



#### In the Fall Issue of the Rectrix



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On the cover
A Hatch-year Bobolink
captured during fall migratio
at the Bruns Tract banding
site.

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**October 24**<sup>th</sup> in Blue Springs: Join us at Burr Oak Woods Conservation Nature Center for an afternoon of bird-banding. All are welcome at this public event from 10:00 a.m. to 2:00 p.m.

**October 31**<sup>st</sup> in Blue Springs: The first of the Burroughs Audubon Library winter banding series! Halloween will bring many of our winter migrants. Join MRBO and Burroughs Audubon for viewing, bird talk, and banding demonstrations from 10:00 a.m. to 1 p.m.

**November 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> (***tentative***) in Arrow Rock:** Weather and indoor venue permitting, join MRBO bander Veronica Mecko and educator Emily Wilmoth as they try for Northern Saw-whet Owls at Arrow Rock State Park. Please email education@mrbo.org in early November to inquire about dates and times.

**December 4**<sup>th</sup> **in Kansas City:** Supporters can treat themselves to a very unusual (for MRBO!) event: a gala dinner and fashion show. The MRBO Board of Directors presents this fun, glamour-filled evening at the Marriott Kansas City to build our organization's capacity. Funds will go towards supporting full-time K-12 education and private lands outreach positions, both invaluable to MRBO's conservation mission. For more information please see mrbo.org/worldofdreams/.

**December 5**<sup>th</sup> in Blue Springs: Join MRBO's Dana, Ethan, and Veronica for the second winter banding event at Burroughs Audubon Library. This may be the Library session where we finally capture the coveted Harris' Sparrow, the symbol of Burroughs Audubon Society! Banding is 10:00 a.m. to 1:00 p.m., the Library is open until 5:00.

**December 11**th in Jefferson City: Banding at the Birds-I-View Bird Garden in conjunction with BIV's Christmas Open House! Not only will the Bird Garden be busy, there will be hot drinks, food, and fellowship amongst fellow bird-lovers. Join us from 12:00 to 3:00 p.m. for banding – Open House all day!

*Birds for the Holidays!!* More public event dates are sure to be added to the calendar for December, so please check mrbo.org for more Upcoming Events. Or, email dana.ripper@mrbo.org to discuss your own birdy ideas!

#### Supporter Spotlight



MRBO has been proud and honored by our affiliation with River Bluffs Audubon Society (RBAS) of Jefferson City. RBAS was founded in 1975 and is a affiliate chapter of the National Audubon Society serving central Missouri. The chapter meets regularly in the state capital of Jefferson City, and has a core group of dedicated members and volunteers. RBAS' yearly Seed Sale, the chapter's

main fundraising event, not only helps RBAS itself but results in thousands of pounds of high-quality seed available to central Missouri's wintering birds.

Beginning in 2012, RBAS has provided regular funding support for MRBO's education programs. Though this Audubon Society

is a relatively small one at 300 members, the support it has given MRBO throughout the past few years has been incredibly generous. In May of 2015, the RBAS Chapter awarded MRBO with its 2014-15 outstanding conservation achievement award, a huge honor especially since it was partially the chapter's support that allowed us to get conservation work accomplished!

In August, RBAS approached MRBO with an idea to partner on an education proposal to National Audubon. Together with the RBAS Board, led by President Dan Reed, we develop this multi-faceted proposal for spreading the word on the effects of climate change on Missouri's birds. The program we developed was inspired by Aldo Leopold's essay, "Whither Missouri" that has become enshrined in Missouri's rich conservation history. Just recently, we heard that National Audubon approved the proposal! Over the winter MRBO and RBAS will be working together to develop Missouri-specific climate change seminars that will be held in Jefferson City and educational materials to be dispersed throughout the state.

Thank you for everything, River Bluffs!



# Where Are They Now? Former MRBO Employee Ryan Davis



Ryan Davis grew up in southeastern Virginia and northeastern North Carolina, where his passion for wildlife grew out of his constant connection with nature. He attended North Carolina State University and earned a B.S. in Fisheries, Wildlife, and Conservation Biology with a minor in Forest Management. Though he originally intended on focusing his studies on reptiles and amphibians, Ryan ended up working on several bird projects while an undergraduate, which fostered his interest in ornithology. Prior to joining MRBO in fall 2011, he worked on several projects monitoring endangered species, including the Red-cockaded Woodpecker in North Carolina and the Southwestern Willow Flycatcher in Nevada. While employed with MRBO, Ryan assisted at our bird-banding stations and proved to be an excellent asset during education programs.

Since leaving MRBO in November 2011, Ryan worked on several additional technician jobs before earning an MS in Wildlife and Fisheries Resources at West Virginia University. His thesis was composed of three studies on shrubland

songbirds: a comparison of nest survival and abundance on reclaimed surface mines and old-field shrublands, an examination of the impacts of natural gas development on nest survival and abundance, and a quantification of Blue-winged Warbler nest site selection. Ryan is currently in southwestern PA where he has an important position as a Farm Bill Wildlife Biologist for Pheasants Forever, a nonprofit habitat conservation organization. He works to help private landowners create, maintain, and improve wildlife habitat on their property, focusing on grassland and young forest habitat.

#### Working with Great People

By Grasslands Project Assistant Andrea Ambrose

When I was asked to write one last article for Missouri River Bird Observatory, and was told that it could be a topic of my choosing, I had several things come to mind that I could easily talk about. I could have talked about the amazing opportunities I've been provided by working with this organization and all the things that I've accomplished for my future career in wildlife conservation while living here in Missouri. Or I could have chosen to talk about all the great Conservation Areas and State Parks that I've not only been given the chance to see but also to work at, where I've had some exciting wildlife sightings and added many new birds to my "life list". I've chosen instead to talk about another aspect of this job that I think is a very important one. I'd like to tell you about the amazing people that I've met this Spring and Summer while working for MRBO.



I've had the opportunity to work with MRBO at regular community and educational events, and it is mostly through this that I've met some of the people that I'm going to talk about. Although there are too many for me to possibly mention in this short article, these are a few who have really stood out. When we worked an annual Bio-blitz held by in Warrensburg's Pertle Springs Park in April, I had my first opportunity to meet a long-time MRBO volunteer who was there to assist us with our



were on the road.

banding station. Michael O'Keefe frequently helps MRBO at local community events such as this one. While he had just met me that morning, after learning that I was fairly new to some of the species in the area and was going to need to learn to identify new bird calls for my summer work on grassland surveys, without a second thought he handed me a CD of bird calls that he had with him. He told me to keep it as long as I needed to. He said to just mail it back when I could, and that it had helped him with a lot of local species identification. He had no idea when or if we'd cross paths again at an event, and yet he was generous enough to let me use this valuable resource that helped me greatly. This was to be the first of many volunteers that I'd meet in my time here who showed me how willing MRBO supporters are to help out a good cause. At one event that we attended, I found that sometimes this just means providing a couple of wonderful home-cooked meals and a place to sleep for MRBO staff traveling to an educational event. There is a couple in Rolla, Bob and Pat Perry, who did just that, generously allowing us to come into their home and stay with them while we

I've also had the opportunity to meet community members and see firsthand how important the education aspect of conservation organizations can be. We met a young girl at Wings over Weston named Marky who had just been named Young Birder of the

Year by the American Birding Association and who was an amazing artist and photographer. She told us that she had gotten her start in birding when she was just 5 years old, and had been to an event where she was able to see a bird in hand and gain an appreciation for birds and other wildlife at a young age. This drove home to me the importance of what MRBO and other organizations like it are doing with regards to education both for school groups and the general public. Each time we set up a banding station at an event and people get to see a bird up close, there's the very real possibility that someone will want to get involved with MRBO or another organization, or that a young child will become so excited by having this close encounter that they will carry it with them into their future and want to become a member of the conservation community working to save and preserve our natural world.



# Education & Outreach Report

Since our July newsletter, MRBO staff have conducted a wide variety of educational events throughout the state. Though events tend to slow down during the summer months, we were fortunate to receive requests from educators with the MDC and Missouri River Relief. As fall approached, MRBO welcomed the return of our seasonal educator Emily Wilmoth, who returned from outreach work in Wisconsin to help with the fall season. In September and October education events became more numerous, and we are looking forward to a full winter. Here are some highlights from the past few months:

July 14<sup>th</sup>—We conducted a bird identification session and bird walk for elementary school teachers as part of MDC educator Cynthia Green's latest Nature Unleashed training. The certification session allows teachers to use the MDC's school curriculum and become involved in the grant program. Nature Unleashed is part of the K-12 program that replaces traditional science curricula with a Missouri-focused science and conservation curriculum. The MDC's Discover Nature Schools program is the only one of its kind in the United States, and provides students with a well-rounded science learning experience that meets state and national education standards.

July 15th—MRBO staff provided a bird-banding demonstration, bird hike and discussion for participants of Missouri River Relief's Summers@Mizzou camp. Highlights of the day included White-eyed Vireo, Brown Thrasher, Indigo Bunting, and Black-capped Chickadee. The group of 12 excellent students were highly engaged in viewing birds in hand, listening to bird song, and discussing various life history aspects of Missouri's birds. The Summers@Mizzou program offers campers a one-of-a-kind opportunity to learn about all aspects of Missouri River ecology and conservation issues.



September 5th—Veronica, Andrea, and Emily held a bird program for campers at Knob Noster State Park. We set up mist nets and caught a hatch year, male Northern Cardinal. Campers were able to try out binoculars and learn about the birds they were

observing at the park. We also had an interactive and educational bird game set up for families to play! About 32 campers attended.

September 15th—Emily led a Nature Scavenger Hunt for 50 7th and 8th graders from Kingsville. The scavenger hunt was part of their outdoor field trip in Clinton. Students were able to check off many exciting members of nature from our checklist including butterflies, frogs, and birds of course! They even found some surprises, like a caterpillar that looked like bird poop!

September 22<sup>nd</sup>—Emily presented a bird program to a friendly group of 12 women that meet for lunch at Indian Foothills Park in Marshall. We discussed several aspects of bird conservation and what we can do to help. We also went over some of the basics of bird identification.

September 24th—The MRBO crew had a blast participating in Arrow Rock's Children's Craft and Heritage Festival. We visited with approximately 350 kids from a variety of schools. They were able to examine and learn about different types of bird homes. Many kids got to see Veronica band at least one of the four hummingbirds we captured!

September 29th—35 high schoolers from Kingsville came out to our banding site at Bruns Tract Conservation Area. They were able to experience a morning in the life of a field ornithologist. They learned about why banding birds is important, and they even got to see an Indigo Bunting get banded!



#### **Education & Outreach Report**



the birds that we caught!

**September 30**<sup>th</sup>—5<sup>th</sup> graders from Adrian Elementary School had an outdoor field trip in Clinton. Emily was happy to lead a bird program for the 50 students as part of their trip. We focused on bird migration, since it is all around us in the fall! We played a migration game and then went on a hike to look for some migratory (and non-migratory) birds.

October 1<sup>st</sup>—A bird banding demonstration was held at Hellermann's Nursery and Florist in Washington, Missouri. Several families and other guests attended to learn about why and how we band birds. They were able to watch a Northern Cardinal get banded, and do some bird watching around the nursery.

*October 2<sup>nd</sup>*—We were happy to participate in the city of Centralia's Second Grade Field Day. Throughout the day, approximately 80 2<sup>nd</sup> graders came to our bird banding station. They were able to see a variety of birds get banded. They also

enjoyed viewing a demonstration mist net and singing like some of

October 6<sup>th</sup>-8<sup>th</sup>—The MRBO crew banded over 60 birds at the Columbia Audubon Nature Sanctuary. All of this banding was conducted to educate approximately 1,200 2<sup>nd</sup> graders from 18 different elementary schools in the Columbia area. It was great to see so many little faces light up at the chance to see some of their favorite backyard birds up close. We also banded some less familiar birds, like an Ovenbird, an Orange-crowned Warbler, and two Magnolia Warblers!

*October 9<sup>th</sup>*—Emily helped out with a Morgan County R-2 High School field trip to Manito Lake. About 40 high schoolers in a conservation class and a special services science class attended. We had great luck fishing, and captured a variety of macroinvertebrates.

October 10<sup>th</sup>-11<sup>th</sup>—It was a beautiful weekend for Arrow Rock's Heritage and Craft Festival! MRBO had a booth set up where families could build bird houses and feeders. Of course, builders were engaged in bird conversations while they worked. Hundreds of visitors stopped by to visit with us. Missouri birds will now have many new houses and feeders available to them because of everyone's hard work!



A Morgan County High Schoo student enjoys fishing.

*October 12<sup>th</sup>*—Approximately 30 5<sup>th</sup> graders from Green Ridge Elementary took a field trip to Knob Noster State Park. Emily talked with them about where, why, and how birds migrate. The group then played a migration game and went on a bird hike!

Education events in Arrow Rock often involve period clothing, even when banding hummingbirds (center) or making bird houses (right



#### A Discussion of Band Returns from the MAPS Project

A main purpose for banding birds is the hope that either we or someone else will capture the bird at a different time and possibly a different place. We can then learn from this recapture about the longevity of a bird, its movements, its site faithfulness, and/or its physical condition over time.

MRBO has done the Monitoring Avian Productivity and Survivorship (MAPS) banding project on three grassland Conservation Areas (CAs) in the Cole Camp are during the breeding season since 2011. These sites are Grandfather Prairie CA, Paintbrush Prairie CA and Ionia Ridge CA. At all banding stations, we refer to a bird that is caught again in the same year as a "recapture" and a bird that is recaptured in a subsequent year as a "return." The chart below shows the recaptures and returns at each site for each year. The number of recaptures and returns has declined since the first two years and was very low in 2013. This may be because 2012 was a drought year and species survival and breeding success may have been low. In 2013 only 16 birds that were returns were originally banded in 2012, while there were 24 returns from 2011! In 2014 there were only six returns from 2012 and in 2015, only one.

| Site/Species              | 2011  | 2012  | 2012   | 2013  | 2013   | 2013   | 2014  | 2014   | 2014   | 2014   | 2015  | 2015   | 2015   | 2015   | 2015   |
|---------------------------|-------|-------|--------|-------|--------|--------|-------|--------|--------|--------|-------|--------|--------|--------|--------|
| Prairie obligates in bold | recap | recap | return | recap | return | return | recap | return | return | return | recap | return | return | return | return |
|                           |       |       |        |       | 1 yr.  | 2 yr.  |       | 1 yr.  | 2 yr.  | 3 yr.  |       | 1 yr.  | 2 yr.  | 3 yr.  | 4 yr.  |
| Grandfather Prairie       |       |       |        |       |        |        |       |        |        |        |       |        |        |        |        |
| American Goldfinch        | 2     |       | 3      |       | 1      | 3      |       |        |        |        |       |        |        |        |        |
| Black-capped Chickadee    |       |       | 1      |       |        |        |       |        |        |        |       |        |        |        |        |
| Bell's Vireo              | 2     |       | 1      |       | 1      |        |       |        |        |        |       |        |        |        |        |
| Blue Grosbeak             |       |       |        | 1     |        |        |       |        |        |        |       |        |        |        |        |
| Brown-headed Cowbird      |       |       | 1      |       |        |        | 2     | 1      |        |        |       |        |        |        |        |
| Common Yellowthroat       | 8     |       | 8      |       |        | 7      |       |        |        |        |       |        |        |        | 1      |
| Dickcissel                | 4     | 1     | 3      | 1     | 1      | 2      |       | 1      | 2      | 1      | 1     | 1      |        |        |        |
| Eastern Kingbird          |       |       | 1      |       |        |        |       |        |        |        |       |        |        |        |        |
| Field Sparrow             |       |       | 1      |       |        | 2      |       |        |        |        |       |        |        |        |        |
| Grey Catbird              | 9     | 2     | 5      |       |        |        |       |        |        |        | 1     |        |        |        |        |
| Indigo Bunting            | 5     |       | 3      | 2     |        |        |       | 1      |        |        |       |        | 1      |        | 1      |
| Northern Cardinal         |       |       | 1      |       |        |        |       |        |        |        |       |        |        |        |        |
| Orchard Oriole            | 2     |       | 3      |       |        | 1      |       |        |        |        |       |        |        |        |        |
| Yellow-breasted Chat      | 4     | 3     |        | 2     |        |        |       |        |        |        | 1     |        |        |        | 2      |
| Paintbrush Prairie        |       |       |        |       |        |        |       |        |        |        |       |        |        |        |        |
| American Goldfinch        |       | 2     |        |       | 3      | 1      |       |        |        |        | 2     | 1      |        |        |        |
| Bell's Vireo              | 4     | 5     | 1      |       | 4      | 2      |       | 1      | 2      |        | 1     |        | 1      |        | 1      |
| Brown-headed Cowbird      |       |       |        | 1     |        |        |       |        |        |        |       |        |        |        |        |
| Common Yellowthroat       | 4     | 5     | 1      |       |        |        |       | 2      |        | 2      |       |        |        |        |        |
| Dickcissel                |       | 1     |        | 2     |        | 1      |       |        |        |        |       | 1      |        |        |        |
| Downy Woodpecker          |       |       |        |       |        |        |       |        |        |        | 1     |        |        |        |        |
| Field Sparrow             | 2     |       | 1      |       |        |        |       |        |        |        |       |        |        |        |        |
| Grey Catbird              | 5     | 3     | 6      | 5     | 4      | 3      | 1     |        | 1      |        |       |        |        | 1      |        |
| Henslow's Sparrow         |       |       |        |       |        |        |       |        |        |        | 1     |        |        |        |        |
| Lincoln's Sparrow         |       | 1     |        |       |        |        |       |        |        |        |       |        |        |        |        |
| Orchard Oriole            |       |       | 2      |       |        |        |       |        |        |        |       |        |        |        |        |
| Yellow-breasted Chat      | 6     |       | 2      |       |        | 2      |       | 2      |        |        |       | 1      |        |        |        |
| Ionia Ridge               |       |       |        |       |        |        |       |        |        |        |       |        |        |        |        |
| Common Yellowthroat       |       |       |        | 1     |        |        |       |        | 1      |        | 1     |        |        |        |        |
| Dickcissel                |       | 2     |        | 1     | 1      |        | 4     | 2      |        |        |       |        |        |        |        |
| TOTAL                     | 57    | 35    | 44     | 16    | 15     | 24     | 7     | 10     | 6      | 3      | 9     | 4      | 2      | 1      | 5      |

# Monitoring Avian Productivity & Survivorship

The second chart focuses on the six different birds that returned in 2015 that were either originally banded in 2011 (five individuals) or 2012 (one individual). Four of the birds were banded at Paintbrush Prairie and two at Grandfather Prairie. The chart shows information about these birds' age, movements and condition as assessed by changes in weight.

When a bird is banded, one thing we try to determine is the age of the bird. A young or juvenile bird that has recently fledged from the nest is called a Hatch-Year bird. A bird that is in its second summer of life is called a Second Year bird. And for some species, such as Indigo Bunting or American Goldfinch, we can determine by looking at the plumage if the bird is in its third summer (and it's possible the bird is even older but we can't determine this) and then it's called an After Second Year bird.

As you can see from the chart only one of the birds was banded as an After Second Year bird, the male Indigo Bunting. Since we can't know exactly how old this bird was when it was banded (we can only tell that it's older than Second Year), when we recaptured it this year we could determine that it was in at least its 7th summer. Birds that were banded as Second Year birds in 2011

|  |                    | Common               |                    |                       |                     |                     |  |  |  |
|--|--------------------|----------------------|--------------------|-----------------------|---------------------|---------------------|--|--|--|
| Species  | Indigo Bunting*    | Bell's Vireo**       | Yellowthroat**     | Gray Catbird^         | Indigo Bunting**    | Yellowthroat***     |  |  |  |
| <b>Banding Site</b>  | Paintbrush Prairie | Paintbrush Prairie   | Paintbrush Prairie | Paintbrush Prairie    | Grandfather Prairie | Grandfather Prairie |  |  |  |
|  | After Second Year  | Second Year /        | Second Year /      | Hatch Year /          | Second Year /       |                     |  |  |  |
| Age/Sex at Banding   | / Male             | Unknown <sup>1</sup> | Male               | Unknown <sup>2</sup>  | Female              | Hatch Year / Male   |  |  |  |
| Date Banded  | 27-May-11          | 27-May-11            | 26-Jun-11          | 4-Aug-12              | 12-Jul-11           | 30-Jul-11           |  |  |  |
| Net #  | net 6              | net 5                | net 3              | net 8                 | net 1<br>12.9 g     | net 1               |  |  |  |
| Weight at Banding  | 13.4 g             | 9.6 g                | 10.4 g             | 10.4 g 35.4 g         |                     | 9.0 g               |  |  |  |
|  |                    |                      |                    |                       |                     |                     |  |  |  |
| Recapture Date   | 2-Jun-11           | 26-Jun-11            | 26-May-12          | 2 21-Jun-13 12-Jun-12 |                     | 13-Jun-13           |  |  |  |
| Net#   | net 8              | net 5                | net 8              | net 8 net 4 net 1     |                     | net 7               |  |  |  |
| Weight at Recapture  | no weight          | 8.9 g                | 10.2 g             | 33.9 g                | 13.5 g              | no weight           |  |  |  |
|  |                    |                      |                    |                       |                     |                     |  |  |  |
| Recapture Date   | 4-Jun-15           | 21-Jul-15            | 12-Jun-12          | 23-May-15             | 3-Jun-15            | 11-Jun-15           |  |  |  |
| Net #  | net 4              | net 5                | net 8              | net 4                 | net 7               | net 1               |  |  |  |
| Weight at Recapture  | 13.6 g             | 8.7 g                | 9.9 g              | 34.1 g 14.2 g         |                     | 10.0 g              |  |  |  |
|  |                    |                      |                    |                       |                     |                     |  |  |  |
| Recapture Date   |                    | 31-Jul-15            | 10-Jul-12          |                       | 11-Jul-15           |                     |  |  |  |
| Net #  |                    | net 4                | net 8              |                       | net 5               |                     |  |  |  |
| Weight at Recapture  |                    | 9.4 g                | 10.5 g             |                       | 15.8                |                     |  |  |  |
|  |                    |                      |                    |                       |                     |                     |  |  |  |
| Recapture Date   |                    |                      | 23-May-15          |                       |                     |                     |  |  |  |
| Net #  |                    |                      | net 8              |                       |                     |                     |  |  |  |
| Weight at Recapture  |                    |                      | not weighed        |                       |                     |                     |  |  |  |
|  |                    |                      |                    |                       |                     |                     |  |  |  |
| Recapture Date   |                    |                      | 21-Jul-15          |                       |                     |                     |  |  |  |
| Net #  |                    |                      | net 8              |                       |                     |                     |  |  |  |
| Weight at Recapture  |                    |                      | 10.4 g             |                       |                     |                     |  |  |  |
| <sup>1</sup> In 2015 this bird was determined to be a female |                    |                      |                    |                       |                     |                     |  |  |  |

<sup>&</sup>lt;sup>1</sup> In 2015 this bird was determined to be a female. <sup>2</sup> In 2013 this bird was determined to be a male.

<sup>\*</sup>This bird is in its 7th season or older since it was banded as an After-Second Year bird in 2011.

<sup>\*\*</sup>This bird is in its 6th season since it was banded as a Second-Year bird in 2011.

<sup>\*\*\*</sup>This bird is in its 5th season since it was banded as a Hatch Year bird in 2011.

<sup>^</sup>This bird is in its 4th season since it was banded as a Hatch Year bird in 2012.

### A Discussion of Band Returns in the MAPS Program

were in their 6th summer in 2015. As you can see, the Hatch Year Common Yellowthroat banded in 2011 was in its 5th summer and the Catbird banded in 2012 in its 4th summer this year.

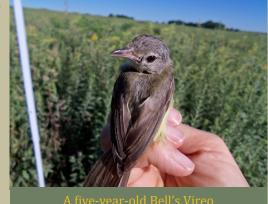
One pattern that has held steady over the years is that we always recapture a bird at the same Conservation Area where it was originally banded, and often the birds return to the exact same net, even over different years. The chart shows that several of the birds came back to the same nets or the nearest net. The Common Yellowthroat banded at Paintbrush Prairie was originally captured in net 3, but all five recaptures and returns were in net 8. It just so happens that net 3 is closest to net 8 at that site. Likewise, the Bell's Vireo at Paintbrush Prairie was captured in net 5 three different times and then the last time in net 4, which is the closest to net 5, and which also lies within the same shrubby draw.



None of these birds have been recaptured in every year. We know that birds can become net wary and learn to avoid the nets, but all of the study sites have had management such as clearing or burning done over the years and this may have affected the movements of some of the birds. If a bird's breeding territory is altered significantly, do they find a new territory at the same site or further away? Both the Common Yellowthroat and Indigo Bunting banded at Grandfather Prairie were originally captured in net 1, which was along a shrubby, small-tree line along the road. During the dormant season in 2013 this vegetation was leveled by a bulldozer and we captured very few birds in these nets in 2014 and neither the Bunting nor Yellowthroat were

recaptured in 2014 at the site. By spring of 2015 the vegetation had grown back enough that the Common Yellowthroat was once again captured in net 1. The Indigo Bunting was recaptured in nets 5 and 7, which happen to be the closest to each other but on the other side of the site from net 1.

The Bell's Vireo at Paintbrush was captured twice in 2011 in net 5 and then wasn't captured again until 2015. In late summer of 2012, the thick, shrubby vegetation between net 4 and net 5 was cleared. Perhaps this area was where the Vireo made her nest and it took a couple of years for the area to be suitable again. But where did she have her nest the other three years?



# Monitoring Avian Productivity & Survivorship



Changes in habitat resulting from management activities can't explain why the male Indigo Bunting wasn't recaptured in 2012, 2013 or 2014, but the different nets that this bird was captured in may show that its territory included both of the shrubby draws in the banding site. The Bunting was originally captured in net 6 which was at the far northeast edge of the banding station and which was a net that was only used in 2011 and not in subsequent years. This bird was also captured in net 8 in 2011 which is about 200 meters west of net 6 in the same shrubby draw. Net 8 was used all five years of MAPS and the draw between nets 6 and 8 was not cleared. Net 4, which is the net it was recaptured in in June, is about 150 meters south of net 6 in a branch off of the draw that runs to the southwest.

In terms of body condition, it is standard practice to assess this by weight and presence of fat. During the breeding season, however, none of the birds that are captured show any measureable fat since they use up all their fat during migration and do not store fat while breeding. We can get an idea of their condition by weighing the birds. Weight is included in the chart to show how the birds' weight has varied over years. According to the chart, the smaller birds maintain their weight within about 1.0 g. The larger Gray Catbird maintained its weight within 1.5 g. and the female Indigo Bunting shows the greatest variation, ranging from 12.9 to 15.8, both measurements taken in mid July, but four years apart. This indicates that she was in an even healthier condition in 2015 than when originally captured as a Second-Year bird in 2011.

The banding data from the three MAPS study sites certainly indicates that management on each area effects bird presence and movement. Clearly, our three grassland areas are providing good enough habitat that many of the breeding birds return over years. Next year, MRBO will be embarking on a related study in which we will find and monitor grassland birds' nests to

get an idea of the number of breeding attempts that are successful on

grassland Conservation Areas.





# MRBO's Newest Members

We are pleased to welcome the following folks as new or renewing MRBO members! Thank you all for your meaningful support.

> Dr. Richard & Mrs. Nelda Forry, Arrow Rock Andrew Kinslow, Columbia Kirby McCullough & Dan Auman, Arrow Rock Bob & Pat Perry, Rolla: five time Stewardship Level members

#### Farewell to House Wrens! See you next spring...



By MRBO's Acoustics Expert, Ethan Duke

The House Wren (*Troglodytes aedon*), delights observers from coast to coast along the northern two thirds of the United States and portions of Canada. This tiny, loquacious visitor arrives each spring from its wintering grounds the southern US and Mexico. We look forward to its return in the spring and feel its absence as it slowly withdraws from our songscape on its way to warmer winter climes.

Upon deciding what to write about this amazing bird, I immediately headed to my go-to bird information source: The Birds of North America Online (BNA; bna.birds.cornell.edu) hosted by the Cornell Lab of Ornithology. This amazing resource provides well-sourced species account descriptions. Best of all, it has a complete and comprehensive bibliography section. This section is particularly large for the accessible, well-studied House Wren.

Interestingly, BNA mentions W.W. Cooke's 1884 notes on the Chippewa (Ojibwe) Native Americans and their bird nomenclature at the time. The Ojibwe people that Cooke met with called House Wrens "O-du-na'-mis-sug-ud-da-we'-shi", meaning "making a big noise for its size". It is amazing that the culture was still able to translate species names given they had been forced out of their lands in what is now northern Michigan and Wisconsin by colonialist greed and the resulting enclave of lumber barons in the 1840's and 1850's. Cooke mentions that they did not distinguish the House Wren from the Winter Wren. I'd wager that the tribe had known the difference before colonial disruption.

The Winter Wren is indeed a similar species. They have a shorter tail, more defined markings (especially in the flanks), and of coarse have a different song. Other Wrens of Missouri include Carolina, Sedge and Marsh Wrens. All of these wrens are quite vocal and active, with complex songs and calls.

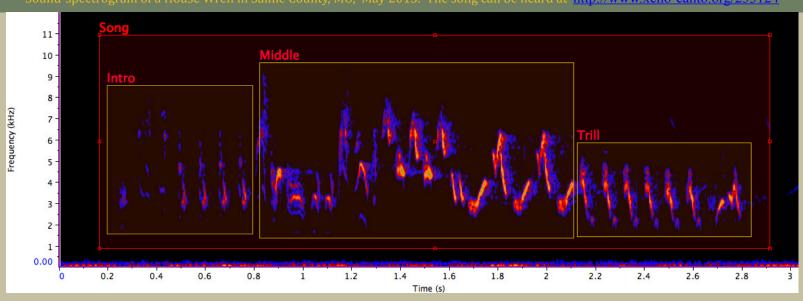
It is amazing to think such a small bird as the House Wren can produce such a loud and song and so often. After skimming the "sounds" section of the BNA account, I learned that an unpaired male can sing up to 600 songs per hour in the morning hours! There song is primarily made of three parts, of which they can vary to the extent of producing over 200 different songs. Adding to these findings, females can also sing! Wow. I've recorded several House Wrens here in Missouri and for your listening pleasure have posted them on xeno-canto.org at <a href="http://www.xeno-canto.org/233124">http://www.xeno-canto.org/233124</a>. This particular individual nested in a Pileated Woodpecker-shaped birdhouse. This is one male of approximately 6 in the area. In the sound spectrogram can see the isolated song parts in his exceptional song. Just think, this one male sings hundreds of different songs.

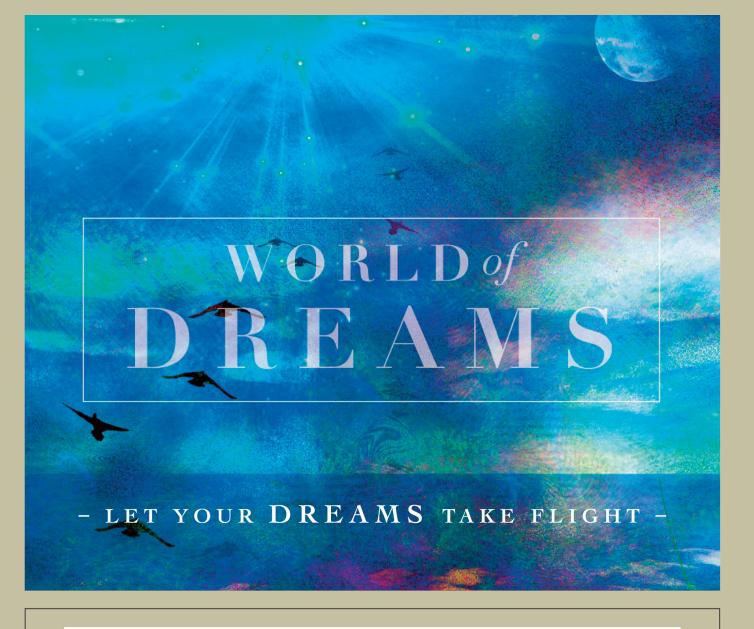


A banded House Wren showing the less distinctly-barred primary coverts of a Hatch-year bird. Hatch-years will often "practice" their singing before fall migration, sounding a bit garbled amd with a shorter song than adults.

Right now, this mighty songster is chirping and hopping actively on its southbound path, leaving a void of unmatched activity and sound in our backyard... Alas, but we are glad that the Slate-colored Juncos and White-throated Sparrows have arrived!

Sound-spectrogram of a House Wren in Saline County, MO, May 2015. The song can be heard at <a href="http://www.xeno-canto.org/233124">http://www.xeno-canto.org/233124</a>





#### GALA FUNDRAISING DINNER & FUR FASHION SHOW

Friday, Dec. 4, 2015 | Marriott Hotel Downtown Kansas City

- Five Course Executive Chef Dinner

- Fine Wines

- Live & Silent Auctions

Evening Schedule

6:30 pm - Cocktails & Silent Auction

7:30 pm – Dinner

8:30 pm - Gala Fashion Show

9:30 pm - Live Auction

All proceeds

benefit the

Missouri

River Bird

Observatory.

FOR TICKETS OR INFORMATION:

VISIT MRBO.ORG. CLICK ON "WORLD OF DREAMS"

EMAIL: DIANE.BENEDETTI@MRBO.ORG

CALL: 660 815 3288





