

Municipal Canid Response Strategy



The goal of the provided information is to encourage appreciation for wild canids and inform people on how to act or behave upon sighting a wild canid. Fear is a common response to situations that people are not accustomed to or don't have knowledge about. Educational information can help to prevent a fearful reaction to a canid sighting and equip people with the knowledge they need to respond appropriately.



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Ann Brokelman
Photography

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Response Strategy

Coyote Watch Canada Municipal Canid Response Strategy

Document Purpose:

This document is intended to provide information that can be used when creating a Canid Response Strategy and accompanying organizational Standard Operating Procedure (SOP).

Document Format:

The document is a written response strategy that includes 3 appendices as follows:

Appendix A – Canid Management Response Guideline

This is a table that includes common situations involving humans and wild canids with suggested response to each situation.

Appendix B – Aversion Conditioning

This appendix contains detailed information on how to apply *aversion conditioning*, a term that is referenced in the strategy.

Appendix C – Canid-Safe Neighbourhood Checklist

This is a checklist that can be used by organizational staff and residents when investigating situations involving humans and wild canids. The purpose of the checklist is to determine causes or reasons for canid behaviour.

A field response team should receive formal training and have an action plan in place so they can take immediate action, without a lot of planning at the onset of an emergent situation. Fee-based training is available from Coyote Watch Canada.

Strategy

Coyote Watch Canada Canid Response Strategy adopts best practices and focuses on a multi-pronged approach:

1. General education

Information about wild canids to be made available to the public on social media in regular intervals, press releases, website and signage. The information will include the benefits of wild canids in communities and how they fit into the landscape with an emphasis on how humans should respond to a sighting of a wild canid.

The goal of the provided information is to encourage appreciation for wild canids and inform people on how to act or behave upon sighting a wild canid. Fear is a common response to situations that people are not accustomed to or don't have knowledge about. Educational information can help to prevent a fearful reaction to a canid sighting and equip people with the knowledge they need to respond appropriately.

Conversely, some people find reward in feeding wild canids and if this occurs on a regular basis, can cause the animals to behave unnaturally and, in rare cases, cause people or pets to be bitten.

Educational information on wild canids will help people to understand that canids are wild animals who should be respected as such and appreciated from

afar. Canids are considered a keystone species for the benefits and positive impact they have on the ecosystem they inhabit. Human interference with a canid's typical routine or behaviour is likely to cause harm to the animal and to the community at large. When humans understand how to live among canids, negative interactions are prevented. Nature provides opportunities for humans to connect with the natural world and experience physical, spiritual and mental wellbeing.

2. Field response

Field response should be considered for specific situations that indicate an escalation in negative encounters. Some or all of the following actions may be necessary:

- Accurate and complete record-keeping – important to determine the extent of the potential human-wild-life challenge. If there are numerous concerns from different residents in the same geographical area, an on-site investigation may be necessary.
- Early intervention – key to preventing escalation of specific situations.
- Investigation – detailed discussion should take place with those who have expressed concerns. Discussion should include gathering facts and information as well as one-on-one education on aversion conditioning, specific to the situation.

- Physical investigation of the neighbourhood for potential community hotspots, listed in the Canid-Safe Neighbourhood Checklist (Appendix C).
- Door-to-door information campaigns to distribute print materials about canids in general, how to deter canids, pet safety and Canid-Safe Neighbourhood Checklist.
- During the distribution of materials, discussions with neighbours can occur to determine if there are known food sources in the area.
- If it can be determined that a person in the area is feeding canids, actions must be taken to stop this activity. These actions include active enforcement of legislation, if available. If active enforcement is not possible, a discussion with the feeder is necessary and a written request from the municipality or organization to stop the feeding in the interest of public safety can also be issued.
- It is strongly recommended that legislation be enacted to prohibit the feeding of wild canids.
- Organize and advertise a community meeting – experts should be invited to speak and educate attendees.
- Refer to:
 - Appendix A – Canid Management Response Guideline.
 - Appendix B – Aversion Conditioning.

- Appendix C – Canid-Safe Neighbourhood Checklist for detailed information on neighbourhood field response to concerns about wild canids.

3. Lethal Measures

The strategy allows for euthanasia of a wild canid for humane reasons. Otherwise, removal of a wild canid should only be considered if a bona fide health and safety risk to the public has been determined through rigorous processes such as field investigation, evidence gathering and forensics. Removal of a coyote cannot be done using a humane method and they cannot be legally relocated. It is not generally possible to capture a coyote in a catch-and-release style trap. Removal methods include capture using a leg-hold trap or dispatch by firearm. For these reasons, a decision to remove a coyote must be considered very carefully and in consultation with an appropriate agency, police services, or wildlife expert. Lethal response should be considered only as a last resort.

4. Partnerships

Partnerships such as Coyote Watch Canada, relevant provincial ministries and local licensed wildlife rehabilitators are crucial to provide opportunity for non-lethal, problem solving and solution-focused action planning.

Canid Management Response Guideline

* This is a guideline and does not account for variables that can occur in specific situations.

Description of Situation	Response
Canid heard or seen moving through an area OR Canid seen resting or lingering in parkland or ravine	<ul style="list-style-type: none"> • Conversation on telephone or in person to educate on typical canid behaviour and habitat
Canid following/ approaching a person (this behaviour is commonly referred to as “shadowing” or “escorting” and is often seen when the person is accompanied by a dog, but may happen without a dog’s presence) OR canid biting unleashed dog	<ul style="list-style-type: none"> • If a dog is accompanying the person and is unleashed, educate dog caregiver about the importance of leashing dog and controlling dog’s behaviour • Recommend aversion conditioning if appropriate (see appendix B) • Ask investigative questions and use observations to determine if feeding or food attractants may be in the area • If occurring in residential area, recommend use of Canid-Safe Neighbourhood Checklist
Canid biting leashed dog	<ul style="list-style-type: none"> • Recommend aversion conditioning if appropriate (see appendix B) • Ask investigative questions and use observations to determine if feeding or food attractants may be in the area • If occurring in residential area, refer to and recommend use of Canid-Safe Neighbourhood Checklist for on-site or in-field investigation purposes • Educate dog caregiver on walking dog in areas where there are other people and dogs • Assess area for possible canid den or young pups • If young canids are in the area, assess need for taping off the area, if practical

Description of Situation	Response
<p>Canid seen resting or lingering in residential neighbourhood</p>	<ul style="list-style-type: none"> • Conversation in-person to educate on typical canid behaviour and habitat • Ask investigative questions and use observations to determine if feeding or food attractants may be in the area • Recommend use of Canid-Safe Neighbourhood Checklist • Recommend aversion conditioning if/when canid is resting or lingering on or near residential property • Track further concerns from same area for future reference
<p>Multiple sightings of canid resting or lingering in residential neighbourhood, including canid entering yards with or without pets</p>	<ul style="list-style-type: none"> • Door-to-door distribution of education materials and Canid-Safe Neighbourhood Checklist • Recommend aversion conditioning • Discussion and investigative questions with residents to determine why the canid is entering yards and if there are potential feeding or food sources • Observe/educate neighbourhood businesses with improperly stored garbage • Check nearby parks, golf courses, cemeteries etc. for evidence of feeding • Organize community meeting for educational purposes • Continue to track concerns and complaints from area
<p>Canid biting</p>	<ul style="list-style-type: none"> • Confirm bite visually or by photograph • Identify and gather information on specific canid involved and circumstances around the bite • Determine whether or not a bona fide health and safety risk to the public has occurred by using rigorous processes such as field investigation, evidence gathering and forensics • Provide all information resources, including Canid-Safe Neighbourhood Checklist and aversion conditioning techniques • Report to local police authorities, public health and consult with wildlife partners • Consider necessity and options for removal of canid • Contact 911 in case of immediate threat or danger to humans

Keeping Canids Away: Aversion Conditioning

Aversion Conditioning is an effective tool for building healthy boundaries between humans and wild canids. It is important to note that using aversion conditioning close to a den site or with young pups is not appropriate. Canid seasonal milestones must be accommodated so the parents are able to raise their pups in a way that helps them disperse when they are old enough. **If situations arise where there is a den or a rendezvous site, it may become necessary to temporarily restrict dogs and/or humans from that area.**

- Aversion conditioning (commonly called *humane hazing*) is a method of negative association that **safely compels wildlife such as coyotes, foxes or wolves to move away from humans**, sometimes through the use of deterrents.
- **Aversion conditioning has been used with great success around the world** with many species, including bears and tigers.
- Aversion conditioning can restore a coyote's natural avoidance of humans and minimize interactions. **Communities that employ these techniques experience measurable results** while educating and empowering citizens.
- For communities experiencing regular canid sightings in identified hot spots, patience is required. **Intensive and consistent action may be required to encourage the canid to move on entirely.** Teams can be trained to respond to calls, communicate with residents, and utilize more intensive techniques if needed.
- The history of each canid is not always known. Remember that **each canid has a different “food education”**: some canids have been taught that people (and their properties) will provide food (e.g., direct feeding, compost bins, bird feeders, or cat and dog food left outside).
- Human conditioning is also a consideration when **people use novel items such as balls, toys, or clothing to encourage a canid to approach, diminishing healthy human/canid boundaries.**
- When included in a fulsome co-existence program, aversion conditioning can effectively change **canid behaviour and can help to ensure that future canids do not develop these behaviours. Community engagement is essential in order for aversion conditioning to be successful.**

Always Put Safety First

- Never run from any canid, including dogs, foxes, coyotes and wolves.
- Never corner a wild animal; always provide an escape route.
- Never approach a sick or injured canid.
- Never approach a den area or rendezvous site when doing aversion conditioning.
- Never apply aversion conditioning or approach a canid who has a food source.
- Never allow your dog to approach, chase or harass a canid or a canid family whether or not there is a den site. Keep dogs leashed.

Basic Aversion Conditioning Techniques

- **Stand tall, make yourself big, wave your arms and shout** (don't scream) while stepping in the direction of the canid until he or she runs away.
- **Clap your hands** in front of you and above your head.
- **Alternate gestures and be firm.**
- **Use a noisemaker**, such as:
 - your voice
 - an air horn or whistle
 - pots and pans banged together
 - a shake can (such as a pop can filled with coins or pebbles)

- snapping open a large plastic garbage bag
- jingling keys
- an umbrella popping open and closed
- **Use a projectile (toward, not AT the canid),** such as:
 - sticks
 - clumps of dirt
 - small rocks
 - a tennis ball
- **During warm months, use water,** such as:
 - a garden hose
 - a water spray bottle
 - water balloons (*note – it's very important not to leave remnants of a balloon where wild animals have access to it. This can be harmful to animals if eaten.)

Note: a canid who has been exposed to aversion conditioning techniques before may not leave immediately. You may need to use more than one of the above-mentioned deterrents. If the canid runs a short distance, stops, and turns to look at you, continue your aversion conditioning actions until the canid has left the area.

Canid-Safe Neighbourhood Checklist

Review and share information resources:

- Coyote Watch Canada [website](#):
 - Watch [e-Learning module](#) (created in partnership with City of Toronto) and include your family.
 - Review all content on the [Resources tab](#).
- Discuss canids and canid safety with your children.
- Share/circulate information with your neighbours, property manager or landlord.
- Learn aversion techniques and be ready to use them:
 - Keep a large garbage bag in your pocket (see appendix B).

Property:

- Storage of garbage, green bin and blue bin materials:
 - To the curb on the morning of scheduled pick-up day.
 - Store indoors or in locked containers – ensure lids are secure.
 - Call your municipality if bins are damaged and need to be replaced.
- Compost:
 - Don't compost meat, bones or dairy (these are green bin items).
 - Secure compost bin into the ground and enclose top with metal mesh.
 - If rodents visit your compost, use green bin instead (rodents are prey for and attract canids).
- Barbeques:
 - Clean and cover barbeques after use.
 - Ensure drip-tray is cleaned.

- Feeding animals:
 - Any/all food outside can attract canids.
 - Never feed wild mammals and don't feed pets outside.
 - Clean up daily under bird feeders – seed on the ground attracts rodents who attract canids.
 - If canids visit your yard or are seen daily in your neighbourhood, consider removing bird feeders and bird baths until there are less canid sightings.

- Shelter and hiding spots:
 - Keep grass mowed – long grass provides cover for canids.
 - Clean up brush piles and debris on property.
 - Keep fencing, decks and sheds in good repair. Remove or replace structures that can't be repaired.
 - Trim bushes and lower branches from evergreen trees to reduce hiding places.
 - Check in and behind structures and bushes before letting pets outside.

- Pets:
 - Closely supervise pets while they are outside in your yard, ground-floor balcony or patio. Keep cats inside or in enclosed areas. Do not leave pets unattended.
 - Canids can jump over or dig under fences. Check fences for holes dug under them and if found, fill them in and repair them.
 - Remove pet feces from your yard immediately.
 - Consider installing “coyote rollers” on the top of your fence. Information on coyote rollers can be found on the internet.
 - Ensure property is well lit at night and check darkened areas prior to letting pets outside.
 - Ensure chicken coops are clean and predator-proof.
 - Keep dogs on leash in parks and other public property.

- Garden and Fruit Trees:
 - Canids eat fruit – ensure fallen fruit from trees is picked up from the ground daily.
 - Vegetable gardens attract rabbits and squirrels who are prey for canids. Ensure vegetable gardens are wildlife-proofed as much as possible.

Neighbourhood and Public Spaces:

- Feeding of Canids:
 - Contact your municipality to make a confidential report of deliberate or indirect feeding of canids and other mammals.
 - If you find food being left for wildlife in a park or other private property, consider disposing of the food in the garbage. If feeding seems significant, contact your municipality to report.
 - If food appears to contain a possibly toxic substance, call police immediately.

- Improperly stored garbage – Commercial or Residential:
 - If you notice that canids are being attracted to improperly stored garbage at residential communal garbage areas or commercial buildings, contact your municipality to report.

- Potential community hotspots – contact your municipality if you identify activity that could align with direct or indirect human feeding of wildlife:
 - Cemetery
 - Parklands – especially picnic areas and benches
 - Construction sites
 - Hydro corridors
 - Conservation areas
 - Bike paths and trails
 - School yards
 - Parking lots – can be in parks, industrial properties or shopping malls
 - Golf courses
 - Ravines
 - Industrial sites – active and inactive
 - Derelict or abandoned properties
 - Waterfront or beaches
 - Camping, picnic, or encampment sites
 - Rural pastures with deadstock/animals

This checklist was modified from the City of Toronto Animal Services’ “Coyote-Safe Neighbourhood Checklist”.

Semi-rural, Rural and Agricultural Communities

Coyotes are recognized for filling an important ecological niche that contributes to healthy and balanced landscapes. Ecologically, this intelligent, socially complex and highly adaptive canid brings many benefits to farmers and ranchers. Successful farm/ranching with coyotes, as with other carnivores, bring similar challenges for producers.

Many of the strategies and methodologies outlined in the [Wolf Awareness Ranchers' Guide](#) can also be applied and practiced to minimize and prevent coyote predation on livestock. It is important to avoid food conditioning coyotes to deadstock left in the pasture.

Discussing What Works and Sharing These Practices with A Larger Audience

Interviews with ten producers were conducted from various locations across Canada and the United States by Coyote Watch Canada to identify the presence or absence of common attitudes and perceptions about predation by coyotes. Day-to-day living experiences and characteristics describing landscape, flora and fauna and type of live stock (cattle, organic dairy cows, sheep, horses, poultry and geese) were generously shared by each family. All ten producers identified and acknowledged the importance of coexisting with coyotes and stated that,

in regard to their resident coyote family, they were 'happy, thrilled, welcomed, and respected'. Most of these family-run farms were multi-generational, the longest being over forty years. Coexistence through farming practices were passed down from one generation to the next.

After summarizing and identifying similar opinions provided by each of the farmers as to why they had no issues with coyote predation, this is what we discovered:

1. There was an abundance of natural prey species in the pastures and fields. None of the farms practiced any form of lethal removal (including trapping and poisoning) of small mammals and/or rodents.
2. The hunting of coyotes was prohibited.
3. Each farm was aware of the benefits coyotes provide by preying on rodents, rabbits and other small mammals.
4. Each farm was part of a larger territory where stable coyote families lived and raised their pups.
5. Recognition that allowing coyote families to remain stable was an important part of a conflict free environment.
6. A variety of livestock were grazing in pastures; cattle, sheep and horses.

7. Dead livestock was addressed in a timely manner.
8. A human presence was paramount to maintain effective husbandry, care and to monitor the wildlife in the landscape.
9. All of the farmers acknowledged the importance of diligent husbandry and presented a deep reverence for working with the land and wildlife, not against it. Understanding the connectedness of nature and their role as stewards of the land provided predation-free results that are measurable.
10. Domestic dogs harassing, attacking, and killing livestock was noted as a significant issue at each property.

There is great potential and importance to sharing other successful farming testimonials that have yet to be fully utilized. Incentive programs that celebrate wildlife and predator-friendly farming and ranching can shift the focus from what is not working to what is working. Fostering coexistence is a strong platform when the information comes directly from the farming and ranching community.

Visit the links below for more information on co-existing with coyotes in semi-rural, rural and agricultural communities:

- www.grazerie.com/
- www.topsyfarms.com/pages/animal-welfare-policy-1
- [Maintaining ethical standards during conservation crises. Canadian Wildlife Biology and Management 4\(1\): 72-79.](#)
Ryan K. Brook, Marc Cattet, Chris T Darimont, Paul C. Paquet, Gilbert Proulx. (2015).
- [Protection from harvesting restores the natural social structure of eastern wolf packs. Biological Conservation 143 \(2010\): 332–339.](#)
Linda Y. Rutledge, Brent R. Patterson, Kenneth J. Mills, Karen M. Loveless, Dennis L. Murray, Bradley N. White (2009).
- [Large predators and trophic cascades in terrestrial ecosystems of the western United States. Biological Conservation 142 \(11\): 2401 - 2414.](#)
Robert L. Beschta and William J. Ripple (2009).
- [Wolves and the Ecology of Fear: Can Predation Risk Structure Ecosystems? BioScience 54 \(8\): 755-766.](#)
Robert L. Beschta and William J. Ripple (2004).
- [Killing wolves to prevent predation on livestock may protect one farm but harm neighbors.](#)
PloS ONE 13(1), p.e0189729, Santiago-Avila, F.J., A.M. Cornman, and A. Treves. (2018).

- [Predator control should not be a shot in the dark.](#)
Frontiers in Ecology and the Environment 14(7):380-388. Treves, A., M. Krofel, and J. McManus. (2016).
 - [Carnivore conservation: shifting the paradigm from control to coexistence.](#)
Bradley J. Bergstrom; (2017).
Journal of Mammalogy, Volume 98, Issue 1, Pages 1–6.
 - [Effects of Wolf Mortality on Livestock Depredations.](#)
PLoS ONE 9(12). Wielgus RB, Peebles KA. 2014
 - [Seasonality and reoccurrence of depredation and wolf control in western North America.](#)
Wildlife Society Bulletin 33(3): 876-88. Musiani, M., T. Muhly, C.C. Gates, and C. Callaghan. 2005.
 - [Carnivore conservation needs evidence-based livestock protection.](#)
PLoS Biol 16(9): e2005577. van Eeden LM, Eklund A, Miller JRB, López-Bao JV, Chapron G, Cejtin MR, et al. (2018)
 - [Risk Map for Wolf Threats to Livestock Still Predictive 5 Years after Construction.](#)
Treves, Adrian, and Mark F. Rabenhorst. (2017), Ed. Joseph K. Bump. PLoS ONE 12.6 : e0180043.
- [Utility of livestock-protection dogs for deterring wildlife from cattle farms.](#)
Gehring, Thomas M.; Vercauteren, Kurt C.; Provost, Megan L.; and Cellar, Anna C. (2010).
USDA National Wildlife Research Center - Staff Publications. Paper 1344.
 - [Adaptive use of nonlethal strategies for minimizing wolf–sheep conflict in Idaho,](#) Journal of Mammalogy, Volume 98, Issue 1, Pages 33–44. Suzanne A. Stone, Stewart W. Breck, Jesse Timberlake, Peter M. Haswell, Fernando Najera, Brian S. Bean, Daniel J. Thornhill. (2017).
 - [Low-stress Herding Improves Herd Instinct, Facilitates Strategic Grazing Management.](#)
Barnes, M. (2015). Stockmanship Journal. 4 (1): 34-43.
 - [Livestock Management for Coexistence with Large Carnivores, Healthy Land and Productive Ranches.](#) 2015. A white paper By Matt Barnes People and Carnivores.

Notes on Field Rescue and Outreach

Wild canids may require assistance due to illness or injury, anytime throughout the year. The ability to intervene can be greatly impacted during the spring and summer months. In late winter, wild canids are preparing to have families. In January/February, females may be pregnant, by March/April, babies are arriving. (Refer to infographic on Seasonal Milestones)

For example, coyotes mate for life when left to thrive, and they co-parent their young. Pups depend on both parents for food, protection, and important life lessons about how to survive and thrive in a very dangerous world and survival readiness is a months-long process. We need to ensure that removing canids from their environment to receive intervention is absolutely necessary during the spring and summer months, thus collaborating with experts is a key factor.

There may very well be an entire family depending on the canid in question. There may be babies waiting for their mother to return so they can nurse, or a tired nursing mother waiting for her partner to bring food to nourish her while she nourishes their young. While it is difficult to see animals in trouble, it's important that we step back and ask how we can best serve each animal. Every case requires

careful assessment and sometimes a challenging amount of patience.

It's important to work with a reputable wildlife rehabilitator and/or organizations, such as Coyote Watch Canada, to evaluate the urgency of each animal's condition. Some animals require urgent, life-saving medical care, but others may be best helped when humans step back, allow families to remain intact, and monitor from a distance. This is referred to as "mindful monitoring" and these cases should still be considered active. It's possible to rely on engaged members of the public to provide regular sighting reports so the animal's condition can be monitored, and the outreach approach modified if needed.

Wildlife rescue requires front line responders to consider and respect the needs and wildness of the animals who potentially need help. This is not always an easy process. It is vital to have a "big picture" assessment to determine when to intervene versus when to provide mindful monitoring (e.g. using trail cameras to gain better insight). This process requires a great deal of patience, knowledge, and experience.

Emerging Concepts and Challenges

In today's rapidly changing world, there are many factors to consider when thinking about the effect of human activity on wild animals. Both humans and animals will benefit from considering and implementing policies that reshape community understanding about the intersection of values, culture and science, as well as the One Health intersection of environment, people and animals.

Some of the issues to consider are:

- Land use and habitat loss is not a new issue, but it is becoming more challenging to find a balance while protecting green space and biodiversity. Social issues such as temporary living shelters in parks and other green spaces can affect urban wildlife habitat and behaviour.
- Climate change risks destabilizing the balance between wildlife and their ecosystems.
- Lyme disease continues to become more prevalent in Canada and is carried by animals who are common prey (i.e. white-footed mouse) for foxes and coyotes. Scientists hypothesize that wild canids could potentially decrease the spread of Lyme disease.

- Highly pathogenic avian influenza (HPAI) and COVID-19 virus are zoonotic diseases and recent research has shown that Chronic Wasting Disease may be more transmissible to humans than originally thought.
- Domestic dogs imported from other countries to Canada are bringing new parasites and diseases which may affect humans and wildlife.

Field Investigation training on some of the above issues may need to include reviewing scientific data and critical thinking techniques when encountering situations that involve wildlife. Climate change could affect wildlife by changing patterns in disease spread, habitat loss and loss of natural food sources. The resulting animal behaviour changes can create unexpected situations and critical thinking skills will be necessary when responding.

Infographics

These infographics are provided in PDF format for incorporation into your Canid Response Strategy as reference guides.









Photo credit:
Doris Potter
Photography

In today's rapidly changing world, there are many factors to consider when thinking about the effect of human activity on wild animals.

Both humans and animals will benefit from considering and implementing policies that reshape community understanding about the intersection of values, culture and science, as well as the One Health intersection of environment, people and animals.

Coyote Watch Canada

(905) 931-2610

info@coyotewatchcanada.com

P.O. Box 507

St. Davids, ON, L0S 1P0

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