

# Who's afraid of the big, bad wolf? Coyotes

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Coyote densities are lower when wolves are present. Credit: Julie Larsen Maher/Wildlife Conservation Society

While the wily coyote reigns as top dog in much of the country, it leads a nervous existence wherever it coexists with its larger relative, the wolf, according to a new study from the Wildlife Conservation Society. In fact, coyote densities are more than 30 percent lower in areas that they share with wolves.

The paper, which appears in the most recent edition of the *Journal of Animal Ecology*, details the results of a study examining the effects of wolves on the distribution and abundance of coyotes in those areas.

“The study tests the hitherto unproven hypothesis that wolves limit the range and numbers of coyotes in places where the two species compete with one another,” said Dr. Kim Murray Berger, a WCS researcher and

lead author of the study. “In this instance, the findings do support the theory, but coyotes can hold their own against wolves by living in packs.”

Working in Grand Teton National Park in the southern Greater Yellowstone Ecosystem, researchers followed radio-collared coyotes at wolf-abundant and wolf-free locations. They found that while coyotes remained the numerically dominant predator in locations where wolves exist, the densities of coyotes was substantially lower in areas containing both canid species. Specifically, coyote densities were 33 percent lower in wolf-abundant sites in the Tetons. Similarly, coyote densities declined 39 percent in Yellowstone National Park after wolves were recently reintroduced there.

In terms of direct mortality, actual predation of wolves on coyotes was low, accounting for some 16 percent of the radio-collared animals. Also there was a clear indication that, with coyotes, there’s safety in numbers; transient coyotes without packs were more likely to fall prey to wolves, with 56 percent of transient coyote mortality being attributable to wolves. Also, transient coyotes in wolf-abundant sites were 117 percent more likely to leave an area frequented by wolves.

A bigger threat to coyotes than wolves is humans, with 29 percent of the mortality in the study animals being human-related.

Source: Wildlife Conservation Society

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