



Nature Notes

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Endemic Birds of Argentina 4/1

Thursday, April 1, 7:00 PM at the St. Louis County Library Headquarters in Frontenac, Cintia Cornelius will present her research on the fragmentation of two species of birds in Argentina. Cornelius is the winner of WGNSS's Scudder Scholarship. Her study entitled "Reproductive Success and Genetic Structure of Two Endemic Birds of the South-Temperate Rainforest; Dispersal and Habitat Limitations in a Fragmented Landscape." This is our annual members meeting; we will elect officers.

A New Beetle for Missouri— With a Twist!

Ted C. MacRae

Of all the things that interest me about entomology (and there are many), the opportunity for discovery is my favorite. All things considered, we really know very little about insects—what's out there and what are they doing? While the discovery of a new mammal species in the remotest corner of the earth makes front-page news, hundreds of new insect species—including from well-studied areas—are described every year with little fanfare. Even in popular groups such as beetles, butterflies, and dragonflies the opportunities for discovery remain bountiful. It is satisfying to me to know that I need not hack through an uncharted forest thousands of miles from home to discover new species (although I will gladly do so if the opportunity arises).

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Debra Shearwater to Speak at WGNSS Spring Banquet!

Yvonne Homeyer

We're keeping you in suspense as to the identity of this year's Lifetime Achievement Award winner, but we're not keeping secret the identity of our keynote speaker on May 13—Debra Shearwater of Monterey Bay, the pelagic expert who has conducted over 1600 birding trips off the coast of California. Debra is well known to many WGNSS members by reputation or in person, and quite a few WGNSS members have been on her tours, some more than once. Debra founded Shearwater Journeys in 1976 and her trips have produced many important records, most recently a Little Shearwater on 10/29/03 in Monterey Bay. We will have a chance to see her fascinating slide presentation "Seabirds and Marine Mammals of Monterey Bay" and hear about some of her ocean birding adventures. You'll also be able to chat with Debra during the reception preceding dinner and purchase her video. We are very pleased that Debra's busy schedule allowed her to come to St. Louis for our Banquet, which will again be at newly air-conditioned Eden Commons. This year we will be using a quality sound system. See Pat's article p. 3 about how to buy tickets and how to order plants, p. 15.

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Its riparian habitat has been negatively impacted by development and timber cutting. ③

A New Beetle for Missouri

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Sometimes, the serendipitous nature of a discovery is more fascinating than the discovery itself. Recent investigations into a "new" species of beetle that led to the discovery of another is a good example. In an ironic twist, these same investigations now suggest that the original "new" species may not be new after all. The two species in question belong to a group of beetles in the family Buprestidae—commonly called "metallic wood-boring beetles" or "jewel beetles." It is the eighth-largest family of beetles in the world and contains some fifteen thousand species—more than the birds and mammals combined! As their name suggests, the immature stage (larva) bores through dead wood before emerging as a brightly colored adult. Many species show distinct host plant preferences, and during my 20+ years of studying the group I've found "rearing" to be a valuable method for studying these beetles. Rearing involves retrieving infested wood from the field and caging it, thereby trapping the adult beetles as they emerge from the wood. Rearing is valuable not only for finding out what beetle species occur at a given locality, but also which plants their larvae require for development.

The story begins in the late 1980's, when I reared a small series of beetles from dead branches of river birch, *Betula nigra*, collected at Hawn State Park. I recognized immediately that they belonged the genus *Anthaxia* but was unable to determine the species. Most species of *Anthaxia* exhibit polychroism (multiple color forms), but the beetles in this series were all colored similarly—mostly bronze with varying traces of green iridescence along the base of the wing covers and behind the head. I was a relative newcomer to the field at that time, so I sent the specimens off to experts for identification. Imagine my excitement when they told me the beetles represented a new species and my specimens would be used in its description. I collected more river birch branches the following season, from which more beetles emerged. These were also sent off for study,

and I thought little more about them for the next few years.

The beetle returned to my thoughts when I moved back to Missouri in 1996 and resumed my studies on Missouri beetles. The beetle still had not been described by then, and I found myself wanting to learn more about its distribution within Missouri. I began collecting river birch branches wherever I encountered the plant and succeeded in rearing the beetle from several locations. One of these was Big Spring, part of the Ozark National Scenic Riverway on the Current River (I thank the National Park Service for granting me a collecting permit). Here, not only did I rear the *Anthaxia* beetles from river birch, but also several specimens of another species of Buprestidae belonging a different genus—*Agrilus*. By this time, I was familiar enough with the family to know that only a few species of *Agrilus* had been recorded from birch. Not only were my specimens different from any of those, the male genitalia were highly distinctive and unlike those from any known species in the genus. I knew then that this beetle, too, represented an undescribed species. This was confirmed by experts in the group, and I named the beetle "*Agrilus betulanigrae*" in reference to the larval host plant. A description of the beetle has now been published (*Zootaxa*, December 2003).

But here's the twist. Shortly after I reared *Agrilus betulanigrae* from Big Spring, I reared a series of *Anthaxia* beetles from river birch branches I had collected at Rose Pond Conservation Area in northeast Missouri. To my surprise, however, some of the females, instead of being bronze, were bright metallic blue! This immediately called to mind another species—*Anthaxia cyanella* (from the Greek word "cyanos," meaning "blue")—in which the females are bright metallic blue but the males are bronze. I compared females of *Anthaxia cyanella* with the blue females from river birch but was unable to find any differences. I've also been unable to find any differences between blue and bronze females from river birch (other than color) or between males from river birch and males of *Anthaxia cyanella* (including color or genitalia). Thus, I now believe that the *Anthaxia* beetles from river birch do not represent a new species, but instead multiple color forms of a single species—*Anthaxia cyanella*. In addition, since redbud, *Cercis canadensis*, was

the only larval host previously recorded for this species, river birch represents a new larval host. I have since reared both color forms from river birch collected at another location in northeastern Missouri, further supporting this idea. Interestingly, although I have reared many beetle species from redbud, *Anthaxia cyanella* is not among them.

Thus, one new species was discovered and added to the Missouri fauna—but not the one originally “discovered.” Ironically, however, without the investigations prompted by that misbelief, the true new species would never have been discovered. This illustrates not only how incompletely we know the insect fauna right here in our own backyard, but also how the things we think we know are not always true. While the discovery of new species may be more thrilling, I believe truly understanding the species we “know” to be equally important. As Josh Billings (1818-1885) once said, “It is better to know nothing than to know what ain’t so.” ☺

Coming Soon: “For the Birds!”

Want to know more about birds? On Saturday, April 17, from 9:00 AM until 3:00 PM, Shaw Nature Reserve will be hosting “For the Birds!” at its new Dana Brown Center. Here’s your chance to learn what to plant to attract birds, which ones are finicky eaters, and among other things, how to make identification easier. Try your hand at assembling a birdhouse or feeder to take home, building a bird nest, plus other hands-on fun activities for kids and adults. See examples and get ideas for making birdbaths, houses, and feeders from items you might have at home as well as traditional materials.

Check out the displays and listen to presentations by knowledgeable birders. Pick up free informational brochures and building plans. Take a checklist and go in search of birds on an enhanced birding trail; you’re guaranteed to find some. Or, go on bird walks with knowledgeable guides. Bird books and bird related items will be available for purchase. There will be lots to see and do at this fun-filled event. Pre-registration is required. Lunch, beverages, and a birdhouse or feeder are included in the registration price. Call 636-451-3512 Ext. 6075 for prices and other information.

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There is an optional adults only overnight program Friday evening the 16th, which includes a presentation, dinner, an optional owl prowl, an early Saturday morning birding excursion with knowledgeable guides, a continental breakfast, and all Saturday activities. Accommodations are dormitory style. ☺

Next Deadline: April 9

Nature Notes publishes 10 issues a year, each mailed on the third Monday of the month. To allow time for layout, printing, etc., the deadline is always 10 days prior to the third Mon. March begins on a Monday, so next month we have the *earliest possible deadline* of April 9.

Submissions—handwritten or typed, email, IBM or Mac to: Anne McCormack, 587 Andrews, St. Louis MO 63122-5722 or amccormack@stjosephacad.org ☺

Nature Notes Deadlines & Mailings

We meet at the Oak Bend Library, 842 S. Holmes, Kirkwood or at Missy Choteau’s to attach mailing labels. We could use your help! Call Margie Richardson 314-965-8974.

mailing party		NN deadline
Mon.	3/15, 10-1 Oak Bend	Fri. 3/5
Tues.	4/20, 10-1 Choteau’s	Fri. 4/9
Mon.	5/17, 10-1 Choteau’s	Fri. 5/7
No mailings in June or July.		
Mon.	8/16, 10-1 Choteau’s	Fri. 8/6
Mon.	9/20, 10-1 Oak Bend	Fri. 9/10
Mon.	10/18, 10-1 Oak Bend	Fri. 10/8
Mon.	11/15, 10-1 Oak Bend	Fri. 11/5
Mon.	12/20, 10-1 Oak Bend	Fri. 12/10 ☺

Scope for Sale

Bausch and Lomb Discoverer scope with 15-60 x zoom. Excellent condition. \$90. Call Vivian Liddell 314-843-9008. ☺

Nature Classes at Community College

- HORT: 720: 600** Missouri Native Plants Fri., April 30, 9 AM-1. Held at Meramec CC. Fee \$12.
BIO: 722: 550 Be a Birdwatcher Wed., April 21 & 28, 7-9 AM, and Sun., May 2, 8-11 AM. Held at Flo. Valley CC. Fee \$21.
BIO: 704: 550 Spring Butterflies Tues., April 20, 7-9 PM. Held at Flo. Valley CC. Fee \$21.