

Two-Part Solution

1 The Diverter

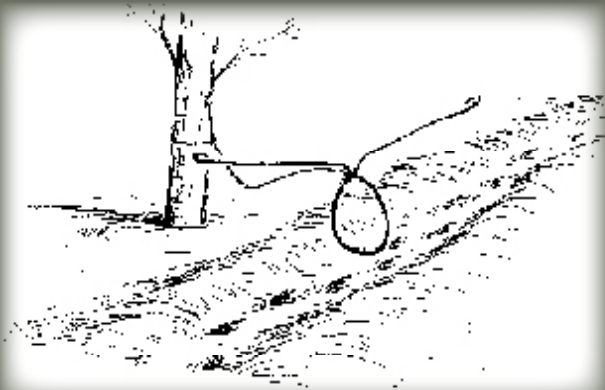
The diverter is made by attaching a "diverter wire" to the snare so that it extends perpendicular to the snare loop at the top of the snare. A moose will make contact with the diverter wire before reaching the snare, thus pushing the snare aside and/or knocking it to the ground.

The diverter is important in preventing nose catches, which are almost always lethal to moose, even if caught in a breakaway snare.

2 Noose Stop/Breakaway

This technique reduces injury to moose by preventing the snare cable from cinching down on the leg and minimizing the breaking force for moose. It involves cutting the snare cable 'inside' the loop and inserting a double ferrule to re-connect the two cut ends. This is referred to as the 'noose stop.' Exact placement of the ferrule is based on circumference measurements of both moose legs and wolf necks.

A wolf neck is larger than a moose leg. The snare will fully cinch down on essentially all wolf necks. Thus, the snare will function normally on wolves. However, the snare will not cinch down on moose legs because the snare lock will come into contact with the noose stop. This contact will also create an increased leverage on the ferrule as the moose struggles. This mechanical advantage causes the wire to pull out of the ferrule and the snare will fall apart, releasing the moose.



Where to get the materials



All tools and materials necessary to construct these snares can be purchased locally or through mail order suppliers. These snares may also be purchased preconstructed.

Reference material

Gardner, Craig L.
Alaska Department of Fish and Game
Research Report # 15.12
Development and Testing of Breakaway Snares(2007)
www.wildlife.alaska.gov

For more information contact your local ADF&G office.

"The Alaska Trappers Association is dedicated to ethical trapping practices. This includes using the most appropriate equipment for each situation. ATA supports the modifications for wolf snares which have been developed by ADF&G. We recommend that all Alaskan trappers consider utilizing the equipment and techniques described in this brochure."



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Hunters are important founders of the modern wildlife conservation movement. They, along with trappers and sport shooters, provided funding for this publication through payment of federal taxes on firearms, ammunition, and archery equipment, and through state hunting license and tag fees.

This brochure was created in 2007. It was revised in 2020 to clarify the number of crimps on different cable sizes and types.

How to make and use

Breakaway Wolf Snares



The Issue

Snaring is an effective method to catch wolves and is a preferred method for Alaskan trappers. However, wildlife managers and trappers are concerned about the accidental capture of moose in wolf snares. Alaska Department of Fish and Game (ADF&G) biologists estimate that in areas with heavy trapping pressure, wolf snares catch up to 1% of the moose annually. Most moose caught in wolf snares die either at the capture site or subsequent to release.

A new design

Since 1993, ADF&G and private trappers have developed and tested wolf snares designed to release moose and caribou but restrain wolves. Testing and development by ADF&G staff showed promising results.

By studying how moose encounter a wolf snare, departmental research found that incorporating two modifications to the snare resulted in fewer moose catches and fewer injuries to moose while reliably retaining wolves. Both modifications can easily be made by trappers or a commercial snare company on any wolf snare cable size between 3/32" and 1/8".



Construction details

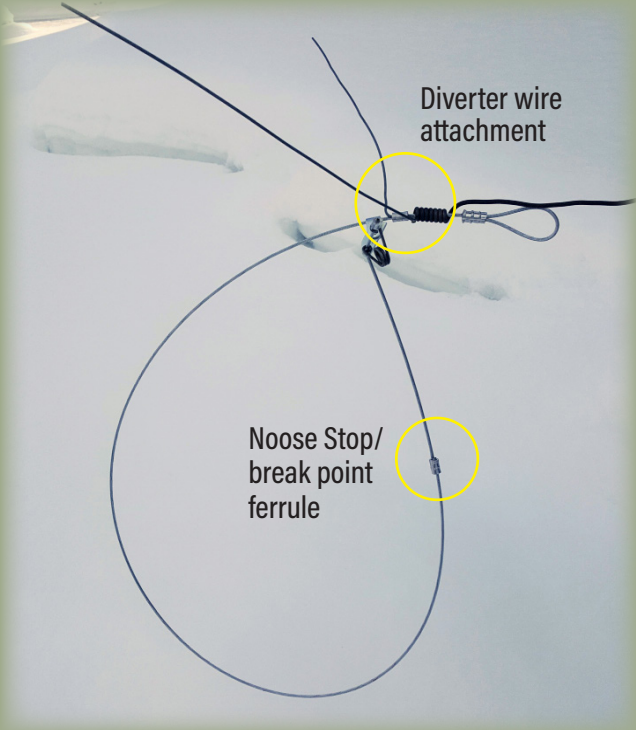
The diverter wires on the snare are constructed by attaching an 11-gauge wire to the snare so that it extends 28" perpendicular to the snare loop at an angle between 10 and 20 degrees from the top of the snare (see images). The diverter wire is attached to the #9 anchor wire with a ferrule.

The breakaway portion is created by cutting the snare within the loop at 10.5" from the cable end stop and inserting a 3/32" double ferrule on 3/32" snare cable, or 1/8" double ferrule on 7/64" and 1/8" snare cables. The ferrule is then attached using the corresponding size swage tool.

Crimps and Cable size

There is a difference in the number of crimps by cable size.

Parts sizes required for breakaway wolf snares		
Cable 1x19 & 7x7	Double ferrule	Crimp count
3/32	3/32	2
7/64	1/8*	2
1/8	1/8	1
* No 7/64 ferrules available		



Loop size

ADF&G research also compared accidental moose catch rates between 60" and 72" snare loops. Assuming that both size snares are set with the bottom of the loop 18" above the terrain, the top of a 72" loop is 3"(or more) higher than the top of a 60" snare. When walking, moose carry their head about the height of a wolf snare.

The research showed a 17% catch rate for the 72" loops and a 12% catch rate for the 60" loops. Using small loops should help reduce moose capture. Even if a smaller loop size is used, however, a breakaway system and diverter should still be used.

Do they work?



Field tests of the diverters and break-away snares were conducted at the Kenai Moose Research Center (MRC) in Southcentral Alaska using semi-tame moose and in Game Management Unit (GMU) 20A, south of Fairbanks, Alaska using wild moose.

% of moose captured in different wolf snares in GMU 20A and Kenai Moose Research Center

Snare type	# Encountered	# Caught	%
Without diverter	297	56	19
With diverter	100	7	7

Breakaway mechanism effectiveness

Species	# Caught	# Escaped	%
Wolves	28	1*	3.4
Moose	9	8**	89

*caught by leg
**non-escapee caught by neck

Did you know?

An additional benefit of the new design is that the breaking force increases as the snare loop becomes larger, meaning that larger wolves will have to exert more force to break free with the noose stop/breakaway system.

This is not the case for breakaway mechanisms that are dependent on the lock separating or S hooks pulling apart in which the breaking force is the same for both moose and wolves.