

# Earthtones

Winter 2015

## Snakes Comparatively

In some very basic ways, we are more alike than not. We both have bilateral symmetry, a complicated nervous system, a brain, and sense organs. We have a complete internal skeletal system comprised of a backbone, which consists of a series of vertebrae that protect the spinal column, and a skull. We have at least two layers of skin, muscle-powered locomotion, a complicated digestive system, a pair of kidneys, and a circulatory system with a multi-chambered heart.

The biggest differences, scientifically, between snakes and humans are that we and other mammals have three middle ear bones, mammary glands, and hair. Oh, and that snakes no longer have limbs.

Reptiles and mammals, along with birds, are amniotic vertebrates—a rather small, relatively closely related group of roughly 25,000 species. On the other hand, over a million species of insects span a rather wide range of adaptations.

Despite our similarities, fear of snakes is quite common. In a 2001 Gallup Poll, over 50% of Americans suffered from this fear, more so than even public speaking and other polled categories.

Feared or not, snakes can be rather fascinating. As a result of losing their limbs and stretching out, they had to make some amazing adaptations.

The evolutionary record of snakes, due to their delicate nature, is spotty. They appeared first at the end of the age of dinosaurs. Current scientific consensus is that they evolved from lizards, possibly monitors. However, some evidence connects snakes with ancient sea-dwelling lizards.

As the dinosaurs disappeared, snakes may have been ready for their replacements. Slender, flexible bodies fit well into early mammal burrows. Strikingly, the largest known snake to have existed also slithered around during this time. The 48-foot long *Titanoboa* feasted on the huge crocodiles of the time period.

This carnivorous nature of all snakes led to some unique features. Its mandible, or lower jaw, is unfused, allowing it to separate to help push food down its throat and swallow food larger than its small head. An extra bone in their jaw allows it to open even wider. (We actually have that same bone, but use it in our inner ear for hearing.) Although snake teeth are all similar, venomous snakes managed to evolve a range of specialized fangs and venom.

A long, narrow body creates its own issues. Snakes internal organs tend to be stretched out in response. Their right lung is primary and extra long, leaving less room and purpose for the left. They have hundreds of unconnected ribs compared to our connected twelve. These ribs not only help them move, but also provide more room for food. However, in live-bearing snakes, the mother snake still lacks enough room to both carry eggs and for food so must go hungry till the young are born.

Of course, there is much more to say on the subject of snakes. We hope you will come out to the Center to see the Snake Exhibit (see page 3) and learn more yourself.

*By Pamela Holz*

## Winter Work

On behalf of the staff of the Conservation Board, I want to thank each and every one of you for your patronage in 2014. Thanks to you, this year was a record for us in most of the ways we have to measure it. Throughout the summer months, thousands of people witnessed the Washington County Conservation Board (WCCB) maintenance staff scurrying about in an effort to keep our properties as safe and attractive as they can. We hope that we were successful in providing your local conservation needs!



The number and types of visitors to our properties changes dramatically once school starts. The WCCB manages 16 properties totaling more than 2,250 acres. Management intensely varies greatly from Marr Park to areas which require only signage. On these acres are approximately 30 miles of varying trails, at least 30 different bodies of water, and more than 1,200 acres of forest. The intensive management park needs absorb nearly all staff time during the summer months, leaving a huge back log in our other areas.

Changes in activities for maintenance staff start in September with a huge increase in visitors to our public hunting associated properties. Additionally, we strive to prepare our areas and equipment for winter. Once ice hardens enough, we use it as a platform to fill all of our nesting structures for Canada geese and wood ducks.

Additionally this year, we are appreciative of our Secondary Roads Department for providing us with quite a few older concrete culverts which we will repurpose as anchors for habitat into many of our managed ponds. We plan to roll these culverts on-

to the ice and then break holes into the culverts. Using these holes, we will tie on junk trees and allow the entire structure to fall into the water the next spring. These act as fish attractors (especially for ice fishing). Some studies indicate that cedar trees are the most attractive of all, for those interested in trying it on their own ponds. Priorities for this structure addition this winter include Crawford Pond as well as the newly developing fishery at Foster Pond. As a side note, these two and Thomas Marr Lake are my suggested best bets for ice fishing success. You can find our sunken tree piles by looking for the bubbles on the bottom of the ice or, quite likely, the places where other fishermen have concentrated their efforts.

Last winter we began a timber stand improvement on approximately 60 acres of silver mapledominated timber at the English River Wildlife Area and accomplished about 2/3rds of it. We certainly hope to get back there to complete it. We also intend to continue efforts towards planned timber management of a small portion of Sockum Ridge.

As spring approaches, maintenance efforts will shift towards preparing and enhancing properties for spring. The WCCB has a history of our certified staff conducting prescribed burns on a planned and regular basis on various native grass plantings. We rotate these fires on individual properties to balance remaining wildlife habitat with the need for this management. Weather permitting, prescribed burns are planned on portions of the Clemons Creek Wildlife & Recreation Area, Sockum Ridge, Marr Park, Rubio Wildlife Area, Schmitter Heritage Area, and the English River Wildlife Area. Of course, spring will come again and “park” efforts will resume.

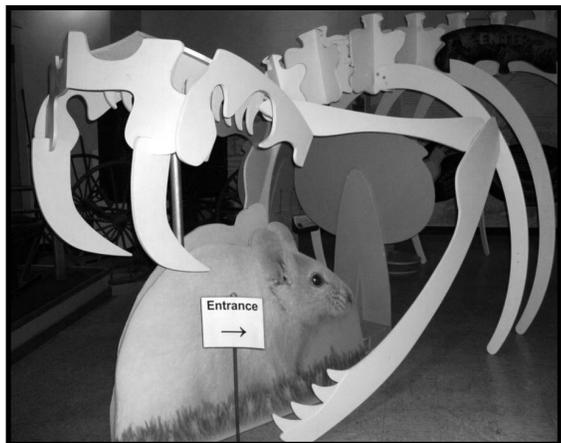
*By Steve Anderson*

## Snake, Rattles, and Holes

In January, the Conservation Board is once again pleased to be bringing a traveling exhibit to the Conservation Education Center. This one, focusing on snakes, will be displayed for the first six months of the year, giving residents plenty of viewing time. The Exhibit will be first opened to the public on January 24 (coinciding with our annual ice fishing clinic).

The main feature of the exhibit will be hard to miss for any visitor to the building. All the displays will be framed by an oversized, walk-through rattlesnake skeleton. The exhibit includes dioramas, hands-on activities, and, of course, our center snakes will be showcased.

Like with other traveling exhibits, we will be offering programs to the public and to groups around the exhibit. We already have several spring field trips scheduled. If you are part of a group, and would like a tour or a program on the traveling display, please contact the conservation center at 319/657-2400 or e-mail [wccbnaturalist@iowatelecom.net](mailto:wccbnaturalist@iowatelecom.net).



## Halloween Hike Thank You's

Our *Halloween Hike: Aliens Among Us* was another success this year, with 180 people attending. Such popular events would not be possible without all the assistance of donors and volunteers. We'd like to take this moment to thank all that help this past year.



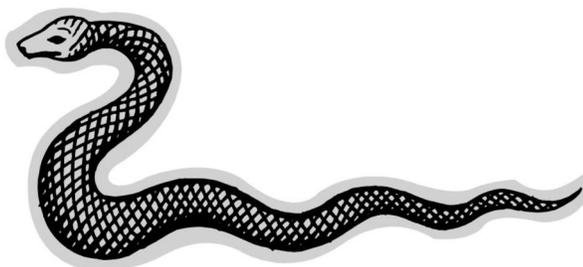
### Donations

Duane Chalupa	Duane Hammen
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### Volunteers

Janet Conrad	Chad & Kyleigh Dolan
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Linda Holz	Ellie and Sophia Bell
Ron Brock	Barb and Bob Donkersloot
Kane Family	Carlton Burmeister
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Craig and Ila Capps	



## Winter Calendar

The Washington County Conservation Board meets the second Thursday of each month. Meetings are held at the Conservation Education Center in Marr Park at 4:30 p.m.

Sat., Jan. 24                    1:00 p.m.                    Marr Park

### *Scales Above and Below*

This family program will focus on two components: our annual ice fishing clinic and the grand opening of the traveling snake exhibit. The Ice Fishing Clinic will feature a relatively warm shelter, pre-drilled holes, and an underwater camera. The Snake Exhibit in the Conservation Center features a larger-than-life snake skeleton, snake information, and opportunities to meet and greet with the center snakes. Hot cocoa will also be served.

*Note: The following four STEM Wonders programs are for preschoolers (aged 3-5) with an adult friend or relative. If weather permits, they will include an outdoor portion. Preschoolers may attend as many sessions as they wish and are able. See back page for more information about STEM and this program series.*

Sat., Jan. 17                    10:00 a.m.                    Marr Park

### *STEM Wonders: Exploring Science*

We'll have some fun discovering what science is, what a scientist does, and trying some experiments ourselves.

Sat., Feb. 21                    10:00 a.m.                    Marr Park

### *STEM Wonders: Let's Move*

We'll study how people move things around and examine the different ways animals can move. We'll also take this opportunity to look further into the traveling snake exhibit.

Sat., Mar. 21                    10:00 a.m.                    Marr Park

### *STEM Wonders: Wild Weather*

Rain, snow, storms... who knows what March weather will bring? We'll have some kid-friendly ways of looking at some not so kid-friendly weather.

Sat., April 18 (*tent.*)        10:00 a.m.                    Marr Park

### *STEM Wonders: Insects Around Us*

We'll look in depth at insects, spiders, and other creepy crawlies. Perhaps we might even find some alive awakening or hatching after the winter.

Fri, Apr. 17                    2:00 p.m.                    Washington Public Library

### *Dollar-A-Day Boys!*

Michigan based author Bill Jamerson will present a music and storytelling program about the Civilian Conservation Corps. The CCC helped put food on the table for families that had little other income. In return, this federal program, in southeast Iowa, worked on soil conservation, park development, planted trees, dug ponds, and much more. This program is co-sponsored with the Library.

## Story Time

As the nights grew longer and snow storms raged outside, what was a parent to do before the computers, TV, radio, electricity, and telephones even? In many Native American cultures, winter was a time to share their sacred stories, their explanations of how the world came to be and their codes of behavior.

Wellman 5th grade once again learned about these important sacred stories, or myths. Then, they had the opportunity to create their own. What follows is just a few of the results.

### *Why we have falling stars*

A long time ago, Jupiter was going on a walk and he yawned and swallowed a star. He started coughing. Then he sneezed out the star and it was a shooting star! The star bumped into another star and it fell.

By Leah, Megan, Zane, and Jerzi



### *Why moth is attracted to light at night*

A long time ago, there was a moth. He flew around at night looking for food. Late one night, he came upon a Native American tribe. All of a sudden, he was trapped in a jar then thrown into a fire for good luck. Then from that day on, moths have been attracted to light.

By Andrew, Colby and Jack



### *Why owl comes out at night*

Owl comes out at night because he likes to frighten other critters. He does it because he can't do it during the day. It is light outside so he does it at night and know he is frightened of the sun.

By Katelyn, Josh, Brianna

### *Why trees avoid the prairie*

Once there was a group of trees on the prairie. People came to cut down a tree every day to make their stuff. Treeza was one of the fifty trees left. Treeza wanted a tree meeting. They all voted to leave the prairie. Every tree dug out each other's roots. After every tree was out, they started walking. Once they found a group of trees, they decided to replant. And nobody chopped down the group of trees again.

By Anna, Aydn, Brody, Caleb, and Emily

### Washington County Conservation Board

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Kathy Dolan, Center Coordinator  
Mark Even, Park Ranger

Washington County Conservation Board meetings are held the second Thursday of each month at 4:30 p.m. at the Conservation Education Center. Visitors are welcome.

*The WCCB is an Equal Opportunity Employer.*

**If you would like a copy of  
this newsletter in larger  
print, please contact our  
office.**

This newsletter is printed on recycled paper.

WASHINGTON COUNTY CONSERVATION BOARD  
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**Return Service Requested**

*Winter Center Hours  
Through Feb. 28*

Tues.—Sat.  
8:00 a.m. — 4:30 p.m.

Sun.—Mon.  
Closed

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***STEM and Pint Sized Science***

STEM has been a recent buzz word lately, especially among educators. In Iowa, the governor has designated funds for established STEM programs for children and youth to be dispersed throughout the state.

So, what is STEM? The letters stand for Science, Technology, Engineering, & Math—four critical fields in which students are falling behind, in interest and in testing. However, STEM is much more than class time. It is also, if not more so, the methodology of teaching these subjects.

STEM programs differ from traditional teaching in several ways. Some of those ways are that the experience is student-driven, experiential and hands-on, open-ended, and cross-curricula. In fact, the concepts seem to fit in readily with the Conservation Board's Environmental Educational Program's philosophy.



Thus, it seemed only natural for us to apply for, and then receive, funding for one of the governor's STEM programs: Pint-Sized Science. This pre-school program features four sessions. We are taking these ideas, expanding on them, and offering them in a series of modified Small Wonders programs, our preschool program.

We'll have one per month, for the first four months of the year. Preschoolers are welcome to come to as many as they can. At the end, parents and children will need to fill out an evaluation form to fulfill the terms of the grant.

See page 4 for dates and times. For more information, contact Naturalist Pam Holz at the Conservation Center or e-mail her at [wccbnaturalist@iowatelecom.net](mailto:wccbnaturalist@iowatelecom.net).