Cable Restraints in Wisconsin

A Guide to Responsible Use

By John F. Olson and Rick Tischaefer

Sponsors include

Wisconsin Department of Natural Resources

Wisconsin Trappers Association

Acknowledgments

This publication includes much of the information provided in a previous report entitled the ***Assessment of Cable Restraints to Capture Coyotes and Foxes in Wisconsin.*** We sincerely thank the numerous individuals and key organizations from Wisconsin and elsewhere who contributed and participated in those efforts. The Executive Council of the Wisconsin Conservation Congress has supported our efforts throughout the investigative and rule-making process. Numerous field and supervisory wardens and wildlife biologists of the Wisconsin Department of Natural Resources (WDNR) prepared, approved and worked with the Scientific Collectors Permit needed for this project. Our WDNR Wildlife Health team and the Stoughton Veterinary Service assisted us in pelt studies in 2001, and Dr. Elizabeth Williams, University of Wyoming, conducted all necropsies in 2002. The Missouri Department of Conservation completed all data analysis.

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We thank Natalene Cummings for the excellent illustrations throughout this publication. Her skills have allowed us to more easily depict the tools, components, and recommended uses of cable restraints. We also extend our appreciation to the many cooperating landowners who permitted this trap research to be conducted on their property. They have made a significant contribution to the future of furbearer management in Wisconsin. Bruce Kohn critically reviewed the first draft of this publication.

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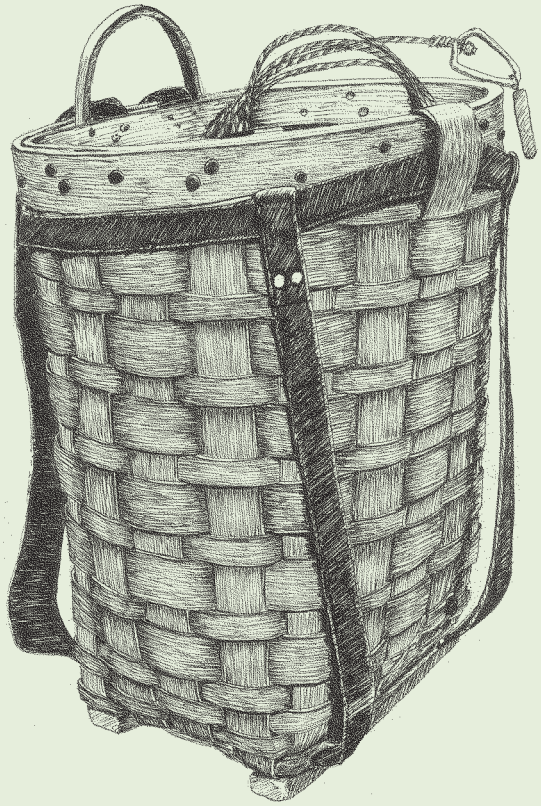
Furbearer Management in Wisconsin

A primary goal of furbearer management anywhere in North America is the conservation of furbearer populations. As suggested in ***Trapping and Furbearer Management in North American Wildlife Conservation, 2001,*** "Native wildlife populations are natural resources – biological wealth – that must be sustained and managed for the benefit of present and future generations."



The focus of wildlife management is to perpetuate and ensure the health of wildlife populations, not individuals within those populations. Conservation looks at the long-term protection and enhancement of the population which is much longer than the life span of any individual animal —for the seventh generation as many native peoples believe. If we want furbearer populations to remain healthy, viable, and self-sustaining populations within the context of human presence, we need to address population management, nuisance, and damage control.

"To protect and enhance our natural resources…" is the foundation of the Wisconsin Department of Natural Resources (WDNR) mission and the guiding principal in furbearer management in Wisconsin. Management of our furbearer resource occurs through biological research, population modeling, intensive surveys, harvest regulations and most importantly, education. This is done through a team approach that includes various department functions such as wildlife management, endangered resources, law enforcement, fisheries, and wildlife research. Several other partners comprise this team including the Wisconsin Conservation Congress, Great Lakes Indian Fish and Wildlife Commission, Wisconsin Trappers Association (WTA), US Department of Agriculture–Wildlife Services, the US Forest Service and the University of Wisconsin system. Annual meetings result in recommendations and agreements that give direction to the program.

Furthermore, the Natural Resources Board endorses and promotes the concept and principles of professional wildlife management. It considers scientific findings to be the primary foundation of sound wildlife management programs, and supports research and surveys necessary to provide the technical information needed. In addition, the Board affirms that furbearers are significant from an ecological, biological, recreational, cultural and economic standpoint. Their strong support enables us to work as a team with partners such as the Conservation Congress and WTA that make our furbearer management program respected throughout the nation.

Modern-day, regulated trapping is an important tool in Wisconsin's furbearer management program. We have found that mandatory trapper education is critical to building a successful, highly respected trapping community. Through a cooperative program with the WTA, all new trappers (and many seasoned ones as well) learn about the history of trapping, furbearer management, and basic biology of furbearer species. They also receive basic training in responsible, ethical trapping methods, and landowner respect. We hope this publication contributes to their continuing education.

Snares: Past & Present

Just the mention of the word "snare" brings less than positive images to many people. They envision a wire loop attached to a bent sapling that jerks an animal from its feet when triggered and hangs it suspended in mid-air. In the early years, some individuals did use snares in a less than responsible, ethical and selective manner. This type of activity resulted in a complete ban on their use. Those non-selective, lethal, dryland snaring devices and methods have been illegal in Wisconsin for decades.

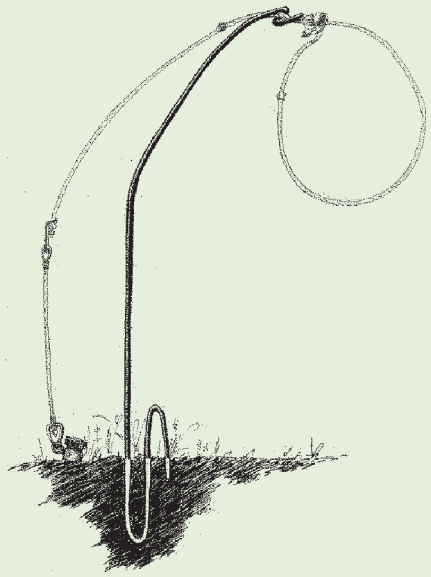
It is unfair to leave this image without further explaining that the only things available for making snares in historic times were sinew, woody fibers, and in later years, cord or thin, single-strand wire. None of these materials could hold large mammals. The materials used allowed even small animals to easily cut them with their teeth or break it by lunging. In addition, early trappers had no means of keeping the noose closed, so they cleverly used saplings and gravity to solve this problem. Elevating the captured animal also kept it out of reach from predators.

But wait a minute, what's all this talk about snares! Isn't this booklet about cable restraints? When are we going to talk about cable restraints? You're right, just be patient, we're getting there.

In the mid-1980's, extremely high beaver populations resulted in serious threats to trout streams, town roads, railroads, and forested lands. After much thought and discussion, the WDNR decided to allow the use of snares **in water**. Snares were much cheaper and lighter than traditional beaver traps and we felt they may allow trappers to more efficiently harvest beavers.

The snares used today have important components unknown in earlier days such as braided wire, swivels, locks, and great improvements in anchoring technique. Our current rule language defines a snare as "a noose used for catching furbearing animals **in a water set**." The rules also specify that:

- Snares shall be non-spring activated, constructed of galvanized aircraft cable and include a relaxing mechanical lock and swivel;
- cable length shall be 5 feet or less with a diameter not exceeding 1/8 inch; and,
- at least one-half of the set snare is located underwater at all times.



Cable Restraints: A New Tool

In Wisconsin, trapping methods and techniques are constantly being reviewed to determine the best methods. These reviews include selectivity, efficiency, practicability, and animal welfare. Winter weather presents a challenge to capturing and restraining coyotes and foxes. Frozen ground, freezing rains and frequent snowfalls makes footholds less efficient during this time of year.

So where is this better mouse trap? What's available that we're currently not considering, which would address our needs and be a humane device? Is there anything out there that works well and ranks high on animal welfare scores?

We learned of a relaxing snare device that was being used successfully in other states and highly recommended by furbearer specialists. This is where **cable restraints** enter Wisconsin's furbearer management program as a humane, efficient, effective, and practical tool.

How Does a Cable Restraint Work?

How does a cable restraint work without a powering device or spring? Simply, the animal itself provides the energy needed to close the loop.

The cable restraint loop is suspended in a trail or path frequented by an animal. When the animal proceeds down the path and enters the loop it will continue forward until it feels resistance as the loop closes down around its neck. Sounds too simple!

Well, when wild canids travel through their environment they frequently encounter minor obstacles along their path (branches, shrubs, vines, etc.). Normally they simply push through the material instead of making a detour every time they encounter such an obstacle. It's quite possible a wild canine perceives a cable restraint in a similar manner that it perceives a vine or shrub. Not seeing it as danger, it will just push through. When it finds it cannot free itself from this "bush" it often times will try and back out. However, upon feeling any type of constriction the animal instinctively stops pulling back and the washer lock is designed to relax. When set correctly, the cable restraint then humanely holds the animal in place.

The Wisconsin Cable Restraint Study

The Wisconsin Conservation Congress, the WTA, and the WDNR agreed to work together to conduct a research study to determine the efficiency of cable restraints for capturing selected wild canids (coyotes, foxes and gray wolves). Of most importance was documentation and consideration of any injuries to the wild canids or any non-target species caught, especially domestic pets.

Funding for this trap research and development was provided by in-kind services of members of the WTA and the WDNR Trapper Education program. Study design followed the science-based, field-tested protocol used and perfected by the Furbearer Resources Technical Work Group of the International Association of Fish and Wildlife Agencies. Field studies were conducted from January 1 through February 15 of 2001 and 2002.

Seven trained trappers and technicians used 7 similar cable restraint systems in 715 locations during each 15 day field season. They recorded 7,008 trap nights and 344 definite animal contacts resulting in the capture of 41 coyotes, 16 red fox, 4 gray fox, 5 raccoons, and 2 deer. Trappers released 9 raccoons, 7 domestic dogs, 2 deer and 1 fisher. In addition, 5 coyotes, 3 deer and 1 gray wolf were released via the breakaway device.

Over 1,818 volunteer hours were donated and 17,457 miles driven during this work!. The final cost to WDNR was only $7,607.06. This reflects the tremendous amount of cooperation received from the WTA.

Efficiency

Data analysis showed that specific cable restraints tested had an overall performance efficiency of 88 % (captures/ all closed devices). Seventy-seven percent of the animals caught were coyotes and foxes; while 94 % of all animals caught were furbearers (coyotes, foxes, raccoons, fisher and gray wolf).

Pelt Studies

In 2001 pelts were skinned, stretched, dried and then tanned by a commercial tannery to determine affects of restraints on fur quality. Professional fur graders for North American Fur Auction, Inc. (NAFA) inspected all pelts and determined little to no damage to any furbearer.

Injury Scores-IAFWA Standards

In 2002 necropsy results from 42 coyotes and foxes captured were evaluated following the injury scoring system employed by the International Association of Fish and Wildlife Agencies. Table 1 summarizes the results, with 71% of all injuries classified as mild; 26% as moderate; 2% as moderately severe; and 0% as severe. A score of 70% or greater in the combination of mild and moderate categories is considered acceptable. This scoring system means the higher the score, the better. The total of mild and moderate injury scores for this study was 97%.

Table 1.
2002 Cable Restraint Study-IAFWA Injury Scores*

Species	Mild	Moderate	Moderately Severe
Coyote	21	9	0
Red Fox	9	1	1
Gray Fox	0	1	0
% of Total	71	26	2

*IAFWA Standards: The total of categories Mild + Moderate scores must be greater than 70% to be considered acceptable.
Results of this study: mild + moderate = 97 %.

Injury Scores – ISO Standards

We also evaluated injuries using the International Standards Organization (ISO) Injury Scoring System, another independent measure. With this cumulative numeric system a *final score of 55 or less* is necessary to be considered acceptable. This scoring system means the lower the score, the better. The final numeric score of this study for all coyotes and foxes was 6.8 (Table 2). This independent evaluation supports and parallels results of the IAFWA injury score system.

This brings us to today! Following approval from various committees and boards, we are looking toward responsible use of cable restraints on lands in Wisconsin. *The future of this tool lies completely with how it's used on the landscape.* The ultimate final step will be to provide interested trappers, from seasoned veterans to first timers with suggestions and recommendations on how to use these tools legally, responsibly, and ethically. Although it has been proven to be a remarkably safe tool to the user and the restrained animal, it can cause the death of an animal without proper use or respect for the law. In the following pages we will try to explain in detail what the rule says and how to use cable restraints wisely.

Table 2. 2002 Cable Restraint Study-ISO Injury Scores*

Species	# of Specimens	High Score	Low Score	Average
Coyote	30	11	2	3.5
Red Fox	11	54	2	15.3
Gray Fox	1	11	11	11.0
Total	42	54	2	6.8

*ISO Standards: Final score must be 55 or less to be considered acceptable. **Results of this study: 6.8.**

Regulations for Cable Restraints in Wisconsin

It is very important that trappers fully understand and comply with all regulations pertaining to the use of cable restraints in Wisconsin. These have been developed to insure their humane and ethical use. The following regulations apply to cable restraints:

- Cable restraints are defined as a noose used for restraining furbearers which is not set or staked in such a manner as to permit the restraint device or trapped animal to reach water. They can be used for dryland sets only.
- Cable restraints may only be set, placed or operated for fox and coyotes from January 1 through February 15;
- Cable restraints shall consist of a non-spring activated, galvanized aircraft cable which includes a relaxing mechanical lock, stops, and swivel;
- Cable restraints must be tagged with a metal tag stamped with the name and address of the operator;
- Cables must be 7 feet or less in length with 7 bundles comprised of 7 wires per bundle (7 x 7), or 7 bundles comprised of 19 wires per bundle (7 x 19), with a diameter of 1/8 inch or 3/32 inch. (Figure 2.)
- The relaxing mechanical lock on the cable shall be a reverse-bend washer lock with a minimum outside diameter of $1^{1}/_{4}$ inches.
- Cable stops shall be affixed to the cable to ensure that the portion of the cable which makes up the noose loop may not be longer then 38 inches (12 inch loop) when fully open, or less than 8 inches ($2\ ^{1}/_{2}$ inch loop) when fully closed.
- The bottom of the set restraint cable loop cannot be closer than 6 inches or greater than 12 inches above the surface. The surface is defined as ground, ice, crusted or packed snow or any other hard material beneath the cable loop.
- A cable restraint shall include a breakaway device or stop rated at 285 pounds or less. There are two acceptable breakaway devices. One system (Figure 23, page 14), includes an "J" hook breakaway which opens on both ends with sufficient force, and the other (Figure 24, page 14), includes a ferrule breakaway which slips off the end with the same amount of force.
- Cable restraints must be staked in a manner that does not allow the animal or the restraint device to reach any part of a fence or rooted woody vegetation greater than 1/2 inch in diameter.

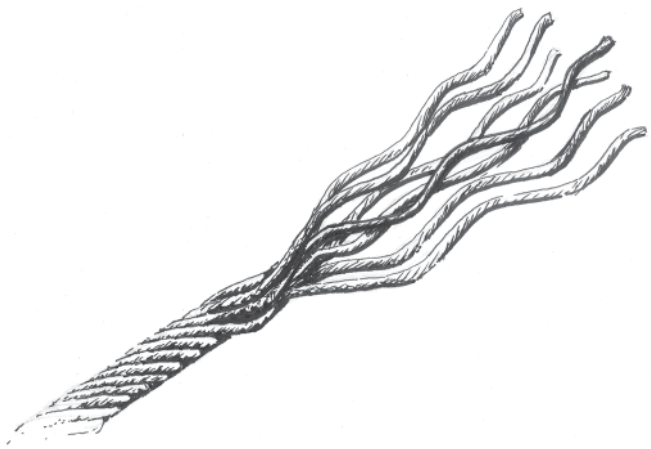


Figure 1. Restraint Cable: Modern cable restraints are made of multi-strand aircraft cable. Due to it's construction, this cable is strong and can easily hold a coyote or fox.

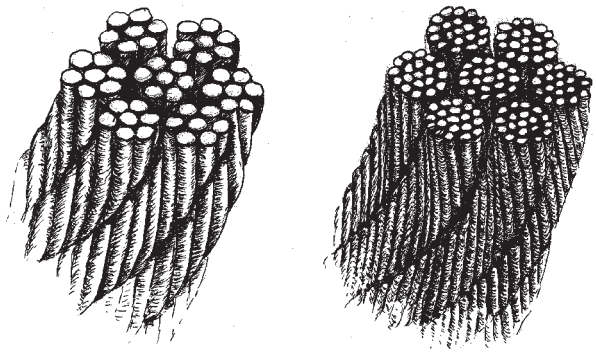


Figure 2. Cable Strands: Currently there are two basic types of cable. The 7 x 7 design has 7 bundles of 7 wires each; and the 7 x 19 design has 7 bundles of 19 wires each.

Responsible Use and Placement of Cable Restraints

Educate

You've heard it before and here it is again. Your responsible, careful use of this tool will be a major reward to you and others you encounter. When securing permission to trap, show landowners the restraint tools and explain how they work – as a live restraint tool like a collar for a dog. Give them a copy of this booklet, or photocopy portions that explain how the device works, and results of our studies. Landowners will be impressed with your care and concern which will only open more doors, and more opportunities.

Figure 3. Landowner Permission: Always ask permission! Landowners know and watch their property closely and can direct you to prime locations.

Scout and Restrain Yourself!

When using these tools, scout areas to assure there are very few or no domestic animals in the vicinity. Although the restraint breakaway will allow livestock to pull the device apart, it's not a wise practice to make any sets where livestock are present. Refrain from setting in areas where dogs are present and allowed to wander off a leash.

Deer

And more deer! Pure common sense dictates that you do not make sets on deer trails. Deer use these trails frequently and will knock your sets down making them nonfunctional when approached by coyotes or foxes. Also, avoid using any material over the device that would result in animals "ducking under." This is a sure invitation to catch a deer because they tend to "duck" under rather than jump over most obstacles. To capture wild canines you want the animal to lift his head as they approach the cable restraint because they often are traveling with their nose down in search of scent. A small "chin lift" placed below the loop is far more effective and selective than trying to get an animal to duck under something. Figure 4 clearly depicts how a wild canine keeps its head down while using its nose to search for scent. At the same time there is always a watchful eye and a turned ear, maintaining total awareness of all around.

Figure 4. Wild canines constantly use their nose, eyes, and ears to keep track of their surroundings. Head down, eyes up.

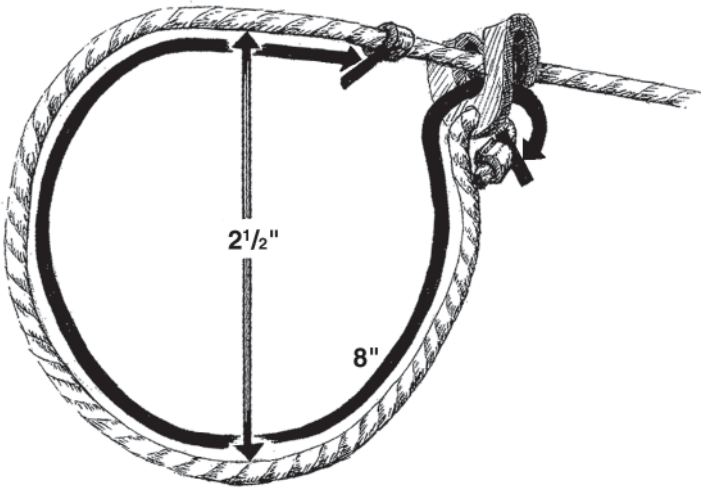


Figure 5. Foot Stop: An 8 inch circumference to the first stop assures a minimum loop size of 2½ inches, more than enough for any foot-restrained animal to escape. The breakaway allows larger animals like livestock to do the same.

Bait

The placement of bait for trapping is not allowed in Wisconsin until the trapping season is in progress. Bait can be used once the season is open. You will have plenty of time to place baits for use of cable restraints during the months of January and early February because the trapping season opens in mid-October. However, no traps can be set within 25 feet of exposed bait. Landowner permission should be obtained for the use of any bait, and the bait should be placed in an area where the public or adjacent landowners are not affected.

It is important to identify travel patterns and specific routes used by coyotes and foxes before, and especially after the placement of bait. Veteran trappers report greater success by setting 200 to 300 feet (or more) from bait stations. They suggest placing restraints at critical trail junctions several hundred feet from the bait is far more effective. Wild canines become wary and nervous about the presence of any disturbance or foreign odors as they approach a feeding site. Captures at or near bait stations seem to quickly make the sites inactive.

Handling Domestics

Although domestic dogs are not in serious trouble when caught in properly set cable restraints, it only makes sense to take precautions to avoid such an occurrence. However, there will be instances where dogs not under control of their owners will show up at your set. It is best to locate the owner if you encounter a dog in one of your restraints and release appears difficult. Our experience has been that most dogs are standing there wagging their tails waiting for the "collar" to be removed, and pose no problem in the release. If additional restraint is necessary, we highly recommend the use of a catchpole (which is nothing more than another cable restraint on the end of a fiberglass handle). Place the noose of the catchpole over the dog's head and tighten it gently. Then pin the animal down and cut the loop on the cable restraint to release it. A pair of quality cable cutters should become part of your personal cable restraint equipment.

If the owner is known, return dogs promptly and let them know where they were. Our limited experience with this practice has been very positive. Most dog owners will be pleased with your concern for their pet, and many will appreciate your efforts to harvest coyotes and foxes. And it goes without saying, any injured dogs should be promptly delivered to a local veterinarian.