

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WILDLIFE

Today's Coyotes

Life History and Living with Wildlife

Brett Beatty-Wildlife Management Supervisor



What we will cover

- Who is ODNR Division of Wildlife
- Ohio laws pertaining to wildlife species
- Coyote Biology and Life History
- Conflict prevention/resolution
- Resources for more information

Wildlife Ownership

ORC 1531.02 - wildlife in the state is held in public trust for the benefit of all the people by the DOW.

Although the DOW has management authority on all wild animals within the state:

- USFWS regulates animals that routinely migrate between states.
 - (waterfowl, shorebirds, songbirds, hawks, owls)
- Local ordinance may restrict management tactics such as hunting, trapping, electric fences, pyrotechnics, etc.

ODNR Division of Wildlife

- Manages wildlife by researching wildlife populations, setting fishing, hunting, trapping seasons, methods of harvest, and enforcing laws
- Owns over 200K acres of Wildlife Areas and cooperatively manages several hundred thousand additional acres
- Primarily funded through sales of hunting, fishing, & trapping licenses and excise tax on firearms/ammunition and fishing equipment
- ~400 employees statewide (fish/wildlife biologists & techs, law enforcement, info & education, etc.)



District 1: Central Ohio
1500 Dublin Road
Columbus, Ohio 43215
(614) 644-3925

District 4: Southeast Ohio
360 E. State Street
Athens, Ohio 45701
(740) 589-9930

District 2: Northwest Ohio
952 Lima Avenue
Findlay, Ohio 45840
(419) 424-5000

District 5: Southwest Ohio
1076 Old Springfield Pike
Xenia, Ohio 45385
(937) 372-9261

District 3: Northeast Ohio
912 Portage Lakes Drive
Akron, Ohio 44319
(330) 644-2293

Wildlife Conflict Summary

- Division acts in an advisory capacity
- We do not provide animal removal services
- We will respond if situation warrants (public safety or endangered species)
- Property owners must take a direct role in what occurs on their property
- State and local restrictions

Nuisance Animal Laws

- Wildohio.gov



The screenshot shows the website header for the ODNR Division of Wildlife. It includes a navigation menu with links for OHIO DNR, RECREATION, REGULATION, LANDOWNERS, PROGRAMS, MEDIA & NEWS, and CONTACT. Below the header is a sidebar with a 'Wildlife Home' section and a 'Species and Habitats' section containing links to Species Guide Index, State Listed Species, Nuisance Wildlife, Invasive Species, Diseases in Wildlife, Ticks in Ohio, Orphaned and Injured Wildlife, and Fish and Wildlife Research. The main content area is titled 'Nuisance Wildlife' and contains a paragraph explaining that more than 75 percent of the U.S. population lives in urban areas, leading to wildlife displacement. It also lists three resources: 'Uninvited House Guests: Preventing & Dealing with Nuisance Wildlife Encounters [pdf 449Kb]', 'List of Nuisance Trappers [pdf 144Kb]', and 'Become a Commercial Nuisance Wild Animal Control Operator'. A contact instruction at the bottom of the main content area reads: 'Contact your district office for additional information about wildlife control.'

ODNR Division of **WILDLIFE**

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OHIO DNR › RECREATION › REGULATION › LANDOWNERS › PROGRAMS › MEDIA & NEWS › CONTACT ›

Species and Habitats › Nuisance Wildlife

Wildlife Home

Species and Habitats ^

- Species Guide Index
- State Listed Species
- Nuisance Wildlife ›
- Invasive Species
- Diseases in Wildlife
- Ticks in Ohio
- Orphaned and Injured Wildlife
- Fish and Wildlife Research

Nuisance Wildlife

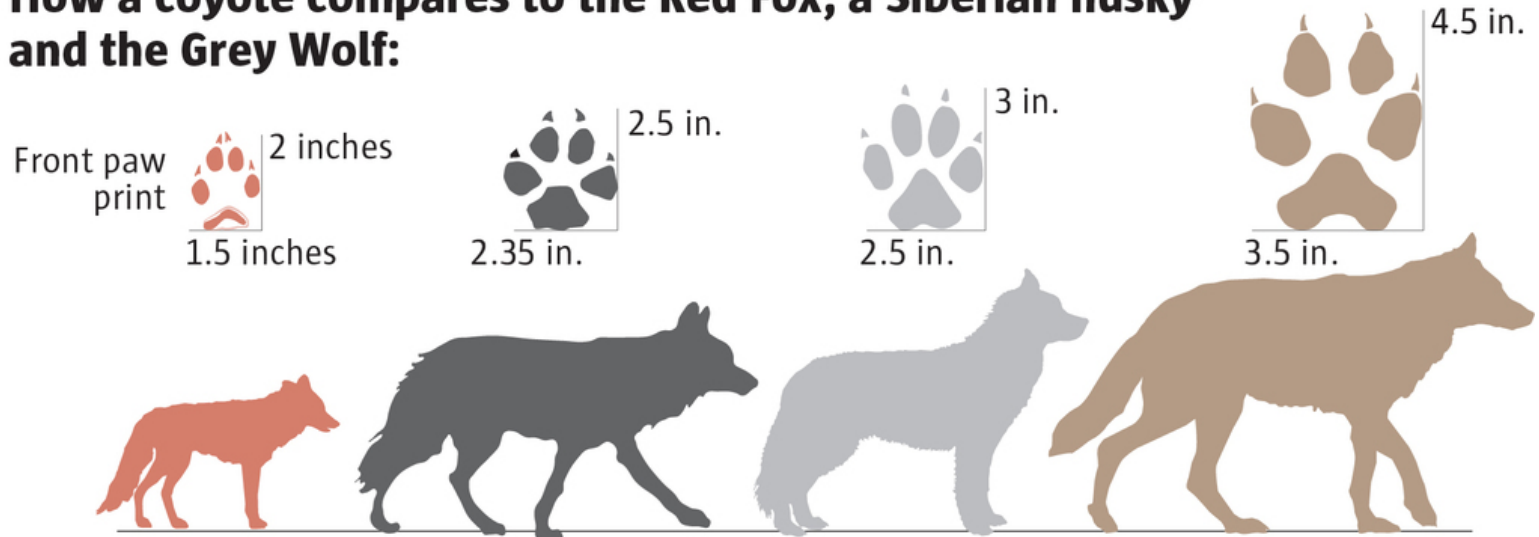
More than 75 percent of the U.S. population lives in urban areas. While the growth of cities and subdivisions displaces some wildlife, many species continue to live in the habitat available in parks, undeveloped parcels of land and vacant lots, along stream and river corridors and in our backyards. Their presence can provide recreational and educational viewing opportunities. For many people, especially children, viewing wildlife in the backyard is exciting. People and wildlife can peacefully coexist in most situations. However, there may be times when conflicts arise.

- ↓ Uninvited House Guests: Preventing & Dealing with Nuisance Wildlife Encounters [pdf 449Kb]
- ↓ List of Nuisance Trappers [pdf 144Kb]
- ∞ Become a Commercial Nuisance Wild Animal Control Operator

Contact your [district office](#) for additional information about wildlife control.

Is that a coyote?

How a coyote compares to the Red Fox, a Siberian husky and the Grey Wolf:



RED FOX
Vulpes vulpes

COYOTE
Canis latrans

DOMESTIC DOG
Siberian husky

GREY WOLF
Canis lupus

HEIGHT (from shoulder)
MALE: 15 - 16 inches
FEMALE: 14 - 15 in.

HEIGHT
23 - 26 in.
20 - 23 in.

HEIGHT
21 - 24 in.
20 - 22 in.

HEIGHT
26 - 32 in.
25 - 30 in.

WEIGHT
MALE: 13 - 15 pounds
FEMALE: 11 - 13 lbs

WEIGHT
25 - 45 lbs
22 - 40 lbs

WEIGHT
40 - 60 lbs
35 - 50 lbs

WEIGHT
70 - 145 lbs
60 - 100 lbs

Sources: arkive.org, animals.howstuffworks.com, nationalgeographic.com, waza.org, defenders.org, vetstreet.com

MARK NOWLIN / THE SEATTLE TIMES

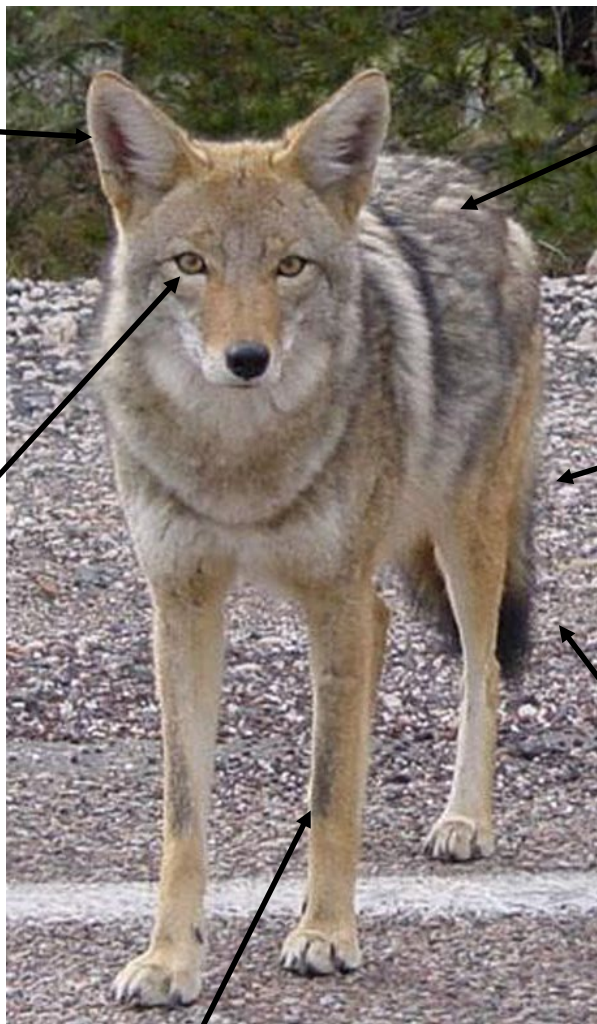


DIVISION OF WILDLIFE

Is it a coyote?

Pointed ears with
white insides

Overall gray appearance



Bushy Tail

Yellow Eyes

Black tipped Tail

Reddish brown legs

Or Something Else?



Wolf



Coyote

Jackal

Fox



Dog Tail





Photo by Dennis J. Wick



Tail Position

Color Variations



Have you heard me before?



- Use vocalization as a means to indicate territory and to locate other members of the family unit
- Exhibit many types of vocalizations
- **Woof**
- **Growl**
- **Huff**
- **Bark**
- **Yelp**
- **Whine**

“Sounds like 50 ‘yotes!”

- [coyote pack.mp3](#)
- **Texas study – Brewster, et. al., 2017**
- **427 participants**
 - Most participants were able to discern the addition of coyotes to the recording
 - Only 11% correctly estimated the number of coyotes (mostly 1 or 2 coyotes)
 - Routinely overestimated the number of coyotes by nearly 2-fold
 - <3% could correctly discern if 3 or more coyotes were howling

Distribution and Abundance





FIGURE 1. Ohio counties with historical records of coyotes, 1919-78.



FIGURE 3. Ohio counties with verified coyote and coydog collections, 1982-88.



FIGURE 2. Ohio counties with reported coyote encounters, game protector survey, 1978-81.

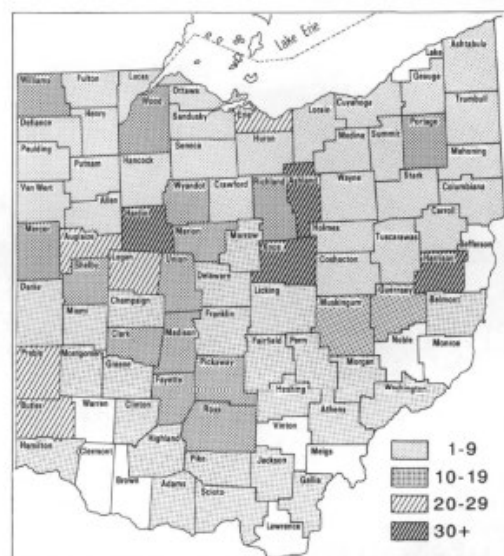


FIGURE 4. Combined county distribution of coyote reports in Ohio, 1919-88.

Coyote Relative Abundance, 1990-2015

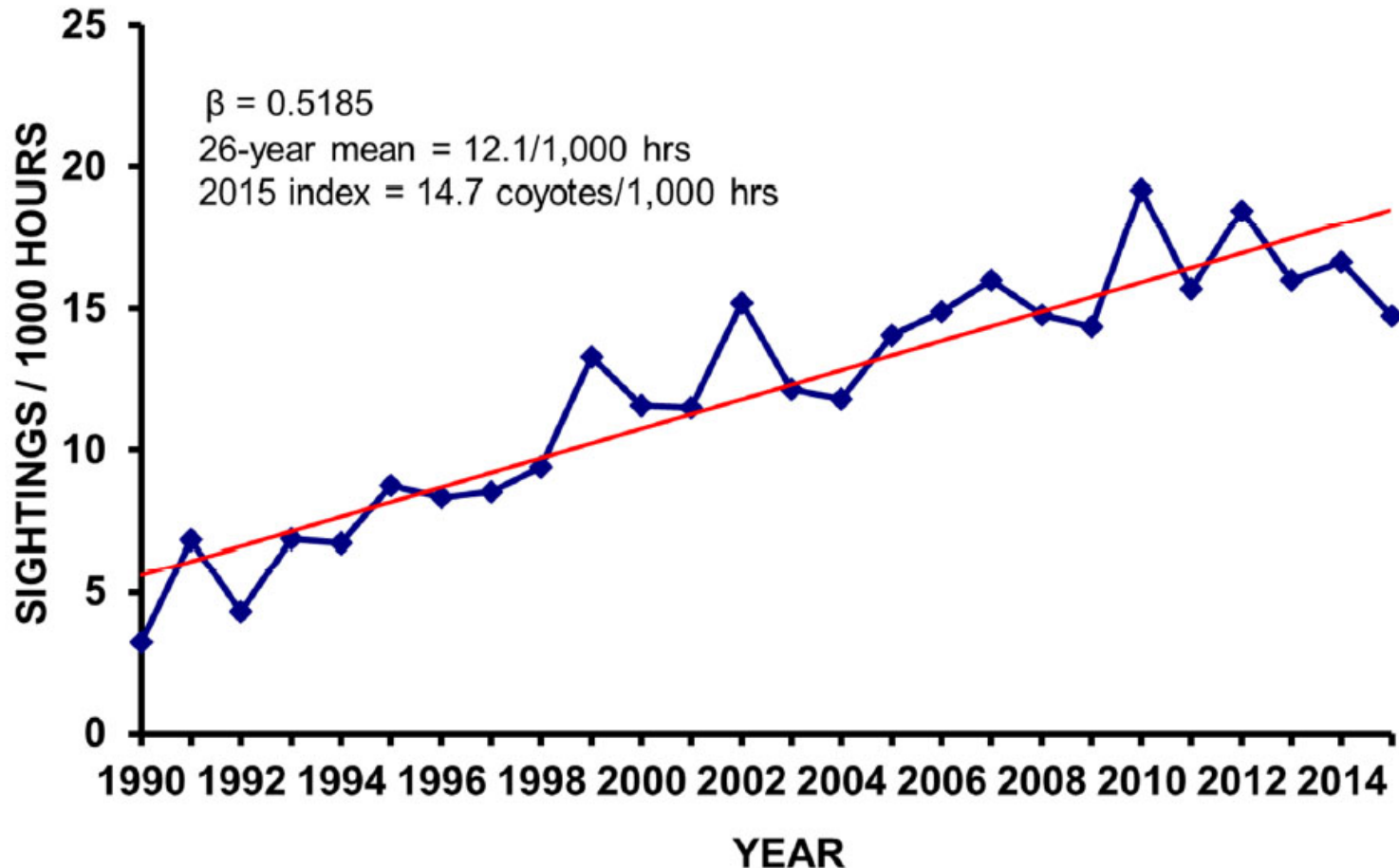
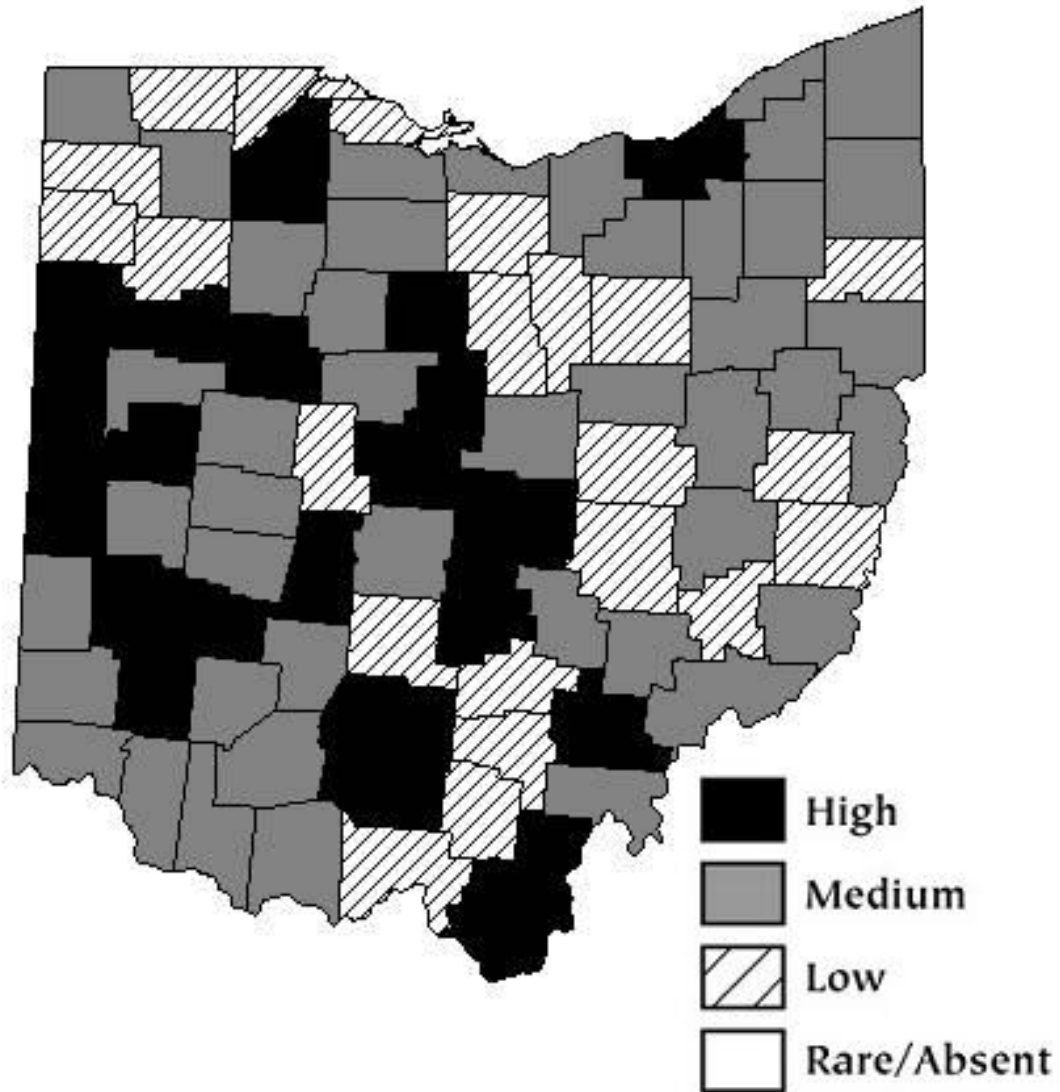


Figure 2. Coyote relative abundance based on bowhunter survey indices, 1990-2015.

COYOTE RELATIVE DISTRIBUTION



Habitat



- Typically prefer open areas such as prairie and desert
- In urban areas prefer wooded patches and shrubby areas that provide shelter to hide from people
 - Use remaining habitat fragments such as those found in parks and golf courses

Den Sites



Reproduction

- **Breeding occurs January - March**
- **Gestation approx. 63 days**
- **Litters - April & May**
- **Litter sizes often vary (2-15 pups)**



Reproduction Roles

- **FEMALE** solely responsible for the den site
- **MALE** – takes lead role when pups are newborns, obtaining food for his family unit



Behavior

- **At about 3 weeks, the young cautiously venture out.**
- **At about 8 weeks, the pups start learning to be a coyote**



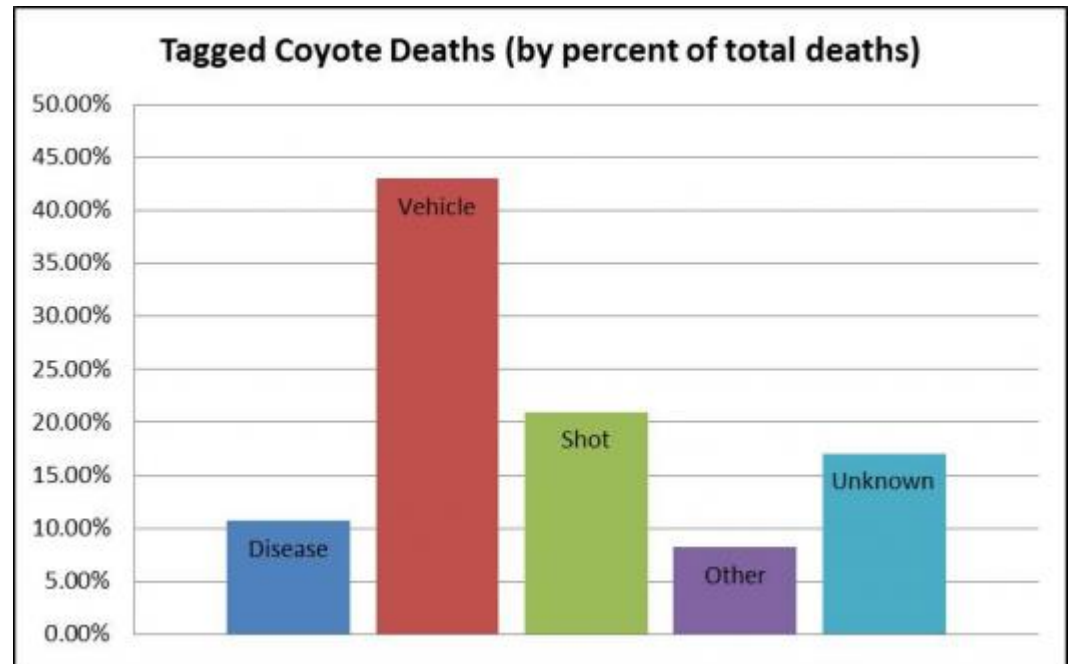
Behavior

- **Family unit stays close into mid-fall.**
- **The young will develop territories of 10-100 miles away.**
- **Young males are run off by the alpha male.**
- **Young females might remain in the family unit the following year.**



Life Span and Cause of Death

- **Approx. 3 years in the wild**
- **Can live 12-15 in captivity**
- **Greatest cause of death in rural areas is due to hunting and trapping**



Cook County, Illinois - Breakdown of 281 radio-collared coyote deaths (years 2000 to 2014)

Diet

Table 1. Frequency of Food Items in the Diets of Coyotes in Cook County, Illinois.* Gehrt 2006

Diet Item Occurrence

Small rodents 42%

White-tailed deer 22%

Fruit 23%

Eastern cottontail 18%

Bird species 13%

Raccoon 8%

Grass 6%

Invertebrates 4%

Human-associated 2%

Muskrat 1%

Domestic cat 1%

Unknown 1%

* Based on the contents of 1,429 scats collected during 2000-

2002. Some scats contained multiple items; therefore, the percentages exceed 100%. See Morey 2004.



Fact vs Fiction

Myth #1 - Weigh over 65 pounds

False – Average 35 pounds (Range 20-45 pounds)



4-7 pounds



14-18 pounds



20-30 pounds



55-75 pounds

Fact vs Fiction

Myth #2 - Mate for life

Mostly True – Will mate for life (will re-mate if one dies)



Fact vs Fiction

Always exceptions to the rule.

Not many things in nature are concrete.

Myth #3 – Hunt in packs

Mostly False – Coyotes are solo hunters



Fact vs Fiction



Myth #4 – A coyote out during the day is sick/rabid

False – Coyotes will feed during the day even though they are primarily nocturnal (especially in cities)

Fact vs Fiction

Myth #5 – The Division of Wildlife reintroduced coyotes

False – Coyotes are very adaptable thus leading to range expansion



Fact vs Fiction

Myth #6 – Coyotes will attack my kids

False – Coyote attacks on people are very rare

- 3-5 injuries/year across North America
 - All cases associated with feeding
- Only 2 reported fatalities since recordkeeping began (pre-1960)

<u>Species</u>	<u>Injuries/yr in US</u>	<u>Fatalities/yr in US</u>
Rodents	27,000	?
Snakes	8,000	15
Skunks	750	0
Bears	30	1
Sharks	28	.5
Alligators	18	.5

Domestic Dog Bites

- **4.5 million dog bites/year**
- **Resulting in 3.6 million injuries/year due to dog bites**
- **41 fatalities in 2016 alone**
- **Breed most responsible for bites:**



Source: Center for Disease Control

Fact vs Fiction

Myth #7 – Coyotes will attack my cats

True – Coyote will occasionally attack cats





Observations of Coyote-Cat Interactions

Grubbs/Krausman 2009

3 month survey in Tucson, AZ

36 interactions

19 resulted in cat killed

31 of 36 (86%) between

sunset to sunrise



Dog Interactions

- **View dogs as competition**
- **Dog size and behavior can dictate coyote response**
- **Will attack a dog if threatened or being protective**





Please!
NO FEEDING
WILDLIFE DEPARTMENT

**WILD ANIMALS ARE NOT PETS
RESPECT THEIR WILDLIFE**

**"A FED ANIMAL
IS A DEAD ANIMAL"**

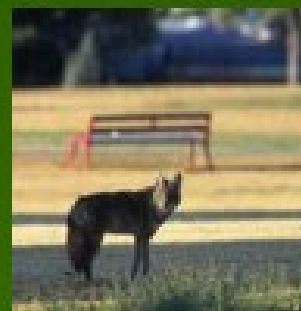
COYOTE ALERT

They are brave & cunning. Do not
try to feed them. They are wild
and unpredictable. They are not
pets. They are wild animals.

If a coyote approaches:
Do not feed it. Do not touch it.
Do not run. Do not scream.

Do not allow pets in your
yard. Do not leave your
garage door open. Do not
leave your car unlocked.

Coyote Info-line: 694 681 WILD (3453)
www.stanecoplandcoyote.org



Co-existing with Coyotes

- **Coyotes are not going away**
- **Don't create a conflict where it doesn't exist**
 - Just seeing a coyote does not mean it's behaving badly
- **Modifying human behavior is the best way to reduce conflicts with coyotes**

Co-existing with Coyotes

- **Eliminate attractants on your property**
 - Bird Feeders
 - Pet Food
 - Garbage
 - Grill



DO NOT FEED!
(directly or indirectly)

Co-existing with Coyotes

- **If a coyote is causing a problem:**
 - Focus attention on problem animals
 - Harassment/Hazing is the key to avoid individual encounters
 - Yell, clap your hands, throw something towards it
 - Turn on porch lights at night
 - Keep animals on a leash and close to the house
 - Bring animals in at night



If you do nothing, you will continue to have issues!

Coyote behavior / activity		Responses
<p>Rarely or occasionally seen at night, more rarely during dusk and dawn</p>	LOW	<p>Limit food sources (garbage, pets feeding, wildlife feeding) Supervise pets and don't let them run free</p>
<p>Occasionally seen during the day Frequently seen at night Free-ranging pets occasionally disappear</p>	CONCERN	<p>Use hazing, negative stimuli (shouting, chasing, throwing objects)</p>
<p>Frequently seen during the day Stalking or attacking pets Fleeing from people</p>	CONCERN	<p>Consider removal program in conjunction with education; prohibit/limit feeding of wildlife; supervise pets; use negative stimuli</p>
<p>Approaching people aggressively Growling, barking when hazed (rather than running) Following children Preying on pets in yards</p>	HIGH	<p>Initiate removal program in conjunction with education; prohibit/limit feeding of wildlife; supervise pets; use negative stimuli</p>



Problem Animals



Must be euthanized or let go on-site if trapped

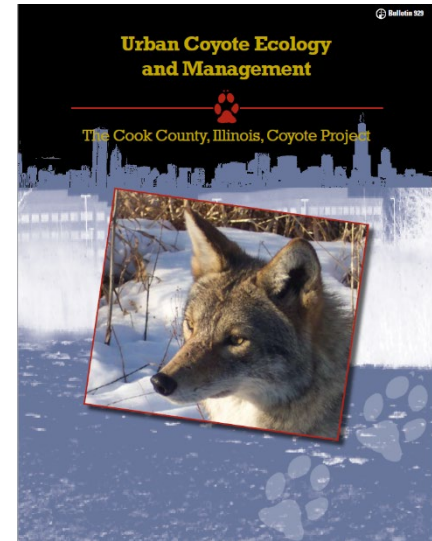
Problem Animals



- **Allow hunters and trappers access to your property**
- **Very liberal regulations regarding harvest of coyotes**
 - **Currently no closed season or bag limits**

Resources

- www.wildohio.gov
 - General nuisance animal information
 - Nuisance trapper contacts
- www.urbancoyoteresearch.com
 - All things coyote biology and ecology
 - Conflict resolution information



Community-Level Strategies for Urban Coyote Management

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Max McGraw Wildlife Foundation

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Associate Professor of Wildlife Ecology and
Extensions Wildlife Specialist
School of Environment and Natural Resources

As coyotes expand their range into metropolitan areas across North America, conflicts between coyotes and people are on the rise.

In urban settings, most conflicts with coyotes result from disease or from people feeding wildlife. Feeding coyotes, accidentally or intentionally, can cause coyotes to habituate and lose fear of people or become food-conditioned, in which they associate hu-

mans or human places, like backyards, with positive food rewards. Consequently, some coyotes develop nuisance behaviors that lead to conflicts with pets, increased daytime activity in residential areas, and, more rarely, aggressive behavior towards people.

Because human behaviors and attitudes are usually at the root of human-coyote conflicts, strategies for modifying individual human behavior are critical steps toward preventing or reducing conflicts with coyotes. This should be the first step in any urban coyote management plan.

PREVENTING CONFLICTS WITH COYOTES: INDIVIDUAL APPROACHES

Below are steps an individual can take to prevent conflicts with coyotes.

1. Do Not Feed Coyotes
2. Supervise Children When Outside
3. Do Not Let Pets Run Loose
4. Do Not Run from a Coyote
5. Report Aggressive, Feeder Coyotes Immediately
6. Report Aggressive, Feeder Coyotes Immediately

*Remember, individual actions to prevent conflicts will be most effective when coordinated across a community.

For more information about individual actions, see The Ohio State University Extension Fact Sheet—Urban Coyotes: Conflict and Management.

However, individual action will only be effective if it is coordinated across a community—individual actions may be undermined if a neighbor continuously engages in activities that habituate coyotes. Therefore, a comprehensive management plan is one that prevents conflicts at both the individual and community level.

COMMUNITY-LEVEL APPROACHES TO PREVENTING HUMAN-COYOTE CONFLICTS
Community-level coyote management programs are often coordinated by municipalities, local and state government agencies, animal control, neighborhood associations and/or local wildlife or public safety-related organizations.

Below are common components of community-level programs.



Resources

- **D-5 Office**
- **(937)372-9261**

- **General Information**
- **1-800-WILDLIFE**

- **Report Poaching**
- **1-800-POACHER**



Take Home Points

- **Coyotes aren't "good" or "bad" they just are.**
- **They are just wild animals surviving in a human dominated world**
- **It's up to us to modify our behavior to limit negative interactions**

Thank you for your time!



Brett Beatty-Wildlife Management Supervisor

937-372-9261