

California seal pups were turning up headless. Experts finally confirmed the culprit

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Credit: Pixabay/CC0 Public Domain

Finding dead seals along California's coast is not novel in and of itself. The marine mammals get sick, are stillborn or even wash ashore after



being fatally struck by a boat.

But decapitated seals? That was something new for North Coast ecologists—even ones who study stranded <u>marine life</u>.

Again and again since at least 2015, the mysterious—and gruesome—deaths kept occurring, primarily involving harbor seal pups at MacKerricher State Park, not far from Fort Bragg in Mendocino County, according to Sarah Grimes, marine mammal stranding coordinator and educator at the Noyo Center for Marine Life in Fort Bragg. The killings weren't happening en masse, but up to a dozen or so of the carcasses were discovered each of the last few years, she said.

Now researchers have finally solved the yearslong mystery of the headless seals: coastal coyotes, a finding first reported by the Mercury News.

In a wildlife camera set up last year near the seal rookery at MacKerricher State Park, ecologist Frankie Gerraty captured a coyote decapitating its prey, confirming many researchers' hypotheses about the maimed seal carcasses.

"We had a captivating capture of a coyote dragging a freshly killed seal into the [camera view], and over the course of five minutes proceed[ing] to take its head off," said Gerraty, a doctoral student in the ecology and evolutionary biology department at UC Santa Cruz.

That breakthrough video hasn't yet been published or shared publicly as researchers are working to further understand the seemingly new predator-prey relationship, Gerraty said. He hopes they will publish their research on the coastal coyotes in a future paper, documenting how the species has become not simply a beach scavenger but also a beach predator.



Gerraty's cameras have also confirmed this new predator-prey relationship at Point Reyes National Seashore in Marin County, he said.

Gerraty started hearing about the decapitated harbor seals as he was doing research on the coastal coyotes' diet; he said it was well documented that they would scavenge already-dead seals.

Grimes had been working to understand the phenomenon—only with clues, not any confirmation.

"It's my job to really be a detective and look into these carcasses and try to figure out what is going on with them."

But she was stuck.

When Gerraty started to hear about the decapitated seal carcasses, he said, he "had a hunch it could be coyotes because we knew they already spend a lot of time on beaches."

But when he saw one of the headless seals up close, he thought the cut along the neck was too clean to be a coyote's work, and worried it might even be a human's.

Then the <u>video footage</u> proved him wrong.

"We know, 100%, that coyotes are responsible for killing a number of seals in a handful of sites," Gerraty said.

"It's obviously gruesome, but at the same time ... coyotes and harbor seals are <u>native species</u>," he said. While this interaction appears to be new to scientists today, he added, "in reality it could be the restoration of this relationship."



Coyotes are making a comeback in the Bay Area and Northern California after decades of decimation by farmers and ranchers, who poisoned and hunted the feral canines.

"As these predators are recovering, it's really interesting to think about how the ecological relationship may be coming back or not," Gerraty said. He said it wouldn't surprise him if, historically, coyotes hunted seals, but it has never been documented.

It's imporant to foster and understand this native habitat and natural life cycle, Grimes said— and to not think of coyotes as savage or ruthless.

"This really is nature's balance," Grimes said. "The coyote is not a villain. It's part of the ecosystem that has been missing for some years."

It's still unclear why the coyotes are going for just the seals' heads and then leaving the bodies for other scavengers, but Gerraty has his suspicions.

"My guess is that the brains are pretty nutritious compared to a lot of other seal parts. Blubber can be pretty hard to get through," he said.

But those questions will continue to drive Gerraty's research into just how widespread this predation is and what it could mean for each species.

"It could have interesting implications for both the seals and coyotes," he said. He doubts the coyotes' current hunting patterns would have any drastic effect on the harbor seal population, but he said it could affect where they congregate and give birth.

"If these seals are realizing that some of these sites are risky ... they might choose to give birth and 'haul out' in other locations," Gerraty said.



Depending where they move, he added, it could be less suitable for pup development or <u>food sources</u>, which could have more long-lasting effects.

Because of these many still unknowns, Grimes said, it's important for people to continue reporting marine creatures that are stranded—this is, dead on the beach or alive but unable to return to the water—to the West Coast Marine Stranding Network, which is run through the National Oceanic and Atmospheric Administration.

"We learn so much about ocean health," she said, "through those stranded animals."

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