



IMPORTANT NOTICE: A.S.K. has provided our species-specific tips based off of years of field experience and reported research; we are NOT in the business of wildlife damage control and are not profiting from the recommendations provided. These tips may not be all-inclusive and we recommend discussing your specific issue with A.S.K.'s wildlife biologist **(877-596-7776)** or your local humane wildlife damage control specialist for further details. Using a variety of the tactics provided usually results in the highest success rate. All actions must adhere to Michigan law.

Coyote (*Canis latrans*) Nuisance Tips

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Quick Coyote Biology

- Experts have found that coyotes can actually **increase** their population levels in response to lethal controls (hunting/trapping). Dr. Paquet, respected canid (coyote/fox) expert and Professor at the University of Calgary: “Coyotes usually have an orderly social structure, with the dominant pair of a group breeding once a year. If left alone, family groups and populations are stable, with 1st year pup mortality (death) at **50%- 70%**. If we *kill* pack members, other members can begin breeding more often, and with more food now available for pup survival, the result is more coyotes.”
- Coyotes provide an **important ecological service**; they control levels of rodents and insects and consume carrion, including road-kill. “Considering that one coyote will eat at least 5 rodents a day, that could amount to over 9 billion extra rodents *per year* that may be poisoned to match the organic rodent control that could be provided for us, for free.” Dr. Paquet
- Coyotes are extremely adaptable. As their habitat is being reduced due to human development, they are *forced* to come into closer contact with us.
- The presence of coyotes usually reduces fox populations, but territories *can* overlap.
- The size of territory directly relates to the quality of habitat. A few square miles may be used by coyotes to support a family, and urban coyotes may use as little as 0.3 square miles.

- Eastern coyotes have been reported to form packs of five or more. However, research on urban coyotes indicates that they can live solitarily, or in pairs; this may depend on the amount of natural space in a given area. Solitary coyotes are reported to use larger areas—one had a 25-mile range.
- Coyotes are opportunistic eaters; the **majority** of their diet is comprised of rodents, rabbits, insects, vegetables and fruits, especially berries. In the urban/suburban landscape, pet food, cats and livestock, especially the young, can be consumed.
- Coyotes probably mate for life.
- Coyotes breed typically between December and March, giving birth in April or May.
- Average litter size is six pups for older females. Average litter size is three pups for younger females.
- Some research shows that when coyotes are intensely hunted, they will produce larger litters, like deer!
- Coyote pups are nursed for up to 2 months.
- Coyote pups mature quickly and are independent at around 9 months.
- Coyotes are very territorial. A bold coyote may act aggressive around your dog, especially if your dog is larger than the coyote.
- Coyote parents are more aggressive towards dogs and people when near pups and their den.

Did You Know....

*One coyote can make 11 different vocalizations!

*If problem coyotes are removed they will likely be replaced by new coyotes—often within a matter of weeks!

Quick Myth-Busting

- Statistically, you are more likely to be struck by lightning or attacked by a cow or deer, than to be attacked by a coyote. Coyotes RARELY attack humans. Follow our tips for reducing the potential for conflicts!
- **WARNING:** There is **only one known human fatality from a coyote attack in U.S. history**. Note that the family of the victim had been reportedly *intentionally feeding coyotes*, leading the animals to associate humans with food. Never feed coyotes.
- Coyotes **can** be active during the day-time. It is NOT true that the animal is sick if you see it during the day.
- Coyotes are NOT *significant* predators of pets or deer; however fawns can be preyed on especially in urban areas, helping to keep deer populations in check! Research shows that rodents, rabbits, insects, carrion and fruit make up the majority of their diets!
- While coyotes *can* carry rabies, there have been zero reported cases in Michigan at least since 1979.
- Mortality is high in urbanized areas. 50% of coyote deaths can be attributed to vehicle collisions.

Quick Tips to Keeping Coyotes Away

Human-wildlife conflicts can be managed and reduced by following the tips provided here. Numerous cities have employed these tactics with success.

- Dr. Bekoff, canid ethologist: “Killing does not and never has worked. Community education and a willingness to coexist are the keys to eliminating human-coyote conflicts, and it’s surprisingly easy.”
- **Don’t** feed coyotes directly or indirectly. Indirect methods: remove stray cat food outside or at the very least, make it inaccessible and keep garbage cans secure (use bungee cords etc.) and inside until the morning of collection. Have fruit trees? Pick up and discard the fallen fruit. “A fed coyote is a dead coyote,” because habituating coyotes to humans with food sources will create nuisance conflicts where killing and trapping is often favored—despite the *lack* of efficiency in these methods.

- Use enclosed composting bins; no exposed piles. Don't add meat or dairy products that are especially enticing to coyotes.
- Walk pets on a leash especially in areas where coyotes are known to exist. During spring and early summer, pups may be in dens, making coyote adults more aggressive.
- Keep cats inside and always supervise children and dogs in problem areas. While there are plenty of wild food sources for coyotes to eat, an unknowing small dog or other domestic animal may become easy prey if left alone. Kennel enclosures of at least 6 feet high should be used to secure pets in problem areas.
- Spay/neuter your dogs; coyotes can be attracted to domestic dogs that are not altered!
- If you feed birds, keep feeders clean. If rodents are attracted to your fallen bird seed, coyotes can be baited in too!
- Secure livestock/poultry etc. Quality fencing at least 6 feet tall and buried underground at least 6 inches. Guard dogs/llamas have proven to reduce coyote attacks on livestock in many counties. Few or no coyote issues are reported in these instances! Under "Resources," see "Predator Certification."
- Talk to neighbors and make sure that they are following the tips provided here!

If You See a Coyote

Aggressive behavior towards people is rare. If a coyote acts aggressive, it is likely due to habituation due to intentional feeding by humans.

- Never offer food to a coyote or attempt to pet it
- Do not turn your back on a coyote, or run from a coyote
- Try to leave the area calmly
- If in an area where coyotes are a concern, carry a horn, whistle, walking stick etc.
- Always keep yourself between a coyote and children/pets
- If followed by a coyote, make loud noises, raise your hands over your head to give the appearance that you are bigger. You may also "fan out" your coat to make yourself appear bigger. Coyote should recede. If not...
- Throw sticks, clumps of soil first near the ground next to the coyote, *then, only if needed*, toward the body. Never throw items at a coyote's head

Ways to Haze...Coyotes in Your Yard

- Put ~40 pennies in a pop can and wrap with aluminum foil. Secure with duct tape. Shake it when you see a coyote to quickly scare the animal.
- Have an umbrella handy when working outside. Pop it open and scare the animal when you see it. Wildlife don't like surprises.
- Carry a whistle and blow it! Air horns work too!
- Make yourself look BIG; be loud and vocal. Bang pots/pans, throw objects towards (not at) coyote.
- Use garden hoses to spray towards the coyote.
- Use motion activated sprinkle systems in problem areas.
- If problem coyotes are removed they will likely be replaced by new coyotes—often within a matter of weeks! Eliminate the attractant to reduce conflicts!

Repellents

- There are no repellents made specifically for coyotes, however, products that are made for dogs or other canids will generally work with coyotes, especially if used with other methods.

- Urine soiled **cat** litter placed in problem areas tends to make wildlife uncomfortable. Don't have a cat? Borrow used **cat** litter from the local animal shelter or a neighbor! It's cheap, easy and tends to work!

Yard Management

Use fencing at least 6 feet high with the bottom extending into the ground at least 6 inches, or 1 foot outward. Invert the top of the fence out, or use electric fence along the top to increase security. Existing fences can be fitted with "Coyote Roller™" (www.coyoteroller.com) systems which make it more difficult for predators to enter.

Keep brush piles and dense weeds away from your home otherwise animals will find cover or food sources in them.

Crawl spaces under porches, decks, sheds etc. should be closed off using fencing. Otherwise these areas make good den sites for raising young.

Case Studies

- **Denver, Colorado:** Population >3 million. Human injuries from coyotes are extremely rare. People benefit from learning how to co-exist. Nuisance concerns have been reduced.
How was this accomplished? Removal of yard attractants, taking responsibility for pet safety through supervision/proper secure enclosures, humane hazing methods used county/city-wide, and education about coyote biology/behavior.
- **Vancouver, British Columbia:** Population >600,000. Feeding coyotes causes problems.
How was this addressed? Educated the public about co-existence techniques described here.
- **Marian County, California:** Population <250,000. Promotes active co-existence through non-lethal livestock and wildlife protection program.
How is this promoted? County provides cost-share funds to assist farmers with coyote deterrent methods, including livestock guard dogs, improved fencing, night corrals.

Resources

Project Coyote: http://www.projectcoyote.org/ProjectCoyote_FactSheet_CoyoteNews.pdf

Audubon Coyote Story: <http://audubonmagazine.org/features1105/habitat.html>

Predator-Friendly Certification: <http://www.predatorfriendly.org>

Tips for Keeping Poultry/Livestock Safe: <http://www.predatorfriendly.org/how-to/chickens.html>

Michigan Coyote/Fox Rehabilitator: Oakland County, Holly Hadac: 248-672-9615

Portions adapted from: Coyotes in Our Midst by the Animal Protection Institute and Wild Neighbors: The Humane Approach to Living With Wildlife by John Hadidian