

tail up and head back to “form a cup” (*Birder’s Handbook*, 1988, 429).

Cedar waxwings are very fond of the blue “berries” of Eastern Red Cedar (*Juniperus virginiana*). Although they are round and appear as berries, they are really the female cones of this evergreen tree. According to [Dave Tylka, in \*Native Landscaping for Wildlife and People\*](#), the cones are low-fat and low-sugar, which means that birds will ignore them until late winter when all the high-fat dogwood, sassafras, and [black gum](#) berries have disappeared into the crops of fall-migrating birds. Cedar berries are a reliable reserve food--sort of like oatmeal. If you can’t get a Belgian waffle, you take what you can get.

Waxwings have been found to [digest cedar berries in 12 minutes flat! Research shows](#) that seeds that take the short outing through a waxwing’s digestive tract triple their chances of germination. Of course, within 12 minutes the bird may travel, depositing the seed many yards away from the shade of the parent plant.

The fondness for cedar berries accounts for the first part of the English name, but what about that strange surname? Waxwings are named for the waxy material on tips of the secondary wing feathers of adults (*The Sibley Guide to Bird Life and Behavior*, Elphick, Dunning, and Sibley, ed. 2001, 484). Only adult birds have this, and it’s very hard to spot, in spite of the fact that the Wikipedia article on Cedar Waxwing calls it “[the bird’s most prominent feature](#).” Birds were named during the era when devotees of birds carried shotguns, not binoculars. Those early “birders” named birds for features that stood out as unique while holding the bird in hand, not for field marks as we think of them today. Sibley says that this material feels “more like plastic,” so I’m guessing he’s handled a few waxwings in hand too. This red “wax” is visible in my first photo.

Cedars are an important wildlife plant in our area. Tylka calls it the number-one winter roost for birds. Besides providing winter dining for fruit-eating birds, the cones/berries are used to flavor gin, of all things. [Wikipedia records that the oldest red cedar](#) was found in Missouri. It was 795 years old. Cedars are a “pioneer” species, meaning that they thrive in open, disturbed areas. [They have invaded the open glade habitats found on west and](#)

[south-facing slopes throughout the Ozarks](#), shading out rare glade plants. In the past, wildfire would have controlled the advance of cedars. Between habitat loss to roads and parking lots and the suppression of fire, glade species have declined while cedars increased. For more discussion on the complex issue of fire management of natural areas, see [Flaming the Debate](#) on Ted MacRae’s [Beetles in the Bush](#).

[The Wikipedia article](#) on cedar also mentions their use as Christmas trees in the Ozarks, a fact confirmed by my brother-in-law. He grew up in Rolla, Missouri, in the heart of the Ozarks. They would cut a cedar on Grandma’s farm, then cut the top out. The lower portion of the tree is too scraggly to use a decoration. The house filled with scent of the fresh cut cedar heartwood.



## Eye of the Turtle

*Ted C. MacRae*<sup>1</sup>



**Adult male three-toed box turtle (*Terrapene carolina triunguis*). Photo by the author.**

Is there anything more lovable than the humble turtle? As old as the dinosaurs, they stumbled onto a body plan that works and dropped out of the evolutionary arms race. Slow, plodding, and seemingly oblivious, turtles have steadfastly clung to their quite, unhurried lives – much as they have done for more than 200 million years now – as the rest of the earth’s diversity of life races on. They are survivors.

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<sup>1</sup> Reprinted from an article posted December 10, 2010 at <http://beetlesinthebush.wordpress.com>.

My friend Rich and I encountered this three-toed box turtle (*Terrapene carolina triunguis*) during our hike of the lower [North Fork Section](#) of the [Ozark Trail](#) in extreme southern Missouri. Three-toed box turtles are one of four U.S. subspecies of the eastern box turtle, occupying the area west of the Mississippi River from Missouri and Kansas south to Texas and distinguished by their largely unpatterned shell and – yes, three toes on the hind legs rather than four. I walked right by this guy the first time without noticing him, and only when I turned around to go back and look at something else did I see him sitting there – neck fully extended. Box turtles exhibit considerable variability in color and patterns on the head and neck, and this particular individual is one of the more conspicuously colored that I've seen.

And the eye – as red an eye as I've ever seen! Almost surely a male, as females may have some red in the eye but rarely to such a spectacular degree. Also likely full-grown based on his rather large size, though probably not too advanced in age yet since the growth rings were still easily visible (in older turtles the growth rings gradually wear smooth). I estimated it at about 12 years based on ring counts – still a far cry from the 30-50 years that are not uncommonly documented. He kept a watchful eye on me as I studied him, and I wondered about what his future held. As an adult, he has settled into a small home range from which he rarely ventures – likely visible to me in its entirety from where I stood. For the next several decades, he will amble across this single hillside on an endless quest for earthworms, strawberries, and mushrooms. Save for a possible run-in or two with a destined-to-be-frustrated coyote, fox, or racoon, it will be a largely uneventful life. He is a survivor.



## St. Louis Zoo Lecture Series

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The St. Louis Zoo presents two lecture series, *Science Seminar Series* and *Conservation Conversations*, co-sponsored by the Academy of Science – St. Louis. Programs are held in the Living World, with free parking available in the North parking lot. These lectures are **FREE** and open to the general public, no reservations required. Visit

[www.stlzoo.org](http://www.stlzoo.org) or call (314) 646-4544 for more information.

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### SCIENCE SEMINAR SERIES

No program in January.

#### **Wednesday, February 2, 7:30 – 9:00 p.m.**

“Left Out in the Cold: The Story of the Barrow Global Climate Change Research Lab in Barrow, Alaska” – Janet Baum, AIA, Trustee, Academy of Science – St. Louis, retired founding partner of Health, Education + Research Associates, Inc.; lead programmer and planner, Barrow Global Climate Change Research Lab.

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### CONSERVATION CONVERSATIONS

#### **Tuesday, January 18, 7:30 – 9:00 p.m.**

“Aiding Armenian Vipers” – Jeff Ettling, Curator of Herps/Aquatics; Project Manager, Armenian Viper Conservation Center.

#### **Tuesday, February 22, 7:30 – 9:00 p.m.**

“Congo’s Curious Chimps”



## Group Activity/Walk Schedules

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### **BOTANY GROUP**

Chair – George Van Brunt

**Monday Botany Walks** (Leader – Fr. James Sullivan; now in his 44th year as Botany Walk Leader!). The WGNSS Botany Group visits many of the same locations as the Bird group: Busch Conservation Area, Shaw Nature Preserve, the Missouri Botanical Garden, Babler State Park and Cuivre River State Park. Learning plants will help you learn butterfly host plants. Sign up for WGNSS Botany Group emails from Jack Harris by contacting him at [jahar@mac.com](mailto:jahar@mac.com) or (314) 368-0655 and receive an email no later than Sunday about the following Monday’s trip.

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### **ENTOMOLOGY GROUP**

Co-Chairs – Phil Koenig and Jane Walker

#### **Monday, January 17, 7:00 – 9:00 p.m.**

James Trager will present “Fire and Natural Area