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*Male Red-winged Blackbird in flight. Photo by Greg Smith.*

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**‘The Bold  
& the Beautiful’**

I often implore audiences to not take the existence of any wild creature for granted, no matter how common. Numbering in the billions, the Passenger Pigeon - a migratory species native to Eastern North America - was thought to be the most populous bird on the planet in the mid-1800s. Yet, humanity managed to drive it to extinction in the wild by the end of the century.

Today, even the most common birds around us are experiencing some level of decline due to humanity’s relentless and accelerating abuse of the environment. For instance, populations of the common and commonly taken-for-granted Red-winged Blackbird have declined nearly thirty percent since the 1970s.

It is difficult to summon a reason to care about the existence of any wild creature - or the health and continuance of its population - when you know nothing about it. To know it by name is the barest of starts. How does it actually live, struggling against great odds to survive? What is there to learn about its unique behaviors, its reproductive cycle, its specific habitat requirements, and its myriad interactions with other components of its ecology?

Attaining these answers conflates to an intimate understanding of the organism, and beyond, to a sense of its intrinsic - even sacred – value within the complex jigsaw puzzle that is the ecosystem to which it belongs. Learn these details, and it becomes difficult to *not* be an ally to its survival.

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The migratory Red-winged Blackbird lives an incredibly interesting and dramatic life. Most of the year - from mid-summer to late winter - it leads a communal one, often within large flocks of other Redwings, in the process migrating many hundreds of miles from northern states to the Gulf States and back. Species of other blackbirds like the Common Grackle or Brown-headed Cowbird often join them, as well as potentially large numbers of the similarly-sized invasive European Starling. They pepper the grounds of agricultural fields as they feed by day, then copiously stipple the sky near sunset enroute to roosting sites within cattail marshes and thickets.

In late February adult male Red-winged Blackbirds on the wintering grounds, cued by the lengthening days, develop an itch to get back to their northern nesting sites. By early March, they begin to show up in Michigan. An astute passer by a cattail marsh or almost any sizeable roadside expanse of early-successional overgrowth will spot the first of them perhaps perched on a fluffy cattail seed head, at the pinnacle of a shrub or sapling, or on a power line above the breeding habitat. As soon as a male arrives, it



*An early-March view of a few-acre cattail marsh in our rural neighborhood north of Williamston*

selects a certain patch as a potential nesting territory then gets busy defending it against other males that settle in the surroundings with similar intentions.

In a matter of days across, say, a three-acre cattail marsh, the number of 'Redwings' that speckle the tops of the faded sea of stalks goes from zero to a few to nearly a dozen. Over the ensuing week or two, a given male will engage in hundreds of confrontational episodes with its adjacent neighbors. These occur in the form of singing, flashing of bright red patches atop its wings, threatening postures, and lots of chasing and being chased. The process serves to mold the size and shape of its particular breeding domain, the resultant dimensions of which reflect its 'fitness' in relation to that of its neighbors.

Red-winged Blackbirds are genetically-wired to recognize what constitutes good nesting habitat. By evolutionary design, the most fit males - amid all the jockeying - manage to hold and secure the best sites. Additionally, an especially robust male manages to *expand* its holding by winning 'border disputes' that arise with its immediate neighbors. On the opposite end of the spectrum, the least fit individual among the territorial players is eventually driven by surrounding rivals into the smallest and/or least favorable slice of the larger habitat.

We know about these machinations thanks to extensive observations over the years by ornithologists who study Redwing population dynamics. In a classic study cited in ornithology texts, one biologist observed that the male declares his territory by not just emitting the breeding song - often phoneticized as *con-ca-REEE* - but by simultaneously spreading its wings to display the prominent, red 'epaulets' in the direction of the rival. The researcher posed the question, *Which is more important to a male's ability to defend its territory, the breeding song (auditory display) or the flash of the epaulets (visual display)?*

In March, as males became established on territories within a marsh, the biologist set out to live-trap a couple of individuals on their respective territories. He did this by mounting a portable platform with a spring mechanism that would swing a net over the unsuspecting bird. He did not use seed as bait, but - more appropriate to the circumstances - a stuffed specimen of a male Redwing. The sight of an interloper is irresistible to a territorial male.

Once captured, he went about eliminating one of the two display types in each of the birds. On one male he simply painted the red epaulettes with black dye. However, removing the vocal display in the second bird required minor surgery. It was lightly anesthetized and its vocal cords snipped. Both birds were then quickly released back to the marsh and reoccupied their respective posts.



*A male Redwing employs auditory and visual displays to defend his territory against rivals.*

*Photo by Steve Sage.*

The male with no voice seemed to have little trouble repelling the surrounding males. Despite continuing to open its bill as if to call, no vocalization was forthcoming, but the flash of the epaulets continued to function like a pair of bright stop signs to the potential intruder.

The black-winged blackbird did not fare well. As always, it called and spread its wings at the boundary line near a neighboring male. Seeing no ‘stop signs,’ the rival responded almost as if the territorial occupant was not there at all. It flew past and into the territory, thus, inciting the affected male to give chase. No sooner had it expelled the intruder when another bordering male violated the boundary. Then another.

Ostensibly, with no visible Redwing to hold them back, every male that surrounded the black-winged bird’s territory repeatedly attempted to expand its own territory in that direction. Whereby, before, a simple display from a cattail was enough to keep the rivals at bay, he was now forced to *physically* chase them out every time. Over the course of the day the biologist observed this bird growing increasingly tired from the relentless energy expenditure required to sustain its holding. By day’s end, the rivals had successfully encroached on all sides, and the black-winged bird had become too thoroughly exhausted to do anything about it. The following morning the biologist could no longer locate the black-winged bird. Meanwhile, the others were engaged in negotiating among themselves – Redwing style - the new parameters of their respective territorial expansions.

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If you’re wondering where the females are, their arrival is pending..., but before they do, it is important to recognize something that many non-birding folks would have a difficult time connecting to the name. A female Red-winged Blackbird is neither black nor red-winged. In keeping with the coloration of females of so many bird species, her feather coat is tan-to-brown overall and cryptically-streaked - all the better to sit undetected by a would-be predator’s eye while incubating her eggs.

Whereas, in most migratory species, the sexes move on the same timetable, among the Red-winged Blackbirds adult males migrate northward a few weeks ahead of the females. In a twist of the *early bird gets the worm* metaphor, ornithologists have confirmed that the early-arriving male migrant is very likely to get the best breeding territory. As day lengths increase male Redwings on the southern wintering grounds are therefore impelled to migrate as soon as possible in order to beat the competition.

However, there is peril in becoming too ambitious in taking off ahead of the others: a greater risk of encountering severe late-winter weather. Indeed, the earlier-migrating males run an increased risk of death-by-snowstorm, ice-storm, or subzero temps. Females play it safer (Sound familiar?), and don’t begin to return to northern latitudes until the middle of March. By the time they arrive, the most suitable habitats in densely-vegetated wetlands and fields are already speckled with male occupants on established territories.



*A female Redwing’s cryptic color/pattern serves her well at nesting time. Photo by Greg Smith.*

Redwing researchers have found that returning females arriving on the breeding marsh do not choose a mate, *per se*. Like the males before them, they choose the most quality piece of habitat they can find in which to nest. Whichever male happens to possess the territory within which she chooses to settle gets to father her offspring. When she alights in his territory, he postures and fusses about her in the most welcoming fashion, flashing red epaulets at her with an intent strictly reserved for the opposite sex.



A typical female arriving in the breeding habitat keeps a much smaller territory than your average male. It basically encompasses an area immediately around the spot where she intends to build her nest. She keeps other females away by employing her own threatening postures, and will resort to chasing, if necessary. A rival female with an eye for nesting in this particular slice of the marsh, too, may find that the territorial female no longer threatens her beyond a certain point, so settles for putting down stakes right ‘next door.’ Here, however, she may still find herself within the same male’s territory, so he will get to sire her offspring, as well.

It becomes clear that the more fit males with an associated ability to claim and defend an especially large territory attain a marked advantage over their rivals to pass their genes to the next generation: a greater number of females claiming nesting territories within their own. An occasional energetic male may have a half dozen or more females take up nesting activity within the expansive holding.

Many a returning female arrives with family ‘baggage’: a grown offspring or two that have followed her, quite literally, everywhere since first leaving the nest the previous June. They ride the apron strings with little strife until she arrives on the breeding ground the next spring.

If, say, a recently-arrived female descends into the marsh with a daughter and son in-tow, her similarly-colored and patterned daughter is aptly welcomed by the territorial male. The son, however, wears colors that incite aggression, and the resident male attacks relentlessly. When the forlorn yearling is chased beyond this male’s boundary its relief is short-lived. The territorial male into whose territory it now finds itself sets to attacking it. A chain reaction of territorial aggressions toward it may ultimately oust the young male from the breeding habitat all together. Such is the typical sudden and stark manner in which a yearling son is ‘unbonded’ from its mother.

The daughter that alights in the marsh at its mother’s side is also in for an abrupt ‘education,’ albeit, not so severe as its brother experienced. The mother’s demeanor is the same toward any other female when territorial establishment is at hand, and the daughter is no exception. Once in the breeding marsh, the mother commences to aggressively enforce a minimal buffer zone between herself and the bewildered daughter. All the while, the resident male conveys a welcoming attitude, lavishing overtures the daughter’s way in an effort to encourage her to stay and nest within his domain.

Studies in Redwing population dynamics reveal that yearling males rarely participate in the breeding cycle, yet, nearly all yearling females do. Additionally, females with nesting territories ‘next door’ to one another in the habitat often turn out to be mother and daughter. Their offspring also often share genes from the same father. Polygyny is a common and normal occurrence within a Redwing breeding marsh.

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*The first male Redwings are arriving on the vernal wetlands on our property now.*

Here’s one more twist that not only chalks a win for genetic diversity over the broad dissemination of its genes by the big bully on the marsh; but, were these birds characters in a place-based soap opera series, the drama, deceit, and clandestine trysts would make for quite titillating viewing...

Yes, the most robust male may indeed be able to force surrounding males to retreat, thereby, expanding his territory to dimensions that are the envy of the marsh; and yes, such a large territory equates to a veritable bevy of nesting females within his domain, every one of which he has the privilege to copulate with. However, an argument could be made that the big guy may have overextended

himself a bit. With that much space to cover and that many females to attend, he can't possibly be in all places at once.

Peripheral males may discretely sneak across the border, court, and regularly copulate with females that nest within another male's territory when opportunity arises. Males holding larger territories are the most frequent dupes. Based on DNA from blood samples of nestlings in many females' nests, promiscuity is alive and well in the Redwing breeding community. Three or even four of the nestlings in a given nest may turn out to actually be *half-siblings* of each other - each carrying the genes from a different father.

-Jim McGrath



## ***Around the State in March***

- ❖ ***Wednesday, March 12: 6-7:30pm. MI Reptiles & Amphibians Exhibit; Murphy Elementary School Science Night, Haslett.***
- ❖ ***Thursday, March 20: 5-7pm. MI Reptiles & Amphibians Exhibit; North Huron School Science Night, Kinde.***
- ❖ ***Thursday, March 20: 5:30-7pm. MI Snakes Presentation; Indian River Library, Indian River.***





# Nature Discovery

5900 N. Williamston Road Williamston, MI 48895  
517.655.5349 [naturedisc87@gmail.com](mailto:naturedisc87@gmail.com) [www.naturediscovery.net](http://www.naturediscovery.net)

## Visit Our Nature Center by Appointment

**Suggested Minimum  
Donation: \$5/person/hr**



*Learn about then hand-feed a cricket to our newts.*

The sky's the limit for natural science learning here – with a Michigan twist! Adults, couples and individual families are welcome to schedule an intimate indoor or outdoor visit to what we call “The Biggest Little Nature Center in Michigan,” and “Home to the Largest Zoo of Michigan-native Reptiles and Amphibians.” The unique, in-person, hands-on experiences here are unrivaled at any other nature center or zoo! We will bring snakes, turtles, frogs and salamanders out of tanks to interact with adults or students of any age or grade-level.



*Once the ice melts from our vernal ponds frog activity is not far behind.*

Identify and feed “the grand slam of Michigan turtles” - all ten species native to our state! Meet, pet and feed “Milberta”, our always hungry Red-footed tortoise.

Handle any or all of Michigan’s three species of garter snakes while learning how to tell them apart, then watch them gobble up worms and tadpoles. Hold or “wear” a gentle 6-foot Black Ratsnake – the largest in the state!

Many more snakes, turtles, frogs and salamanders to identify and feed. Identify birds at the feeders. Take a guided walk on our trails to identify spring birds by their songs. Explore the perimeters our awakening vernal ponds soon to be hopping with frogs.

**Make an appointment for your family or small group over **SPRING BREAK**.  
Contact us for additional information or to make an appointment almost any day.**



# Spring/Summer 2025 Day Camp Hiatus

*After 37 consecutive years and much deliberation through the 'off-season' we've decided to put our spring and summer day camps on hiatus for 2025. Through recent years our schedule through these seasons has become increasingly busy with contracted presentations, exhibits and other teaching opportunities across the state, leaving*

*very little time to engage in much else. Over next winter, as circumstances dictate, we will evaluate and determine whether day camp offerings can be reinstated in 2026. Thank you for your understanding.*

*Nature Discovery will continue to offer visits by appointment throughout spring - including over spring break - and throughout the summer. These can be arranged for any time span (as little as an hour or up to several hours) for designated small groups, families, and even for a several hour 'drop-off' of a small pod of children to engage in a 'mini-day camp' here. Simply contact us to discuss your ideas.*

## LCC Summer Youth Camps

Carol continues to teach summer youth camps/classes in 2025 through Lansing Community College at LCC's East Lansing campus. Here are this summer's offerings...

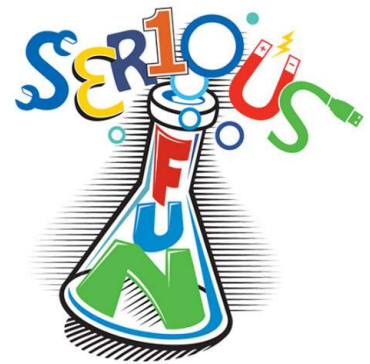
**June 23-26:** 9am-12pm, WETLAND EXPLORERS, Gr. 6-8.  
1-4pm, SCIENCE WITH EXPERIMENTS, Gr. 2-3.

**July 14-17:** 9am-12pm, TOY SCIENCE, Gr. 2-3.  
1-4pm, FOOD & FUN, Gr. 4-5.

**July 21-24:** 9am-12pm, MICHIGAN REPTILES & AMPHIBIANS, Gr. 4-5.  
1-4pm, STEAM SPINNING GADGETS, Gr. 6-8.

**July 28-31:** 9am-12pm, SECRET AGENT CODE BREAKERS, Gr. 4-6.  
1-4pm, FUN WITH PHYSICS, Gr. 2-3.

Visit <https://www.lcc.edu/seriousfun> for details and enrollment procedures.



## More Reading for 'We the People'

Scientists Warn Swimmers of Serious Risks Lurking in the Great Lakes: 'Highest Reported Worldwide'  
[https://www.yahoo.com/news/scientists-warn-swimmers-serious-risks-100023818.html?soc\\_src=social-sh&soc\\_trk=fb&tsrc=fb&guccounter=1&guce\\_referrer=aHR0cHM6Ly9sLmZhY2Vib29rLmNvbS8&guce\\_referrer\\_sig=AQAAAMsnzKwvbQjkD8mQuFi1FyjKW3\\_VkPh6WvS1JP8PF9Rjh6QbmlIHTOhxfWtdF79x8aR3xP1w36wefx-f5YYBM8gLMeVxt9VjSd359WaWxppjbZEB6lwDuoV\\_vQpvYJhBdGLYKBfHhGBGuICAf0\\_T\\_qFQh8aPMCCJbjTqX19ej](https://www.yahoo.com/news/scientists-warn-swimmers-serious-risks-100023818.html?soc_src=social-sh&soc_trk=fb&tsrc=fb&guccounter=1&guce_referrer=aHR0cHM6Ly9sLmZhY2Vib29rLmNvbS8&guce_referrer_sig=AQAAAMsnzKwvbQjkD8mQuFi1FyjKW3_VkPh6WvS1JP8PF9Rjh6QbmlIHTOhxfWtdF79x8aR3xP1w36wefx-f5YYBM8gLMeVxt9VjSd359WaWxppjbZEB6lwDuoV_vQpvYJhBdGLYKBfHhGBGuICAf0_T_qFQh8aPMCCJbjTqX19ej)

The Story You've Been Told About Recycling is a Lie

[https://www.nytimes.com/2025/02/14/opinion/trash-recycling-global-waste-trade.html?campaign\\_id=39&emc=edit\\_ty\\_20250217&instance\\_id=147731&nl=opinion-today&regi\\_id=97652655&segment\\_id=191207&user\\_id=e2b8dd8c9b543fb8c35d5dd30658067e](https://www.nytimes.com/2025/02/14/opinion/trash-recycling-global-waste-trade.html?campaign_id=39&emc=edit_ty_20250217&instance_id=147731&nl=opinion-today&regi_id=97652655&segment_id=191207&user_id=e2b8dd8c9b543fb8c35d5dd30658067e)

See How Butterflies are Surviving, or Not, in Your Area

[https://www.nytimes.com/interactive/2025/03/06/climate/us-butterfly-population.html?campaign\\_id=9&emc=edit\\_nn\\_20250307&instance\\_id=149351&nl=the-morning&regi\\_id=97652655&segment\\_id=192811&user\\_id=e2b8dd8c9b543fb8c35d5dd30658067e](https://www.nytimes.com/interactive/2025/03/06/climate/us-butterfly-population.html?campaign_id=9&emc=edit_nn_20250307&instance_id=149351&nl=the-morning&regi_id=97652655&segment_id=192811&user_id=e2b8dd8c9b543fb8c35d5dd30658067e)

Understanding Neonicotinoids

<https://www.xerces.org/pesticides/understanding-neonicotinoids#:~:text=Neonicotinoid%20insecticides%20are%20now%20the,is%20a%20cause%20for%20concern.>

Environmentally-Responsible Clothing

[https://recoverbrands.com/pages/wholesale?matchtype=p&network=g&device=c&keyword=sustainable%20apparel&campaign=21162321579&adgroup=160187110785&keyword=sustainable%20apparel&matchtype=p&network=g&device=c&adposition=&utm\\_term=sustainable%20apparel&utm\\_campaign=\\*LP+Wholesale&utm\\_source=adwords&utm\\_medium=ppc&hsa\\_acc=1474477268&hsa\\_cam=21162321579&hsa\\_grp=160187110785&hsa\\_ad=702220725581&hsa\\_src=g&hsa\\_tgt=kwd-735571551983&hsa\\_kw=sustainable%20apparel&hsa\\_mt=p&hsa\\_net=adwords&hsa\\_ver=3&gad\\_source=1&gclid=Cj0KCQiAz6q-BhCfARIsAOezPxnVV-y48H1dKZ5dngxVYEFaKmrpLqYb893Bw5nqZLJWWhsfhjVJtPKwaAtbPEALw\\_wcB](https://recoverbrands.com/pages/wholesale?matchtype=p&network=g&device=c&keyword=sustainable%20apparel&campaign=21162321579&adgroup=160187110785&keyword=sustainable%20apparel&matchtype=p&network=g&device=c&adposition=&utm_term=sustainable%20apparel&utm_campaign=*LP+Wholesale&utm_source=adwords&utm_medium=ppc&hsa_acc=1474477268&hsa_cam=21162321579&hsa_grp=160187110785&hsa_ad=702220725581&hsa_src=g&hsa_tgt=kwd-735571551983&hsa_kw=sustainable%20apparel&hsa_mt=p&hsa_net=adwords&hsa_ver=3&gad_source=1&gclid=Cj0KCQiAz6q-BhCfARIsAOezPxnVV-y48H1dKZ5dngxVYEFaKmrpLqYb893Bw5nqZLJWWhsfhjVJtPKwaAtbPEALw_wcB)

-JM

*The next generation would be justified in looking back at us and asking, “What were you thinking? Couldn't you hear what the scientists were saying? Couldn't you hear what Mother Nature was screaming at you?” – Al Gore*

*I don't want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day. I want you to act. I want you to act like you would in a crisis. I want you to act like your house is on fire, because it is. – Greta Thunberg*

*The personal actions that cut climate pollution fast are to go flight-, car-, and meat-free. Start with the one that feels most feasible for you; if you can't totally go without, aim to cut your consumption today at least in half. – Kimberly Nicholas, Under the Sky We Make*

*What if we had storytelling mechanisms that said it is important that you know about the well-being of wildlife in your neighborhood? – Robin Wall Kimmerer*

*Study nature, love nature, stay close to nature. It will never fail you. – Frank Lloyd Wright*





**Union of  
Concerned Scientists**  
Science for a healthy planet and safer world

[Statewideindivisiblemi.com](http://Statewideindivisiblemi.com)



[Earth911.com](http://Earth911.com)



[Flightfree.org](http://Flightfree.org)



[insideclimatenews.org](http://insideclimatenews.org)

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