

WINGBEATS

January | February | March | 2025 Newsletter of RAPTOR Inc.

Celebrating 47 Years



AN UNUSUAL CASE

By Cindy Alverson

Our RAPTOR Hospital is a trauma center for birds of prey. Our skilled rehabilitation team meticulously examines each bird we admit. The team performs a head-to-talon assessment and carefully documents every injury, from scratches to fractures.

As a trauma center, we see a wide array of injuries, with broken bones among the most common. Minor fractures may heal remarkably well, with birds soon returning to the skies. However, other breaks, particularly those near joints, will ground a raptor permanently. These cases are as challenging as they are heartbreaking, requiring us to make tough decisions about the bird's future.

Some avian patients will arrive in a state of severe emaciation because injuries impair their ability to hunt and bring them to the brink of starvation. Sometimes, disease saps a bird's strength and appetite. We also treat young birds who haven't mastered the art of hunting in their crucial first year. With each of these, we deliver careful nutritional management to bring the birds back to health without overtaxing their weakened systems.

But occasionally, we treat a patient with an injury so unusual that it leaves our experienced staff momentarily stunned. One recent raptor patient had feathers so severely damaged that they resembled a bird-shaped pincushion more than a majestic bird of prey.

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COLOR ABERRATIONS IN BIRDS

By Taylor Luken

Consider:

- An American robin, a bird that is usually almost entirely dark gray and orange, with dapples of unexpected white across its stomach and back.
- A female northern cardinal with patches of white feathers on its head.
- A red-tailed hawk with almost entirely pale plumage, like Isis, our spectacularly white, blue-eyed ambassador bird.

Each of these birds, despite having different patterns of white coloration, can be described as *leucistic*. Commonly pronounced both as lu-si-stik and lu-ki-stik, it's a term derived from the Greek *leukos*, meaning white. Leucism in birds arises from genetic abnormalities, abnormalities that disrupt the ability of pigments like melanin to be deposited or distributed in the correct locations during feather formation and/or the development of the skin, beak, talons, and eyes of a bird.

Albino animals, in contrast, genetically lack the ability to produce pigments at all. Albino animals therefore often have pale or red eyes, and a complete lack of color across the entire body.

Color aberrations in birds have long been of interest to us. Scientists are interested in the genetics of plumage variation for what it can tell us about the evolution and ecology of a species, and for potential implications for the survival and health of individuals. With increasing access to new molecular and genomic tools, we are only just now gaining the means to answer questions we have long been asking, including questions about leucism—questions such as, how it manifests differently in different birds, and whether it has any cascading effects on a bird's immune system or susceptibility to such health issues as parasites or cancer.

An answer to one of those questions—the question of how leucism manifests in different birds—is now being answered as scientists come to better understand certain molecular pathways. Many, many molecules play a role in bird skin and feather coloration, from various enzymes to pigment molecules themselves—and each of them is encoded by genes that may randomly mutate and result in a number of unique leucistic avian appearances. Most leucistic hawks have dark eyes, rather than blue eyes like Isis, for instance.

This suggests that Isis may have a particularly rare mutation, one which could have occurred early enough in her development to impact the cells that would go on to form the tissues of her eyes, in addition to those cells that differentiated into those comprising the rest of her body. In other words, a genetic mutation occurring very early in the development of a hawk embryo, one that disables nearly all melanin transport to feathers, for instance, might lead to a hawk like Isis. Yet a less-severe mutation that only leads to *decreased* melanin deposition at some feather follicles may result in more mottled leucistic appearances.

As for the health of leucistic raptors, science has yet to reach a conclusion. It is probable that in certain environments, pale-colored raptors may be more visible and therefore vulnerable to

threats and predation, as well as vulnerable to UV radiation and heat loss. They may also be less preferable to potential mates. But there is no concrete evidence suggesting that lacking a functioning melanin pathway causes a weakening of a bird's immune system or an increased susceptibility to parasites.

Leucistic birds are rare enough that reliable studies on such topics are hard to conduct. Even researchers who are part of the Red-tailed Hawk Project at Cornell University—one group seeking to understand more about the underlying causes and meanings of hawk coloration—said that enough knowledge gaps exist in our understanding of hawk plumage polymorphisms (the scientific terminology for genetic variation in plumage color) to limit what we can currently conclude about its role or effects on the species.

But it is only normal that humans are fascinated by rare forms of any creature, a testament to our curiosity and ability to marvel at and seek answers to questions prompted by the vast possibilities presented in nature. About 20.1% (or 113 out of 561) raptor species exhibit phenotypic polymorphisms, and Isis is just one example of so many of the beautiful possibilities genetics has to offer the natural world.



Isis (Marc Alverson)

OUR FLOCK IS GROWING - MEET WILLOW

By Jackie Bray



Willow (Marc Alverson)

RAPTOR Inc. has a new Avian Ambassador! Her name is Willow and she is a hatch-year grey-phase Eastern Screech Owl. She was brought to Raptor Rehab of Kentucky, Inc. (RROKI) this summer after she was found on the ground under the nest. The adults were still present and caring for her.

Willow has a genetic defect involving her feet - she is partially missing three of her toes and talons. Unfortunately, this condition makes it impossible for her to catch prey effectively on her own.

Since joining our flock in November, she has been hanging out on top of her nest box during the day. This gives guests the opportunity to see this elusive species up close.

If you listen closely for their vocalizations in wooded areas at night, you might hear their spooky trills and whinnies. Even though Eastern Screech Owls are easily the most common owl in the state, they can actually be hard to spot in the wild. They spend much of their time in nest cavities where their small size and two distinct color phases (red and grey) provide excellent camouflage. These owls are highly adaptable, surviving in a variety of habitats and feasting on diverse prey items.



Willow's Toes (Marc Alverson)

See Willow at a RAPTOR Inc. Open House, which begin March 30, and continue the last Sunday of every month through November. Stop by.

TRIBUTES

In Honor of
Jeanne Menke from
Edward Balogh

In Memory of
Azalia Majoewsky
from Candace Sellers

In Memory of
Iris Wigman from
Cristina Egbert

A MERLIN RETURNS TO THE WILD!

By Jackie Bray



Merlin (Jordan West)

All releases are special, but the release of a merlin back into the wild was an extra special celebration. On December 8, a merlin (migratory falcon) was found in Terrace Park (a Cincinnati suburb) lying on its back, unable to fly.

After being admitted, a thorough examination by rehabilitators revealed signs of a neurological injury to the adult male merlin. After the initial treatment with fluids and medications to reduce brain swelling, inflammation, and pain, the merlin began standing and was able to go outside and start flight conditioning.

A week later, the merlin was flying beautifully and

making laps in our 30-foot enclosure. The merlin was ready for banding and release.

On December 29, 2024, a crowd gathered at the finder's home as the finder, Josh Staph, released the merlin back into the wild!



Freedom at Last! (Jordan West)

AN UNUSUAL CASE

Continued from Page 1

From our years of experience, we know industrial flame burners cause these alarming injuries. Flame burners are used at many industrial sites to burn off excess gases. The stacks may extend up to 30 feet in the air, and their flames are often colorless. The combination creates a deadly hazard for unsuspecting raptors flying overhead.

Rehabilitating these burned raptors singed by flame burners is a marathon, not a sprint. The process typically takes a year or more and comes with significant ICU costs. For a red-tailed hawk, food expenses alone can approach \$1,500 a year without any consideration of the cost of medical treatment or multiple daily staff interventions.

Our most recent flame burner victim, a red-tailed hawk, arrived in a pitiful state. Weighing a mere 708 grams—far below the healthy 1100 to 1200-grams—its prospect for survival was uncertain. Through intensive care, including handfeeding with nutrient-enhanced formulas and later transitioning to solid food, we’ve seen remarkable progress. The hawk has now reached a healthy weight and is beginning to show promising signs of recovery.

The process of feather regeneration is fraught with challenges. New feathers lack the protection typically provided by surrounding plumage, making them vulnerable to damage. We must strike a delicate balance: provide enough exercise to keep muscles strong while minimizing the injuries to fragile new feathers.

Despite the long, costly rehabilitation, we are optimistic about this red-tailed hawk’s future. Its weight gain and improved endurance are encouraging signs. The bird’s care will extend for many more months. Its flight feathers are returning, and our progress to date gives us hope.

At RAPTOR Inc., each avian trauma patient is not just an individual life saved but a victory in our mission for conservation through raptor rehabilitation. Through the rehabilitation of these magnificent birds, we preserve wildlife and gain invaluable insights into the challenges facing raptors in our modern world. It’s a testament to the resilience of nature and the impact of dedicated human intervention.

Cover Image: Red-tailed Hawk After 90 Days (Marc Alverson)

TOTAL ADMISSIONS IN 2024

Species	# Admitted
American kestrel	29
Bald eagle	1
Barn owl	4
Barred owl	50
Black vulture	15
Broad-winged hawk	5
Cooper’s hawk	45
Eastern screech owl	16
Great horned owl	60
Merlin	1
Peregrine falcon	1
Red-shouldered hawk	70
Red-tailed hawk	79
Sharp-shinned hawk	2
Snowy owl	1
Turkey vulture	22
TOTAL	401

Dispositions	Percentage
Released	56%
Euthanized	23%
Died	16%
Under Care	5%



Merlin Sporting New USFWS Band (Jordan West)

2025 PUBLIC APPEARANCES

[Contact Sponsor for details and to see if reservations are required]

Date	Time	Sponsor	Location
30-Mar-2025	1pm-4pm	RAPTOR Inc. Open House	961 Barg Salt Run Rd, Milford, OH 45150
19-Apr-2025	2pm-3pm	Little Miami Conservancy River Center	211 Railroad Ave, Loveland, OH 45140
27-Apr-2025	1pm-4pm	RAPTOR Inc. Open House	961 Barg Salt Run Rd, Milford, OH 45150
03-May-2025	7:30am-9:30am	Spring Grove Cemetery Norman Chapel Bird Walk	4527-4517 Spring Grove Ave, Cincinnati, OH 45232
17-May-2025	2pm-3pm	Little Miami Conservancy River Center	211 Railroad Ave, Loveland, OH 45140
25-May-2025	1pm-4pm	RAPTOR Inc. Open House	961 Barg Salt Run Rd, Milford, OH 45150
05-Jun-2025	10am-1pm	Smale Riverfront Park	166 W Mehring Way, Cincinnati, OH 45202
16-Jun-2025	10:15am, 11:30am	MidPointe Library Middletown	125 S Broad St, Middletown, OH 45044
17-Jun-2025	10:15am, 11:30am	MidPointe Library Trenton	200 Edgewood Dr, Trenton, OH 45067
18-Jun-2025	10:15am, 11:30am, 1pm	MidPointe Library West Chester	9363 Centre Pointe Dr, West Chester Twp, OH 45069
19-Jun-2025	10:15am, 11:30am, 1pm	MidPointe Library Liberty	6716 Yankee Rd, Middletown, OH 45044
21-Jun-2025	2pm-3pm	Little Miami Conservancy River Center	211 Railroad Ave, Loveland, OH 45140
29-Jun-2025	1pm-4pm	RAPTOR Inc. Open House	961 Barg Salt Run Rd, Milford, OH 45150

FINANCIAL CONTRIBUTIONS

Thanks to the following individuals and groups for their financial contribution to RAPTOR Inc., for the fourth quarter of 2024.

Bald Eagle

\$10,000 and More

SEC Charitable Corporation

Garnett, William
Harris, Michael
Hays, Jeff and Lisa
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Osprey

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Simon, Irwin & Melinda
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Gifts \$100-\$499

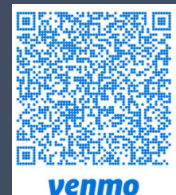
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Peregrine Falcon

\$500-\$999

Brooks, Charlotte
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Earls, Joanne
Edwards, Marilyn

Venmo Now Accepted



RAPTOR Inc. can now accept Venmo for purchases or donations. Our user name is @RAPTORInc.

RAPTOR WISH LIST

RAPTOR Inc. needs the following items for our bird care facility. To donate any of these items, please email RAPTOR at: raptor@raptorinc.org or call 513-825-3325.

- Dog food (dry, for large dogs)
- Duct tape
- UDF gas gift card
- Latex or nitrile exam gloves (XL)
- Office Max gift card
- Paper towels
- Stamps (Forever)

Thank you for all of your donations, including those who donate through the Amazon Wish List! Due to changes at Amazon, we unfortunately no longer receive information on the names of wishlist donors.

RAPTOR Inc. Board

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The Board of Trustees generally meets the third Wednesday of each month, at 7:00 P.M. All RAPTOR INC. members are welcome to attend.
 Contact president@raptorinc.org for meeting time and location.

Thank You To Our Veterinarians!

Bob Dahlhausen, D.V.M.
 (513) 576-1990

D.J. Haeussler, D.V.M.
 (513) 374-3963

J. Peter Hill, D.V.M.
 (513) 793-3032

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 (513) 561-0069

Paul Levitas, D.V.M.
 (513) 871-8866

Ann Manharth, D.V.M.
 (513) 248-0904

AMAZON WISH LIST

RAPTOR Inc. is listed on the Amazon Wish list. For a complete listing of all of the items we use for rehabilitation, and to provide our volunteers with all of the necessities they need to care for our birds, please visit our website, www.raptorinc.org. Click on the tab, Support Us (not the drop-down) and click on the Amazon Wish List Icon midway down the page. This is will take you directly to the RAPTOR Inc. Wish list.

Any Wish List items you buy are shipped directly to our RAPTOR Inc. facility in Milford. How easy is that?

Communications

Newsletter Editor

Ash Nieman-Lutz

To submit articles or pictures for consideration in Wingbeats, email the article to: raptor@raptorinc.org or by mail to: RAPTOR Inc. 961 Barg Salt Run Road Milford, Ohio 45150

To report an injured raptor in the Greater Cincinnati area call RAPTOR Inc.: (513) 825-3325

Mission

"Conservation through raptor rehabilitation, education, research, and community service."



RAPTOR Inc. Membership

Renewal notices are sent out at the end of the year for annual collection for the following year. Dues paid after September 1 will be credited for the following year. Please use the form below to become a member or update your contact information. You can also become a member online at our website: www.raptorinc.org.

If you don't need the membership form, pass it on to someone who might be interested in becoming a member of RAPTOR Inc. Your membership dollars provide for care, treatment, and feeding of our birds as well as the continuation of our education programs.

Mark the membership level you request. All membership levels include electronic (default) or postal delivery of the newsletter, as well as an invitation to the Fall Picnic. Members are also invited to attend Board meetings and may nominate candidates to serve on the board.

\$10 Student Membership
 (1 year - up to age 18)

\$25 Hawk Membership
 (1-year)

\$50 Owl Membership
 plus receive a stunning Raptor note card set

Eagle and Lifetime Memberships (below) also include perks from the levels above.

\$100 Eagle Membership
 plus receive a Charley Harper designed T-Shirt

\$500 Lifetime Membership
 plus personalized tour for 5

Eagle and Lifetime Memberships, please indicate T-Shirt Size: (S, M, L, XL, XXL) _____

Date: _____

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Email: _____

Check if you prefer postal delivery of Wingbeats

I would like more information about making a planned gift to RAPTOR Inc. Please call me | Please email me

I have already included RAPTOR Inc. in my will or estate plan. Please call me | Please email me

Mail this completed form with your check or money order to:

RAPTOR Inc., 961 Barg Salt Run Road, Milford, Ohio 45150

Attn: Membership

Thank you for your support of RAPTOR Inc.!

RAPTOR Inc.
961 Barg Salt Run Road
Milford, OH 45150

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Sponsor a Banded Raptor

Since the fall of 1994, RAPTOR Inc. has been banding most rehabilitated birds released back into the wild. Over a long period of time, this will help us determine how successful our rehabilitation efforts are. You can get involved with our "Sponsor a Banded Raptor" program. Sponsors will receive a fact sheet on the selected species and a certificate with the following information:

- Species and date of release
- Weight at time of release
- U. S. Fish & Wildlife band number
- Age (if known)

If the bird you sponsor is recovered, you will be notified of the date and location of the recovery.

Yes, I would like to sponsor a banded bird of the species checked below:

- American Kestrel: \$50
- Eastern Screech Owl: \$50
- Cooper's Hawk: \$50
- Barred Owl: \$50
- Red-shouldered Hawk: \$50
- Great Horned Owl: \$50
- Red-tailed Hawk: \$50

Name: _____

Address: _____

City: _____

Phone: _____ Email: _____

In the event your selection is not available, we will contact you to arrange an alternative. Sponsoring a bird is tax deductible. All proceeds benefit RAPTOR Inc. Complete this form, enclose a check or money order, and mail to: RAPTOR Inc., 961 Barg Salt Run Road, Milford, Ohio 45150

Thank you for your support of RAPTOR Inc.!