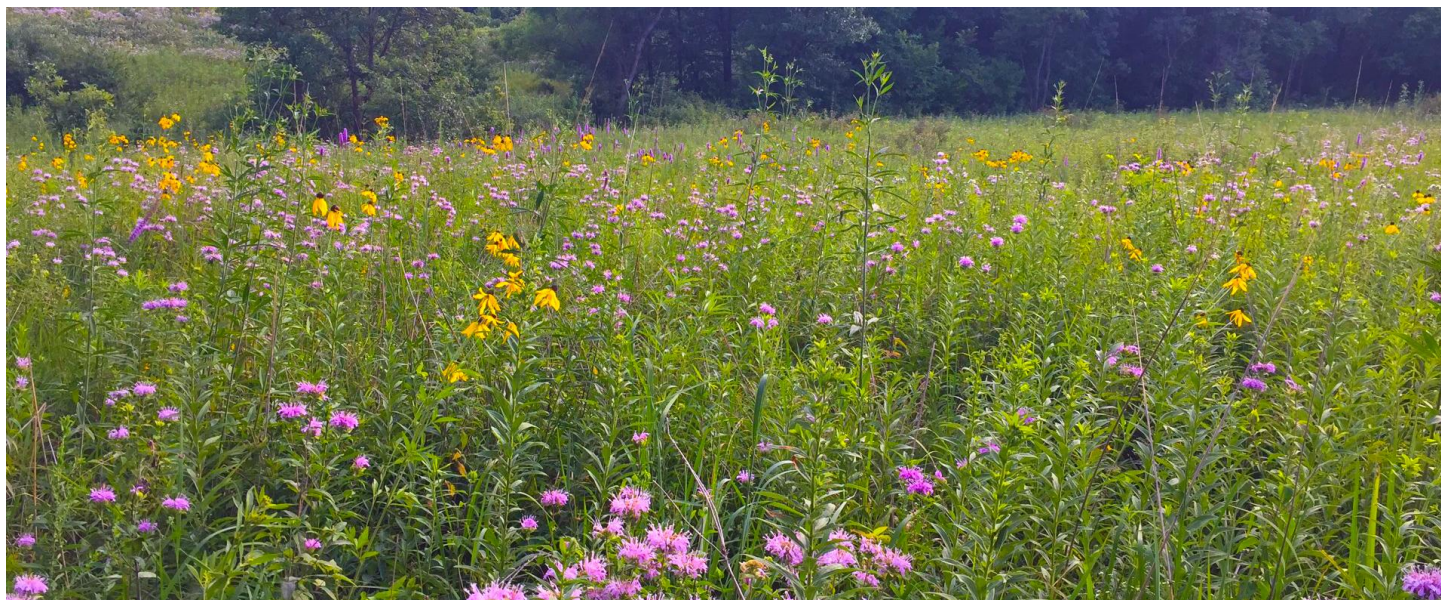


Naturalists News



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ABOUT US

[Iowa Master Naturalists](#) (IMN) is a 501c3 nonprofit run entirely by volunteers. Our mission is to educate a corps of adult volunteers about Iowa's environment and natural history, thus empowering them to promote awareness, appreciation, and stewardship of the natural world in their communities.

Welcome to the Iowa Master Naturalists (IMN) newsletter

Creating community and fostering Iowa's native ecosystems. By Iowa Master Naturalists and for Iowa Master Naturalists.



IMN NEWS

GINNY PAULSON, NEWSLETTER EDITOR, FALL 2017 CLASS

IMN continues to grow! Sixteen students completed the 2026 Spring Class hosted by F.W. Kent Park near Oxford, Iowa. The Fall 2026 class will be in Polk County (for the first time) at Jester Park in Granger, Iowa near Des Moines. Registration hasn't opened, but it will be announced on the IMN [Facebook](#) page.

The IMN newsletter is biannual. This is our second issue. Contact editor@iowamasternaturalists.org with questions, comments, and story ideas for the fall/winter issue.

To provide feedback or be sent this newsletter by snail mail instead of email, [take our short survey](#).

BLOODROOT

PAINTING BY DONNA HOFF-GRAMBAU, SPRING 2025 CLASS

Bloodroot ([Sanguinaria canadensis](#)) is an early blooming spring ephemeral wildflower. Seeds self-sow and are dispersed by ants. Bloodroot also spreads from rhizomes. According to The University of Wisconsin Extension, "Reddish sap that exudes from all parts of the plant, but especially the root, when cut is what prompted the common name of bloodroot." Read more [here](#).

STAY INVOLVED AND CONNECTED

Iowa Master Naturalists students and graduates tell IMN about their volunteer efforts and continuing education through our "Track it Forward" tool. It's easy to use. It's also an essential way to stay connected with IMN after completing your initial curriculum. Below are links to log your hours and find out about the latest volunteer and training opportunities.

- [Click here](#) to log your hours on IMN's Track it Forward tool.
- [Click here](#) to find volunteer opportunities.
- [Click here](#) to find advanced training opportunities.

Volunteer and advanced training opportunities are updated regularly with the latest opportunities. Thanks go to IMN volunteer, Reannah J, Spring 2023 Class, for compiling them!

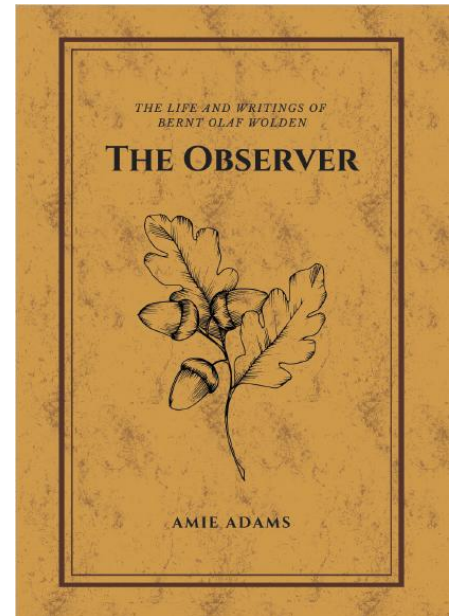
IOWA FIELD GUIDES VOLUME 1 EXPLORES POETRY AND PROSE ON THE PRAIRIE

AMIE ADAMS, SPRING 2022 CLASS

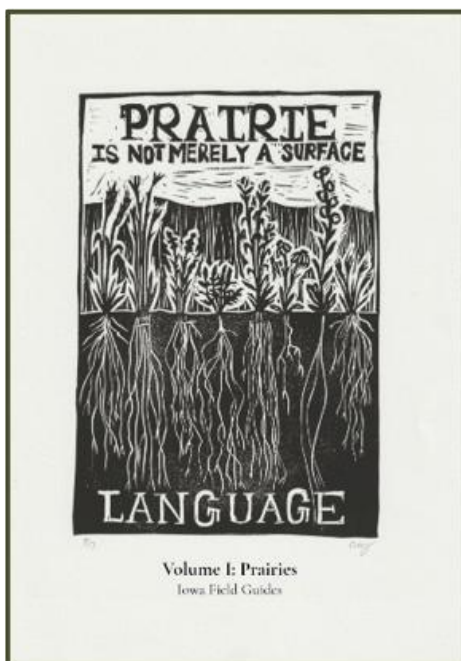
In the Spring of 2022, I had the opportunity to participate in the Iowa Master Naturalist program in Story County. When it came time to choose my capstone project, I mentioned to Elisabeth and my classmates that I had begun to collect nature essays from a little-known Iowa naturalist during the pandemic. These "Nature Notes"—written by B.O. Wolden for The Estherville Daily News from 1930-1968—were sitting in a word document on my computer, their purpose still uncertain. With encouragement from Elisabeth and my cohort, my IMN capstone project became my first book: *The Observer: The Life and Writings of B.O. Wolden*.

After receiving permission from the Estherville newspaper, I reprinted one hundred of Mr. Wolden's nature notes and wrote a short biography to accompany them. My IMN classmate, Kim Moss, Director of the Biological/Premedical Illustration Program at Iowa State University, contributed two beautiful illustrations to the book. In partnership with Emmet County Conservation, I have sold a few hundred copies over the last several years as a fundraiser to support conservation and nature education in Emmet County.

That project set me on an exciting path to continue to curate and share stories about Iowa's natural history and environment, and most recently, this work has taken the form of a literary journal called Iowa Field Guides.



Sales of The Observer support conservation and nature education in Emmet County. Learn more or order it at <https://www.amieadams.space/the-observer>



For the better part of a decade, a new genre of writing has been appearing across the country. My first encounter with a "literary field guide" occurred when I picked up a copy of *A Poetic Inventory of Rocky Mountain National Park* (Wolverine Farm, 2013) at a thrift store in Fort Collins, Colorado. Several years later, I was introduced to another anthology: *Cascadia Field Guide: Art, Ecology, Poetry* (Mountaineers Books, 2023). Inspired by this genre, I wanted to plant a seed here in Iowa, in the heart of the tallgrass prairie, a seed I hope will grow into a grassroots conversation that will continue to evolve with time.

Since my time in the IMN program, I've attended prairie walks, hosted writing workshops in prairies, and I've met people from all kinds of backgrounds who—despite their differences—are united by their passion for prairies. *Iowa Field Guides Volume I* is a small-batch publication that features artwork, poetry, and prose from thirty such contributors who share heartfelt connections to

prairies across the state of Iowa. In its pages, you'll encounter a living landscape intricately rendered in a tapestry of hues and textures. You'll journey with these writers and artists as they carefully attend to both the nuances of the external and internal landscapes they inhabit. You'll hear stories of encounter, grief, beauty, and resilience. The prairies these writers and artists know and love are awash in memory, full of surprise and possibility. Through their offerings, you will encounter miles of bluestem, soaring kestrels, darting skippers, grazing bison, blooming asters, and if you're lucky, maybe even a prairie rattlesnake slinking by.

Iowa Field Guides will be a 4-volume series, and I am accepting submissions for Volume II: Wetlands & Waterways until September 30, 2026. Future volumes will explore woodlands, savannas, caves, and bluffs. My hope for this project and beyond is that we will all find ways to keep telling Iowa's stories, and by doing so, we'll continue to fall in love with this fragmented, resilient landscape—our home.

To learn more about the Iowa Field Guides series, submit creative work, or purchase a copy of Volume I, please visit amieadams.space/iowa-field-guides.



Amie Adams is an editor, essayist, and poet creating at the intersection of nature, place, and history. My work is rooted in the Midwest—where diverse ecologies persist in a fragmented landscape. Her writing has been published in nearly a dozen literary journals and one anthology, including Midwest Review, Flyway, and Awake in the World Vol. 3, among others, and has received nominations for the Pushcart Prize and Best of the Net.

She is a nonfiction editor for The Hopper and her print editorial projects include The Wildness We Tend for Writing the Wild and Stories of the Seasons for the Women, Food, and Agriculture Network. Amie is the founding editor of the grassroots literary journal Iowa Field Guides and author of The Observer: The Life and Writings of B.O. Wolden.

STUDENT ART CORNER

COMMON YELLOWTHROAT

By Jack McGrane, Spring 2026 Class

Jack McGrane drew this [Common Yellowthroat](#) for his class passerine project. Iowa is in the breeding range for this migratory songbird, known for its “[wichity-wichity-wichity](#)” song.





IMN VOLUNTEER SPOTLIGHT: CANDACE HAVELY

BY CANDACE HAVELY, FALL 2019 CLASS

My participation in the 2019 IMN cohort was the most fun I've had as a life-long learner. Through volunteering, you build community,

and most of my volunteer activities happen to be community science (aka citizen science) projects.

Over the past 12 years I have served as secretary of the board for the [Prairie Rapids Audubon Society \(PRAS\)](#). For my IMN capstone project, I developed a presentation for PRAS members to use to present bird friendly ideas to community groups. This program has been presented many times as it remains relevant. Some of my volunteer hours for IMN reflect the time I spend maintaining the website for the Audubon group and while this type of volunteer work is very helpful, I really covet my volunteer work out in the field.

The community science surveys I participate in are [Christmas bird counts](#), [the Midwest Crane count](#), and the [biannual National Audubon Climate Watch](#) bluebird surveys. During fall migration, I usually spend a full day at Hawkwatch at [Grammar Grove](#) in Marshall County. I also complete five winter raptor surveys with four routes in Northeast Iowa and a fifth route, my favorite, in Van Buren County.

Since I am a birder, a lot of my volunteer efforts focus on avian subjects, but I also try to include

various other nature disciplines. I've helped harvest prairie seeds and led a prairie walk for the University of Northern Iowa Tallgrass Prairie Center at my favorite spot, [Irvine Prairie](#), this past May.

I am a most enthusiastic [frog and toad survey](#) volunteer for the Iowa DNR. My survey route is in Van Buren County, and I revel in the entire process. It is hard to beat spending an evening in rural Iowa, listening to the evocative calls of anurans, under starry night skies with fireflies adding their sparks of brilliance to the experience!

I've also been privileged to join a team of volunteers who are doing a species inventory for a private property. This specific endeavor involves targeted field work to compile observations of all species- fungi, plants, birds, insects, amphibians, mammals, etc. Over 1600 species have been recorded, including endangered turtles & salamanders. We even did "nothing" at this location— super fun and fascinating!

I remain ever curious and dedicated to sharing nature experiences and knowledge with others. This theme is prevalent in the April 2025 presentation titled Wonder As You Wander ([watch online](#)) that I shared with the Prairie Rapids Audubon group. In my presentation, I spoke very highly of my experiences with the Iowa Master Naturalist program. I hope you continue to enjoy the edification and shared enthusiasm of participating in all that is involved in exploring, appreciating and advocating for our natural world.



Whooping Cranes, as seen in Candace Havelly's educational presentation for the Prairie Rapids Audubon group titled, Wonder As You Wander ([watch online](#)).

Photo by Billy Reiter-Marolf.

CAPSTONE CORNER

ELISABETH SWAIN, IMN DIRECTOR

Jane Nesmith (IMN Fall 2026)

loves birds. She often shares this love by leading birding walks and by contributing bird observations to public databases. However, for her capstone project, Jane became more deeply involved in bird advocacy when she became aware of a bird-strike problem at the church she attends in Cedar Rapids. Unfortunately, the large windows of the newly remodeled Welcome Center at St. Paul's United Methodist Church proved a hazard to birds, who sometimes mistook reflections of landscape or sky on these windows for actual habitat, and collided with the glass.

Jane approached the St. Paul's board of trustees, and together they came up with a plan to have tiny dot decals professionally installed 2" apart on the windows. Although these dots are nearly invisible from the interior of the building and do not impede the view, they effectively alert birds outside to the solidity of the glass.

Some folks might have considered their project complete when the installation of the dot decals was approved, but Jane, a retired college professor, saw further opportunities for education. She set up a table with displays of different types of anti-strike window treatments and engaged her fellow parishioners about bird strikes and strategies to mitigate them. She also invited visitors to her table to make an origami bird or two for a collaborative art installation (see photo), an activity that not only prolonged the conversation, but also got folks *physically* invested in the church's anti-bird strike initiative. Finally, she provided table visitors with information they could take with them and use to prevent bird strikes in their own homes.



The timing of the decal installation was fortuitous as it happened while St. Paul's was hosting the Iowa Faith and Climate Network (IFCN), an interdenominational gathering focusing on the environment. Not only could St. Paul's members take pride in such a tangible example of their congregation doing the right thing ecologically, but the window decal project could serve as model for other churches with a bird strike problem. Even IFCN members who were not able to attend the gathering could still read about the initiative in a [guest blog post](#) written by Jane.

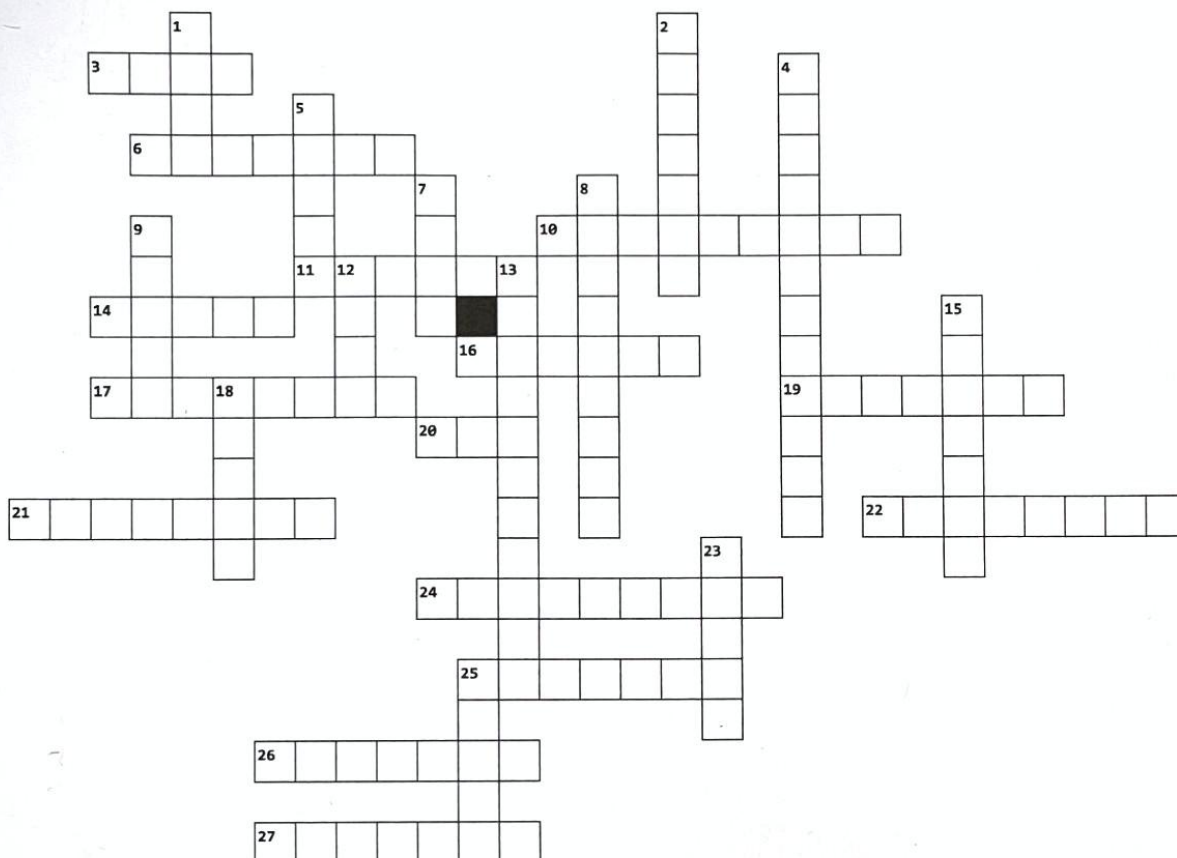
When the decal installation was complete, the church celebrated with a bird-themed service. Iowa poet Ted Lyddon Hatten was invited to give a guest sermon and to install an art exhibit focusing on birds in the church's art gallery. This further amplified the joy to be found in birds, and the importance of their conservation.

Are bird strikes a problem at *your* home, office, or other places you frequent? Check out the type of [dot decals](#) installed at St. Paul's or the [UV tape](#) that Jane uses on her home windows, a less expensive, more DIY-friendly solution to a bird strike problem. Inspired to become a "bird strike evangelist" yourself? Here's a [general overview of the bird strike problem and resources for mitigation](#), as well as a [handout](#) that Jane found useful as she educated the congregation.

NATURE CROSSWORD

JEAN PRIOR AND LYNETTE SEIGLEY, ADVISORS TO THE IMN BOARD

Geologic Times



Across

3. geologic deposit of partially decayed plant material in waterlogged/wetland environments
6. the solid base beneath Iowa's glacial deposits
10. named for the same Zebulon as Colorado's explorer
11. a land-surface outlet of groundwater flow
14. terrain characterized by sinkholes, caves, springs
16. evidence of pre-historic life forms that inhabited Iowa
17. age of ancient seafloor exposed in floods of 1993 in eastern Iowa
19. an exposed view of underlying earth materials
20. groundwater-fed habitats of rare plants
21. Iowa's first State Park
22. a rounded collapse of the land surface
24. land area that drains to a river or lake
25. a marine fossil also known as a "sea lily"
26. a body of dense ice that moves downhill under its own weight
27. a large, glacial-age inhabitant of the Iowa landscape

Down

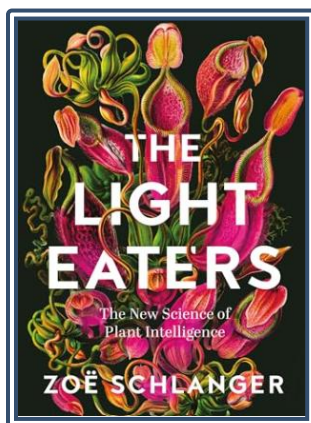
1. a natural chamber formed beneath the earth surface
2. source of drinking water supplies
4. name given to Iowa's highest elevation at 1,670 ft.
5. wind-blown silt that mantles much of the Iowa landscape
7. the surface accumulation of weathered geologic deposits supporting biologic activity
8. a common sedimentary rock in Iowa; important economic resource
9. sought after stones found in river gravels
12. low, elongated ridge capped with loess in eastern Iowa
13. the source of 80% of Iowa's drinking water
15. ridged accumulations of glacial debris along ice margins
18. lake occupying an abandoned river meander
23. designated as Iowa's State Rock in 1967
25. composition of most Iowa arrowheads

[Answers on Page 12](#)

BOOK HOOK

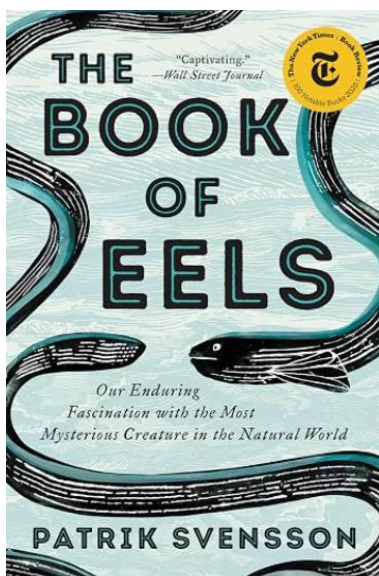
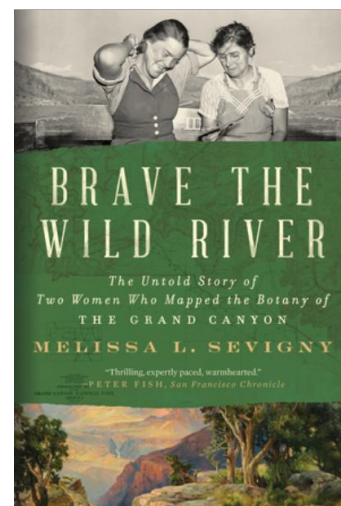
BOOK REVIEWS BY CONNIE ALDRIDGE, IMN BOARD MEMBER, FALL 2019 CLASS

This issue, I decided to share with you three books that I read, enjoyed and finished this year. They were well written, a pleasure to read, so interesting they kept me reading to the end, and enthralling! I recommend them to you.



The first is **The Light Eaters** by Zoë Schlanger, published in 2024. Do you think that plants can talk, think or feel? Many scientists are trying to figure that out. The author leads us on a journey through the exploration of current worldwide experiments to understand plant intelligence. She's not afraid to debunk previously written false ideas of plants while showing us what plants can really do: tell time, communicate with each other, count, and copy the shape of another plant's leaves to hide themselves. This book addresses questions such as how they know how to manufacture a specific poison for a specific pest, or how they feel a beetle is chewing on them to then launch a toxin. I am sure you will find this book captivating, though you may have trouble weeding your garden afterwards.

The second book is **Brave The Wild River** by Melissa L. Sevigny, published in 2023. Imagine what it was like for a woman to organize a river expedition to survey plants of the Grand Canyon in 1938. The first difficult task for botanist Elzada Clover was finding another woman to go with her, and she did: botanist Lois Jotter. Then she had to convince an experienced river runner to take two women down a dangerous undammed river. He built the wooden boats they would ride in and had to convince other men to help pilot them. No bouncy rubber rafts drifting down a mellow stream for them. The world thought they were crazy and going to die. The author draws on the women's journals and letters to write this historical account of their journey, thoughts and fears, and contributions to the botanical history of the Grand Canyon. It's an exciting read. The plants they chronicled and the landscape they described would no longer exist in the same way once dams were in place.



The third book is **The Book of Eels** by Patrik Svensson, published in 2019. What are your ideas about eels? Do you think of them as black, slimy, snakelike creatures that lay on the bottom of rivers and streams? Would you ever think of eating an eel? I have, and they are delicious, not slimy. There are eels in Iowa's big rivers.

Patrik Svensson combines personal reminiscences of catching and eating eels with his father in Sweden with the natural history of eels to weave together an intriguing book. Their whole story still isn't known, and until about 1930, no one knew where they bred. For 2000 years scientists, including Aristotle and Sigmund Freud tried to figure out where eels mated and spawned. Johannes Schmidt spent almost two decades of his own life trolling the Atlantic Ocean, enlisting 23 freighters, to look for tiny eel larva. Freud dissected more than 400 adult eels to try to find any sexual organs in them. The book is filled with history and stories that make you squirm. It is a fascinating read.

SPARKLES OF FIREFLIES

JOHN DONNER, IMN BOARD MEMBER, FALL 2019 CLASS



Question: What is the name given to a group of fireflies?

Answer: A sparkle!

One recent June evening my wife and I stood on our front porch awestruck by the firefly display unfolding in our front yard. Twinkling in numbers far greater than we had ever seen, it seemed that fairies and pixies were throwing a big bash on our lawn. Why so many, why now, and just generally, why? Since boyhood, I had been fascinated with fireflies and now my curiosity was piqued to find out more. A little research uncovered some fascinating facts and triggered a boyhood memory of a citizen science project undertaken long ago.

It began when a small print want ad appeared in my local Missouri newspaper circa summer 1966 seeking fireflies for scientific research—and promised to pay for them! My mother recognized right away that this would be a great summer project for her energetic brood of 5 and signed us up. A few nights later, homemade nets in hand, my brothers and I raced around a nearby pasture capturing as many as we could. When we finished, the fireflies were safely deposited in a special cannister provided by the research lab and placed in the fridge. This continued for many nights until the cannister was full and my mother mailed it in. A few weeks later, our payment arrived, providing a few pennies for us kids to spend as we liked (for me—Sweet Tarts and baseball cards). We later learned that the research lab was conducting cancer research! This was a great introduction to citizen science. We discovered we could have fun out in nature while at the same time learning about it and contributing something of value to society.

Fast forward to today. Fireflies are still being used in [cancer research](#). Their bioluminescence is attributable to luciferase, an enzyme used by scientists to track and study cancer cells. To illustrate the scale of the research, Johnson & Johnson announced in June of this year that it had entered into an agreement to acquire [Firefly Bio, Inc.](#), a biotechnology company using luciferase for cancer



Photo credit: Tyler Savitski, CC BY-SA 4.0, via [Wikimedia Commons](#)

research, for \$1 billion in cash. Johnson & Johnson hopes to use the technology to develop targeted medicines for the most prevalent and hard-to-treat tumors.

Fireflies are beetles in the family *Lampyridae*, of which they comprise about 2,400 species. Their life cycle is metamorphic with four stages: egg, larva, pupa, and adult. Life cycles can last up to two years or more for some species, with most of the time spent in the larval stage. As larva, they are predators of soft-bodied invertebrates such as snails, worms, and smaller insects living in the leaf litter of forest floors. Once transformed into adults, they are short-lived, typically just three to four weeks. As adults, they are active in mating and reproduction behaviors and may not even eat during that time.

The remarkable bioluminescence of fireflies is present in the larvae of all species, but not in all adults. Species can be divided into three main groups depending on their style of courtship: daytime dark fireflies, which are active during the day and do not produce light; glow-worm fireflies, whose flightless females produce long-lasting glows; and the flashing fireflies with which we are most familiar.

Firefly bioluminescence is produced by mixing

the chemical luciferin with oxygen and the enzyme luciferase resulting in a highly efficient cool glow that is nearly 100% light and no heat.

Most species of flashing fireflies emit a greenish-yellow light, but some are blue or white. Males flash while in flight and females respond from below. Different species have different flashing patterns, which helps males and females of the same species identify one another.

Perhaps the most amazing light display is made by *photinus carolinus*, or the synchronous firefly. As the name suggests, the males in flight all flash simultaneously, creating one of the most striking natural displays in all of nature. The [synchronous fireflies in Great Smoky Mountain National Park](#) have become such an attraction that the park service has had to restrict access and institute a lottery to prevent environmental damage to the firefly population and park property.

So, why were there so many fireflies on my front lawn that evening? Scientists say that firefly numbers are enhanced by mild winters and wet springs. That could explain the extraordinary display witnessed by my wife and me. I hope you didn't miss out and saw your own special sparkle of fireflies this summer!

You can learn more about fireflies from [the Xerces Society for Invertebrate Conservation](#).

STUDENT ART CORNER

BARN OWL

By Brittany Crawford, Spring 2026 Class

Brittany painted this [Barn Owl](#) on a wood plank in admiration of an owlet she found on the side of the road in May. According to the Iowa DNR, "the state endangered Barn Owl, known for its white heart-shaped face and [screaming call](#), is a savanna species that nests and roosts in dark, secluded places."





IOWA'S TREES: INTERVIEW WITH MARK VITOSH, DISTRICT FORESTER, PART TWO

INTERVIEWER: GINNY PAULSON, FALL 2017 CLASS

Mark Vitosh is a District Forester with the Iowa DNR Wildlife Bureau. The first part of this interview appeared in the [Fall/Winter IMN newsletter](#).

Ginny: What do you think Iowa Master Naturalists should know about our urban and suburban tree canopy?

Mark: Diversity, diversity, diversity. The story starts in the 1950s. We had streets lined with elm throughout the United States, especially in the Midwest. Then, Dutch elm disease was introduced to the United States and spread rapidly. All of the elms on many elm-lined streets died as a result. There are exceptions. A few communities in Minnesota and parts of Chicago still have some streets lined with elms because of extensive management, but we lost most of the elms.

So, the response by the Midwest was to plant more trees. They planted a lot of maple (many varieties) and a lot of ash. In Iowa, based on inventories of our over 900 incorporated communities to look at the public tree population -- along the streets and in parks -- about 17% were ash trees. In that study, we found that we had 30 - 34% maple. Of course there were a lot of those same trees on private properties as well.

Then, in the early 2000s, a new pest called [Emerald Ash Borer](#) started killing all the ash trees. In the late 1990s, we found a new pest in the United States called the [Asian Longhorn Beetle](#). And its favorite food is maple. Since then, in places on the east coast, it's destroyed thousands of maple trees.

The moral to the story is, we didn't really learn from Dutch Elm disease. We really didn't plant enough diversity. Diversity is the best way to defend against insect problems.

Ginny: What are advantages of the urban and suburban tree canopy compared to forests?

Mark: It's a lot easier to get diversity in urban and suburban areas because trees are spaced out more and can grow together. They can still create a canopy. In forests, certain species don't grow together very well. Young oaks aren't going to come up underneath maple and basswood, for example. In an urban forest, you can have maple, basswood, oaks, locust, Kentucky coffee tree all growing together.

Ginny: How should we care for our urban forest?

Mark: When you're planting a tree, don't just say, "I want to plant X." Evaluate the site and understand the drainage, the available sunlight, the space, and find a tree that matches the growing conditions. Once you do that, plant it right. Improper planting has been a big issue in community forests. If we don't plant it right, it may not die right away; it may take 20 years for that tree to die. Maybe it was planted too deep or too shallow or the root ball wasn't pruned correctly. Then, give it proper care during establishment -- water, mulch, selective pruning. Also, reduce stress. Don't put a new patio around your 120-year-old white oak tree.

The Iowa DNR has information online to help you [select, plant, and maintain your trees](#).

Wild Plum Jam

<https://foragerchef.com/wild-plum-jam/>

From Alan Bergo, a James Beard Award-winning Chef, Author, Show Host, and Forager.



IOWA'S WILD PLUM

Wild plums (*Prunus americana*) are ripe and ready for jam making in August. In the wild, you may find them in open woods, within edge habitat, or along fences. They are a rounded tree, growing 20 - 30 feet high and 15 - 20 feet wide. Here are links to help you properly identify (or grow) Wild plum:

- [Iowa Department of Natural Resources](#)
- [State Forest Nursery](#)
- [Bleeding heartland](#)

NATURE CROSSWORD ANSWERS

FOR GEOLOGIC TIMES, PAGE 7

ACROSS: 3. peat; 6. bedrock; 10. Pikes Peak; 11. spring; 14. karst; 16. fossil; 17. Devonian; 19. outcrop; 20. fen; 21. Backbone; 22. sinkhole; 24. watershed; 25. crinoid; 26. glacier; 27. mammoth.

DOWN: 1. cave; 2. groundwater; 4. Hawkeye Point; 5. loess; 7. soil; 8. limestone; 9. agate; 12. paha; 13. groundwater; 15. moraine; 18. oxbow; 23. geode; 25; chert.

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- On the cover: Tallgrass Prairie in June
- *This issue was published in July 2026*