

# In valley, goat attacks lead to puma tracking

*Ben Stocking*

17–22 minutes

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Meggan Arnoux, a chef who oversees the Lagunitas organic school lunch program, was doing early-morning prep work when the call came at 9:30 a.m. on a Wednesday in March. Her husband, Mario, had bad news: Their goats were dead.

Named after her father and uncle, Timmy and Jimmy, the Nigerian dwarf goats were neighborhood characters whose personalities bore a striking resemblance to their namesakes. Timmy was boisterous and outgoing; Jimmy was more reserved. Neighbors loved to drop by and pay their respects to the rambunctious ruminants, who filled a void for Ms. Arnoux after two of her three sons went off to college and the household grew quiet.

“I became super attached to those goats,” she said. “They were like my babies.”

Mario found their bodies on March 18, when he went to let them out of their shed on a leafy hillside just above Lagunitas Creek. Timmy had two puncture wounds on his broken neck and had been left next to the shed, his body intact. Jimmy had been partially eaten, dragged toward the creek and buried under a pile of hay.

Their killings appeared to have been the work of a hungry mountain lion, and chances were good that he would return to feed.

Later that day, Quinton Martins, a South African-born biologist, safari leader and expert in big cats, would survey the scene like a detective, assessing how the predator had entered the property and how it could be lured back and collared as part of a tracking project he has run from Sonoma County for a decade.

The goal is to protect Northern California’s mountain lions, which negotiate an array of threats to survive here, and to encourage

people to see them as co-inhabitants of the earth. As apex predators, they are key members of the ecosystem; when they thrive, other species are thriving, too.

The program, Living with Lions, is a partnership between Mr. Martins's nonprofit, True Wild Conservation, and All Hands Ecology, the Marin nonprofit previously known as Audubon Canyon Ranch. It recently expanded its reach to Marin, where young male cats seeking to establish territory south of Sonoma County must navigate more thickly populated areas and reach a dead end at the Golden Gate Bridge.

One cat in particular, P-36, drew Dr. Martins's attention to Marin. He was a so-called dispersal cat, a young lion who had recently ventured away from his mother. His journey began in his natal range, near Santa Rosa, and took him up to Lake County, then all the way down to the Golden Gate. Unable to cross, he headed over Highway 101 and into Tiburon.

"There are real serious risks going through those areas, with all the people, roads and traffic," said Dr. Martins, who tracked the cat the entire way. "He eventually turned around and went back up to Bodega."

His journey ended when he killed some livestock there and a rancher shot him dead, which is legal so long as the shooter has a depredation permit bestowing a license to kill.

"P-36 really introduced us to the Marin story," Dr. Martins said. "He opened my eyes to some of the bigger issues for mountain lions in the area."

The counties north of Marin are more congenial for mountain lions, which are also known as pumas. (Thus P-36's designation begins with a P.) There may be as many as 75 pumas in Sonoma, while Marin is unlikely to have more than 20 to 25, Dr. Martins said. Around five to 10 are likely residential adults, while the remainder would be dispersal cats or very young pumas living with their mothers.

Ms. Arnoux learned about the project from Cyn Cady, a Woodacre resident and the ringleader of the San Geronimo Valley's cozy circle of goat owners, whom she calls "valley hippie-billies." Ms. Cady is the glue that holds the group together. She runs a Facebook page

called West Marin Goatherds and posts photos and information about the ruminants. When her close friend Ms. Arnoux lost her companions, Ms. Cady sprang into action, counseling her to call Dr. Martins right away.



*Cyn Cady, who keeps goats in Woodacre, installed black plastic sheeting along her fence as a visual barrier for mountain lions. Pumas are stimulated by the jumpy movements of prey animals. (David Briggs / Point Reyes Light)*

At a micro-farm in Woodacre that Ms. Cady shares with her partner, the country troubadour Danny Montana, she has kept goats for a decade. She currently has five does: Molly Jane and Wednesday, the older members of the herd; Ellen May, named after a prostitute character from the T.V. show “Justified”; Pants, who looks like she’s wearing trousers; and Sally Ride, a tiny disabled goat who is brave like the astronaut.

“I post a lot about her, and she breaks the local internet,” Ms. Cady said as her large livestock guardian dog, Howard, lumbered around the perimeter of her yard and barked at anything that approached. “Her brothers were these glorious titans of goat land, these big, beautiful boys, and they just kind of squished her in utero, so she doesn’t walk right, and she doesn’t see right. She’s the best.”

Like her fellow hobby farmers in the valley, Ms. Cady makes goat cheese, milks her little herd and occasionally breeds them. But

mostly, the goats just hang out at her place, which she calls Ranchito Gordito.

She learned about Dr. Martins's project from another valley friend, Lisa Capaldini, a San Geronimo doctor, horseback rider and all-around animal lover who lost two goats several weeks before Ms. Arnoux's met their untimely end. It is unclear whether they died at the hands of the same hungry puma.

Dr. Capaldini has owned eight goats over the years but had just three at the time of the kill—Cardamom, Rascal and Sassetta, the latter named after the early Renaissance painter whose work "The Adoration of the Magi" is Dr. Capaldini's favorite painting. Sassetta had the same sweetness and stillness she loved in the art.

She had only planned to buy two goats, but when she saw the three littermates, she didn't have the heart to leave one behind.

"When you get these youngsters, you bottle feed them for a while, which is an incredible bonding experience," she said. "Eventually, you wean them to solid food."

In addition to the goats, Dr. Capaldini owns four horses, two dogs, an indoor cat and a bunch of chickens. She brings a dog to her medical practice in San Francisco, where she began supporting patients living with H.I.V. at the dawn of the AIDS crisis in the 1980s.

Cardamom, Rascal and Sassetta turned out to be food snobs. Unlike ordinary goats, who happily munch on weeds and brush, they turned up their noses at anything other than the oats and hay Dr. Capaldini purchased from the feed store.

On a Thursday morning in late winter, she went to give them breakfast before heading off to work, but only Cardamom was there. She noticed that part of the fence was slightly lower than the rest and assumed Rascal and Sassetta had slipped out.

She called Ms. Cady, who posted about the missing goats on Nextdoor, and another friend, who put an alert on Facebook. Several neighbors came quickly to scour the area, but by noon, when Dr. Capaldini left for work, the search party had turned up nothing.

Later that afternoon, friends from Novato came to help, and one of

them noticed blood inside the goats' small house. It turned out they had never left. Their bodies were inside the shed, covered in hay. One was missing a rear leg.

After she recovered from the shock, Dr. Capaldini, at Ms. Cady's urging, reported the killings to the California Department of Fish and Wildlife, which connected her with Dr. Martins. He told her the incident had all the hallmarks of a mountain lion attack, and he cautioned her to keep Cardamom locked inside at night, when pumas, who are nocturnal creatures, are on the hunt. She had been putting the goats in the shed without always locking the door; now she secured all three of its bolts.

Dr. Capaldini rejected another of his suggestions: playing NPR at the shed through the night, so that human voices might scare the lion away.

"I don't like background noise," she said. "I think it's bad for the universe."

She turned her attention to reassuring Cardamom.

"I could tell that she was freaked out," Dr. Capaldini said. "She wasn't eating, and she was just kind of staring ahead. 'Traumatized' is the accurate word."

To help her pet recover, she hired Nikki Cuthbertson, an animal communicator who offers "intuitive soul support for humans and their animals," according to her website. Dr. Capaldini asked Ms. Cuthbertson to reassure Cardamom that help was on the way: She would soon have two new goat companions to replace her lost siblings.

After establishing a psychic connection with the goat, Ms. Cuthbertson determined that Cardamom had two concerns: Will the newcomers take over? And would the mountain lion strike again?

Ms. Cuthbertson reassured Cardamom that her shed would be triple-locked every night and that, according to their breeder, her new companions were very gentle.

In Dr. Capaldini's case, too much time had elapsed between the kill and her conversation with Dr. Martins to attempt a capture. With his food gone, the cat wouldn't return.

Several weeks later, when Ms. Arnoux's goats were killed, Ms.

Cady counseled her to call him right away. If they wanted to collar the cat, they would have to act quickly, while he was still interested in finishing off his kill.

So on the same morning she learned that Jimmy and Timmy were gone, Ms. Arnoux called Dr. Martins, who laid out a plan for capturing and collaring the cat. With her permission, he arrived at her home at 4:30 p.m. on March 18 with Dr. Carolyn Whitesell, the human-wildlife interactions advisor for the University of California Cooperative Extension.

They set up two cage traps, one baited with Timmy's carcass, the other with Jimmy's. Nearby, they mounted cellular trail cameras that would send real-time photos and video to Dr. Martins's phone. Then they went to San Rafael to get dinner and wait. Experience told him the cat would likely arrive between 6 p.m. and midnight.

At around 7:30 p.m., a large animal entered one of the cages—but it wasn't a mountain lion. Somehow, Ms. Arnoux's guard dog, a German shepherd named Roscoe, had gotten into the pen, a development that worried Dr. Martins.

"If you disturb the mountain lion, it might not come back at all," he said. "And you might have to wait up the whole night monitoring the trap, because as soon as it gets triggered, we have to respond."

By 8 p.m., they had reset the trap. At 9:06, while Dr. Martins was enjoying a lime and soda at the Papermill Creek Saloon, the cat came back and entered the trap inside the shed. Dr. Martins, who had paid his tab in advance, summoned his team and returned to the scene.

When they arrived, the puma was absorbed in his feast, and their presence did not distract him. "He was pretty chill and just checked me out," Dr. Martins said. "He didn't growl or do anything other than kind of look at me."

The team set up portable lights and laid out a tarp. Dr. Graham Crawford, a Sonoma veterinarian, approached the cage and fired a dart pistol from close range, delivering a tightly calculated dose of ketamine and medetomidine into the lion's haunches.

When the cat was fully sedated, they fitted him with an eye mask and pulled him out onto the tarp. He weighed in at 140 pounds—the largest puma that Dr. Martins's project has collared so far, and the

very first it targeted for collaring in Marin. The team estimated his age at seven and a half to eight years—a full-grown male in his prime.

As Dr. Crawford monitored the cat's breathing, heart rate, temperature and oxygen levels, Dr. Martins and his team took blood and tissue samples, measured his body and fitted him with a GPS collar weighing about 750 grams—1 percent of his weight.

After giving him some time to awaken and recover, they opened the cage and stepped back, with only the stick in Dr. Martins's hand to protect them as the cat slipped off into the night.

For their records, they named him P-60, but they let Ms. Arnoux and her family rename him Panguí—an Indigenous Chilean word for mountain lion. (Mario is from Chile, and Meggan lived there for seven years.)

The data Dr. Martins collects through Panguí's collar will serve multiple purposes. "It's going to show us where he goes and what he eats, how much of Marin he's actually using, which routes he takes through the landscape, and whether he's mainly hunting deer or also taking livestock," he said. "That's the kind of hard data we need if we want people to live with him instead of just being scared of him."

Mapping Panguí's route and establishing the contours of his range should help determine how many resident pumas live in Marin. A typical territorial male claims an area of about 100 to 200 square miles, most of it in the dark green forested areas shown on a map. That could leave room for no more than one or perhaps two established resident males in Marin, Dr. Martins said.

The data will also show where pumas are forced to cross highways, developed areas and open grassland gaps, indicating places where wildlife overpasses and underpasses could assist them.

The mainstay of a puma's diet is deer. An adult male can consume from 45 to 65 in a year, supplemented by the occasional coyote, bobcat, goat, sheep, house cat and feral cat.

A puma typically takes about three days to eat a deer, and by examining clusters of GPS points, Dr. Martins's team can identify where he pauses to eat—and perhaps where he dies. Further testing can then determine whether an illness killed him.

Dr. Martins believes 50 to 60 percent of the Sonoma puma population died a few years ago from issues linked to feline leukemia virus, a problem that was only detected after collared cats started dying and the team could examine their carcasses. He says future outbreaks might be avoided by vaccinating pumas.

The project has collared 41 mountain lions so far. Despite the benefits, Dr. Martins knows that some people have reservations about collaring.

“It’s a huge responsibility to take one of these majestic cats out of the habitat and put a bulky collar on—it’s invasive and the captures are very stressful—but the benefits far outweigh any negatives,” he said. “We know from years of watching them that the collars don’t stop them from hunting or breeding successfully, and we have never had a mortality or injury linked to a collar.”

Not all wildlife biologists agree with Dr. Martins’s assessment. Felidae Conservation Fund, a Marin-based nonprofit that studies large cats in the Bay Area and around the globe, stopped collaring years ago, relying on camera grids and DNA from scat to build long-term portraits of the animals without ever tranquilizing them.

“Once you collar a cat, it can move a few hundred miles away because of the stress, and it can change its behavior,” said Zara McDonald, Felidae’s executive director. “They wake up with a heavy thing around their neck and they kind of freak out.”

Her concerns were echoed in some of the chatter that ensued after Ms. Cady posted about the capture. Still others believe it makes more sense to kill lions than coddle them.

One reader who learned that Living with Lions had expanded to Marin wrote an angry email to Tom Gardali, executive director of All Hands Ecology. “They said something like, ‘Gardali should go study lions somewhere else. They should all be shot here. They’re going to go to our schools and kill our kids,’” Dr. Gardali said.

But mountain lions work hard to avoid us, Dr. Gardali said, and they’ve been here a very long time. Killing them won’t remove risk, because when one lion is eliminated, another inevitably arrives to claim its territory.

Shortly after his collaring, GPS signals showed Pangui visiting the Point Reyes National Seashore, somewhere near Limantour

Beach, before returning to Lagunitas. He has since approached the outskirts of neighborhoods a few times but mostly kept to heavily forested areas around Kent, Alpine and Bon Tempe Lakes.

Over the last several years, people with nature cameras in their yards have captured video documenting a handful of mountain lions in West Marin, and several people have reported eyewitness accounts. Many reports from people who claim to have seen pumas are inaccurate, Dr. Martins said. “Pumas avoid being seen at all costs,” he explained. “Where a leopard would have a go at you, a mountain lion would want to run away.”

According to the California Department of Fish and Wildlife, there have been only a few dozen verified lion attacks on humans since records began in 1890. There were just six known fatal attacks in the state during that same period. Being struck by lightning is more likely.

In the days after Dr. Capaldini’s goats disappeared, Ms. Cady had trouble sleeping. She kept waking up and looking at the webcams posted in her goat pen, making sure her girls were okay. If they were lying down and relaxed, she’d go back to sleep. But if they were standing up and looking in one direction, she’d go out with a flashlight and make a racket to scare off whatever might be lurking nearby.

After conferring with Dr. Martins, Ms. Cady took some practical steps to protect her herd. Because mountain lions hunt by sight, he encouraged her to line her enclosure with screening cloth to obscure a potential predator’s view.

She also reinforced her shed, covering the ventilation openings with wire fencing, even though they were located toward the top of the structure. She did not know until Dr. Martins told her that a full-grown mountain lion, which can jump 15 feet high, can also squeeze through a hole with just a 7-inch diameter.

For her part, Ms. Arnoux is through with outdoor animals. She has come to realize that her heavily wooded property isn’t the best for keeping goats safe, especially given its proximity to Lagunitas Creek, which serves as a wildlife corridor.

Before losing Jimmy and Timmy, she had already lost two outdoor cats to coyotes. Her current feline, Norman, stays indoors. But Ms.

Arnoux bears no hard feelings toward Pangui, who was just doing what he needed to do to survive.

“We’re all part of this big ecosystem, and it all has to work together,” she said. “We can co-exist, if we learn how to protect our livestock. I’m all for it.”

*Find a trove of mountain lion facts at [www.truewild.org](http://www.truewild.org) and [www.allhandsecology.org/living-with-lions/](http://www.allhandsecology.org/living-with-lions/)*