

# **Lack of Support for Coyote Control of Raccoon Populations Predicted by the Mesopredator Release Hypothesis**

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**ABSTRACT:** Predator control programs are often highly criticized for treating predator species in isolation without considering the potential indirect effects of manipulating individual segments of the predator guild. The mesopredator release hypothesis (MRH) in particular predicts strong indirect effects of predator control where mid-sized predators are released from pressure when large-bodied predators are removed from a system. Recent coyote (*Canis latrans*) colonization of the southeastern United States has prompted speculation on the top-down effects of a new top predator on systems which have gone without a strong predator presence since the extirpation of the red wolf (*Canis rufus*). This presentation will report on the results of a doctoral dissertation project investigating the potential impact of coyotes on raccoons (*Procyon lotor*) with three indirect field tests of one prediction of the MRH: 1) lack of significant instances of raccoons in coyote diet; 2) lack of spatial avoidance of raccoons to areas treated with coyote urine; and 3) lack of raccoon behavioral response to coyote scat treatments. This lack of indirect support for coyote suppression of raccoon populations might suggest that coyote control programs in the Southeast are not likely to have indirect effects on ground nesting prey. However, the MRH may still predict indirect effects of coyotes through a different intermediate predator.

**Key Words:** coyote, mesopredator release hypothesis, raccoon control

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