you, purchasing this booklet will be well worth your money.

#### Video Review:

"Suburban Goose Management: Searching for Balance." Produced by the Educational Television Center Media and Technology Services, Cornell University. (1998) VHS. Program length: 28 mins. \$19.95 (postpaid)

The video opens with a scene of Canada geese, with the narrator talking about the differing opinions people have about these creatures. Some see the geese as things of beauty. Others view the geese as feathered rats that poop a lot. (This contrast is described in this reviewer's words; the video is far more subtle and professional in describing the debate). It then proceeds into the topic by interviewing various biologists, government officials, a golf course owner, and even a NWCO, in a documentary format. During these interviews you are taught about the differences between resident geese and migratory

### Continued from page 3, col. 1 Wildlife Society Abstracts continued

evaluate stakeholders' perceptions and attitudes about deer damage and deer management in Virginia. To address these topics, we conducted a mail survey of 1,502 agricultural producers and homeowners during the fall of 1996. Most producers (70.9%) and many homeowners (35.6%) reported experiencing deer damage to their plantings during 1995. Our data show that respondents' perceptions of the severity of the damage they incurred were strongly related to their attitudes about deer in general. For example, very few (5.9%) of those who did not report experiencing damage during 1995 believed that deer are a nuisance. In contrast, nearly 50% of those who reported severe damage held the same view. Traditionally, recreational hunting has been the primary method used by wildlife agencies to manage deer populations. However, concerns recently have been voiced concerning the effects that unhunted lands may have on deer management efforts. We are completing a pilot study to evaluate these concerns and to provide a foundation for future, more detailed research. We selected two areas approximately 4 square miles in size and, using information supplied by the local tax office, identified and surveyed each landowner. We questioned landowners about their experience with deer damage, whether hunting for deer was allowed on their land, and how many deer were harvested. Although we are not yet finished with the final analyses, by comparing reported deer damage severity and hunting pressure, we hope to find patterns suggesting possible negative effects of unhunted lands on traditional deer management.

#### The Use of Forest Habitats by the European Rabbit and Its Impact on Forest Trees

#### J. Whelan, M.J. Hannan, A. Downes, and T. Hyde Dept. of Environmental Resource Mgmt., National University Dublin, Belfield, Dublin, Ireland

European rabbits move from forest edge to open habitats to feed at night. Newly planted areas and clear felled areas are colonised. Feeding sites are limited and extensive damage can occur. We examined the distribution of rabbits in Irish forests, the use of forest edge, clear felled areas, and newly planted areas and the extent of tree damage. Ninety-three percent of forests in Ireland support a rabbit population. Forest edge is used exclusively from thicket sage on by rabbits for cover while moving to open grassland for feeding. The colonisation of new habitats is dependent on the available cover. However, where cover does exist damage is extensive in particular to smooth-barked

trees. To avoid damage in clear felled areas the removal of all cover such as windrows is necessary, and when fencing is employed it should be put in place immediately after felling takes place.



The Editor thanks the following contributors to this issue: Guy Connolly, Tommy King, Jim Miller, David Gallanis, Robert H. Schmidt, and Stephen Vantassel. Send your contributions to The PROBE, 4070 University Road, Hopland, CA 95449.

#### Controlling Locally Abundant Deer Numbers with Hunting: What Does It Take?

#### R.J. Winchcombe\* and W.M. Healy

\*Institute of Ecosystem Studies, Millbrook, NY

Firearms hunting is the primary tool available to managers for controlling white-tailed deer numbers, but little information is now available on the amount of hunter effort required to meet specific management goals. Deer numbers are regulated at the Institute of Ecosystem Studies (IES), a 7.8-square-kilometer parcel in southeastern New York, with annual controlled hunts focused on the removal of adult females. During the period 1985-1997, the number of hunters used each year ranged from 50 to 61 with a mean of 56 hunters/year. Annual harvests have ranged from 7 to 11 deer/km<sup>2</sup> with a mean of 9 deer/km<sup>2</sup>. Adult female removal rates averaged 3.4/km<sup>2</sup> and ranged from 2.3 to 5.5/km<sup>2</sup>. The adult deer harvest ratio during this period was 0.9 females/male. On average it required 35 hours of effort per deer removed. The successful management of the IES deer population has depended upon: the availability of volunteer hunters; using hunters with intimate knowledge of the property and its use by resident deer; the willingness and ability of hunters to put forth the required effort to remove sufficient numbers of adult females; and the availability of State-issued antlerless harvest permits. Although highly successful to date, an aging cohort of participating hunters, coupled with low recruitment of younger hunters, threatens the future viability of this particular model in controlling deer numbers.

### Introduced Wildlife Species: The Good, the Bad, and the Ugly

#### G.W. Witmer\* and J.C. Lewis USDA/APHIS National Wildlife Research Center, Fort Collins, CO

Using Oregon and Washington as case studies, we reviewed the history and status of wildlife introductions, their ecological implications, and management strategies and challenges. At least 15 avian, 17 mammalian, and 5 amphibian/reptilian non-native species have become established in these two states. White many other introduction attempts have been made, they have failed or are of uncertain status. Some species were accidentally introduced (commensal rodents), while many (e.g., upland game species, furbearers, songbirds) were purposefully introduced for economic, recreational, or aesthetic reasons. In a few cases, captive or domestic animals escaped or were released and have established feral populations. Some introduced species have disrupted aspects of ecosystem integrity through direct or indirect mechanisms (e.g. resource competition, predation, hybridization, disease transfer). Economic losses and public health hazards have also been documented. Introduced species are often difficult to

manage or eradicate once established, requiring a sustained effort and a variety of methods. While there are state and federal regulations related to wildlife introductions, these are often piecemeal, spread over many jurisdictions or agencies, deficient in enforcement effort, and usually reactive rather than proactive. There has been more stringent regulation at the state level in recent years, in part related to increased concern about potential harm to native flora and fauna.



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### Booklet and Video Review: Managing Canada Geese

geese; and how geese are endangering drinking water, fouling fields, and potentially causing bird-aircraft strikes. You are shown people from various fields talking about their struggle with the geese. The viewer will be impressed with the pictures of fecal damage caused by the resident geese. The video concludes with a discussion of the costs of goose management and how politicians must be careful to develop community consensus before implementing a policy. Even a representative of the "Coalition to Stop the Destruction of Canada Geese" was given a chance to say a few words.

Overall, I find it difficult to talk about this video because it was really designed for those interested in the human issues dimension of the debate. If you are a professor or politician, I would think this video would help educate people about the variety of issues involved with goose management. It can be used to help focus debate into profitable areas because the parties will better understand the other. The video was professionally produced and had some great shots of geese in a variety of settings. It comes with a nice vinyl case that will make an attractive addition to your video library. Although not really designed for NWCOs, those in the nuisance wildlife industry may still derive some benefit seeing techniques such as egg puncturing, goose roundup, and the discharge of shell crackers. However, you will be sorely disappointed if you purchase this video looking for "how-to" information.

I haven't given this video an animal damage control grade because it wasn't created to provide geese control techniques. For criticisms, I only have two. The first criticism relates to a comment made at the beginning of the video. Here the narrator says that most sources agree that there are rising geese populations in suburban areas. I had to laugh- is there any question that goose (resident) populations are skyrocketing? Who is disputing this view, is it the animal rights groups? My second criticism stems from a lack of engagement with the representative of the "Coalition to Stop the Destruction of Canada Geese." One could argue that their position was undermined by the avalanche of data opposing their view point. Yet, I would have liked to have seen a more up-front and open consideration of their views-not because I agree with them, but because so many people in the name of moderation give credence to their views. One issue that needed to be debated was whether Canada geese contaminate drinking water. I have stated this before: the public needs to be educated to the fact that scientific animal management (like what we still have in some states) is the



middle road. Nevertheless, perhaps Cornell's softer approach to dismantling the animal rights perspective is better in the long run.

To get your copy of this book or video, contact Cornell University, Media and Technology, Services Resource Center, 7 Cornell Business and Technology Park, Ithaca, NY 14850. The phone number is (607) 255-2080, fax (607) 255-9946, and e-mail <Dist\_Center@cce.cornell.edu>. You can access their catalog on line at http://www.cce.cornell.edu/publications/catalog.html. Cost of the booklet is \$10.00 (post paid), and the video is \$19.95 (postpaid). Call for bulk quantity prices.

Stephen Vantassel 340 Cooley St. Springfield, MA 01128 Admin@wildlifedamagecontrol.com http://www.wildlifedamagecontrol.com © 1999 Stephen Vantassel

#### In Memoriam

#### Jack H. Berryman

Jack passed away March 3. A graduate of Utah State University, he became one of the country's first Extension Wildlife Specialists, serving at USU until joining the U.S. Fish & Wildlife Service. With this agency, he was the director of the Wildlife Services program, and he also established the Office of Extension Education within FWS. Following his retirement from FWS, he became Executive Vice President/Executive Director of the International Assoc. of Fish & Wildlife Agencies. He continued to serve this Association as Counselor Emeritus for many years following his "official" retirement.

Jack was the recipient of many awards, including the Aldo Leopold Award from The Wildlife Society. In honor of his work advancing the field of wildlife damage management, the Jack H. Berryman Institute was established in 1993 at Utah State University.

Jack was a long time mentor, friend, and leader in the wildlife profession. He will certainly be missed by those of us who knew him personally, and his many professional contributions will be a lasting legacy to a fine professional steward who had a remarkably successful career. His leadership will always be remembered by those he influenced, and the encouragement and counsel he provided to me and many others over the years will always be treasured.

Because his wife June is recovering from recent back surgery, a date for the funeral at Arlington National Cemetery has not been set. June has asked if I, along with Dan Stiles and a representative of IAFWA, would do a brief eulogy at the memorial service.

The address for those who wish to send condolences to the family is:

Mrs. June Berryman and Family 2082 Steeple Place Lake Ridge, VA 22192

> —Jim Miller, President, The Wildlife Society (Past Vice-President East, NADCA)

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### Continued from page 1, col. 2 White Pelicans: latest problems for catfish producers

develop damage management strategies we need to know the overall pelican population east of the Rockies. So, in 1996 we reinitiated the pelican banding program at the Chase Lake colony to establish the collection of long term life history information. Since 1996 over 5,000 young pelicans have been banded at Chase Lake. This year about 40 people from 8 organizations banded 2,600 pelicans. We are also attempting to determine the number, location, and size of breeding colonies, the nonbreeding bird distribution, and migratory movements of pelicans east of the Rockies.

#### **Damage Abatement Recommendations**

Prior to the winter of 1992-1993, pelican depredations at catfish facilities in Arkansas and the delta region of Mississippi were limited to short infrequent visits and the birds were easily dispersed from the area. More recently however, pelicans seem to have become more persistent in their foraging efforts and therefore, more difficult to disperse from catfish farms. Damage abatement recommendations have consisted of harassment measures similar to those used for other piscivorous birds (i.e., harassment patrols, pyrotechnics, electronic noise devices, human effigies, and propane cannons), issuance of USFWS depredation permits, and draining water from flooded fields used as pelican

loafing sites. Since pelicans often forage at night, 24 hr harassment patrols become necessary in areas experiencing problems. In south Louisiana, nocturnal foraging pelicans have been easily frightened from catfish ponds by bright spotlights. Prior to winter and spring 1995, pelicans in Arkansas, south Louisiana and Mississippi usually foraged in large flocks. It was common to see >300 pelicans flying to catfish ponds, foraging, and leaving as one flock. In some areas, however, pelicans have begun to forage in small flocks (1-50 birds) and many small flocks spread out over the entire catfish complex, therefore making harassment and dispersal much more difficult. This change in foraging strategy may be a result of increased harassment of the birds at catfish ponds.

#### Research

In order to learn more about pelican numbers and movements, WS/NWRC biologists began aerial censuses in the delta region of Mississippi and a multi-year radio-telemetry study during the winter of 1993-1994. Aerial censuses show that pelican numbers are highest during spring migration (Fig. 1). These high spring census numbers coincide with an increase in pelican damage complaints. Census data indicate that the varying number of pelicans observed in the delta region of Mississippi may also be dependent on the river stages and availability of suitable mud flats and flooded fields for loafing areas. So far, 41 pelicans have been captured and fitted with radio transmitters in the delta region of Mississippi and south Louisiana. The data show that pelicans loafing on bars in the Mississippi River, large lakes, and coastal marshes spend approximately 30% of their day foraging (in rivers, lakes, and marshes). Pelicans loafing in flooded fields and foraging in catfish ponds spend < 5% of their day foraging. This is probably due in part to the limited time needed for pelicans to obtain their daily food requirements from catfish ponds. Indicating that commercial catfish farms are an important food source to wintering and migrating pelicans. We are also using satellite telemetry to determine local, regional and continental movements of pelicans captured in the delta region of MS and south LA. Three of this year's 4 satellite transmitter equipped pelicans are spending the summer wandering around the prairie pothole country of MN, ND, and SD. The fourth bird is spending the summer along the MS River's Morganza Spillway and the Atchafalya Basin. These satellite transmitters are providing much needed information on pelican movements throughout the year. Research to determine pelican food habits in the southeast is currently underway and should be completed by spring of 1999. Starting in December 1997, we began seasonal aerial surveys of pelican populations and habitat utilization in the delta region of MS and south LA.

We will continue to monitor breeding and wintering pelicans populations, habitat utilization, food habits, and will capture pelicans for satellite and VHF transmitter tracking studies to provide information on local, regional, and continental movements and daily activity budgets. These studies will help determine the impact of wintering American

White Pelicans on the aquaculture industry in the southeastern U.S. and to provide information necessary for developing control strategies.



### Nuisance Wildlife Tips: Raccoon Eviction

As spring baby raccoon time comes around once more, I would submit the following as least stressful means of getting broods out of fireplaces:

1) An emergency strobe light of the type used by fishermen and hunters, lowered down the chimney or placed thru the flue carefully from below using tongs, is very effective; the bright flash and recharging noise effectively drive off unwanted raccoons.

2) Simultaneously, a small amount of ammonia on a rag and/or a cone of incense burned in an ashtray in the fireplace will help.

3) Top all of this with some radio music or talk shows as loud as you can stand, and you're on the right track to moving your guests on.

4) Cap and screen vents and chimneys right away to avoid further problems.

----submitted by David Gallanis, A Better Deal Animal Control Inc., Greenfield, WI

#### **DO NOT DELAY** - JAINETAM GEUJAY EMIT

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Lincoln, NE 68583-0819 University of Nebraska 202 Nat. Resources Hall Forestry, Fisheries & Wildlife Scott Hyngstrom

### **Membership Renewal and Application Form**

#### NATIONAL ANIMAL DAMAGE CONTROL ASSOCIATION

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Additional Address Info:								
City:	State:	ZIP	-					
Dues: \$ Donation: \$	Total: \$	Date:	Zip Code					
Membership Class: Student \$10.00 Active \$20.00 Check or M	Sponsor \$40.00 Patro Ioney Order payable to NADCA	on \$100 (Circle one)						
Select one type of occupation or principal interest:								
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Other (describe)								
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