

# Poisons killed beloved owls in Tampa Bay. Can their defenders save others?

December 2 2022, by Zachary T. Sampson

---



Great horned owl. Credit: Jessie Eastland, CC BY-SA 4.0 , via Wikimedia Commons

Mark Schocken took thousands of pictures of the great horned owls in Philippe Park, but he didn't often capture them eating.

Then one clear afternoon, binoculars slung over his shoulder and camera in hand, he watched the mother bird plop a rat in front of her baby. The light was perfect, the owls positioned just right.

Click.

It was March 2, 4:25 p.m. Only days before the first death.

Schocken and his wife, Linda, spent many winter hours in the park, a sliver of oaks dripping with Spanish moss at the edge of Tampa Bay. They were part of a collective of photographers who surrounded the "Owl Tree," a knobby clutch of branches next to a parking lot where the birds nested.

Admirers knew the owls like celebrities, learning their patterns—how they were most active around dawn and dusk, how the mother clacked her beak at squirrels that scurried too close, how their deep calls pulsed through the park's canopy. Some gave them names, Oliver and Emily, this year with three babies: Huey, Louie and Daisy (née Dewey, before they figured out the owl was female).

Schocken, semi-retired at 74, felt a mysticism in their presence. He liked when the father owl turned searchlight yellow eyes onto him.

On this afternoon, not long before spring, he lingered under a branch where Emily sat with two owlets. He watched Huey touch the rat's limp back. The mother gazed at her fuzzy-headed baby.

Suddenly, Emily snatched the rat in her talons and flew away. Schocken can't be sure whether she returned to finish the meal. But he knows what happened next.

All but one owl was dead within a month and a half. Each had poison in its body—highly toxic rodenticides that businesses, homeowners and local governments use to kill rats and mice.

Two experts who reviewed necropsy reports for the Tampa Bay Times said the poisons likely caused or contributed to the owls' deaths, adding them to an ever-growing list of unintended victims harmed by the chemicals.

Such poisons routinely sicken other animals, including pets and people, that eat contaminated rodents or come into contact with the baits directly. Yet the strongest substances remain popular and widely available because they quickly erase an expensive problem: uncontrolled rodent populations.

While the federal government and certain industries have maintained that poisons are essential tools, animal advocates question whether they create more problems than they solve. The chemicals interrupt a fragile food chain, killing predators that naturally feed on rodents like raptors, foxes and mountain lions.

The demise of the owl family in Safety Harbor has rattled residents and stoked a grassroots effort to stop people from using some of the most potent rodenticides.

At least two local cities and a county have since switched to options they consider less dangerous. But other pest control and local government workers use the stiffest poisons.

That's left the owl devotees of Safety Harbor with loftier goals.

Eight months after the deaths, they hope to push the U.S. Environmental Protection Agency to ban, or at least severely restrict, certain poisons. The agency is reviewing the risks of select rodenticides this year, providing a rare chance to demand new rules.

A core group of leaders, including Schocken, plan to pepper the government with letters. They've already created educational brochures, with one page centered on the photo of Emily and Huey feeding.

Schocken no longer views the shot as a simple moment between mother and baby. Instead, he sees the picture as a harbinger.

He calls it, "The Deadly Meal."

## **An unnatural threat**

Great horned owls are known as "tigers of the sky," seizing prey with talons far stronger than human hands. They have striking 4-foot wingspans. And few natural rivals.

But rat poisons are hidden and unnatural threats. There's no obvious way for birds to know when rats or mice hold lethal doses.

Oliver, the father owl, lived in Philippe Park for most of the last decade, the photographers said. It's difficult to pinpoint what changed this year, whether a property owner near the park started using a different form of pest control, the owls flew farther to find food, or the poisons

accumulated in their bodies and became too much. Philippe Park is run by Pinellas County, which says it doesn't use the most lethal rodenticides in public parks.

Still, a tragic cycle may have played out before. Oliver's old mate disappeared years ago, the photographers said. Three owlets died last year. The conversation around rodenticides, though, didn't really pick up until this past spring.

Two days after Schocken snapped his picture, another photographer found Huey's body on the ground. She gave it to park rangers, who preserved the carcass in a freezer until a bird rescuer arrived.

Fairl Thomas had braced for the moment. The 23-year-old grew up in Safety Harbor in a family that loved nature. Her passion grew as she rescued sick and injured wildlife for volunteer groups—pelicans tangled in fishing lines, turtles hit by cars, birds sickened by rodenticides. She went off to study at Eckerd College and had only recently returned home when she was called to the park.

She drove over and examined Huey. His mouth was pale, a sign of rodenticide exposure.

With her mother's help, Thomas tucked Huey's tiny body into a plastic bag and dropped it into a foam cooler. She shipped it overnight to a state lab so a necropsy could confirm what she already believed to be true.

Thomas posted the news to her Facebook page. "Today we lost one of the precious Philippe Park great horned owlets to what we suspect to be rodenticide," she wrote.

She started talking to photographers and other rescuers about ways to prevent more owls from dying.

But it was too late for Safety Harbor.

A few days after Huey died, a passerby spotted Emily, the mother owl, sitting still in a stand of mangroves. The tide soaked her feathers. Thomas' dad used a net to pluck her from the water.

Typically, birds roll over and kick their feet when someone tries to pick them up, said longtime Pinellas County rescuer Barbara Walker. But with Emily, "there was no fight."

Walker secured the owl in a kennel, she said, then sped home in her minivan.

She laid Emily on a table in her yard and stuck a needle near the bird's thigh. Walker started to pump fluids to hydrate her.

The owl was fading. Her tongue was white. She hooted, then died.

## **Countless deaths**

No state or federal agency can track every rodenticide-related death. Many victims go unrecovered. Without a complete tally, the recollections of rescuers like Walker offer a window into the problem.

Walker can tick off a list of suspected victims: a handful of owls in 2022, including one at Boyd Hill Nature Preserve in St. Petersburg; occasional eagles; about a dozen hawks over the last year. She has preserved some of the birds at the sanctuary where she works until she can pay to have their bodies tested.

Necropsy and toxicology reports cost hundreds of dollars, too much for Walker and other rehabbers to pay every time.



For years, Walker had tried to raise awareness about the dangers of using poisons for rat control. But only after Huey and Emily died did people seem to take notice.

The photographers and other residents coalesced around a new Facebook page: "Safety Harbor Strong Owls & Nature." Some were wildlife lovers, fascinated by birds. Others drew a human story from the owls' plight: Emily and Oliver were just trying to feed their kids when they brought poison into the nest.

The group wanted to channel grief into action, spreading word about the risks of rat poisons and brainstorming ways to get chemicals off the street.

Thomas was direct in her messaging: "Emily's passing was an entirely preventable tragedy," she wrote.

A few commenters replied with laments over the owls. "You will be remembered," vowed Cathy Branch Stebbins, a community advocate and former grant writer who'd come up with the idea for the page.

Hope began to build among members that the remaining owls would survive. The photographers noticed Oliver spent more time feeding the babies. A month passed.

On April 5, someone spotted an owl keeled over in a tree. Its tawny feathers blended into the moss and bark. The county sent over a bucket truck, so a worker could retrieve the body.

Louie.

Three days later, Thomas was planning to meet journalists reporting on the deaths at the park when her phone rang. A visitor had spotted yet

another dead owl on the ground.

"It sounds morbid," Thomas said, "but I was hoping it was one of the other chicks."

The father owl's death would leave Daisy orphaned, almost certainly spelling an end to the family's reign in Philippe Park.

She walked up and asked a ranger to show her the body.

Oliver.

Thomas held up the father owl in front of the news cameras and stretched his wings. His head fell limp to one side. His eyes hung half-shut; his tongue dangled from his beak.

## **Danger persists**

Necropsy reports show at least two of the Philippe Park owls suffered internal bleeding, a symptom of rodenticide poisoning. It's unclear where they were exposed because the chemicals are so ubiquitous.

The park is ringed with places where people commonly scatter poisons to keep out rats and mice: homes, apartment complexes, churches, schools, other parks.

Chemicals found inside some of the birds—namely brodifacoum and bromadiolone—are among the strongest available. They're part of a class of rodenticides known as second-generation anticoagulants, which prevent blood clotting and cause rats or mice (and animals that eat them) to bleed to death.

The poisons can work in one dose, while other rodenticides may require



a rat to eat multiple times before reaching a deadly level. People turned to such lethal substances in the 1970s, after rodents grew resistant to weaker formulas.

The Times reached out to multiple rodenticide manufacturers for this story; two responded but declined to comment. A spokesperson for one referred a reporter to a trade group, which did not reply to emails or phone calls.

Rats and mice ferry the chemicals up the food chain. Scientists have found rodenticides in eagles, hawks, coyotes and bobcats. They have detected non-deadly levels in endangered Florida panthers, according to the state's wildlife agency.

Animal advocates say it's counterproductive to put so many predators at risk. An owl family can together devour several rats in a day, arguably nature's best pest control.

But asking people to abandon rodenticides is complicated. Humans attract rats and mice, which feed off garbage and take shelter in attics.

Rats near homes and businesses cause hundreds of millions of dollars in damage every year, the EPA has estimated. They chew through food, wires, walls and pipes. They spread salmonella and plague.

The EPA based its damage calculation on a ratio of one rat for every two people. That would mean more than a million in Pinellas and Hillsborough counties alone. One St. Petersburg sanitation official explained their prevalence by saying wherever a squirrel scampers during the day, there's likely a rat at night.

Even researchers acknowledge rodent control is a conundrum with no easy solution. Killing wild animals is bad, but so are rat infestations.

"I look at the anticoagulant rodenticides as a necessary evil," said Barnett Rattner, an ecotoxicologist who studies wildlife exposures for the United States Geological Survey.

Traps can be alternatives to poisons. But such work is gruesome, said John Elliott, a research scientist who has studied poisonings under the government agency Environment and Climate Change Canada.

People need to dispose of carcasses and sometimes kill rats themselves, when the rodents are left squirming inside a trap.

"As much as anything, putting out bait is easy," Elliott said.

The EPA considers rodenticides "an irreplaceable tool" for knocking back some infestations, including near sewers and farms, said Cathy Milbourn, an agency spokesperson. Regulators have been reluctant to remove second-generation anticoagulants from the market entirely, even though they recognize such chemicals are uniquely dangerous to wildlife.

In 2008, the EPA walked back an idea to only let certified pesticide professionals buy the strongest poisons. The agency received pushback from poultry and livestock companies, which argued the change would burden their businesses.

Instead, the EPA ordered manufacturers to avoid selling second-generation anticoagulants in everyday hardware stores, like Home Depot or Lowe's. Regulators required that some poisons be packaged in bundles of 8 pounds or more, theorizing they'd be less appealing to average consumers sold in bulk at specialty stores.

Select rodenticides still have "restricted use" labels, meaning only professionals can legally use them. But not all poisons carry the designation.

When rodenticides are deployed around homes, the toxic baits—which can look like pieces of bubble gum—are supposed to be tucked inside plastic boxes. The containers are meant to make it harder for children and other animals to access poisons.

Those rules have obvious weaknesses.

People shop online. In many places, anyone with roughly \$100 and an Amazon account can order a bucket of highly lethal poison. And rodenticides never truly stay contained in a box.

The chemicals take days to work, affording rats and mice time to walk in and out. Some feed on the poison multiple times, upping the toxic loads in their bodies.

They scurry around, sick and wobbly, easy targets for predators like the Philippe Park owls.

## **Beyond Safety Harbor**

By mid-April, only one owlet remained.

After her family died, Daisy stayed away from the nesting tree. She fluttered between oaks near a historic Tocobaga mound.

Members of the owl group feared she was too young to hunt on her own, bound to die without her parents. They tried to catch her, trading shifts in the park and posting sightings on the Facebook page, which drew more and more followers.

Schocken, the photographer behind the "Deadly Meal" shot, researched rat poisons. He leaned on decades of experience as a chemist in the pesticide industry to label some products too dangerous and others as

somewhat safer alternatives. He wanted to dissuade people from choosing anticoagulants.

He posted his recommendations on Facebook and in the brochures, acknowledging they were a compromise. The page's leaders, he wrote, preferred to tell people to stop using all chemicals. Even alternatives to the strongest poisons can hurt wildlife. But he didn't want to be dismissed as "unrealistic."

Some group members reported every rodenticide box they saw. They searched for property managers to convert to less-potent options. They approached pest control companies, handing out their brochures and certificates to anyone who committed to avoiding some of the strongest chemicals. They contacted [local governments](#).

Couch's Pest Patrol, which once handled Safety Harbor's municipal boxes, changed its baits. "Whether it was our box or not, we don't want to be part of the problem," said Mark Lange, the company's manager.

Hillsborough County and Tampa also recently elected to transition to alternatives, spokespeople said.

But for every box of poison the owl supporters got off the street, they knew many remained. The city of St. Petersburg, for example, still uses a highly potent anticoagulant, as do an untold number of pest control operators.

A week after Oliver's death, the owl group's leaders gathered around a picnic table in Philippe Park. They decided knocking on doors in Tampa Bay would only get them so far.

Real power, they knew, lay with the EPA.

The federal agency is required to review rat poisons at least once every 15 years, to make sure the chemicals work without putting humans and the environment at too much risk. Regulators had already begun a review before the Philippe Park owls died.

The EPA expects to share a proposal soon for how it will oversee some of the strongest rodenticides moving forward. Then it should accept public comments for 60 days.

The Safety Harbor owl group hopes to draft a template letter, so supporters can flood the agency with petitions to restrict use of the chemicals. A volunteer is filling a spreadsheet with reports of rodenticide deaths in and beyond Tampa Bay.

"It's not going to be effective if we focus just on what happened in Philippe Park," said Schocken, who lives in Carrollwood.

The group long ago stopped trying to catch the last owlet.

Some think Daisy is dead. Others cling to the idea that she flew to a different family of great horned owls up the road.

With a little more time, they figure, she would have learned to hunt on her own, swooping down from the trees and out over Safety Harbor's narrow streets, her yellow eyes scanning the ground for rats.

2022 Kaiser Health News.

Distributed by Tribune Content Agency, LLC.

Citation: Poisons killed beloved owls in Tampa Bay. Can their defenders save others? (2022,

December 2) retrieved 27 July 2024 from <https://phys.org/news/2022-12-poisons-beloved-owls-tampa-bay.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.