

LESSONS FROM PAST REINTRODUCTIONS

In the mid-1990s, officials at Yellowstone National Park released gray wolves from areas in Canada and Montana into the park; it had been more than half a century since the predators last roamed the park. Researchers tracking the revolutionary experiment published results that they say point to the reintroduction's role in revitalizing the once-degraded ecosystem, with the wolves' predatory behavior indirectly supporting the growth of vegetation and even improving the health of the park's waterways. But a heated debate rages on concerning the effects the wolves had on their environment, especially relative to roles of other members of Yellowstone's rich carnivore community.

Yellowstone, Wyoming, US

41 gray wolves reintroduced in the mid-1990s



Following wolf reintroduction, elk numbers dropped dramatically—from nearly 20,000 in 1994 to just 8,300 in 2000—but wolves are likely not the only carnivore that contributed to that decline; black bear, grizzly, and cougar populations surged around the time of the wolf reintroduction.



Although they suffer less browsing pressure since the predator increases in the 1990s, willows have not fully recovered, according to some researchers. And without willows, the recovery of streams has been limited.

Ecologists first posited that by keeping elk away from streams, wolves were indirectly allowing aspen trees to flourish. Although the trees increased in height in certain areas, their overall abundance changed little.

Initial studies proposed that elk stay away from streamside areas where they could more easily fall prey to wolves, but new research suggests that elk only avoid these regions in the morning and at dusk. The herbivores also appear to have altered their behavior to avoid cougar-patrolled forested areas at night.