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Using Advancements in Cable-Trapping to Overcome Barriers to Furbearer Management in the United States

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Abstract

Harvest of furbearers through trapping has been challenged by anti-trapping organizations for centuries, with organizational goals often including prohibition of all forms of trapping. Challenges to trapping may also include dissention among state wildlife agencies, pro-hunting organizations, and pro-trapping organizations. Despite recent efforts by anti-trapping organizations and occasional dissention among consumptive-use groups, national trends in snaring regulations included less restrictive regulations through time. This positive trend may offer opportunities for state wildlife agencies and pro-trapping organizations to enhance the public image of trapping, increase recruitment of trappers, and reverse the increasing trend of wildlife damage and associated costs. We offer support and suggestions to state wildlife agencies and pro-trapping organizations to help achieve these goals, with their partnership likely having a synergistic effect. Although we attempt to illuminate approaches for increasing support for trapping within the constraints of the cultural norms of the United States, we hope our approaches are useful to and promote dialogue in other jurisdictions experiencing similar problems.

Keywords: cable-restraints, furbearer management, snares, trapping, wildlife management, wildlife management policy

Although trapping wildlife for recreation, food, and clothing has a long tradition throughout the world, methods and cultural basis for this activity can vary widely at local, national, and international scales. Trapping regulations often are expressed through a legislative process and may be heavily influenced by local cultural traditions. Within the United States, the area of focus for our discussion, trapping is viewed in a negative manner in some areas and by no small proportion of the population. Although we attempt to illuminate approaches for increasing support for trapping within the constraints of the cultural norms of the United States, we hope that our approaches are useful to and promote dialogue in other jurisdictions experiencing similar problems.

In the United States and many other countries, regulated trapping continues to be challenged by anti-trapping organizations, through cultural values that have been evolving away from a consumptive-use perspective, and by occasional dissention among consumptive-use groups (e.g., pro-hunting and pro-trapping organizations). Culturally, the public may no longer view trapping as a valued activity, as exemplified by recent developments (Batcheller et al. 2000, Benson 2001). One development is insufficient recruitment of new trappers and declining public participation in trapping, suggesting that continued viability of the tradition of regulated avocational trapping is at risk (Armstrong and Rossi 2000, Pergams and Zaradic 2008).

Declines in habitat quantity and quality, and increasing habitat fragmentation through urban sprawl, likely reduce opportunities for regulated trapping (e.g., availability

of land for trapping). Also, urban sprawl and other land-use changes often coincide with nondominion views of nature, whereby even when privately owned land is suitable for trapping, it is not available because of landowner attitudes (Deblinger et al. 1999, Manfredo et al. 2003). If these negative trends continue, it is reasonable to predict that the role of trapping as a wildlife management tool and harvest method will devolve into wildlife damage control (Batcheller et al. 2000). This prediction is not without examples, as the decision to allow local health departments to issue permits to control beaver (*Castor canadensis*) populations in Massachusetts has resulted in reduced management control by that state wildlife agency (L. Hajduk, Massachusetts Division of Fisheries and Wildlife, personal communication).

Resistance Despite Progress

Anti-trapping organizations have opposed trapping as a legitimate tool of wildlife management for centuries (Gentile 1987, Vantassel 2007). However, foothold traps and cable-traps have been used for decades to capture wildlife species for research and management programs. River otters (*Lontra canadensis*) and gray wolves (*Canis lupus*) have been trapped for successful reintroduction projects (e.g., Bangs and Fritts 1996, Fritts et al. 1997, Raesly 2001), which have often led to sustainable harvest of reintroduced furbearer populations (e.g., river otters in IA and MO). Foothold traps have also been used to capture furbearers for research purposes, including harvested (e.g., river otters, Serfass et al. 1996; wol-

verines [*Gulo gulo*], Banci and Harestad 1990) and endangered species (e.g., Iberian lynx [*Lynx pardinus*]; Palomares et al. 2001). Cable-traps have been used to capture and release beavers unharmed for research purposes, and trappers have removed predators of prairie-nesting waterfowl, which has led to increased nest success at multiple spatial scales (e.g., McNew and Woolf 2005, Rohwer and Fisher 2007). Regarding the capture of gray wolves for reintroduction to Yellowstone National Park, Fritts et al. (1997:15) acknowledged, "... the importance of trapper cooperation and assistance to reintroduction program success"

State wildlife agencies, state and national pro-trapping organizations, and trap manufacturers have responded to concerns about and opposition to trapping through regulations, techniques, and technologies designed to reduce stress and capture injuries to target and nontarget wildlife species while also reducing capture of nontarget animals (e.g., Phillips 1996, Phillips and Gruver 1996, Shivik et al. 2005). Despite these technological advances, anti-trapping organizations generally have not responded positively, and began increasing efforts in states that allowed direct democracy through ballot initiatives (Gentile 1987, Minnis 1998, Deblinger et al. 1999, Vantassel 2009). Outcomes included passage of bills that essentially restricted regulated fur-trapping out of existence in Colorado, Massachusetts, and Washington (Armstrong and Rossi 2000). Recent surveys revealed that attitudes of voters in these states were consistent with the general growing opposition to trapping by the general public (Manfredo et al. 1999, 2003; Zinn et al. 2002). Success of anti-trapping organizations (e.g., animal-rights groups) in achieving their goals lies in their intense commitment as a functional religion (Jamison et al. 2000).

As with other aspects of trapping, cable-trapping (i.e., snares, cable-restraints; defined later) fits well within the principles of wildlife management (Batcheller et al. 2000). Though they have been in use for thousands of years, cable-traps have undergone extensive technological and methodological improvements (Association of Fish and Wildlife Agencies 2009). The result has been an effective yet selective tool for animal capture when used properly, yet regulations in some states may not yet reflect these advancements and advantages. We contend that the technological and methodological advances provided by cable-traps offer state wildlife agencies and pro-trapping organizations a rare opportunity to overcome barriers to furbearer management. Our thesis results from decades of professional and avocational involvement in various aspects of furbearer and wildlife damage research and management. Our goal is to provide support for state wildlife agencies and pro-trapping organizations to increase efficacy of furbearer management and trapping programs through appropriate strategies and planning. Although we used cable-trapping as our template, some of our strategies are also applicable to broader related issues.

Regulatory Trends in Cable-Trapping

We defined cable-traps to include all devices (lethal and nonlethal) that employ a flexible twisted multistranded wire loop to capture animals. We defined snares as cable-traps

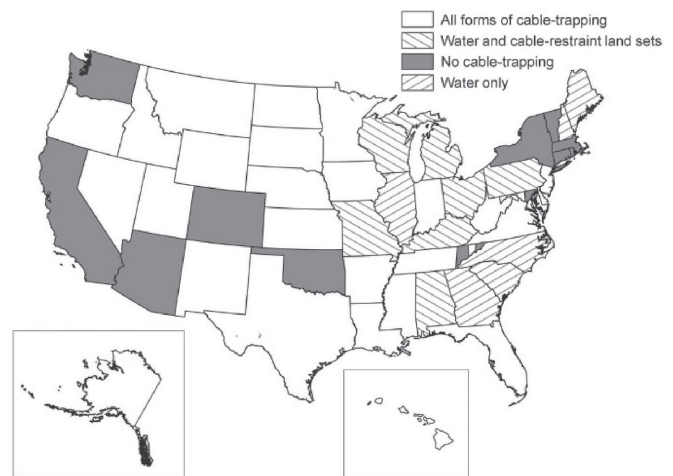


Figure 1. State-level cable-trapping regulations, USA, 2008, based on results from Vantassel et al. (2008). We defined cable-traps to include both snares (designed to be lethal to captured animals) and cable-restraints (nonlethal).

designed to capture (ideally around the neck) and dispatch animals. Alternatively, we defined cable-restraints as cable-traps designed to capture and restrain animals alive until the trapper arrives. Vantassel et al. (2008) conducted a state-level review to qualitatively describe cable-trapping regulations throughout the United States and to assess regulatory changes since 1980. Those authors found that although state cable-trapping regulations exhibited high diversity (Figure 1), the general trend was liberalization of regulations, and several patterns may be identified. We briefly outline and interpret some of the findings of Vantassel et al. (2008) below.

In general, Midwestern states and states bordering the Mississippi River allowed cable-trapping in some form, and Great Plains and Rocky Mountain states generally had few restrictions on cable-trapping. Atlantic coastal and southeastern states often modified regulations to allow cable-trapping. Decisions made by agencies in southeastern states to limit cable-trapping to sets in water may have resulted from concerns to minimize capture of hunting dogs while still addressing beaver damage complaints. States that prohibited cable-restraints (e.g., CT, MA, NY, RI, VT) may have had citizens that exhibited opposition to consumptive uses of wildlife because of their cultural values, issues related to increasing urbanization (e.g., MA, RI), or simply preferred other harvest management strategies (e.g., CT, NY, VT) and, therefore, may not have perceived a value for cable-trapping.

Whereas Maine and Michigan are 2 states that recently increased restrictions on cable-trapping, these regulations did not substantially affect the national trend toward liberalization of cable-trap regulations, and in fact, more restrictive regulations could have occurred. Increased restrictions in Maine resulted from a lawsuit over potential capture of protected wildlife species, such as bald eagles (*Haliaeetus leucocephalus*) and Canada lynx (*Lynx canadensis*; McKelvey 2002, Miller 2006); if the lawsuit had not been negotiated, use of cable-traps could have been prohibited. In Michigan, restrictions were in part designed to minimize risk of injury to domestic dogs, especially hunting dogs (D. Etter, Michi-

gan Department of Natural Resources, personal communication). Another alternative was to prohibit use of all cable-traps on land.

The general trend toward regulatory liberalization may have been caused through the influence of 2 developments. The first development relates to advances in trap technology and trapping methodology. Examples include less restrictive snaring regulations for capture of beaver, expansion of land-based cable-trapping through development of breakaway devices ("Any device incorporated into a snare or snare component that allows the loop to break open, and an animal to escape completely free of the snare, when a specified amount of force is applied" [Association of Fish and Wildlife Agencies 2009:10]) and loop stops (i.e., a simple device that allows for a min. specified cable-loop diam following capture) to minimize nontarget animal captures, and improvements in methodologies to capture target species and without lethal effects, if desired. The second development was trap-testing research, such as that conducted by the Association of Fish and Wildlife Agencies (e.g., Trapping Best Management Practices program) and the Wisconsin Department of Natural Resources (e.g., Olson and Tischaeyer 2004), which documented advances made by trap manufacturers and in trapping methodology, though acceptance of results by some trappers may be poor. Future research may continue to advance trapping technology and methodology, which is an ongoing process. For example, comprehensive research is lacking on strength of snare breakaway devices under controlled (e.g., standardized testing protocols, measures of release variability within devices) and field conditions (e.g., force applied by target and nontarget species).

Barriers to Advancement of Trapping

State wildlife agencies and pro-trapping organizations (e.g., Fur Takers of America, National Trappers Association, state trapping organizations) face many challenges in attempting to gain public support for fur-trapping as a legitimate management tool and harvest method for consumptive use of wildlife. To properly influence opinion, Lauber and Knuth (2004) argued that agencies must address concerns held by all interested parties. The substantive cooperation between state wildlife agencies and anti-trapping organizations will not truly be possible unless both agree with the moral validity of consumptive use of wildlife or the manner in which wildlife are harvested (Vantassel 2009). Because such agreement seems unlikely, state wildlife agencies might consider adopting strategies in which institutions remove vulnerabilities that make them susceptible to criticism and avoid careless mistakes in their response to criticism (Jasper and Poulsen 1993). Institutions that lacked internal unity were more likely to succumb to political pressure. Recent research provided evidence that some state wildlife agency personnel may provide weak support of the importance of trapping, though a lack of institutional instruction regarding how to address criticisms could also be a major influence (Muth et al. 2006). Some state wildlife agencies have listed participation in hunting and trapping as a minimum

qualification in vacancy announcements, presumably in an attempt to maintain or increase internal unity.

Surveys have revealed that the public prefers wildlife harvest management that minimizes stress and injury to target animals, while avoiding capture of nontarget animals, including hunting dogs (Manfredo et al. 1999). Trapping studies provide evidence that cable-restraints can meet both concerns (Huot and Bergman 2007). An added advantage is that the public might be more receptive to education regarding cable-traps because a lack of familiarity with these devices might include a lack of prejudice held against other traps, such as foothold traps (Muth et al. 2006). For example, many pet owners use leashes to train and control their dogs. By showing that various cable-traps only restrain captured animals, state wildlife agencies and pro-trapping organizations may reduce negative stereotypes about the alleged risks posed by cable-restraint traps. An added benefit is that if anti-trapping organizations condemn cable-restraints, they might consequently alienate influential groups of dog owners. A state wildlife agency that provides specific guidelines for pet owners, including information about maintaining control of dogs, when and where traps may be set, and how to release a pet from a trap (e.g., Oregon Department of Fish and Wildlife 2007, Garrigus 2008) may improve perceptions of trapping while maintaining management control.

The financial cost of many types of traps can present a barrier to trappers, especially young trappers, which might negatively affect trapper recruitment. For example, 12 foothold traps (e.g., no.1.75 coil-spring [offset jaws], Sleepy Creek Manufacturing, Berkeley Springs, WV; US\$138.95) suitable for coyotes (*Canis latrans*) cost about 5 times more than 12 cable-traps (<US\$24.00 for most styles; Minnesota Trapline Products 2009), although most styles of cable-traps often cannot be reused after capture of the first animal. Any reduction in restrictions of cable-trapping regulations may encourage increased use of cable-traps through increased trapper participation and recruitment and reduced financial barriers (Responsive Management 2005).

Access to land for trapping is another potential barrier to trapper recruitment. Trapping is often a very equipment-intensive activity, and trapper effort will likely be lower in remote areas. Trappers frequently must carry bulky, heavy equipment, especially in areas with limited motorized access (e.g., rough terrain, landowner stipulations). Common styles of cable-traps used for avocational trapping are compact and of low weight compared to most other traps. Perhaps as important, cable-traps are effective and easy to use responsibly after appropriate training (Olson and Tischaeyer 2004). Compared to land-based foothold-trapping, cable-trapping has an inherent simplicity in tools and methodology, though trappers may have to familiarize themselves with a wide range of snare components and construction options (e.g., Hiller 2008, Association of Fish and Wildlife Agencies 2009). The inherent simplicity of cable-traps may allow for higher trapper confidence and a faster learning curve, thereby increasing success and long-term participation by newly recruited trappers. This learning curve can further be enhanced by state trapper ed-

ucation programs with material relevant to cable-traps, particularly if these programs are mandatory.

Finally, any current dissention between state wildlife agencies and pro-trapping organizations, between pro-hunting and pro-trapping organizations, and among pro-trapping organizations must be overcome, at least to the extent that broad and long-term goals can be met. Though general trends in cable-trapping have been toward fewer restrictions, dissention has been an issue in some instances and is not limited to cable-trapping regulations. Pro-trapping organizations may rarely support increased restrictions on trapping, but state wildlife agencies, under political pressure from their constituents, may be forced to implement such restrictions. The result of increased restrictions may result in a pro-trapping organization reducing or removing support for an agency, thereby exacerbating barriers to the advancement of trapping. However, the norm seems to be that many state wildlife agencies work closely with pro-trapping organizations to implement, for example, trapper education programs. An in-depth examination of relationships between state wildlife agencies and state and national pro-trapping organizations may yield improvements in situations where there is dissention among groups.

When pro-hunting and pro-trapping groups disagree on specific issues, they would do well not to address these issues in the political arena, but rather come to a compromise outside of public view. In 2004, the Michigan Bear Hunters Association, and other groups that use hounds for hunting, filed a lawsuit against Michigan Department of Natural Resources claiming that the state agency had mismanaged bobcat (*Lynx rufus*) harvest by implementing a trapping season in the northern Lower Peninsula (State of Michigan, Circuit Court of the County of Ingham, Docket no. 04-1525-CE). The end result was an allowance of shared harvest between hunters and trappers, but at great financial and political costs to all involved. Dissention among pro-trapping organizations within a state also is not uncommon; one indicator of potential dissention is the formation of >1 pro-trapping organization within a state. Trapping organizations tend to have low proportions of membership from the trapping community, with only 32% of trappers belonging to ≥ 1 organization (Responsible Management 2005), which implies a lack of unity within the trapping community. Any lack of unity by trappers serves as a barrier to the advancement of trapping in those states, with potential for serving as a national barrier.

Although cable-traps provide numerous benefits, those advantages may not be sufficient to change public perceptions. State wildlife agencies and pro-trapping organizations would benefit from having a plan in place to address potential and known controversial issues related to trapping and to market trapping as a legitimate wildlife management tool and furbearer harvest method. Key factors behind the success of anti-trapping organizations include their sustained intensity in the political arena and their ability to control and manipulate terminology and language to influence public opinion (Jamison et al. 2000, Lakoff and Johnson 2003). The political reality is that the party that controls the language controls the debate. To illustrate, consider the term live-trap. At face value, this common and seemingly benign term is of-

ten used to refer to cage- and box-traps, yet this term reinforces the false notion that live-traps necessarily capture animals alive and unharmed (Blundell et al. 1999). However, uninformed people may erroneously perceive that any trap not resembling a cage- or box-trap is lethal or injurious to animals (S. Vantassel, University of Nebraska-Lincoln, personal observation). In addition, many people may believe that any consumptive use of wildlife constitutes poor ecological practice or is simply unnecessary (Deblinger et al. 1999; Vantassel 2007, 2009). Therefore, all traps other than live-traps must be harmful to animals or simply unnecessary. Although the term live-trap is probably too embedded in public discourse to change, state wildlife agencies and pro-trapping organizations could use the term cable-restraint to accurately describe nonlethal cable-traps.

Another example of the power of words can be illustrated through the use of the term leghold trap. For years, trappers have struggled to replace this term with foothold trap, a seemingly more positive and accurate description of such traps. This effort apparently was countered by anti-trapping organizations referring to all non-cage-traps as body-gripping traps, thereby associating foothold traps not with the purported animal-friendly live-traps, but with the purported inhumane kill-traps (e.g., rotating-jaw traps; Howe 1996, Fox and Papouchis 2004). Any effective use of terminology by anti-trapping organizations may cause increased costs in public education by state wildlife agencies and pro-trapping organizations to accurately describe differences in traps used by trappers. Recognizing the importance of terminology and language and being proactive in their use may improve any negative public perceptions of trapping.

Implementation of Strategies

State wildlife agencies face a daunting task of balancing the need to manage wildlife against the rising pressure of anti-use forces (Batcheller et al. 2000, Fox 2004) and, therefore, may do well to adopt proactive approaches and be agents of change to help maintain their management control (Jacobson and Decker 2006). Because "beliefs become entrenched all too readily and thereafter prove difficult to alter," completely overcoming all resistance may not be possible (Gardner 2004:62). Agencies can develop a strategic approach to gain acceptance of cable-traps by implementing actions slowly and incrementally.

In states where cable-traps are currently prohibited, a drastic regulatory change would likely result in immediate protest from anti-trapping organizations. For example, focusing on regulatory liberalization of snaring in water where beavers are causing damage would likely be more successful than an immediate regulatory change that allowed all forms of cable-trapping. Care must be taken in justifying any proposed, less restrictive change in regulations. For the previous scenario, conceding to the management of a problem species may simply convert the status of beavers from a valuable wildlife resource to an undesirable ecological nuisance (Organ and Fritzell 2000). Instead, emphasizing the humanness and safety of cable-restraints could be the focus of the

proposed regulatory change. Taking advantage of the diversity of ways that cable-restraints can be used could also allow state wildlife agencies to choose what tools and methods they deem most acceptable among the constituency groups in their state. By taking the regulatory initiative, agencies may be able to develop a process that is more difficult for anti-trapping organizations to challenge.

We urge wildlife managers to recognize that anti-trapping organizations exhibit antipathy not only toward trapping, but also toward the notion that wildlife is a resource (Fox 2004). The perspectives of anti-trapping organizations pose a significant threat to all forms of consumptive use of wildlife. We exhort wildlife managers to resist any notion that anti-use organizations' opposition to hunting and fishing can be appeased by sacrificing trapping (Gentile 1987). Any decision to ban trapping could hasten the demise of other consumptive uses of wildlife (Vantassel 2009). For now, agencies could focus on cable-trapping to help ensure the future viability of trapping under the North American Model of Wildlife Conservation.

State wildlife agencies and pro-trapping organizations might do well to explain the financial and ecological costs of prohibiting traps that may not be well understood by the public (Conover 2001). Awareness of the total costs of such prohibition and the costs of monitoring and controlling wildlife damage is essential for informed decision-making. Simply reacting to a problem rather than implementing a proactive plan is fundamentally misguided because reaction often results in a more expensive resolution (DeStefano and Deblinger 2005). State wildlife agencies can explain how budgetary impacts of increased trapping restrictions can reduce government budgets that affect other services important to society. Most people often do not realize how much wildlife damage control costs citizens through higher utility bills, property taxes, and tolls (Muth et al. 2006). For example, several town highway departments in Worcester County, Massachusetts, revealed that annual costs from beaver damage ranged from US\$4,000 to US\$21,000/department during 1998–2002 (L. Hajduk, personal communication). These costs may increase substantially if licensed fur-trappers are replaced by wildlife control operators (Jonker et al. 2006).

It is important, however, not to justify the role of trapping as just a tool for wildlife damage management. Such a decision is at best a Faustian bargain because it demeans human-wildlife interaction as parasitic rather than symbiotic and it undermines other forms of consumptive wildlife use such as hunting and fishing. In Colorado, the argument based on damage control failed and the resulting ballot initiative restricted trapping to only wildlife damage management (M. L. Boddicker, Rocky Mountain Wildlife Services, personal communication). State wildlife agencies can explain the positive role of trapping by noting that it extracts sustainable economic value from a renewable natural resource without destroying habitat, fosters advocacy for habitat protection, may result in acceptable cultural carrying-capacity of some populations, and may increase or maintain biodiversity in some instances. State wildlife agencies may not have been aggressive enough in expressing the economic benefits gained through trapping, especially when expansion of trapping increases revenue to state wildlife agencies (Schick et al. 1976, Benson 2001).

Management Implications

Armstrong and Rossi (2000) identified several vulnerabilities confronting the continuation of trapping. These challenges include negative perceptions of trapping (i.e., humaneness) and barriers to trapper recruitment. We contend that technological and methodological advances provided by cable-traps offer state wildlife agencies and pro-trapping organizations a rare opportunity to address each of these vulnerabilities. Though the partnership between state wildlife agencies and pro-trapping organizations may at times be a difficult melding, current opportunities to secure and even expand trapping within furbearer management programs are probably better now than they have been for decades. Our suggestions may aid state wildlife agencies and pro-trapping organizations to effectively express the importance and legitimacy of furbearer trapping as a wildlife management tool and avocational activity, including the many advancements that have been made to address the welfare of wildlife. Application of our approaches may be possible to address wildlife management issues outside of the United States, although effective management approaches are probably heavily reliant on the unique cultural norms of a given jurisdiction.

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