

# Best Management Practices

## for Trapping Badger in the United States

UPDATED 2019



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. The evaluation methods used to develop BMPs have been standardized, enabling BMPs 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 that allow for discretion and decision-making in the field. Best Management Practices 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 on-going work that may be updated as additional traps are identified through future scientific testing.

## The Badger at a Glance

### Characteristics

The badger (*Taxidea taxus*) (Figure B1), sometimes referred to as the American badger or North American badger (to distinguish it from the Eurasian and Honey badgers) is a member of the Mustelidae family. Badgers have physical characteristics common to other mustelids such as short, powerful legs, and a stout, compact, low-slung body. Badgers have huge foreclaws (measuring up to two inches in length) which they use for digging burrows and hunting prey. Males are typically larger than females with females averaging 15.5 pounds and males averaging up to 20 pounds. In general, badgers measure between 24 to 29.5 inches in length. Badgers are covered with a grizzled, silvery coat of coarse hair over the upper body. Feet are black and the belly and under-tail are yellowish. The face displays a distinctive black and white pattern, with black "badges" marking the white cheeks and a white stripe extending from the nose to the base of the head. It should be noted that there are four subspecies of badgers in North America and these vary slightly in size and color as well as distinctive markings. For example, in one of the subspecies, typically found in the lower mid-western and southwestern states, *T. t. berlandieri*, the distinctive white head stripe extends the full length of the body instead of ending at the base of the head.

### Range

Badgers range throughout the western and central United States, north into central Canada and south into northern Mexico.

### Habitat

Badgers prefer open grasslands, tallgrass and shortgrass prairie regions and parklands. They may also be found in deserts, forest glades, mountain meadows, and brushy areas with soils that allow them to easily dig for prey and dig burrows. Burrows are used for denning and provide protection from weather, concealment from predators, and a safe place to raise young. Burrows may be up to 30 feet in length and 10 feet deep.

### Food Habits

Badgers are fossorial (adapted to life underground) carnivores. These predators prey primarily on small rodents (ground squirrels, prairie dogs, etc.), but they also consume reptiles and amphibians, ground nesting birds, carrion, and insects. They are opportunistic feeders and have been known to eat fish and some plant material including mushrooms, corn, and sunflowers.



**Figure B1.** Badger (*Taxidea taxus*)

## Reproduction

Badgers are solitary animals for most of the year, but they expand their territories to actively seek out mates during the breeding season. Males usually do not breed until their second year of life and may breed with more than one female. Females typically breed after their first year. The breeding season occurs from late summer to early fall. Badgers experience delayed implantation, typical of Mustelids, so actual pregnancies are suspended until December or as late as February with young usually being born from late March to early April. Litters average three young but may range from one to five. Badgers are altricial (blind and essentially helpless) at birth. Young badgers do not emerge from the den on their own until five to six weeks of age. Juveniles disperse from the end of June to August. Badgers often live nine to 10 years in the wild.

## Populations

The North American badger is listed as a species of least concern by the International Union for Conservation of Nature (IUCN) and populations appear to be stable over most of the United States. However, in California, the badger is listed as a species of special concern due to an apparent reduction in range and number in areas where it was common formerly. In Canada, two badger subspecies (*T.t. jacksoni* and *T.t. jeffersoni*) are listed as endangered. Humans are the major source of mortality for adult badgers though predators occasionally kill them. Human/wildlife conflicts arise with this species primarily as a result of their burrowing activities whereby they damage farm and ranch lands and pose a hazard to livestock. Animal damage control efforts are often required to reduce these conflicts.

# General Overview of Traps Meeting BMP Criteria for Badger in the United States

Only foothold restraining traps were used to capture badgers (Table 1) and examples, brief descriptions, and mechanical details of the various devices are given in the next section.

**Table 1.** Overview of traps meeting BMP criteria for badgers in the United States.

Trap Category	Jaw/Frame Characteristics	Inside Jaw/Frame Spread at Dog*	Inside Width at Jaw/Frame Hinge Posts*
Foothold	Unmodified	5 1/4	5
	Padded	5 3/16	6 7/16
	Offset, laminated and/or wide	5 1/16 - 5 13/16	5 1/16 - 5 7/8

\*inches



## General Considerations When Trapping Badger

### Foothold Traps

- Many currently-used trap models meet specifications
- Pan-tension set between two and four pounds may improve selectivity and foot placement in the trap
- Can be used to capture several furbearer species
- Captures and holds animals alive, allowing for release
- Badgers are wide-bodied and short-legged. To accommodate this body shape and potentially improve catch rate, make trap sets a few inches right or left of a main trail

## Specifications of Traps Meeting BMP Criteria for Badger 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 B2). 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. The following list is provided for information purposes only, and does not imply an endorsement of any manufacturer.

Average mechanical measurements are rounded to the nearest  $\frac{1}{16}$  inch. There may be up to  $\frac{1}{8}$  inch variation in specifications on the part of the manufacturer. Manufacturers use recognizable names, such as "No. 2" coil-spring, 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.

### Unmodified jaw trap (Figure B3)

#### *Average Mechanical Description and Attributes*

Inside jaw spread (at dog):  $5 \frac{1}{4}$  inches

Inner width:  $4 \frac{9}{16}$  inches

Inside width at jaw hinge posts: 5 inches

Jaw width:  $\frac{1}{2}$  inch smooth round jaw

Jaw thickness:  $\frac{1}{8}$  inch

Main trap springs: Two 0.145 inch diameter wire coil-springs

Base plate: Reinforced, D-ring chain attachment.

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 Oneida-Victor™ No. 1.75 coil-spring.

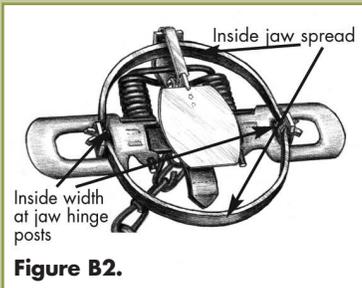


Figure B2.

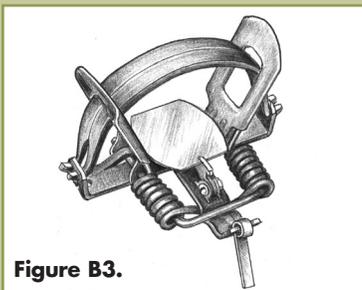


Figure B3.

### Additional Information

- Chain attachment used in trap testing: 30 inch center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Selectivity features: Brass pan tension machine screw; pan tension set so two–four pounds of pressure triggered the trap, and was checked and readjusted as needed after every capture.
- Special considerations for practicality: This device also meets BMP criteria for bobcats, red foxes, Eastern coyotes and Western coyotes.



### Padded jaw trap (Figure B4)

#### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 5 <sup>3</sup>/<sub>16</sub> inches

Inner width: 6 <sup>1</sup>/<sub>16</sub> inches

Inside width at jaw hinge posts: 6 <sup>7</sup>/<sub>16</sub> inches

Jaw width: <sup>9</sup>/<sub>16</sub> inch round padded jaw

Jaw thickness: <sup>3</sup>/<sub>8</sub> inch

Padding: Manufacturer supplied rubber pads

Main trap springs: Two 0.145 inch diameter wire coil-springs

Additional springs: Two 0.115 inch diameter wire coil-springs

Base plate: Reinforced, D-ring chain attachment

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 Oneida-Victor™ No. 3 Softcatch™ modified coil-spring, four-coiled.

### Additional Information

- Chain attachment used in trap testing: 30 inch center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Selectivity features: Brass pan tension machine screw; pan tension set so two–four pounds of pressure triggered the trap, and was checked and readjusted as needed after every capture.
- Special considerations for practicality: Some damage to trap pads should be expected and will require occasional replacement as a normal part of trap maintenance and upkeep. Special care should be taken to prevent odor contamination of the rubber jaws. Avoid using petroleum-based trap dye directly on the rubber pads. This device also meets BMP criteria for bobcats, red foxes, Eastern coyotes and Western coyotes.

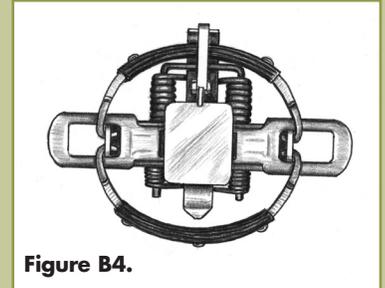
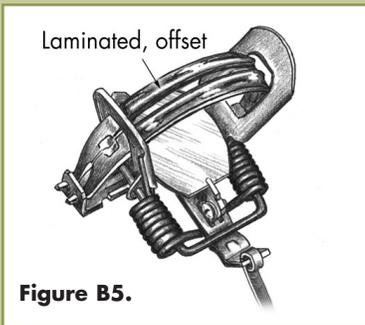


Figure B4.





### Offset, Laminated and/or Wide jaws (Figures B5–B13)

#### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 5 <sup>1</sup>/<sub>16</sub> inches

Inner width: 4 <sup>9</sup>/<sub>16</sub> inches

Inside width at jaw hinge posts: 5 <sup>1</sup>/<sub>16</sub> inches

Jaw width: <sup>7</sup>/<sub>16</sub> inch wide, smooth round jaw

Jaw thickness: <sup>5</sup>/<sub>16</sub> inch

Jaw thickness with lamination: <sup>1</sup>/<sub>2</sub> inch

Lamination: <sup>3</sup>/<sub>16</sub> inch above-jaw lamination

Jaw offset: <sup>3</sup>/<sub>16</sub> inch

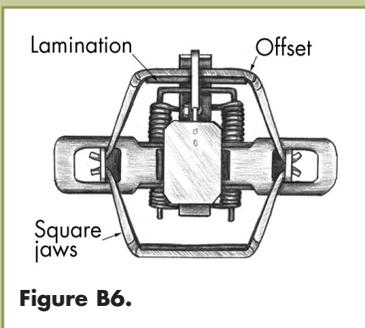
Main trap springs: Two 0.135 inch diameter wire coil-springs

Base plate: Reinforced, D-ring chain attachment

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 Oneida-Victor™ No. 1.75 coil-spring trap modified with offset, laminated jaws (lamination on top of jaws) (Figure B5).

#### Additional Information

- Chain attachment used in trap testing: 30 inch center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Selectivity features: Brass pan tension machine screw; pan tension set so two–four pounds of pressure triggered the trap, and was checked and readjusted as needed after every capture.
- Special considerations for practicality: This device also meets BMP criteria for bobcats, gray fox, red fox, Eastern coyote and Western coyote.



#### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 5 <sup>1</sup>/<sub>2</sub> inches

Inside jaw spread (between below-jaw lamination): 5 inches

Inner width: 5 <sup>1</sup>/<sub>16</sub> inches

Inside width at jaw hinge posts: 5 <sup>9</sup>/<sub>16</sub> inches

Jaw width: <sup>7</sup>/<sub>16</sub> inch square jaw

Jaw thickness: <sup>3</sup>/<sub>16</sub> inch

Jaw thickness with lamination: <sup>7</sup>/<sub>16</sub> inches

Lamination: <sup>1</sup>/<sub>4</sub> inch below-jaw lamination

Jaw offset: <sup>3</sup>/<sub>16</sub> inch

Main trap springs: Two 0.145 inch diameter wire coil-springs

Additional springs: Two 0.110 inch diameter wire coil-springs

Base plate: Reinforced, D-ring chain attachment

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 Bridger™ No. 2 coil-spring trap with square jaw, modified with offset, laminated jaws (lamination on bottom of jaws), and four-coiled (Figure B6).

#### Additional Information

- Chain attachment used in trap testing: 30 inch center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Selectivity features: Brass pan tension machine screw; pan tension set so two to four pounds of pressure triggered the trap, and was checked and readjusted as needed after every capture.
- Special considerations for practicality: This device also meets BMP criteria for bobcats, red foxes, Eastern coyotes and Western coyotes.



#### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 5 <sup>13</sup>/<sub>16</sub> inches

Inner width: 5 <sup>7</sup>/<sub>16</sub> inches

Inside width at jaw hinge posts: 5 <sup>7</sup>/<sub>8</sub> inches

Jaw width: <sup>1</sup>/<sub>2</sub> inches smooth round jaw

Jaw thickness: <sup>3</sup>/<sub>8</sub> inches

Jaw offset: <sup>3</sup>/<sub>16</sub> inches

Main Trap Springs: Four 0.146 inch diameter wire coil-springs

Base Plate: Reinforced, D-ring chain attachment

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 Sterling™ MJ600 offset coil-spring trap, four-coiled (Figure B7).

#### Additional Information

- Chain attachment used in trap testing: 30 inch center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Special considerations for practicality: This device also meets BMP criteria for bobcats and Western coyotes.

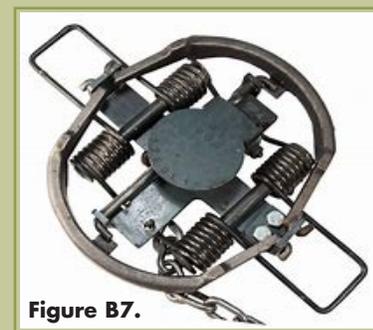


Figure B7.





Figure B8.



Figure B9.



Figure B10.

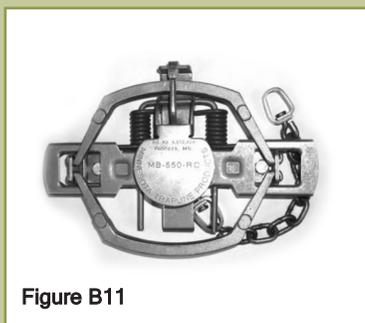


Figure B11



Figure B12..

### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 5 <sup>3</sup>/<sub>8</sub> inches  
 Inner width: 5 <sup>1</sup>/<sub>4</sub> inches  
 Inside width at jaw hinge posts: 5 <sup>5</sup>/<sub>16</sub> inches  
 Jaw width: <sup>9</sup>/<sub>16</sub> inch  
 Jaw thickness: <sup>3</sup>/<sub>16</sub> inch  
 Jaw thickness with lamination: <sup>3</sup>/<sub>8</sub> inch  
 Lamination: <sup>3</sup>/<sub>16</sub> inch above-jaw lamination  
 Jaw offset: <sup>1</sup>/<sub>4</sub> inch  
 Main trap springs: Four 0.125 inch diameter wire coil-springs  
 Base plate: Reinforced, D-ring chain attachment

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 KB Compound 5.5™ coil-spring trap modified with offset, laminated jaws (lamination on top of jaws) (Figures B8-B10).

### Additional Information

- Chain attachment used in trap testing; 11 inch chain mounted at either end of compound levers on trap base, two swivels, and anchored with a stake.
- Unique features: Compound levers attached to the underside of trap base act as a shock spring. When extended (due to captured animal lunging or pulling), the compound levers also increase tension on trap jaws (Figure B9).
- Selectivity features: Pan tension set so two to four pounds of pressure triggered the trap, and was checked and readjusted as needed after capture.
- Special considerations for practicality: This device also meets BMP criteria for Eastern coyotes and Western coyotes.



### Average Mechanical Description and Attributes

Inside jaw spread (at dog): 4 <sup>3</sup>/<sub>4</sub> inches  
 Inner width: 5 <sup>7</sup>/<sub>8</sub> inches  
 Inside width at jaw hinge posts: 6 <sup>1</sup>/<sub>4</sub> inches  
 Jaw width: <sup>1</sup>/<sub>2</sub> inch wide, smooth jaw  
 Jaw thickness: <sup>3</sup>/<sub>8</sub> inch  
 Jaw offset: <sup>3</sup>/<sub>16</sub> inch  
 Main trap springs: Two 0.145 inch diameter wire coil-springs  
 Base plate: Reinforced, D-ring chain attachment

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 MB 550-RC™ coil-spring trap with offset jaws (Figures B11-B12).

### Additional Information

- Chain attachment used in trap testing; 18 inch chain center-mounted with three swivels, one in-line shock spring, and anchored with a stake.
- Selectivity features: Pan tension set so ~3.2 pounds of pressure triggered the trap
- Special considerations for practicality: This device also meets BMP criteria for bobcat, Eastern coyotes and Western coyotes.



#### *Average Mechanical Description and Attributes*

Inside jaw spread (at dog): 5 <sup>3</sup>/<sub>4</sub> inches

Inner width: 5 <sup>5</sup>/<sub>16</sub> inches

Inner width at jaw hinge posts: 5 <sup>13</sup>/<sub>16</sub> inches

Jaw width: <sup>1</sup>/<sub>2</sub> inch

Jaw thickness: <sup>3</sup>/<sub>8</sub> inch

Jaw offset: <sup>1</sup>/<sub>4</sub> inch

Main trap springs: Four 0.148 inch wire-diameter springs

Base plate: Reinforced with D-ring

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 pp. 4-6) needs to be considered as well. The trap tested was the Minnesota Brand MB650™ offset coil-spring, four-coiled (Figure B13).

#### *Additional Information*

- Chain attachment used in trap testing: 18 inch center-mounted with three swivels, one shock spring, and anchored with a stake.
- Selectivity features: Brass pan tension machine screw; pan tension set so two pounds of pressure triggered the trap, and checked and readjusted as needed after every capture.
- Special considerations for practicality: This device also meets BMP criteria for Western coyote and gray wolf.



**Figure B13.** Offset and wide jaw coil-spring trap (open)

