

One's trash is another's treasure: How landfills support Andean condors

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The largest landfill in Chile, Loma Los Colorados, hosts the largest known aggregation of Andean condors (*Vultur gryphus*) at a single site. That's according to a new study [published](#) in the *Journal of Raptor*

Research, which highlights several insights from their 17-year-long study of the site.

In their paper, "Landfill use by Andean condors in Central Chile," lead author Eduardo Pavez, of Bioamérica Consultores and Union de Ornitólogos de Chile, and co-authors explain how condor numbers at the [landfill](#) are directly linked to the presence of available food in the surrounding landscape, namely the carcasses of cattle and rabbit.

They also found that condor numbers at the site fluctuate depending on the movements of grazing livestock across the region, and that the age and sex ratios of condors at the landfill suggest those at the bottom of the social ladder (juveniles and females) visit the landfill more often than adult males.

Andean condors are among the largest birds in the world. As obligate scavengers they rely on decaying animal matter, termed carrion, for sustenance.

In central Chile, human livestock practices strongly influence the distribution of carrion available to Andean condors. Landfills are predictable, and predictable food sources often alter the movement patterns of wildlife species. Understandably, most animals avoid working hard to find food if they don't have to.

Although the presence of landfills can aid in condor survival by offering a reliable food source, they can also harm condors at the individual and population levels.

Over the course of the study, the team observed four poisoning events affecting 14 condors, eight of which died as a result. Most of the afflicted were males, likely because adult males are dominant over other condors at desirable food items. When those choice items are toxic, the

males experience the worst of it. These poisonings were due to organophosphorus intoxication, however the exact sources were never revealed.

Notably, condor numbers at the landfill decreased between 2013 and 2016, correlating with widespread cattle mortality due to drought, and rabbit mortality due to myxomatosis disease, both of which increased the availability of food sources (carcasses) in the regional landscape. After 2019 both mortality events subsided, and condor numbers at the landfill increased.

Pavez says that this trend "showed how the presence of condors in landfills is an indicator, a very sensitive barometer, of what is happening with the food supply on a broad geographic scale."

More juveniles and females fed at the landfill than adult males, likely because successful scavenging is more difficult for [young birds](#) and subordinate individuals, and landfills offer easier pickings for those who might be bullied off of choice carcasses by [adult males](#) elsewhere.

The authors recommend that landfill management companies work to reduce the presence of garbage available to the condors, and implement feeding stations during times of food hardship, primarily the austral winter. This has been done successfully in central Chile by Pavez's team.

Pavez says that "until recently, companies that managed landfills were blamed for poisoning events and were considered a threat to condors. Today, studies like ours have been possible thanks to the financing of some of these companies, which now want to be part of the solution to the conservation problems of the Andean [condor](#)."

Andean condors, like all vultures, are important agents in the recycling of organic material across the landscape. They remove rotting flesh from

the ground, for free, and they do it efficiently. Their continued existence in our skies is a worthwhile priority, not only in central Chile, but across the globe.

More information: Eduardo F. Pavez et al, Landfill Use by Andean Condors in Central Chile, *Journal of Raptor Research* (2023). [DOI: 10.3356/JRR-22-00051](https://doi.org/10.3356/JRR-22-00051)

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