Best Management Practices

for Trapping American Marten in the United States

ASSOCIATION *of*
FISH & WILDLIFE
AGENCIES

Figure MT1. American Marten *(Martes americana)*

Best Management Practices (BMPs) are carefully researched educational guides designed to address animal welfare and increase trappers' efficiency and selectivity. The extensive research and field-testing used to develop BMPs are described in the Introduction section of this manual. The evaluation methods used to develop BMPs have been standardized, enabling them to be easily updated and revised as new traps and techniques become available. All traps listed in the BMPs have been tested and meet performance standards for animal welfare, efficiency, selectivity, practicality and safety.

Trapping BMPs provide options, allowing for discretion and decision making in the field. BMPs are meant to be implemented in a voluntary and educational approach and do not present a single choice that can or must be applied in all cases. BMPs are the product of ongoing work that may be updated as additional traps are identified through future scientific testing.

The American Marten at a Glance

Characteristics

The American Marten *(Martes americana)* (Figure MT1) is a member of the Family Mustelidae, and is similar in appearance to most other members of the "weasel" family. The marten has a long and slender body, pointed face, conspicuous ears, short legs, and a bushy tail that makes up about one-third of its overall length. An average marten is about the size of a small house cat. Adult males are larger than adult females and average between 1 $^{2}/_{3}$ to 2 $^{3}/_{4}$ pounds, with females averaging 1$^{1}/_{2}$ to 1 $^{7}/_{8}$ pounds. Adult males average from 24 to 26 inches in overall length, while adult females average 21 to 23 inches. The pelage color is a yellowish-brown, though the fur on the tail and legs is generally dark brown. There is a cream, yellow or orange colored patch on the throat and chest. The entire underside is paler than the back side. Like other mustelids, martens have anal scent glands that produce a pungent odor.

Range

Marten are found throughout Alaska, the Northwest Region, Northeast Region, and northern portions of the Midwest Region of the United States. In the West, the range extends south into New Mexico following the Rocky Mountains. The range also extends throughout Canada from the eastern to the western coast.

Habitat

Mature conifer forests or forests of mixed woods are the preferred habitat of martens, though if adequate food and cover are available they will thrive in a variety of forest habitats. Large older trees and large logs are an important habitat component as well, as martens rely on these for den sites.

Food Habits

Marten are opportunistic feeders and consume a varied array of animal and plant material. The diet varies seasonally due to availability. Principle food items are associated with preferred habitats and consist of a wide variety of small mammal species including snowshoe hares, squirrels, voles, mice and shrews. Other contributions to the diet come from birds and their eggs, amphibians, reptiles, fruits, berries and insects. Martens will consume carrion and are easily attracted to baited areas. Martens are chiefly nocturnal, though in harsh climates they may be most active during daylight hours to take advantage of the sun's warmth and the peak activity of prey species. While they readily climb and often den in trees, most hunting is done on the ground. During winter, they commonly spend time beneath the snow for hunting, resting and thermal protection.

Reproduction

The breeding season for marten occurs from late June to early September. The gestation period is between 220 to 276 days, due to delayed implantation (a period of arrested embryonic growth) with young typically being born in mid March to late April of the following year. The average litter size is three, but varies from one to five. Female martens reach sexual maturity shortly after one year of age but may not breed until they are 15 to 39 months old. Young are born altricial, (i.e. blind, helpless, and with little fur). By three months of age, young martens are nearly adult sized. The young remain with the female in a family unit until late summer or early fall after which time they disperse to establish a home territory. Males do not directly help with the rearing of young though they may defend the territory in which the female and young reside against the intrusion of other males.

Populations

Marten were extirpated from portions of their U.S. range by 1850. The clearing of large tracts of forest with the resultant loss of habitat was probably the primary contributor to population decline. In the later half of the 20th century, habitat protection and restoration, reintroduction projects and controlled harvests have helped marten numbers rebound. With continued conservation efforts, marten numbers continue to increase.

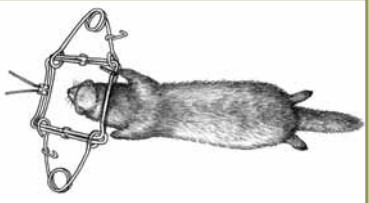

Figure MT2a. Proper strike location

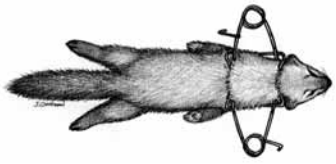

Figure MT2b. Proper double strike location

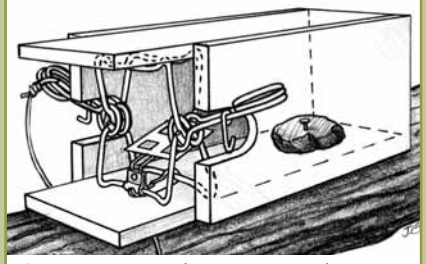

Figure MT2c. Bodygrip trap in pole set baited cubby with pan trigger

General Overview of Traps Meeting BMP Criteria for American Marten in the United States

Bodygrip traps were tested for martens. Examples, brief descriptions and mechanical details of the various devices are given in the next section.

Table MT1. Overview of traps meeting BMP criteria for American Marten in the contiguous United States.*

Trap Category	Height of Trap Window**	Width of Trap Window**	Frame Wire**	Spring Wire**
†Bodygrip	4 7/16 – 5 3/16	4 5/8 – 4 13/16	3/16 – 1/4	3/16 – 1/4

* Not applicable in Alaska
** inches
† All bodygrip traps tested had two springs

General Considerations When Trapping American Marten

Bodygrip Traps

- Should be set so that the rotating jaws capture the animal by closing on the top and bottom of the captured animal's neck (Figure MT2a) or use a double strike set (Figure MT2b).
- Can be used in locations and in weather conditions where other traps are less effective
- May not be appropriate in some areas (captures and kills animals, no release)
- May be used on an elevated running pole or tree, or set in a baited cubby on or above the ground. May be deployed with a pan trigger (Figure MT2c) or a "V" trigger configuration (Figure MT2d).

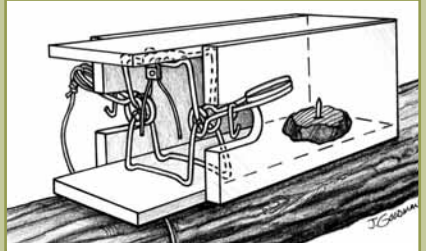

Figure MT2d. Bodygrip trap in pole set baited cubby with "V" configured trigger

Figure MT3a. Setting tool

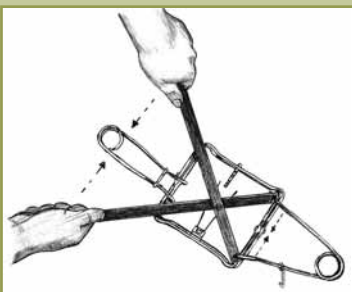

Figure MT3b. Using setting tool

Figure MT4a. Safety gripper

Figure MT4b. Using safety gripper

Safe Use of Bodygrip Traps

By design, bodygrip traps must close with considerable force to humanely dispatch and efficiently capture wild furbearers. This is particularly true of larger-sized and "magnum-" type bodygrip traps. As a result, users should take special precautions to avoid potential injury when using these devices. Trappers should be familiar with the safe and efficient use of bodygrip traps and these are best learned in trapper education courses.

A setting tool (Figure MT3a) should be used to compress trap springs when setting large and magnum bodygrip traps. Use of a setting tool will not only make setting traps easier, it will make setting traps safer by allowing the trapper to keep hands and fingers away from the jaws (Figure MT3b). Most bodygrip traps that have double springs are equipped with spring latches that hold each spring compressed, and the trapper should use these latches on both trap springs. A safety gripper (Figure MT4a) should also be attached to the jaws when the jaws are moved to the set position (Figure MT4b). This will prevent the trap from accidentally closing. The above safety devices protect the trapper and make it easier to set, position and anchor the trap safely. Safety devices should be disengaged only when the set is completed.

If you are accidentally caught in a bodygrip trap you need to know how to free yourself. A setting tool is the most effective means to freeing yourself and should be used to compress the springs or jaws. You should always have one in reach when setting and placing bodygrip traps. In the event you are not able to reach one or use it with one arm, you should always carry a four-foot piece of rope. The rope should have a loop tied on one end and should be stored in a pocket that can be easily accessed by either hand. You can use the rope to free yourself as follows:

1) Thread the rope through the eyes of one of the springs (Figure MT5a).
2) Bring the rope around and thread it back through the eyes a second time (Figure MT5b).
3) Place your foot in the looped end of the rope and pull the other end with your free hand until you can set the safety latch for that spring (Figure MT5c). You may need to do this to both springs to completely free yourself.

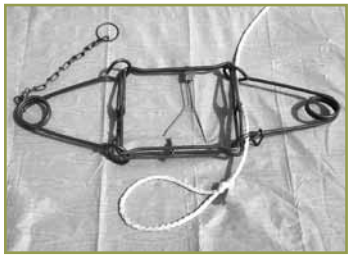

Figure MT5a. Step 1

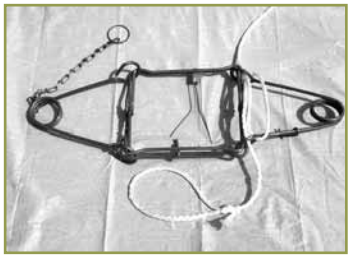

Figure MT5b. Step 2

Figure MT5c. Step 3

Specifications of Traps Meeting BMP Criteria for American Marten in the United States

As more capture devices are tested and new information becomes available, they will be added to an updated list. Mechanical descriptions of tested traps are given as an aid to trappers or manufacturers who may wish to measure, build or modify traps to meet these specifications (Figure MT6). Also, other commercially available traps, modified traps, or other capture devices not yet tested may perform as well as, or better than the listed BMP traps. References to trap names are provided to identify the specific traps tested. This list is provided for information purposes only and does not imply an endorsement of any manufacturer.

Average mechanical measurements are rounded to the nearest 1/16 inch. There may be up to a 1/8-inch variation in specifications on the part of the manufacturer. Manufacturers use recognizable names, such as "120 bodygrip trap," to identify certain traps. However, there is no standardized system linking mechanical design features with trap names. The mechanical features of these traps are listed so that similar traps may be identified. The performance of anchoring systems was not specifically evaluated, however, methods of attachment are described for informational purposes.

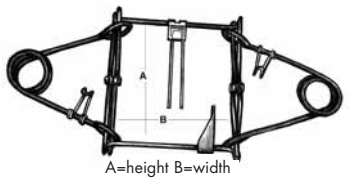

Figure MT6. Bodygrip trap

Most bodygrip traps approved in this BMP were tested via computer simulation modeling relative to animal welfare performance. As a result, trap anchoring information does not exist for these traps. However, bodygrip traps should always be securely anchored. Anchoring information is provided on specific traps that were field-tested.

Bodygrip Traps

Average Mechanical Description and Attributes

Height of trap window: 4 9/16 inches
Width of trap window: 4 5/8 inches
Diameter of frame wire: 3/16 inch
Diameter of spring wire: 3/16 inch
Additional clamping bar: No
Safety features: Spring latches

Figure MT7a. Belisle™ Super X Bodygrip Trap

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the Belisle™ Super X 120 bodygrip trap (Figure MT7a).

Additional Information

- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and a safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This trap also meets BMP criteria for muskrat and fisher.

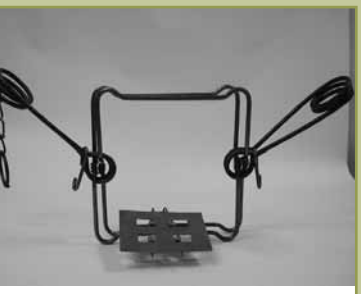

Figure MT7b. Bodygrip trap with pan trigger

Figure MT8. B.M.I.™ 126 Magnum Bodygrip Trap

Average Mechanical Description and Attributes
Height of trap window: 4 13/16 inches
Width of trap window: 4 3/4 inches
Diameter of frame wire: 3/16 inch
Diameter of spring wire: 3/16 inch
Additional clamping bar: No
Safety features: Spring latches

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the B.M.I.™ 126 Magnum bodygrip trap (Figure MT8).

Additional Information
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and a safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This device also meets BMP criteria for muskrat.

Figure MT9. LDL™ B 120 Magnum Bodygrip Trap

Average Mechanical Description and Attributes
Height of trap window: 4 3/4 inches
Width of trap window: 4 11/16 inches
Diameter of frame wire: 3/16 inch
Diameter of spring wire: 3/16 inch
Additional clamping bar: Yes
Safety features: Spring latches

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the LDL™ B 120 Magnum bodygrip trap (Figure MT9).

Additional Information
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This device also meets BMP criteria for muskrat.

Average Mechanical Description and Attributes
Height of trap window: 4 7/16 inches
Width of trap window: 4 9/16 inches
Diameter of frame wire: 1/4 inch
Diameter of spring wire: 3/16 inch
Additional clamping bar: Yes
Safety features: Spring latches

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the Rudy™ 120 Magnum bodygrip trap.

Additional Information
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This trap also meets BMP criteria for muskrat.

Average Mechanical Description and Attributes
Height of trap window: 5 1/16 inches
Width of trap window: 4 5/8 inches
Diameter of frame wire: 3/16 inch
Diameter of spring wire: 1/4 inch
Additional clamping bar: Yes
Safety features: Spring latches

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the Sauvageau™ C 120 Magnum bodygrip trap (Figure MT10).

Figure MT10. Sauvageau™ C 120 Magnum Bodygrip Trap

Additional Information
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This trap also meets BMP criteria for muskrat.

Figure MT11. Sauvageau™ 2001-5 Bodygrip Trap

Average Mechanical Description and Attributes
Height of trap window: 5 3/16 inches
Width of trap window: 4 13/16 inches
Diameter of frame wire: 1/4 inch
Diameter of spring wire: 1/4 inch
Additional clamping bar: Yes
Safety features: Spring latches

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the Sauvageau™ 2001-5 bodygrip trap (Figure MT11).

Additional Information
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten.
- Safety considerations: This trap has complete jaw closure. The use of safety devices such as setting tongs and safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This trap also meets BMP criteria for muskrat.

Figure MT12. Woodstream Oneida Victor Conibear™ Bodygrip Trap

Average Mechanical Description and Attributes
Height of trap window: 4 5/8 inches
Width of trap window: 4 5/8 inches
Diameter of frame wire: 3/16 inch
Diameter of spring wire: 3/16 inch
Additional clamping bar: None
Safety features: Safety latches on springs

Any trap that has similar specifications may be considered a BMP trap regardless of brand or source of modification, although performance information on all other BMP criteria (see "Criteria for Evaluation of Trapping Devices": Introduction pages 4-6) needs to be considered as well. The trap tested was the Woodstream Oneida Victor Conibear™ 120 bodygrip trap (Figure MT12).

Additional Information
- Chain attachment used in trap testing: 18 inch chain securely anchored.
- Selectivity features: Use of double strike technology incorporating a pan trigger (Figure MT7b) may improve trap performance for capturing marten. Traps were fitted with pan triggers during field testing.
- Safety considerations: The use of safety devices such as setting tongs and safety gripper is highly recommended. Trappers should familiarize themselves with emergency release methods discussed in the "Safe Use of Bodygrip Traps" section.
- Special considerations for practicality: This trap also meets BMP criteria for muskrat.