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A Black Rat Snake in the Classroom is a Sure Fire Fear-buster



Our hatchling rat snakes need homes. Seven are albino!

“You need to learn more about snakes.” This is our pat response to audience members or visitors to our exhibits of any age when they respond in a negative way to one of our harmless and ultra-mellow Michigan-native snakes.

To some degree, evidence points to the fear of snakes (and spiders) having hereditary origins. Rob Venner, director of DeGraaf Nature Center in Holland, contracts us to present there once or twice each year, and often on the topic of Michigan snakes. He recently forwarded this article featured in *Science Daily* that summarizes research suggesting that these negative reactions may be deeply embedded in our genetic makeup: <https://www.sciencedaily.com/releases/2017/10/171019110953.htm>.

Whether the primal reaction is real or not, education which focuses on fostering an ability to differentiate between species, and, by extension, the harmless versus venomous ones, would bestow means for the learner to move beyond primal instincts and to consider them in a more measured and objective light.

We look at our presentations and exhibits on the topic as a mere introduction to snakes of Michigan. While an hour of exposure is better than nothing, like other educational subjects such as math or social studies, this scant time allotment can only give you a gist of the subject matter. Disappointingly, this is as deep as most may go in understanding local snake identification, behavior and ecology. In our September newsletter (<http://naturediscovery.net/pdf/WILD%20TIMES%20Sept17.pdf>) I assert that the potential for injecting education about snakes into the core science curriculum of any school district is possible, yet, not realized because the decision-makers who determine what will be taught to students - K to twelve – have never experienced this particular education themselves. Therefore, they cannot fathom the impact of such a program on their students’ educational journey.

Well, we’ve been doing this for thirty years now, and we see the impact every week. There may be no better avenue to help you better understand snakes than to actually keep and care for one! David Potts, a first-to-third grade teacher at Stepping Stones Montessori in East Lansing, acquired a young Black Rat Snake from us seven years ago to keep in his classroom. The snake is now nearly six feet in length. Children have regular opportunities throughout the school year to handle and feed their gentle classmate.

No surprise, you will not find anyone in *this* classroom squeamish about snakes. Familiarity truly does vanquish fear.

Whoa! Turns out our rat snakes have had unprecedented reproductive success over the summer. Our nine-year-old female laid eighteen eggs this spring. All hatched in late August. The seven-year-old female also mated and laid fifteen eggs in late summer. They are due to hatch any day now. We are hoping to turn this glut of baby rat snakes into educational “gold” for school classrooms, nature centers, or any other learning venues.

Since the Black Rat Snake is a state-protected species it is unlawful to sell one here, however, if any school contracts us to give a presentation on Michigan snakes or on any other topic, we will donate a hatchling rat snake and provide all the care support you may need. We can also supply frozen mice for its food at about half the cost you would pay at a pet store. Just call or email us to make arrangements. The first of our hatchlings will find itself in a busy new home next week. Erin Phetteplace, a preschool teacher at Cumberland Elementary in Lansing, has scheduled us to give a presentation featuring a number of Michigan species that the children can touch, hold, and even watch eat. Erin tells us that the children are very excited for the arrival of their new mascot.



Each of these incubating eggs measures about 1.5 inches in length. A hatchling is already larger than an adult Red-bellied Snake - Michigan's smallest.

You can visit our rat snakes and offspring here on Sunday, November 19. Do you know a teacher who may be interested in our Adopt-a-Rat Snake program? Forward the link to this newsletter or direct them to information on our website. The column leading off our December 2015 newsletter gives still more detail on the biology, ecology and behavior of Michigan's largest snake, and why its disposition makes it a perfect classroom addition: <http://naturediscovery.net/pdf/WILD%20TIMES%20Dec15.pdf>.

-Jim McGrath



Catch Jim on Coffee Break Thursday, November 9

Jim is scheduled to appear on Thursday, November 9 at 9:15am, discussing various wildlife topics. The show airs weekdays from 9 to 10am on 89.7 FM. Listen live online at lcc.edu/radio/onair/ or watch it live (or later in the day at 6pm) online at lcc.edu/tv/watch. We'll post a reminder on our Facebook page.



Common Redpolls are sporadic winter visitors to backyard feeders in this area. Photo © Steve Sage.

Open Hours

Sunday, November 19

2pm Presentation

***Winter Birds -
Backyard & Beyond
1 to 5pm; \$5 admission***

A huge percentage of Michigan's summer resident birds fly south for the winter. Although fewer bird species can be seen here in the winter, many folks are unaware that a long list of birds that cannot be found here in the warmer seasons can *only* be found here over the colder months! From finches to snowy owls, these include migrants from the far north. From their perspective Lower Michigan is "south." At 2pm sit-in on our original Powerpoint presentation, *Winter Birds: Backyard & Beyond*. Beautiful color images are used to introduce participants to a host of birds from The North that call our yards, fields, forests and Great Lakes "home" over the winter months. Find out where to find them, including tips on the best locations to visit in order to encounter them.

As always, interact with our huge zoo of Michigan snakes, turtles, frogs and salamanders before, during, or after the presentation. Knowledgeable staff is on hand to help visitors of all ages make the most of their visit!



A Snowy Owl perches atop a pole barn roof.

Thank you, Cedar Creek Vets!

We're grateful that Cedar Creek Veterinary Clinic supports Nature Discovery's mission so much as to offer pro bono health care for any of over 100 animals in our educational menagerie! In October our 10-year-old female Common Snapping Turtle developed an infection. A prescribed regiment of antibiotic shots and saltwater baths should get her back on her outreach game before long. Did you know that CCV is known throughout the state and beyond for their specialty in reptile and bird care? Visit <https://cedarcreekvet.com/> for more information.

Veterinary assistant, Jake Bradley, cradles his surprisingly gentle patient after she tolerated poking, prodding and being stuck with a needle during her visit.



***Visit Our Interactive Michigan
Reptiles & Amphibians Exhibit at
Glencairn Elementary's Science Night***

***Plus many more hands-on science displays and
activities - open to the public.***

Thursday, November 16 6:30-8pm.

***Glencairn Elementary School is located at the
corners of Harrison & Saginaw in East Lansing.***



*Migratory Tundra Swans are an automatic tally at
Muskegon Wastewater Facility. Photo © Steve Sage.*

maximum of five participants on this full-day odyssey to tally as many species as possible through habitats that harbor thousands of birds.

Wastewater treatment facilities are typically hot birding locales. The expansive Muskegon Wastewater Facility, several miles from Lake Michigan, allows birders to acquire a special permit to access their facility. Jim has one! Vast holding ponds of various depths are waterfowl magnets. The water birds in turn, attract predatory hawks, eagles and owls.

Miles of dikes surround the ponds crammed with thousands of ducks of over a dozen species, plus geese, swans, grebes and more. Open area north and south of the ponds offer a slew of other species, including eagles, Rough-legged Hawks, kestrels, shrikes, Snow Buntings and lots more.



We'll head to Lake Michigan to pick up more birds from the shore and on the breakwater. Diving ducks, loons, grebes and more, forage everywhere in the water. The uncommon Purple Sandpiper, migrates along Lake Michigan in late fall. We may find one foraging on the rocky breakwater.

Weather-permitting, we should tally nearly 50 species. The only extended walking will be on the breakwater. Participants will receive a Michigan Birds checklist to tally the day's finds.

COST: Only \$70/person, includes transportation. Meet at Nature Discovery. With notice, we can also arrange to pick you up at another more convenient location. Contact us to reserve a spot.

***Muskegon Area
Birding Day***

***Saturday, November 25
6:30am to 4:30pm***

On Saturday, November 25, from 6:30am to 4:30 pm, join us on a guided trip to the Muskegon area for some great, late-fall birding. Jim will lead and drive a

Washington: A Hand-Picked “Empire of Denial”



There is worldwide agreement, the evidence overwhelming, but Team Trump maintains it is “inconclusive,” so, “Drill, baby, drill!”

Photo from www.carbonbrief.org

ice scientists in the world you hear a rising alarm in their voice about what we might potentially be facing.

In late October Jeff Goodell, author of the book “The Water Will Come: Rising Seas, Sinking Cities and the Remaking of the Civilized World,” was a guest on the NPR program, *Fresh Air*. Goodell is a contributing editor at *Rolling Stone* and has been covering climate change, fossil fuels, the coal industry and their impacts on the environment for fifteen years.

Snippets from his interview with Terri Gross:

Regarding the melting of glaciers in Greenland and in the Antarctic... *When you talk to the best ice scientists in the world you hear a rising alarm in their voice about what we might potentially be facing.*

When Gross asks him if he could give a roll call of members of the Trump administration who deny the reality of climate change: *We could just do a roll call of the entire administration. I'm not sure there's anyone in the administration that I'm aware of who would acknowledge climate change... It's just a kind of empire of climate denial that is now running Washington D.C.*

And then the final thing that concerns me about what's happening is just this whole debasement of science, just the whole question [of why] we don't make decisions about our future and about our future risk based on good science. And I think that is really what is the most disturbing and, frankly, frightening thing about what's happening in the Trump administration. It's just the complete politicalization of science. And not just about climate change, but we're seeing it about air pollution, toxic chemicals, all kinds of things. And once you throw science out, that's a very scary world.

Here are links to the full interview plus a report on the latest National Climate Assessment along with this facts-and-ethics-averse administration’s typical response that attempts to legitimize their motives.

<http://www.npr.org/2017/10/24/559736126/climate-change-journalist-warns-mother-nature-is-playing-by-different-rules-now>

US Report Says Humans Cause Climate Change, Contradicting Top Trump Officials

<https://www.nytimes.com/2017/11/03/climate/us-climate-report.html>

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

350.org

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