



## Controlling Beaver Damage

Beavers (*Castor canadensis*) are the largest rodents in North America. Their range includes most of North America, from the northern parts of Canada and Alaska to northern Mexico. Beavers are aquatic rodents which live in rivers, streams, ponds, lakes or other wetland areas. In Texas, beavers are very abundant and it is not uncommon to find beavers in urban and suburban areas.

Beavers live in "lodges" built at the water's edge or farther out in the water (see Fig. 1). They usually enter and leave the lodge through an underwater entrance. However, not all beavers construct and live in traditional stick lodges. In some places, beavers will dig burrows in the steep banks along rivers, streams, lakes or ponds. Beavers use established trails when traveling to and from feeding areas. They usually swim in the same places along the pond bottom. These underwater paths soon develop into depressed or grooved areas called "runs," and are about a foot in width. Beavers also crawl in and out of the water at the same places, and after a period of time these areas develop into "slides" or smooth places at the water's edge. The presence of runs and slides is a sure sign that beavers inhabit an area.

Beavers feed on a variety of vegetation, but the cambium layer of "soft wood" trees is their principal diet. During the winter, beavers depend heavily on trees such as willow, cottonwood, sweetgum, pine, and most nut and fruit trees. During the summer, beavers eat herbaceous aquatic plants, feeding on the basal portion of semi-aquatic grasses, sedges, cattails, water lilies and trees. Beavers increase their tree cutting during the fall as they build up their caches of food for the winter months.

### Biology, Reproduction and Behavior

Adult weight: Average 40 to 45 pounds.

Total length: Approximately 3 1/2 feet.

Color: Uniform dark brown with lighter underparts.

Body: Stocky.

Tail: Large, flat and furred at the base.

Feet: Webbed hind feet.

Gestation period: About 128 days.

Litter size: One to four kits, average two to three.

Number of litters: Single litter usually born in April, May or June; some females may produce a second litter in August or September.

Life span: 10 years in the wild; 21 years in captivity.

Social structure: Established beaver colonies generally consist of four to ten related beavers. Young beavers are commonly dispersed from the colony shortly after they become sexually mature, at about 2 years of age.



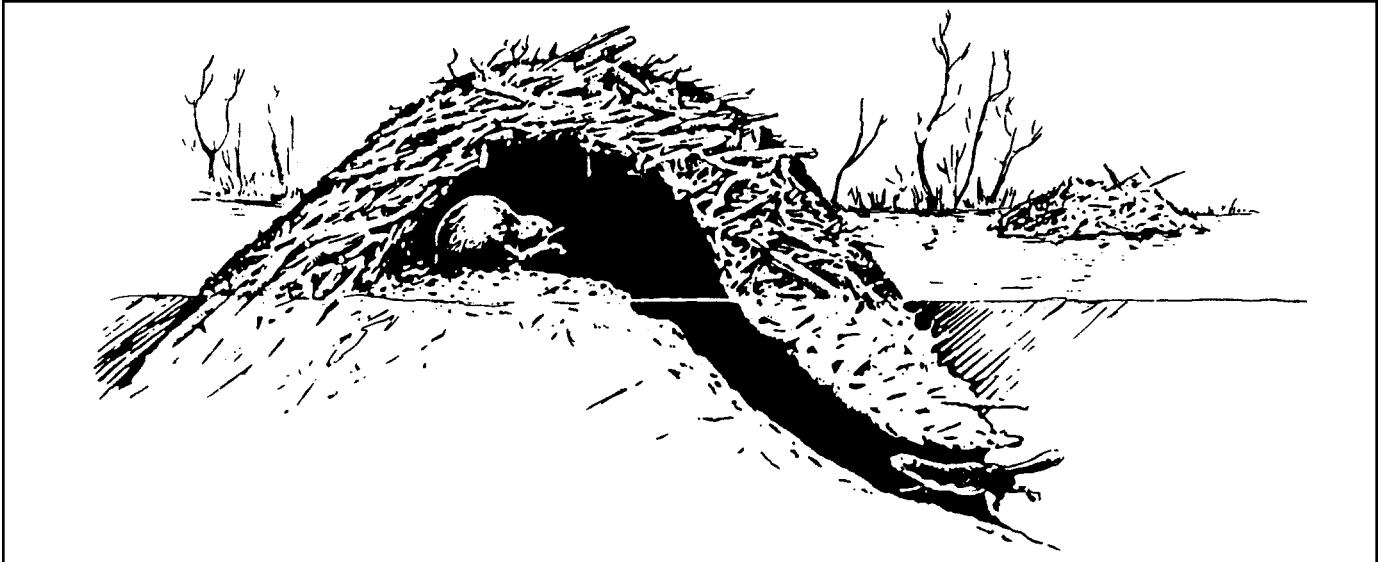


Figure 1. Cross section of a beaver lodge.

## Importance

Beaver dams stabilize creek flow, slow runoff and create ponds which benefit fish, furbearing animals and other wildlife. However, when a beaver's modification of the environment comes in conflict with man's objectives, the results may be more damaging than beneficial.

Beaver pelts from the northern and central parts of the United States are used extensively in the manufacture of ladies' coats and as a trimming for other fur or cloth coats. Beaver pelts also are used in making hats. Southern beaver pelts, however, are of little economic importance because of their low quality fur.

## Damage

Most of the damage caused by beavers is the result of bank burrowing, dam building, tree cutting or flooding. Levees or pond dams weakened by beaver burrows may collapse during periods of high water. If creeks, drainage ditches, culverts and spillways become blocked by beaver dams, adjacent pasture land, timberland and roadways can be damaged by flooding and erosion. Beavers can damage boat docks and fishing piers by building their lodges underneath them. Beavers also can cause extensive damage to agricultural crops such as corn or sugar cane, although their damage is more commonly inflicted on trees along rivers, streams and lakes. In urban areas, beavers damage fruit trees, gardens and ornamental trees and shrubs.

## Damage Prevention and Control

Beaver control is best accomplished as soon as there is evidence of beaver damage. Once beaver colonies become established over a large area, controlling them can be difficult and costly.

## Exclusion

Fencing of culverts, drain pipes or other structures can sometimes prevent damage; however, beavers often simply incorporate the fence into their dam. Fencing lakes and ponds to exclude beavers is generally not practical. Barriers of sheet metal or hardware cloth placed around the bases of valuable trees may help prevent damage. The barrier should extend from ground level to a height of about 4 feet.

## Trapping

A variety of traps and trapping methods is effective in controlling beavers. Live traps, leghold traps, conibear traps and snares can be used. The effectiveness of any trap is determined by a person's knowledge of beaver habits, as well as proper trap selection and placement.

## Live Traps

Live traps are rarely used for beaver control except in urban areas where other kinds of traps might endanger humans and pets. Live traps (such as the Bailey, Hancock or similar trap) should be placed in shallow water near a slide where the beavers are entering and leaving the water. A castor mound set will make the trap more effective. Castor mounds are small mounds of mud, leaves and twigs on which the beaver deposits its scent to mark its territory. Commercial castor scent can be purchased from trapping supply houses; or, trappers can make their own by collecting the castor glands from beavers previously trapped. After live traps have been set, they should be secured with wire to prevent the traps from being pushed or rolled into deeper water.

## Leghold Traps

Double long spring or coil spring traps should be at least number three size in jaw spread and strength. All leghold traps should be placed in a

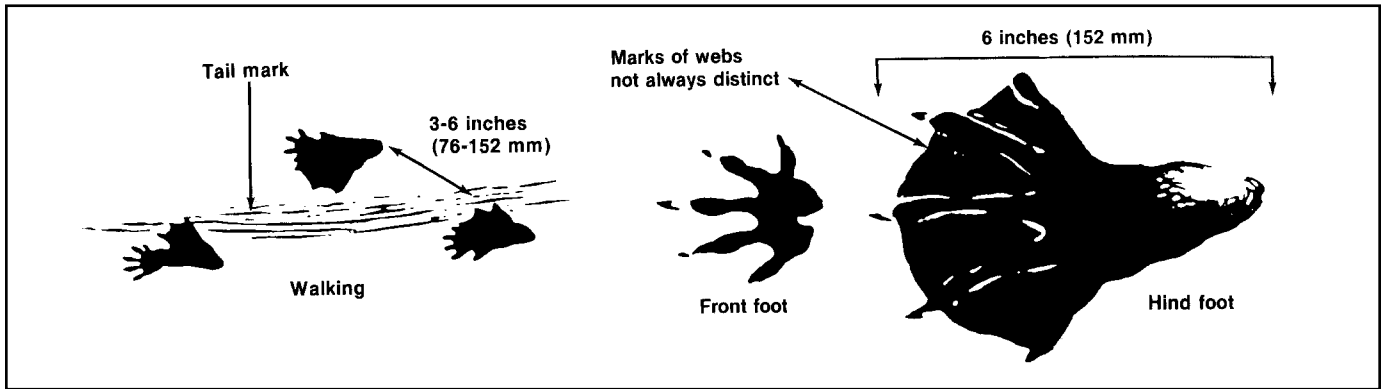


Figure 2. Beaver tracks.

drowning set (see Fig. 3), which allows the trapped beaver to swim to deeper water and locks to prevent it from surfacing for air. Leghold traps can be placed at beaver dams, on trails, at feeding areas, or slightly underwater at beaver slides. The trap should be just off the center of the trail or run to ensure that a foot is caught, and should be lightly covered with leaves or mud. Traps can be baited with beaver castor and fresh cut twigs or set without using bait. This technique is known as a blind set.

### Conibear Traps

The conibear trap, size 330, is the most common trap used for controlling beavers (see Fig. 4). The conibear trap is effective in both shallow and deep water. There are numerous sets that can be made with the conibear trap, depending on the specific situation. These include lodge sets, trail/run sets, under log/dive sets, culvert sets and dam sets. Texas Parks and Wildlife regulations concerning furbearers require that conibear traps be set in a minimum of 6 inches of water. When using this trap, inexperienced trappers should be extremely cautious and follow trap setting instructions. It is wise to have an experienced trapper demonstrate the proper setting techniques.

### Snares

Snares can be used in conjunction with other trapping methods. A snare consists of a flexible wire cable, preferably 40 inches long and  $\frac{3}{32}$  inch

thick, made into a loop which will tighten on the animal's body as it passes through. A simple locking device on the snare holds the loop tight. Ready-made snares also can be purchased through trapping supply companies or farm and ranch stores. Snares are most effective when used in overland sets along feeding and travel trails. Slides over pond dams or bank slides are also ideal sites. The loop of the snare should be approximately 8 to 10 inches in diameter when set. The bottom edge of the snare should be at or just below the ground surface. Snares must be securely anchored to prevent the beaver from escaping. Snares are inexpensive, easy to carry and simple to set. However, they are not as escape-proof as other types of traps, they are sometimes knocked down by beavers or other animals and they must be checked frequently.

### Shooting

Where it is legal, beavers can be shot at night using a shotgun (with #4 buckshot or larger). A spotlight equipped with a red filter lens is most effective. The use of rifles is not recommended because of the possibility of bullets ricocheting off the water. One technique is to break a beaver dam in the morning and hunt the beavers that night when they come to repair it. The water level will

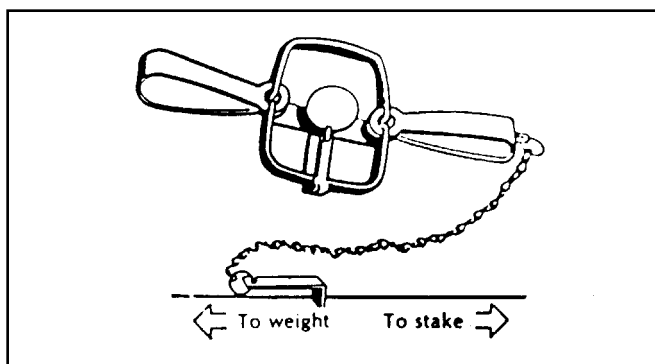


Figure 3. Leghold trap (No. 3 or No. 4 size, double spring) attached to wire for drown set.

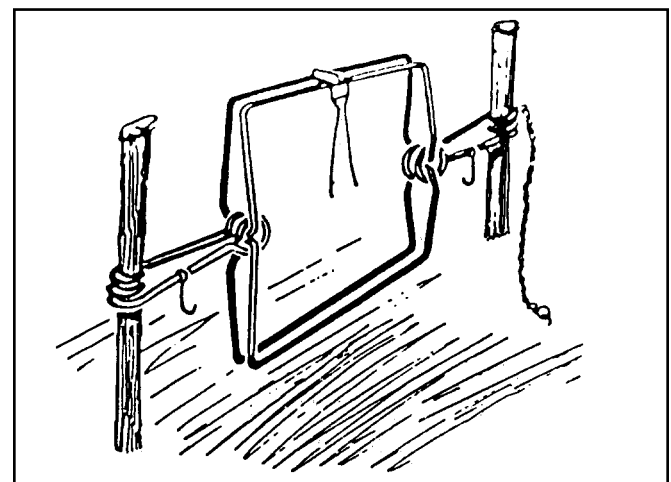


Figure 4. Basic method of setting and staking a conibear 330 trap.

drop during the day, thus increasing the chances of successfully shooting beavers.

When spotlighting, it is best to set up at the shoot location an hour before dark. Sit in an area that provides a good view for shooting. Also, pay attention to potential back stops, as buckshot pellets will sometimes ricochet. Beavers can hear remarkably well, so it is necessary to be as quiet and still as possible. Spotlights with power packs and filters are available in many sporting good stores.

### **Chemical Methods**

At present there are no repellents, toxicants or fumigants registered for the control of beavers.

### **Restrictions**

Beavers are classified as furbearers in Texas, but it is legal to trap them. Under state law, a person may trap a furbearing animal at any time if it is causing damage; however, the pelt can be sold only during furbearer season and with the proper licenses. Other furbearers include otter, mink, ringtailed cat, badger, skunk, nutria, weasel, raccoon, opossum, muskrat, fox and civet cat.

Landowners wishing to live trap beavers and relocate them after they have been caught must notify a representative of the Texas Parks & Wildlife Department.

For additional information contact the nearest office of the Texas Wildlife Damage Management Service.

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