



OCTOBER 2017

# Heritage

Bur Oak Land Trust  
Environmental Journal



THE BUR OAK LAND TRUST protects and conserves the natural areas of Johnson and surrounding counties for future generations.

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## President's Column by Carter Johnson

ALL GOOD THINGS come to an end. That cliché is generally held to be true for good reason. From our fragile human perspective, we know that those good things are to be savored throughout our lives. Setting aside metaphysical and theological arguments that are far above my pay grade, our death is the end to those good things. What a bummer of a column, I know, but

please indulge me as I point out another perspective. Some of those good things we value are ideas. When enough people hold a cherished idea in common, it has the potential to slip the bonds of our shared mortality.

In March of 1978, our organization was founded as the Johnson County Heritage Trust. Sometime prior to that auspicious date, this idea took root: we could protect natural areas from development while conserving their native features, and we could do that in perpetuity. That idea recruited enough people and energy to begin the conservation journey we are still on to this day.

In the intervening years, guided by that idea, we have grown as an organization. Our membership has grown, and your contributions to conservation have had lasting impacts. We now hold more than a dozen conservation easements that protect privately held land from development. We also own ten—soon to be eleven—properties, which allows us to protect them from development and actively manage them to conserve their natural features and biodiversity. We have gone from being an all-volunteer organization to being one with committed staff members. More recently, our name has changed, but our mission, like our founding idea, remains.

You may have noted from the date of our establishment that we have a big anniversary coming up. Forty years of any endeavor is a huge accomplishment. We should all be proud of where we are and thankful for those who came before us. Moreover, anniversaries are a time to celebrate ongoing efforts. Grounded by our current activities, our board of directors and staff continually work toward the goal of maintaining our mission in perpetuity.

I'm not sure how long perpetuity is, and I'm pretty sure I won't live to find out. But I am confident that the Bur Oak Land Trust and the idea on which it was founded will persist into that mysterious future. My optimism is based on you and your ongoing contributions to our organization and its mission. Thank you.

To me, the beauty of our shared idea of conservation and protection is the positive feedback loop that it activates. If you are motivated to participate in our mission because of your connection to the land, then actually getting out to experience the natural world is all it takes to energize you to engage even more. I invite you to share your on-the-land experiences with your family and friends. Sharing a good idea is the best way to ensure that it lasts.



*Above left: Gray-headed coneflowers, photo by Jim Kessler.  
Front cover: Barred owl, photo by Curt Steyers. Back cover:  
Ohio spiderwort, photo by Jim Kessler.*



## Executive Director's Report

by Tammy Wright

GREETINGS! In the last issue, I promised to give you more information about our five energetic new board members. I could write pages about their accomplishments, but here's the space-saving version.

Sandy Steil's childhood in the bosomy terrain of Dubuque convinced her that all children—and adults—should have a natural wonderland close to home. With more than a decade of experience working for civil engineering and landscape firms, Sandy will be able to utilize her knowledge of land development to expand Bur Oak's initiative to protect natural areas.

A native of Toledo, Iowa, Sarah Else has served on more than thirty nonprofit boards in Iowa, Illinois, New Mexico, Texas, and Wisconsin. The cofounder of Clearly Compliant, she has been director of the Iowa City VA Medical Research Foundation, director of energy efficiency and renewable energy with Alliant Energy, director of the Cedar Rapids Downtown District, and executive director of the Children's Advocacy Center of Bastrop.

After spending his childhood on a farm in northern Iowa, Jamie Newton became an educator both in a museum setting and in experience-based independent schools in Colorado and now back in his home state of Iowa. Jamie has often focused on environmental education to help students of all ages better understand how they affect the land and how the land affects them.

Neil Joss has lived in the Iowa City area for eighteen years; he is currently the investment portfolio manager for the Trust Department at MidWestOne Bank. Neil enjoys spending time with friends and family, working out, and going for runs in Hickory Hill Park. He feels—and I agree—that Iowa City is a wonderful place that offers great opportunities to help the community.

Growing up in a small town in Iowa, Chris Jensen spent much of his youth exploring the creeks, woods, and wild corners near his home and developed an appreciation of the value of spending time in a natural setting. Involved in stewardship activities at Big Grove Preserve and Shimek Ravine, he enjoys spending time outdoors hiking, gardening, and working to enhance the natural communities on the land his family owns.

I am happy to announce that Zac Wedemeyer received our 2017 Conservation Award for founding Taproot, a nonprofit organization that strives to create a vibrant community of families and individuals by offering a wide variety of sustainability and environmental educational experiences. Zac and his charges are often out on Bur Oak properties learning from and enjoying our natural places.

I can hardly believe that we just hosted our eleventh annual Under a Cider Moon . . . A Celebration of Autumn. Mark your calendars now for October 6, 2018. Happy holidays, and many thanks for all your support!



## Property Steward's Report

by Seth Somerville

FOR THE LAST three years, I have had the pleasure of working closely with a group of dedicated volunteer property stewards to collaboratively improve this public land. We

work on big and small projects: removing invasives, planting trees, family day events, Eagle Scout projects, and many other activities. There is something about working outdoors alongside other conservation-minded people that leaves me refreshed.

In late fall or early spring, I like to send the volunteers out in waves. I send a group of about fifteen people out with loppers to trim shrubs down to a single stalk. Then I release the volunteers with folding saws to cut them to ground level. The amount of acreage we have cleared at Pappy Dickens Preserve using this approach is impressive. Our goal is to let the sun shine in, build up burn fuel on the forest floor, then burn it all!

Here are just some of the groups that have donated their time to help us steward the land: Surly Brewing, Big Grove Brewery, Integrated DNA Technologies, the University of Iowa environmental sciences program, EarthView Environmental, various fraternities and sororities, the Rare Books and Manuscripts Section of the Association of College and Research Libraries, Boy Scouts, Eagle Scouts, Iowa Master Naturalist students, Green Iowa, AmeriCorps, UI Marine Corps Officer Candidates group, City High School, West Branch High School, the UI men's basketball team, and United Natural Foods, Inc.

The best part about working with a variety of volunteers is that I am constantly learning from each one. Charlotte Fairlie is our volunteer property steward at Strub Prairie. When I met her at the prairie to cut wild parsnip from the perimeter, she got right to work with nothing but a scythe. That's right, a scythe! Meanwhile, I geared up with helmet, chaps, harness, gloves, and safety glasses and topped the Stihl off with a gas-oil mix while Charlotte was already breezing through the right-of-way while leaving desirables behind. By the time we were done, it was obvious that I was using the wrong tool for the job. Charlotte not only completed 75 percent of the job, she did it without \$2,000 worth of gear and without burning fossil fuels. What an eye-opening experience! I now have a scythe from Botan at One Scythe Revolution. I believe there may be a place for a scythe in the tool kit for volunteer work days in the future.

Sign up online for future work days and come join us!

## Iowa Climate Statement 2017: It's Not Just the Heat, It's the Humidity!

*Since 2011, researchers and educators at nearly every Iowa college and university have produced an annual statement on the impact of climate change on Iowans. The seventh annual statement, released August 9, was signed by 190 science faculty and researchers from 39 Iowa colleges and universities. The statement focuses on the close ties between atmospheric temperatures and moisture. Warmer air holds more moisture; the numerous repercussions of this link range from increasing molds to a rising heat index and intensifying heatstroke and other health problems. Read on to find out more about this little-recognized but significant relationship.*

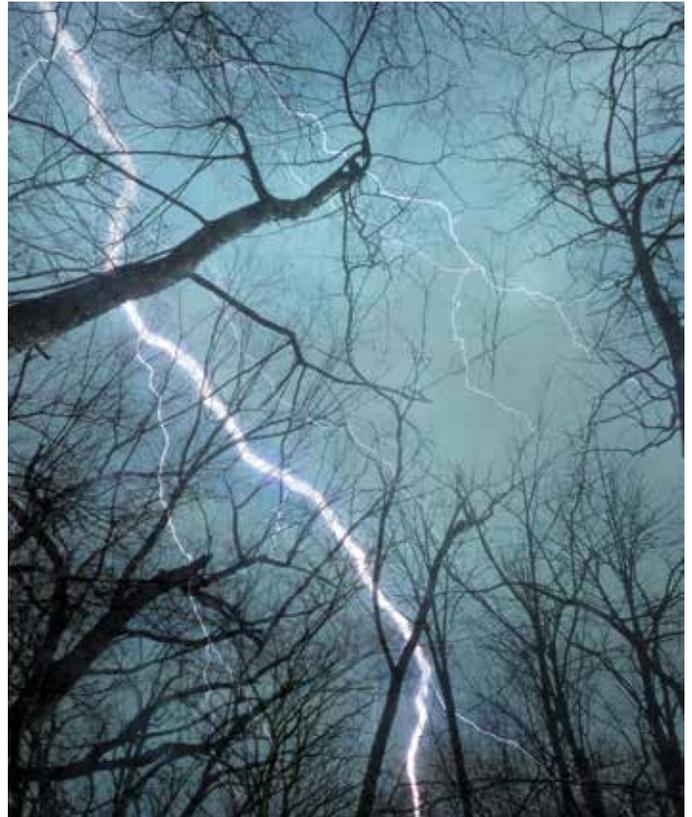
UNCOMFORTABLE HUMIDITY, waterlogged spring soils, extreme rain events, mold, and mosquitoes are all expected to become more prevalent in Iowa due to a rarely discussed impact of climate change: increased humidity. Discussions about climate change in Iowa usually focus on changes in temperature and rainfall. However, the rise in absolute humidity—moisture in the air—is likely to become the most pervasive factor in climate change across the state. Absolute humidity, which is typically measured by dew point temperature, increased in Dubuque during springtime by 23 percent from 1970 to 2017. Increases in humidity have been measured across the Midwest and in Iowa across all seasons and at all long-term monitoring stations.

Humidity couples with temperature to create the heat index that is a measure of how hot it feels. For example, on August 10 last year, the temperature of 92 degrees and dew point of 77 degrees combined to feel like 106 degrees. High levels of humidity create hazardous conditions for Iowa workers and sensitive populations through the danger of heat exhaustion and heatstroke. Allergic rhinitis and asthma are worsened by heightened exposures to mold and dust mite allergens in humid environments. There also is evidence for increased aggression and societal violence associated with hot, humid weather.

For Iowa agriculture, increased warm-season humidity leads to increased rainfall, extreme rain events, waterlogged soils during planting season, soil erosion, and runoff of chemicals to waterways. Rising humidity also leads to longer dew periods and higher moisture conditions that elevate costs of drying grain and increase populations of many pests and pathogens harmful to both growing plants and stored grain. Increased nighttime temperatures coupled with humidity cause stress to crops, livestock, and pets and, in extreme cases, heat stress can cause loss of life.

Humidity also affects materials, leading to more than just out-of-tune pianos and frizzy hair: increased moisture in the air accelerates metal corrosion, rot and warping of wood, and peeling of paint. Costs of air-conditioning to protect materials and improve human comfort levels likewise increase with rising humidity.

Iowans should recognize that the damaging effects of increased humidity rival those of higher temperatures and heavy precipitation and create unique needs for adapting our infrastructure. We must all do more to mitigate the effects of climate change by curtailing emissions of heat-trapping gases, improving energy efficiency, and increasing the use of clean and renewable energy.



Photos by Ed Lorson

## Big Grove Addition Update by Ken Lowder

IN DECEMBER 2015, the Bur Oak Land Trust acquired the forty-acre wooded Big Grove Addition that is adjacent to the trust's forty-acre Big Grove Preserve. Since then, as property stewards, Don Bolin and I have been very busy attempting to restore this land to its original state.

The initial challenge facing us was the removal of invasive plants. This was and is a daunting project! Multiflora rose was so thick in places that walking through the new property was virtually impossible. However, as this update is being written, most multiflora rose has been eliminated, and most of the other woody invasives are gone as well. We removed enormous honeysuckle shrubs with chain saws and treated the stumps to prevent regrowth. Autumn olive and barberry plants weren't particularly numerous, but those that were present are now gone. Lots of garlic mustard remains, but we have had two successful campaigns against this nasty plant. We look forward to the day when we have it under control.

We have taken down almost all the wire fencing and removed it from the property. We did leave a few metal posts behind to mark what was once the boundary between Big Grove Addition and the original Big Grove Preserve. The only remaining fencing surrounds the pasture where cattle are permitted to continue to graze. It was a major effort to take down and haul away an old tree stand used for hunting deer that had been on the property for many years.

We've cut, blown off, and raked fire breaks around the entire property. Woodland burns have been carried out in two sections, and we plan more burns this fall.



Mark Vitosh, DNR district forester, helped us identify an area with high potential for white oak regeneration. Several trees in this area have been marked for removal late this fall, which will open the forest floor to more sunlight. We will remove several invasive white mulberry trees as well.

A nice surprise occurred during our tree-marking effort when we discovered a stand of an unusual grass. Initially, we thought it was a very nasty invasive called Japanese stiltgrass. Before removing it, we sent photographs to a DNR plant specialist in Des Moines. To our delight, the plant was identified as long-awned wood grass. This uncommon grass is found only in high-quality woodlands. High fives all around!

We have created a scenic overlook on a limestone bluff high above the seasonal creek that flows north-south through the middle of the addition. A footpath allows access to this overlook and a picnic table provides an opportunity to enjoy the view. Nice signage marks the new trail to the overlook.

Our last big project is the pasture, a five-acre fenced area in the southeast corner of the addition. Given the amount of work needed in the wooded parts of the addition, we had not planned to deal with the pasture for several years. Thus, we allowed its former owner to graze cattle there. But we are thrilled to report that we have already begun to work on the pasture. A recent survey identified several plants growing there that are associated with oak savanna habitat, such as American hazelnut, wild bergamot, and upland boneset. Although no savanna oaks are currently growing in the pasture itself, there are at least two on its perimeter. Our research is not yet complete, but we feel there is a possibility that the pasture might eventually be restored to an oak savanna.

The vista looking south from a high point in the pasture eight hundred feet above sea level is breathtakingly beautiful. You see only forest—no houses, no roads, no wires. And it's quiet. If our dreams come true, this place will be very special indeed.

*Don Bolin wrestles with multiflora rose, vista from the pasture.  
Photos by Ken Lowder.*

## Bur Oak Land Trust Welcomes the Kessler Prairie by Holly Carver



PEACE. THAT'S WHAT I took away from the day I spent with Kathy and Jim Kessler on their land south of Grinnell. They've transformed the thirty acres of pasture, timber, and farmland that they bought in 1997 into a thriving expanse of prairie, wetland, and bur oak savanna—one of our planet's most endangered ecosystems—plus ten acres of bur oak and hickory woodland. This fall, they will take a step further toward permanent protection by donating these acres to the Bur Oak Land Trust.

After growing up as Iowa farm kids, Jim and Kathy became aware of conservation issues in the early 1970s. Jim's catalyst for becoming an active conservationist was a dramatic one when the first pristine native prairie he'd ever seen was plowed under. Kathy, a long-time avid birdwatcher, early on made the connection between habitat preservation and species diversity. His love of big landscapes and her love of the avian inhabitants of these landscapes combined to make them ideal partners in reconciliation ecology.

Jim's years teaching high school biology in Newton included managing a prairie and planting a prairie butterfly garden as a school project, and he continues to teach environmental science at Iowa Valley Community College–Grinnell. He took a prairie restoration class from Paul Christiansen at Lakeside Lab in 1997, and he considers Paul as well as Daryl Smith, Tom Rosburg, and Carl Kurtz to be his mentors. This knowledge, extensive reading, endless patience, and hours of hard work burning, mowing, hand-weeding, and judiciously applying herbicides resulted in the vibrant yet peaceful landscape I enjoyed. Oldest son Paul has also devoted countless hours to finding and collecting local native seed in Poweshiek and adjacent counties.

It wasn't as easy as it looks now—Jim and Kathy talk about the Year of the Skunk, for example. They battled reed canarygrass, multiflora rose, wild parsnip, musk thistle, wild carrot, mulberry, hemp, and sour dock, but after twenty years the invasives are mostly a memory. The hard rains of the past decade caused their creek to cut deeper, so they've added gravel riffles to slow down the flow. They've planted swamp white oaks to counteract wilt among their other oaks. They burn on a three- to four-year rotating schedule.

After hand-seeding everything, they enjoy blueflag iris in the restored wetland seep, rattlesnake master, foxglove beardtongue, yarrow, meadow sweet, butterfly weed, Culver's root, ox-eye, spreading dogbane, swamp and common milkweed, and what look like acres of Ohio spiderwort. The couple has identified at least 275 native species, including the early buttercup and marsh marigold that Paul and Jim interseeded ten years ago.

Jim and Kathy's house, with its big windows looking onto the bird feeders and its even bigger windows looking onto an oak savanna, rises naturally out of the surrounding bluegrass pasture that has been transformed into tallgrass prairie. Outside the front door on this early summer day, well-stocked bird feeders were mobbed by countless well-fed birds. Their acres host five species of woodpecker, including large numbers of red-headed woodpeckers; one dead bur oak attracts numerous eagles, ospreys, and hawks. In old fence rows, Kathy and Jim are trying to recreate all the layers that would be found in an original woodland, including a layer of shrubs for birds that prefer to nest in denser cover. They've seen badgers, red foxes, mink, bobcats, deer, coyotes, wild turkeys, snapping turtles, and the northern green snake, a species of concern in Iowa. Most of the major types of habitat found in Poweshiek County are present on the property.

After seeing how lack of management led to the deterioration of neighboring woodlands and prairies, Jim and Kathy decided to donate their acres to the Bur Oak Land Trust. Called the Kessler Prairie, this will be the trust's eleventh property. Donation will bring the Kesslers permanent and more consistent management. Their hard work has been rewarded not just by the diverse landscapes they have restored but by a strong sense of shared, life-giving gratitude that, in their words, "buoys them up in so many ways emotionally and spiritually."



*Jim and Kathy Kessler, photo by Holly Carver. The Kesslers' granddaughter among spotted Joe Pye weed with wild quinine and mountain mint, photo by Jim Kessler.*

## Muddy Creek Preserve: Bur Oak Land Trust's Tenth Property by Genevieve Arlie



“LET’S SEE HOW good your hand is,” said Kurt Hamann, reaching for my notebook at the start of our conversation about the forty acres of former pastureland near North Liberty that he and Barbara Beaumont donated this

summer to the Bur Oak Land Trust. He inspected the page with a nod. “Very legible,” he decided. It was a breezy, temperate, late-May day in Iowa City when we talked outside Deluxe Cakes and Pastries.

These same forty acres already made *Heritage* headlines in May 2014 when the couple obtained a conservation easement to protect the land in perpetuity from development, reinforcing the message of a six-foot chain-link fence they’d erected on their south property line a decade prior when a Coralville subdivision went up. It’s pretty rough land, said Barbara, who originally bought the property in 1983 along with another fifty acres on which she and Kurt now live in a house built from wood salvaged from the barn that used to stand there. While unsuited to farming, the land could still be bulldozed into submission for building purposes, as seven adjacent acres recently were, at the loss of dozens of centuries-old oaks and hickories, both species native to and in decline in eastern Iowa.

Initially, Barbara did not think the land worth preserving. Compared to the spectacular wildflowers in the deer exclosures at Cihaha Fen near Solon that the Johnson County Conservation Board had been trying to acquire for some years, she assumed their woods were nothing special. But when DNR district forester Mark Vitosh, with whom she’d sat on the board of the Johnson County Heritage Trust (now the Bur Oak Land Trust), came to survey the property, he assured her that the land was indeed valuable habitat, and he developed a plan to conserve it.

Unfortunately, even an easement couldn’t shield the land from a sewer line that North Liberty recently ran underground from the new high school to the nearest treatment plant. A neighbor lobbied for a different route, but all the city could promise was to work around the root systems of the trees lining Muddy Creek, where one or two endangered ornate box turtles can still be seen every year, and afterward to reseed the six-acre swath with tallgrass prairie.

As these efforts demonstrate, an overarching environmentalism lies at the heart of Barbara and Kurt’s land gift. Given the current political climate and its attendant environmental ramifications, they want this acreage to be safe from the tides of politics, so that it can’t be sold off and developed at an even less ecofriendly future moment. Donating to a local trust also ensures local management, especially for smaller acreages, which national conservation organizations are often forced to give up due to difficult maintenance,

like the twenty-one acres of Williams Prairie whose ownership the Nature Conservancy transferred to the Johnson County Conservation Board in the spring of 2014.

The couple likewise wanted to spare their land the negligence that can befall privately owned plots open for public use. Trash from picnics and parties often marred the sight of one such park near where they were living in Rochester, Minnesota, in the late 1990s and early aughts. Under Bur Oak Land Trust protection, however, their land is guaranteed the stewardship it deserves, particularly when it comes to invasive species, from which the pure preservation prizes of Hickory Hill and Ryerson’s Woods, both still City of Iowa City properties, would similarly benefit.

The sky clouded over during the course of our hour-long conversation, something we noticed only as the breeze picked up, so we packed it in out of the late spring chill: me to my two-foot by three-foot pollinator garden in Goosetown, Barbara and Kurt to their fifty woodland acres now neighbor to the Bur Oak Land Trust’s tenth acquisition, Muddy Creek Preserve.



*Clockwise from top: Muddy Creek, photo by Barbara Beaumont. Young section of woodland with a grassy understory, feeder streams in the valley of the southern ridge, photos by Seth Somerville.*

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Protect, preserve, restore . . . it's all about the trust.

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