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November 1995

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40VEMBER 1995

A Christian Minister Explains Why He Can Morally Trap God's Little Creatures

Stephen Vantassel, Special Coorespondent, The PROBE

As I go about trapping, customers usually ask if I had to go to school to learn my job. I smile and tell them that I learned the hard way—by experience. I then proceed to tell them, much to their surprise, that I have a Masters degree in Hebrew Bible. In fact, the Rev. Billy Graham's signature resides on my diploma because he was chairman of the board when I graduated from Gordon-Conwell Theological Seminary in 1989. Sometimes a customer will ask me how I, as a minister, could kill God's creatures. This article is a more detailed answer to that very question.

One area in the debate over the treatment of animals that is sorely neglected is the manner in which one's religious faith impacts one's perspective on the ways humans and animals should interact. Too often people account for various views by appealing to the person's place in society, sociological background, income and education and even his/ her gender. While each of those aspects do impact our view of animal related subjects, they overlook the fact that we are not just physical beings, but we are spiritual beings as well. We want to relate to something greater than ourselves. I would like to suggest to you that much of the reason for society's change in attitude toward animals stems directly to a change in the way society views God and religion. Ever since Christianity began to lose its hold in American society, animal rights philosophy/religion has begun to grow in strength. But that topic is for another article.

As a Christian, I believe that humans can hunt, trap, fish and otherwise use animals for their purposes because God has given humanity rulership over the world. Take for example the often maligned verse of Genesis 1:28. Quoting from the Revised Standard Version, "And God blessed them, and God said unto them, 'Be fruitful and multiply, and fill the earth and subdue it and have dominion over the fish of the sea, and the birds of the air and over every living thing that moves upon the earth.' "For the purposes of our discussion, the key words here are "subdue" and "dominion." "Subdue" translates the Hebrew verb *kabash* and it means essentially, forced servitude (*Theological Word Book of*

the Old Testament, Vol. 1, p. 951). (On a side note, the reader should understand that the Hebrew transliteration does not exactly follow scholarly form. It is written in a close approximation as possible given the font constraints of my program.)

The next word, "dominion" translates the Hebrew verb rada. It means to have control over as in one nation ruling another (Theological Word Book of the Old Testament, Vol. 2, p. 833). I won't recoil from the fact that God gave humanity the authority to bring creation under subjection and control. To my mind, that means that God has allowed humans to make decisions about their use of the environment. It also suggests that as Dr. Oswalt has said, nature will not do man's bidding easily (Theological Word Book of the Old Testament, Vol. 1, p. 951). In short, man will have to work at making the world a better place in which to live.

But before you begin thinking that Christianity believes that mankind is authorized to do with the world whatever it wants, note that God also commanded Adam, the first man, to till and to keep the garden (Gen. 2:15). The word translated "till" is the Hebrew verb 'ebed. It is translated in various ways but in agricultural situations it means "to work or tend" (Theological Word Book of the Old Testament, Vol. 2, P. 639). The second word, "keep", translates the Hebrew verb shamar. It means "to guard or protect." It is used elsewhere in the Old Testament of a shepherd guarding the flock (Theological Word Book of the Old Testament, Vol. 2, p. 939, Gen. 30:31). Thus the garden of Eden wasn't just some spot where Adam could lounge around biting off grapes. Rather it was a place where he was the manager in charge. I say manage because Adam didn't own the garden, God did. So in Christian theology, the garden is a microcosm of the earth. Just as Adam had to till (translate work) and keep (translate protect) the garden, so we must do the same for the world's true owner, God himself.

By now you should perceive that the Christian position on environmental responsibility lies between the extreme positions of the preservationists

Continued on page 6, Col. 1

CALENDAR OF UPCOMING EVENTS

December 13-14, 1995: Coyotes in Texas: A Compendium of Our Knowledge. San Angelo, Texas. More than 30 speakers will discuss the state of the science relative to coyote biology, ecology, and management. Contact: Dale Rollins, TAMU, 7887 N. Highway 87, San Angelo, TX 76901, phone (915) 653-4576, FAX (915) 658-4364.

January 25-27, 1996: Four Corners Regional Bat Conference. Red Lion Inn, Durango, Colorado. A regional conference on research, education and management of bats in Colorado, Utah, Arizona, and New Mexico sponsored by the Colorado Bat Society. Abstracts must be submitted by December 1, 1995 and be no more than one-half page in length. If possible, please submit on disk (preferably WordPerfect). Disks will be returned to author. Abstracts should be sent to Program Chair Mike Bogan, National Biological Service, The University of New Mexico, Albuquerque, NM 87131, phone (505) 766-3903; FAX (505) 766-3903; e-mail: mbogan@unm.edu. For registration information, contact Registration Chair Dr. Cheri Jones, Denver Museum of Natural History, 2001 Colorado Blvd., Denver, CO 80205-5798, phone (303) 370-6354.



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Your contributions to *The Probe* are welcome. Please send news clippings, new techniques, publications, and meeting notices to *The Probe*, c/o Hopland Research & Extension Center, 4070 University Road, Hopland, CA 95449. Articles and notes can also be sent by e-mail to mitimm@ucdavis.edu. If you prefer to FAX material, our FAX number is (707) 744-1040. The deadline for submitting material is the 15th of each month. Opinions expressed in this newsletter are not necessarily those of NADCA.

February 26-28, 1996: Livestock/Big Game Management on Western Rangelands Symposium, Sparks, Nevada. To include poster session, and published proceedings. Sponsored by Nevada Cattlemen's Association, P.O. Box 310, Elko, NV 89803-0310, phone (702) 738-9214, FAX (702) 738-5208.

February 18-21, 1996: Second Eastern Nuisance Wildlife Control Operators Shortcourse. Holiday Inn North, Lexington, Kentucky. Includes such topics as: Relationships of NWCOs to State Wildlife Agencies; TWS Position Statement on Wildlife Translocation; Does USDA-APHIS-ADC Compete with Private Enterprise?; Establishing Industry Standards and Certification; Selling Exclusion—What Works; Marketing— The Key to Success; Capturing Trap-Shy Squirrels and Raccoons; and Developing Lures that Work. Includes a full-day session devoted to "Euthanasia of Native Wildlife," sponsored by the Humane Society of the U.S., including hands-on training. Contact: Tom Barnes, Dept. of Forestry, Univ. of Kentucky, phone (606) 257-8633; FAX (606) 323-1031; internet tbarnes@ca.uky.edu.

March 4-7, 1996; 17th Vertebrate Pest Conference, Sonoma County Red Lion Hotel, Rohnert Park, California. Optional field trip on March 4; Plenary Session and Technical Sessions presenting research and management information on rodents, birds, predators, and other wildlife on March 5, 6 & 7. Contact: North Region-DANR, UC Davis, (916) 754-8491.

Ohio Group Considers Affiliation with NADCA

According to Michael J. Dwyer, President of the Ohio Wildlife Control Association, that group is considering becoming a state affiliate of NADCA. Talks between the OWCA and NADCA have been in progress since early 1995, according to NADCA President James Forbes,

In a letter earlier this year, Dwyer wrote, "the growth and ongoing professional development of private sector wildlife damage control is amazing... I am very optimistic that our Board and general membership will be as excited about affiliation with NADCA as I am."

ADC News, Tips, Ideas, Publications . . .

Coloradans Uneasily Coexist with Bears

The black bear population in Colorado is believed to be nearing the 10,000 mark, according to a recent article in the *New York Times*. And although state officials have doubled the number of bear hunting licenses, farm interests, especially, are worried. Colorado is one of the few states to reimburse livestock losses caused by bears. But losses and complaints have risen so fast that the state has had to tighten its policy on miscreant bears. Despite the tough public line, however, officials are reluctant to carry out capital punishment.

Girl's Death Blamed on Rabid Bat

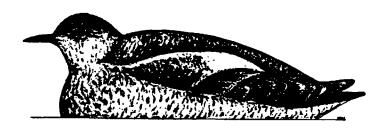
An eighth-grade Connecticut girl died of rabies, apparently because of exposure to a rabid bat. This was the third rabies fatality documented in the U.S. this year, according to an article in the October 5th *New York Times*.

Abstracts of Recent Research Presented at TWS Conference

The following are abstracts of papers presented at the Second Annual Conference of The Wildlife Society, held September 12-17, 1995 in Portland, Oregon. Total attendance at this year's conference exceeded 2,200 participants. Most of the following papers were presented within the symposium "Complexities of Addressing Human-Wildlife Conflicts," organized by the TWS Wildlife Damage Management Working Group. While this symposium was one of four concurrent sessions, attendance at this specific session exceeded 300 persons.

Translocation or Euthanasia: What Should We Do? Scott R. Craven, Dept. of Wildlife Ecology, University of Wisconsin, Madison.

Interactions between people and wildlife in the urbansuburban environment continue to increase. One result of this interaction is a wide variety of perceived and real nuisance or damage problems caused by wild animals. Because livecapture and removal of problem animals is relatively simple and very popular with the public among other control options, uncounted thousands of raccoons, gray squirrels, and other species are translocated from urban capture sites to rural areas, parks, and other open areas. Is translocation the right thing to do or is euthanasia a better alternative? Clearly, translocation of wild animals may spread disease, stress or reduce the survival of the released animal, impact species present at the release site, or simply move a problem. However, translocation is the basis of many successful wildlife restoration and stocking programs, and data on species specific survival rates following translocation are inconsistent. It is unlikely that a single policy can reasonably address the spectrum of species, settings, and situations encountered in wildlife damage management. However, a review of the literature, relevant state and local laws, experience, and common sense, influenced by public sentiment does suggest a set of practical guidelines for management decision making. Translocation and euthanasia will likely remain as two of a number of viable tools available to wildlife management professionals.



E = 1/2 MV²: Why Birds and Aircraft Should Not Occupy the Same Space at the Same Time.

Richard A. Dolbeer and C. P. Dwyer, USDA-Animal Damage Control, Sandusky, OH.

Environmental protection and wildlife conservation programs in the past 30 years have resulted in major increases in populations of certain North American birds such as gulls, resident Canada geese, double-crested cormorants, pelicans, and ospreys. Simultaneous with this increase and urbanization of many bird populations, the number of commercial aircraft and passenger miles flown in the U.S. has more than quadrupled from 1965 levels. In addition, modern jet engines typically have much larger frontal intake areas than older engines. Thus, the likelihood of birds and aircraft interacting is higher today than 30 years ago. Although effort has gone into making engines and airframes more tolerant of bird strikes, \$100s of millions in damage from bird-aircraft collisions still occurs annually worldwide. Therefore, aggressive management programs are needed on and around airports to minimize wildlife activity in the flight paths of arriving and departing aircraft. Examples include restrictions in wetlands development and putreseble-waste landfills near airports, direct control of gull and goose populations near airports, tall-grass vegetation management on airports to discourage loafing by birds, and use of trained personnel deploying frightening devices on airports. There will be an increasing demand for wildlife biologists to develop and implement management plans for airports to minimize the economic and safety impacts of bird-aircraft collisions.

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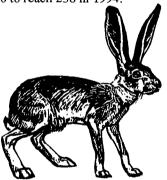
The editors of The PROBE thank contributors to this issue: Jim Miller, Stephen Vantassel, James E. Forbes, and Wes Jones. Send your contributions to The PROBE, 4070 University Road, Hopland, CA 95449.

Recent Research Abstracts

Results of 8 Years of Predator Control to Enhance Sandhill Crane Production on Malheur National Wildlife Refuge, Oregon.

Gary L. Ivey, Malheur National Wildlife Refuge, Princeton, OR.

Because of a 21% decline in breeding pairs of greater sand-hill cranes on Malheur NWR from 1971 to 1985, a predator control program was initiated to enhance crane production in 1986. The primary cause for the decline was low recruitment of young caused by high predation by ravens, raccoons, and covotes. On average, predators destroyed 46% of all crane nests and 90% of the prefledged colts. Mink were added to the program in 1993 after a study showed them to be an important predator of colts. During the 8 years of the predator control program, crane nest success averaged 68%, compared to 47% before the control program. Predators destroyed an average of 21.5% of monitored crane nests during the control program, compared to 46% during years when no predator control was practiced. Average colt survival rate increased from 9.8% to 15.1%, and average productivity increased from 11 to 15.9 young/100 pairs. The best validation of success of the program is the recovery of the breeding population. The first crane breeding pair count was conducted in 1971, when 236 pairs were counted; the number of breeding pairs had declined to 186 by 1985. After predator control began in 1986, pair numbers continued to decline to a low of 168 in 1989 and began to increase in 1990 to reach 238 in 1994.



Control of Rabies in Wildlife.

Charles D. MacInnes and L. L. Bigler. Southern Terrestrial Ecosystems Research Section, Ontario Ministry of Nat. Resources, Maple, Ontario, and Diagnostic Laboratory, College of Veterinary Medicine, Cornell University, Ithaca, NY.

Rabies is spread chiefly by small carnivores and bats in North America. In Ontario, there have been an average of 1,512 rabid animals/year, of which 44% were foxes, since 1958. An average of 1,568 humans received postexposure treatment, at an annual cost in the last decade of \$4 million. Rabies spread by raccoons appeared in the mid-Atlantic states in 1977, entered New York in 1990, and persists in affected states. Fox rabies has been controlled in parts of Ontario by use of vaccine-baits, and the prospects for its elimination by 2001

are good. Baits are dropped from low-flying aircraft, using modern navigation systems to provide uniform coverage of large areas (>30,000 km²). The program will be cost-effective in the long term. Control of raccoon rabies seems possible, either by vaccine-baits or by trap-vaccine-release, but at 10 times higher cost. Which agency should lead rabies control is an issue. Although rabies is spread by wildlife, the justification for control resides in public health and agriculture. Costs are very high for a wildlife agency; cost-efficiency must be calculated from a public health perspective. However, wildlife biologists have a realistic perspective on experimental design in the field, and of relevant vector population biology. Also, large-scale intervention in natural systems by health or agriculture must be examined by the wildlife agency. A cooperative approach among the three agencies is essential. Successful elimination of raccoon rabies will also require regional cooperation among states and countries.

Reintroducing Wolves to Yellowstone National Park and Central Idaho: Resolving Conflicts.

Edward E. Bangs, S.H. Fritts, and J.A. Fontaine (US Fish & Wildlife Service, Helena, MT), C.C. Niemeyer (USDA-APHIS-ADC, Helena, MT), W.G. Brewster (Yellowstone National Park, WY), and L.A. Robinson (USDA Forest Service, Missoula, MT).

Since the 1960s, the issue of restoring wolves to Yellowstone National Park has been discussed with great emotion and increasing polarization but without progress until recently. In recent years this acrimonious issue involved bills introduced into the U.S. Congress, directives from the Congress for scientific studies, a politically appointed committee, and finally, in 1992, an environmental impact statement (EIS). The EIS, completed in 1994, involved nearly 130 meetings and hearings. About 170,000 people provided comment during the EIS process and requests for information came from all 50 states and >40 foreign countries. Public comment resulted in a compromise plan for introduction of wolves under the experimental population section of the Endangered Species Act. The final plan should result in wolf recovery by 2002 while also allowing for liberal management of wolves outside the park to address the concerns of local residents about livestock depredations, land-use restrictions, potential impacts to big game hunting, and increased involvement of the states. Despite litigation from extreme pro- and anti-wolf groups, 29 wolves were successfully reintroduced in Yellowstone National Park and central Idaho in 1995.

Review of Data on Human Injuries, Illnesses, and Economic Losses Caused by Wildlife in the United States. Michael R. Conover, W.C. Pitt, K. K. Kessler, T.J. Dubow, and W.A. Sanborn, Berryman Institute and Dept. of Fisheries & Wildlife, Utah State University, Logan.

To assess the scope of wildlife damage in the U.S., we

compiled published and unpublished data on fatal and nonfatal human injuries caused by wildlife, human illness for which wildlife species served as a vector or reservoir, and economic losses caused by wildlife. Our findings indicate that approximately 75,000 people each year are either injured or become ill because of wildlife-related causes; 415 lose their lives. These figures include 28,000 people injured in deer-auto collisions, 35,000 bitten by wildlife (primarily rodents and venomous snakes), and 12,000 who become ill because of wildlife-related diseases. Despite the lack of data on many sources of economic losses, we can account for an annual wildlife-related loss of more than \$2.9 billion in the U.S. These losses included \$1.1 billion for deer-auto collisions, \$200 million for bird-aircraft strikes, and \$500 million in agricultural production.

Predation of Fish by Cormorants and Pelicans in a Coldwater River.

Clayton E. Derby and J. R. Lovvorn, Dept. of Zoology & Physiology, Univ. of Wyoming, Laramie.

Dramatic population increases in piscivorous birds have prompted concern about their potential impacts on sport and commercially valuable fish. During 1993-94, populations of double-crested cormorants and American white pelicans on the North Platte River, Wyoming were determined by aerial surveys. Cormorants were collected throughout the summer in 1993-94, and pelicans in 1994. Gizzards and esophagi were removed from collected birds for food habits determinations. Whole fish were identified and measured, and digested fish were identified and lengths estimated using otoliths. During both years of study, cormorants consumed more suckers and minnows than trout before trout stocking and then changed their diet to include more trout after stocking. A bioenergetics model was developed that combined bird populations (including young cormorants at a colony), food habits, and estimations of energetic needs to estimate impacts of predation on trout, suckers, and minnows.

Immunocontraception as a Tool in Wildlife Management.

Lowell A. Miller, USDA Denver Wildlife Research Center, Denver, CO.

Immunocontraceptive technology seems to be a viable application in wildlife damage management. However, the administration of these vaccines is presently performed by syringe injection or remote delivery by darts or biobullets. In order for immunocontraception to be successful in wide application to free-roaming animals, the vaccine must be delivered in an oral form. Recent advances in molecular biology, immu-

Continued on page 7, col. 2

Trapping Weasels

James E. Forbes, President, NADCA

Just came in from the backyard where I've been working all morning blackening and waxing my weasel traps—getting all set for the opening of weasel season. Thought I'd better take a break and bring you up-to-date on some of the NADCA committees and what they are doing.

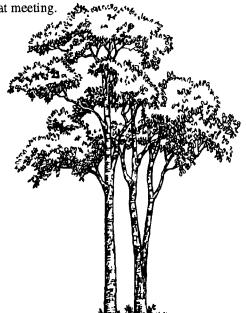
The NADCA Board of Directors has just agreed to set up a new ad hoc committee: The Urban Wildlife Affairs Committee. This is the result of the NADCA merger with NUWMA which was completed last spring. The purpose of this committee is to address items of interest to people doing ADC work in urban areas.

We need interested people to serve on the Urban Wildlife Affairs Committee. Interested people should contact Mr. Clarence "Ki" Faulkner, Chairman, at P.O. Box 67, Harpers Ferry, WV 25425, or simply call (304) 728-2178.

Another committee, the Ways and Means Committee, chaired by Tom Tomsa, has developed a set of guidelines for future funding through the sponsorship of meetings such as the Vertebrate Pest Conference; Great Plains Workshop; Eastern Wildlife Damage Management Conference, and various other workshops and symposiums. Tom's committee has also developed a set of six fundraising suggestions to raise additional funds for NADCA in the future.

The NADCA Employment Committee is continuing on track and in September sent a set of NADCA technician résumés to North Carolina where there is an opening for an ADC specialist position.

About the time you read these lines, NADCA will be holding its annual meeting in conjunction with the Seventh Eastern Wildlife Damage Management Conference in Jackson, Mississippi. Reports from all NADCA Committees will be given at that meeting.



The Probe, NOVEMBER 1995, Page 5

Why A Christian Can Trap Animals

(non-use school) and the laissez-faire industrialist schools (nobarriers-to-use school). Contrary to much popular understanding, the Scripture does not teach that mankind can do as he wishes with the world. I would agree that historically, many Christians have neglected to see their role as keeper of the planet along with their tending responsibilities. However, I should point out that it is only relatively recently that the world has been as populated or exploited as it is now. I would argue that in the medieval ages it was beneficial for humanity both spiritually and environmentally to cut down paganism's sacred oak groves. Christianity allowed people to see a tree as a piece of creation that God meant to be used, not worshipped. I would also argue that part of that use of a tree is not cutting it down so that we can control erosion and pollution. Although an environmental extremist might disagree, the role of creation is to serve the needs of humanity as humanity serves its Creator.

Turn your attention to Psalm 8, which in poetic language reinforces the teachings of Genesis 1-2. Here we have King David telling his listeners that God has positioned Mankind a little lower than the angels but higher than the animals. Note the last few verses where he covers pretty much all the animal classes from domesticated to the wild. When reading these passages of Scripture, I hope you will understand how historic Christianity perceives the role of humanity and nature together.

Another reason why Christians can't be animal rightists is because we can never preach that eating animals is wrong. The Apostle Paul clearly states that anyone who forbids another from eating certain foods (like meat) is preaching a doctrine of demons (1 Tim 4:1-3). While at college, I met a woman who hosted a booth explaining the horrors of factory farming. I took a few moments to tell her that I, too, was bothered by cows being held in stalls so small that they couldn't move around. But I wanted to find about her philosophy towards animals, so I asked her if it was okay if I ate meat from a cow that was cared for by a farmer who let them roam the open fields. In short, could I morally eat meat from a cow that was well cared for? She said, "No." Then I responded, "Then the issue isn't how the animal is treated. The real issue is that the animal is killed at all."

Regrettably, it is this non-use attitude that undergirds much of the animal rights movement. They cry about abuse, but it's only a smoke screen for their real concern—that the animal is killed at all. As a Christian, I may agree with some of their animal welfare concerns, but not that animals cannot be eaten. For me to say that I can't eat an animal is tantamount to saying that what God gave for us to use is defective. This is not to mention the fact that if eating animals is wrong (translate *sin*), then my Savior, Jesus Christ, sinned because he ate fish (Jn 21:1-14). I haven't even mentioned how Jesus actually helped the apostles catch more fish (Jn 21:1-14).

Christianity teaches that humanity has a stewardship role on the earth. Unlike the preservationists, we believe that it is our job to manage the animal kingdom with the natural predators that God has provided to keep populations in balance. We disagree that letting nature takes its course is the correct action, for we are a part of that nature. It always strikes me as strange how animal rights people think it's okay for diseases to reduce a burdensome animal population, but they don't think it's okay for a human to preemptively reduce that population.

If Biblical grounds aren't enough for you to accept my understanding of man and creation, perhaps you might want to look at the contradictions inherent in the animal rightists school of thought. The fact is many animal rightists believe that people are little more than highly evolved animals. They contend that since we are more highly evolved, it is unfair of us to exploit our lower companions (Singer p. 9; note how he calls an infant just another animal). If the "Antis" truly believed that we are nothing more than animals, then why can't we act like the animals we are? If you evaluate these evolutionary animal rightists like Peter Singer, you will notice that the animal rights philosophy cheats. By claiming that we should be concerned about the suffering of another animal, it borrows from morals that lie outside the animal evolutionary realm. After all, if the evolutionary principle of natural selection is true, then why can't we, the more powerful animals, exploit other less powerful animals to fulfill our purposes? Does a coyote care about the suffering of a fawn? Besides even if evolution inserted compassion into the human animal, why do all of us have to follow that feeling? Does evolution say we will go to hell if we don't obey evolution's orders? It is only when one inserts the idea of rights and responsibilities, which I understand can't come from natural selection, does one hope to have grounds for treating other creatures in a considerate manner. In short, Peter Singer borrows from Christ's teachings about compassion and care, but rejects Christ's life of catching fish and the teachings of his apostles.

In Christian terms, since animals are not humans, they do not command the same moral rights as humans do, just as plants are not on the same vital plane as animals. I'm confident that many biologists are shaking their heads saying, but we are animals. To that I can only say, Scripture and experience both tell us that humans, while sharing many animal-like characteristics, have something in them that is fundamentally different than what animals possess. Some call this different thing soul, other spirit, still others reason. Whatever you want to call it, the fact remains that we are as different from animals as a car is from a horse and buggy. Peter Singer's criticism of this doctrine relies on little more than it's a declining doctrine (Singer, p. 19 footnote). Since when does a belief become less true just because fewer people may believe it? His second argument

against the soul doctrine is also vacuous. He claims that on a logical basis the soul doctrine cannot stand because Christianity has not provided a reasoned explanation of why only humans can have souls (Singer, p. 19) What kind of an argument would be needed to convince Singer? It seems to me that the Bible clearly teaches that humanity is created in God's image (Gen. 1:26). Scripture never asserts that animals are created in God's image. The image of God consists of our ability to be self-aware, to control our surroundings and to create. I have yet to see an animal build a spacecraft and go to the moon.

In conclusion, a Christian minister can trap because he is simply fulfilling his responsibility to be a manager and caretaker of the earth that God has entrusted to his care. Trapping is just one aspect of asserting my God-given right to express dominion and care over the world that God bestowed to me. Just because I may not need the raccoon's meat for food, or that I enjoy the experience of catching animals, doesn't mean that I am not playing an important role in the balance of nature. What I must always consider is whether I am properly caring for God's property.

I look forward to your response. If I can answer any particular questions, please don't hesitate to write or send e-mail.

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Recent Research Abstracts

nology, and pathology of mucosal infection gives us tools to develop effective oral vaccines. Oral immunocontraceptive vaccine encapsulated in adhesive liposomes or nonvirulent live vectors holds promise as a practical approach for immunocontraception of free-roaming wildlife. Issues of safety, species specificity, regulatory constraints, and field application of the vaccine will need to be addressed.

Managing the Deer-Crop Depredation Issue in Michigan.

Donna L. Minnis, P. Fritzell, and R.B. Peyton. Dept. of Fisheries & Wildlife, Michigan State Univ., East Lansing.

Wherever agricultural interests and consumptive recreational interests coexist, management of white-tailed deer populations will cause social conflict. The debate over the optimal number of deer is particularly acute in Michigan where roughly 30% of the state's land resources is in agricultural production and about 800,000 individuals participate in deer hunting yearly. The positions of farming and hunting interest groups regarding deer management have historically been characterized as antagonistic, with deer hunters typically favoring increased numbers of deer and farmers favoring fewer deer. A central point of the controversy is the control of deer depredation on agricultural crops through the issuance of permits to farmers for culling deer. Hunters in localized areas of Michigan have organized against the crop damage control program (CDCP) implemented by the Michigan Dept. of Natural Resources (MDNR) Wildlife Division. However, culling deer on farms may not be the focal point of the issue. Rather, the guidelines governing the implementation of the CDCP, the credibility of the agency responsible for its implementation, or even dissatisfaction with deer management decisions that are not directly related to crop damage control may be underlying sources of the apparent dissatisfaction among hunters. To determine the factors contributing to the conflict over crop damage control and to investigate the optimal number of deer, surveys were sent to deer hunters (n = 4,000) and agricultural producers (n = 3,000) across 7 Michigan counties in March 1995. A model of deer population "cultural carrying capacity" will be tested. Recommendations will be directed toward increasing the effectiveness of individual and collaborative efforts of agencies, such as the MDNR Wildlife Division, Michigan State University Extension, and Michigan Farm Bureau, which are involved in managing crop depredation issues.

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Membership Application

NATIONAL ANIMAL DAMAGE CONTROL ASSOCIATION

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ISSUE 160 The Probe NOVEMBER 1995

The Probe