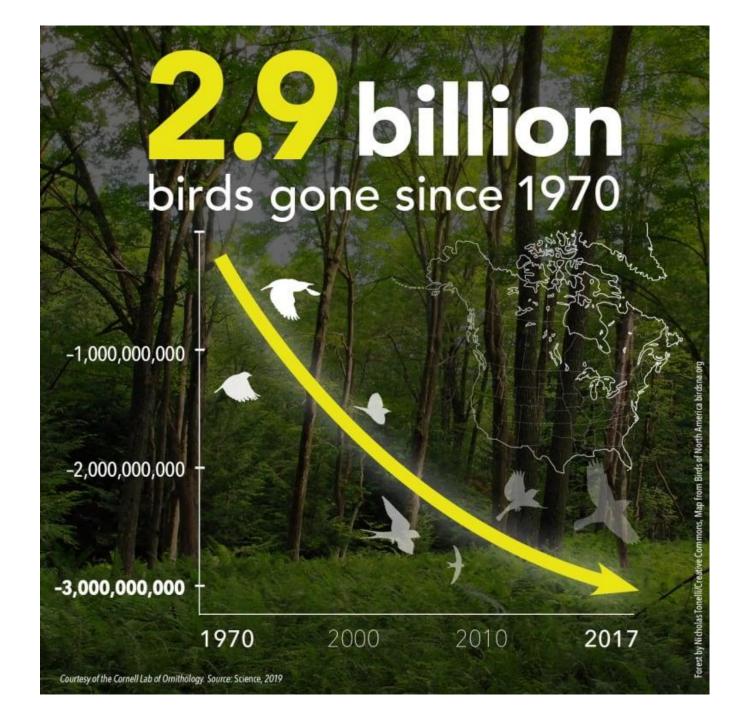
VISTA WILDFLOWER GARDEN

- STATE OF THE BIRDS
- HISTORY OF PROTECTION
- SUCCESSES
- THREATS
- SAFETY HARBOR OWLS
- WHAT YOU CAN DO

STATE OF THE BIRDS

PHOTOGRAPHY



2.9 BILLION GONE

- In less than a single lifetime, North America has lost more than **one in four** of its birds.
- Published in *Science* by researchers at seven institutions, the findings show that 2.9 billion breeding adult birds have been lost since 1970, including birds in every ecosystem.
- The losses include iconic songsters such as Eastern and Western Meadowlarks and favorite birds at feeders, such as Dark-eyed Juncos and sweet-singing White-throated Sparrows.
- The disappearance of even common species indicates a general shift in our ecosystems' ability to support basic birdlife.

2.9 BILLION GONE

- Birds that migrate long distances, have been particularly hard hit.
- Migrating species declined by 2.5 billion individuals, faring much worse than those that stay put year-round.
- "This loss of abundance is so pervasive that it's the old canary in a coal mine."



REASONS



Habitat destruction



Food interruption



Climate Change



HABITAT DISTRUCTION

- •Human population growth
- •1966 195 million people in U.S.
- •2023 341 million people in U.S.
- World populations
- •1966 3.4 billion people
- •2023 8.1 billion people



EXAMPLES OF LOCAL HABITAT DESTRUCTION

- •Story of Bay Shore Blvd. cut down all the trees and just paid the fine!
- Celery Fields in Sarasota 170 new houses across the street from a popular Audubon Center.



FOOD INTERUPTIO N

More people means more chemical warfare against insects which all birds need to raise their young.

Even seed eaters need insects for their chicks.

We inadvertently destroy the food source that the birds depend on.

RED KNOT



Red Knots fly more than 9,000 miles every spring and autumn, making this bird one of the longest-distance migrants in the animal kingdom.

They arrive half their departure weight and their arrival coincides with the annual **horseshoe crab spawning in the Delaware Bay.** Red Knots, relying on masses of tiny, green horseshoe crab eggs on the beach, gorge themselves for about one month in preparation for the final leg of their journey to the Artic breeding grounds.

HORSESHOE CRABS

•This delicate balance is being upended by threats to the horseshoe crab and its ability to reproduce on the Delaware Bay's beaches. Horseshoe crabs face threats from both habitat loss and overharvesting.

•Climate change has increased water temperatures in the bay, in some years causing horseshoe crabs to <u>lay eggs earlier in the</u> <u>season</u>, which upsets the synchronization with red knots.

HORSESHOE CRABS

- Audubon is working with partners across the Atlantic Coast to save horseshoe crabs. For example, <u>New Jersey Audubon</u> has pushed the biomedical and pharmaceutical industries to transition to a synthetic alternative to horseshoe crab blood. The blood is used to test for impurities in vaccines.
- Audubon's <u>New York</u> and <u>Connecticut</u> state offices are working on bills to more sustainably harvest crabs, and <u>New York City Audubon</u> works with state agencies to engage 200 trained volunteers to monitor crabs at key spawning beaches, and flip over any upside-down spawning crabs to save their lives.

CLIMATE CHANGE

- •Higher sea levels
- •Plant blooming and insect eruption no longer synced
- •Food sources out of sync with migration timing

AVIAN FLU

- Large numbers of birds scummed to Avian Flu in 2022.
- Wild birds can carry the disease, known as bird flu, when migrating without showing signs of illness. Poultry can become infected through **contaminated feces** or direct contact. The U.S. has reported about **2,600 cases in wild birds in 2023**, compared to nearly **6,000 cases in 2022**, according to a USDA database.

STATE OF THE BIRDS

• <u>#BringBirdsBack (3billionbirds.org)</u>

HISTORY OF PROTECTION

ENDANGERED SPECIES ACT

- •Shortly after World War II, DDT was hailed as a new pesticide to control mosquitoes and other insects.
- •The chemical interfered with the ability of the birds to produce strong eggshells.



RACHAEL CARSON

- In the late 1950s, Carson began to work on environmental problems that she believed were caused by <u>synthetic</u> pesticides.
- The result of her research was *Silent Spring*, which brought environmental concerns to the American public.
- The book was met with fierce opposition by chemical companies, but it swayed public opinion.

ENDANGERED SPECIES ACT

- In 1963, one year after Rachel Carson's *Silent Spring* was published, bald eagle populations in the lower 48 U.S. states hit an all-time low. Officials counted just 417 nesting pairs—a shocking fraction of the estimated 100,000 birds that once soared the skies in the 18th century.
- •Other species' numbers were plummeting as well.

ENDANGERED SPECIES ACT

- Amid a groundswell of **public concern** for the imperiled wildlife and the broader environment, the federal government began implementing a series of conservation measures.
- In 1970, Congress established the **Environmental Protection Agency**, which in 1972 outlawed most uses of DDT.
- Then, in **1973**, President Nixon signed the **Endangered Species Act**, which mandated steps to protect and restore plants or animals identified as "threatened" or "endangered."

KIRTLAND'S WARBLER



•Kirtland's warbler, also known in Michigan as the jack pine warbler, is a small <u>songbird</u>.

•Nearly <u>extinct</u> just 50 years ago, populations have recovered due to the conservation efforts.

PEREGRINE FALCON

•By the 1960s, Peregrine Falcons had **vanished** from the eastern part of the US and had begun to disappearing in the West.

• Their numbers dropped as a direct result of DDT, ingested through prey already carrying the pesticide which caused soft shells.



BALD EAGLE

•The Bald Eagle, was "delisted" in 2007 after the bird's numbers recovered. Now the eagle can be spotted in nearly every state.



ACCOMPLISHMENTS

- In the past 50 years, the Endangered Species Act has **prevented the extinction of 99 percent** of the species listed under its protection.
- Who's to say what the Endangered Species Act's next 50 years will hold?

MIGRATORY BIRD TREATY ACT

- The **Migratory Bird Treaty Act** first enacted in 1918 to <u>protection of</u> <u>migratory birds</u> between the <u>United States</u> and <u>Canada</u>.
- The statute makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell species of birds listed therein as <u>migratory birds</u>.
- A March 2020 update of the list increased the number of species to 1,093.^[2]

MIGRATORY BIRD TREATY ACT

- Sandhill cranes are one of North America's great conservation successes. This enormous bird species was gone from many states within its home range almost a century ago.
- Today, they can be found across the entire North American continent and into Siberia.
- In 2019, the U.S. Fish and Wildlife Service estimated their population to be 945,996 cranes. They're the most abundant crane species in the world.





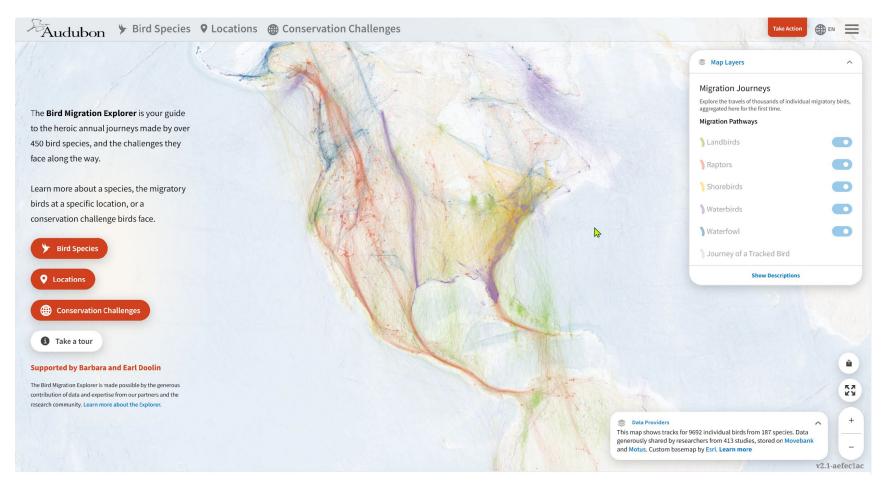
CALIFORNIA CONDOR

•The California Condor is a hardy species that survived mass extinctions of the last Ice Age, yet the entire population was reduced **to just 22 individuals** by the 1980s.

•On April 19, 1987, the final free-flying California condor was captured from the wild and placed in captivity. At that time, only 27 condors remained, all in zoos.

•In the last decades, the captive breeding and reintroduction effort has brought the *Condor* <u>back from the</u> <u>abyss</u>. The population has rebounded to more than 360 birds (in the wild).

https://explorer.audubon.org/home?legend= collapse&layersPanel=expand



THREATS

FUNDING
DEVELOPMENT
CHEMICAL WARFARE

FUNDING

- The **2024 budget request includes \$4.2 billion** for the U.S. Fish and Wildlife Service, which is responsible for implementing the **Endangered Species Act**, along with the National Marine Fisheries Service. The current appropriation is \$2.2 billion.
- Endangered Species Act efforts are allocated 25% to 40% of the needed funding.
- There are 10,000 projects reviewed every year, but more funding is needed to review the projects faster."
- The previous administration cut 267M from the Fish and Wildlife Services budget, 84.5M from the Endangered Species Conservation Fund.

DEVELOPMENT

- In most cases, efforts under the law to protect a threatened or endangered species won't stop a project, just require modifications.
- Without full funding, though, reviews are delayed or not done at all in the interests of advancing projects, which often are related to national security, infrastructure or energy production.
- For example, threatened or endangered species are present at 85% of U.S. Army installations.

CHEMICAL WARFARE

- Meanwhile, new threats are emerging. Those include PFAS, more commonly called "forever chemicals," that can affect eggs, cause immunity issues and create skin lesions that become infected.
- Microplastics are also showing up in our food and environment.
- Pesticide applications in the home and businesses.
- Preservatives in our food.

WHAT CAN YOU DO?

- •NOTHING?
- •TOO BIG AN ISSUE?
- •I AM JUST ONE PERSON, WHAT DIFFERENCE CAN I REALLY MAKE?

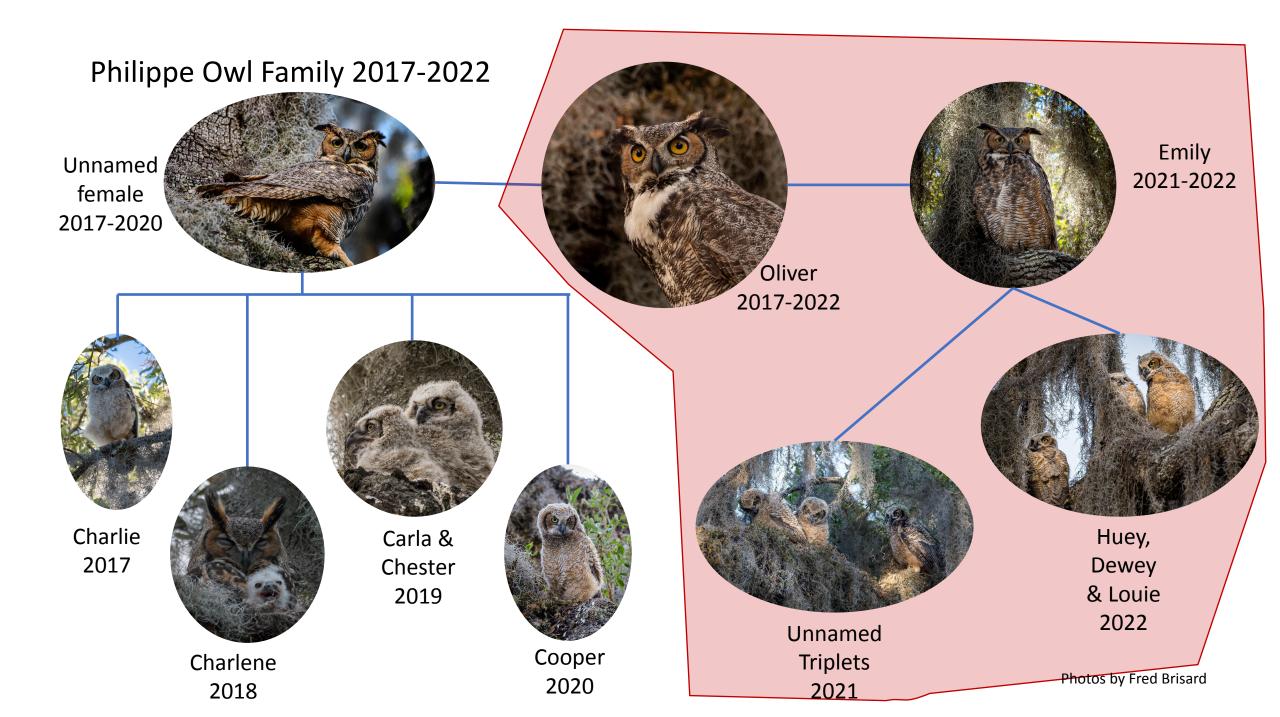
A SMALL GROUP OF CONCERNED CITIZENS SUCCESS SUCCESS STORY



The Owls of Philippe Park

A Local Tragedy, A National Issue

Photo by Linda Schocken





This is Oliver, the male with Emily, his mate.

Great Horned Owls mate for life.

Photo by Linda Schocken



WHAT HAPPENED?

- Emily hatched three owlets in early January 2022. We named them Huey, Dewey, and Louis.
- Huey died on 3/4/2022, Emily died 3 days later, on 3/7/2022. Both deaths were confirmed to be caused by anticoagulant rodenticides.
- Louie was found dead in The Owl Tree on 4/5/2022. The County brought in a 200-foot bucket truck to retrieve his body; confirmed necropsy from rodenticide poisoning.
- Oliver was found dead 3 days later on 4/8/2022. Results confirmed from rodenticide poisoning.
- There was one, 3-month-old owlet left, (Dewey) Daisy; we tracked her for almost 3 weeks; then she disappeared.

FIRST STEPS

The day Emily died we realized that the City of Safety Harbor was using anticoagulant rodenticides on all city properties – suddenly we could see there were black boxes of rat poison everywhere!

In less than 24 hours...

- A handful of concerned citizens met each other under the Owl Tree. (Seven people got together and we became "The Owl Team")
- That night we started a Facebook group called Safety Harbor Strong Owls – 500 people joined the group within 3 days (now over 2,800 members)



WORKING WITH THE CITY

- We met with the **City Council**.
- The City of Safety Harbor **mailed our brochures** to every resident of the City as utility bill insert; the bill insert was mailed to approximately 7,000 households;
- The Mayor additionally posted on his social media, which generated over 2,500 "Likes", and over 250 "shares", (Mayor told us no other issue every got him as much social media attention);
- The Team developed a flyer.



Learn More

Safety Harbor Strong Owl and Nature facebook.com/groups/226335709651892

Raptors are the Solution www.raptorsarethesolution.org

BIRDS IN HELPING HANDS BIRDSINHELPINGHANDS.ORG 727-365-4592 BIRDSINHELPINGHANDS@GMAIL.COM



DEATH BY POISON

Rat poison is often used in bait stations, those shoebox size black boxes you see around buildings and dumpsters. The rats and mice do not die inside the stations but after eating the bait, they go back into the wild and can take more than a week to die. Weakened from internal bleeding, poisoned rodents become toxic ticking time bombs for any animal who preys on them.

All types of rodent poison can sicken and kill wildlife and pets.

Do Use Safer Products Bromethalin

Don't Use Unsafe Products

Bromethalin Examples: • Fastrac

Assault

Cholecalciferol Examples: • Terad3 Brodifacoum Example: d-Con

Bromadiolone Example: Contrac

Chlorophacinone Example: Ratol

Difenacoum Example: Di-Kill Rat Bait

Difethialone Example: First Strike **Diphacinone** Example: TomCat



Are You Poisoning Wildlife and Pets?

•Every day, wildlife and pets are in danger of being poisoned when homeowners, businesses or exterminators, who choose to use anticoagulant rodenticides, also known as rat poisons, to control rodents.





RAT POISONS DON'T JUST KILL RATS. RAT POISONS ALSO KILL THE WILDLIFE THAT EAT RATS AND MICE, LIKE HAWKS, OWLS, FOXES, BOBCATS, COUGARS, COYOTE, RACCOONS, SNAKES, AND SKUNKS.

PLEASE STOP USING RODENTICIDES.

Help natural predators survive so that they can help control rodent populations!

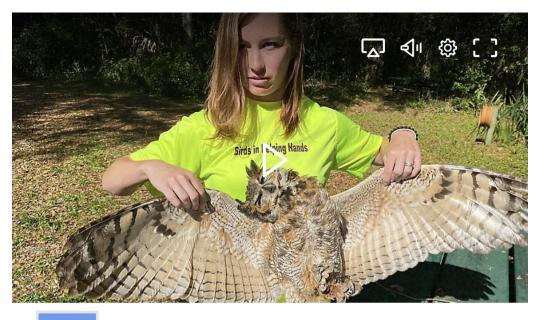
urbancarnivores.com/poisons rap

raptorsarethesolution.org poisonfreemalibu.org

Flyer is from Raptors Are The Solution.org

©2019 Lili Chin doggiedrawings.net

Media Coverage



NEWS

Experts: Philippe Park's famous owl family likely killed by rat poison

BY JOSH ROJAS | TAMPA PUBLISHED 8:19 PM ET APR. 08, 2022



Pets

Beloved Mother Owl, Babies Die From Rat Poison In Safety Harbor Park

Emily, a great horned owl, and two of her owlets are the unintended victims of pesticides placed around businesses to kill rats.



D'Ann Lawrence White, Patch Staff 🕑

Posted Wed, Apr 6, 2022 at 8:35 am ET Updated Sun, Apr 10, 2022 at 7:05 pm ET

🗣 Replies (10)



CERTIFICATE

- In collaboration with a nonprofit wildlife rescue organization, Birds in Helping Hands, the Team developed the idea of providing a public Certificate of Recognition to companies deemed "owl-friendly" heroes.
- Given to businesses that agreed to stop using anticoagulant rodenticides.
- A team is contacting pesticide companies and asking them not to use warafin-based rodenticides.

CERTIFICATE OF RECOGNITION

THIS CERTIFICATE IS PRESENTED TO

Vital Planet

BY

Birds In Helping Hands

In recognition of the efforts Eckerd College has made to protect the environment by eliminating the use of anticoagulant rat poison

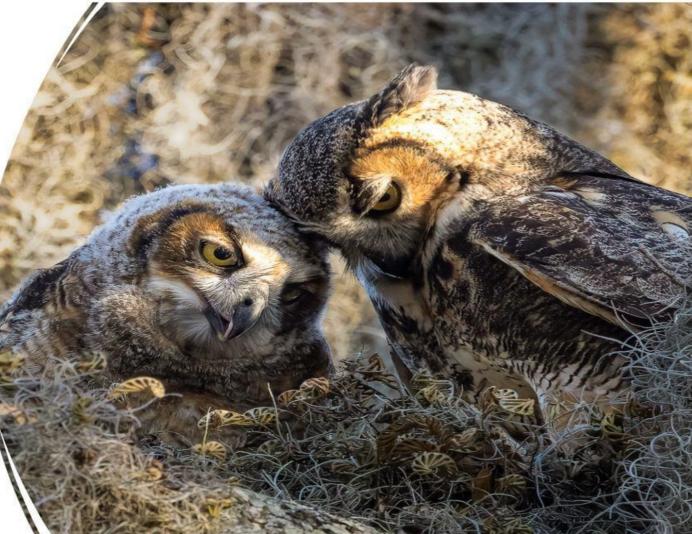


Photo by Linda Schocken - ©Schocken Photography







What you can do!

PUT UP AN OWL BOX!

Nature's Pest Control

One adult owl can eat **1,000 to 1,200** rats in one year.

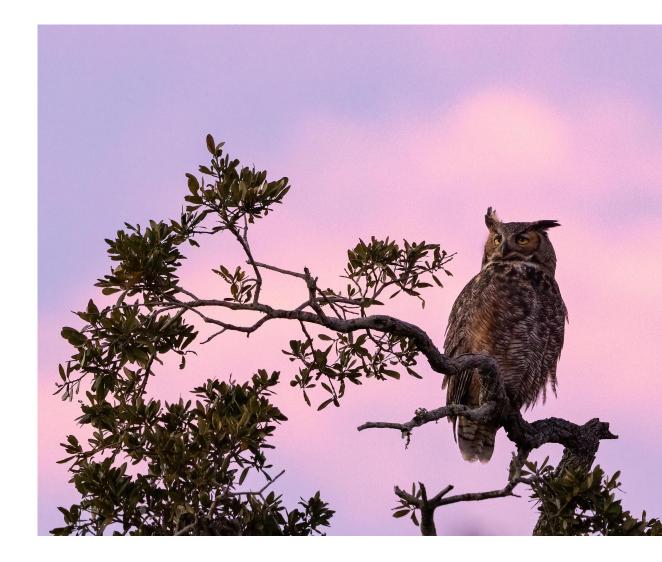
Rats, mice, and other small animals play a **critical role in the ecosystem** as food for many animals and as seed dispersers for trees and plants.

Using poison to kill rodents has the long-term effect of INCREASING the rodent population since the poison kills off the rodents' natural predators, such as owls, allowing the rodents to breed unchecked.



Nature's Pest Control

By using preventative measures and non-chemical solutions, we can keep rodents out of our homes and businesses, protect our pets and keep the rodents in the wild where they belong.



TRASH

- First start by examining how you dispose of trash. Are your cans rodent proof? If you live in an apartment complex, does management ensure the trash is appropriately contained to ensure no rodents can access the trash?
- Don't leave pet food outside. Clean up any spills of bird food if you have a bird feeder. Pick up any fallen fruit from trees.
- Any food source that is around your dwelling is an invitation for rats.

Behavior Modification

•A study at the University of California in 2011 demonstrated that in the absence of **reward (food)** rats will modify their range and behavior to discover more lucrative food sources. (*Stahmlman, David W., Blaisdell, Aaron P. (2011) Reward Probability and the Variability of Foraging Behavior in Rats, International Journal of Comparative Psychology (24,168-176.))*

•REMOVE THE FOOD SOURCE, THE RATS WILL GO ELSEWHERE!

HOUSE

•To ensure there are no entry points to your home, seal cracks and crevices leading into the house including openings for plumbing under sinks, HVAC openings, and entry points into roofs, attics, and basement areas. Use ¹/₄-inch metal mesh, not chicken wire, to block entry points.

•Trim foliage and tree limbs at least 2 feet away from sides and roofs of houses.

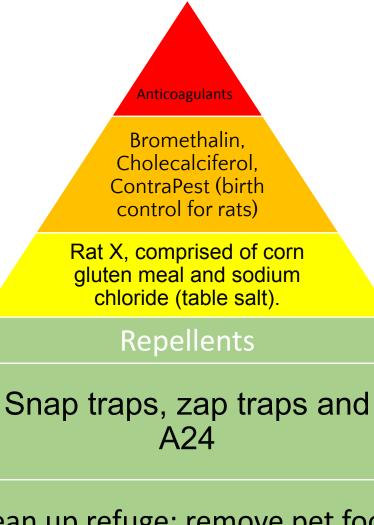
•Use snap traps and other non-chemical solutions.

•NEVER use glue or sticky traps – they kill songbirds and other non-target wildlife.

PROFESSIONALS

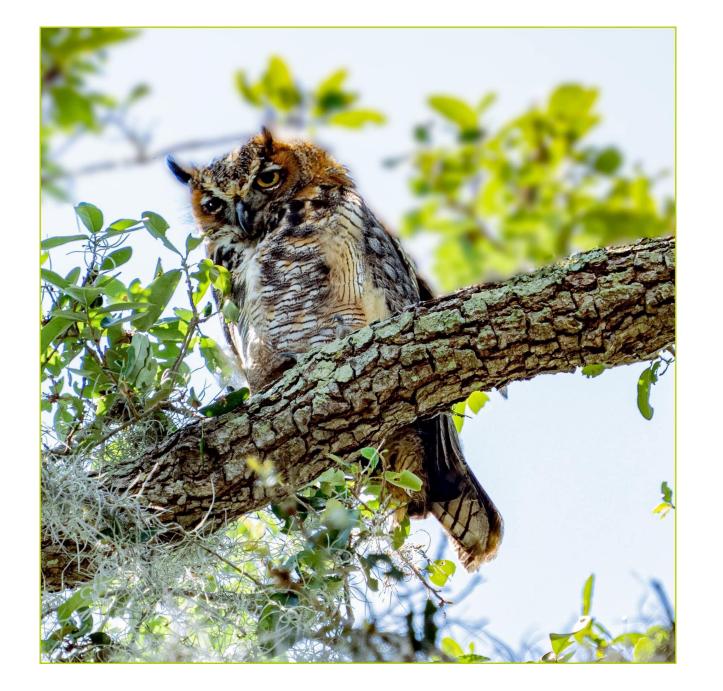
•If you need to hire a professional, only hire exterminators who are trained in integrated pest management (IPM). IPM works to permanently exclude rats by rodent proofing your home.

• BE CERTAIN THAT THE PEST CONTROL COMPANY YOU HIRE DOES NOT USE ANY OF THE ANTICOAGULANT RODENTICIDES THAT KILL SECONDARY TARGETS SUCH AS OWLS AND EAGLES.



Clean up refuge; remove pet food, spilled birdseed and fallen fruit.

Seal cracks and crevices leading into your home. Use ¼-inch metal mesh, not chicken wire, to block entry points.



There are now two **Great Horned Owls** in the park. A male and a female. Could this be Daisy? We hope so, we think so, but we can never be sure. It brings us comfort to think it could be her!





Safety Harbor Strong Owl and Nature <u>Safety Harbor</u> Strong Owls & Nature | Facebook

Our website www.safetyharborowls.com

Raptors are the Solution

www.raptorsarethesolution.org

Birds in Helping Hands

www.BirdsInHelping Hands.org

State of the Birds

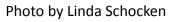
#BringBirdsBack (3billionbirds.org)

Audubon Bird Migration Explorer

https://explorer.audubon.org/home?legend=collapse&lay ersPanel=expand

E-bird instructions from Cornell Labs

<u>eBird Essentials | Bird Academy • The Cornell Lab</u> (allaboutbirds.org)





WHAT YOU CAN DO!

AT HOME

• Feeders

- Keep them clean!
- Place them near shrubbery so the birds feel safe from predators.
- Use the no mess seed to discourage rats.

• Water

- Keep it clean, use a water wiggler
- Suet high fat food for nesting birds
- Mealy worms birds love them

AT HOME

- Plant native plants
- Review what your lawn care company is doing and what they are using.
- Remember insects are what the birds feed their babies.

VOTE WITH THE ENVIRONMENT IN MIND!

- Pay attention to what our elected officials are saying and doing!
- •Support your chosen environmental group!
- •Think globally and act locally!

MAKE WINDOWS SAFER, DAY AND NIGHT

- •Up to 1 billion birds are estimated to die each year after hitting windows in the United States and Canada.
- By night, migratory birds drawn in by city lights are at high risk of colliding with buildings.
- •On the outside of the window, install screens or break up reflections.

KEEP CATS INDOORS

- •Cats are estimated to kill more than 2.6 billion birds annually in the U.S. and Canada. This is the #1 human-caused reason for the loss of birds, aside from habitat loss.
- •Cats can make great pets, but more than 110 million feral and pet cats now roam in the United States and Canada. These non native predators instinctively hunt and kill birds even when well fed.
- Save birds and keep cats healthy by keeping cats indoors or creating an outdoor "catio." You can also train your cat to walk on a leash.

REDUCE LAWN, PLANT NATIVES

- •Birds have fewer places to safely rest during migration and to raise their young.
- •With more than **40 million acres of lawn** in the U.S. alone, there's huge potential to support wildlife by replacing lawns with native plantings.
- •Add native plants and watch birds come in.

AVOID PESTICIDES

- More than 1 billion pounds of pesticides are applied in the United States each year.
- Common weed killers used around homes, such as 2, 4-D and glyphosate (used in Roundup), can be toxic to wildlife, and glyphosate has been declared a probable human carcinogen.
- A healthy choice for you, your family, and birds: Consider purchasing organic food. Nearly 70% of produce sold in the U.S. contains pesticides. (search for Clean 15)
- Reduce pesticides around your home and garden.

PROTECT OUR PLANET FROM PLASTICS

- It's estimated that 4,900 million metric tons of plastic have accumulated in landfills and in our environment worldwide, polluting our oceans and harming wildlife.
- •Plastic takes more than 400 years to degrade, and 91% of plastics created are not recycled.
- •Avoid single-use plastics. It's far better to choose reusable items, but if you do have disposable plastic, be sure to recycle it.

Island of Plastic Waste in the Carribean





WATCH BIRDS, SHARE WHAT YOU SEE

- The world's most abundant bird, the Passenger Pigeon, went extinct, and people didn't realize how quickly it was vanishing until it was too late.
- Enjoy birds while helping science and conservation: Join a project such as eBird, Project FeederWatch, a Christmas Bird Count, or a Breeding Bird Survey to record your bird observations.

E-BIRD INSTRUCTIONS FROM CORNELL LABS

<u>eBird Essentials | Bird Academy • The Cornell Lab (allaboutbirds.org)</u>

DRINK COFFEE THAT'S GOOD FOR BIRDS

- •Three-quarters of the world's coffee farms grow their plants in the sun, destroying forests that birds and other wildlife need for food and shelter.
- •On the other hand, shade-grown coffee preserves a forest canopy that helps migratory birds survive the winter.
- •Look for shade-grown coffee that's good for birds.

REMEMBER TO THINK GLOBALLY ACT LOCALLY!



Endling by Maria Popova

•Unspooling from a reel in the sound archive of the British Library is the syncopating chirp of the last *Moho braccatus* a small Hawaiian bird now extinct.

After centuries, humans silenced the species with civilization, after a hurricane killed the last female in 1982, he alone was left to sing the final song of his kind a mating call for a world void of mate.



•Let us all pledge to do what we can to prevent this from happening in the future.

•Thank You!