BUR OAK LAND TRUST protects and conserves natural areas to enrich and engage current and future generations.

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President’s Column
by Ken Lowder

Johnson County Heritage Trust was established forty years ago. Who would have guessed that the name change to Bur Oak Land Trust would usher in a period of such rapid change and growth? But that is what has occurred.

With the benefit of hindsight, I know that events began to steamroll with the successful effort to attain national accreditation five years ago. More recently we completed a major effort to submit our application for reaccreditation. We have little doubt that the Trust will be accredited again for another five-year period.

The Board also just completed a five-year review of our strategic plan and has set some ambitious goals for the next five years, including such things as a doubling our paid staff, protecting 2,500 acres, and amassing a million-dollar fund for land acquisition – together with an additional million dollars for property stewardship. To give some perspective, we currently protect 810 acres and have about $750,000 to devote to both acquisition and stewardship.

But just as I am thinking that achieving these goals will be daunting, along comes a very credible opportunity not only to reach these goals, but also to surpass them.

I am delighted to announce that the Trust applied for and was awarded an AmeriCorps State planning grant. The Trust will receive approximately $26,000 and will match $13,000. These funds will provide financial support for a year to plan for the submission of an additional grant to bring in an AmeriCorps team for late 2019 and into 2020, which will consist of ten full-time members. Eight of them will be working on the land while one will be working to expand our environmental education efforts and another will be concentrating on marketing and volunteer recruitment.

All of this means that Bur Oak Land Trust will no longer be essentially local in its scope. Our future growth will allow the Trust to project our efforts regionally across the whole of eastern Iowa.

We surely have our work cut out for us, but the future looks promising at our forty year anniversary.

None of this would be possible without the support of all of you. Thank you so much for all that you do for the Trust and for your continued support into the future.

The power of AmeriCorps (2016 NCCC team)
Executive Director’s Report
by Tammy Wright

AFTER FORTY YEARS of conservation, we have so much to be thankful for. Bur Oak Land Trust welcomes a new Board President, Ken Lowder, along with three new members to the Board of Directors: Larry Weber, Mary Sue Bowers, and Don Hodson. With these additions and big goals in our Strategic Plan, we have guidance for the next 40 years and beyond. Our mission has been updated “To protect and conserve natural areas to enrich and engage current and future generations.” Another big change has been saying goodbye to Property Stewardship Specialist Seth Somerville and hello to Jason Taylor! Congratulations to Seth on your new position and thank you for your dedicated service. A big thank you also to Carter Johnson for his time serving as President of the Board. We thank board members Kendra Lawler, Jamie Newton, and Past Board of Director’s President Dick Schwab for their time and energy serving our organization. Dick served 2 full terms (12 years) on the Bur Oak Land Trust Board of Directors, and we especially thank him for sharing his time, talents, and vision with this organization!

Thank you to those who supported our Family Days and Music on the Prairie events. They were very successful and well attended. We are looking forward to the 12th annual, “Under a Cider Moon . . . a Celebration of Autumn” event coming soon Saturday, October 6.

We are excited to report that the endangered Rusty Patched Bumble bee has been discovered at more of Bur Oak Land Trust’s properties: Turkey Creek Nature Preserve, Big Grove Preserve, Hora Woods, Pappy Dickens Preserve, and Belgium Grove. This is all very exciting and we thank those who have assisted in identification and protection of this busy pollinator. You will read more in the following pages.

There are many ways you can assist Bur Oak Land Trust. Yes, writing checks is one way; however, there are many other things you can do: donating used ink cartridges; taking items to Stuff, Etc., and crediting them to Bur Oak Land Trust’s account; sharing this copy of Heritage environmental journal with a friend; shopping Amazon Smile (name the trust as your non-profit); and, of course, volunteering your time, talent, and treasure. Please know that we appreciate anything that you do. We can’t go it alone; WE NEED YOU!

Facing page: Common milkweed seed pod, photo by Carl Kurtz.

Property Steward’s Report
by Jason Taylor

IN JULY I WAS FORTUNATE to join Bur Oak Land Trust as the Property Stewardship Specialist. I follow in the footsteps of two exceptional land stewards, Jake Hart and, most recently, Seth Somerville. Both worked tirelessly to establish the position, and I plan to do my best to serve the organization.

As with any new position, I am quickly learning what I don’t know. Nothing excites me more than learning a new plant species, adding a new butterfly to a site’s species list, or, as is the case most recently, adding a new management technique to my restoration quiver. When I was first exposed to prescribed fire in 2003, I sought out every opportunity to join a burn crew, and I was fortunate to learn from the amazing trio of Sandy Rhodes, Judy Felder, and Mary Brown at Indiangrass Hills. Fire is, of course, just one management option, so when I had the opportunity to learn about prescribed grazing this summer, I dove in.

It seems that everyone loves goats, but as is the case with many things, it’s better to have friends with goats than to own them yourself. Bur Oak Land Trust board member Seth Zimmermann happens to own Iowa Weed Eaters, a mixed herd of Pygmy and Boer goats, and was very willing to introduce me to the world of ruminant management. Under Seth’s tutelage, our summer staff learned the basics of goat care: how to place electric fence; the logistics of moving a herd; and, most importantly, what to do when a goat decides to “not respect the fence.”

As with any management technique, prescribed grazing should only be utilized under the appropriate conditions, and for a very distinct reason. In this case, we were struggling to get Oriental bittersweet and honeysuckle at Muddy Creek Preserve under control. Areas that have years of bittersweet growth are extremely difficult to work in, as the species will quickly engulf a tree, establishing a thick colony of vines that starts at ground level and towers into the tree’s canopy. While it is possible to mechanically remove the vines, it is slow, exhausting work.

Luckily goats love to eat woody plants like honeysuckle and bittersweet. We have now placed the herd in four areas at Muddy Creek, and our method of goats first, then mechanical removal, has saved an extraordinary amount of clearing hours. They have also become local celebrities based on the number of visits by the public, and we’ve even had an interview with Iowa Public Radio.

As we move into fall, I look forward to meeting everyone in Bur Oak Land Trust’s community, and I truly thank all of you for your support.
Land Trust Habitat Restoration Vital to Endangered Pollinator Species

by Jason Taylor

When you picture an endangered species, you may think of large, well-documented animals in foreign locations: vaquita porpoises in the Gulf of California, mountain gorillas of Central Africa, or polar bears in the Arctic Circle. There are, however, almost 2,000 species in North America on the US Fish and Wildlife Endangered Species list. Many are unremarkable to the amateur’s eye; it’s hard to imagine the general public in Hawaii knowing if the fruit fly they see is one of the thirteen protected Drosophila species on the islands. Some are more conspicuous: with a wingspan of nine feet, the California condor is the largest land bird in North America. All, by definition, are rare so it is a special occurrence when you happen to see one in the wild. This made one Saturday morning in July very memorable for me, as I spotted an endangered species in my home prairie in the middle of Iowa City.

Johnson County is currently home to seven threatened or endangered species, each protected under the Endangered Species Act (ESA). There are three flowering plants (Eastern and Western prairie fringed orchids and prairie bush-clover), one clam (Higgins Eye), and two mammals (Indiana and northern long-eared bats). The most recent species added, as well as the first bumble bee ever listed on the ESA, is what I saw that July morning: the rusty patched bumble bee (RPBB).

The US Fish and Wildlife Service estimates that rusty patched bumble bee populations have declined by 87% over the last two decades, with the species likely to be present in only 0.1% of its historic range. The threats to this species are numerous: increasing pesticide use, diseases spread between bee species, climate change. An overall decrease in habitat is compounded by habitat fragmentation. In Iowa, much of the native land has been converted to monoculture farmland and urban development, with any remaining prairie left in small, isolated patches. Furthermore, non-native bee species such as the honey bee are potentially competing for the same resources as native pollinators. With so many threats imposed upon a species, it quickly becomes understandable how human activity can exterminate an entire species. In order to survive, the rusty patched has expanded its range, dropping down into central and southern Iowa.

In 2016, local naturalist Kristin Lee started looking for the species and snapped a photo of a rusty patched queen in the Turkey Creek Nature Preserve prairie, documenting the species for the first time on Bur Oak Land Trust property. That year three sightings were confirmed in Iowa by bumblebeewatch.org, a citizen science project established to document bee sightings in the U.S. In 2017, four more sightings were confirmed, including two by Kristin Lee. With the knowledge that the species was present in the area, I started looking more closely at the bees in the small prairie next to my house, which led to my first confirmed sighting in July.

RPBB prefer two common prairie species for their nectar source, bergamot and Joe Pye weed. Knowing that Bur Oak Land Trust prairies are full of those two flowers in early August, I decided to organize my first volunteer event with the organization, a rusty patched photo-survey at Pappy Dickens Preserve and Big Grove Preserve. On August 3rd, a group of 16 volunteers were quickly trained in field identification of RPBBs, and then set forth to comb the prairies at the two locations. Within one hour, Jim Durbin, nature photographer and creator of insectsofio-wa.org, and Kristin Lee (by now the most experienced RPBB spotter in Iowa) had captured photographs of the species at Pappy Dickens. The group had less luck at Big Grove, but volunteer Sheila Ongie was so inspired that she went back the next day and found one in the Big Grove prairie. All sightings were sent into bumblebeewatch.org and have been verified and recorded.

By the middle of August in 2018, twelve rusty patched bumble bee sightings have been documented in Iowa, with one-third of those sightings on Bur Oak Land Trust properties, including specimens found at Belgium Grove, Pappy Dickens, Hora Woods, Turkey Creek Nature Preserve, and Big Grove. While the rusty patched is currently the only endangered bee species in Iowa, the dramatic decline in pollinator populations within the last few years indicates that it probably won’t be the last. Providing habitat for all native pollinators, whether they are as popular as monarchs, as diminutive as carpenter bees, or as rare as the rusty patched, is critical to maintaining biodiversity in our increasingly urban environment. Providing micro-habitat helps: native plantings in yards are a great place to start. But in order to save a species we need landscape-level habitat restoration and preservation, which makes the mission of land trusts in Iowa critical to the future of many species. Jason Taylor has been involved in native land restoration in Johnson County since 2002. He is currently the Property Stewardship Specialist for Bur Oak Land Trust.

Clockwise from left: Rusty patched bumble bee found at Big Grove Preserve, Jim Durbin taking photos. Photos by Jason Taylor.
The Turkey Creek Management Committee (D. Schwab, J. Musser, D. Baker, C. Mutel and L. Schweer) had a busy and productive year in 2005.

We began the year by preparing an extensive property assessment and management plan. Mike Fallon prepared a 73-page Stewardship Management Plan with guidance and assistance from the Management Committee, especially Connie Mutel and Dick Baker. This report draws on our knowledge of the property, Mike’s fieldwork, and Tom Madsen’s detailed inventory of the property.

The plan points out that this one property has 19 major vegetative communities. These communities include 5 savanna remnants, a reconstructed prairie, 3 brome grass fields, 2 limestone bluff communities, a riparian community, 5 emergent tree stands, a successional oak-hickory to maple-basswood stand, and a mature oak-hickory-maple-basswood stand. This diversity is exciting but also challenging as each of these communities on this property has distinct stewardship and management needs.

Through the generosity of Barbara Buckley and the great work of Tom Gelman and Connie Mutel, we gained access to the eastern 2/3 of the property. Barbara Buckley, our neighbor to the east, has granted us an access easement for maintenance only across her property. Adam Galluzzo, our marvelous summer intern, and I installed a gate between the properties and created a set of maintenance trails. These trails give us better access to nearly all the features on the east side of the creek—this is wonderful.

What we discovered in the brome fields wasn’t quite so wonderful. Autumn-olive has completely overgrown brome fields #2 and #3. We spent much of the summer in invasive battle gear cutting the plants with a chain saw and treating the stumps with a 20% solution of Roundup. We got great assistance from Ray and Miles Newkirk and both access and assistance from our Hidden Acres neighbor Jim Cooper. There is more to do in 2006, but we made significant headway in 2005. We’d like to complete the process with a burn, but that plan may be based more on hope than reality since there isn’t much fuel.

Back across the creek, we had three workdays, each supported by strong corps of volunteers. We spent a workday opening up the entrance to the property. We removed old, unnecessary fencing, and cut and burned both dead trees and invasive plants. We discovered an antique John Deere manure spreader (in need of a bit of maintenance); this is available to anyone for a small (very small) contribution!

The second workday was spent doing a controlled burn of the south half of our prairie restoration. It was WINDY! We had 22 volunteers on hand and excellent leadership from Brad Freidhof and Dick Baker. The burn went well. We are pleased with the diversity of our prairie; it still needs work and attention but it continues to be a source of pride for our Trust.

On the third workday, we had hoped to burn the brome field to the south of the prairie on the west side of the creek. We had a great crew again but lacked sufficient fuel and wind to conduct an effective burn. We noted with pleasure that our efforts earlier in the year to kill invasive plants (autumn-olive and multiflora rose) had been successful.

Next year we will continue to focus on eradicating invasive plants—primarily in the brome fields. We will attempt a spring burn in the brome both to kill invasive plants and to stimulate any remnant prairie species. We will also continue our efforts to clean up the entrance. We encourage members to walk the property and marvel at the beauty of the prairie and the woodlands as they come back to life each spring and prove to us that our work is indeed worthwhile.

Dick Schwab is an entrepreneur, builder, and past Bur Oak Land Trust board president and treasurer. Dick is an active community volunteer with a focus on education, conservation, and assisting persons with barriers to independence. He is an avid woodworker with many of his projects donated to charity.

Above photo of Turkey Creek taken by Dana Keeton.

**WANTED**

Oriental Bittersweet Most (Un)Wanted

- Spreads rapidly: woody vines choke and topple trees
- Prevents light from getting to native plant understory
- No natural growth controls

Stop the spread!

Cut vines close to the ground, and apply herbicide to exposed cuts. Mow young sprouts frequently. Pull very young vines and their roots by hand.
Iowa Sets Goal for Monarch Conservation
by Steve Bradbury

The Iowa Monarch Conservation Consortium has set a goal of acres devoted to monarch butterfly habitat in the state by 2038. “The consortium has worked collaboratively with diverse stakeholders to develop a comprehensive plan to expand habitat on our agricultural land, urban areas, roadsides, and other public land. We appreciate the many partners that have been involved and are encouraged by the work already underway,” said Mike Naig, Iowa Secretary of Agriculture.

The updated Iowa Monarch Conservation Strategy seeks to establish approximately 480,000 to 830,000 acres of monarch habitat by 2038.

The strategy — developed by the consortium members — guides the implementation and documentation of a voluntary, statewide conservation effort based on the best available science. The consortium is a group of 40 organizations, including agricultural and conservation associations, agribusiness and utility companies; universities; and county, state, and federal agencies.

Iowa’s habitat goals are included in the Mid-America Monarch Conservation Strategy draft, released by the Midwest Association of Fish and Wildlife Agencies on March 12, 2018. The Mid-America strategy draft describes how the North Central states in the monarch’s northern breeding grounds will collectively establish 1.3 billion new milkweed stems over the next 20 years. Iowa’s strategy estimates 127 to 188 million new stems will be established within the state.

“Iowa falls entirely within the monarch’s northern breeding core. This means that every patch of milkweed habitat added in Iowa counts, and Iowa is perfectly situated to lead the way in conservation efforts for the monarch butterfly,” said Bruce Trautman, acting-director of the Iowa Department of Natural Resources. “The recovery cannot succeed without Iowa.”

Female monarchs lay eggs exclusively on milkweed plants, so national efforts focus on establishment of new milkweed stems for conservation goals. However, habitat plantings are expected to include a diverse array of nectar species to provide forage for adult monarchs throughout their life cycle and seasonal migrations.

“Recent research demonstrates that an ‘all hands on deck’ approach is necessary for successful monarch conservation. The dominance of agriculture within Iowa means that agricultural land must be a part of the solution,” said Joe Colletti, interim endowed dean of the College of Agriculture and Life Sciences at Iowa State University. “This means that consortium members are looking at all options on agricultural and non-agricultural lands for adding habitat, including augmenting existing conservation practices, establishing habitat patches in underutilized, grass-dominated areas, and adding habitat in urban locations such as parks, industrial and school properties.”

The monarch population has declined by more than 80 percent during the last 20 years in North America. Surveys of the 2017-2018 overwintering generation of monarchs indicate the numbers are still less than half of the size needed to ensure a sustainable population.

The U.S. Fish and Wildlife Service has until June of 2019 to determine whether the monarch should be listed under the Endangered Species Act. The consortium seeks to demonstrate how voluntary efforts can support species recovery and avoid the need to list the monarch.

Information on how to support monarch conservation is available at www.iowamonarchs.info.

The Iowa Monarch Conservation Consortium formed in 2015 in response to monarch population declines. More information about the consortium is available at www.iowamonarchs.info.

Steve Bradbury is a professor of toxicology in the Natural Resource Ecology and Management department at Iowa State University.

12th Annual “Under a Cider Moon…a Celebration of Autumn”

PLEASE JOIN US TO SUPPORT LOCAL CONSERVATION EFFORTS OCTOBER 6TH! Live and silent auction items, hors d’oeuvres, local wine and beer at the Celebration Barn on Saturday, October 6th. Doors open at 5:30.

Cider Moon is our biggest fundraiser and is supported by many local businesses and community members. Thank you to all who donated, as well as to those attending and bidding at our annual fundraising event—All funds raised helps us maintain our properties for the enjoyment of the community. Enjoy the evening and bid often!

Thank you for your support! Save the date—next year Cider Moon is October 26, 2019. To be an event sponsor or to contribute an item, contact info@buroaklandtrust.org.

Photo by Jacque Pohl
**Volunteer Spotlights: We Can’t Thank Our Volunteers Enough!**

**John Gardner:** John began volunteering for Bur Oak Land Trust more than ten years ago. He was motivated to volunteer because he wanted to learn more about the Trust and he wanted to support its local conservation mission. When not working as a property steward for Hora Woods, John spends his time pursuing his love for anything automotive or motorcycle related. He owns several motorcycles and an MGB used for touring and autocrossing. So far his best volunteer experience was years ago when he volunteered with others from all across Iowa as they worked at Turkey Creek Nature Preserve to remove invasive species. He saw a huge impact on the property in a very short amount of time.

If John could share anything with the public, it would be to encourage people to get out and volunteer on the properties. It’s rewarding and a lot of fun, no special skills are needed, and there’s a lot to learn. John finds this work to be very rewarding, knowing that these efforts will help sustain natural areas. To future volunteers, John says, “Spend an hour helping at one of our properties with a volunteer property steward and see the impact you can have!” We thank John Gardner for his dedicated service to Bur Oak Land Trust and the natural environments of Johnson County.

**Adriane Moline:** In 2015-2016, while working on earning her Iowa Master Naturalist Certification, Adriane learned about Bur Oak Land Trust from a peer and made the decision to volunteer as a property steward. She began work in 2016 but has recently increased her efforts to help manage and protect the property at Big Grove. She works alongside Ken Lowder and Don Bolin, and all are currently in the process of locating and removing invasive species, such as garlic mustard and oriental (asiatic) bittersweet, which have been disrupting the woodland at our Big Grove property. An avid outdoorswoman, she also spends her time hiking and running, in addition to supporting local foster children.

While she has dedicated many hours volunteering, her best experience has been seeing the actual impact of the work she and her fellow property stewards have done. They have made great strides regarding invasive species removal and conserving native plant species. She would like everyone to be aware that Big Grove is open to the public, and the property steward’s work ensures that it will continue to be preserved for the public to enjoy. She personally has learned a great deal during her time with Bur Oak Land Trust, especially in regard to invasive species and conservation methods.

To people interested in volunteering, Adriane would say that Bur Oak manages lots of different properties and projects, so it is easy for volunteers to find a good property/project fit for your goals, skills, and abilities. Additionally, it is usually easy to see the immediate impact of the volunteer work.

**Wayne Petersen:** Wayne began volunteering in 2005. While on the Bur Oak Land Trust board at the time when our Belgum Grove property was acquired, Wayne decided to make a further impact on Johnson County and agreed to be Belgum’s property steward. In recent years Wayne has worked diligently to remove invasive species such as oriental (asiatic) bittersweet and garlic mustard. Additionally, he and his fellow property steward, Dan Black, have worked on major capital land projects for the property, including the installation of a pond and the planting of red cedars around Belgum Grove’s pine trees in order to improve the local ecosystem and provide more winter habitat for local fauna. They have also worked to reintroduce prairie grass and other native plant species to create what Wayne calls a “snapshot of Iowa’s historical landscape.” These land reclamation and improvement projects have greatly helped stabilize and improve Belgum Grove’s ecosystem, making it a great spot for the public to visit.

An avid outdoorsman, Wayne enjoys hiking and fishing and often indulges in Belgum Grove’s pond to fish. He has enjoyed working to improve a local environment, and has often said that volunteering as a property steward has been fun, interesting, and rewarding work. To those who are interested in volunteering, Wayne says:

“It is rewarding work, a great way to spend time outdoors. It is easy to find projects with us that fit people’s skills, goals, and abilities. Spending time in nature while making a difference has been a great experience.”

Interested in volunteering for Bur Oak Land Trust? We have volunteer opportunities as property stewards, as well as workday events and office work. Email Executive Director Tammy Wright at info@buroaklandtrust.org to find out how you can help with Bur Oak Land Trust’s conservation mission!
Bur Oak Land Trust
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Protect, preserve, restore . . . it’s all about the trust.

Please share this copy of Heritate with your friends and family!