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Resolving Conflicts between People and Canada Geese: The Need for Comprehensive Management Approaches

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Abstract: Canada geese have become established and are now numerous enough in many urban and suburban areas that conflicts with humans have become frequent. Although potential threats to human health are often cited as a justification to manage goose populations, currently available science suggests that this is not a serious issue. This leaves the primary concern as one of aesthetics—people do not like having to deal with what can sometimes be copious amounts of goose droppings. Animal welfare interests have questioned the humaneness of different roundup and killing programs, and advocated non-lethal approaches and egg addling. Both approaches currently are being practiced in a number of different communities without, unfortunately, much being done to systematically monitor or evaluate them. This paper addresses some of the more controversial issues surrounding resident Canada goose management from an animal welfare perspective and touches on some of the different management approaches currently being practiced as examples of the need for better overall coordination and comparison of management approaches.

Key Words: animal welfare, *Branta canadensis*, Canada geese, egg addling, human-wildlife conflicts, roundup and slaughter

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INTRODUCTION

The rapid growth of Canada goose (*Branta canadensis* spp.) populations and a concomitant rise in human-goose conflicts throughout much of North America has been well documented (Conover and Chasko 1985, Ankney 1996, Smith et al. 1999) if not yet fully understood. In part, this phenomenon can be attributed to the greater-than-expected success of state and federal wildlife agencies to repatriate goose stocks following a time when populations were at historic lows. For reasons not yet fully understood many repatriated goose populations became “resident,” remaining year-round, or nearly so, particularly in urban and suburban areas. By the 1980s it was becoming clear that many of these local goose populations were becoming problematic (Smith et al. 1999). Although migratory geese can, and do, cause conflicts at specific times and sites, the resident goose population has been the focus of most of the current controversy surrounding these birds and is the one primarily addressed here.

Conflicts with resident goose populations seemed initially to have been largely resolved through the use of simple and relatively benign aversive conditioning strategies, practices that continue in many places even today. For the better part of two decades, a number of states managed goose populations by a process of trap and relocation (Cooper 1987, Cooper and Keefe 1997). Beginning in the mid to late 1990s, the focus of conflict resolution increasingly has turned to lethal control, as states previously accepting translocated geese have begun to refuse them. These lethal controls have taken a number of different forms, some of which have proved to be quite controversial.

The Humane Society of the United States (HSUS) has been active in opposing lethal control of Canada

goose populations and has mounted its opposition on several fronts, including legal challenges, public outreach and advocacy, and participation in alternative management approaches. To us, the key to resolving conflicts between people and Canada geese lies in better understanding the goals of management and both the empirical as well as conceptual grounds on which those goals are based. We feel that realistic and concerted efforts should be made on all sides of this issue to better understand where differences exist and what, if anything, can be done about them. A significant first step in the direction of moving toward better understanding would be to agree upon the endpoint or endpoints that management programs seek to attain. By endpoint, we simply mean the condition toward which management would be directed and ultimately reach if all things worked as they should. It can be argued that current management approaches to resolving human-goose conflicts are both short-term, with rarely more than a year’s planning horizon, and largely independent of other activities nearby that also focus on goose management. We know that human-goose conflicts will continue into the foreseeable future (Conover 1992, Allan et al. 1995, Swift 2000), and that knowledge of itself should be driving managers to consider long-term and integrated planning approaches.

THE CONTROVERSY

The controversy surrounding Canada goose management has to date focused largely on the use of lethal controls, in particular the mass killing of adult and juvenile birds when flightless during the annual molt. Animal welfare interests have questioned both the rationale and justification for this killing, as well as the failure of managers to set forth long-term plans that

would integrate non-lethal with lethal approaches (Hadidian et al. 2000). A broader controversy is likely to develop over management plans and approaches that do not, as the years pass, move forward in providing more permanent solutions to real and perceived problems. We fear that Canada goose management programs will become mired in endless cycles of population reduction, spot treatments, and static responses that basically pay off the interest that accumulates annually on an area's goose problems without ever touching the principal.

THE RATIONALE FOR COMPREHENSIVE MANAGEMENT APPROACHES

Although the need for integrated management approaches with resident geese has been widely recognized (Allan et al. 1995, Gosser et al. 1997, Smith et al. 1999), as yet there is no consensus on how such integrated plans should be devised and implemented. The need for comprehensive and integrated management approaches rests upon three factors:

- 1) the known socio-political complexity of goose management (the regulatory, statutory, administrative, and logistical factors),
- 2) the diversity of available management techniques and approaches, and the varying ways in which they can be applied, and
- 3) the obvious biological and ecological complexity of goose populations and the landscapes they interact with.

Resident Canada goose management is a socially complex activity in which at least two federal agencies (the U.S. Fish and Wildlife Service and the Department of Agriculture's Wildlife Services) play significant roles sometimes with and sometimes without the involvement of state wildlife, health, and agriculture agencies. To this can be added the involvement of ex-officio groups such as the Flyway Councils, as well as a variety of non-governmental groups and organizations (NGOs) representing a wide range of differing interests regarding geese and their management. Finally, the general public plays a significant role in advocating on Canada goose management issues, one that undoubtedly has focused historically on consumptive use and pursuit, but one that is increasingly coming to be represented by other interests as well. How such different groups work together can be answered simply: it seems that they do not. Even where there should be apparent coordination and administrative and procedural concurrence between governmental agencies, this seems not to be the case. Decisions regarding who should "manage" goose problems and what aspects of management need to be addressed at the federal, state, or local level seem to be idiosyncratically reached between, and sometimes even within, the states. For example, in Washington State the federal agency USDA Wildlife Services (WS) assumes responsibility for almost all Canada goose management activities, while the state wildlife agency remains, for the most part, uninvolved. In Michigan, exactly the opposite seems to

be the case. Even within agencies, administrative procedures and recommendations vary from place to place and year to year. One example concerning the issuance of federal permits may illustrate this point. In U.S. Fish and Wildlife Service's (USFWS) Region 5, permits were issued in 2001 with the condition that permittees could not return to nests to remove addled eggs or check on nesting birds until 45 days after adding. Traditionally, this period has been limited to 14 days, after which it was recommended that nests be revisited and removed (Smith et al. 1999, HSUS 1999, Cooper 2001), and the 45 day period has now been rescinded.

Added to the complex regulatory and administrative environment within which Canada goose management occurs are the variety and scope of what can be called tactical management approaches. Smith et al. (1999) list 49 separate techniques used in management of urban and suburban goose populations. Some of these are highly regulated and controlled activities such as hunting, roundups, egg adding, and other lethal procedures, while others are not regulated at all, such as harassment and scaring techniques, and most forms of habitat management. Hunting, which remains the management approach of choice for the majority of states, is closely overseen by state managers who may or may not pay particular attention to any other goose management activities. Virtually no one may be aware or even care, at the local level, about whether or not a company has contracted with a dog service and is harassing birds on their property, that a golf course is applying repellents, or that city managers have approved landscaping changes to relieve a problem in a local park, even though the consequences of each of these activities may affect regional goose management goals and objectives.

Finally, a widely overlooked aspect of human-goose conflicts can be related to the question that Sherlock Holmes posed about a perplexing case he had been called in to solve: why didn't the dog bark? Although Canada geese are widespread throughout urban and suburban environments in much of North America, they are problematic at only in a fraction of the sites where they occur. Why is this so? Are there conditions about sites, goose populations, or human populations about which we are currently ignorant that lend themselves to conflicts not occurring? Surely any attempt to understand and fully interpret the nature of human-goose conflicts should address the continuum across which these birds, their urban and suburban habitats, and people with varying interests and attitudes, range. Again, the mechanism to do that appears to be lacking.

EXAMPLES OF CURRENT MANAGEMENT APPROACHES

Michigan

The Michigan Department of Natural Resources (MDNR) advocates hunting as its primary tool to control goose population growth, and surveys suggest that a reduction in the annual rate of population growth may

have stabilized the statewide goose population (P. Squibb, pers. comm.). In most of the urban and suburban areas where the highest levels of human-goose conflict exist, however, legal hunting is not a tool which can be considered or implemented (MDNR 2000). Following a period of confrontation with animal protection interests, the MDNR initiated a broad-ranging and cooperative volunteer subscription effort in 1998, with organizations such as the Detroit Zoo, the Michigan Humane Society, and The Humane Society of the United States working cooperatively on an egg addling and replacement program that focused on a 100-square-mile area in three heavily urbanized southeastern counties. This management approach occurs in conjunction with a continuing translocation effort in which DNR employees oversee the capture and movement of birds both within and outside of the state.

An effort has been made throughout the first four years of the egg replacement program to collect data that documents both the effect of this management program, especially its egg removal component, as well as determines the timing and logistical concerns associated with field operations. The goal has been to fully evaluate the demands on the agency, effectiveness of the volunteer component, and the satisfaction of the “customers” on whose property goose management is undertaken. The number of permits issued and executed annually has risen, along with the reporting effort required as a component of the federal permit. There has been a steady rise in the number of nests located, and a total of 8,007 eggs were removed and replaced with artificial eggs as the preferred nest treatment procedure. In all, more than 11,000 eggs have been treated by all of the addling procedures used. Close examination of eggs removed from nests has allowed for a highly accurate charting of clutch initiation date and average days of development in removed eggs. The data is being used to focus volunteer efforts into a time frame where efforts can have maximum effectiveness. Approximately 5,000 geese were captured annually from 1998-1999, with the number of translocated birds from the southeastern management unit declining each year (MDNR 2000).

The state also undertook, beginning in 2000, a wide-ranging radio telemetry study aimed at determining the responses of adult female Canada geese to nest disturbance. An unexpected and potentially significant consequence of this research effort has been that long-range (molt migration) movements have occurred in geese that have had failed nesting experiences. Between 75% and 80% of birds radio-tagged in the three years of this study engaged in northward molt movements into Canada beginning in late May and early June, concentrating on the northeastern coast of Hudson Bay, the northwestern coast of James Bay, and the Belcher Islands (D. Luukkonen, pers. comm.). The sum of these findings has led the MDNR to initiate an egg removal rather than a replacement program in 2002, whereby

volunteers will be permitted within a much more concentrated window of time to visit nests and simply remove eggs, under the expectation that re-nesting will not occur (P. Squibb, pers. comm.).

New York

Swift (2000) reviewed the history of Canada goose management in Rockland County, New York. In one of the five townships making up this county, city managers declared an “explosion” with well-publicized figures of 8,000-12,000 geese claimed for an area in which the New York State Department of Environmental Conservation (DEC) later estimated about 2,500-3,000 geese. This led to roundup and slaughter of approximately 250 and 200 geese in 1996 and 1997, respectively, and a highly publicized conflict between those supportive and those opposed to this program. The activist group Coalition to Prevent the Destruction of Canada Geese arose out of this conflict and lobbied local governments intensively to work toward management strategies that did not include the roundup component. Clarkstown first initiated an egg addling program in 1993 and began a border collie program in 1997, after activists successfully lobbied to halt the roundups. Swift (2000) analyzed the interaction and consequences of these programs and noted among other findings “...limited impact of egg addling, mixed success of roundups, and seasonal disappearance of some pre-molting geese displaced by canine harassment” (Swift 2000, p. 319). He suggested that communities with severe goose problems consider employing “goose control officers,” individuals who work on public as well as private land and provide services ranging from enforcement of “no feeding” ordinances to coordinated harassment with trained dogs or pyrotechnics. Swift (2000) also suggested molt migration movements similar to Michigan’s may be occurring among New York’s resident geese.

Virginia / Maryland

Fairfax County, Virginia has been the focus of an effort on the part of a non-profit organization called GeesePeace™ to create a comprehensive, countywide and non-lethal approach to goose management. This program relies on volunteers to conduct an egg-addling program that is followed with an aversive conditioning strategy that uses trained dogs (border collies) to remove geese from problem sites just prior to the annual molt. All of this is coordinated through municipal services, including the office of the wildlife biologist for the county, to maximize the private-public partnership and place responsibility for resolving human-goose conflicts squarely at the community level.™ The key to its current success is that the GeesePeace™ program relies on an integrated management approach, coordinating the addling program with the aversive conditioning efforts, as well as political support at the county level, where resources such as the county Geographic Information

System are dedicated to facilitating the permitting process, public education and outreach, and coordination of the effort between municipal departments.

Minnesota

Minnesota has one of the longest-standing programs for resident geese in which the principal focus has been placed on lethal removal. Problem birds in the Twin Cities areas were subject to roundup and translocation programs that resulted in more than 40,000 birds being moved, beginning in 1982 and ending in 1996. Starting in 1996, Minnesota has focused on a lethal control program in which geese are rounded up and sent to slaughter during the period of the molt. Numbers originally were small but currently may exceed 5,000 annually (Cooper 2001). Although removals have been associated at times with other approaches (the state provides homeowners and others with fairly comprehensive advice concerning non-lethal strategies and approaches), apparently no coordinated effort has existed to link various program components, such as egg addling prior to roundup and removal, in a systematic fashion (Cooper and Keefe 1997, Cooper 2001). Cost estimates for program elements such as egg addling, habitat management, and roundup suggest greater cost efficiency for lethal controls (Cooper and Keefe 1997, Cooper 2001) but have not factored in potential volunteer efforts or collateral environmental benefits of landscaping changes. Cooper (2001) suggested that the removal program has been responsible for halting an exponential population growth in the Twin Cities area, and clearly a rigorous test of this would help provide an important piece of information with respect to management of Canada goose populations.

Oregon

Land managers in Portland, Oregon have identified concerns for what seem to be growing numbers of geese on municipal parks and recreational areas, including golf courses. To date, no management plan has been proposed, although a meeting has been held between NGOs, USDA-WS, USFWS, the Oregon Department of Natural Resources, and municipal officials to discuss a need for a program. Currently, Portland appears to be typical of other municipalities that once verged on having goose problems before they grew to be genuine crises. Proactive management could potentially help stem what might eventually become that crisis and may provide a critical test of the ability of various interests to work together toward that end.

ENDPOINTS

Comprehensive management programs to reduce human-Canada goose conflicts must be created and advocated at the highest levels in both federal and state wildlife agencies, as well as from within the community of wildlife professionals. The variety of management approaches currently being employed, often without a

substantive planning basis or attempt to evaluate their consequences, together with the social, administrative, and biological complexities with which management programs have to deal, demands this. For Canada goose management programs to succeed, a considerable amount of effort is needed to get past controversy and into management strategies that will yield not only practical solutions to human-goose conflicts, but socially acceptable solutions as well. A critical first step toward establishing administratively more consistent and operationally more unified approaches would be for managers to identify (and ultimately agree upon) management endpoints. In a general context, an endpoint might be to strive toward a state or condition in which people tolerate acceptable levels of conflict with geese, the killing of geese in roundups is ended, and the costs of managing human-goose conflicts are minimized. Specific endpoints contributing to that general goal might include: preventing goose access to a park area where human activities are concentrated; using aversive conditioning to deter geese from sites where they are considered problematic; and using volunteers to addle goose eggs over a county-wide area, with the intent of both preventing recruitment as well as enabling aversive conditioning programs to be deployed up to the time of the molt. Having established acceptable endpoints, managers can step backward to see what they would need to do incrementally to arrive at those ends. The alternative is to continue engaging in recurrent and repetitive action that produces short-term results amidst a continuing controversy, at the risk of permanently devaluing a treasured wildlife resource.

PROGRAM RECOMMENDATIONS

The following are offered as recommendations in consideration of the need to provide greater consistency, improved resources, and coordination and cooperation to the maximum extent possible between those engaging or interested in resolving human-goose conflicts.

1. Focus Canada goose management programs at the community level. The human resources and effort to address human-goose conflicts, as well as decisions concerning how geese will be managed, should come from affected communities through an open and inclusive community involvement process. For that reason, a part of this process should be to use human dimensions specialists to establish objective procedures by which communities can make informed decisions.

2. Compile, standardize, and centralize data on resident Canada goose management. Swift (2000) provides a comprehensive summary of the sort of information and attendant data that could prove of immeasurable value in comparing issues, approaches, and successes or failures in goose management. Others should follow this lead and work toward eventually establishing a national database on resident geese. The clearinghouse for such information could be the U.S. Fish

and Wildlife Service or The Berryman Institute at Utah State University.

3. Standardize protocols for goose management. Smith et al. (1999) and numerous publications of federal and state agencies provide a more-than-adequate basis from which protocols for any number of technical approaches to goose management could be derived. The HSUS (1999) has prepared a protocol for egg addling (www.hsus.org/ace/12096) and encourages input from any source to refine and improve the recommendations therein. WS and others engaged in capture, handling and transport, as well as killing of birds, should establish strict procedures that pass veterinary standards that exceed treatment standards for domestic fowl raised for slaughter.

4. Acknowledge animal welfare concerns associated with this issue and deal with them directly.

5. Take economics off the table in lethal programs. No federal or state agency should profit from lethal goose control, and information concerning their economic activities with respect to this activity should be publicly available.

6. Prohibit lethal controls at sites where follow-up addling and nonlethal control programs are not mandated.

7. Establish an agency oversight committee within WS to: a) identify and coordinate research efforts, b) centralize and manage databases, c) standardize protocols and procedures, and d) work with stakeholders to communicate about the agency's program.

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