



Mountain Lion Trapping

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UNITED STATES GOVERNMENT PRINTING OFFICE - WASHINGTON - 1945

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MOUNTAIN LION TRAPPING

By STANLEY P. YOUNG, *Biologist, formerly of the Division of Predator and Rodent Control,¹ Fish and Wildlife Service*

THE AMERICAN MOUNTAIN LION (*Felis concolor*) is one of the largest predatory animals of the United States, sometimes weighing more than 200 pounds. Game conservationists recognize it as the greatest natural enemy of deer. Stockmen suffer heavy losses through its depredations, for when game is scarce the mountain lion attacks young domestic stock, particularly colts, lambs, and kids, and even full-grown horses and cattle. It is practically impossible to raise young colts or sheep on open stock ranges in the rough, rocky, and broken country that forms an ideal habitat for the mountain lion.

The range of the mountain lion, which is known also as cougar, panther, puma, and catamount, includes the large wilderness areas of the United States west of the one-hundredth meridian. The heaviest infestation is in the Rocky Mountain States and southward through the desert mountain ranges of Arizona, Texas, and New Mexico. Farther westward mountain lions are much less numerous, except in the coastal ranges of California, Oregon, and Washington, where they are somewhat plentiful.

For the protection of domestic livestock and of large game in certain areas it is necessary to keep mountain lions well under control. In spite of control measures, however, these predators will probably long continue to exist in the United States. There are many areas where normal hunting and the vicissitudes of the wild can be depended upon to keep their numbers within reasonable limits, but there are also great stretches of wilderness areas that probably will never be touched by any mountain-lion-control campaigns.

This leaflet, intended to help stockmen and game protectors in local control of mountain lions, is based on the experience of predatory-animal hunters of the Fish and Wildlife Service. A similar publication (Circular No. 1) discusses control measures for such smaller members of the wildcat family as the bobcat and the Canada lynx.

FOOD HABITS OF THE MOUNTAIN LION

Mountain lions find most of their prey near the rougher and more inaccessible canyons, and in such places they live and breed with least disturbance. One of the most striking things about these animals is the distance to which they will go for food. Many have been known to travel 25 miles or more in a night, apparently without resting for

¹ Now with the Division of Wildlife Research.

any appreciable length of time. Because of their remarkable endurance, hunting them requires stamina and strength. Fish and Wildlife Service hunters on the fresh track of a mountain lion have trailed the animal for 10 consecutive hours or longer before treeing it.

Like the bobcat, the mountain lion relies on its senses of smell and sight in much of its foraging. Its smell is keener than that of the bobcat, though less so than that of either wolf or coyote. It can see its prey from a long distance, but unquestionably it does much of its silent, cautious stalking by the sense of smell alone, taking advantage of every cover until within striking distance of its victim. Its sense of hearing also is acute.

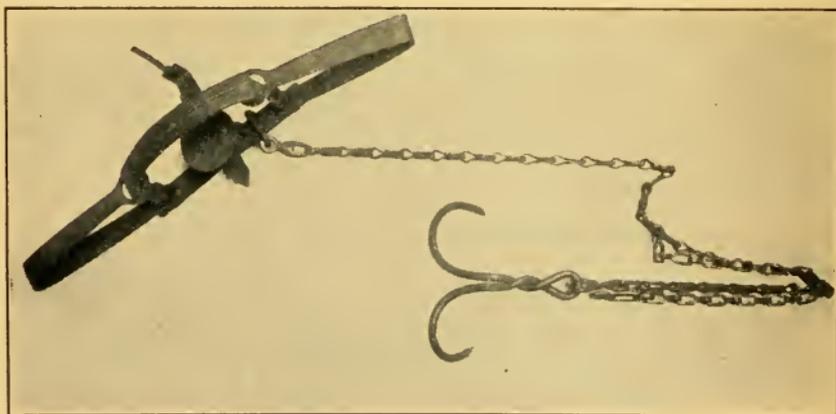
In making a kill, the mountain lion brings its victim to the ground with a stunning impact of its entire weight. It generally attacks at the throat and breast.

After making a kill and taking 1 meal, the mountain lion will sometimes, though not always, bury the remainder of the carcass under leaves or litter, to return later. Whether it will thus return depends to some extent on weather conditions and on its ability to find prey elsewhere. Its killing and feeding habits vary in other ways also. In one instance, a lone lion attacked a herd of ewes and killed 192 in 1 night. Frequently more than 1 mountain lion may feed on a single carcass. Near 1 cow carcass the writer once trapped 6 lions, of various sizes, evidently the parents and 2 litters of offspring.

The presence of a mountain lion on a range may be indicated by its kill of deer or other game, even though domestic stock may not have been disturbed. If a kill is made in fall or winter, the meat may remain fresh for many weeks.

CONTROL METHODS

Where the control of mountain lions is required, the principal means employed is the use of trained hounds. Kentucky fox hounds and a cross between the Walker hound and the bloodhound have been found most satisfactory for trailing mountain lions, though any good dog may tree one. The hunter must keep up with the pack, however, for a mountain lion that fights at bay instead of treeing may kill all the



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Figure 1.—Trap, No. 4½, most suitable for mountain lions, with drag chain and double-pronged drag attached.

dogs. When it chooses to fight, it uses teeth and claws, backed by powerful neck and shoulder muscles, in a telling way.

The use of poison in mountain lion control is not recommended. Hunting or trapping is more satisfactory, and it is unsafe to expose poison on ranges where hunting dogs are being used.

Under certain conditions mountain lions can easily be caught in traps of the size known as No. 4½ (fig. 1). Although some persons oppose the use of such traps as inhumane, no better or more practicable device is yet available.

WHERE TO SET TRAPS

The No. 4½ trap may be set on a known route of a mountain lion, preferably at a point where the route narrows. The animal is a great wanderer and generally has well-defined crossing places where it passes from one watershed to another in its search for food. Many of these are in the low saddles of divides, and at such crossings it is not uncommon to find "scratch hills," heaped up by the mountain lion in



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Figure 2.—Victim of mountain lion. A carcass found on its side, as illustrated, furnishes an excellent opportunity for making a carcass set of three or more traps, 15 to 20 inches from it.

covering its urine. The writer has seen as many as eight such hills in an area 4 feet square. They are sometimes 3 to 4 inches high and 4 to 6 inches in diameter. Frequently old or fresh feces may be noticed near them. These hills make ideal places for setting traps, but should be left in a natural condition.

The mountain lion is trapped as it comes through the saddle of the divide and stops to visit a scratch hill, being attracted either by the hill itself or by a catnip lure placed there as described on page 4.

When the carcass of a domestic animal, deer, or other prey found in a control area shows unmistakably that a mountain lion did the killing, at least three traps should be set around it, each 15 to 20 inches away. When the carcass is found lying on its side (fig. 2), one trap should be set, as later described, between the fore and hind legs, another near

the rump, and a third near the back and parallel with the loin. These traps constitute a carcass set and require no lure other than the carcass. Frequently it is well to set a fourth trap 6 to 8 feet away if tracks show the exact route taken by the lion in approaching or leaving the carcass.

CAUTION.—Trappers should take every precaution to safeguard livestock and valuable or harmless wild animals; and, where necessary, should post signs to warn human beings.

USE OF LURES

Traps set along a trail and near an obstruction meant to divert the mountain lion close to a scratch hill are only partly successful. The trapper may, however, take advantage of the mountain lion's keen sense of smell by dropping a few drops of oil of catnip in the center of the undisturbed scratch hill, as a lure.

Why catnip is so attractive to members of the cat family is not yet fully known. Experiments have indicated that it produces sexual excitation and also that it has a soothing effect on the nervous system, similar to that of opiates on man. In some of the larger circuses catnip has been used for years in gentling animals of the cat family. The use of catnip oil in this country to lure members of this family within trapping distance has been remarkably effective.

When pure catnip oil is obtainable, it should be used diluted with pure petrolatum in the proportion of 40 drops of the catnip oil to 2 ounces of petrolatum. Experiments to produce a catnip lure so placed that it would be effective over a long period were conducted by the Game Commission of British Columbia, and later the writer made similar experiments in the United States. Prepared as follows, it increases the effectiveness of trapping in mountain lion control:

The petrolatum-diluted catnip oil is smeared thinly over a piece of cotton batting about 8 inches square, which is then covered with another piece of the same size. The catnip-oil sandwich thus made is placed on an ordinary tin pie plate, brown in color, so that the bottom will be inconspicuous against the bark of a tree. A tree is blazed 2 or 3 feet from the ground to make the sap flow, the cut being made in the shape of the plate. The plate is spiked over the blaze, with the batting next to the tree so that the cotton will be kept moist by the sap. To prevent its being torn out by a bear, the plate should fit snugly into the cut, the lower edge flush with the bark. The bottom of the plate should be perforated with small holes made with a shingle nail, so that the scent will escape slowly. The plate should be shaded from the sun as much as possible.

Such scent stations should be placed on trees beside creeks along which mountain lions are known to travel, particularly near deer trails that lead to water. Probably the best places are on trees in narrow canyons, where the chances of successful trapping are greater because of the narrowness of the path along which the mountain lion must travel. The writer has known catnip pans to be visited by mountain lions in such places as long as 6 months after placement, and the game authorities in British Columbia report a lion's visit to a station 10 months old. After the scent station is made, traps should be set, as described later, near the base of the tree. The mountain lion, attracted by the catnip odor in the plate, steps into the trap when approaching the lure.

SETTING THE TRAPS

The hole for the trap set should be dug about 15 to 20 inches from a carcass, a single undisturbed scratch hill, or a tree on which a scent station has been placed, or directly in a trail where it narrows naturally or is made to narrow by rocks, brush, or other obstructions placed at the sides (fig. 3). The hole should be only a little larger than the trap, and just deep enough to hold the set at a level slightly lower than the surrounding ground, with the drag and chain buried beneath it. The drag, which should preferably be of $\frac{1}{2}$ -inch wrought

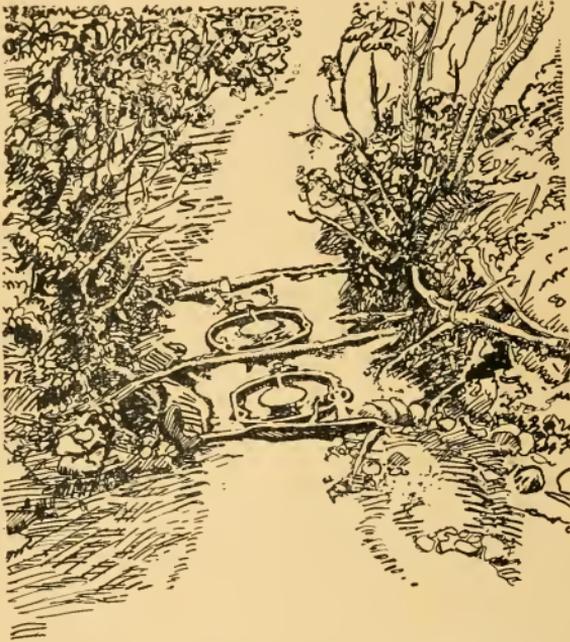


Figure 3.—A 2-trap "blind" set for mountain lions. In the saddle of a divide the traps are placed in the trail where it narrows. A small stick or other obstruction should be put between the traps and one at either approach to make the lion step into one of the traps rather than between or over them.

iron, should be attached to one end of the chain by a figure-eight swivel, and it should end in two well curved prongs (fig. 1). Bedding the drag under the trap, of course, requires more excavation. The drag chain should be at least 8 feet long and attached to the base of the trap or to one of the springs.

At scratch hills it is well to place a trap on either side, the springs at right angles to the known direction of approach. In a trail the traps should be in line, the springs at right angles to the direction of travel. Experiments have shown that most of the larger predators, and particularly the mountain lion, tend to avoid stepping directly on any hard object in a path. Knowing this tendency, the trapper may place a stick or a stone between the two traps and another at each approach; these will cause the animal to break its gait and step into one of the traps rather than over or between them. In approaching a scratch hill, a scent station, or a carcass where sets have been

made, or in passing over a blind set in the trail, the predator is usually caught by one of the forefeet, though it may step into a bedded trap with a hind foot. No scent is used at carcass or blind sets.

COVERING TRAPS

After the trap has been firmly bedded near an undisturbed scratch hill, scent station, or carcass, or in a trail, it should be covered with earth and the surroundings left in a condition as nearly natural as possible. Dry horse or cow manure, finely pulverized, may be used to cover the inside of the trap jaws. Extreme care should be taken to keep all dirt from under the trap pan and to see that the open space there is at least one-fourth inch deep. The trap pan should be covered with a pad made of canvas or old de-scented slicker cloth cut to fit snugly inside the jaws, and all should then be covered with finely pulverized earth, the immediate area being left looking as nearly as possible as it did before the trap was buried. Finishing such a task properly and thus leaving the ground over the trap in an apparently natural condition so that it blends with the surrounding area is an art that requires much practice.

TRAPS ACCIDENTALLY SPRUNG

When traps are set near carcasses, additional care should be taken to underpin the trap so that it will not spring under the weight of a magpie, buzzard, or other carnivorous bird that may be attracted to the carcass.

In forested areas a mountain lion hunter may find his traps sprung by small animals, for squirrels and other rodents (and sometimes small birds) may dig or scratch around and between the jaws of the trap. Unless the trap pan is properly supported, these animals are unnecessarily endangered, and in addition the trap is frequently sprung. This can be prevented by setting the trap pan so that it will carry a weight of several pounds.

One simple way of underpinning the trap is to place a small twig perpendicularly from the base snugly up to the middle point of the pan. Instead of the small twig, some hunters use a fine coiled steel spring. Such contrivances will permit the trap pan to carry the weight of the smaller mammals or birds without endangering them or releasing the trap jaws and thus spoiling a set well placed for a mountain lion. Devices adjusted to mountain lion traps to prevent their being sprung by small mammals and birds are illustrated in figure 4. The pan spring (fig. 4, *D*), developed by the Fish and Wildlife Service, can be readily attached to the No. 14 steel trap sometimes also used for trapping mountain lions. A slightly larger spring is required for the No. 4½ trap. A patent on this device has been granted and is dedicated to public use.

CARE IN DETAILS

In trapping, attention to simple details is necessary. Though the mountain lion trapper need not be so cautious about human scent as the trapper of wolves or coyotes, it is well, when placing a trap, for him to stand or kneel on a setting cloth, if for no other reason than convenience. This cloth may be about 3 feet square and made of

canvas, slicker-coat material, or the skin of a sheep or a calf. It will also help to avoid disturbing the ground about the trap set. Excavated soil may be placed on it, and that not needed in completing the work can thus be easily removed. In addition, at the completion of a set, the trapping equipment can be rolled up in it and carried away.

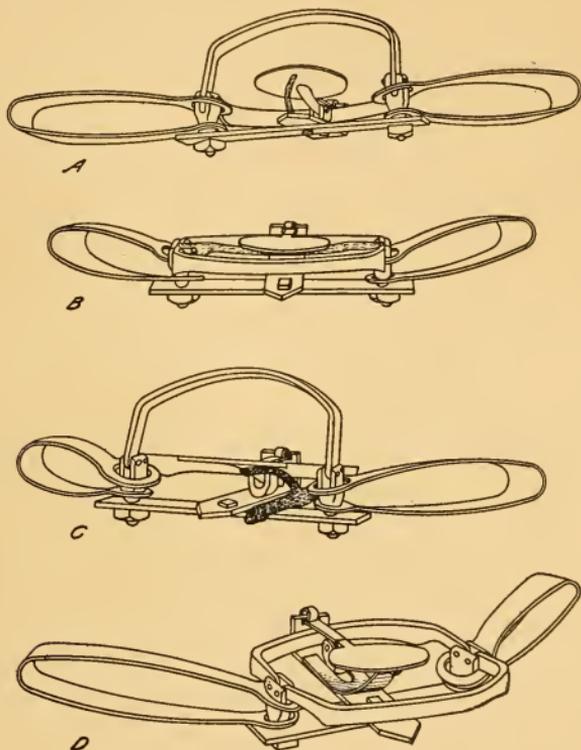


Figure 4.—Devices to prevent capturing small animals and birds in traps set for mountain lions or other predators: A, Pan supported by twig (grass or a light coil spring may be used); B, splint support; C, forked-twig support; D, Fish and Wildlife Service pan spring.

Minor trapping details include removing rust from traps, boiling them in water to eliminate the conspicuous fresh odors noticed when they come from the manufacturer, carefully repairing traps with faulty springs, taking care that the trap pan moves freely on its post, and seeing that the jaws are adjusted to close snugly and rapidly.



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