THE CALIFORNIA VALLEY COYOTE

The coyote (*Canis latrans*) has inhabited California for tens of thousands of years, predating human occupation of the land. It co-existed alongside the first aboriginal people, Spanish colonists, and adapted over and over again to major changes in the habitat and increased human presence[1]. It is the coyote's unique characteristics that allow it to survive, even thrive, near humans.

There are currently 20 recognized subspecies of coyote. The Los Angeles area is home to the California Valley Coyote, which typically weighs between 18 and 30 pounds - about as large as a medium-sized dog, but with long legs. Its thick coat can make it appear larger.

Although the coyote is classified as a carnivore, coyotes are better identified as opportunistic omnivores as they eat a variety of foods including nuts and seeds, grasses, vegetables, fruits, insects, rodents, rabbits and other small mammals.

In an urban setting, coyotes are attracted to bird feeders for the seed as well as the abundance of rodents attracted to the feeders. Coyotes are also attracted by compost piles, vegetable gardens and fruit trees, accessible garbage and pet food. Even so, research indicates rodents make up the bulk of the coyote diet in both urban and rural areas.[2]

Being an opportunistic forager, urban coyotes have flexible hunting habits. Coyotes are naturally fearful of humans and will try to avoid encounters with people by exploring neighborhoods when they're the quietest - the least amount of vehicle and or pedestrian traffic. In many cities this would be late night until dawn.

Coyotes can learn to take advantage of anthropogenic (human-related) foods, like pet food left outdoors. A coyote that learns it can find a bowl of food in a particular backyard, for example, might visit that yard nightly, but should it encounter a human, it will bolt for safety. This would be considered a "food-conditioned" individual.

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[1] Gill, Don. "The Coyote and the Sequential Occupants of the Los Angeles Basin," *American Anthropologist* 72, no. 4 (1970): 821–2, accessed 7/31/22, http://www.jstor.org/stable/671658

[2] "Coyote Relationship with Other Animals," Urban Coyote Research Project, accessed 7/31/22, https://urbancoyoteresearch.com/coyote-info/home-ranges-individuals

A “human-conditioned” coyote is one that has learned through repeated encounters with humans deliberating “training” them, that if they approach, they will be “rewarded”. This can happen when people hand-feed coyotes, or toss them food from a distance. While these coyotes still retain their fear of humans, they have increased their proximity tolerance because the “*juice is worth the squeeze*”. These are often the coyotes observed casually loitering in a particular area, waiting to be “fed”.

Another type of human-conditioning can happen when people act passively in the presence of coyotes in an urban environment. Instead of helping to maintain respectful boundaries through assertive messaging, they retreat, signaling submissiveness.[3] This can cause coyotes to feel more at ease around humans.

A coyote following a person may indicate it has learned, through repeated encounters, it can successfully scavenge food. Much like jackals (a relative of the coyote) in Africa that follow behind lions - because a lion leads to food. It’s the same concept. However, a coyote following or “escorting” a person with a dog can mean something very different, and not predatory.

There is growing evidence to support the theory that altercations between coyotes and domestic dogs and cats are primarily driven by competition or a threat response, rather than predatory in nature[4]. Therefore, a coyote following a person with a dog may indicate either a food resource nearby or pups in the vicinity.

A coyote that shows extraordinary interest in a dog accompanied by a person might also be the result of repeated negative encounters with dogs, so traumatic the coyote has become more defensive and reactive towards dogs.

Even so, no matter how deeply conditioned or traumatized, coyotes *can* be “deprogrammed” and reconditioned to respect and maintain healthy boundaries with humans. However, for “deprogramming” or reconditioning to be successful, the root cause of the problem must be identified and remedied.

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[3] Wattles, D. (2022, July 7). Eastern Coyote Biology and Management [online presentation]. Town of Nahant "Coyote Discussion With Mass Wildlife Representative," Nahant, MA, Country. https://youtu.be/976GPh55QTE

[4] Poessel, Sharon & Mock, E & Breck, Stewart. (2017). Coyote (Canis latrans) diet in an urban environment: variation relative to pet conflicts, housing density, and season. Canadian Journal of Zoology. 95. 287-297.

Repeated sightings of coyotes in urban settings indicate a reliable food or water resource. Justin Brown, a biologist with the National Park Service suggests that if people are encountering coyotes in a residential area, "they're coming into your neighborhood for a reason. There's some sort of resource they're finding."[5]

According to Brown, people need to realize that their actions are responsible for drawing coyotes into their neighborhoods and that "we need to be dealing with *that* situation if we don't want them there."[6]

Eliminating attractants, then, is key to reducing the prevalence of coyotes in an urban landscape, and subsequently reducing risk of altercations with pets. According to Niamh Quinn, a Human-Wildlife Interactions Adviser with the University of California's Division of Agriculture and Natural Resources, keeping coyotes from having potential food sources can help reduce their presence.[7]

For decades, experts have suspected a strong connection between anthropogenic food resources and the presence of coyotes in urban areas, suggesting that reducing food resources would reduce the presence of coyotes in an urban landscape.

Finally, in 2004, a study involving radio-collared coyotes confirmed the theory. Researchers documented a dramatic decrease in coyote traffic across an entire neighborhood when two major sources of food were removed.[8]

Authorities agree, the two most important strategies to reduce the presence of coyotes in urban areas and to maintain health boundaries, are education of the public on what attracts coyotes and how to discourage them, and ordinances prohibiting the feeding of wildlife or otherwise attracting wildlife, including the handling of refuse.[9]

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[5] Ryan Fonesca, "To Unlock the Secrets of Urban Coyotes, Biologists Turn to Poop," LAIST, Los Angeles, CA 3/25/19, https://www.latimes.com/archives/la-xpm-1986-11-23-me-12481-story.html

[6] Fonesca, R. "To Unlock the Secrets of Urban Coyotes, Biologists Turn to Poop,"

[7] David Mendez,"People and Pets Contend With Urban Coyotes in Los Angeles," Spectrum News, Redondo Beach, CA, 12/16/20 https://spectrumnews1.com/ca/la-west/public-safety/2020/12/16/contending-with-urban-coyotes-in-los-angeles

[8] Derek Gomes, "Study finds food source major draw for coyotes," Newport Daily News, Newport, RI 7/19/19, https://www.newportri.com/story/news/local/2019/07/17/want-to-keep-coyotes-away-dont-make-food-available-to-them-on-aquidneck-island/4671343007

[9] Baker, Rex O. and Timm, Robert M. (2017) "Coyote Attacks on Humans, 1970-2015: Implications for Reducing the Risks," *Human–Wildlife Interactions*: Vol. 11: Iss. 2, Article 3. https://digitalcommons.usu.edu/hwi/vol11/iss2/3

Reducing food resources might not only reduce the number of individual coyotes in an area, but possibly reduce the number of family units, or packs, due to the unique social characteristics of the coyote.

A coyote's home range refers to the area in which they travel and forage for resources. Home ranges of coyotes can overlap. A territory is an area within the home range.[10]

Solitary coyotes, also referred to as nomads, or transients, often travel great distances and have large home ranges but do not defend a territory. Resident coyotes, those that belong to a family unit, or pack, fiercely defend a territory, keeping all other coyotes out.

Territory sizes vary depending on food resources. In a natural habitat, a coyote's territory could be 15 square miles. Conversely, in an urban environment with an abundance of anthropogenic food resources, coyotes may only need to control a small territory, as small as one-half square mile, to survive.

A family unit consists of the male and female partner - the mated pair, and sometimes one or two "helpers" (usually older offspring), as well as the pups of the year. The total number of individuals in a pack fluctuates depending on the time of year and age of the pack's members. The average size is between 3 and 4 adults[11].

Pups are born in early spring. The female will give birth and nurse her pups in a sheltered area, referred to as a den. After they are about six weeks old they start to explore outside of their den. Weeks later, when the pups are more mobile, the family may abandon the den site and use various "rendezvous sites" to rest and socialize. By the end of summer and early, the more independent pups might begin to disperse from the territory to become transients. Through fall and winter months, most of the pups will disperse. Depending on the pack's dynamics, though, one of two may remain as a helper.

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[10] "Home Ranges of Individuals," Urban Coyote Research Project, https://urbancoyoteresearch.com/coyote-info/home-ranges-individuals (accessed 7/31/22)

[11] Way, J.G. 2021. E-book. Coywolf: Eastern Coyote Genetics, Ecology, Management, and Politics. Eastern Coyote/Coywolf Research, Barnstable, Massachusetts. 277 pages. Open Access URL: http://www.easterncoyoteresearch.com/CoywolfBook.

Coyotes are absolutely monogamous - until death do they part[12], and about 95% of the time *only* the alpha pair reproduce. Other female members of the pack remain behaviorally sterile[13]. This unique social hierarchy of the coyote has profound implications when lethal measures are used to manage their numbers.

Simply put, when either (or both) the "King" or "Queen" is removed, the social structure of the pack collapses and the kingdom - the territory - is then "up for grabs".

Immigration is immediate, either from local transient coyotes or neighboring packs, quickly replacing the reproductive male and or female.[14] Therefore, no long term change in population can be expected.

Coyotes evolved special adaptations allowing them to recolonize quickly and for this reason efforts to control their numbers by lethal means are not successful, as researcher Niamh Quinn has explained, "When you start to lethally control coyotes, all you get is coyotes from other areas."[15]

Research suggests removal of coyotes can increase the number of individuals in an area[16], pointing to the potential for the next litter of pups to survive to adulthood due to a surplus in food from there being fewer adults. These pups could be recruited to stay on as helpers when they are mature, which means within a year or so, the population could be back to where it was originally. Additionally, ongoing lethal control can result in an area's packs being skewed towards younger, more productively fit individuals.[17]

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[12] Ohio State University. "Urban coyotes never stray: New study finds 100 percent monogamy," ScienceDaily, www.sciencedaily.com/releases/2012/09/120925142549.htm (accessed 7/31/22)

[13] Dr. Robert L. Crabtree, "Crabtree Letter on Coyotes," The Wildlife News, https://www.thewildlifenews.com/wp-content/uploads/2012/07/Crabtrees-Letter-on-Coyotes.pdf (accessed 7/31/22)

[14] "Crabtree Letter on Coyotes," The Wildlife News, accessed 7/31/22, https://www.thewildlifenews.com/wp-content/uploads/2012/07/Crabtrees-Letter-on-Coyotes.pdf

[15] "People and Pets Contend With Urban Coyotes in Los Angeles," Spectrum News, (accessed July 31, 2022) https://spectrumnews1.com/ca/la-west/public-safety/2020/12/16/contending-with-urban-coyotes-in-los-angeles

[16] Moll, R.J., Green, A.M., Allen, M.L. and Kays, R. (2025), People or predators? Comparing habitat-dependent effects of hunting and large carnivores on the abundance of North America's top mesocarnivore. Ecography, 2025: e07390. https://doi.org/10.1111/ecog.07390

[17] "Crabtree Letter on Coyotes," The Wildlife News, https://www.thewildlifenews.com/wp-content/uploads/2012/07/Crabtrees-Letter-on-Coyotes.pdf, (accessed July 31, 2022).

Possibly the most current example of this phenomenon is playing out in Torrance, California, where the City's campaign to eliminate coyotes through year-round trapping does not appear to be working as anticipated. Analysis of the program's statistics suggests no significant decrease in the population of coyotes in the area or a reduction in sightings or encounters.

What *has* proven effective in reducing the presence and prevalence of coyotes in an urban setting, is removal of the food subsidies that attract and support them. This includes, pet food, birdseed, compost, accessible garbage, fruits and berries, free-roaming chickens, and free-roaming cats.

The presence and prevalence of coyotes in an urban setting *can* be reduced by reducing food resources that attract and sustain them. Essentially, to see a change in coyote behavior, there must be a change a change in human behavior.[18]

[18] David Gregg and Jo Yellis, "Coyote study comes to Providence," Providence Journal, Providence RI, 9/21/20, https://www.providencejournal.com/story/opinion/2020/09/21/opiniongregg-and-yellis-coyote-study-comes-to-providence/114108810/