

A large flock of white geese flying in a dense formation against a dark, sunset-colored sky. The geese are silhouetted against the bright orange and yellow light of the setting sun, creating a dramatic and somewhat somber atmosphere. The birds are spread across the entire frame, with some in sharp focus and others blurred, suggesting a vast, continuous flock.

# LAST RESORT

Will wildlife managers have the courage to use poison or claymore mines to save Arctic ecosystems from too many white geese?

By Barney Nelson, Ph.D.

While goose scientists struggle to educate the public about serious overpopulations of white geese, popular environmental writers like former Oregon rancher, William Kittredge, publish glossy coffee-table photography books advocating restoring wetlands and establishing refuges. In Kittredge's

book, "Balancing Water: Restoring the Klamath Basin," (Berkeley U of C Press, 2000), lovely four-color photographs of wide skies and endless lakes covered with snow geese, Ross's geese, and greater white-fronted geese testify to the beauty of increasing these great migrations. Kittredge says forcefully: "I'll vote for politicians who seem determined to work on behalf of preserving birds." So will he vote for politicians brave enough to suggest poisoning snow geese on sanctuaries in order to save both the tundra and geese?

Goose scientists can't compete with the prolific pens of uneducated environmental writers. Ten years ago, four years before publication of Kittredge's book, Canadian goose scientist C. Davison Ankney warned in the *Journal of Wildlife Management* that white geese (greater and lesser snow geese and Ross's geese) were severely overgrazing the Arctic tundra and their populations were doubling every eight years (see "Sky Carp & Tundra Maggots," by C. Davison Ankney, *RANGE*, Winter 1997). Since then, the U.S. and Canadian Fish & Wildlife services formed an international Arctic Goose Habitat Working Group under the Arctic Goose Joint Venture (AGJV) to explore management alternatives. Even former Secretary of the Interior Bruce Babbitt, appearing in a Ducks Unlimited documentary, risked the wrath of environmental groups with a limp-wristed plea for international cooperation.

What have our highly paid international wildlife agencies done? Almost nothing. Reducing goose populations is a political hot potato.

Those critical 10 years have passed and, as predicted, the population of white geese has doubled. Timidly, wildlife managers have inched their necks over the public chopping block by extending hunting seasons, increasing bag limits, unplugging shotguns, allowing electronic calls, and quietly promoting conservation harvests on sanctuaries. Several million light geese have been taken by hunters, but it still seems to be too little, too late.

The most recent (2003) 10-pound scientific report comes from another working group set up by the AGJV in 1999 (see sidebar). Their report explores the next level of

grim alternatives, explaining that because of overprotection and changes in habitat use, it has become increasingly common for wildlife populations to overpopulate to levels that adversely affect their own habitat and that of other species. Easy access to increased production of grain crops in the United States has greatly increased goose nesting success and survival, causing a steadily increasing

where wildlife science has rarely gone—the international reduction of native migratory bird population levels. The goose population explosion has been caused by humans and must be solved by humans.

Control of a population falls into two categories: nonlethal and lethal. Nonlethal options such as scare/noise devices would simply move the large colonies of nesting birds into other areas, spreading degradation of the ecosystem. Destroying eggs or juveniles on the nesting grounds would be futile because light geese live long lives, up to 20 years or more. Better refuge management, hunting access on refuges, and tax and financial incentives for both hunters and landowners could provide marginal help but, of all the

© JUAN BAHAMON



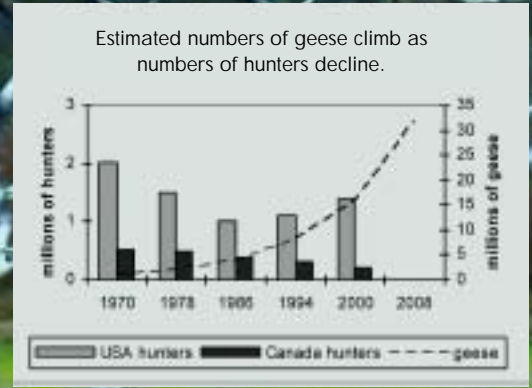
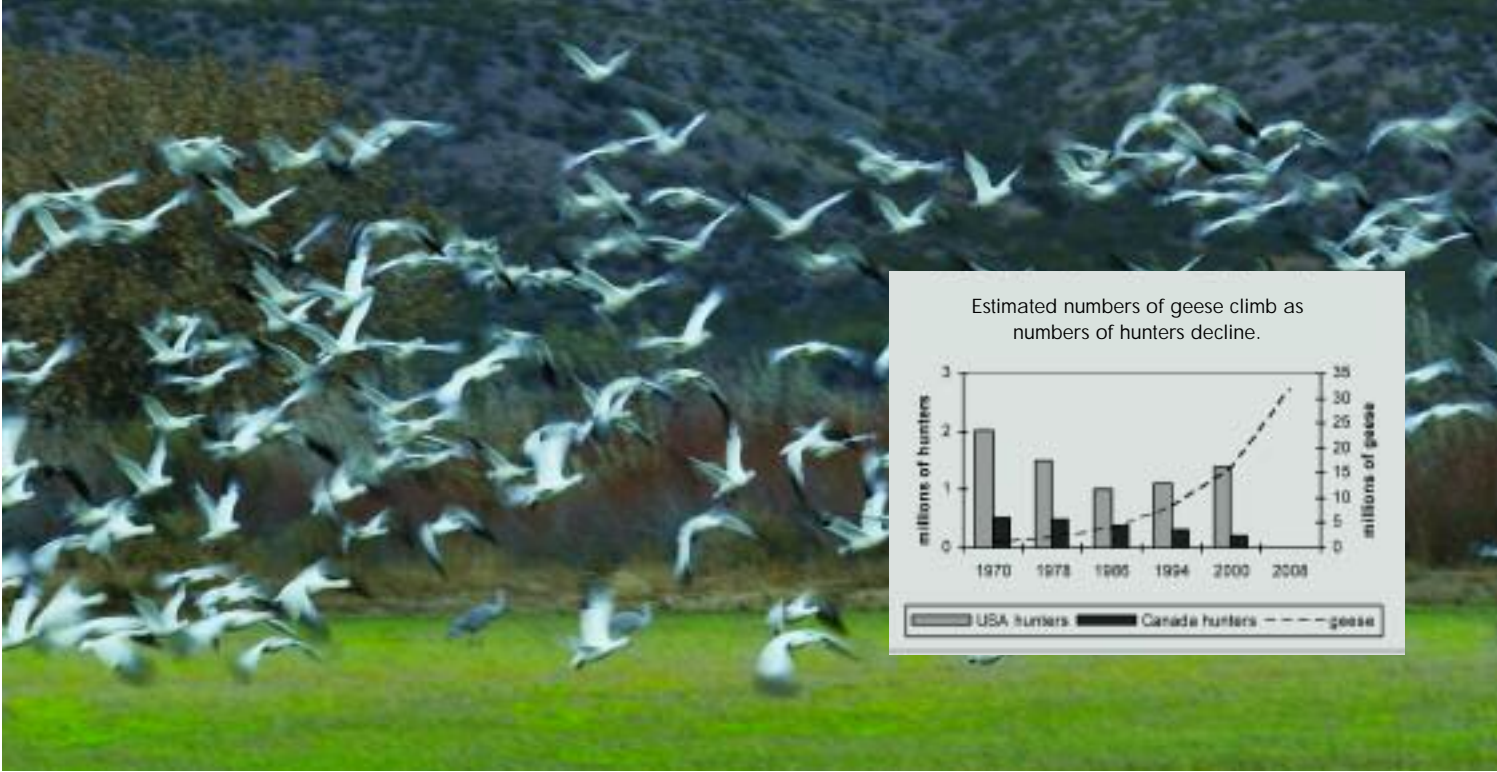
*A snow goose in flight. OPPOSITE: Although this photograph is beautiful to environmental writers, it is ugly to goose scientists. An exploding population of snow geese, Ross's geese, and greater white-fronted geese is destroying their Arctic nesting and molting grounds. Serious measures must be taken.*

population that many wildlife scientists believe has already outgrown the ability of managers to control.

Geese are not only overgrazing vegetation on their tundra nesting and molting sites, but are actually grubbing up roots buried deep in the mud. Each spring new eggs are laid, new chicks hatched, and a perilous overpopulation of white geese is threatening not only its own existence but large parts of the Arctic ecosystem. Managers face the responsibility of preventing this ecological disaster by going

possibilities, increased harvest by hunters seems to be the most desirable and cheapest alternative. Agencies now face the daunting job of somehow increasing interest in goose hunting and of teaching new hunters skills in everything from concealment to dog training to firearm handling—skills that can't be taught by computers, modern education or nature writers.

The problem has also been compounded by antihunter public sentiment that can be traced to the pens of well-meaning writers. In



1948 Aldo Leopold wrote eloquently about the beauty and music of geese. What lover of Leopold does not thrill to: “One swallow does not make a summer; but one skein of geese, cleaving the murk of a March thaw, is the spring”? However, at least partly because of his lyrical words, goose hunters have become an endangered species. Imagine telling your first high school sweetheart that you are going out hunting white geese this weekend? What kind of monster would shoot a beautiful white goose? End of romance. Consequently while the goose population rises, the

number of goose hunters has dropped 61 percent in Canada since 1978 and 32 percent in the United States since 1970.

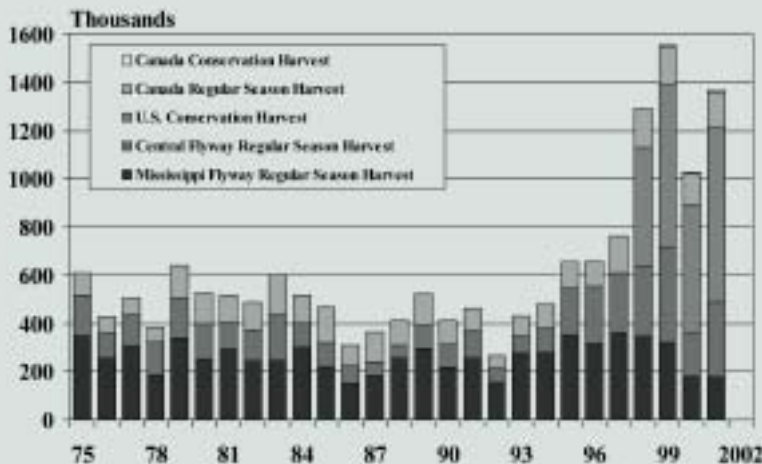
Not only that, but hunters themselves have adopted such stringent personal codes of ethics, at least partly because of Leopold, that shooting has become a sacred ritual fraught with rules: don't shoot anything you don't eat; don't shoot a semiautomatic; shoot only birds in flight; don't shoot more than one or two; or don't shoot at all, just take photographs and let your dog have a swim.

There may have been a moment in time

when nonlethal measures might have worked, but that moment is long past. If the goose overpopulations are not stopped soon, every species that depends on the Arctic's native plants and soils will be affected, and scientists fear the populations have already soared beyond numbers that any kind of increased hunting could remedy. As of fall 2005, at least five million adult white geese need to be destroyed in order to bring the population back down to a level hunting may be able to control. As one of the scientists says: “A big problem requires a big solution.”

As the peril increases, so does the distastefulness of possible solutions: mass execution on nesting or molting grounds and conservation hunts aimed at eliminating 10,000 birds at a time from refuges, sanctuaries, migration stopovers, wetland loafing sites, grit sites, or roosts. Other possibilities include: night shooting, using larger shotgun gauges, using rimfire rifles, using silencers, and reinstating large-scale commercial hunting, which has been considered unethical and illegal since 1916. Creating a public demand for goose meat would not happen overnight and a long-term supply might not be sustainable. The list of supplies is also daunting: planes, helicopters, portable freezers, processing crews, temporary housing. In the end, the group found the program extremely expensive. A cheaper and probably wiser alternative would be simply to allow the carcasses to recycle back into the damaged tundra in

Figure 1. Mid-Century Light Goose Harvest in U.S. and Canada (excluding AB, BC and YK). U.S. conservation harvest includes conservation order and regular seasons with special harvest provisions. Data for particular year includes harvest for the fall of that year and the winter and spring of the following year. From a



order to help replace soil nutrients. This windfall of easy food, however, could cause alarming increases in predator populations, in turn endangering other prey species.

Complications abound, but the alternative of letting nature take its course will cause too much damage because geese are mobile and will continue to move rather than starve once they have destroyed a nesting site. So, what are the options of last resort?

One option is poisoning with chemical avicides. Safe, species-selective, effective, humane, and economical poisons are constantly being developed and some are currently being used to target pest birds like blackbirds, starlings, pigeons and gulls. Poisoning is cheaper than staging either conservation or commercial hunts. Again environmental writers like Rachel Carson and misnamed NGOs like Defenders of Wildlife have erroneously convinced the public that all poisons accumulate and cascade throughout the environment.

Another option of last resort is the use of military technology. Small aircraft can be used to herd white geese toward avicide bait

PHOTO COURTESY DAVE ANKNEY



*Despite the best efforts of goose hunters, numbers of white geese continue to increase dramatically. Can-Am Goosebusters hunt every year as often as possible. They include USGS waterfowl biologists David Brandt and Bobby Cox (second & third from left), and Canadian waterfowl researcher Dave Ankney (white coat) and his wife Sandra. TV producer Rick Morgan is on left. The other side of truck says, "Biologists at work," and on the back, "Go big or stay home." They are posing with a day's limit of snow geese, 20 each, which they cleaned and donated to a food bank in Saskatoon, Saskatchewan. More successful hunters like these guys are needed to save the tundra and bring bird numbers down into reasonable balance. Top right of photo, some of their 1,000 decoys. OPPOSITE: Easy access to ever increasing grain crops has caused the overpopulation of white geese. Yet environmental writers like Bill Kittredge, whose family owned Oregon's MC Ranch, write: "I loved the disorderly magnificence of white snow geese by the clamoring thousands rising from barley stubble to an overcast November afternoon."*

stations. Rocket launchers could be used to propel large netting traps over roosting or nesting areas in order to capture geese alive for transport to meat-processing destinations. An even more shocking scenario is the use of remotely detonated shot charges like claymore mines to kill masses of geese quickly and without the need of asking hunters who find it distasteful to shoot more than they can eat to participate in the carnage.

In the end, as usual, the 10-pound report was buried somewhere in the bureaucracies of both Canadian and U.S. wildlife agencies. Goose hunters who haven't revisited their code of ethics since Aldo Leopold have buried their heads in the sand. Also standing in the way are unethical politicians who fuel and perpetuate an uneducated public and well-meaning writers like Kittredge who naively urge more and better protection for migrating geese.

Perhaps a plea from the grave might be appropriate. Leopold understood the values of protection, conservation, and hunting. Maybe it is time to revisit some of his most famous words again and apply them to a new and similar situation. Leopold wrote: "I now suspect that just as a deer herd lives in mortal fear of its wolves, so does a mountain live in mortal fear of its deer." Geese as well as the

general public seem to live in mortal fear of hunters, but the Arctic fears its geese. The clock is ticking. To what last resort will wildlife managers need to go to save both geese and their northern ecosystems if hunting or possibly the avian flu fails?

As each year passes, goose populations continue to swell. The solution of choice for government agencies has become nonaction. As wildlife managers avoid or put off tough decisions because they fear social resistance, the problem worsens. When the tundra ecosystem crashes, causing drastic reduction if not extinction of some migratory bird populations, hunters and farmers will be blamed. But the blame should rest on the shoulders of our environmental writers, organizations like Defenders of Wildlife, and our government agencies that use Garden-of-Eden science to manipulate a media-educated public for votes, funding, and job security. Without ethical and educated leadership, voter-based democracy is, like the goose population, out of control and headed for disaster. ■

*Dr. Barney Nelson teaches environmental literature at Sul Ross State University in Alpine, Texas. She writes for many major magazines.*

***AGJV scientists who produced the report, "Direct Control and Alternative Harvest Strategies for North American Light Geese," that this article is based on:***

- C. Davison Ankney, University of Western Ontario, co-chair/editor; Michael A. Johnson, North Dakota Game & Fish Department, co-chair/editor; Raymond T. Alisauskas, Canadian Wildlife Service; David Case, D.J. Case and Associates; Nathaniel Clark, U.S. Department of Agriculture; Robert R. Cox Jr., U.S. Geological Survey; John Cummings, U.S. Department of Agriculture; David Graber, Missouri Department of Conservation; Allen Maier, U.S. Department of Agriculture; Rich Malecki, New York Cooperative Fish & Wildlife Research Unit; Pete Poulos, U.S. Department of Agriculture; and David Sharp, U.S. Fish & Wildlife Service.*