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## Nature Around Us | EASTERN COYOTE



Article & Photo by Margie Manthey and published in the Westport Review Mirror, 2020



## A coyote by any other name...

"How come you call so lonesome; how come you sound so blue? Is there something inside that you just can't hide? Has something come over you? That's all right, we all get lonesome too." ~ Coyote, by Bill Staines.

Since migrating to the region over a century ago, the eastern coyote can be found throughout much of Ontario. Many people are surprised to learn that all

eastern coyotes – every single one – are hybrids resulting from crossbreeding between western coyotes and (both) western gray wolves and eastern wolves. The mixed bag of genes does not stop there. In a 2012 genetics study on 407 eastern coyotes sampled from southern Quebec and several states in the northeastern U.S., 100% of the animals also had domestic dog DNA. Although there were variations, it was revealed that the average eastern coyote is about 65% western coyote, 25% wolf (about half western gray wolf and half eastern wolf) and 10% dog. It is believed that dog genetics entered the coyote population around 13,000 years ago when humans brought European dog species to North America. The study also revealed that eastern coyotes examined in areas with greater densities of white-tailed deer had a higher percentage of wolf genes. This led biologists to infer that coyotes carrying more wolf genetics are more capable of adding deer to their diet (more typical food sources include mice, squirrels, rabbits, snowshoe hares and carrion).

Depending on who you talk to, eastern coyotes are called by other names like brush wolf, tweed wolf, coy wolf and coy dog. This can get confusing as the various names suggest that these are separate species or perhaps subspecies; but an eastern coyote by any other name is still an eastern coyote. That being said, with variations in their gene ratios, characteristics can vary among individuals. One coyote might be smallish with finer limbs and features. Another could be larger with heavier bones and a broad skull. It is the latter that sometimes fools folks into "crying wolf," when what they are actually seeing is an eastern coyote with more wolf genes. In a side-by-side comparison, we would see that an eastern wolf is much larger than an eastern coyote; but in the absence of such an unlikely clue, coyotes are often mistaken for wolves.

Unlike wolves, eastern coyotes are very adaptive. They can thrive in different habitats and are well-suited to a human-dominated environment. In fact, they may be the most successful predator for the present day landscape. Another advantage: eastern coyotes are generalists, meaning they feed on whatever is readily abundant. Furthermore, eastern coyotes are significantly larger than the more fox-like western coyotes, the predominant source of their genetic profile. Hybridization has always been believed to be detrimental in evolutionary terms as it often produces sterile offspring (as is the case with a mule, the sterile offspring of a horse and donkey cross). However, hybridization can sometimes create not only a viable creature, but one that is more fit and adaptive than its parental species. This concept is known as 'hybrid vigor' and the eastern coyote is a shining example of such an evolutionary outcome. Most biologists advocate for the presence of eastern coyotes, as they play an important role in a healthy ecosystem's predator-prey dynamic. They also propose that we should be focusing on supporting species, like the eastern coyote, that are evolutionarily significant and capable of adapting to an ever-changing environment.

Look for an upcoming Wild Around Westport article with more facts about eastern coyotes.

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