

COYOTES



General Biology, Management & Harvest Strategies



Government of Newfoundland and Labrador
Department of Environment and Conservation
Inland Fish and Wildlife Division

Coyote - the new predator

During the past 100 years, coyotes (*Canis latrans*) have successfully colonized most of North America. Their rapid range expansion from the open prairies of western US and Canada has resulted in a near total occupation of all available forested habitats in North America. Localized extinction of wolves, along with land clearing, urbanization and agricultural practices are likely contributing factors to their success.

By the 1970's, coyotes had occupied much of North America, and by the 1980's were common in Nova Scotia and Prince Edward Island. The first confirmed coyote on the island of Newfoundland was a pup hit by a car near Deer Lake in August of 1986. By the mid 1990's, coyotes were confirmed throughout most of the Island. Reports of coyote sightings and coyote predation on big game and livestock have been confirmed.

Description

Despite having a much larger appearance, the Eastern Coyote ranges in size from 25 to 40 lbs, though specimens from New Brunswick are recorded at more than 50 lbs. They have a black tipped bushy tail, which is generally carried below the horizontal line of their back. Their ears are pointed and erect and while their coat coloration can vary, it is generally tawny grey with black tips. The legs, paws and long pointy muzzle of the coyote are reddish yellow, while the throat, belly and inside of their ears are white. When it runs (lopes), coyotes will place the back foot in the print made by the front foot, creating a single line of prints which tend to be straight. The front foot of a coyote is slightly larger than that of the back and the shape of the pad is different. The front pad is shaped like a frown and the back pad is shaped like lips.



Biology

Coyotes are generally considered monogamous, that is they choose a mate for life. At the loss of one of the mates, new partnerships will develop. Mating begins in February and runs through March. The pair will choose a den site, usually under a stump, dead-fall or rock. From around late April to mid May, after about a 60 day gestation period, the female will bear a litter of between 3 and 7 pups, with litter sizes as high as 18 being recorded. Pups will begin to learn to hunt for themselves at 10 weeks and leave their parents as capable, independent animals by late fall. Coyotes use a complex vocal system to stay in touch with their pups and other coyotes. A common call of the coyote is two short barks and a long wavering yodel.

Coyote Research

At this point, very little is known about the coyote in Newfoundland and Labrador. Wildlife research and management officials have documented the expansion of coyotes in insular Newfoundland and are investigating the morphology, diet, age structure and reproductive rates of coyotes using carcasses submitted primarily

through trappers. Plans are underway to investigate the potential ecological implications of an additional predator on the ecosystem of insular Newfoundland. These efforts will include the radio collaring and tracking of both coyotes and caribou.

Coyote Management

Coyote management in this province involves addressing predation on livestock and big game and providing recreational and economic benefits to trappers and hunters. As well, other initiatives are designed to educate hunters, trappers and other members of the public about the biology, management and harvest of coyotes. Total eradication of coyotes from insular Newfoundland is not a viable option. Such efforts have been undertaken elsewhere in North America through programs such as bounties and have had no success.

Current harvest management involves four strategies.

- A trapping season for qualified trappers runs from October 20th through February 1st each trapping season.
- Holders of a small and/or big game licence may harvest coyotes under authority of their small and/or big game licence and within hunting areas valid under that licence. Hunters may use the firearms permitted under that particular licence and during the period of time their big/small game licence is valid. A big game licence remains valid until an animal is either harvested, or the season closes.
- A permit to shoot coyotes may be issued to individuals who experience specific coyote predation on livestock or other domestic animals.
- A coyote shooting licence. This licence is designed for those persons with an express intent on hunting coyotes. The season runs from the second Saturday in September through the second Saturday of July in the year following.

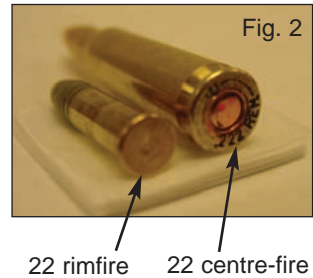
The Coyote Shooting Licence

Providing enhanced recreational benefit to the province's hunters while helping to control livestock and big game predation were the primary reasons for the establishment of this specific licence. The intent of this licence was not necessarily for the incidental harvest of coyotes, but for the individual serious about pursuing coyotes as a hunting opportunity. As with all harvested wildlife, the humane and effective harvest of coyotes was a key consideration in the establishment of the coyote shooting licence and regulations. The firearms permitted under authority of this licence help ensure the animals effective harvest. Regulations state **"the holder of a coyote licence may hunt, take or kill coyote with a centre-fire rifle not greater than .225 calibre or a shotgun using shot size #2 or larger"**.

Firearms and Ammunition

There is a very distinct difference between a RIMFIRE 22 and small calibre centre-fire rifles, often called CENTRE-FIRE 22's. Rimfire 22's are not considered adequate firearms by the majority of coyote hunters anywhere in North America, and are

not permitted under authority of the coyote shooting licence in this province. The photographs below show the visual difference between rimfire 22's and several centre-fire 22's. In this photograph, a 22 calibre rimfire cartridge is shown to the left of a 222 remington, a 222 remington magnum, a 223 remington and a 22-250 remington, all examples of centre-fire 22's (figure 1). Small calibre centre-fire rifles have a distinct primer located directly in the centre of the bottom of the cartridge (figure 2). Rimfire cartridges do not - their primer is located throughout the entire base of the cartridge. The rimfire cartridge is not legal, while the others are. Other examples of centre-fire rifles not greater than .225 include the 17 remington, 218 bee, 22 hornet, 220 swift, 225 winchester, 223 wssm and the 204 hornady.



The following table compares velocity (in feet per second), energy (in foot pounds) and trajectory (in inches below or above line of sight) of a 22 rimfire and a 22-250 centre-fire at 100 and 200 metres. In reviewing this table, consider that the minimum recommended point of impact energy for effectively harvesting coyotes should be at least several hundred foot pounds of energy, the vital area on a coyote is just 5 inches wide, and most coyotes are harvested at ranges beyond 100 metres.

	100 m velocity	200 m velocity	100 m energy	200 m energy	100 m trajectory	200 m trajectory
22-250	3280	2920	1315	1040	+1.9"*	-1.2
22 rimfire	1000	620	90	58	-5.6"*	-29.8"

* assuming both were zeroed at 50 yards

Bullets chosen for coyote hunting rifles should be designed to rapidly disintegrate on impact. This will minimize pelt damage and all but eliminate ricochets. These are generally lightweight, thin jacketed hollow point bullets. Under authority of the coyote shooting licence, hunters are also permitted to use shotguns with #2 or larger shot. BBB or buckshot are commonly used. Shot guns can be effective when calling coyotes. Often coyotes will attempt to circle downwind of hunters, occasionally presenting a close shot at a running target. Shotguns, using large shot such as BBB, can be effective in such situations.

Safety

While Newfoundland and Labrador hunters have proven themselves to be among the safest hunters in Canada, it is of vital importance that those participating in the coyote hunt, or any hunt for that matter, follow basic safety precautions to ensure a safe and enjoyable experience.

- Small calibre centre-fire rifles are long range firearms - always be aware of your target and what's beyond your target.
- Never use full metal or non expanding bullets - they are illegal and prone to deflection.
- Ensure you use the correct ammunition - match the data stamp on the cartridge with the data stamp on the barrel of the firearm.
- Never hunt around cabins, dwellings or communities. Regulations require that you be at least 300 metres from a dwelling to discharge a firearm.
- If hunting on or near a farm, be sure you have the landowners permission, and be aware of any livestock or buildings in the vicinity.
- Remember and practice the four **ACTS** of firearm safety;
 - **A**ssume your firearm is loaded
 - **C**ontrol the muzzle at all times
 - **T**rigger finger OFF the trigger until ready to fire
 - **S**ee (prove) that the firearm is unloaded

Ethics

All wildlife deserves our respect, and those species that are hunted and trapped deserve to be harvested in a humane and efficient manner. Coyotes are a very adaptive animal with keen senses and great survival skills - hunters should accept this fact and not let a negative impression of coyotes based on rumor, hear say and disdain cause errors in judgement. The image of all hunters become tarnished by the irresponsible act of just one hunter.

"...the hunter ordinarily has no gallery to applaud or disapprove of his conduct. Whatever his acts, they are dictated by his own conscience, rather than a mob of onlookers..."
- Aldo Leopold

Hunting Techniques

Coyotes offer a new and exciting opportunity to the hunters of this province. They have evolved skills and senses which make them challenging to hunt. Despite this, at least two of their traits make them susceptible to certain hunting techniques - their extremely vocal nature and their desire to eat just about anything.

Baiting has been successfully employed in other jurisdictions. It involves the placement of any food that might be eaten by coyotes - animal carcasses, meat scraps from a butcher and so on - in an area with good visibility, such as a barren or frozen lake. Once tracks or sightings confirm the presence of coyotes, hunters conceal themselves nearby downwind and wait for the animals return.

By far the most popular method of hunting coyotes across North America is by calling. Coyotes are also known as song dogs and are very vocal, especially at dusk and pre-dawn. There are two types of calls that can be employed, either individually or most often in combination. These are imitation calls and distress calls.

Imitation calls are designed to mimic the various calls of the coyote, and can include a male challenge call, female mating calls, locating calls and alarm calls, among others. Using a basic coyote yodel or howl, hunters can attempt to get a response from a given area, confirming the presence or possibly the absence of coyotes. The effectiveness of various coyote calls varies from season to season. Once a response is achieved, hunters can continue with the imitation call or switch to another type of call, a distressed prey call.

The sound of prey in distress to a coyote is much like ringing the supper bell, and can be effective year round. Common prey of the coyote in Newfoundland & Labrador include hares, mice, squirrels and various birds. Mimicking the sound of these animals under distress might be as simple as sucking on your hand to make a squeak or blowing a commercial hare distress call.

Devices for calling coyotes include electronic calls, either commercially purchased or home made, and hand held calls. Hand held calls are economical and mobile. Electronic calls have greater range and are easy to use, but are often bulky and difficult to transport. When taking a "stand" for coyote calling, ensure you call into the wind, conceal yourself well, use camouflage and limit any unnecessary movement during your call sequence. A calling sequence usually lasts no more than 15 minutes. Hunters should educate themselves on various strategies used to call and hunt coyotes by reading books, searching the internet and watching videos before deciding on a call to purchase or specific hunting strategies.



If You're Successful

Hunters have a responsibility to use what they harvest. As a furbearer, coyote pelts are an economical commodity and coyotes should be pelted and properly prepared, either by yourself or by a local trapper. In addition, the Inland Fish and Wildlife Division is continuing to collect coyote carcasses for use in gathering important scientific information. For 2004/2005, a payment of \$25 will be made for each carcass submitted. Please consult your local Conservation Officer for details. For more information related to coyote biology, management or harvesting, contact the Inland Fish and Wildlife Division by calling (709) 637-2006, or by mail at P.O. Box 2007, Corner Brook, NL, A2H 7S1.

