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BOBCATS

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BOBCATS

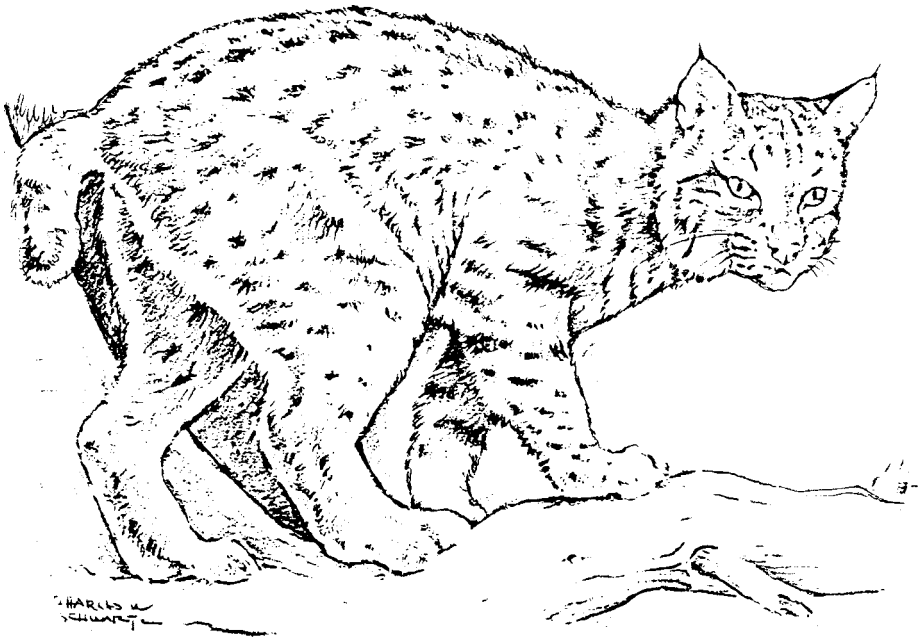


Fig. 1. Bobcat, *Lynx rufus*

Damage Prevention and Control Methods

Exclusion

Fence poultry and other small livestock located near human residence.

Cultural Methods

Clear brush and timber in and around farmsteads and between large expanses of bobcat habitat and farmsteads.

Frightening

Place flashing white lights, loud music, or dogs with livestock.

Repellents

None are registered.

Fumigants

None are registered.

Toxicants

None are registered.

Trapping

Fur trappers may be willing to trap and remove bobcats year-round in problem situations in exchange for trapping rights when pelts are prime.

Steel leghold traps (No. 2, preferably No. 3 offset or No. 4 offset or padded).

Cage traps, 15 x 15 x 40 inches (38 x 38 x 100 cm) up to 24 x 24 x 48 inches (60 x 60 x 120 cm).

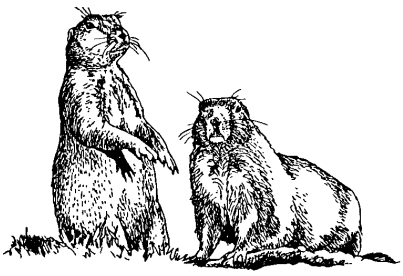
Large body-gripping traps (Victor® No. 330 Conibear®) in "cubby" sets.

Kill snares (1/16- or 5/64-inch steel [0.15- or 0.2-cm] cable, 6 to 8 feet [1.9 to 2.5 m] long).

Live snares (3/32-inch [0.25-cm] steel cable, 6 to 8 feet [1.9 to 2.6 m] long) with protective clothing and equipment.

Shooting

Predator calls, experienced trail hounds, and centerfire rifles.



PREVENTION AND CONTROL OF WILDLIFE DAMAGE — 1994

Cooperative Extension Division
Institute of Agriculture and Natural Resources
University of Nebraska - Lincoln

United States Department of Agriculture
Animal and Plant Health Inspection Service
Animal Damage Control

Great Plains Agricultural Council
Wildlife Committee

Identification

The bobcat (*Lynx rufus*), alias "wildcat," is a medium-sized member of the North American cat family. It can be distinguished at a distance by its graceful catlike movements, short (4- to 6-inches [10- to 15-cm]) "bobbed" tail, and round face and pointed ears (Fig. 1). Visible at close distances are black hair at the tip of the tail and prominent white dots on the upper side of the ears.

Body hair color varies, but the animal's sides and flanks are usually brownish black or reddish brown with either distinct or faint black spots. The back is commonly brownish yellow with a dark line down the middle. The chest and outside of the legs are covered with brownish to light gray fur with black spots or bars. Bobcats living at high elevations and in northern states and Canada have relatively long hair. In southern states, bobcats may have a yellowish or reddish cast on their backs and necks.

Similar Species. The bobcat is two to three times the size of the domestic cat and appears more muscular and fuller in the body. Also, the bobcat's hind legs are proportionately longer to its front legs than those of the domestic cat.

The Canada lynx appears more slender and has proportionately larger feet than the bobcat. At close distances, the ear tufts of the lynx can be seen. The tail of the lynx appears shorter than the bobcat's and its tip looks like it was dipped in black paint. The bobcat's tail is whitish below the tip. Lynx commonly occur in Canada's coniferous forests and, rarely, in the Rocky Mountains. Where both species occur, lynx occupy the more densely forested habitats with heavy snow cover.

Male bobcats tend to be larger than females. Adult males range from 32 to 40 inches (80 to 102 cm) long and weigh from 14 to 40 pounds (6 to 18 kg) or more. Bobcats in Wyoming average between 20 and 30 pounds (9 and 14 kg). Nationwide, adult females range from 28 to 32 inches (71 to 81 cm) long and weigh from 9 to 33 pounds (4 to 15 kg). Records indicate a tendency for heavier bobcats in the northern portions of their range and in western states at medium altitudes.

The skull has 28 teeth. Milk teeth are replaced by permanent teeth when kittens are 4 to 6 months old. Females have 6 mammae.

Range and Habitat

The bobcat occurs in a wide variety of habitats from the Atlantic to the Pacific ocean and from Mexico to northern British Columbia (Fig. 2). It occurs in the 48 contiguous states.

The bobcat is as adapted to subtropical forests as it is to dense shrub and hardwood cover in temperate climates. Other habitats include chaparral, wooded streams, river bottoms, canyonlands, and coniferous forests to 9,000 feet (2,743 m). Bobcats prefer areas where these native habitat types are interspersed with agriculture and escape cover (rocky outcrops) close by. The bobcat has thrived where agriculture is interspersed through the above native habitat types, as in southern Canada.

Food Habits

Bobcats are capable of hunting and killing prey that range from the size of a mouse to that of a deer. Rabbits, tree squirrels, ground squirrels, woodrats, porcupines, pocket gophers, and ground hogs comprise most of their diet. Opossums, raccoon, grouse, wild turkey, and other ground-nesting birds are also eaten. Occasionally, insects and reptiles can be part of the bobcat's diet. In Canada, the snowshoe hare is the bobcat's favorite fare. Bobcats occasionally kill livestock. They also resort to scavenging.

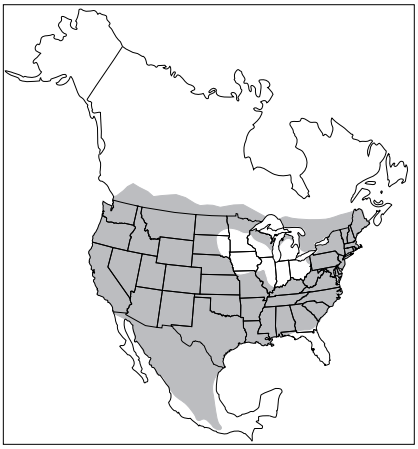


Fig. 2 Range of the bobcat in North America.

General Biology, Reproduction, and Behavior

Bobcats are secretive, shy, solitary, and seldom seen in the wild. They are active during the day but prefer twilight, dawn, or night hours. Bobcats tend to travel well-worn animal trails, logging roads, and other paths. They use their acute vision and hearing for locating enemies and prey.

Bobcats do not form lasting pair bonds. Mating can occur between most adult animals. In Wyoming, female bobcats reach sexual maturity within their first year but males are not sexually mature until their second year. Nationwide, breeding can occur from January to June. In Wyoming, breeding typically begins in February and the first estrus cycle in mid-March. The gestation period in bobcats ranges from 50 to 70 days, averaging 62 days.

Nationwide, young are born from March to July, with litters as late as October. The breeding season may be affected by latitude, altitude, and longitude, as well as by characteristics of each bobcat population. In Wyoming, births peak mid-May to mid-June and can occur as late as August or September. These late litters may be from recycling or late-cycling females, probably yearlings. In Utah, births may peak in April or May. In Arkansas, births may peak as early as March.

Bobcats weigh about 2/3 pound (300 g) at birth. Litters contain from 2 to 4 kittens. Kittens nurse for about 60 days and may accompany their mother through their first winter. Although young bobcats grow very quickly

during their first 6 months, males may not be fully grown until 1 1/2 years and females until 2 years of age. Bobcats may live for at least 12 years in the wild.

Bobcats reach densities of about 1 per 1/4 square mile (0.7 km^2) on some of the Gulf Coast islands of the southeastern United States. Densities vary from about 1 per 1/2 square mile (1.3 km^2) in the coastal plains to about 1 cat per 4 square miles (10.7 km^2) in portions of the Appalachian foothills. Mid-Atlantic and midwestern states usually have scarce populations of bobcats.

The social organization and home range of bobcats can vary with climate, habitat type, availability of food, and predators. Bobcats are typically territorial and will maintain the same territories throughout their lives. One study showed home ranges in south Texas to be as small as 5/8 square mile (1.0 km^2). Another study showed that individual bobcats in southeastern Idaho maintain home ranges from 2.5 square miles to 42.5 square miles (6.5 km^2 to 108 km^2) during a year. Females and yearlings with newly established territories tend to have smaller and more exclusive ranges than males. Females also tend to use all parts of their range more intensively than adult males.

Bobcats commonly move 1 to 4 miles (2 to 7 km^2) each day. One study found that bobcats in Wyoming moved from 3 to 7.5 miles (5 to 12 km) each day. Transient animals can move much greater distances; for example, a juvenile in one study moved 99 miles (158 km).

Adult bobcats are usually found separately except during the breeding season. Kittens may be seen with their mothers in late summer through winter. An Idaho study found adult bobcats and kittens in den sites during periods of extreme cold and snow. Females with kittens less than 4 months old generally avoid adult males because they kill kittens.

In Canada and the western United States, bobcat population levels tend to follow prey densities. Some biologists believe that coyote predation restricts bobcat numbers. Unfortunately, not enough is known about the relative importance of factors such as litter size, kitten survival, adult sex ratios, and survival rates to predict changes in local bobcat populations. Also, relatively low densities and variable trapping success hinder researchers from easily predicting changes in populations.

Since the late 1970s, state game agencies have been tagging bobcat pelts harvested in their states. Information from these pelts is being used to estimate bobcat population trends and factors that contribute to those changes.

Damage and Damage Identification

Bobcats are opportunistic predators, feeding on poultry, sheep, goats, house cats, small dogs, exotic birds and game animals, and, rarely, calves. Bobcats can easily kill domestic and wild turkeys, usually by climbing into their night roosts. In some areas, bobcats can prevent the successful introduction and establishment of wild turkeys or can deplete existing populations.

Bobcats leave a variety of sign. Bobcat tracks are about 2 to 3 inches (5 to 8 cm) in diameter and resemble those of a large house cat. Their walking stride length between tracks is about 7 inches (18 cm).

Carcasses of bobcat kills are often distinguishable from those of cougar, coyote, or fox. Bobcats leave claw marks on the backs or shoulders of adult deer or antelope. On large carcasses, bobcats usually open an area just behind the ribs and begin feeding on the viscera. Sometimes feeding starts at the neck, shoulders, or hindquarters. Bobcats and cougar leave clean-cut edges of tissue or bone while coyotes leave ragged edges where they feed.

Bobcats bite the skull, neck, or throat of small prey like lambs, kids, or fawns, and leave claw marks on their sides, back, and shoulders. A single bite to the throat, just behind the victim's jaws, leaves canine teeth marks 3/4 to 1 inch (2 to 2.5 cm) apart.

Carcasses that are rabbit-size or smaller may be entirely consumed at one feeding. Bobcats may return several times to feed on large carcasses.

Bobcats, like cougars, often attempt to cover unconsumed remains of kills by scratching leaves, dirt, or snow over them. Bobcats reach out about 15 inches (38 cm) in raking up debris to cover their kills, while cougars may reach out 24 inches (61 cm).

Bobcats also leave signs at den sites. Young kittens attempt to cover their feces at their dens. Females with young kittens may mark prominent points around den sites with their feces. Adult bobcats leave conspicuous feces along frequently traveled rocky ridges or other trails. These are sometimes used as territorial markings at boundaries.

Adult bobcats also mark trails or cave entrances with urine. This is sprayed on rocks, bushes, or snow banks. Bobcats may leave claw marks at urine or feces scent posts by scraping with their hind feet. These marks are 10 to 12 inches (25 to 30 cm) long by 1/2 inch (1.25 cm) wide.

Bobcats also occasionally squirt a pasty substance from their anal glands to mark areas. The color of this substance is white to light yellow in young bobcats but is darker in older bobcats.

Legal Status

Among midwestern states, the bobcat is protected in Iowa, Illinois, Indiana, Ohio, and in most counties of Kentucky. It is managed as a furbearer or game animal in the plains states. Western states generally exempt depredating bobcats from protected status. They can usually be killed by landowners or their agent. In the more eastern states and states where bobcats are totally protected, permits are required from the state wildlife agency to destroy bobcats. Consult with your state wildlife agency regarding local regulations and restrictions.

Damage Prevention and Control Methods

Exclusion

Use woven-wire enclosures to discourage bobcats from entering poultry and small animal pens at night. Bobcats can climb, so wooden fence posts or structures that give the bobcat footing may not be effective. Bobcats also have the ability to jump fences 6 feet (1.8 m) or more in height. Use woven wire overhead if necessary. Fences are seldom totally effective except in very small enclosures.

Cultural Methods

Bobcats prefer areas with sufficient brush, timber, rocks, and other cover, and normally do not move far from these areas. Keep brush cut or sprayed around ranches and farmsteads to eliminate routes of connecting vegetation from bobcat habitat to potential predation sites.

Frightening

Use night lighting with white flashing lights, or bright continuous lighting, to repel bobcats. You can also use blaring music, barking dogs, or changes in familiar structures to temporarily discourage bobcats.

Repellents, Fumigants, and Toxicants

No chemical repellents, fumigants, or toxicants are currently registered for bobcats. Commercial house cat repellents might be effective in some very unusual circumstances. A hindrance to development of toxicants is the bobcat's preference to feed on fresh kills.

Trapping

Bobcats are more easily trapped than are coyotes or foxes, but the bobcat's reclusiveness makes set locations difficult to find. When hunting, bobcats use their sense of smell less than coyotes do, so lures and baits are usually not effective. The bobcat's acute vision, hearing, and inquisitiveness however, can be capitalized upon. Even with the best sets, bobcats cannot be lured from their course of travel more than a few yards (m). The bobcat's use of dense cover for capturing rodents and rabbits can be used in capture techniques to guide the animal or even its footsteps.

In the past, the demand for bobcat pelts was moderately high due to fur values. This had encouraged late fall and winter harvest periods. Also, the bobcat's high fur quality attracts harvest for recreation or utility. If bobcat depredations are common over time, consider inviting a fur trapper to take bobcats during prime fur periods. Fewer bobcats may result in less competition for native foods and less depredation. Fur trappers may undertake the capture and relocation of bobcats during spring and summer months from areas where depredations are occurring in return for fur trapping rights during fall and winter months.

Many of the same sets used for foxes and coyotes will also catch bobcats. Few sets that target bobcats will catch other predators. Bobcats can be led by guide sticks or brush to dirt hole or flat sets where proper lures are used.

Leghold Traps. Steel leghold traps, Nos. 2, 3, and 4 are commonly used to capture bobcats. Trap size selection depends on the area and weather conditions. For coarse-textured sandy soils, use a No. 2 coilspring trap. Use a No. 3 trap for wet or fine-textured clay soils. Use No. 4 traps for frozen soils or in deep snow sets.

A bobcat is easy to hold, but sometimes more power and jaw spread is required than a No. 2 coilspring provides. The bobcat's foot may be too large for proper foot placement and a good catch. Guide sticks and stones can be used (Fig. 3).

Bobcats prefer fresh baits such as rabbit, muskrat, or poultry. Scattered bits of fur and feathers work well. Bobcats can be drawn to traps by "flags" hung from trees or rocks located near trap sets (Fig. 4). Suspend flags about 4 feet (1.3 m) above the ground with fine wire or string. A combination of stiff wire with string attached to its end prevents entangling in tree branches. Where animal parts are illegal, aluminum foil or jar lids or imitation fur can be used. Location is the key to trapping bobcats. If the location is not correct, no flags or baits will work.

A flag set uses a piece of fur or a couple of feathers suspended about 4 feet (120 cm) above ground with fine wire or string. Build a small mound of soil under the flag 1 foot (30 cm) high and 2 feet (60 cm) in diameter. Bobcats step onto these mounds to reach the flag. Bury steel leghold traps in the

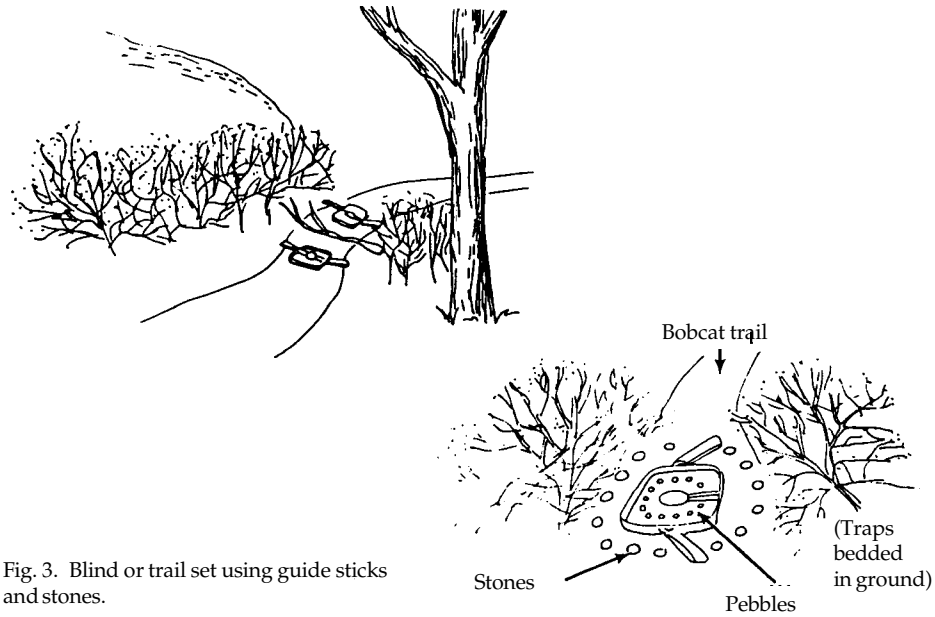


Fig. 3. Blind or trail set using guide sticks and stones.

mound. Steel leghold traps can also be used in other sets. See instructions in the **Mountain Lions** chapter.

Trash or mound sets take advantage of bobcats covering their scat and leftover food (Fig. 5). This set is very common. Pull up a pile of trash or litter over a large bait, to mimic bobcat behavior. A smaller mound can be made with urine poured over the trash. These sets are useful where exposed baits are illegal. Both sets should be used where backing such as rocks or trees are available. Place a steel leghold trap and guide sticks in front of trash pile sets.

Body-gripping Traps. Body-gripping traps are very effective killer traps for eliminating bobcats. These kill traps are spring-loaded. When the trigger is released, the trap closes on the animal in a scissors-like action. An example of this type of trap is the Victor® No. 330 Conibear®. This trap, and others like it, can be very dangerous to use, breaking arms, or killing large dogs if improperly set. Check local regulations to determine if they are legal to use in your area. For bobcats, set these traps in trails at the base of a cliff or in brush. Use bait or lures beyond the trap to entice the bobcat to walk through it. Strategic bait placement also keeps bobcats preoccupied.

These sets can be made in dense cover in trails, at the entrances to dens, or at gaps in fences or brush where bobcats travel. These traps can also be set in entrances to cubbies constructed to trap bobcats. Place an attractive bait at the rear of the cubby and place the kill trap so that the bobcat must go through it to reach the bait. See **Mountain Lions** for other sets made with body-gripping traps.

Specific instructions on trapping bobcats are found in Boddicker (1980). Extensive bobcat trapping methods can also be found in Weiland (1976), Young (1941), Johnson (1979), and Musgrave and Blair (1979). Check all local and state laws for using traps, snares, baits, or lures.

Wire Cage Traps. Very large cage traps, made of wire mesh or metal, when properly set, are effective. Commercial traps from 15 x 15 x 40 inches (38 x 38 x 100 cm) up to 24 x 24 x 48 inches (60 x 60 x 120 cm) are available. See the **Supplies and Materials** chapter.

Use brush or grass on the top and sides of the cage to give the appearance of a natural "cubby" or recess in a rock outcrop or brush. Traps should be set in the vicinity of depredations, travelways to and from bobcat cover,

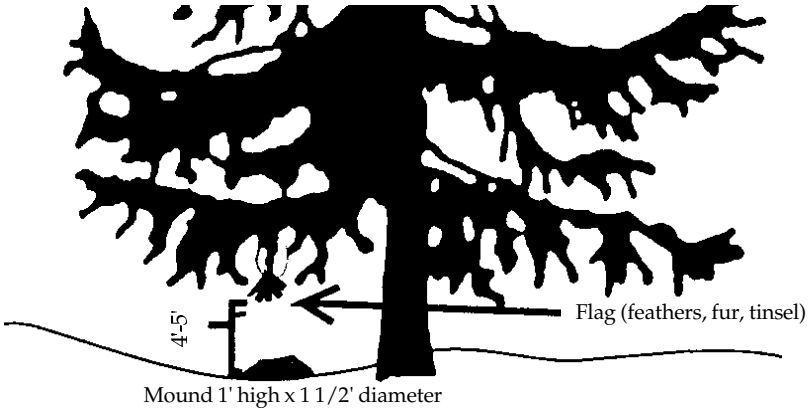


Fig. 4. Flag set made with a buried steel leghold trap in a mound.

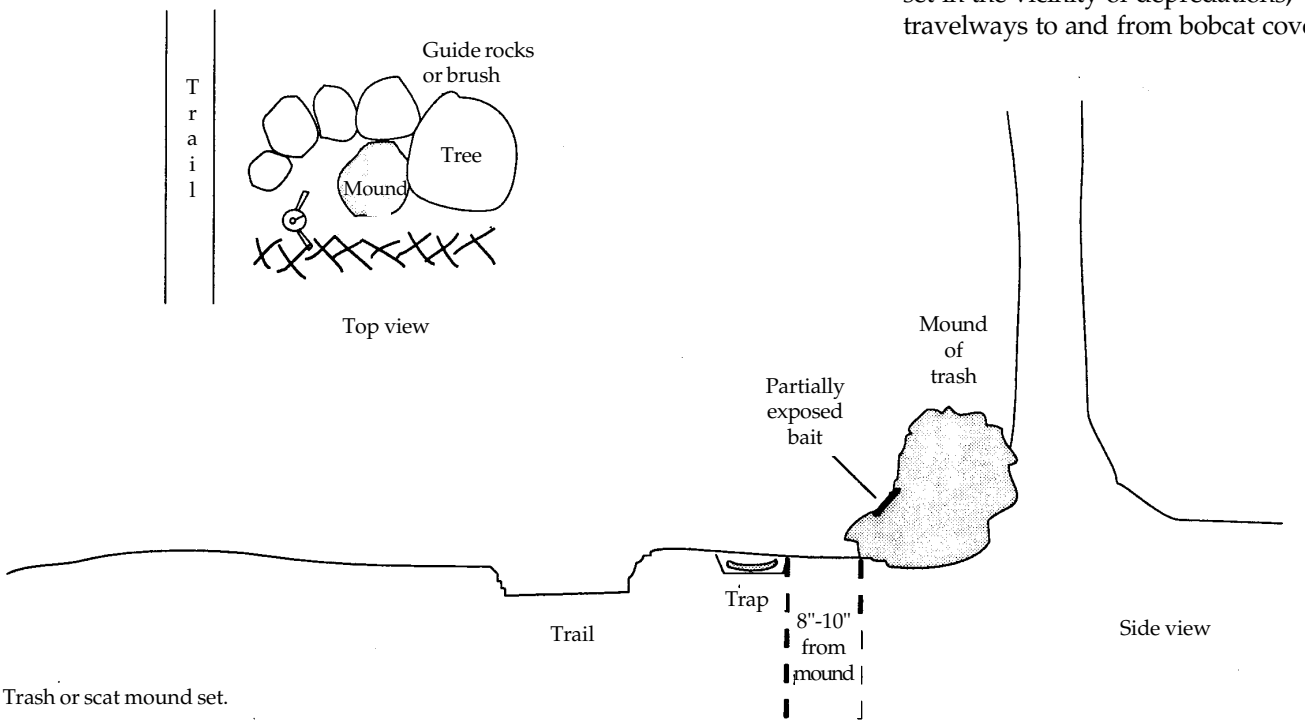


Fig. 5. Trash or scat mound set.

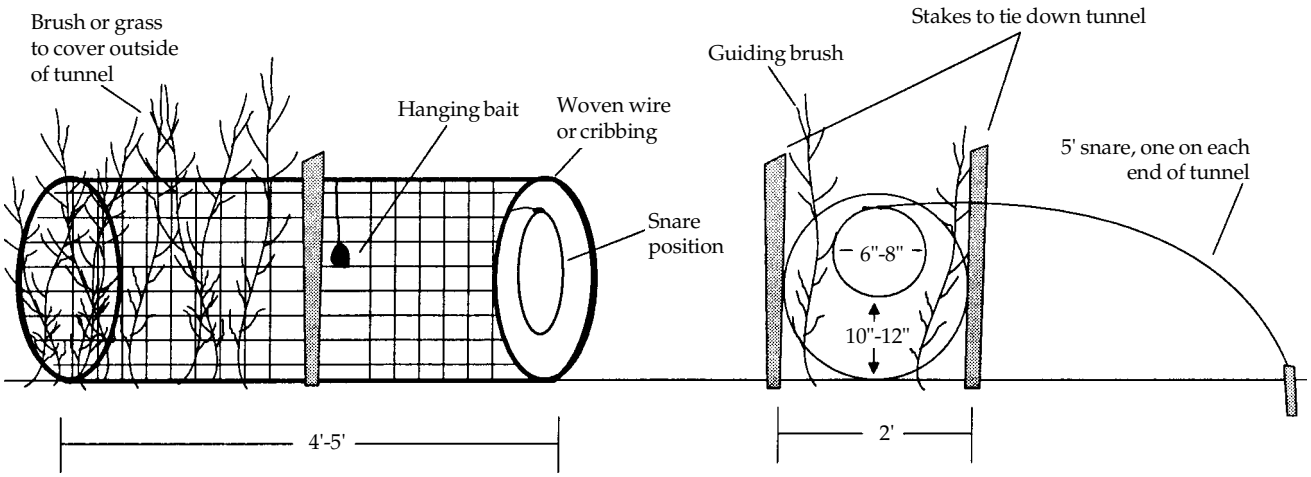


Fig. 6. Cubby set with snare.

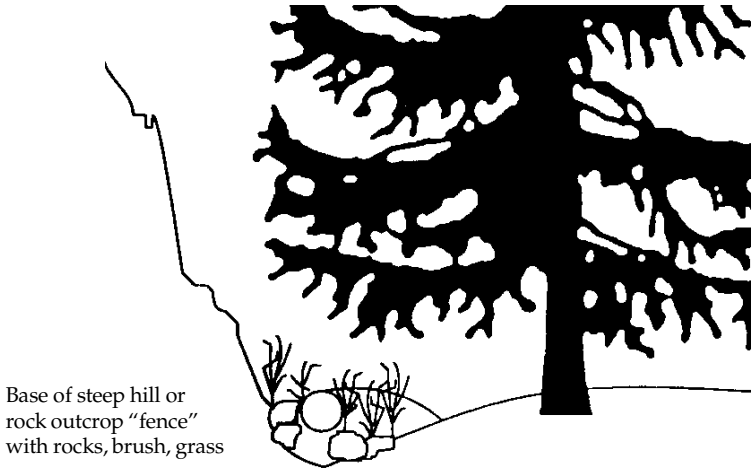


Fig. 7. Trail set with snare.

and around bobcat trails, dens, and hunting sites. Cover the cage bottom with soil. Bait the cage with poultry, rabbit, or muskrat carcasses, or live animals. Check local and state laws for restrictions.

Snares. Snares are very effective for bobcats but require expertise and caution. When properly set, a snare can be used to either kill or restrain a bobcat. Snares can be placed in the same locations and situations as body-gripping traps. They are particularly effective in cubby sets, bobcat runways, and den entrances (Fig. 6). Properly placed, snares offer the advantages of body-gripping traps without the danger to pets and nontarget wildlife.

Set snares in trails where bobcats are known to travel (Fig. 7). Baits and lures are usually not used with snares and may hinder success. Use camouflage only to break up some of the outline of the snare, preferably with native material, like grasses. Do not tie camouflage material to the loop of the snare. Spring-loaded snares work best. Put "memory" into the snare by placing tension on the inside of the lock against the cable with your finger as you close the snare once or twice. This prevents a bobcat from walking through a snare. Cables respond to the memory by closing easily.

Kill snares actually kill the captured bobcat and are most often used during the furbearer season or for animals for which relocation has failed (Fig. 8). They are best made from fine steel cable, 1/16 inch (0.15 cm) or 5/64 inch (0.2 cm) in diameter. Positive locks work well. Set kill snares with the bottom of the loop about 10 to 12 inches (25 to 30 cm) off the ground with a loop 6 to 8 inches (15 to 20 cm) in diameter. This loop must be set perpendicular to the trail.

Live snare sets capture and hold bobcats alive. They differ from kill snare sets by their cable size, locks, and entanglement precautions. Larger cables and relaxed locks on live snare sets can reduce injury if set properly. Relaxed locks tighten onto animals but relax as the animal stops struggling. This allows the animal to breath normally and regain composure.

Kill snares may be tied off to a 3-inch (7.5-cm) diameter tree or larger . To aid quick kills, hammer 2-foot (60-cm) stakes into the ground, leaving 6 to 8 inches (15 to 20 cm) aboveground. Kill-snare locks (Gregerson, Camlock, Thompson, Keflock) are in several of the supply catalogs listed in **Supplies and Materials.**

The live snare set (Fig. 9) requires more expertise than the kill snare set. Also, capture and transport of bobcats is very dangerous. Use 3/32-inch (0.25-cm) steel cable 6 to 8 feet (1.9 to 2.5 m) long. Use snares with high quality swivels located midway or closer to the loop. Stake live snares to the ground with steel stakes, hammered to just below ground level. Use loop sizes as in the kill snare set. Clear

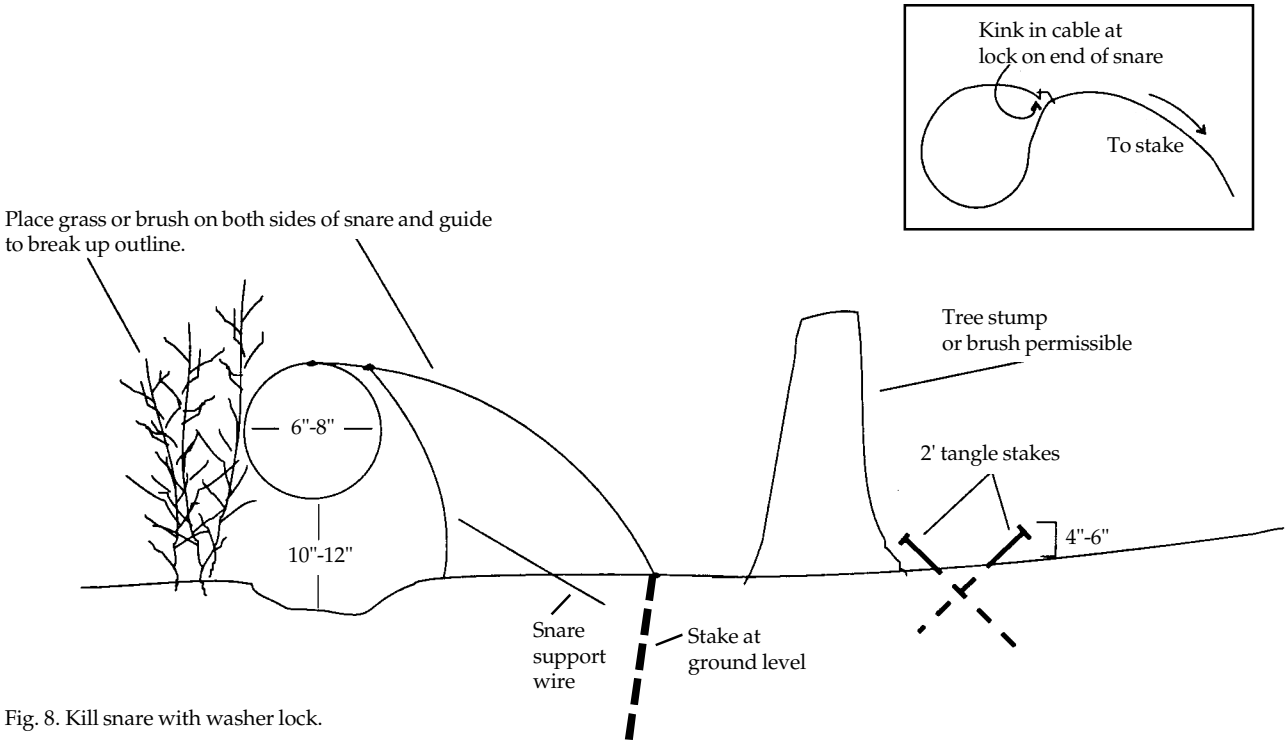


Fig. 8. Kill snare with washer lock.

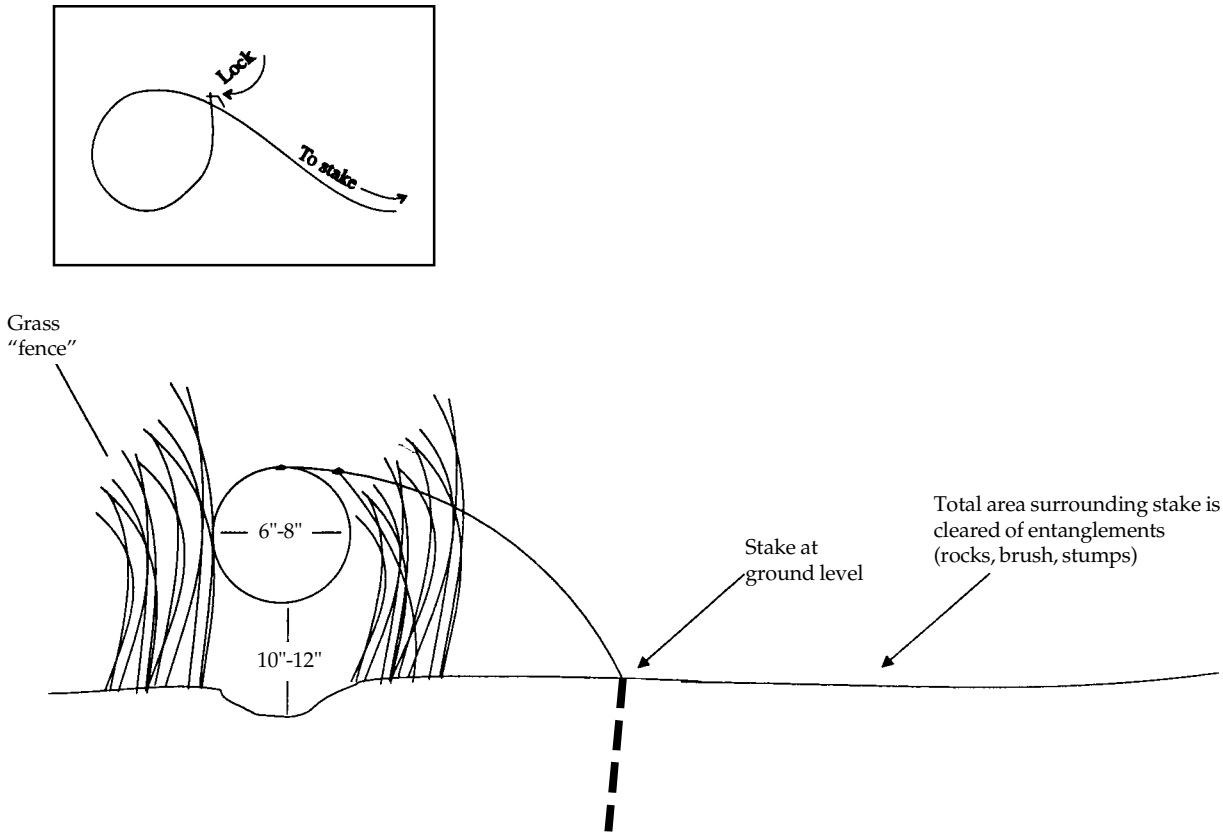


Fig. 9. Live snare with washer lock.

brush and other entanglements from the area.

Use extreme caution when releasing a snared animal. Catch poles with adjustable steel nooses, thick leather gloves or gauntlets, and other protective clothing are necessary. Immobilizing drugs such as ketamine hydrochloride should be accessible. Two people should handle captures; one at the neck and the other at the back feet to remove the snare. Cut a 1/2- x 4-inch (1.2- x 10-cm) slot from the bottom up toward the center of a 3- x 3-foot (1- x 1-m), 5/8-inch (1.6-cm) or larger piece of plywood. A handle should be attached at the upper end. Place the plywood between you and the snared animal and let the cable run through the slot as you approach, keeping the cable tight. Check live snare sets frequently to avoid unnecessary stress and loss of captured bobcats to predators, such as eagles, coyotes, and mountain lions. See **Supplies and Materials** for suppliers of bobcat snares. Always ask for expert advice before attempting live captures. Extensive instructions on snaring can be found in Grawe (1981) and Krause (1981).

Shooting

Bobcats respond to predator calls at night and can be shot. Use a red, blue, or amber lens with an 80,000- to 200,000-candlepower (lumen) spotlight to locate bobcats. Sources of predator calls are found in **Supplies and Materials.**

Dogs trained to track bobcats can be useful in removing problem animals. Bobcats can be shot after being treed.

Bobcats may develop a time pattern in their depredations on livestock or poultry. You can lie in wait and ambush the bobcat as it comes in for the kill. Rifles of .22 centerfire or larger, or shotguns with 1 1/4 ounces (35 g) or more of No. 2 or larger shot are recommended, since bobcats are rather large and require considerable killing power.

Economics of Damage and Control

Damage by bobcats is rather uncommon and statistics related to this damage are not well developed. In western states where data have been obtained, losses of sheep and goats have comprised less than 10% of all predation losses. Typical complaints of bobcat predation involve house cats and poultry allowed to roam at will in mountain subdivisions and ranches. Bobcats are taken by trappers and by hunters using hounds. The pelts are used for coats, trim, and accessories, the spotted belly fur being most valuable. Bobcat pelts are used for wall decorations and rugs. In recent years, North American bobcat harvests have produced about 25,000 pelts valued at $2.5 million annually. Aesthetically, the bobcat is a highly regarded carnivore. To many people the bobcat represents the essence of wildness in any habitat it occupies.

Acknowledgments

Thanks are due to Major Boddicker, who authored this chapter in the 1983 edition of this manual. The sections on identification, habitat, food habits, general biology, and economics were adapted from his work. Thanks also go to Bill Phillips, Arizona Game and Fish Department, and Chuck McCullough, Nebraska Game and Parks Commission, for their information.

Figure 1 from Schwartz and Schwartz (1981).

Figure 2 by Sheri Bordeaux.

Figures 3 through 6, 8 and 9 by Denny Hogeland, adapted by Sheri Bordeaux.

Figure 7 adapted from M. L. Boddicker, 1980.

For Additional Information

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