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The Soap Box

Eliminating trapping escalates beaver complaints and costs to the public

Sustainable Wildlife Use Committee of the Association of Fish and Wildlife Agencies, Hall of the States, Suite 725, 444 North Capitol Street NW, Washington, DC 20001, USA
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Beaver populations are healthy and well-established across North America after being nearly eliminated due to unregulated harvests during the previous 200 years. According to a 2004 survey of state wildlife agencies, a majority of states report beaver populations are stable or slightly increasing. However, the loss of trapping as a management tool can upset the current balance. For example, in Massachusetts, a beaver-trapping ban was passed through a public ballot referendum. With the inability to utilize effective quick-kill traps and live-restraining devices during regulated harvest seasons, beaver populations have increased significantly (Figure 1). Along with that increase in the population came an even greater number of complaints about beavers from homeowners, farmers, and communities, all of whom experienced varying degrees of economic loss.

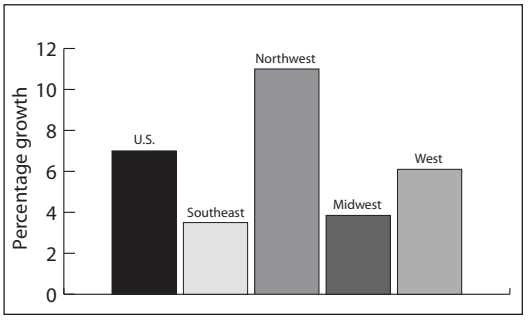

Figure 1. Five-year increase in beaver populations in the United States.

Beavers are natural environmental engineers. On the one hand, impoundments and cutting by beavers can enhance habitats for other species and add diversity. On the other hand, beavers' actions can also have the opposite effect and cause tremendous damage to infrastructure, agriculture, and wildlife. For example:

- Beavers' damage to roads is a widespread problem for highway departments through much of North America. When beavers occupy roadside areas, they can seriously damage the highway by plugging culverts or constructing dams nearby and cause flooding of roads or cause water to impound against the road base. This can result in the formation of potholes and generally destabilization of roads. Beavers also cause millions of dollars in damage to other types of infrastructure, including dams, electric utility installations, railroad lines, and water drainage systems.
- Beavers cause damage to timber. They are the primary wildlife species that causes damage to southern timber, resulting in an estimated $1.1 billion loss annually. Beaver impoundments flood hundreds of thousands of hectares of timber, and beavers feed on and gnaw valuable commercial and residential trees.
- Homeowners' pocketbooks are affected when beavers cut their trees and cause basements, sewer systems, wells, and driveways to flood.
- Beaver dams can restrict access to spawning grounds for many fish, such as cutthroat trout in western states.

Wildlife managers utilize a variety of tools to maintain a balance between beaver populations and the public's tolerance level. However, alternative methods go only so far. When traditional trapping is essentially eliminated, beaver populations increase significantly, as do complaints, damages, and costs associated with

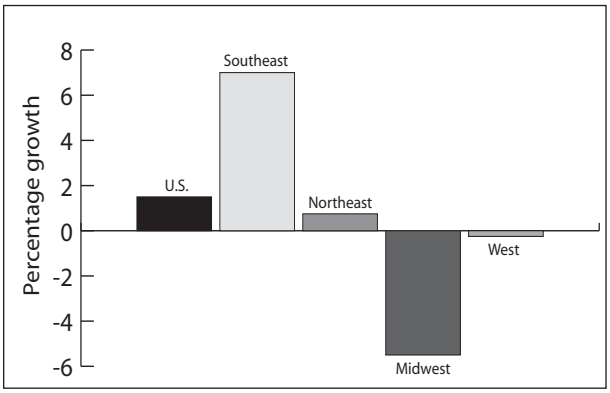

Figure 2. Five-year increase in complaints about beavers in the United States.

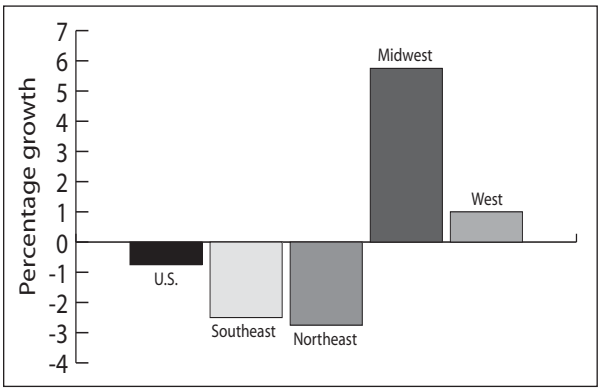

Figure 3. Five-year increase in agency man-hours spent addressing beaver problems in the United States.

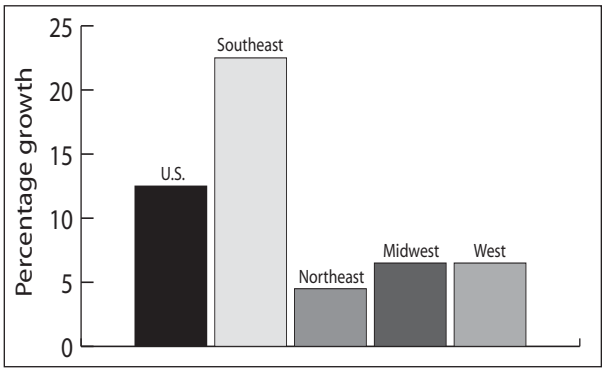

Figure 4. Five-year increase in expenditures due to beavers in the United States.

control measures. The public's attitude toward beavers becomes negative, causing beavers to be labeled as pests. Wildlife managers want to maintain beavers as a valuable resource with healthy populations that are in line with the human tolerance level. Without trapping, however, that may not be possible (Figure 2).

According to a survey of state wildlife agencies in 2004, during the past 5 years, states' expenditures to address beaver damage have increased by 12%. In addition, wildlife agencies report that without trapping, beavers could increase by an additional 102%, potentially resulting in significant increases in beaver damage. Beavers are not a growing problem in all regions. In some areas, populations have stabilized, and nuisance complaints and related agency expenditures have decreased. Agency expenditures and man-hours have fluctuated as agency budget cuts, matched with increasing demands to address other wildlife concerns, have impacted the amount of funds and manpower that states can expend on beaver problems (Figures 3 and 4).

When Massachusetts passed a law in 1996 to prohibit or restrict (by permit only) many types of traps, the beaver population exploded from approximately 24,000 beavers in 1996 to >70,000 today, and growth is expected to continue rapidly. Massachusetts' statewide beaver harvest dropped from 2,083 in 1995 to 98 in 1998. Complaints related to beaver activity rose from an average of 310/year prior to 1996 to 615/year after trapping restrictions went into effect. In 2000, in response to an increasing number of beaver-related complaints, the Massachusetts legislature made changes to the trapping restrictions to allow for the use of conibear traps by permit only in cases where threats to human health and safety were considered imminent, but this change has done little to stop the economic loss to communities. For example, in 2001, beaver-related debris cost the Spence Highway Department $25,000. Infrastructure damage to a water reservoir in Leicester cost the town $80,000. Worcester County's highway department's beaver-related expenses increased from $4,000 in 1998 to $21,000 in 2002. Estimates for removing a nuisance beaver range from $150/beaver to $1,000/colony. Many residents want to change the law and welcome trappers back.

In contrast, in some states, such as Kansas, for

example, farmers, landowners and communities have always welcomed trappers and provided them access to their lands. Trapping regulations in Kansas allow beaver populations to be con-trolled at stable, healthy levels, while also keep-ing human–beaver conflicts at a minimum. Kansas Department of Wildlife and Parks furbearer biologist Matt Peek said, "It's a mutually bene-ficial relationship between the trapper and landowner." Trappers assist landowners at no cost, and trappers benefit by monetary value of pelts. As a result, beavers are considered a valuable resource.

Colorado has experienced an increasing number of beaver problems. In 1996, the voters of Colorado passed an amendment banning the use of both leg-hold and kill traps. The agricultural exemption of the amendment allows farmers to trap beavers during one 30-day period a year, but most residents cannot do anything to control damage. The most problematic animals are lone male beavers living along the stream banks, which makes them difficult to trap, compared to colonies living in lodges or dens. Nonlethal methods involve wrapping individual trees, using electrified fencing, and applying paint and sand to bark. These methods are time consuming and are only partially effective. Alternative methods in Colorado include live-trapping and shooting. These are not permanent solutions, considering the ever-increasing number of beavers and the related problems they cause. ✷

Birth control is not for everyone: a response

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In her Soap Box critique of wildlife contraception (*HWC* 2007), Elizabeth Bingham makes 2 basic points (if she will forgive my distillation of a complex set of arguments). She argues, first, that wildlife contraception is too expensive and too slow to act to meet the needs of farmers, ranchers, and other business people who suffer losses from wildlife damage. Second, she argues, inflated expectations for the problem-solving capacity of wildlife contraception are driving more attention and research money into wildlife contraception than a more hard-headed evaluation would warrant.

Allen T. Rutberg

These are fair criticisms, but I believe they suffer from narrowness of perspective. Let me deal with the second criticism first. Ms. Bingham is absolutely right that, at least in some quarters, expectations for wildlife contraception are seriously inflated. Contrary to what people have told me, contraception will not solve New Jersey's (or Wisconsin's) deer problem, replace hunting, or spare suburban motorists from ever hitting a deer.

On the other hand, contraception shows a lot of promise in mitigating suburban conflicts with deer and resident Canada geese, reducing coyote predation on lambs, reducing ecological impacts of wild horses on eastern barrier is-lands and western public lands, and even slowing the growth of elephant populations on African wildlife reserves. And in the broad scheme of things, very little money is being spent on wildlife contraception. The 2005 federal commodity payout to 1 average farm in the top 20% of subsidy recipients would generously cover all expenses for a very nice deer contraception field study; 3 or 4 such subsidies would fund the whole deer contraception research program of The Humane Society of the United States. Really, funding for wildlife contraception research is small change. And many of those nickels and dimes are now being spent to tackle the issues of cost-efficiency that Ms. Bingham raises.

Still, I think Ms. Bingham is correct that contraception is unlikely to play a major role in reducing or eliminating damage to crops and nurseries. For this to happen, the United States