

New Guidelines for Furbearer Trapping

SCIENCE IMPROVES AN AGE-OLD PURSUIT

By Bryant White, Clifford Brown, and Thomas Decker



Courtesy of Bryant White
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The stereotype of “animal trappers” evokes villainous cartoon characters killing whatever furry creatures they can find and trading away the pelts. That image is a distorted reflection of past centuries, when unregulated and excessive harvest was done with little concern for animal welfare. Though the image may persist in the public imagination, it’s time for public perceptions to change because trapping itself has fundamentally changed. Without it, many species and habitats would not survive—a fact that very few people understand.

Furbearer trapping in the United States and Canada is a highly regulated activity, subject to strict standards of animal welfare and sustainable harvest. It is a way of life that provides a source of income to tens of thousands of people. It is also a vital tool for wildlife managers and for biologists studying wildlife populations, disease, invasive species, predation, and habitat ecology. As noted in a recent [position statement](#) from The Wildlife Society, government-regulated trapping in North

America is consistent with the principles of natural resource conservation by ensuring genetic diversity and continued existence of species and ecosystems.

In recent years, the role of trapping in wildlife conservation has been the focus of an unprecedented, ongoing program to develop scientifically-based Best Management Practices (BMPs) for furbearer trapping. Now in its 13th year, this program got its start in the late 1990s when the [Furbearer Conservation Technical Work Group](#) of the International Association of Fish and Wildlife Agencies (now [AFWA](#)) recognized the need to improve trapping methods, long a subject of public debate and controversy. In 1997 the Work Group published a report titled “[Improving Animal Welfare in U.S. Trapping Programs](#),” which compiled data on trap research and testing and described how state wildlife agencies could “systematically and objectively” improve trapping in their jurisdictions. That was the beginning of testing and analysis to develop BMPs for a host of species. The program’s objectives are to:



Credit: Bill Heatherly/Missouri Dept. of Conservation



Courtesy of Thomas Decker

Open dumpsters and exposed trash offer an all-you-can-eat buffet for raccoons on the prowl in urban areas. Highly adaptable and quick to reproduce, raccoons can spread rabies, harm pets and wildlife, and damage property. Trapping raccoons in Missouri (above), biologist Dave Hamilton (now deceased) helped assess traps for the BMP program.



- Identify practical traps and techniques that continue to improve efficiency, selectivity, and the welfare of trapped animals.
- Promote regulated trapping as a modern wildlife management tool.
- Provide wildlife professionals with information to evaluate trapping systems.
- Instill public confidence in, and maintain public support for, wildlife management trapping through distribution of science-based information.
- Provide specifications for traps that meet BMP criteria for wildlife species in various regions.
- Develop a reference guide and recommendations for those interested in the continued improvement of traps and trapping systems.

This effort has involved extensive international collaboration among AFWA, the [Fur Institute of Canada](#), the U.S. Department of Agriculture’s Wildlife Services program, the Alberta Research Council, national trapper organizations, and various representatives from the European Union and Canada. With their input, AFWA’s Furbearer Work Group developed criteria for evaluating a variety of lethal and non-lethal traps.

The field work for the BMP project has been a massive undertaking involving nearly 1,000 licensed trappers and scores of technicians, biologists, and veterinarians from 41 state fish and wildlife agencies and several Canadian provinces. Working with more than 100 commercially available traps, trappers have conducted the field work while independent technicians accompany them to collect data. Based on the results of these projects, teams of experts have created BMPs for 18 species so far. These include the most commonly trapped furbearers—raccoon, red fox, coyote, muskrat, beaver, and mink—as well as nutria, fisher, bobcat, and others. The newest BMPs (for swift/kit fox) came out in July 2010, and guidelines for badger, lynx, and other species will follow in 2011 and beyond.

The Key Criteria

As outlined in AFWA’s [introductory guide](#) to the BMP program, trap testing and evaluation is based on five fundamental criteria:

1) Animal welfare. When testing live capture or lethal devices—including cage traps, foothold traps, submersion systems, bodygrip traps, or cable devices and snares—traps are evaluated to determine whether they are humane enough to meet animal



Credit: New York State Department of Environmental Conservation

welfare goals based on specific trauma scales. To pass muster, live capture traps must cause little or no injury, while lethal traps must cause irreversible loss of consciousness in a minimal timeframe of less than five minutes.

2) Efficiency. To meet BMP criteria, traps must capture and hold at least 60 percent of the targeted species that activate or spring the trap. In other words, the number of targeted species captured, divided by the number of times that species activates a trap, must equal at least 60 percent.

3) Selectivity. Trap testers look for technical features that will increase the likelihood that a trap will capture the desired species while minimizing the risk of capturing non-target species, such as pets or livestock. Each BMP describes these technical features and provides trap illustrations and set specifications.

4) Practicality. Trappers who use devices in the field provide invaluable feedback about pan shape, jaw type, chain length, swivel placement, and other aspects of trap design and performance. A panel that does final evaluations and recommendations also considers the cost of traps and trap maintenance, ease of use, weight and dimensions, ease of transport and storage, reliability, versatility, usable life span, and training requirements.

5) Safety. When testing traps for the BMP project, trappers assess whether the traps pose any unreasonable risk to the user or to anyone who might come into contact with the trap. To meet safety criteria, traps should have safety features and/or tools

Buyers assess pelts for sale at a fur auction in Herkimer County, New York. Local fur auctions can be a social event, bringing trappers, fur buyers, and conservation agents together to reflect on the past trapping season and bring it to a close.

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that are easy to use under normal field conditions. BMPs present the appropriate use of setting tools, grippers, and other safety devices.

The results of BMP testing have been encouraging. Trappers have conducted more than 210,000 total trap nights resulting in 13,500 animal captures, 94 percent of which were the target species. In addition, 72 percent of traps tested have met all program criteria. Each resulting BMP provides information

commodities for a wide range of consumer products such as blankets, paint and hair brushes, water-repellent oils, fishing lures, perfume, cosmetics, pet food, and high-protein food for human consumption.

Conducted under principles of sustainable use, furbearer trapping is subject to strict, well-enforced regulations regarding seasons and limits, size and style of traps, trap placement, and trap-checking intervals. Because harvested species are common and abundant, trapping poses no threat to the survival of these species. Indeed, it often keeps populations from becoming unsustainably overabundant—with either biological or social consequences—thereby posing a threat to both the species and its habitat.

Regulated trapping benefits wildlife management, conservation science, and the public at large in numerous ways. Biologists, landowners, animal-control technicians, and others trap animals to manage and monitor wildlife populations, conduct disease testing, relocate animals to establish new populations, protect public safety, prevent damage to property, protect endangered species from predators, and save threatened habitats. Examples of the benefits of trapping abound:

Reintroductions. Biologists have used foothold or cage traps to capture river otters, gray wolves, fisher, marten, beaver, and many other species for relocation to former ranges where the animals had become extirpated. Between 1986 and 1993, for example, the Ohio Department of Natural Resources trapped 123 otters in Louisiana and Arkansas and released them at four sites in eastern Ohio. By 2002, the state had an estimated population of 2,100 otters (it's now past 6,000) and was able to remove the animal from its Endangered Species list ([Linkhart 2007](#)).

Wildlife science. Trapping allows wildlife biologists to study populations, gather genetic samples, and attach radio collars or transmitters for monitoring migration, foraging patterns, home range, and other behaviors. In 2005, Vermont Fish and Wildlife and the Vermont Fish and Wildlife Cooperative Research Unit implemented a radio telemetry study of bobcats to determine their home range, habitat use, and navigation through or around highways and roads. This information helped to evaluate the impacts of various types of development and determine if some habitat types were critical for bobcats. Wildlife biologists used BMP-tested foothold traps in this study to capture bobcats, which were then examined, collared, released, and monitored.



Courtesy of the Fur Institute of Canada

Michelle Hiltz and Marion Herbut at the Alberta Research Council use computer simulation to assess how a rotating jaw trap will perform when capturing a marten at various angles. Hiltz shares data with U.S. researchers working on BMPs. "The ultimate goal," she says, "is to effectively rate traps against humane trapping standards without the use of animals."

about the characteristics, range, habitat, food habits, and reproduction of the target species, as well as detailed trapping guidelines, precise measurements, practical tips, and advice about sets and safety. The BMP for trapping [muskrats](#), for example, which describes use of foothold, bodygrip, and cage traps, notes that loosening pan tension may improve efficiency of foothold traps in submersion sets. All BMPs are freely available in PDF form on AFWA's [website](#)—an essential resource for anyone involved in the humane capture of wildlife for any purpose.

The Role of Modern Trapping

There are about 150,000 state-licensed trappers in the U.S., as well as federal, state, and private trappers conducting animal damage control activities. Each year, during regulated hunting and trapping seasons, trappers harvest between six million and 21 million wild furbearing animals. Aside from providing pelts for garments, furbearer harvest also yields



Protecting property and public safety. As humans encroach on wild lands, or when wild animals repopulate developed areas, conflicts between people and wildlife soar. Likewise, when predator species become overabundant, domestic animals and livestock become easy prey. Coyotes, for example, pose a costly problem for ranchers across the West. Now the leading cause of death for sheep in Montana, coyotes reportedly killed 2,500 sheep and 12,100 lambs in that state last year, costing sheep ranchers well over \$1 million in losses (Adams 2010). To curb predation, ranchers may work with state or private trappers to remove coyotes, particularly during lambing season.



Credit: Cliff White/Missouri Dept. of Conservation

Protecting endangered species. Numerous states authorize trapping as a means to protect rare or threatened species from predation. Threatened shorebirds that nest on beaches such as piping plovers and

As part of a Missouri Department of Conservation reintroduction program, river otters brought from out-of-state are ready to be released near a Missouri river. Over several years, some 850 otters—primarily trapped in Louisiana—were released in Missouri. The state now has more than 15,000 otters, one of the nation's most successful reintroduction efforts.

Nutria: Plague of the Wetlands

Long before the Deepwater Horizon disaster released millions of gallons of oil into the Gulf of Mexico, Louisiana's coastal wetlands were battling a different plague. Nutria (*Myocaster coypus*), rodents native to South America, have feasted on wetland vegetation for decades, destroying thousands of acres a year.

Louisiana fur farmers originally imported nutria from Argentina in the 1930s. Soon thereafter, released or escaped animals began to establish feral populations across the Gulf Coast. Today nutria rank as one of the top 100 invasive species in the world.

Averaging 12 pounds each, nutria can consume roughly 25 percent of their body weight each day, soon rendering marshes void of vegetation. These "eat outs" leave marshes prone to erosion. If the plants don't regenerate quickly, a marsh can become open water, leaving coastlines vulnerable to storm surge.

"Wetland vegetation is the fabric that hold the marsh together," says biologist Edmond Mouton, program manager at the Louisiana Department of Wildlife and Fisheries. "Any destruction to wetland habitat...impacts wetland species [and] affects water quality, which in turn can affect fisheries and other marine organisms. There are other forces that contribute to coastal erosion, but nutria tend to exacerbate the process."

To address the problem, in 2002 Louisiana established the Coastwide Nutria Control Program to encourage nutria trapping. During Louisiana's Trapping Season (November 20 through March 31), trappers can use legally authorized traps to harvest nutria, and must check all traps daily. Nutria can also be hunted during a Recreational Season from September 1 through February 28 with steel shot (to prevent lead contamination in the wetlands), or with dogs, except during turkey nesting or deer hunting season.



Credit: Steve Hillebrand/ USFWS

To encourage robust nutria trapping, Louisiana launched an incentive program. (Chemical control, rodenticides, and fertility control were also considered but deemed too costly, ineffective, or dangerous.) Through the incentive program, hunters receive \$5 per nutria harvested and must provide nutria tails as evidence of the take. Trappers can receive an additional payment for fur ranging from \$1 to \$1.50 per pelt.

These incentives appear to be helping: In the 2009-2010 season, trappers harvested 445,963 nutria, up from fewer than 30,000 during the 2001-2002 trapping season. During the past eight years of the incentive program trappers have harvested 2,571,030 nutria. Although Mouton estimates that nutria populations remain in the millions, wetland damage has decreased from over 100,000 total acres of damage in 1999 to approximately 8,000 total acres this year—a move in the right direction.

By Madeleine Thomas, Editorial Intern



least terns are particularly vulnerable to predation from a variety of species including foxes, coyotes, and skunks. Virginia Game and Inland Fisheries is vigorously using trapping to remove raccoons, red fox, and other predators from barrier islands that host piping plovers and other shorebirds.

Disease control. When wild animals congregate, they can spread disease among themselves or, on occasion, to human populations. In 2008 alone, more than 6,300 cases of rabies in wildlife were

reported in the U.S., where raccoons, skunks, and foxes are prime vectors for the disease ([Chipman 2010](#)). Biologists capture animals with foothold and cage traps to test for disease, administer vaccines, or remove infected individuals.

Habitat protection. Overabundant muskrats, beaver, or nutria can devastate an ecosystem by burrowing into stream beds or dams, altering water flow, and devouring local vegetation. Nutria, rapidly reproducing invasive rodents found in Louisiana,

Top Six Trapped Species

Most trappers take raccoons, red fox, and other species that are highly abundant (below) due to habitat conditions and high reproductive rates. Modern trapping plays an important role in managing these species.



Raccoon (*Procyon lotor*)

Credit: USFWS



Red Fox (*Vulpes vulpes*)

Credit: Ronald Laubenstein/USFWS



Coyote (*Canis latrans*)

Credit: Christopher Bruno/ Wikimedia



Muskrat (*Ondatra zibethicus*)

Credit: D. Gordon E. Robertson/Wikipedia



Beaver (*Castor canadensis*)

Credit: Steve/Wikipedia Commons



Mink (*Mustela vison*)

Credit: Brendan Lally/Flickr



consume thousands of acres of wetland vegetation each year, prompting the state to launch an ambitious controlled trapping program to slow the loss of critical marshlands (see sidebar on page 69).

Seeking balance. The beaver may be the best example of a furbearer in the modern landscape that requires active management to maintain optimal population levels. Because beavers create productive wetland areas and provide meat and fur, they're ecologically and commercially valuable. But without trapping to limit populations, beavers can quickly over-populate, creating dams that lead to flooding, habitat degradation, property damage, and public nuisance.

A well-known case in Massachusetts illustrates the unintended consequences of a trapping ban. Under pressure from an animal rights group, the town of Chelmsford banned beaver trapping in 1988. By 1992, flooding related to beaver dams had shut down municipal wells and caused thousands of dollars in damage to septic systems, lawns, and roadways. Citizens voted to lift the ban, but a state ballot initiative in 1996 placed severe new restrictions on trapping statewide. The troubles Chelmsford had experienced spread across the state as the beaver population grew from 24,000 in 1996 to 52,000 by 1999. Citizens who once viewed beavers as valuable wildlife came to see them as pests (*Organ et al. 2001*).

Spreading the Word

If people view wildlife as an irritation or nuisance to be destroyed rather than a valuable resource to be managed, enjoyed, and sustained into the future, then wildlife and habitats will not survive. This is why the current coalition of U.S. state fish and wildlife agencies and its federal partners, trappers, technicians, veterinarians, and academics will continue to develop BMPs for furbearer trapping and educate the public about its role in conservation. "This body of work is a very important contribution to the field of wildlife management and conservation," says Ron Regan, Executive Director of AFWA.

Education is the key to ensuring adoption of BMPs by trappers and to changing public perceptions. With funding from the U.S. Fish and Wildlife Service and with the assistance of state wildlife agencies and private trapper's associations, AFWA and the International Hunter Education Program have developed a trapper education program that includes DVDs and videos, workbooks, and student



Credit: Cliff White/Missouri Dept. of Conservation

and instructor manuals. In 2003 AFWA also helped launch a series of "Trapping Matters" workshops, which have taught the benefits of regulated trapping to more than 2,000 state biologists, educators, law enforcement officers, and others around the nation.

This effort is clearly having global reach. Each year, biologists and agency representatives from the U.S. and Canada—which has developed a trap certification program—meet with representatives from other nations to review and share trap research, study protocols, and discuss necropsy and other methods. Gordon Batcheller, a Certified Wildlife Biologist with New York State Department of Environmental Conservation and chair of the AFWA Furbearer Conservation Technical Work Group, has travelled in recent years to New Zealand, Europe, and Russia representing the U.S. at international meetings on trapping and trap research. "It is very gratifying to see that the international community understands and increasingly accepts the BMP process," he says. That acceptance by wildlife professionals and the public, both in North America and abroad, will ensure that furbearer trapping continues to evolve as a humane, practical, and thoroughly modern tool for sustaining both wildlife populations and an age-old way of life. ■

The tell-tale scrapings of razor-sharp teeth show how beavers can "girdle" residential trees, stripping them of bark—just one form of damage that beavers can quickly create. In the flatlands "they can build a dam and flood 160 acres," says Arkansas trapper Mike Fischer, who makes his living by trapping for pelts, to control pests, and to help with relocations.

This article has been reviewed by subject-matter experts.



For additional resources on furbearing trapping in the U.S. and Canada, go to www.wildlife.org.