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METHODS OF CONTROLLING COYOTES, BOBCATS, AND FOXES

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In reviewing methods of predator control, it would first seem appropriate to define what is meant "by "methods" and what is meant by "control." Taking the last term first, control, as applied to the predatory coyotes, bobcats, and foxes, may be defined as regulating the numbers of these animals to the point where the economic losses for which they are responsible will be reduced to a practicable minimum. In some situations, area control, i.e., limiting the numbers of the offending predator over wide areas, may be necessary for satisfactory reduction of economic losses; in other situations, spot control or localized reduction of numbers of a certain predator may be called for; in still other situations, elimination of an individual animal may be all the control that is needed. In no sense is control, as applied to coyotes, bobcats, and foxes, intended to mean extermination of a species.

The term "methods" is interpreted as meaning the procedures employed against coyotes, bobcats, and foxes, and not the broader systems of predator control such as the paid hunter system, the extension system, or the much-discredited bounty system. For an excellent review of the systems of predator control, see Latham (1).

The procedures to be applied in solving a particular damage problem involving coyotes, bobcats, or foxes will depend upon the situation and the predator involved. Since coyotes generally are the most destructive of the three animals, and are subject to the most control, methods will be discussed under this heading with the necessary deviations pointed out for bobcats and foxes.

COYOTE CONTROL METHODS

Coyotes (Canis latrans) range throughout the central and western portions of the North American continent from northern Alaska to tropical Costa Rica and, in recent years, even into the eastern United States (8). In this vast area, these animals may be found anywhere from the remotest regions to within the city limits of such metropolitan centers as Denver, Portland (Oregon), and Los Angeles.

Because of the many conditions under which coyotes may be a problem, a variety of control procedures is needed. A first solution to any animal damage problem is exemplified by this humorous, fictitious report from one of our Bureau's Mammal Control Agents in Arizona to his boss (3):

> Thought you might be interested in the way I handled a request for our services by a man who has been losing sheep to a coyote. The cooperator and I went out to the place where the damage had occurred and he said, "Here is where the coyote has been jumping the fence, and I have four thousand sheep in this field and for the past five nights the coyote has been slaughtering between ten and

fifteen sheep a night and besides that, he caused the rest of the flock to stampede into the fence, knocking it down, and then they ran over our tents, breaking all of the dishes and equipment. There are at least a hundred sheep scattered over the desert that I may never find . . . and worst of all, they smashed our coffeepot and we can't make any more coffee."

Well, right away I thought I'd better say something intelligent so he would know that I knew my business .... So with a thoughtful look on my face, I said, "Mister, you have a problem . . . ." Now that I had gained his confidence, I told him that I heard his cook mention that they were having lamb chops for dinner so I suggested that we eat and while eating I could decide what course of action we should follow.

After a delicious meal (had three helpings of everything but didn't like the paper plates and kool aid), here is what I suggested. I said, "Now look Mister, you're a taxpayer so I'll let you decide for yourself. I could try to catch this coyote but it would probably take a couple of days and I forgot to bring a clean pair of socks with me so I would have to drive home and back, using a lot of gas and causing a great deal of wear and tear on the government truck. Then if I camp out, it will cost Uncle Sam four dollars a day besides my wages. Also, there is a chance that I could lose a trap or some other equipment or be injured, which would be additional expenses plus the cost of sending another man in to pick up my equipment. There is also a chance that we could

accidentally kill a valuable dog and then you and I would both be in trouble. My bowling team bowls every Thursday night and if I stay to catch the coyote I will miss that and a chance to win a free case of beer. It's possible that I may never catch the coyote if I try. For me to try to catch the coyote is one solution. The other is for you to move your sheep away from the coyote."

Last time I saw the cooperator at his new location, he said he hadn't lost a sheep since I handled his problem . . . .

In those situations where we cannot move the sheep--and I might add there are few locations nowadays where the land can be turned back to the coyotes--other control procedures are in order.

TRAPPING

Despite the many advances in pest control in recent years, the agelong method of trapping is still the most widely used procedure for the control of coyotes and other predatory animals. Furthermore, the steel, leg-hold device, which has dominated the field for some 300 years, is still the most effective trap.

As a big reason for its continued popularity as a coyote control method, trapping is one of the best ways of taking troublesome animals which may have become "educated" to control procedures. With most other methods, the coyote must not only be aware of the implement or material being used, but must react in a certain way to it; the trap works successfully against such animals because they are unaware of its presence. As a further advantage, animals are captured alive so that beneficial ones accidentally taken can be released.

The major disadvantages of using traps are the time and attention necessary for their operation; their inefficiency during periods of wet and freezing weather; and the fact that, in certain habitats, many other animals may be unintentionally trapped.

The No. 3 trap with offset jaws is recommended for coyotes. Sets containing either one or two traps should be made at locations where the animals are accustomed to stopping along their travelways; the sets generally should be a mile or more apart, but may be spaced closer in areas of high coyote density or where depredations are occurring. Coyotes generally follow stock or game trails, canyons, dry washes, low saddles on watershed divides, old roads, and even highways in thinly settled areas. Favored locations along these routes include "scent posts," old carcasses, and any spots such as rodent mounds where the coyotes may search for food. The trap should be placed so that the animal will pass reasonably close; as a rule, this should be within 5 feet of the travel route. Scents--either natural (passion) or fetid (decomposed meat or fish)--or other attractants should be used to draw the coyotes to the spot where the trap is located. It should be placed 8 to 16 inches from the attractant in the prevailing downwind direction. In making a set, the trap with open jaws is placed in a shallow hole with the pan one-half inch below the ground level; the pan is covered with a pad, generally of canvas, which prevents dirt from getting underneath and restricting its action; the trap and pad then are covered lightly with dry, fine soil, and the ground is smoothed to blend with the surroundings (2, 5).

These variations of the basic set may have advantages in certain situations:

Meat-bait sets are those in which a piece of meat, covered with 1 to 2 inches of soil, is used as the attractant in place of fetid or natural scent.

Chopped-meat sets are made by scattering such foods as small pieces of meat or pork cracklings over the trap and around it for a radius of 3 feet.

Dirt-pile sets operate on the principle that coyotes will investigate a ground disturbance. A conspicuous mound of freshly dug earth, 6 to 8 inches high, should be piled directly behind the trap, with scent placed on the near side of the mound.

Mound sets are those in which the primary attractant is an unused mound raised by a burrowing rodent. The carcass of a rodent or a piece of its skin partially covered with dirt inside the hole makes an effective lure.

Trail sets, in which traps are concealed in the center of a trail and no scents or baits are used, work well in such locations as canyons or passes where coyotes regularly cross certain spots.

Open-water sets may be employed in those situations where coyotes are crossing streams or can be induced to do so through the use of baits. The traps should be attached to drags, set in shallow water as in a trail set, and covered with moss or leaves.

Snow sets may be effective where coyotes are using snow trails. The trap bed first should be made firm by packing the snow; the trap then

should be placed on paraffin paper with another piece being used as the pad. Finally, the trap and pad should be covered with snow by brushing gently with a small bough or a bunch of grass.

SNARES

Snares can be successfully used in coyote control, and have the advantages of being light, compact, and comparatively easy to set (2). However, they must be used with extreme care to avoid catching game animals and stock. The devices are illegal in some states, and laws governing their use must be observed.

To be satisfactory, a snare must be equipped with an automatic locking device which will tighten and hold its position. Snares are manufactured in various sizes for different animals; those contained in armed services survival kits have been successfully used against coyotes.

Snares have their greatest utility when trapping conditions are poor, such as during cold and snowy weather. Good locations include holes in fences or narrow, bushy trails being used by coyotes. A loop about 9 inches in diameter should be carefully suspended across the trail with the bottom of the snare some 12 inches from the ground; the device then should be anchored to a stake. Scents or meat baits may be used if additional attractants are needed (2).

COYOTE-GETTERS

The device commonly known as the "coyote-getter," which shoots sodium cyanide into the coyote's mouth when the animal picks up a bait,

has been widely used in control work during recent years. Its major advantages are its humaneness; simplicity of operation; selectivity with respect to killing other wildlife in most habitats; its effectiveness for coyotes in poor trapping weather; and the fact that it operates without frequent attention, thus adapting well to large-scale coyote-control operations. Its main disadvantages are the dangers of severely frightening or injuring people who accidentally discharge the device and its non-selectivity with respect to domestic dogs. Despite its many advantages, the dangers to people and dogs are so real that coyote-getters must be used prudently if at all in settled districts. With the encroachment of civilization into remote areas, the use of coyote-getters in their present form has to be restricted.

The device consists of a hollow metal stake closed at the bottom, a firing mechanism, a cartridge holder, and a .38 caliber cartridge containing sodium cyanide. In setting it, the stake is driven into the ground; the firing mechanism is attached to the top of the stake; and the cartridge holder containing the cartridge and covered with paraffined wool, cloth, or similar material to form the bait is attached to the top of the firing unit. A fetid food scent is smeared on top of the bait as an additional attractant. When the set is completed, the bait, about the size and shape of a man's thumb, is the only part of the device above ground. When the coyote grasps the bait and lifts, the cyanide is discharged into its mouth, resulting in the death of the animal in 30 to 60 seconds.

As with traps, coyote-getters should be set along the regular travelways of coyotes at such locations as intersections of old roads and trails, in low saddles or passes, in the mouths of canyons and draws, and on rocky points or knolls that are blown free of snow (2). Meat baits, either on the surface of the ground or buried lightly, make good decoys; at such locations, several getters may be used effectively. In choosing spots for sets, it is desirable whenever practicable to select locations with little cover 100 yards or more in all directions to facilitate recovery of the coyotes.

Because of the possible dangers to the operator and to the public, it is essential that coyote-getters be used with extreme care. The operator should wear gloves to protect his hands while attaching or removing the top with its live cartridge; at such times, he should be on the upwind side with his face away from the device. For the protection of others, warning signs should be posted at each coyote-getter set, and persons using such areas should be advised. Coyote-getters should not be placed on public lands while those lands are being used as recreational areas by the public.

DENNING

Coyotes may be particularly destructive in the spring while their pups are in dens, as they are then feeding their young as well as themselves. Den-hunting, therefore, can be an important control procedure (2, *h)*. The method is selective for coyotes; and, if appropriate efforts are made to take the adults, it is selective for those

animals that are causing damage. Often the best opportunities for taking such troublesome coyotes that have evaded other control methods is at the den site. However, if too much effort is put forth in taking the pups and not enough in killing the adults, the method can be time-consuming without lasting results. Furthermore, digging out coyote dens is one of the most hazardous phases of control work; hunters have been killed by cave-ins, which are a constant danger in the spring while the soil is wet.

Den-hunting is an art not quickly mastered by the novice. The successful and experienced den-hunter notes the locations of paired coyotes during late winter, as this will indicate likely denning areas. Later in the spring, frequent depredations in a certain locality, and the adult coyotes being seen regularly and heard howling nearby, are signs indicating a den.

The first two or three days following birth of the pups, the male coyote apparently brings food to the female; after that, the two animals hunt together, gradually enlarging their hunting area as the need for food increases. On leaving the den, they tend to hunt back and forth, and then take a straight course in returning with food. Tracking is the key to locating dens, and the experienced den-hunter recognizes meandering tracks as leading from the den and direct-line tracks as leading to it. The pattern resembles a wagon wheel, with the den as the hub and the outward and inward trails as the spokes; the trails are far apart at the extremes of the hunting area and converge near the den.

When the general location of the den is known, every effort should be made to take the adults as there is no other period of the year when their activities will be so confined. A dog often will decoy them within shooting distance, or as described later, they may be called through imitating the cry of a pup. If shooting fails, the adult coyotes may be trapped or taken with coyote-getters.

When the pups are to be taken from the den, procedures other than digging should be tried first. At times the pups may be called out by imitating a whining dog or by pushing food into the den and withdrawing it. If such methods fail, the den generally can be dug out with little difficulty; however, if digging is impracticable, or there is the remotest chance of a cave-in, the pups should be trapped or gassed in the den.

STILL-HUNTING

Still-hunting consists of walking slowly, or taking a stand, and watching for animals. The early morning and late evening are the best periods, as coyotes then are more apt to be moving. The hunter should move carefully, keep off skylines, and avoid making ground noises and vibrations. If possible, he should hunt with the wind in his face; next best is a crosswind; he should never hunt downwind. On quiet days, better results may be obtained by confining hunting to stands, blinds, game trails, or waterholes. The hunter will be most successful if he is equipped with a good rifle, preferably with telescope sight, and a 6- or 7-power binocular with a wide field of view (2).

CALLING

Calling, an art practiced by the Indians back in bow-and-arrow days, has been revived and refined in recent years until it is now a practicable method of control under many situations. The object is to imitate the cry of an animal fighting a death struggle with an attacker, with the result that wildlife foe and friend alike may converge on the spot either to eat or to assist the supposed victim. Thus, the cry of a coyote pup near its den may quickly bring the adult coyotes to within surprisingly easy shooting distance; or the dying screams of the young of a big-game animal may again attract coyotes--this time expecting food--and at times the anxious mother.

The gifted individual may produce such distress cries by mouth, but a variety of manufactured calls will serve the average hunter better. An effective mechanical call, and certainly the cheapest, is the plastic-encased squeaker from a child's doll or toy.

In calling coyotes, the hunter should take a stand where he can see a reasonable distance for shooting and yet be concealed or so positioned to blend in with his background. If a choice must be made, it is better to be in front of a bush, rock, or tree with good vision than to be behind the object with less chance of seeing approaching coyotes. After taking a comfortable sitting and shooting position, the hunter should make a series of calls lasting 15 to 30 seconds, followed by a pause of equal duration. This should be continued 10 to 20 minutes, with the interval between calls gradually being increased.

At all times a careful watch should be made for approaching animals. A good rifle is needed in open country, but a shotgun may be better in brushy terrain where coyotes and other predators often approach closely before being seen (2).

AERIAL HUNTING

Under favorable conditions, aerial hunting can be an effective supplementary method of predator control, especially in removing troublesome coyotes that have evaded other control measures. However, because of the dangers, the method should be left to the experts. For hunting, a high-powered, light, two-place plane with tandem seating is desirable. For shooting, a 12-gauge automatic shotgun, with not-to-exceed a 28-inch length barrel with full or modified choke, firing BB or 4B shot, has proven the most satisfactory weapon.

In aerial hunting, two men are required, one to pilot the plane and the other to do the shooting. They must operate as a team, with each being schooled in the safety practices necessary in carrying out his duties. Extremely low flying and maneuvering at low air speeds are necessary, which creates problems not encountered in ordinary flying. The pilot should plan each approach considering prevailing air and terrain conditions, so as to avoid dangerous situations and always have an open route ahead for regaining air speed and altitude. The gunner must be careful in handling the gun in the plane so as not to endanger the pilot or himself, and must avoid hitting a wing, strut, tire, or propeller in shooting at coyotes.

The best time for aerial hunting is in the winter when the ground is covered with snow, the deeper the better. Coyotes then can be tracked, are observed more easily from the air, and are handicapped in maneuvering. Although snow cover is desirable, it is not essential as effective hunting can be carried out over bare ground.

When a coyote is located, the pilot maneuvers the plane into position for an approach. The ideal approach is into the wind, with the plane, flying as low and as slowly as is safe, overtaking the coyote from the side; as the plane flies over the coyote, the gunner shoots from the open left window. If the shot is missed, the pilot regains air speed and altitude for another try. Landings should be held to a minimum, as this increases the hazards.

The airplane also can be used in locating coyote dens. The best period is after the pups are old enough to play outside the den, as their sign then is visible from the air. It is desirable for a ground crew with two-way radio contact to work with the planej the plane can hunt out areas where dens are suspected and report their locations to the ground crew (2).

POISONING

Under many conditions, poisoning is the most effective and economical means of controlling coyotes, but may become the cause of just criticism if improperly conducted (2). For this reason, it is essential that such operations be carried out under the supervision of a governmental agency.

Poison is especially suited for use during the winter on some of the remote stock ranges of the West, as it can then be employed with

minimum dangers to other wildlife. Poison or "lethal" stations generally are of two types: (1) "Drop-bait" in which strychnine tablets carried in small pieces of perishable fats are placed around unpoisoned decoy carcasses; and (2) "studded" or "impregnated" in which the lethal agent--most commonly Compound 1080 (sodium fluoroacetate)--is placed directly in the meat.

Regardless of the type of station used, certain precautions must be taken in handling toxic agents and the treated baits. These include storing and carrying the raw chemicals in labeled, locked containers; wearing respirators and protective clothing while working with toxic powders; washing hands before smoking or eating; placing stations away from human habitations for the protection of dogs; locating stations in the more open areas away from timber, lakes, or streams for the protection of furbearers; posting areas and sites where stations are exposed; and removing lethal baits and warning signs when the work is terminated.

In general, drop-bait and impregnated stations should be placed in the same types of locations, though some deviations may be necessary because of the characteristics of the poisons. As with traps and coyote-getters, lethal stations should be placed along the natural travelways of coyotes. Good spots in rough country are passes in a range of mountains, draws, ridges, or the tops of divides; in more level country, terrain will be less of a factor in determining the routes followed by coyotes, and more reliance must be placed in coyotes being attracted to the station by its odor.

Strychnine drop-bait stations may be useful where the recovery of coyote pelts is important; where other poisons may be undesirable; during short periods in warm climates where impregnated stations decompose too rapidly; where coyotes refuse to feed upon carcasses; and in unusual cases where distribution must be made from airplanes. Because the perishable drop-baits are disposed of naturally by melting and soaking into the ground in warm weather, they are the only coyote-control bait which should be considered for airplane distribution.

Gelatin strychnine tablets, prepared for use of official agencies by the Pocatello Supply Depot of the Bureau of Sport Fisheries and Wildlife, are best suited for use in drop-baits. These baits, into which the strychnine tablets are inserted, are about the size of a marble, and are commonly molded from lard covered with sugar; natural fats from a horse, burro, or sheep; or beef udder or suet. The baits are placed around a decoy carcass, and up to 200 yards away, preferably after coyotes have started to feed; in some instances it may be desirable to prebait with unpoisoned drop-baits.

Impregnated stations are especially suited for use during the winter in remote, uninhabited areas. This type of station will work effectively without frequent attention; in fact, absence of human sign makes it more acceptable to coyotes.

Stations containing 1080, as used by the Bureau of Sport Fisheries and Wildlife, are prepared by injecting 1080 water solution with a syringe into the carcass of a bait animal such as a sheep, horse, or burro. Pieces of the treated meat then are wired to objects such as

bushes or stakes at the station site; the amount of treated meat used at each location varies upward from 50 pounds according to the abundance of coyotes.

Compound 1080 is more toxic to members of the dog family than to most other creatures, and advantage is taken of this characteristic in using it for coyote control. Very small amounts are used in the preparation of baits--the ratio is 1.6 grams of 1080 per 100 pounds of meat. One to two ounces of this meat will kill a coyote, but much larger amounts are needed to fatally poison the more resistant creatures, including badgers (*Taxibea taxus*), raccoons (*Procyon lotor*), hawks (*Buteo spp.*, *Falco mexicanus*, and *Circus cyaneus*), and eagles (*Aquila chrysaetos*). In addition to this protection, other precautions are taken in placing stations. The baits are located only in spots where dangers to valuable furbearers are at a minimum, are used primarily during the winter when many creatures are in hibernation, and are placed at such widely scattered intervals (no more than one per township on the average) that few of the smaller animals would ever locate them. Being larger and ranging farther, relatively more coyotes than other meat eaters find the stations. It is intended that each of these precautions limits the dangers to other wildlife, and in combination they give such protection to other wild, meat eating mammals and birds that the 1080 station, in its place, is one of the most selective methods of coyote control.

FENCING

Fencing against coyotes has been tried for a long time in certain localities, but the method has not been widely used due to its limitations (8). The principle is to surround a livestock pasture with a coyote-proof fence high enough to prevent coyotes from jumping over and with an underground obstruction to prevent digging. Such a fence can be effective for small pastures near farm buildings, but is considerably less practicable on larger ranges because of construction costs and the fact that coyotes enter too often through climbing over the fence or digging under it, particularly at weak spots along creek beds and arroyos. The best that can be said for fencing larger pastures is that coyotes are deterred, making it somewhat easier to maintain such pastures coyote-free through use of other methods.

COURSING WITH DOGS

Chasing coyotes with "running hounds" of the greyhound, Russian wolfhound, and Scottish deerhound types has given striking results at times in the past, but is becoming increasingly less effective with settlement of the country (8). Fences that accompany settlement are barriers to horses or cars that may be used in following the dogs. The method generally is more of a sport than a coyote control measure.

BOBCAT CONTROL METHODS

The bobcat (*Lynx rufus*) occurs from southern Canada, through the United States, and southward into Mexico to the Rio Mescale, just below the 18th parallel. The animal is found in a variety of habitats

within this area, but seems to have an aversion to the higher mountains, as only occasionally is it found above 6,000 feet and apparently never above 12,000 feet (6, 7).

Bobcats prefer freshly killed prey to older carrion, and for this reason cannot be controlled with lethal stations or coyote-getters.

TRAPPING

Bobcats are easily trapped, with the best traps being sizes Nos. 2 and 3« As in coyote trapping, sets should be made in locations frequented by bobcats as evidenced by their tracks. Preferred locations are rocky ledges, washes, and canyons.

Although bobcats may be taken in any of the trap sets described for coyotes, the scent and trail sets are most effective. Natural bobcat scent posts, which may be identified by claw scratches and a small mound of dirt where the animal has covered its excrement, make good locations for traps, or such spots can be created artificially. Fetid scents made by decomposing fish or meat also may be used for bobcats. Traps should be placed 6 to 8 inches downwind from such scents.

A scent that has a special attraction to bobcats is oil of catnip, used at the rate of 35 drops of the pure oil to 2 ounces of petrolatum. A few drops of this mixture may be used, at times with remarkable success, in place of fetid or natural scents.

A third set not described for coyotes which works well on bobcats is the flag-set. The practice is to suspend a rabbit or a piece of

hide from the top of a 3- to 4-foot stake, with a trap being set at its base. Bobcats have keen eyesight and are attracted to the bait by its movement in the wind.

HUNTING WITH DOGS

An experienced hunter with a well-trained pack of dogs can account for many bobcats under favorable hunting conditions as in snow. Hounds used for chasing bobcats are more the trailers and bayers, such as the foxhound, and not the running type commonly used in chasing coyotes. Like the puma, the bobcat has a tendency to "tree" when the chase gets close, and then the baying of the hounds marks the location for the hunter. Thus there is less need for him to follow in close pursuit, with the result that fences and other obstructions are less of a handicap to the bobcat hunter than to the coyote hunter. Even so, he should keep as close as possible to the chase, as old tomcats that choose to fight rather than to tree can give dogs a terrific clawing.

FOX CONTROL METHODS

The fox most commonly involved in conflicts with man is the red fox (*Vulpes fulva*) which ranges over much of the North American continent from northern Alaska to the southern United States. The need for control, however, is confined mostly to the settled districts where the fox may become troublesome through preying on small game, poultry, and young lambs and pigs. Methods of control, therefore, are those that can be used safely in populated areas, which rules out poisoning and coyote-getters.

TRAPPING

Trapping is the most effective method of fox control. The techniques are much the same as for coyotes, except that a smaller trap, usually size No. 2, is used, and traps must be closer together because the fox has a more limited range than the coyote. On a long trapline with good set locations, fox traps are usually spaced about one-half mile apart, but may be more closely grouped in an area of high fox density or where heavy depredations are occurring. As with coyotes, the major difficulty in using steel traps against foxes is the effort required to obtain population control.

SNARING

Snares may be used advantageously where snow impedes trapping and foxes are using narrow trails. The method is hazardous to other wildlife and should be used only by skilled field men.

DENNING

Where tracking and cover conditions are favorable, denning may be locally effective. Probably more fox dens are found by accident than by design, however, and many of these are lost through the adults moving the pups after a visit by the hunter.

COURSING WITH HOUNDS

Pox hunting with hounds is a traditional sport, but its followers are too few and the method too time consuming to be considered an effective means of control.

DRIVES

Organized drives are conducted by several people lining up on all sides of a piece of land, generally a section, and driving to the center where the foxes that are surrounded are killed. Generally the coverage is too limited and the manpower requirement too great for effective results. The method is more of a sporting event than a control measure.

CALLING

The practice of calling and shooting foxes is increasing, particularly as a sport. Individual animals may be removed in this manner, but success falls off rapidly before a population is significantly reduced.

AERIAL HUNTING

Aerial hunting is legal in some states and illegal in others. Where practiced, success is dependent on open terrain and good snow cover. Aerial hunting can be effective, but is costly and is more of a local than a general control method.

SUMMARY

Trapping with steel, leg-hold traps is still the most widely used method of controlling coyotes, bobcats, and foxes. Although time consuming and relatively nonselective in some habitats, it is a method that can be used in populated areas and is one of the best ways of taking troublesome animals. Other methods or implements of

coyote control are coyote-getters, poisoning with Compound 1080 or strychnine, denning, still-hunting, calling, aerial hunting, snares, fencing, and coursing with dogs.

Coyote-getters and 1080-impregnated stations have been widely employed during recent years, but are not suitable for settled districts, Their use, therefore, must be restricted as the human population expands into the more remote areas. The same applies to strychnine drop-bait stations which have been used for a much longer period.

Coyotes are especially vulnerable during the spring while their pups are in dens. Den hunting at this time can be effective if efforts are made to take the adult coyotes along with the young.

Methods involving shooting which are adapted for use in settled districts are still-hunting, calling, and aerial hunting. Still-hunting has long been practiced, but calling and aerial hunting are recently-developed techniques that can be effective in some situations. They should be considered, however, only as supplemental control methods, and aerial hunting should be practiced only by experts.

Other less effective coyote control methods are snaring, fencing, and coursing with hounds.

Bobcats prefer freshly killed food to older carrion, and for this reason are rarely poisoned or taken with coyote-getters. The principle methods of bobcat control are trapping and chasing with hounds.

Problems with foxes are confined mostly to the settled districts, and therefore control methods must be those that can be used safely

in such situations. Trapping is best, with snaring, den-hunting, airplane-hunting, calling, coursing with hounds, and organized drives being useful locally or as supplemental methods.

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