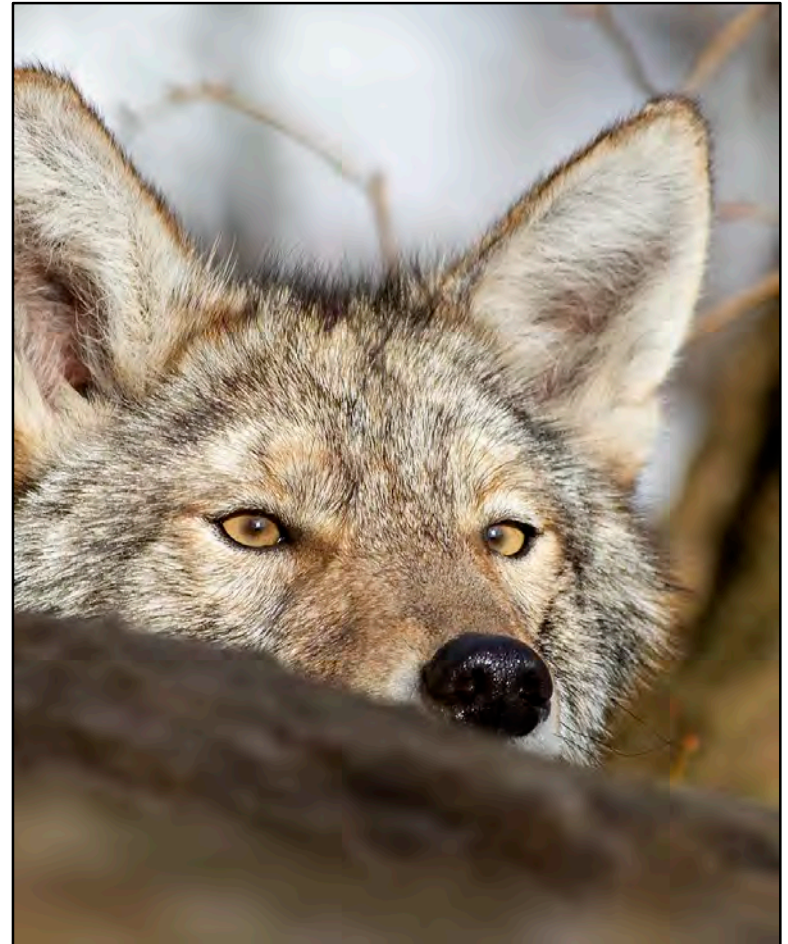


Coyote Watch Canada

CANID CONNECTIONS – Living with Coyotes





About Coyote Watch Canada

Coyote Watch Canada is an all-volunteer community-based, wildlife organization which advocates positive human-wildlife experiences. Our community outreach is achieved through field outreach, and science-based education, mediation, and conflict resolution.

- Science and Advisory members comprised of scientists, biologists, community scientists, artists, educators, health professionals, rescue and rehabilitation personnel, ethical wildlife photographers
- Consultants and field assistants for educational, wildlife documentary films
- Field-trained Canid Response Teams including Community Outreach/Education Representatives
- Research collaboration
- Partnership development with Law Enforcement, Animal Services, Humane Societies, Animal Control and SPCA
- Our expert team collaborators provide ongoing public education presentations, on-site investigations, and community support

Our
CANID RESPONSE TEAM

What we do

mobilize ground level response
secure for rescue to rehabilitation
in-field investigations
stakeholder feedback
research partnerships
first response training

How we do it

advocacy
all-volunteer
partnerships
non-lethal mitigation
conflict resolution
consultation
collaboration
relationship building
annual skill building conference
volunteer recruitment

Science. Education. Coexistence.





Municipal Wildlife Strategy Framework:

Our Four Cornerstone Approach

Investigation

Education

Enforcement

Prevention

Coyotes – ‘eco-thermometer’



Perceptions and Beliefs shaping who we are



“The coyote that lives in the wilds of our minds is not the coyote that roams North America. Our misplaced fear, embroidery, indifference and imaginings is the most perilous presence out there.”



Perception is everything.

- Understanding our wild neighbour
- Facts are more empowering than fiction
- Fostering and practicing respectful, safe and appropriate human behaviour, boundaries
- Become a champion for wildlife in your community

The Social Influence of Media



- Mainstream outlets rarely conduct investigative reporting news limited facts
- Social media is a very powerful and effective way of sharing sensational stories that promote fear and misinformation
- Rigorous scrutiny and inquiry by ‘consumers’ is necessary to provide accurate accounts of human-wildlife encounters



Context is everything.

A photo snapshot of a coyote yawning can turn into a 'growl' when used to garner social media attention and amplify misguided fear and emotions.



www.coyotewatchcanada.com/site/downloadable-content

Ecological and Social Benefits

Bio-control for geese (eggs)
study by Urban Coyote Research
in Chicago

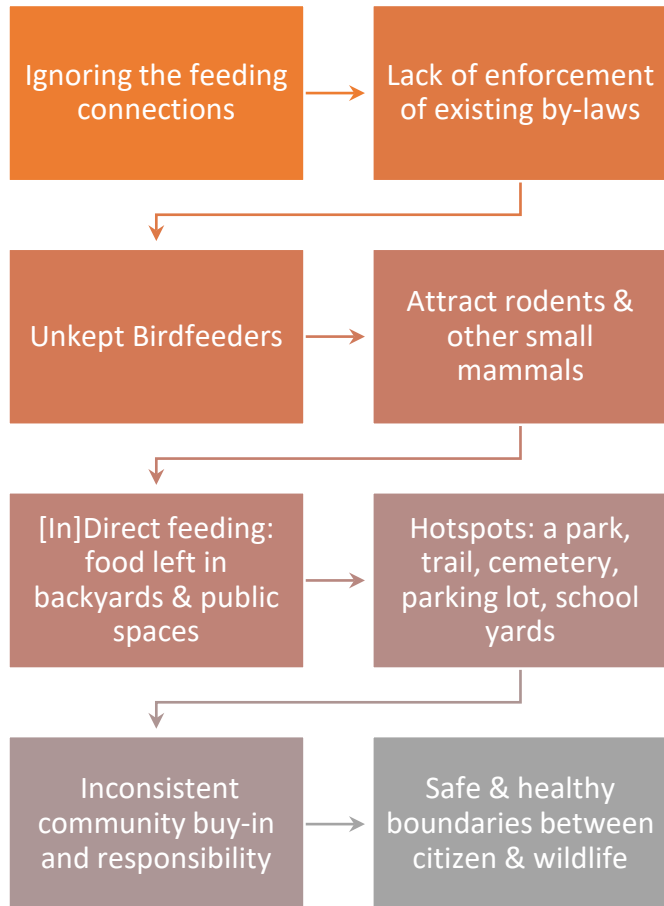
Keystone species that impacts
rodent populations with
potential to decrease zoonotic
diseases by consuming carrier
species

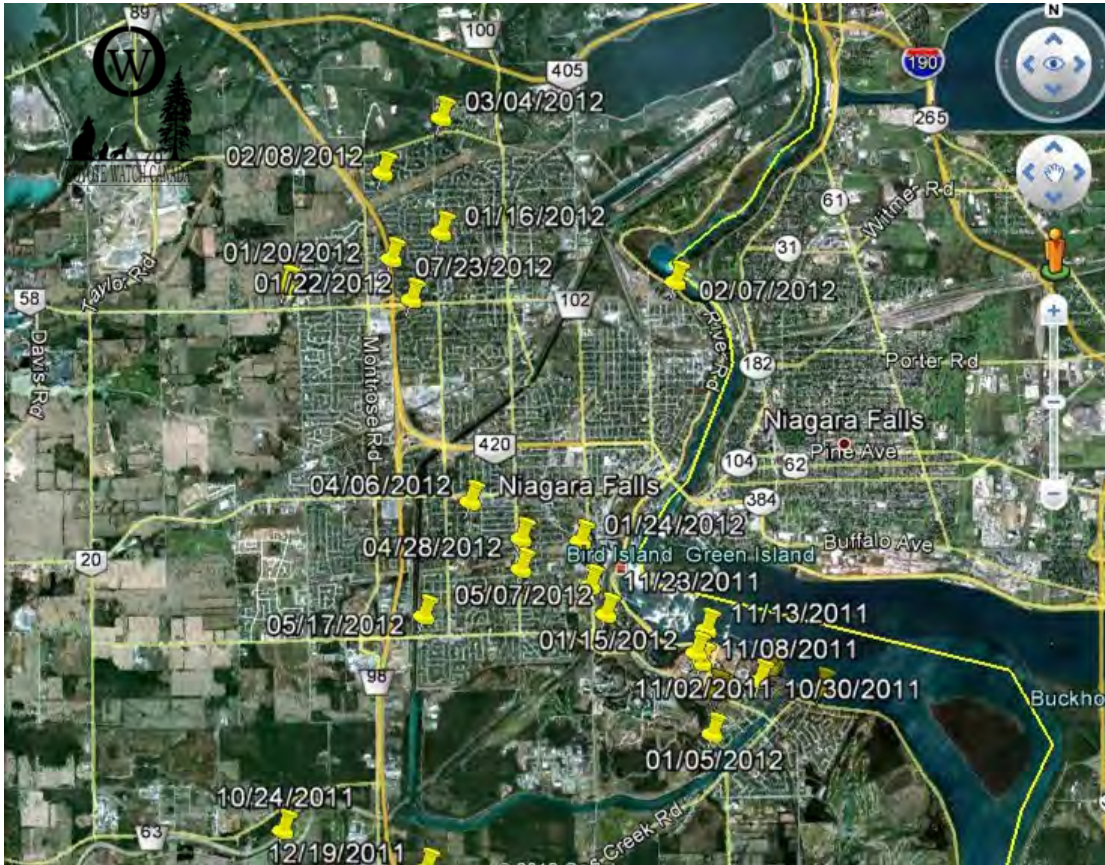
- Fill an ecological niche
- Established family will keep transient coyotes away
- Research, community scientist engagement
- Nature enthusiasts
- Eco-tourism
- Spiritual kinship
- Cultural connection



Communities in Conflict

Feeding wildlife manipulates their behaviour





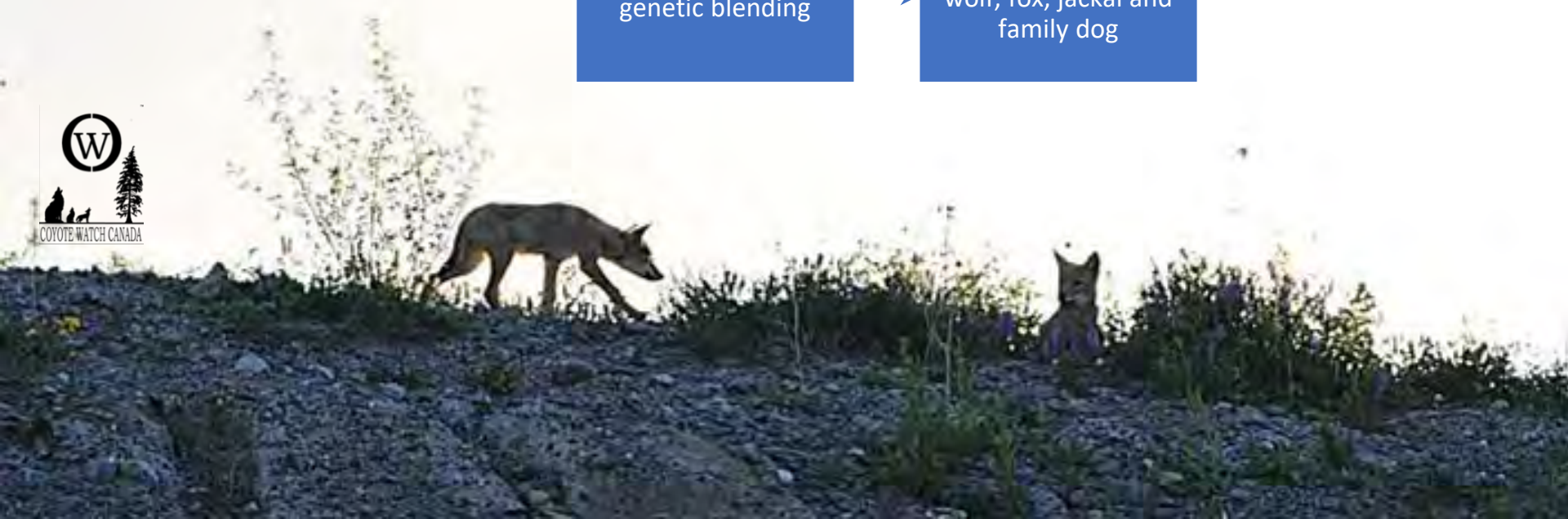
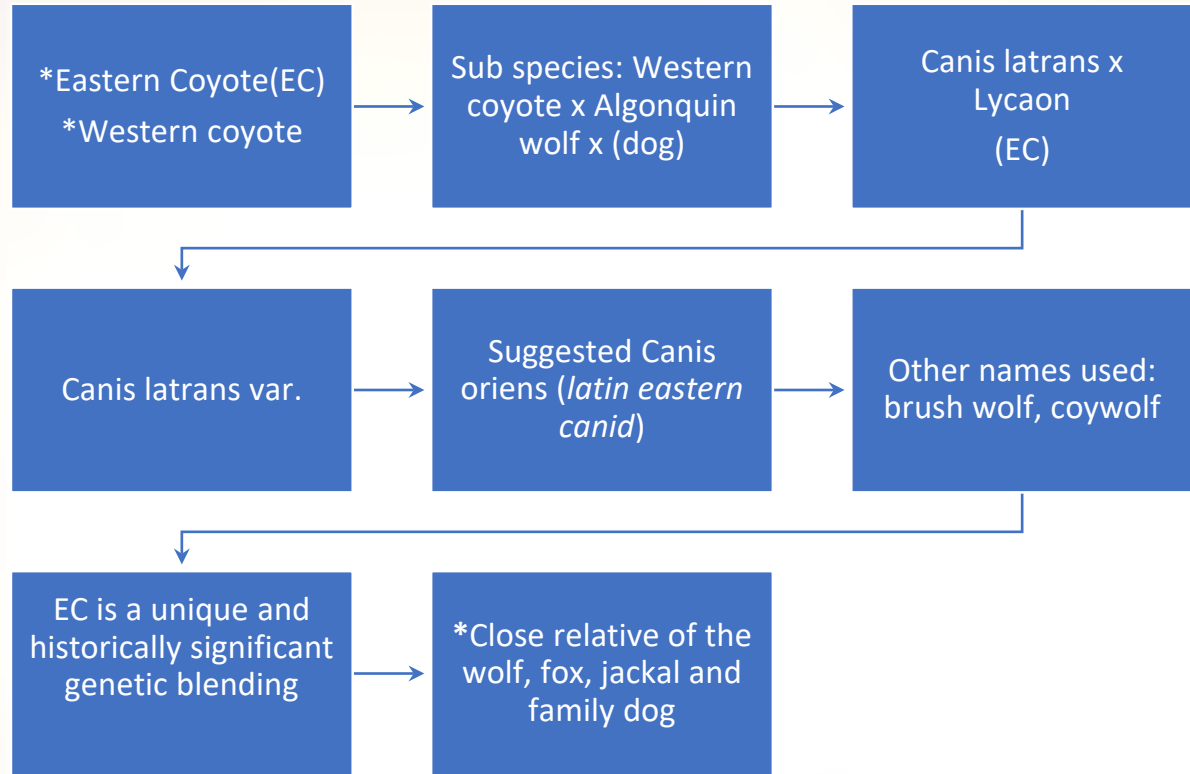
- Tool for Canid Response Team
- Provides research foundation
- Monitoring
- Assessment tool
- Vital snapshot about coyote ecology & seasonal changes
- Connecting data & community science
- Measurable outcomes
- Prevention support
- Identify feeding “hotspots”
- Public education - signage
- Conducting investigations

Consider: multiple sightings & reports of the same coyote by different people suggests that there are more coyotes in a given territory

Coyote Sighting Reports: Recording & Mapping

Scientific Classification

Kingdom Animalia
Order Carnivora
Family Canidae
Genus Canis
Species C. latrans



**ONTARIO WOLVES ARE ROUGHLY
TWICE THE SIZE OF A COYOTE**

**LABRADOR RETRIEVER IS TWICE THE
WEIGHT OF A COYOTE**

**COYOTE WITH DISTINCTIVE
BLACK TIPPED BUSHY TAIL**

**THE AVERAGE FOX IS MUCH
SMALLER THAN A COYOTE**

DOMESTIC CATS CAN APPEAR AS PREY

Partners for life *when left to thrive.*
Coyotes are monogamous.



Biology, Ecology & Developmental Milestones



- Coyotes are capable of breeding within the first year, studies show female > 3yr
- Gestation for the female is 60-63 days
- Coyotes may den under tree roots, mounds of earth, excavate an old ground hog den, underneath outbuildings
- Coyotes may have a back-up den within their home territory
- Active all year round
- In a stable territory, coyote parents may have a litter of pups (on average 2-5)



PUPS IN THE DEN

Co-parenting is a fundamental aspect of coyote families during pup development

Born without eyesight, ears down

Vulnerable and need mother to survive, mother's milk the first month of life

Weaned about five to six weeks

Adults regurgitate semi-solid foods for the young pups





RENDEZVOUS SITE (SAFE ZONE)

Pups are vulnerable to dangers such as birds of prey, off-leash dogs, injury and being 'kidnapped' by humans. Rehabilitators often see a trend for countless species removed from their parents and home. Education is key!

Contact Coyote Watch Canada and/or your local rehabilitation specialist before interfering with baby wildlife. For more information about how to find an authorized rehabilitator near you visit: www.ontario.ca/page/find-wildlife-rehabilitator

'Mousing'



Adaptive Omnivores

Foraging and hunting choices are dependent on seasonal abundance and environmental factors. Although classified as carnivores, scat analysis data shows they are true omnivores.

Diverse diet – rodents & small mammals 60-80%, fruit, nuts, vegetation

- snails, insects,
- human food
- fish
- eggs
- carrion

Keystone facilitators for healthy ecosystems

Adaptive, intelligent, resourceful, creative, clever, exploratory, curious

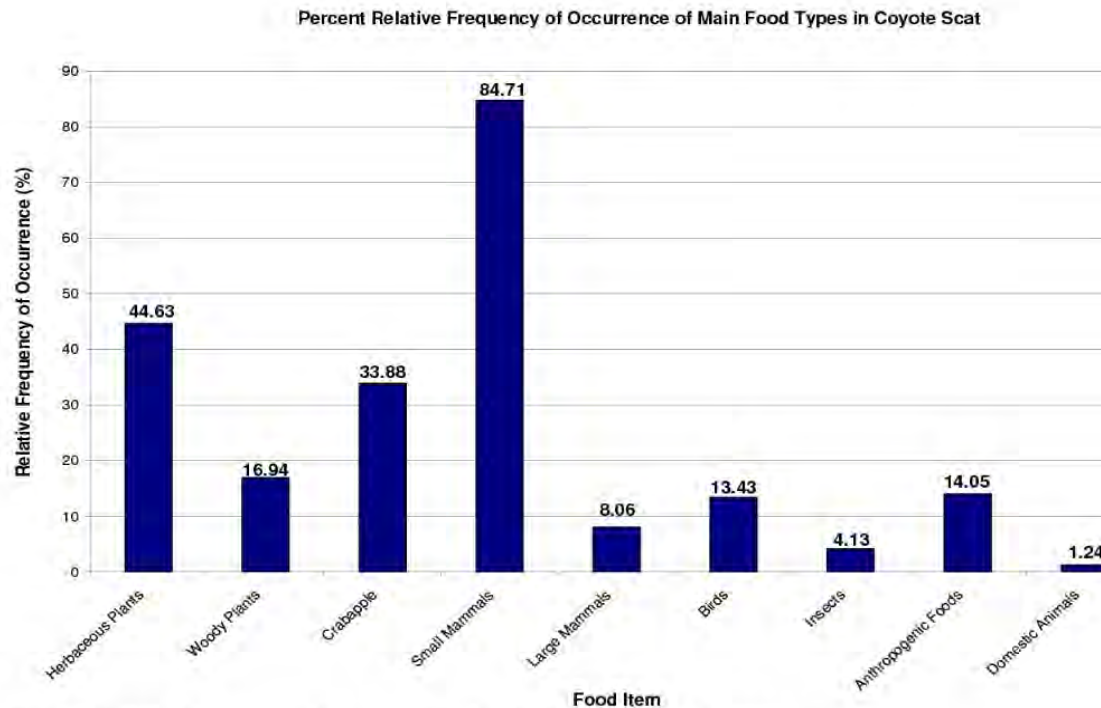
Excellent sense of smell, hearing and memory



Dietary analysis of 484 scats – small mammal and vegetation > %
Most prevalent food choices – small mammals (84.71%) herbaceous plants (44.63%), crab apples (33.88%)
Only 6 scats (1.24%) domestic animals (this did not distinguish carrion)

We add: Dietary selections for canids can be influenced by seasonal abundance, access to habitat, infrastructure changes, exploratory foraging and incidental anthropogenic hand-outs

Lukasik and Alexander: Spatio-temporal diet of urban coyotes



Lukasik, V.M and S.M. Alexander
(2012) Spatial and temporal
variation of coyote (*Canis latrans*)
diet in Calgary, Alberta. *Cities and
the Environment (CATE)*. 4(11): 8.

Figure 2. Relative frequency of occurrence by food type for coyotes in Calgary.



Mother Nature's Clean-up Crew

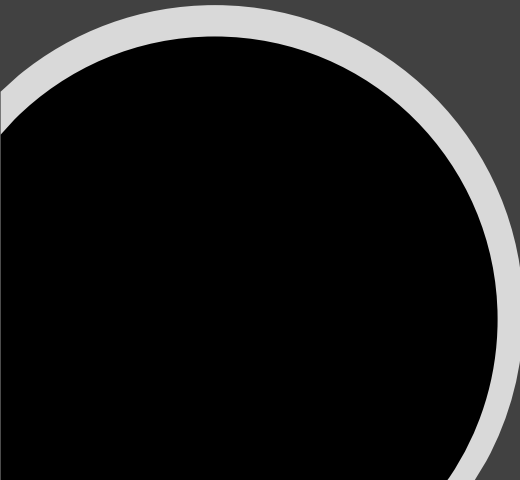
Photo: A deer hit by a train



Coyote Vocalizations

Canid Oral Cues

- Vital way coyotes communicate
- Vocalizing is canid 'GPS'
- High pitch sirens, trains, music
- Communication between family members
- Barking, yips, howls
- Warns the family of a threat or danger
- Territorial defense, celebrations
- Beau geste effect – two can sound like a chorus



Successful and Skilled Urban Navigators

- Coyote parents teach pups how to safely navigate cityscapes.
- Wildlife, including coyotes (transient and in established territories) take advantage of railway beds, hydro corridors, shorelines, trail systems, and old roadways.
- *Infrastructure changes such as fencing, loss of habitat can impact movement patterns and determine where and how wildlife moves throughout the community.

***Changes in the landscape means changes in activities and behaviour for both coyotes and peoples**



Canids are skilled at connecting greenspaces and quiet resting spots within their territory or home range.

Needs and access to food, shelter and water can influence wildlife.

Wildlife proofing is critical to ensure deterrents are consistent.



Environmental Impact on Coyote Wellness and Survival

Injury and Illness

- ❖ Exposure to poisons, neonicotinoids, canine parvo, canine distemper, toxoplasmosis, Lyme disease, and Leptospirosis, Alveolar Echinococcosis (AE)

Vehicle trauma, human-caused injury, sarcoptic mange, canine distemper

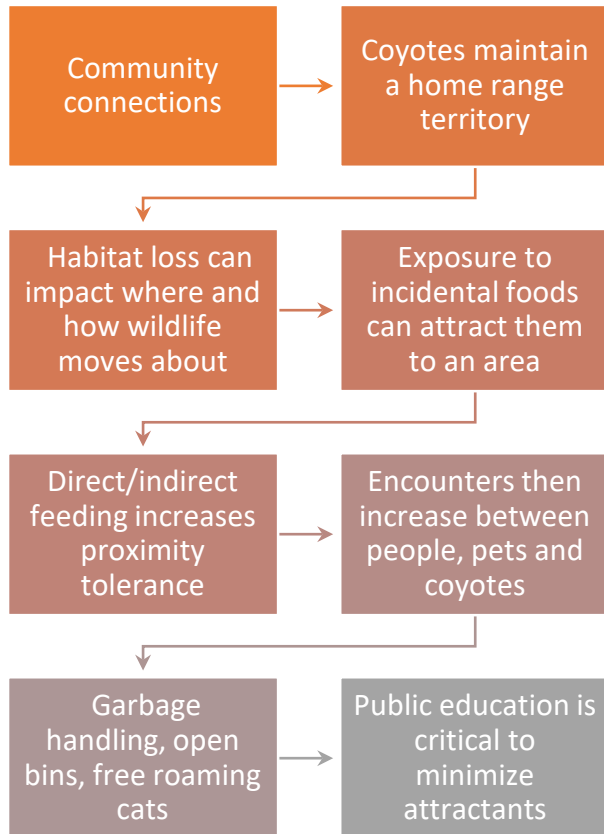
Seek out warm, safe shelter - barns, underneath decks, sheds, porches

- ❖ 'Energy easy' food sources - cat colony food, backyards, compost piles, overflowing garbage bins, fallen fruit

Death of a parent(s) disruption of family and loss of habitat

- ❖ Pups will perish without parental care
- ❖ Survival skills compromised at an early age
- ❖ Nutrition choices that lead to human/coyote conflict (human feeding)
- ❖ Increase human intervention for orphaned pups
- ❖ Social structure, bonds and stability are compromised
- ❖ Risk of forced dispersal before life skills are learned

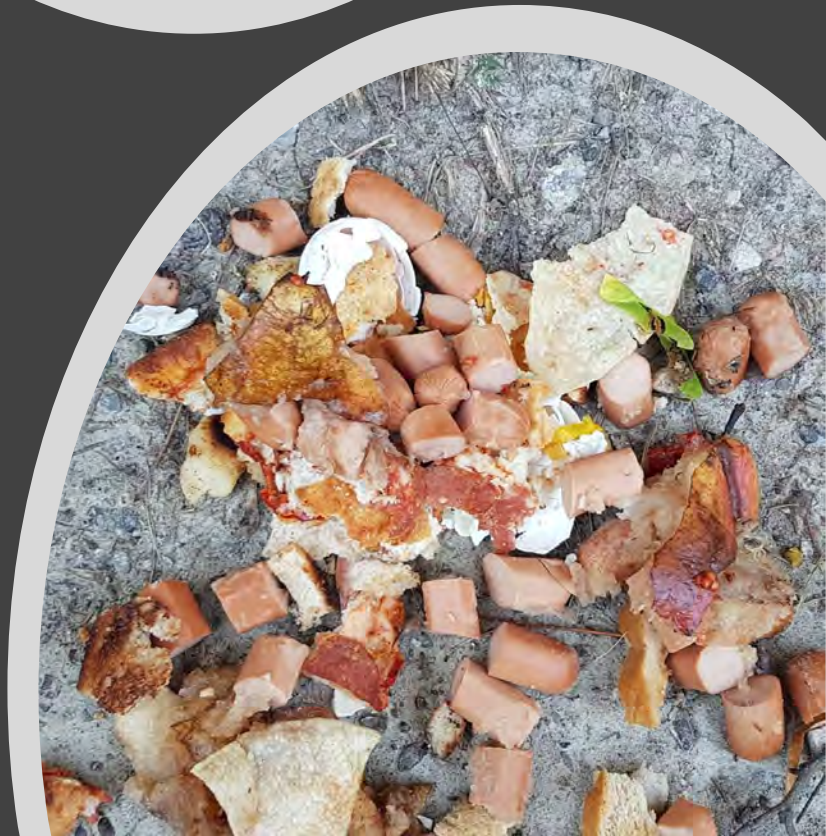
Why are there more coyote sightings in my neighbourhood?



Harmful Hand-outs



- Direct/indirect feeding of wildlife increases their proximity tolerance to people, backyards and public spaces
- Human food is not healthy for wildlife and can cause illness and nutritional deficits that lead to a host of secondary infections
- Chronic feeding of wildlife encourages an unnatural congregation at the feed site and may artificially inflate prey species such as small mammals





Recognizing and Preventing Encounters and Conflict

Seal up underneath buildings,
Report unmaintained vacant
properties as these provide shelter
and potential den sites

Cemeteries, golf courses and offer
shelter and limited human activity
(seasonal) and human hand outs

These locations become hotspots
for dog/coyote encounters when
dogs are off leash and/or human
feeding is present including baiting
by photographers

Off-leash dogs > risk of dog-wildlife encounters and conflict
which is elevated where human hand-outs occur

Shelley M. Alexander & Michael S. Quinn (2011): Coyote (*Canis latrans*)
Interactions With Humans and Pets Reported in the Canadian
Print Media (1995–2010), *Human Dimensions of Wildlife*, 16:5,
345-359

Noting: 84 of 91 dog-coyote incidents (92.3%) were off-leash



COYOTE WATCH CANADA



Backyard Consideration and Safety Awareness



- Wildlife can climb, birds of prey are not deterred by fencing and dogs escape backyards
- Remove attractants – Food, water, shelter and access points (climbing over, underneath, against the backside of fencing where household landscape materials are often thrown over creating access)
- **Unattended small pets are at risk of countless dangers besides wildlife. Fencing does not always keep wildlife out and pets in a backyard.**

Coyote Sightings

Behind the scene human influences

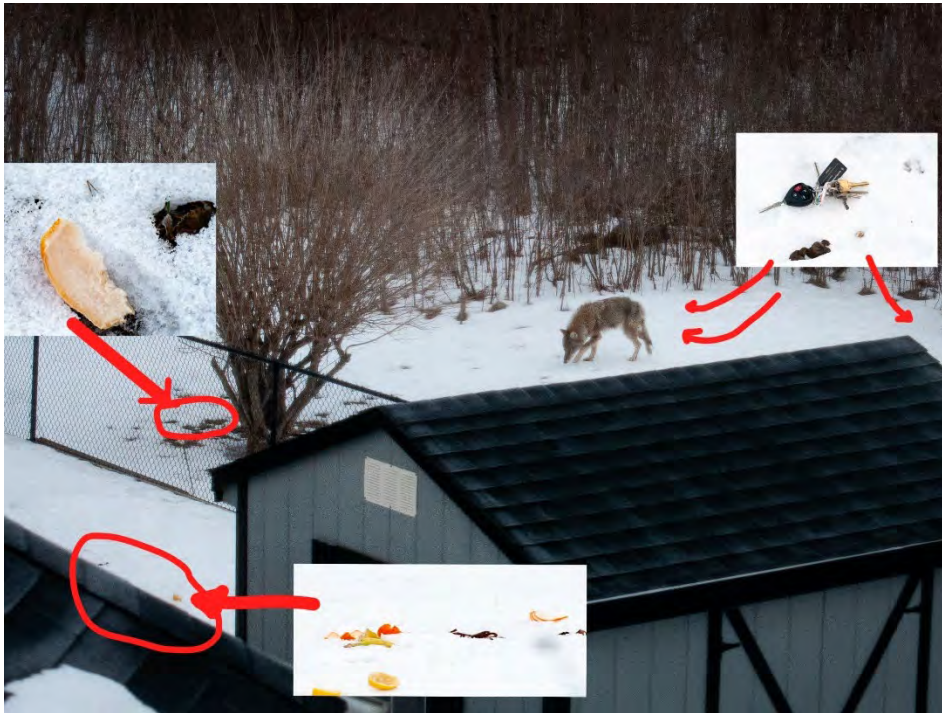


Residents alarmed by daily coyote sightings – one household was feeding



Increases In Coyote Sightings - Backyard

- Investigating a hotspot is critical to determine cause and effect. Attractants such as direct/indirect human hand-outs influence canid foraging and hunting behaviour. Food can encourage wildlife to revisit a backyard on a daily basis.
- In early spring wildlife begin to look for shelter to raise their family. This is a good time to wildlife proof underneath decks, outbuildings and other cozy places.



I support my own family.
Your handouts are harmful.



© Coyote Watch Canada | C.H.



Best Practices for Coexistence

Involves a community effort to establish and maintain healthy, respectful and safe boundaries between people and wildlife



Photo: Coyote Watch Canada Science Advisor Dr. Lauren Van Patter demonstrating aversion conditioning using the 'bag method'.

Advancing Best Practices for Aversion Conditioning (Humane Hazing) to Mitigate Human–Coyote Conflicts in Urban Areas

Sampson, Lesley and Van Patter, Lauren (2020) "Advancing Best Practices for Aversion Conditioning (Humane Hazing) to Mitigate Human–Coyote Conflicts in Urban Areas," *Human–Wildlife Interactions*: Vol. 14 : Iss. 2 , Article 7.

DOI: <https://doi.org/10.26077/5cbf-f8f9>



Human-Wildlife Interactions
Volume 14, Number 2 Fall 2020

NEW ISSUE

FALL 2020

Volume 14, Issue 2

A Publication of the Jack H. Berryman Institute



Aversion Conditioning (humane hazing)

What is aversion conditioning (AC)?



Identify attractants & remove food. Humane hazing can reshape inappropriate behaviour & encourage a canid to leave an area. *See our 'Keeping Coyotes Away' Brochure*

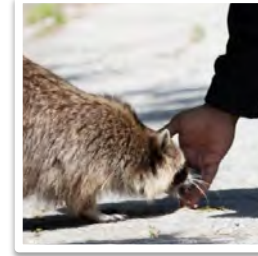
An action to encourage retreating, deterring and/or reshape canid behaviour

Messaging directed by human towards a coyote or fox

Non-lethal methodology

Assertive responses put-into-action using body gestures, strong voice commands, and deploying safe tools

Confident, clear and concise messaging from people towards a canid



More About Aversion Conditioning (AC)

- AC is a method of negative association that communities may incorporate to deter wildlife from an area
- AC techniques are lifelong tools that must be used in conjunction with a comprehensive coexistence program
- Communities that employ basic hazing, experience measurable results; including the identification/removal of food attractants, educating and empowering citizens
- Wildlife may become food-conditioned through direct/indirect human feeding at various hotspot sites
- Human indifference is not an appropriate response when the feeding of wildlife is observed. It is helpful to report these activities to City Bylaw

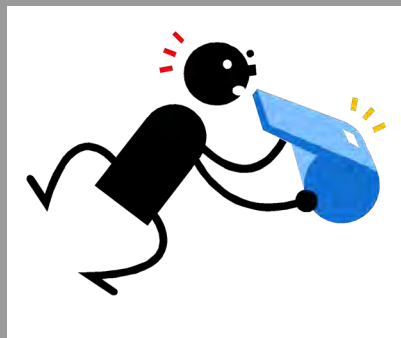


Conditioning wildlife to human handouts is linked to an increase in proximity tolerance and risky behaviour towards people, dogs and hotspot locations. This does not mean that they are not wary of people but when the reward is food, the instinct to stay away is diminished. People mistake this increased presence for a coyote that is not 'afraid'. The successful outcomes of aversion conditioning challenge this assumption.

Demand Behaviour (definition):

- Demand behaviour can be displayed in food-conditioned canids (like coyotes, foxes and wolves) that actively seek and solicit food rewards from people.
- Food-conditioned coyotes that have learned to associate humans with food may display this behaviour towards a person expecting a handout.
- Demand behaviour may include shadowing, directly approaching a person, or grabbing at a stimuli/object (knapsack) and/or frequenting parking lots, picnic area, parks, park benches or trail systems where people are providing food rewards.
- Nipping or grabbing at pocket areas





AC Equipment and Tools

Your voice – Loud & Assertive

*Whistle, horns (not always suitable)

Seasonal options - water hose

Umbrella *POP IT!*

Deploying AC from a vehicle, inside a building or too far away isn't effective

Follow through is paramount

Never turn your back and run from any animal (domestic or wild)

Shake-can filled with coins can be tossed towards BUT not at a canid

Large garbage bag – fill with air & *SNAP IT!*

Be aware of the unique circumstances (den or food near by)

* Whistles and air horns may not be effective if sports fields are near by, deploy a variety of tools



You should NOT deploy aversion conditioning or approach a coyote and/or their living space under these circumstances:

Near a den, during seasonal milestones like pup rearing, mating, ill or injured canid, or when consuming a natural food resource

A site assessment and investigation must be undertaken to identify attractants, and all food attractants removed

Community effort that empowers citizens while keeping pets and wildlife safe



People, Dogs and Coyotes

- Minimize & prevent conflict by leashing companion pets
- Accompanying them outdoors
- Understanding canid behaviour involving dog/coyote interactions
- Coyotes will shadow or escort
- Never run or turn your back
- Consider seasonal milestones

Be aware of your surroundings!
Put away earbuds & cell phones!

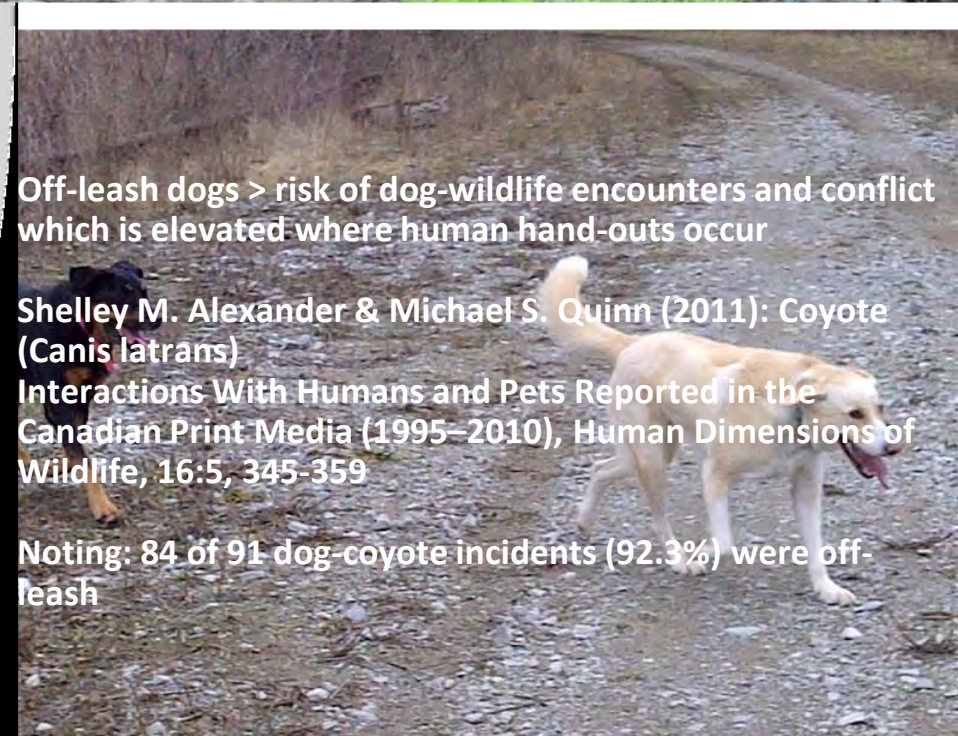


Off-leash dogs > risk of dog-wildlife encounters and conflict which is elevated where human hand-outs occur

Shelley M. Alexander & Michael S. Quinn (2011): Coyote (Canis latrans)

Interactions With Humans and Pets Reported in the Canadian Print Media (1995–2010), Human Dimensions of Wildlife, 16:5, 345-359

Noting: 84 of 91 dog-coyote incidents (92.3%) were off-leash



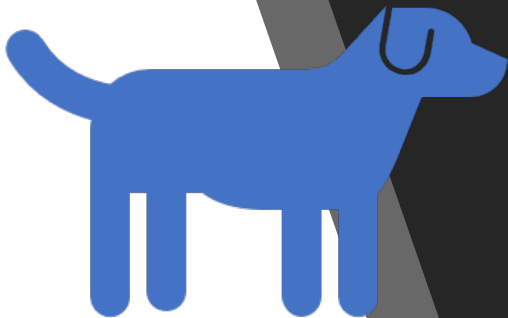
Coyote Vocalizations: Walking with Fido

Considerations:

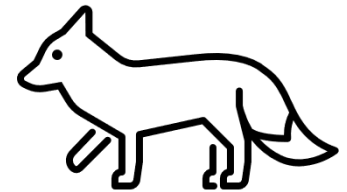
- Seasonal milestones- pup rearing time is stressful, and canids may behave more protective and defensive
- Is there a history of dog/ coyote interactions?
- Feeding reports
- Pay close attention to coyote behaviour

Is the coyote howling or barking while jumping up and down or bluff charging? Is the coyote arching the back, mouth open? Is the coyote shadowing you (following from a distance)?

- When a human/dog does not understand or respond to the warnings, there is often an escalation of interaction between dog/canid
- Vocalizations, gestures and proximity are the only way besides an outright physical encounter by a coyote towards a dog, that a canid can communicate for the dog (and person) to back-off



Non-Lethal Solutions
Community Scientists
Volunteer Recruitment
Diverse Partnerships
Draft & Enforce a Feeding Wildlife By-Law
Foster safe, appropriate human behaviour
Seasonal Wildlife Education Awareness



Essential Ingredients For Coexistence

Successful coexistence – entire community involvement

Website: coyotewatchcanada.com
National On-line Reporting: niagarafalls.ca/coyote/
Try our Coyotes in the Urban Landscape Information Module

Photo & Research Credits: Adam Skulzub, Janet Kessler, Chuck S.,
Dr. Alexander, Dr. Van Patter

Copyright: Permission must be granted to copy, reproduce/download in whole or part by
Coyote Watch Canada



@CoyoteWatchCAN



coyotewatchcanada



coyotewatchcanada

Canid Hotline 905-931-2610
info@coyotewatchcanada.com

