

Wolves, jaguars are out, coyotes, foxes are in: New global study

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Tony Davis

For those few hundred people who saw the "Lords of Nature" during the summer at Tucson's Loft Cinema, a new [study](#) sends a warning: kill off the big predators and the smaller ones run wild. While the study is global, its findings probably apply to the Southwest, where grizzlies, wolves and jaguars have slumped or disappeared over the past century in favor of coyotes and kit foxes, among other smaller predators, a researcher on the study said.

The report says that over the last couple of centuries, the range of many top-level "predators such as gray wolves, jaguars and black bears has declined rapidly due to population pressures and, of course, federal extermination campaigns instituted to protect domestic livestock. When these "apex" predators disappear, their niches are filled by smaller, "mesopredators" such as coyotes, kit foxes, gray foxes, badgers, racoons and red foxes, said the study, written by seven researchers.

So what, you ask? Foxes and coyotes, unhindered by their declining predators, run wild, consuming smaller species at increasing levels: "Mesopredator outbreaks often lead to declining prey populations, sometimes destabilizing communities and driving local extinctions," said an abstract for the study, published in the October issue of the journal *Bioscience*. The study cites a recently published review article that found 34 studies published worldwide that documented "cascading negative effects of mesopredator release" for birds, sea turtles, lizards, rodents, marsupials, rabbits, fish, scallops, insects and ungulates.

"Although several studies found no evidence of mesopredator release following apex predator declines, the weight of evidence suggests that mesopredator release is a common result of apex predator loss throughout the world," the new *Bioscience* report said.

"We have a high abundance of coyotes in the Southwest. That can trigger cascading effects on what coyotes eat and don't eat," said Prof. William Ripple of Oregon State University, one of the researchers. "One reason for the large number of coyotes — the low numbers or absence of wolves in the Southwest. What happened in historic times before wolves were eradicated, they probably put pressure on coyote numbers and kept them much lower."

Since gray wolves were reintroduced to Yellowstone National Park in 1995, coyote numbers have dropped dramatically, added Ripple, one of the featured scientists in "Lords of Nature," which looked at the effects of large predators such as wolves and mountain lions on the broader ecosystem and founds them positive, their appetite for cattle notwithstanding.

The study didn't pinpoint any ecological impacts of more coyotes in the Southwest, but we at Blogging the Desert will be following up on some reliable tips on this subject in the future. If they check out, it will make for interesting reading — and it's not just the increasing cases of coyotes running off with your neighbor's dog.