

## Notes-Coyote Predation Presentation-January 22, 2008

Speaker-Dr. Brent Patterson-Research Specialist-wolves and deer-Ministry of Natural Resources, Peterborough Office

Duncan McKinlay, Chair of the Planning and Community Development Committee, Grey County, introduced Dr. Patterson to the audience and provided some background on the presentation.

Dr. Patterson spoke to the group about the description and distribution, life history and ecology, management and research of the coyotes.

He noted that coyotes are here due to what has happened to the landscape over the past several hundred years.

Description and Distribution-what are they, where did they come from? Majority of the coyotes were Gray wolf in the Grey County area in the past. Eastern wolf are also found in southern Ontario. Eastern wolf and Western Coyote are now found within Ontario in the present day. Eastern coyote-cross bred eastern wolf and gray wolf.

Tweed type-eastern coyotes

Both coyotes and wolves are territorial. He noted territories of individual wolf packs within Ontario and Quebec that have been studied by wildlife experts.

Cross breeding-gray wolf and eastern coyote in northern Ontario

Body size-20.1kg females and 30.0 kg males, 27.5 kg-female, 37.3 males Ontario, 25.0 kg female, 30.7 kg-male (Quebec)

Algonquin park-wild dogs-sampled as eastern wolves with coyote blood in them.

Out of park-Frontenac area-primarily coyote blood with some wolf blood.

Kawartha Highlands-eastern coyotes with some wolf breeds

Average size increasing-comparison in sizes is in the process now to see if there has been a shift in coyote characteristics since the 1970s.

Eastern coyote most common in Southern Ontario.

Coyote-dog hybrids?-it was found very little evidence of domestic dogs in eastern coyote populations. Only one confirmed case in the United States.

In hybrids-fertility of hybrids is generally low.

Differences between coyotes and wolves-not really an effective way to denote the differences between the two-coyotes-pointy snouts, smaller facial feature-but can be deceiving.

Coyote social organization-basic social unit-mated pair-tight bonds, larger groups may form. There are large groups of transient coyotes.

Wolves-basic social unit of wolf population is the pack-consists of mated pairs and it's offspring from previous years. Completely unrelated adults can join pack.

Territory size is inversely related to prey density, fewer prey species or less of them means coyotes and wolves have to defend a larger territory

Territory size-coyote-less than one square mile in some cases but also can go up to 60 or 100 square kms. Wide range

Wolves-tend to be larger-some can go from 100 square km to 1000 square kms.  
Smaller territory size means larger density of coyotes and wolves.  
20-40 coyotes per 100 square kms-is an estimate of coyote/wolf population in Ontario-rough guess only.  
Both-only have one breeding cycle per year. Breeding usually occurs mid Feb. ;  
gestation is about 9 weeks-late April early May.  
Litter size- average is 6 ranges 3-9-increases with maternal age or food abundance.

Few coyotes/wolves breed in first year 3-5%.  
Mortality-20-50% survive their first year  
45-75% taken by trapping/hunting in fall are juveniles  
Adult coyotes-50-70% survival rate  
Wolves-65-80% survival rate  
Humans account for most deaths  
Compensatory mortality

Food habits-opportunists and take natural prey in proportion to availability, winter-hares, rabbits, deer, spring-summer-small mammals, livestock, berries.  
Wolves-ungulates are the primary prey of wolves  
Why prey on livestock-energetics-domestic prey (especially lambs) have a high energy value because-decrease in handling costs and search time, increased energy delivery.

Management-for the most part they are not managed-no bounties or closed seasons on coyotes in Ontario-wolf hunting seasons apply also to coyotes in wolf range. Municipal Financial incentives for control of coyote predation, coyotes protected in townships around Algonquin Park as part of protection program  
Some records kept for annual fur harvests  
Trapper harvests rarely manipulated through quotas  
Anyone can kill coyotes in defence of property.

Depredation on livestock-coyotes account for considerably more depredation losses in Ontario than wolves, livestock depredation is a complex problem-coyote or wolf abundance alone is a poor predictor of kill rates of livestock, breeding pairs of coyotes are the primary predators of sheep because of increased energetic demands of raising pups.

Controlling coyote populations-several studies report an increase in coyote numbers where there have been intensive control efforts or increased harvests because of higher pelt prices. Possible exception where there are no areas off limits to harvest. Adult males involved in most depredations, removal of either or both members of the breeding pair reduced depredation within that territory during the subsequent 3 month period.

If only known depredation animals are removed then territorial non livestock killing animals might help reduce the population.  
Can we predict where coyotes or wolves will kill livestock?-dense vegetation, vegetated water ways may promote depredation.

Bounties-in Ontario through 1973-repealed then  
Mid 1950s-eradication efforts were successful, but coyote numbers increased steadily through that period of time. Unaware of any bounty that has been able to eradicate coyotes. The overwhelming disadvantage of coyote bounties is the misdirection of

funds meant to, but not effectively and economically able to, reduce coyote damage to livestock.

In Nova Scotia-bounty introduced in 1970's-since then coyote numbers have increased until the bounty was cancelled in the 1980's.

What can we do?-blanket removal is ineffective-not necessarily getting incidentals and not the ones you are after.

Shooting is more selective within breeding territories and shooting over calls can be particularly effective at taking breeding males.

Promote trapping of problem wolves and coyotes but only by highly trained trappers because "educated" dogs become very difficult to capture.

Timing is important-removal of breeding coyotes during the non-lambing season does little to reduce losses during the following lambing season.

What do we do-best interest to learn all we can about these adaptable animals, manage them where possible, and control them when necessary.

Questions then followed.

Lots of deer-means lots of coyotes? Deer are not a critical resource for coyotes. A more diverse diet than just deer

Can't control them-how to manage sheep farm-compensation for landowners??? Not going to solve the problems by getting the coyotes out of Grey County. OMAFRA would provide this type of compensation programs. Subsidized programs. No one mitigation solution is an option. Brent is willing to do as much as he can to promote mitigation and a number of different options to be available to landowners. Is there a way to handling the program?

Removal of dead stock alternatives impeded by regulations-again OMAFRA needs to be involved-take a look at the big picture and all alternatives.

Needs to be assistance available for deadstock composting. No comfort that there is a solution for landowners out there.

Issues with barking dogs and municipal by-laws.

Livestock evaluator-set traps and most times get male coming back to the kill done the day before.

Overlooked a field-saw pair of coyotes-nose to nose with a lamb and walk away from them-tells him the lambs are use to the animals going through the herd.

Leg hold traps-need to be checked on a daily basis-issue is that they might not be in the area and therefore none were trapped.

Has Ministry thought of allowing snares?-1997 study-assess feasibility of use of snares. Next to impossible to use foothold traps.

Start compensating the trappers-no answer there.

Developing a network of competent hunters and trappers-networking these people with the landowners-ability to offer field support-mileage-municipalities could use the funds they currently use for administrative functions

Why does the ministry not help send in help for landowners?

Snaring-would not use these during winter months as hunters out using their dogs.

Give the trappers the right to set the snares where the killings are taking place and

eliminate coyotes when they are doing the killing. Would like an answer on this from the Ministry in a short turn around time.

Further meetings with Greg Cull from Midhurst MNR Office for assistance in changing policy.

City people-change their mind when coyotes come into urban areas and making themselves a pest or killing for pets in urban areas-Don Valley, Leslie Street area.

These coyotes are usually under the radar in urban areas.

Predation will not stop just because they are sterilized. This has been done in northern Canada to increase caribou populations.

Ranges for coyotes? How much do these territories intertwine-very little overlap in territories. Unless it is a solitary coyote.

DNA sampling in Grey and Bruce Counties-almost 3 years ago- 2 students working on this project, but one has left the university and has not provided the information to the university. Now there is nothing they can do to have access to that data in the near future. Hoping to legally acquire the data in the near future.

Main diet by season-Grey County-take what they can get-cottontails, mice, small animals, deer.

Moose/calf study-challenge in getting funding to do a correct study-moose calf survival-decrease in numbers. Looking at impact on these from natural predators. MNR has some concerns with the drop in numbers of moose calves.

Information that we can feed back to our municipalities and public members-might be a couple of years before Brent could assist with providing knowledge to assist in changing policy.

What can we legally do as farmers to protect our livestock? Separate presentation would cover this information. Turkeys-would have to demonstrate that damage has occurred or about to occur then you would be legally able to shoot turkeys.

Is it worth targeting a particular size of coyotes? Depends on the population size of the coyotes-could be a lot of mature males.