



‘Bee’autiful: Pollinator Survey **Conducted at Recreation Area**

The sunflowers are blooming in tall clusters as two women weave through the thick vegetation along the bank of the lake at Pioneer Trails Recreation Area on a late summer afternoon. Dressed in long pants and wide brimmed hats, the pair gently swish long handled nets through the air in pursuit of their buzzing, golden quarry.

Patricia Slatin, a volunteer with the Nebraska Bumble Bee Atlas—a community science effort run by the Xerces Society for Invertebrate Conservation and Nebraska Game and Parks Commission—was on-site

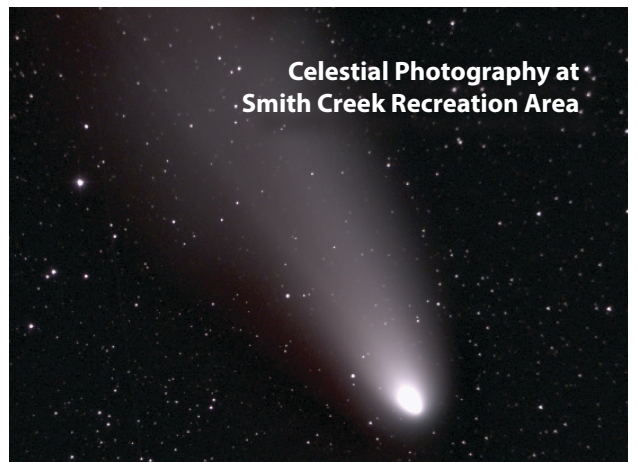
for the pollinator survey at Pioneer Trails. She was pleased with the quantity of bees and diversity of species the site offered, as she and fellow volunteer Diane Underwood were able to document five types of bees during their visit: Black and Gold Bumble Bee (*Bombus auricomus*), Southern Plains Bumble Bee (*Bombus fraternus*), Brown-belted Bumble Bee (*Bombus griseocollis*), Common Eastern Bumble Bee (*Bombus impatiens*), and American Bumble Bee (*Bombus pensylvanicus*).

...Continued page 3

In This Issue...

Pollinator Survey	1
Private Dams Program.....	2
Rec Area Updates.....	4
Reverse Osmosis Programs.....	5
Board of Directors Tour.....	6
Recognitions.....	7
New Forestry Collaboration.....	8
Education Corner.....	8

Celestial Photography at Smith Creek Recreation Area





Resources for Private Dam Owners

Dams provide many benefits across Nebraska, from water for irrigation and livestock, to flood control, to countless recreation opportunities. Landowners can see immediate and long-term returns on the investment of installing and maintaining dams of all sizes. The Upper Big Blue NRD's Private Dams Program provides technical assistance and financial incentives to landowners that want to install a new structure or rebuild existing structures that are damaged. The program offers 75 percent of the project costs up to a maximum cost-share of \$75,000. Eligible costs include construction and design services provided by a private engineering firm.

The Association of State Dam Safety Officials recently held a one-day Nebraska Dam Owner Workshop in conjunction with the Department of Natural Resources. The workshop was designed to provide practical information on topics of importance to dam owners and those with an interest in dams. Attendees had the opportunity to meet with technical experts, Nebraska dam safety officials, and other dam owners. The workshop provided information on state dam safety laws and regulations, dealing with extreme storm events, common reasons why dams fail, operation and maintenance of dams, safety inspections and emergency

action plans, and funding for dam repairs. They also offered advice on when to hire a professional engineer and how to find the right assistance.

The workshop included a session on dam inspections, including scheduling, procedures, and participation. The Nebraska Department of Natural Resources (<https://dnr.nebraska.gov/dam-safety>) is a good source for information on these topics and is available to provide technical assistance with dam inspections, maintenance, or rehabilitation activities. Their useful guide *Inspection and Maintenance of Your Earthen Dam* is available on our website as well as DNR's website. According to this manual, at least one dam fails almost every year in Nebraska, putting lives at risk and causing damage to downstream property. Even a small dam can release large quantities of water and sediment capable of causing catastrophic damage for miles

downstream, destroying crops, roads, highways, bridges, buildings, and homes. Nebraska statutes specifically state that the owner of a dam shall be liable for all damages arising from the failure of their dam. Proper maintenance reduces the potential liability associated with your dam. Annual maintenance and scheduled inspections are vital in keeping dams safe.

Common dam maintenance issues at NRD dams include inadequate vegetation cover, unwanted trees, rodent holes, and/or erosion on the crest, upstream face, or downstream face of the dam. NRD staff regularly inspects and provides maintenance activities on dams across the district. There are over 40,000 dams in the state of Nebraska. The Department





of Natural Resources regulates nearly 3,000 inventory size dams in the state. Inventory size dams are 25 feet or more in height or have

significant hazard dams (Dorchester 1A, Dorchester 2A, Larson, Oxbow Trail, Recharge, and Smith Creek).

a maximum storage capacity of 50 acre-feet or more. The Upper Big Blue NRD has operation and maintenance responsibilities for 42 dams across nine counties. This includes one high hazard dam (Hastings

Hazard classification of dams does not reflect on the condition of the structure, rather the potential impact a dam failure (breach) or mis-operation (unscheduled release) could have on upstream and/or downstream areas. High hazard dams are those where failure or mis-operation will probably cause loss of human life. Nebraska has a total of 160 high hazard dams.

For more information on dam maintenance, visit <https://dnr.nebraska.gov/dam-safety/common-problems-dams>. ◆◆◆

Photos: a private dam in Milligan; staff inspect dams for damage.

Pollinator Survey (continued)

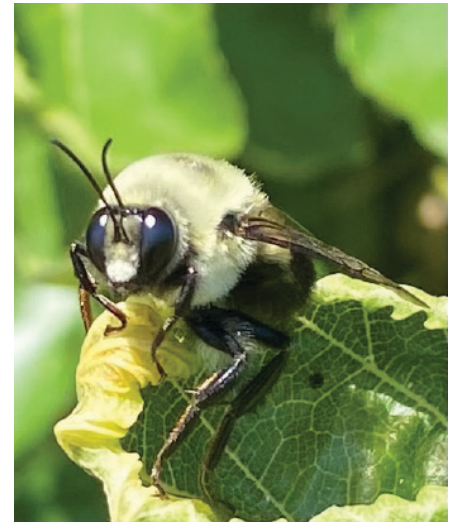
...“Both *fraternus* and *pensylvanicus* are species of conservation concern, so it was especially nice to find them at Pioneer Trails,” said Slatin, who has been documenting bees in central Nebraska since 2019.

Bee and habitat surveys, such as the one conducted at Pioneer Trails, are not harmful to the landscape or the animals. “The researchers walk around the prairie photographing plants in bloom, collecting bumble bees with a net, putting them into vials and chilling them in a portable cooler for a short time, photographing them, and then releasing them close to the place where they were caught,” explained Slatin. “The bees are not harmed by the photography process, and no bees are removed from the survey site.”

According to the Xerces Society, pollinators are essential to the environment. The ecological service they provide is necessary for the reproduction of over 85 percent of the world’s flowering plants, including more than two-thirds of the world’s crop species. The United States alone grows more than 100 crops that either need or benefit from pollinators, and the economic value of these native pollinators is estimated at \$3 billion per year in the U.S. Beyond agriculture, pollinators are keystone species in most terrestrial ecosystems. Fruits and seeds derived from

insect pollination are a major part of the diet of approximately 25 percent of all birds, and of mammals ranging from red-backed voles to grizzly bears.

Providing habitat for pollinators at NRD recreation areas is one way to safeguard these important creatures on the landscape. Documenting these species through surveys is a way to check for the health of the habitat and determine if conservation activities are effective. To learn more about the results of the recent survey at Pioneer Trails, visit bumblebeewatch.org and click on Bumble Bee Maps. From there, you can select Nebraska and Pioneer Trails Recreation Area on the map. The Upper Big Blue NRD maintains a pollinator habitat at Project GROW in York. More info at www.upperbigblue.org/projectgrow. ◆◆◆





Rec Area Improvements and Recreation Exploration Challenge Big Winner

It has been a busy year at the NRD's recreation areas. There have been improvements for safety, accessibility, and overall public enjoyment, across all of the NRD's parks.

In March, tornado sirens were added to four of the Upper Big Blue NRD's recreation areas for added safety for campers. These sirens were funded in large part through a grant from the Nebraska Emergency Management Agency. As originally identified in the 2019 Hazard Mitigation Plan created by the NRD, sirens have now been installed at Smith Creek, Bruce L. Anderson, Pioneer Trails, and Oxbow Trail Recreation Areas.

In June, upgrades to Smith Creek Recreation Area (Utica) continued when old playground equipment and a deteriorating picnic shelter were replaced (above). A number of mature trees were planted in the park area to replace older, damaged trees. The Smith Creek site is a favorite facility for those looking for a free place to camp close to Interstate 80. It is also a regular stopping place for local scout

groups. Throughout the summer months, the campgrounds tend to be very busy. Even through the colder weather, there is a significant amount of use at this facility.

Water quality has been poor (high turbidity and sediment load) for a number of years at Bruce L. Anderson Recreation Area (York), which detracts from the fishery as well as general user experience. In early 2024, the Board of Directors began discussing opportunities for improvement to the lake. A study by the Flatwater Group looking at in-lake best management practices was conducted and presented to the board in May. Discussions for improvement of the lake are ongoing.

Overland Trail Recreation Area (York) has undergone a significant transformation. For decades, it has been a minimally developed nature area. In 2023, the parking lot was enlarged and improved with crushed rock. Power was run to the site to add security lighting and a domestic well. New signage was also added.

In summer 2024, vault toilets were added, as well as ADA parking stalls and sidewalks to increase accessibility. Future plans may include adding a picnic shelter.

Oxbow Trail Recreation Area (Ulysses) saw the addition of a domestic well in 2023 and a supply well to supplement the natural spring fed lake in 2024. The addition of the supply well was taken to ensure the continued success of the fishery, which is often recognized as being one of the best in the area.

At the recommendation of the Nebraska Game and Parks Commission, the Pioneer Trails Recreation Area (Aurora) shoreline, south of the boat ramp was cut back and re-sloped to improve access for bank fishing in spring 2023. In March 2024, a prescribed burn was conducted on seven acres of prairie at the recreation area. According to the US Forest Service, this practice has many benefits. It reduces hazardous fuels, protecting human communities from extreme fires; minimizes the



In May, Brandy won a monthly drawing of \$100 in gift cards and in September she won the grand prize, \$1,500 in Scheels gift cards. ♦♦♦



spread of pest insects and disease; removes unwanted species that threaten species native to an ecosystem; provides forage for game; improves habitat for threatened and endangered species; recycles nutrients back to the soil; and promotes the growth of trees, wildflowers, and other plants.

NRD Recreation Exploration

For the second year, Nebraska's NRDs challenged outdoor enthusiasts to visit as many of the state's 80 NRD recreation areas as they could between March 1 and September 16. At each site, they could take a picture and submit it for a chance to win prizes. Monthly drawings were held for Scheels gift cards, as well as a grand prize drawing at the end of the summer.

District resident Brandy Ward of York visited 15 NRD recreation areas over the course of the summer, frequently taking along a kayak and her family for fun adventures.



Photos: New equipment at Smith Creek Recreation Area; a bald eagle spotted at Pioneer Trails Recreation Area in July by Janet Matzner; Brandy Ward shakes hands with NRD General Manager David Eigenberg after winning the grand prize; a peaceful moment captured by Scott Shafer at Smith Creek in July.

Front page: Comet C/2023 A3 (Tsuchinshan-ATLAS) photographed by Paul Spieker at Smith Creek Recreation Area in October.

Home Reverse Osmosis Funding Available

Concerned about your drinking water? The Upper Big Blue NRD has a program to address drinking water quality concerns in the district. The program will provide up to \$500 per home for a point-of-use reverse osmosis (RO) system on properties where the drinking water quality exceeds 10 PPM of nitrate. Private well users in Nebraska are responsible for maintaining the integrity of their own water supply and should have it tested annually for contaminants—a process that residents of the NRD can do for free. A new program from the State of Nebraska also provides a tax credit for eligible citizens for the installation of a reverse osmosis system. You can find information about this program as well as the NRD program on our website. ♦♦♦

Hard Hats and Hair Nets

From flood control structures and park improvements to tree plantings and soil health incentives, the board of directors of the Upper Big Blue Natural Resources District is responsible for a great many projects and programs across the nine counties of the district. Viewing some of those projects in-context is the aim of an annual tour that rotates to different quadrants of the district each year. For the 2024 tour, held in August, directors, staff, and guests toured multiple sites in Hamilton County, which is shared between the Upper Big Blue and Central Platte NRDs. The tour was an opportunity for directors to gain a greater understanding of the needs of the constituents they serve and the resources they are entrusted to steward, as well as hear from individuals in different communities about local resource concerns.

“[The tour] was very informative for me as a younger person (and first term) on the board to see different things around the district,” said Matthew Perry, a director who represents sub-district 8 (York). State Senators Jana Hughes and Dave Murman attended the tour along with NRD directors to learn more about the variety and scope of work Nebraska’s NRDs accomplish.

Locations visited on the tour included the Bremer Community Center in Aurora; ethanol plant KAAPA Partners Aurora; The Grain Place; the Whitney Education Center at Gjerloff Prairie (Prairie Plains Resource Institute); and locations on the Dark Island Trail. ♦♦♦



Dark Island Trail



Senators Dave Murman and Jana Hughes



*Ethanol Plant Tour--
KAAPA Partners Aurora*



Seed Storage at Prairie Plains



Touring The Grain Place

Recognitions & Awards

In August, Chrystal Houston was recognized for five years of service to the NRD. Chrystal serves as the director of public relations and is pictured shaking hands with Board Chairperson Lynn Yates. In September, several from the NRD were recognized at the annual conference of Nebraska's Natural Resources Districts. Former Board Member Larry Moore was inducted into the Hall of Fame for his 50 years of conservation work in Nebraska. He is pictured with family members Janice and John Moore, and Kristen Wilton; as well as Nebraska Association of Resource District's President Marty Graff. Also recognized for their years of service to Nebraska's NRDs were Rita Hoblyn, district secretary, and Terry Julesgard, water department manager. Hoblyn has worked for the Upper Big Blue NRD for 30 years. Julesgard has worked for various NRDs over the past 25 years. Hoblyn is pictured here with Marty Graff, and Julesgard is pictured with State Conservationist Rob Lawson. ◆◆◆



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The BLUEPRINT editor may be reached by phone at 402-362-6601; by email at chouston@upperbigblue.org; or by mail at:

Upper Big Blue NRD
319 E. 25th Street
York, Nebraska 68467

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Better Together

NRD Collaborates with the Nebraska Forest Service

The tree program at the Upper Big Blue NRD is getting a boost this year through collaboration with the Nebraska Forest Service (NFS).

Moving forward, the NFS will provide a conservation forester to the NRD through a shared service agreement. The forester will be an employee of the state agency, but would be located in the district. This individual would continue the NRD's successful tree program while remaining connected to statewide resources and training.

Each year, the district sells more than 20,000 tree seedlings for conservation planting in the district. Most of these trees are planted by individuals, though the NRD provides planting services on large orders such as farmstead windbreaks or habitat improvement projects.

The NRD offers low-cost bulk seedlings, as well as cost-share funding for qualifying projects, making tree planting a very economical conservation activity.

Trees may be ordered from November 1 to March 31 on the NRD's website. Orders arrive in mid-April, in time for spring planting.

Are you interested in planning a planting project for next spring? Contact the NRD at (402) 362-6601 or trees@upperbigblue.org. You can also find resources at www.upperbigblue.org/trees. ♦♦♦



EDUCATION CORNER

The Upper Big Blue NRD is dedicated to training the next generation of stewards of the land through educational programs and projects of many kinds. From field trips to the NRD office and Project GROW demonstration fields for college students, to classroom visits and natural resources festivals, to scholarships and investments in capital projects, your NRD is supporting educational opportunities for youth and adults. Learn more at www.upperbigblue.org/education.

1. *Concordia University ag student Jessie Ciezki at Project GROW*
2. *Recipients of 2024 Burke Scholarships Remi Christensen and Mason Lindburg (not pictured, Sarah Springer)*
3. *An outdoor classroom at St. Joseph's Catholic School in York, supported with the Educational Capital Projects Program*
4. *A lesson on wetlands at the Children's Groundwater Festival*
5. *A lesson on soil health at the Earth Jamboree*

