The Rectrix

A seasonal newsletter of the Missouri River Bird Observatory Volume 7 No. 3. Fall 2017

rectrix |rek-triks| noun. (pl. -trices) any of the larger feathers in a bird's tail, used for steering in flight.

Toward a Lasting Conservation Ethic

A message from MRBO Directors Dana Ripper & Ethan Duke

"I expect to live to see the time when the wearing of bird plumage will be a brand of ignorance." -Sara A Hubbard, 1897. Photos: Library of Congress.

In the mid-19th century, John James Audubon noted the abundance of egrets and insisted that birds in general were so plentiful in North America that nothing could extinguish a species. By the mid-1890s, the Snowy Egret was on the verge of extinction and many other species, including the Great Egret, Great Blue Heron, and several seabirds, were in rapid decline. These species' feathers were highly prized as accoutrements for ladies' hats. Historians report that more than five million birds each year were killed for the millinery trade and that the methods of harvest – capturing and skinning breeding adults and leaving nestlings to die – were horrific. In 1896, two Boston socialites began a revolt. They entreated fashionable women in Boston and elsewhere to boycott feathered hats. Eventually, over 900 women joined this protest and their coalitions became 12 state Audubon Societies, the mission of which was to conserve birds in general and egrets in particular. They used a combination of financial and social pressure: by refusing to buy the product, by declaring plumed hats unfashionable and by demanding action against the plume trade. This movement snowballed into a crucial series of events: lowered demand for plumed hats, establishment of the first National Wildlife Refuge to protect egret rookeries by President Theodore Roosevelt, and an increasingly urgent public cry for protective legislation. Ultimately, it was recognized that the commercialization of wild birds had to end and the Migratory Bird Treaty Act of 1918 was passed. Most species, including Snowy and Great Egrets, have recovered. Meanwhile, people found other ways to decorate hats. We would like to embrace this lesson: multiple solutions to the challenge of wildlife conservation in the face of human needs and wants.

We live in a time when conservation policy is being undermined at every turn, particularly at the national level but also at some state and local levels. Most conservationists feel that our plea for the conservative, wise, sustainable use of natural resources is falling on deaf ears. Much social and political pressure has been dedicated to spreading the belief that any regulation is onerous - an affront to personal freedom or economically unviable. However, we would argue that the wasteful, short-term overuse of our natural resources is not in *anyone's* best interests. The water, land and wildlife resources of North America were once thought limitless…but that was when the entire U.S. population was about 5 million. Several bird species – the Passenger Pigeon, the Eskimo Curlew, the Carolina Parakeet – were driven to extinction by market pressure even when, in 1900, the U.S. human population was less than a quarter of what it is now.

But consumers can use market pressure for good, just like the ladies who refused to buy plumed hats and pressured their peers to do likewise. We advocate for the adoption of an everyday lifestyle that supports conservation values and the sustained wise use of natural resources. Think financial pressure and social pressure, and that nothing is too small. Every time you purchase food from a local producer, who treats his or her land and animals well, you have cast a vote for conservation. Every time you choose to recycle used containers, or spend a little extra to purchase something non-disposable, you are limiting continued resource extraction. Every time you talk to your family and friends about why wildlife matters – whether you approach conservation from a recreational, aesthetic, ecological or spiritual perspective – you are telling people it's OK to have ethics and to care, a message that is lacking in our society.

There are lessons in history that show us that social ethics, and even financial incentive, don't always do the trick. In 1943, with full knowledge that the very last few Ivory-billed Woodpeckers lived in Louisiana's Singer Tract, the National Audubon Society, President Franklin Roosevelt, Louisiana Governor Sam Jones and others approached the Tract's timber

> If we don't like the way landowner X is using the natural resources of which he is owner, why do we buy his products? Why do we accord him the same social standing as landowner Y, who makes an honest attempt to use his land as if he were its trustee? Why do we tell our government to reform Mr. X, instead of doing it ourselves?
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> -Aldo Leopold, "Land Use and Democracy," 1942

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Front cover:
"Three Egrets Strong"
by Amy Petersen

lessee, Chicago Mill and Lumber and its owner, the Singer Sewing Machine Company. Their offer was to purchase the Singer Tract with private funding and establish a new National Wildlife Refuge there. Chicago Mill said no, logged the Tract, and the last Ivory-billed Woodpecker was seen there in 1944. We all know the end to that story – the "Lord God Bird" of the southern forests became extinct. Enter the need for reasonable legislation. One can scarcely imagine such a situation happening today if we *knew* beyond doubt that a small population represented the absolute last of its species; however, there is that old adage about being condemned to repeating history. There are situations across the U.S. right now where small, vulnerable populations of species (Piping Plover, Golden-cheeked Warbler and Gunnison's Sage Grouse come to mind) are being pitted against rare groups of humans – those that truly don't care and will not respond to social pressure or arguments of moral, aesthetic or spiritual value. In that case, we believe that protective measures are necessary. Witness the heartening results of the work done under the Endangered Species act for the Bald Eagle, Whooping Crane and Kirtland's Warbler.

Professor Arthur Allen, head of the research team that documented the last Ivory-billed Woodpecker populations, said: "Where is the man who would stand by and watch as a marvelous creation of nature – of no harm to man's interests and of no intrinsic commercial value – is forced into the vortex of extirpation without even raising his voice in protest?". We propose that today's society employs a too-broad definition of "man's interests". Does my "right" to eat a fast-food hamburger supersede the interests of the prairie bird species that lost their habitat to feed grain? Does my "right" to operate an ATV mean that I should be able to do so on a beach where endangered birds are nesting? Does the interest I have in a company's stocks mean that that company should produce me a profit by whatever means necessary even if it, say, pollutes a stream I've never seen? As most of us have far more than what we need for survival, we would argue that a commonsense definition of "human interest" should be used when talking about natural resource use and wildlife conservation.

Aldo Leopold, the father of wildlife management, had many things to say about evolving toward an ethical society. President Theodore Roosevelt, one of the most ardent conservationist leaders in U.S. history, had much to say about the responsibility of both the government and the individual to conserve and protect natural resources. In their spirit, we propose that a reasonable compromise between personal accountability and investment in conservation along with legislative oversight must ensue if we are to conserve the resources that many of us revere and all of us depend on.

If in a given community, unchecked popular rule means unlimited waste and destruction of the natural resources—soil, fertility, waterpower, forests, game, wildlife generally—which by right belong as much to subsequent generations as to the present generation, then it is sure proof that the present generation is not yet really fit for self-control, that it is not yet really fit to exercise the high and responsible privilege of a rule which shall be both by the people and for the people. The term "for the people" must always include the people unborn as well as the people now alive, or the democratic ideal is not realized.

-Theodore Roosevelt, 1913

In this Issue of *The Rectrix*

Northern Saw-whet Owl by Steve Garr

Northern Saw-Whet Owls in Missouri

It's almost that time again! We will be attempting to capture and band Northern Saw-whet Owls throughout their peak migration period in central Missouri. Banding takes place on the grounds of the MRBO office in Arrow Rock. The banding operation will begin on or after October 23rd. We wait until the southward movement of owls has been documented by our collegues in Iowa, and north fronts are the prevailing weather pattern. After October 20th, we will post regularly to the MRBO Facebook page about whether the station will be open on a given night. If you are interested in attending the banding and seeing these wonderful birds up close, please check our Facebook page (facebook.com/morivebirdobs) or call 660-837-3888 to check station opening times.
All ages welcomed!

Owls in Native American Lore

by Michael Dickey, Arrow Rock State Historic Site Coordinator

It is probably no surprise that owls feature prominently in the folklore of many Native American tribes. Local historian Mike Dickey shares some of the lore of the Saw-whet and other owls in the tribes of Missouri and the north.

The Menominee (Menomini) Indians are an Algonquin speaking woodlands people of northeastern Wisconsin. They were referred to as Wild Rice People because they extensively harvested and subsisted on that grain. In the following myth, the origin of day and night is accounted for, as well as the selection, by various animals and birds, of the particular kinds of food which they now eat.

THE RABBIT AND THE SAW-WHET
One time as Wabus' (the rabbit) was traveling along through the forest, he came to a clearing on the bank of a river, where he saw, perched on a twig, Totoba, the Saw-whet Owl. The light was obscure, and the Rabbit could not see very well, so he said to the Saw-whet, "Why do you want it so dark? I do not like it, so I will cause it to be daylight." Then the Saw-whet said, "If you are powerful enough, do so. Let us try our powers, and whoever succeeds may decide as he prefers."

Then the Rabbit and the Owl called together all the birds and the beasts to witness the contest, and when they had assembled, the two informed them what was to occur. Some of the birds and beasts wanted the Rabbit to succeed, that it might be light; others wished the Saw-whet to win the contest, that it might remain dark.

Then both the Rabbit and the Saw-whet began, the former repeating rapidly the words "wa'bon, wa'bon" (light, light), while the Owl kept

repeating “uni’tipa’qkot, uni’tipa’qkot” (night, night). Should one of them make a mistake and repeat his opponent’s word, the erring one would lose. So the Rabbit kept on saying, “wa’bon, wa’bon,” and the Saw-whet “uni’tipa’qkot, uni’tipa’qkot,” each being watched and urged by his followers; but finally the Owl accidentally repeated after the Rabbit the word “wabon,” when he lost and surrendered the contest.

The Rabbit then decided that it should be light; but he granted that night should have a chance for the benefit of the vanquished. This proving satisfactory, they decided that the various birds and beasts should select the kind of food on which they would thereafter subsist.

The Montagnais Indians are an Algonquin speaking, woodland people of eastern Quebec. They called the Saw-Whet Owl pillip-pile tshish, which means “water-dripping bird” because of its low liquid note that resembles the sound produced by water slowly dropping from a height. A Montagnais legend says that this was at one time the largest owl in the world and that it had a very loud voice. One day the owl perched itself near a large waterfall and tried not only to imitate the sound of the fall, but also to drown out the roaring torrent with its own voice. At this the Manitou “Great Spirit” was offended and to humble the pretentious owl, transformed it into a pygmy, causing its voice to resemble slowly dripping water instead of the mighty roar of a waterfall.

The Micmac are an Algonquin speaking, woodland people of northern Maine and the Canadian Maritime Provinces. Micmac traditions about birds come primarily from three informants. In the three accounts contradictions occur. To Peter Ginnish, gu’gwetc is a small owl, frightening but not otherwise harmful to people. According to Ginnish, gugwetc is invisible, but will frighten you in the daytime or at night. He may call to you, or make a noise to frighten you. He will not, however, do any other injury to you. A mother will quiet her child by telling it to stop crying or Gugwetc will get it – “Gugu! Gugu!” says the mother in imitation of Gugwetc. If you hear something queer in the woods while you are walking there, it is Gugwetc that frightens you. It makes a noise like a person. It is sometimes male, sometimes female. It goes about in the woods, living there just like the Mi’gamawe’su (large owls). To folklorist John Newell, kupketc (gugwetc) is the Saw-whet Owl which, if mocked, burns one’s favorite possessions with secret fire. Another source, Tom Meuse, ascribes this power not to the Saw-Whet Owl but to glo’edjidit, the puffin.

Historic Native American tribes in Missouri such as the Missouria (Nu tachi) and Ioway (Baxoje) had Owl Clans ma^{n}kaje who were under the Sky Division of the tribe. The Osage were the largest and most dominant tribe of Missouri. They had a Night Clan in the Sky Division Tzi-shu that probably corresponded to the Owl Clan of the others. It is probable the Osage once had an Owl Sub-Clan under the Night Clan. In Osage culture, night represented one of the great powers of the cosmos. Owls being creatures of the night would by extension have that same power. They became an integral part of Osage spiritual beliefs concerning the night sky. Their relationship with owls was complex and one of both fear and embracing.

Owls were a harbinger of death and as such played a significant part in the preparation of war parties. The Great Horned and Barred Owls were of particular significance. Animals with horns were viewed as particularly powerful spirit beings. An example is the Underwater Panther, a spirit guardian of the entrance to the Lower World. These creatures were depicted with deer antlers or bison horns. Because of their ear tufts, Great Horned Owls, Pa’-nu-hu, and Screech Owls, Hi-tha-da-da-xe, fell into this category. The Screech Owl was considered an ill omen. If a Screech Owl was heard near a lodge the occupants would hurry to shoo the bird away. A dead person whose spirit was not admitted into the afterlife of the Upper World might be condemned to take the form a Screech Owl, accounting for its mournful trilling.

The “conversations” carried on by Barred Owls, which the Osage called “gray owls”, Wa-po`ga, indicated they were powerful messengers of Wah-kon-tah (the Supreme Being or Creator). In ceremonial war preparations, an appointed “Sacred Warrior” would leave the ceremonial lodge and go into the woods seeking a message of approval from Wah-kon-tah through fasting and prayer. Osage ritual songs relate the significance of owls in these vision quests:

Hark! I hear a voice in the evening gloom.
Lo! It is the gray owl who speaks in the dark of evening.

Hark! I hear a voice in the evening gloom.
Lo! It is the horned owl who speaks in the dark of evening.

Lo! From the dark of the evening I am bidden to go.
It is the gray owl who speaks bidding me to go.

Lo! From the dark of the evening I am bidden to go.
It is the horned owl who speaks bidding me to go.

Lo! A man speaks to me telling me of my success,
Tis the gray owl who speaks to me,
Amid nights gloom he gives to me the word.

Tis the horned owl who speaks to me.
Amid nights gloom he gives me the word.

The Osage were impressed by an owl's binocular vision, their ability to see at night and almost 360 degrees in all directions, to glide noiselessly through the woods without hitting trees and to strike down animals as large as raccoons. These were seen as characteristics desirous for their warriors. The Great Horned and Barred Owls played roles in war preparations. However, as important as owls were as messengers of Wah-kon-tah and in making war preparations, one tradition indicates that they were considered subordinate to hawks as the night is subordinate to the day.

Because owls were a harbinger of death, their feathers were used to adorn war shields and tomahawks. The shield of chief Black Dog in the Osage Tribal Museum uses owl feathers in addition to eagle feathers. The adornment had two psychological objectives in mind. It projected to an enemy that Black Dog was a harbinger of their death. It also gave to Black Dog the power of the owl; being able to see the enemy in any direction and to strike suddenly and silently while being totally unobserved.

The Osage and other Siouan speaking tribes had a dual concept of the observable universe; earth and sky, day and night, winter and summer, good and evil, war and peace, life and death, etc. all balanced each other to maintain harmony in the cosmos. Fire symbolized destruction, but also symbolized regeneration of new life as new vegetation quickly grew in the burned area. Similarly, owls were not exclusively representations of war and death. Owl feathers were used as adornment on the sacred pipe, commonly called a "calumet." Split owl feathers glued to the stem represented the power of an arrow. Owl feathers tied in a bunch to a pipe represented the lungs of a deer. Deer lungs are associated with a supernatural being called Red Horn who was represented by the morning star. The youngest of ten brothers, he was also called "He Who Was Hit With Deer Lungs" because the wife of his older brother threw the lungs at him while she was cleaning a deer. In a series of stories, Red Horn and his companions go on to defeat a race of giants and other monstrous creatures that inhabited and terrorized the earth.

An owl hooting at sunrise was a good omen, signifying a clear and mild day ahead. In the Peace Ceremony which was a public and light-hearted affair compared to the exclusiveness and seriousness of the War Ceremony, Deer Clan priests provided owl feathers as part of the peace ritual. By making the gray owl part of their lives, the Osage were assured that Wah-kon-tah would hear their voice throughout life's journey.

Owls were important part of the natural and spiritual world of Native Americans. Depending on the tribe, owls could be evil, good or a mixture of both. Regardless, they inspired awe because of their unusual characteristics for a bird. Much of the lore of the old Osage culture has been irretrievably lost. However, these surviving fragments indicate that owls, especially great horned and barred owls once held important places in the spiritual beliefs and ceremonies of the Osage Nation.

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Louis F. Burns (1920-2012) was an elder of the Osage Mottled Eagle Clan. Kathryn Red Corn is director emeritus of the Osage Tribal Museum in Pawhuska OK. I learned a lot about Osage culture through personal communication with Lou starting in 1983 and Kathryn starting in 2001.

Barred Owl by Chelsea Mostellar; Short-eared Owl by Carol Weston.

Grassland Bird Monitoring Update

MRBO's grassland bird project is our longest running monitoring program and in terms of geographical reach and staff time, one of our two largest projects. We use several methods to examine habitat use and population trends of grassland birds, which are the most precipitously declining group of avian species in North America. The breeding season survey portion of the project began in 2012 with a partnership with the National Audubon Society to survey private ranches in Missouri, Kansas and Nebraska. These ranches were enrolled in the Audubon Conservation Ranching program, which has since come to fruition with the availability of beef raised on Audubon-certified lands. Since 2012, MRBO grassland surveys have grown exponentially to include public lands in Missouri as well as grasslands owned by other non-profit organizations such as the Missouri Prairie Foundation. Now in its sixth year, MRBO's grassland bird survey project has amassed an enormous data set of bird detections on more than 90 Missouri properties. These data allow us to accurately analyze trends in bird populations and their responses to habitat management. Our target species, all of which are specific to the grassland ecosystem, are also good indicators of the overall ecological health of a given property. Grassland bird surveys are done by experienced, trained observers that walk many miles of line-transects, documenting every bird seen and heard. Smaller sub-studies include daily banding and observational censuses on selected sites during spring migration, a nest productivity research project on two large southwest Missouri prairies, and transect surveys during fall migration. Extensive reports and presentations are provided yearly to the Missouri Department of Conservation, National Audubon Society and involved private landowners. See: http://mrbo.org/mrbo-reports/

Project Goals

1) Monitor target species' population trends on individual properties and on a statewide basis.

2) Document habitat use and response to land management actions.

3) Provide land managers with yearly feedback on bird response to management.

4) Identify lands on which birds are declining so managers can adjust accordingly.

5) Document target species' response to bird-friendly grazing management on private lands enrolled in the Audubon certification program.

GRAZED ON Audubon CERTIFIED BIRD FRIENDLY LAND

PROTECTING BIRDS - BY RESTORING - GRASSLANDS

Target Species

Grassland Obligate Birds

Bell's Vireo

Bobolink

Common Nighthawk

Dickcissel (*top left*)

Eastern Meadowlark

Field Sparrow

Greater Prairie-Chicken

Grasshopper Sparrow

Henslow's Sparrow (*center left*)

Loggerhead Shrike (*bottom left*)

Northern Bobwhite

Sedge Wren

Upland Sandpiper

Western Meadowlark

Photos: Dickcissels and Henslow's Sparrow by Andrew Reago. Loggerhead Shrike by Linda Williams.

Migration Banding

Grassland Bird Monitoring Update

by MRBO Project Coordinator Veronica Mecko

In 2017, MRBO set up two new spring migration banding stations, both at Linscomb Wildlife Area in Saint Clair County. This wildlife area is located northeast of the town of El Dorado Springs and Wah'Kon-Tah Prairie and is bordered on the northern edge by the Osage River.

A view of the habitat at the East Linscomb banding area.

A view of the habitat at the West Linscomb banding area.

In the fall of 2016, I met with Joe Coy, Wildlife Biologist with the Missouri Department of Conservation office in Osceola, to choose sites for the spring migration banding project at Linscomb Wildlife Area. An area in the north central part of the wildlife area was chosen as one of the stations because it was mainly grassland and included a small area of native prairie and a larger area of restored prairie that had undergone different management. A small draw runs east-west through the area. A portion of this area had been surveyed in the fall migration survey transects conducted on a weekly basis in 2016; it was known that many birds use the taller, thicker, shrubbier vegetation and small willow trees in the draw. Moving west to east in the draw the shrubby vegetation decreases, the topography has a slight incline and the soil is rockier.

In March, the second site chosen was directly west of the first site. The surroundings consisted of a small field of shin-high, mixed warm-season and cool-season grasses with some native forbs, almost completely surrounded by tree line except for the southeast corner where a few lone trees connected the south tree line with the riparian wooded area to the east. The north end of the West station is a large area of tall, thick native grass stalks and north of this is a small pond before the tree line on the north edge begins. Within the grassy field there are no shrubs or trees.

Net lanes were cleared on April 4th and 5th and banding began at the West Station on April 6th. The East Station was opened on April 7th. Nets were opened about 15 minutes before sunrise and the station operated for four hours, unless nets were opened later due to wet conditions early in the morning or if inclement weather or strong winds required the nets to be closed earlier. Nets were opened at each station 12 times, including two evening runs at each station.

While the two banding stations are close in proximity, only several hundred meters apart, they are separated by a riparian area with tall trees as well as a gravel road. The habitat differs dramatically between the two stations, and both banding and observational data reflected differences in bird use. Highlights at the West Linscomb Station were the captures of three LeConte's Sparrows and two Henslow's Sparrows with subsequent recaptures of both. The first day that nets were opened at this site (April 6th), two LeConte's Sparrows were captured; another was captured on April 12th. Recaptures of this species occurred on April 8th and 12th. Henslow's Sparrows were captured on April 8th and 12th, and one of these individuals was recaptured on May 4th. At the time of recapture, the bird was determined to be a breeding female due to the presence of a brood patch. Other species captured throughout the migration season were Field, Savannah and White-throated Sparrow, Northern Cardinal and Common Yellowthroat. A total of 16 birds of seven species were banded at the West Linscomb Station.

LeConte's Sparrow

Observational monitoring of migrating species at the West Station included four days of more that 40 species observed. The first of these days was April 6th when 42 species were documented, including Bald Eagle, Yellow-bellied Sapsucker, Golden-crowned and Ruby-crowned Kinglet, LeConte's Sparrow, Northern Harrier, Double-crested Cormorant, Blue-winged Teal and Green Heron. On April 19th, 40 species were observed including Yellow-throated Vireo, White-throated Sparrow, Blue-winged and Yellow-rumped Warbler, Wood Duck, Northern Parula and Blue-gray Gnatcatcher. Also on this day was the largest movement of Blue Jays of the season with 217 counted. On May 4th, 43 species were observed including Northern Pintail, Sedge Wren, Yellow-breasted Chat, Bobolink, White-eyed Vireo, Great Egret, Orchard Oriole, Peregrine Falcon and Summer Tanager. And on May 6th, a total of 603 birds of 53 species were observed including groups of Double-crested Cormorant, Red-winged Blackbird, Dickcissel, Brown-headed Cowbird, Blue Jay, Great Blue Heron, White-Rumped Sandpiper, Eastern Kingbird and Northern Rough-winged, Cliff and Barn Swallows.

Grasshopper Sparrow

Prairie Warbler

The banding operation at the East Linscomb Station was far more productive, with a total of 97 birds of 28 species captured. Highlights were a Prairie Warbler and Grasshopper Sparrow on April 24th. Also on the last day of banding, May 7th, 28 birds of 11 species were banded including Indigo Bunting, Bell's Vireo, Red-winged Blackbird, Dickcissel, Common Yellowthroat, Yellow-breasted Chat, American Goldfinch and Savannah, Lincoln and White-crowned Sparrows. The most abundant species captured during the season were American Goldfinch with 20 and Common Yellowthroat close behind with 16.
The East Station had only one day with more than 40 bird species observed, May 2nd, when 41 species were counted including Scissor-tailed Flycatcher, Marsh Wren, Rose-breasted Grosbeak, Ruby-throated Hummingbird and Turkey Vulture. May 5th had 39 species including Sedge Wren, Warbling Vireo, Least Flycatcher, Purple Martin, groups of Cliff and Barn Swallows and a group of about 40 shorebirds. On May 7th, two Sora were detected.

Overall between the two stations, a total of 90 bird species were observed. Because of the area's proximity to the Osage River, Bald Eagles, both adults and immature, were observed on eight different days during the season and this included sightings of four different individuals on April 6th, 17th and 20th.

Banding at the West Station showed that in early spring, the grassland habitat is used mainly by several species of sparrows including the more secretive LeConte's and Henslow's Sparrows. Henslow's Sparrows were mainly observed toward the northern end of the field with shorter vegetation and wetter soil as well as in the area with the taller dry stalks of the warm-season grasses. Field Sparrows were observed in the eastern tree line and in the very southern portion of the grassy field, within 30 meters of a large, lone tree. Eastern Meadowlarks were flushed up from the grassy field during the first week of operation, but after that were only heard singing from a lone tree in the open southeast area. On May 6th, a group of more than 30 Dickcissels flushed up from the field early in the morning and flew north over the trees. Other than these grassland-obligate species, most other species preferred to use the tree lines to move through this portion of the Wildlife Area. Species such as Golden-crowned and Ruby-crowned Kinglet and Yellow-rumped Warbler would fly from the southern edge of trees and then along either the west or east line of trees and make their way north. On one morning, a Northern Harrier flew from the open southeast area, skimming the south tree line over to the west tree line north and then over the tall, warm-season grasses back east. Other species such as Eastern Kingbird, Red-Bellied Woodpecker and Summer Tanager would occasionally fly from one tree line to the other, flying right over the field. From mid-April on, the only birds captured were in nets closer to the tree line or lone trees in the southeast.

Blue Grosbeak

A greater diversity of birds was observed to be using the grassland habitat at the East Station. The first week Field, Song and Swamp Sparrows, American Goldfinch and Eastern Meadowlark were observed. All of these species used the entirety of the area and many would fly back and forth from the grassland habitat to the riparian area. The meadowlarks flew from an area of short, cool-season grass with corn stubble at the northeast corner of the station to the open area with lone trees on the west side of the gravel road. Henslow's Sparrows were heard south of the station, in the habitat with thicker, taller warm-season grass. By April 13th, Common Yellowthroats had arrived and were heard singing from the dense vegetation in the draw. Sparrows such as White-throated, Savannah and Lincoln's were also observed beginning in mid-April. A Sedge Wren and a Blue-winged Warbler were heard in different areas of the grassland on April 18th. Northern Bobwhite were also initially detected on April 18th and remained throughout the rest of the season. Bobwhite were heard mainly from the area southeast of the station with tall, warm-season grass or west of the gravel road, along the riparian wooded area edge. Arriving by April 23rd, species such as Yellow-breasted Chat and Indigo Bunting preferred to use the thickest vegetation. The only Grasshopper Sparrow banded for the season was captured in the furthest-east net, where the terrain was rocky and somewhat glade-like and the vegetation less shrubby. Marsh Wrens arrived in the first days of May and were captured and observed mainly in the southern warm-season grass area where Henslow's Sparrows remained. Dickcissels were found in all areas of the station while Bell's Vireos preferred the shrubbier areas on either slope from the draw. Since the East Station was bordered on the by the wooded riparian area, many bird species that tended to migrate through woodland were also detected, such as Blue-gray Gnatcher, Nashville and Orange-crowned Warbler, Blue Grosbeak, Orchard Oriole, Warbling Vireo and Yellow-throated Vireo.

Veronica with Eastern Meadowlark

Erik Ost with Song Sparrow

Grassland Bird Monitoring Update

by MRBO Project Coordinator Veronica Mecko

Breeding Season Surveys

Another year of Grassland Breeding Bird surveys has been completed and thousands of birds have been documented on Missouri's prairies and grasslands. This was my 5th year of doing these surveys. Before 2013, I had worked on banding projects and some educational events with MRBO. But in the spring of 2013 I trained with MRBO to conduct grassland bird surveys and in the summer of 2013 I was invited to travel with Dana and Ethan to Harrison County in northern Missouri to help conduct surveys in the Grand River Grasslands. This was great news for me because I lived just across the border in Iowa and I considered this area home territory.

The vast grassland at Dunn Ranch

On the first mornings of surveys at Dunn Ranch, after about 15 minutes of surveying, I began to hear the booming of Greater Prairie Chickens coming from the big hill to the west of the survey transect. Since I only heard the booming and didn't see any prairie chickens, I walked toward the sound of the booming hoping to flush up the bird(s) so I could get a distance estimate from the transect line recorded. I kept walking and walking all the way to the top of the hill but no birds flushed and the booming continued. This was when I remembered that the booming can be heard from up to a mile or more away. "This is amazing!" I thought, and I recorded on my data sheet the direction from which I heard the booming and continued the survey while trying not to be mesmerized by the persistent booming sound. Later in the morning when we were all finished with surveys, I learned that although the crew of four of us were all surveying in the same general area of the property, I was the only one who heard the booming. I was astounded as the booming was quite loud and went on for at least a half an hour and I felt very lucky to have been the one in the right spot on that morning. And needless to say, I was hooked on doing grassland bird surveys! Such began many memorable mornings of doing grassland bird surveys. And in subsequent years of surveying, I have heard the booming of a Greater Prairie Chicken, but never again as I heard it in 2013.

A patch of Blue Indigo in the unburned portion of Kickapoo CA

In 2017, MRBO staff conducted grassland breeding bird surveys on 25 properties including 12 Conservation Areas owned and managed by the Missouri Department of Conservation (MDC), one property owned by the The Nature Conservancy (TNC), one property jointly owned by MDC and TNC, two properties owned by the Missouri Prairie Foundation and eight properties owned by private landowners. These latter are ranches that MRBO surveys as part of the Audubon Conservation Ranching program. Properties were located in four general areas of the state: 11 in the southwest, five in the Upper Osage Plains area, six in the Cole Camp/Green Ridge area and two in the Grand River Grasslands in northern Missouri. At least one of the private properties was located in each of the four areas.

Tall Green Milkweed in the burned portion of Kickapoo CA

In conjunction with the MDC Resource Science Division's long-term Patch-Burn Grazing (PBG) study, four of the conservation areas were surveyed a second time on only the PBG study unit areas during the breeding season: Diamond Grove, Kickapoo, Providence and Wah'Kon-Tah. This is the third year of doing double rounds of surveys in conjunction with the long-term study.

Sunrise at Diamond Grove Prairie CA

Surveys began on May 8th in the southern part of the state at Diamond Grove Conservation Area southeast of Joplin and were completed on July 1st at Dunn Ranch in the Grand River Grasslands, just a few miles south of the Iowa state line. Protocol for conducting surveys was to begin 15 minutes before sunrise and continue for four hours; each surveyor usually completed six transects in a morning.

Each morning when we survey, you never know what you'll observe on each transect or what might flush up with your next step. This year it seemed we found more nests while surveying than in previous years. On the first day of surveys at Diamond Grove CA, two of us found Eastern Meadowlark nests. Grasshopper Sparrow nests were found at Robert Talbot CA and Cook Meadow. A Dickcissel nest was found at Stony

Habitat at Schell Osage CA where Kentucky, Black-and-White, and Blue-winged Warblers were detected along with Common Yellowthroat.

Point CA. Later in June, as I was walking up a shallow draw at Dunn Ranch, I flushed up a Willow Flycatcher and when I looked to where it had flushed from, the sun was shining directly on the white eggs glistening from behind the leaves.

2017 was the first year I had the opportunity to survey at Schell Osage Conservation Area, which was initially surveyed in 2014 and subsequently in 2015 and 2016. I enjoyed surveying the relatively small areas of restored prairie and grassland within this large conservation area and had many memorable sightings. My coworker, Erik, and I both observed Common Nighthawks on the same morning before sunrise on the first transect of the day. On another morning at this conservation area, I had four warbler species in the same transect that ran through a habitat of a grove of hardwood trees: Kentucky, Black-and-white, Blue-winged and Common Yellowthroat. Later in the morning, a pair of Lark Sparrows mated while I was moving along the transect.

Grasshopper Sparrow (*below*) and nest (*above*) found at Robert Talbot CA

The Grand River Grasslands are in the northernmost part of Missouri, so the area is much further north than the central and southern areas that MRBO surveys. The most obvious difference in bird activity is that species such as Bobolink, Sedge Wren, and Song Sparrow are common in the Grand River Grasslands, but are rarely observed during the breeding season in areas south. Also, there are many fewer Bell's Vireos, Yellow-breasted Chats and Eastern Towhees in the Grand River Grasslands. In southern and central Missouri, nearly every draw with thick brush and a few smaller trees has a Bell's Vireo and/or a Yellow-breasted Chat as well as an Eastern Towhee singing or calling from the vegetation. In the Grand River Grasslands, Eastern Towhees are almost absent in the prairie draws and are replaced by Song Sparrows, which can be heard singing in the draws, or from any area with trees and occasionally in areas of very thick grasses.

Willow Flycatcher nest found at Robert Talbot CA

It's always a memorable morning when you observe one of the rarer target species such as Upland Sandpiper, Loggerhead Shrike, or Greater Prairie Chicken. This year I flushed up an Upland Sandpiper at Diamond Grove CA on the first morning of surveys and a coworker and I also had several on a private property in southern Missouri where a Loggerhead Shrike was also observed. In the Grand River Grasslands on a private property I saw a pair of Upland Sandpipers and on this same property I also observed two pairs of Loggerhead Shrikes in different sections of the property, the only ones I observed in 2017 while on transect. On the last day of surveys for the season, at Dunn Ranch, I had a long walk back to the car on a gravel road. It was a Saturday morning and nobody was on the road. Several Upland Sandpipers called and circled overhead. Then about ¼ of a mile before reaching my vehicle, I saw a Loggerhead Shrike on the fence line. As I walked slowly along the road I saw another shrike with the first one and it was a fledgling which I could tell by the buffy wing bars and the less prominent black stripe on the forehead. I continued to walk slowly and the shrikes flew away from me down the fence line but ahead of them were two more shrikes! As I continued, I could see there were two fledglings.

Several Greater Prairie Chickens were flushed during the season. Ethan Duke flushed up a female and a flock of fledglings in the bison unit at Dunn Ranch and I flushed up a lone chicken in a different area of the bison unit. And I did get to hear a Greater Prairie Chicken this year. At Taberville Prairie CA, twice I heard a brief booming call from the west on a transect that ran through an area being grazed by cattle. It was exciting to hear and reminded me of other boomings heard in other places.

A Greater Prairie-Chicken displaying on his booming ground. This species was once quite common in Missouri but now only about 125 individuals remain. *Photo: Donnie Nichols.*

Birds are Tools to Inspire!

by MRBO Educator Paige Witek

There was a moment this summer when I felt that I improved a young group's perception of birds and the outdoors. I was leading a birding hike with a group of summer day-campers on a mid-July morning with the simple intention to teach the kids about a few backyard birds that we would, hopefully, find. Of course, midway through the hike we had to hike up a semi-steep hill and in the mid-July heat, the kids did not want to hike much further. I made the executive decision to take a short break in the shade provided by a nearby tree. However, I was not going to waste this time letting the kids sit around and twiddle their thumbs. No, these kids were going to learn. I retrieved my iPad and speaker from my backpack and played a few backyard bird vocalizations. After playing the song of the Northern Cardinal, an actual cardinal flew out of the bushes and perched right in the tree we were all sitting under. Of course, I felt bad about disturbing the cardinal's day, but what an educational opportunity! At this point, I felt that I had gotten a few kids fascinated, but, as usual, many were unimpressed. Out of the group, one boy shouts out, "Play the Barn Owl call!" Oh, good choice. I remember playing this call for this particular camper earlier in the summer and he must have felt it was worth sharing. I find the Barn Owl vocalization on my iPad, play the recording, and look up to find many different reactions. Some faces showed fascination and others showed terror. For those of you unfamiliar with the Barn Owl vocalization, it emits the sound of a blood-curdling scream. I knew at this moment that I had everyone's attention. The response I received was exactly as I had hoped for. No matter what the exact reaction of the kid, that recording had sparked their curiosity. Invoking a sense of curiosity about the natural world is what I hope to do in every single one of my programs. Birds, one of the most diverse taxonomic groups in the world, are a great avenue toward this goal. In this case, it was the sounds birds can produce, but there are so many other aspects about birds that inspire.

Young people on a hike in Arrow Rock.

Northern Cardinal. *Photo: Tammy Simmons*

Birds are great inspirational tools for a variety of reasons. Number one, birds are all around us. You can observe birds anywhere, even in the deepest parts of the city, and learn from them. In addition, birds have an enormous amount of unique adaptations that fascinate others. Often these adaptations can be observed simply by looking at the bird, such as their beak shape, feet structure, camouflage, wing shape, and feather structure. Birds can also teach us about other sciences as well. Examining how birds fly can teach us about physics and aerodynamics. Closely observing nest structure can teach us about engineering. Not only are birds a great tool by themselves, but birds live in a variety of habitats and they are an important part of those ecosystems. This not only provides an opportunity to teach about interconnectedness, but also about the differences between natural communities. These aspects can then lead to a discussion about the need for conservation and how people can get involved. These are all reasons that birds are not only fascinating creatures, but also great tools for education.

Barn Owl, purveyor of scary vocalizations. This individual just finished rehabilitation at the University of Missouri Raptor Rehab program, which also uses birds as educational tools.

2nd graders learn about bird adaptions.

I encourage everyone to not only use bird facts, but their passion for birds to inspire others. Passion is the force that drives me to move forward with my goal to invoke curiosity, but my passion does not end with the workday. For example, I once took my dad out birding at a wildlife sanctuary near where I grew up. My dad occasionally watches birds in the backyard, but by no means is as obsessed as I am. We had visited this sanctuary many times, but this was the first time we went specifically to look for birds. Afterwards, my dad told me it was neat to see the bird diversity that had always been there, but he had never noticed before. It was like opening the door to a whole new world. This is exactly how I felt after I had first gone birding, and I bet many of you have felt this way as well. I ask readers to contribute to our mission by using their passion to open up this new world for someone else. Birds may just be the tool you need.

Show-Me State Deer at a Crossroads

Will it be a dead end?

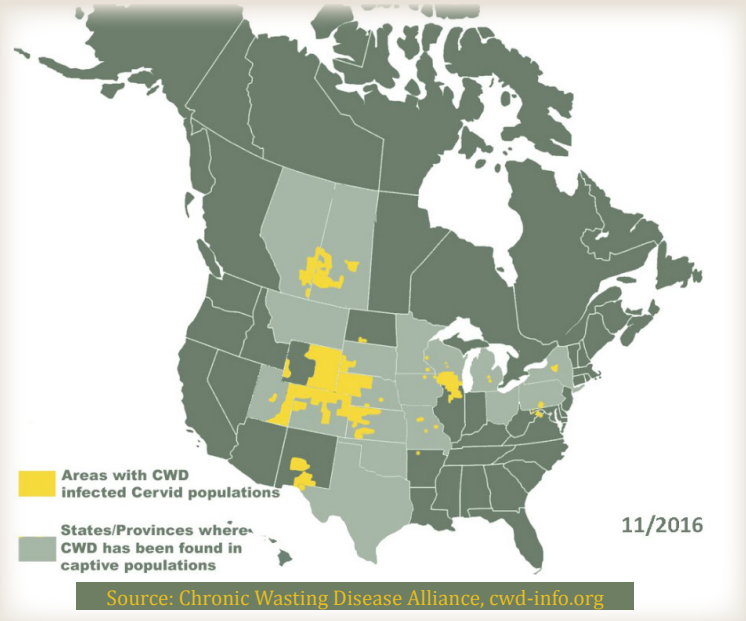
by Jim Low, Missouri Hunters for Fair Chase Board Member

Fifty years from now, Missourians will look back on 2017 as a watershed. Whether it will be another shining moment in our state's illustrious conservation history or a blot on that legacy remains to be seen.

The Show-Me State's deer herd, painstakingly restored over eight decades, stands at a crossroads. Down one fork lies the unchecked spread of chronic wasting disease (CWD) and the ruin of cherished hunting traditions, not to mention a $1 billion industry based on Missouri's thriving white-tailed deer herd. Going down this path is easy. Only inaction is necessary.

In the other direction is effective management of CWD. The Missouri Department of Conservation (MDC) knows how to do it. But this path is fraught with obstacles and hard work. The biggest obstacle is a captive-deer industry whose lawyers have effectively hamstrung MDC. The hard work involves citizens reaffirming their desire to keep conservation policy where it belongs – in the hands of their citizen-led Conservation Commission, not the legislature or the courtroom.

Led by the Conservation Federation, Missourians have twice proved themselves capable of meeting such challenges. In 1936, at the height of the Great Depression, they amended the state constitution to establish a nonpartisan, science-based Conservation Department. In 1976, they amended the constitution again, establishing a modest, permanent sales tax to provide stable funding for conservation programs. Today, they have a chance to amend the constitution again, this time to protect Missouri's deer herd. But that chance is fleeting. Now is the time to act.



Source: Chronic Wasting Disease Alliance, cwd-info.org

That is what Hunters for Fair Chase (HFFC) wants to do. Formed by ardent deer hunters, HFFC has secured the Missouri Secretary of State's approval of a ballot initiative that would re-enforce MDC's primary authority to regulate both captive and free-ranging deer and ban the transportation of live deer, elk and other big game between commercial game farms and high-fence shooting facilities. These measures would give MDC the tools it needs to fight CWD.

The practice of shipping deer hundreds of miles to kill them in fake hunts inside high fences would be bad enough if the only negative effect was to poison public opinion toward hunting. It would be bad enough if all it did was undermine the North American Model of Conservation, which vests ownership of wildlife in the states, not profiteers. But of much greater concern today is the fact that artificially concentrating deer in pens and transporting them willy-nilly is spreading CWD in Missouri's wild deer herd.

WHAT IS CWD?

Chronic Wasting Disease (CWD) is a prion-borne neurological disease that affects members of the cervid family (deer, elk, moose). The infection causes the degeneration of brain and other nervous system tissue, leading to aberrant behavior, emaciation and ultimately, death.

While an individual white-tailed deer might carry CWD asymptomatically for up to 18 months, the disease is eventually fatal in 100% of cases. There is currently no cure or vaccine available for CWD.

CWD is transmitted through direct deer-to-deer contact as well as through soil, food and water that have been contaminated by any bodily fluids of infected deer. The prion that causes CWD can remain infectious in soil particles for years.

CWD IN MISSOURI

CWD was first detected in Missouri in 2010 and 2011 at captive cervid breeding and hunting facilities. The disease was documented in free-ranging deer in 2012 in proximity to these facilities. Positive CWD cases have now been found in Adair, Cole, Franklin, Linn and Macon Counties.

It is not surprising that the captive-deer industry is determined to continue with business as usual. Shooters from all over the world happily pay up to six figures to shoot deer that are artificially bred and chemically enhanced to produce unnaturally huge antlers. But private profit is not sufficient reason to destroy the wild deer resource, which is what the unregulated transportation of deer eventually will do.

To put the management of deer and CWD back in MDC's hands, HFFC must gather roughly 213,000 signatures to place the question on the ballot in 2018. Getting people to sign petitions will be easy. An overwhelming majority of Missourians – hunters and nonhunters alike – place far higher value on the state's wild deer resource than they do on deer farms and shooting pens. The challenge is raising money and an army of petition circulators. After clearing all the procedural hurdles to place the issue on the ballot, HFFC must defend it against the multi-million-dollar misinformation campaign that the national captive-deer industry is sure to carry out.

This is a race against time. Every year, CWD crops up in new places in Missouri and surrounding states. If HFFC gets the transportation ban on the ballot in 2018 and voters approve it, MDC can get back to work containing CWD. If not, it will be 2020 before another ballot initiative can be attempted. By then, CWD could be too widespread to contain. Missouri found its first case of CWD seven years ago. In Wisconsin, it took only 15 years for CWD to reach an infection rate of 40 percent in adult bucks in their core CWD area. We cannot afford to dither while CWD spreads.

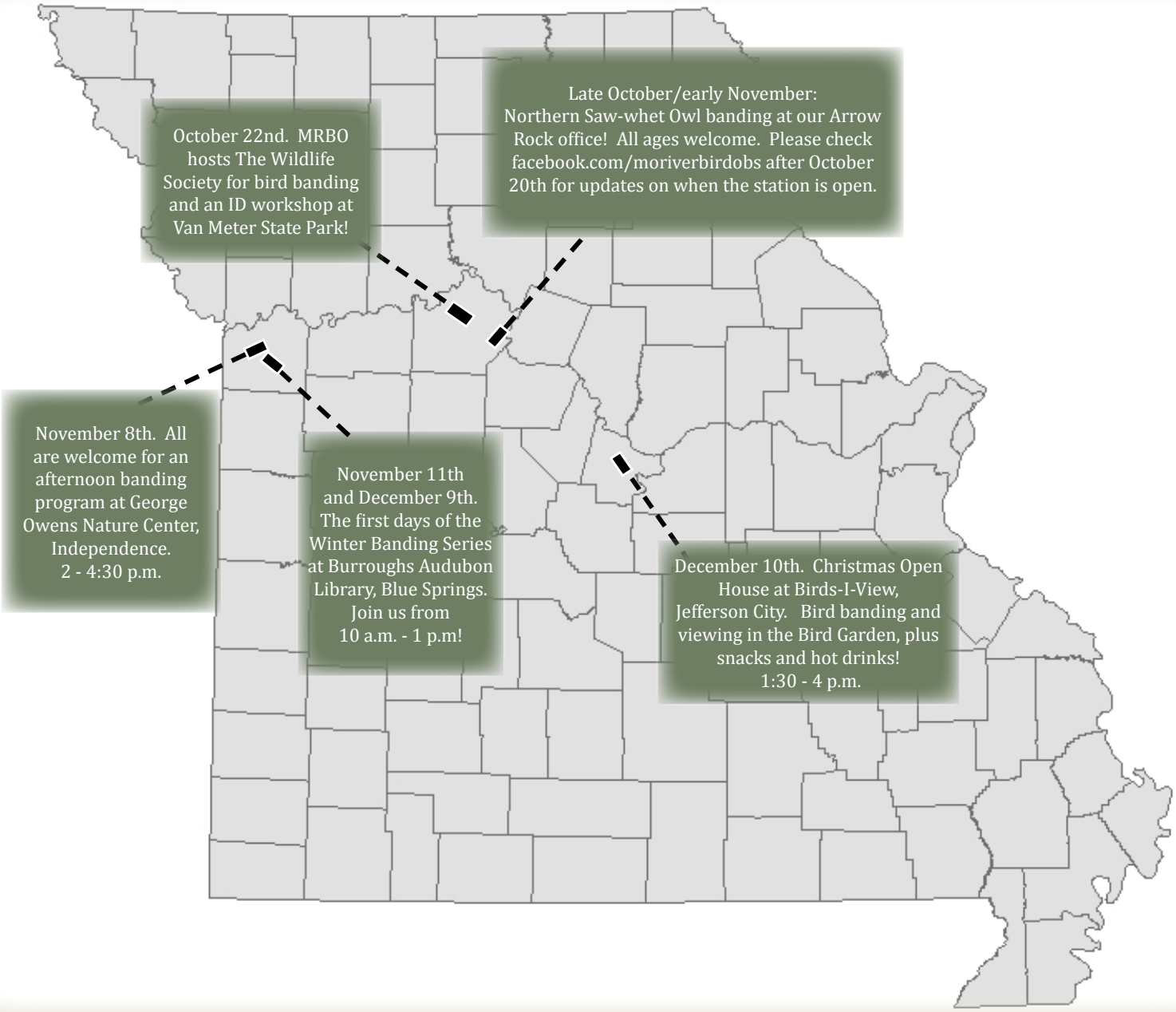
Missourians don't have a history of giving up when the future of their natural resources looks bleak. This is our moment in history, when we meet the challenge of our era. You can start by reading the ballot language and CWD background information at FairChaseMissouri.com. Then go to confedmo.org/missouri-hunters-for-fair-chase/ and sign up to be a volunteer petition circulator. This web page has everything you need to organize a local or regional petition drive in your area. It is time for Missouri hunters and others who love white-tailed deer to fish or cut bait.

MRBO welcomes Northern Bobwhite technicians!

This fall, MRBO is assisting the Missouri Department of Conservation with Northern Bobwhite Covey Counts. These are brief early morning surveys in which the observer arrives at a point 45 minutes before sunrise to record the number of quail coveys calling in an area. The Covey Counts follow protocol established by the National Bobwhite Conservation Initiative (bringbackbobwhites.org). MRBO staff are performing these Counts in the Dade and Howell County Quail Focus Areas (QFAs). These QFAs are a mixture of public and private land where habitat improvement for Bobwhite is on-going. The results of QFA Covey Counts are compared with Counts from areas where no quail habitat management is performed.

Vanessa Armentrout is a graduate of Texas A&M University at Corpus Christi. She has extensive experience with bird surveys in forest, marsh and grassland habitats. Vanessa spent most of 2017 as a Northern Bobwhite telemetry technician for the Missouri Department of Conservation in southwest Missouri. She is stationed in the Dade County QFA.
Curt Vandenberg is a graduate of the University of Nebraska at Lincoln. He has a wide variety of field experience with numerous taxa, including mammals and reptiles as well as birds. Curt's family farming background makes him uniquely suited to his station in the Howell County QFA.

Upcoming Events



New & Renewing Members

Dianne Van Dien, Raytown MO
Chris & Zoe Purdy, Marshall MO
Bill & Jan Mees, Columbia MO
Tom & Margaret Hall, Shawnee Mission KS
The Peck Family, North Bennington VT
Brad & Suzanne Wright, Columbia MO
Whitney & Debbie Kerr, Prairie Village KS
Tim Hickok - Flint Hills Falcons, Merriam KS
Dave Christie - Christie Development Associates, Stilwell KS
Kevin Christian - KD Christian Construction, Stilwell KS
Albert Darling, Shawnee Mission KS
Bradley W. & Linda L. Nicholson Foundation, Kansas City MO

Columbia Audubon Society

COMING SOON TO
YOUR BACKYARD!
White-crowned Sparrow

photo by Tom Tucker