

# The Beaver Population in Massachusetts

## ***Introduction***

Several pending bills would remove current restrictions on the body-gripping conibear and leghold (sometimes called foot-hold) traps, which are used to capture fur-bearing mammals, such as beaver and muskrat. This would effectively allow a return to the days of recreational trapping with these inhumane devices, something that 64% of Massachusetts' voters decried in 1996 when they voted in favor of a ballot initiative known as the Wildlife Protection Act.

One of the major claims that proponents of bills to remove restrictions on traps make is that these traps are necessary for controlling the beaver population in Massachusetts. The MSPCA disagrees.

## ***Claim: The Beaver Population is Exploding***

- Populations can only be managed through trapping with conibear and leghold traps.
- There has been an increase in property damage complaints due to beavers.
- Beavers are becoming a nuisance animal instead of a valued resource.
- The beaver population has skyrocketed to more than 70,000 and will grow exponentially without trapping.

## ***MSPCA Response:***

- Despite recreational trapping, the beaver population in Massachusetts steadily increased prior to the passage of *The Wildlife Protection Act in 1996*, from 12,800 in 1993 to 24,000 in 1996, according to MassWildlife officials. The law is not to blame - trapping has obviously never managed beaver populations in Massachusetts and it never will.
- Trapping has declined in Massachusetts, as it has across the country, due to a variety of social, economic, and political factors. According to MassWildlife officials, there are just a few hundred licensed trappers in the state, of which about a third are active. So few trappers cannot exert a population level effect on beavers and should not drive public policy.
- When conibear traps were unrestricted, annual beaver harvest rates hovered around 1,000; the biggest take was slightly more than 2,000 – neither of these harvests would make a dent in the population, even at 1993 levels; the beaver population was growing despite unrestricted trapping at that time. In fact, lethal management can stimulate population growth.
- Studies of exploited (trapped) and unexploited beaver populations have shown that trapping can cause earlier sexual maturation – females in exploited populations gave birth at 2 years of age, whereas females in unexploited populations averaged 32 months before sexual maturity<sup>1</sup>.
- Beavers are territorial – studies range from 0.4 to 1.24 beaver families per stream kilometer – so they will not grow beyond available territory<sup>2</sup>.
- Studies show that beaver populations follow a sigmoidal, or S-shaped pattern, meaning that populations rise and fall over time, *with or without trapping* - in New York's 62,000 acre Allegheny Park, trapping beaver has been prohibited for 25 years and occupancy rate in this park varied from 40% to 60% during these years, never reaching 100% occupancy<sup>3</sup> – similar findings in California showed population expansion, decline and stabilization at 35% of maximum capacity<sup>4</sup>. One of the longest-term beaver studies in the Quabbin Reservation

shows similar trends. Data gathered in 2006 shows a decrease from 2004 “continuing a downward trend that began in 2001.”<sup>5</sup> Massachusetts beaver population estimates, as reported in the media, have leveled off at about 70,000 since 2005.

- Beavers have predators and other causes of mortality – automobiles, black bear, coyote, fox, hawk, owl and natural causes, in addition to trappers – they do not reproduce exponentially and unchecked.
- Beaver reproduction is self-regulating; beavers do not reproduce if populations exceed food supply.
- Property damage is not simply related to overall beaver population; most beavers do not cause any conflicts at all. Property damage occurs – and can easily be prevented and mitigated – when human habitat and beaver habitat overlap. Sites that are attractive to beavers will be populated by beavers; controlling the conflict is much more effective than trying to control the beaver population.
- Studies by wildlife biologists examining the “human dimensions” of wildlife management have shown (including a recent survey in Massachusetts about people’s attitudes about beaver) that people’s impressions of beavers as nuisance animals are proportional to the amount of property damage they have sustained and the amount of information they have about the benefits of wetlands – recommendations for wildlife managers are to reduce perceptions of damage, increase awareness of the benefits of beaver, and communicate effectively with property owners about both<sup>6</sup>.

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<sup>1</sup> Hodgdon, HE, *Social Dynamics Within An Unexploited Beaver Population*, Ph.D. Thesis, University of Massachusetts, 1978, p. 144-145

<sup>2</sup> Ibid., p. 135-137

<sup>3</sup> Schulte, Bruce, as reported to the MSPCA by Sharon Brown, Biologist, *Beavers, Wetlands & Wildlife*, 1998

<sup>4</sup> Taylor, D. *Growth, decline, and equilibrium in a beaver population at Sagehen Creek, California*, Ph.D. Thesis, University of California, Berkeley, 1970

<sup>5</sup> Busher, P.E. and Paul J. Lyons. *Long-term Population Dynamics of the North American Beaver, Castor Canadensis, on Quabbin Reservation, Massachusetts and Sagehen Creek, California*. Beaver Protection, Management and Utilization in North America. Kluwer Academic/Plenum Publishers, 1999.

<sup>6</sup> Enck, J.W. et al, *Management Response to Beaver Complaints: Defining Problems and Acceptable Solutions*, May 1996, Human Dimensions Research Unit, Cornell University; Loker, C.A., *Human Dimensions of Suburban Wildlife Management: Insights from Three Areas of New York State*, August 1996, Human Dimensions Research Unit, Cornell University; Loker, C.A., et al, *Social acceptability of wildlife management actions in suburban areas: 3 cases from New York*, *Wildlife Society Bulletin*, 1999, 27(1):152-159; Organ, J.F. and Mark R. Ellingwood, *Wildlife Stakeholder Acceptance Capacity for Black Bears, Beavers, and Other Beasts in the East*, *Human Dimensions of Wildlife*, 5:63-75, Taylor & Francis, 2000

Please contact the MSPCA's Advocacy Department at 617-541-5104 or [advocacy@mspca.org](mailto:advocacy@mspca.org) with questions or to request a tour of sites with water flow devices installed to mitigate beaver-related flooding in your district. For more information, visit [www.mspca.org/beavertrapping](http://www.mspca.org/beavertrapping).

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