



Coyote Research at SUNY ESF

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Around 14,310 territorial pairs of coyotes roam New York State. This number was determined from coyotes responding to broadcasted calls statewide, adjusted by two important factors: the likelihood that a human hears a calling coyote (we hear only about 19% of them due to intervening terrain and forest cover) and the likelihood that a coyote would respond vocally to a broadcasted call (they answer about 48% of the time). A model based on the physics of sound spread indicates coyotes are much more "hearable" in areas like the Lake Plains region, and the ability to hear coyotes better may mistakenly be interpreted to mean there are more of them. Coyote density actually ranges from a low of about 1 breeding pair/10 square miles in the Lake Plains to around 2.5 pairs/10 square miles in the Adirondack Mountains and surrounding St. Lawrence and Mohawk River valleys.

Prodator swamping is an effective strategy to minimize the effects of coyote predation on deer. Cause of death was determined for 86 animal carcasses in winter (including one mild and one average season) and 55 animal carcasses in summer that GPS-collared coyotes visited in 2008-2009 in rural, agricultural areas of Steuben and Otsego counties. In winter, 42% of the visited carcasses were scavenged deer (killed by vehicle collisions or injuries sustained during the hunting season), 28% were scavenged livestock (none killed by coyotes), 27% were too decomposed to know what killed them, and only 3% were killed by coyotes. The adult deer killed by coyotes had severe preexisting injuries and were likely to die from other causes in the absence of coyote

predation. In summer, 55% of carcasses were fawns, 24% were woodchuck, 18% were turkey and 4% were goose and cottontail. Not all of the collared coyotes killed fawns (only 9 of 15), and kill rates varied widely among individuals (I fawn every 1.4 to 19.0 days, depending upon the coyote). Importantly, fawns up to about 20 days old were vulnerable to coyote predation, but predation dropped sharply after mid-June. Concerted fawn production within a tight

window of time, known as "predator swamping," remains an effective strategy by deer to minimize predation impacts on fawn recruitment.

Coyotes in the Adirondacks prefer beaver to deer. The percentage of coyote scats containing deer in the Huntington Wildlife Forest (Newcomb, NY) has declined from a historic peak of around 90% in 1975-1980 to less than 50% today, despite having more deer available today compared to historically low populations in the 1970-80s. The shift away from deer corresponded to increasing consumption of begyer, with begyer occur-

ring in less than 5% of coyote seats in the late 1970s but nearly 30% of seats today. In summer, Adirondack coyotes now consume more protein from beaver than deer. This long-term study reflected a classic pattern of prey switching by coyotes to the most abundant and profitable prey species on the landscape.

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