

**Promoting Native Plants for Natural Landscapes.**

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All articles for the March 2021 newsletter, must be submitted to:  
Jerry Paulson at paulsonjerry@aol.com by February 23, 2021

*Ethnobotany and Natural History of Early Boone County, Illinois*  
*Thursday, February 18, 2020*

**Time: 7:00 p.m.**  
**via You-tube videos followed by Zoom Q & A**

Pam Stock and Josh Sage, both with the Boone County Conservation District, will show two videos and then facilitate a discussion on Zoom. Each video is approximately 10 minutes long:

**Ethnobotany of Boone County, IL in the 1800's - A discussion on plants used by the Potawatomi and the Winnebago people. Presenter Pam Stock**

For the Potawatomi and Winnebago people everyday life revolved around the use of plants for food, medicine, fiber and shelter. Plants were also used on special occasions for rituals and magic by tribal shamans. She will discuss the unique relationship that local indigenous people had with plants and the plants they most commonly used. Pam will use a booklet in her presentation. It can be downloaded online: <https://bit.ly/3oq8Hmy>



**Pam Stock**

**A Natural History of Boone County, Illinois. Presenter Josh Sage**



**Josh Sage**

Josh Sage, the Director of Natural Resources at the Boone County Conservation District, will discuss what Boone County looked like before European settlement and what events transpired that changed the landscape forever. He will also discuss the habitats that existed in Boone county before settlement, as well as the habitat types the Boone County Conservation District manages today.

*Please see page 6 for speaker biographies.*

*Information on how to connect to the Zoom presentation will be posted on the chapter website ([www.wildonesrrvc.org](http://www.wildonesrrvc.org)) and Facebook page, and distributed via Constant Contact to members prior to the program. The program is free and open to the public. For more information, call (779) 537-8939.*

## Message from the President Jerry Paulson



Jerry Paulson

### Gratitude for Service

As you know, Constance McCarthy has passed the baton as chapter president to me. She is a hard act to follow. Constance has been an important leader of our chapter for more than a decade. She served as chapter president from 2008-2012 and again from 2016-2020. Starting this month, she will assume the role of vice president for 2021.

I can't begin to thank her enough for all that she has done for the chapter. In addition to serving as president, she has coordinated our spring wildflower sale, edited the newsletter, media releases, and posts to our Facebook page and website, sent out notices of the programs and upcoming events, updated sale brochures for the plant sale, ran the monthly membership meetings and coordinated with RVC when we were holding our meetings there, and of course ran the bi-monthly meetings of the Board. She did all of this because of her love for nature and the mission of Wild Ones to educate people about native plants.

Thank you, Constance. I look forward to continuing to work with you during the coming year.

We also need to thank our newsletter production coordinator, Pambi Camacho, who is retiring after more than 15 years. Pambi consistently produced a professional-looking newsletter for the chapter and did it with great patience and good humor. It is not easy publishing a newsletter when you are working with volunteers who forget deadlines, send in the wrong files, or (like me) write articles that are too long for the space she has to fill. Thank you Pambi for your great work and years of service to the chapter. The editor's job is being taken over by Jessie Crow Mermel, the editor of Severson Dells Education Center's newsletter.

This year we held our annual meeting online. In addition to a recap of the chapter's activities and accomplishments in 2020 by Constance McCarthy, a video of photos submitted by our members of native plants growing in their yards was shown. As we could not visit our members' natural landscapes and yards in person last summer and fall, this was a chance to show off all those native plants that you've grown with such care, and to inspire other members to do the same. The video has been posted on the chapter website if you missed it in November.

I look forward to serving as your chapter president. If you have any questions or concerns please contact me at paulsonjerry@aol.com or (815) 222.4414.

## Recap of January Presentation Jerry Paulson

### GHOST TREES: Osage Orange and other trees that lost their evolutionary partners

*Note: Jerry Paulson, Wild Ones of Rock River Valley board member and former director of the Natural Land Institute, spoke about the natural history of Osage orange and other ghost trees, and the role that humans play in the survival of these species, for the January 2021 program via Zoom. This is a recap of the program. A recording of the program has been posted on our website ([www.wildonesrrvc.org](http://www.wildonesrrvc.org)).*

Osage orange (*Maclura pomifera*), or what some call Hedge apple, is a common tree of old hedgerows and field edges throughout Northern Illinois. Its wood had many uses by early settlers,

it was widely planted to form thorny hedges to keep livestock enclosed before the advent of barbed wire, and the softball size bright green fruit is often sold for holiday decorations. But this native species has lost the animals that it evolved with, that ate the fruit and spread its seeds, making it one of several trees that are "Ghosts of Evolution." These includes Paw Paw, Honey locust, and Kentucky coffeetree. Few animals that now exist eat the fruit, pods and seeds from these trees, leaving it to Native Americans, early settlers and us to save the species and to spread the plants to new habitats.

### Osage Orange

Osage orange was first discovered by Meriweather

## Recap of January Presentation (cont'd)

Lewis while he was in St. Louis attending the transfer ceremonies for the Louisiana Territory from France to the United States in 1804, prior to the Voyage of Discovery. Lewis obtained specimens of the Osage orange from a former Indian agent and sent live cuttings of the plant back to Thomas Jefferson, but they did not survive. In 1807 Lewis sent some more cuttings that did grow. The Lewis and Clark expedition would bring back more than 200 plant specimens, many that were new to science. The Osage orange was probably the expedition's most significant botanical discovery.

Osage orange belongs to the Moraceae, or Mulberry family. It is related to breadfruit and figs. It is dioecious and wind pollinated with flowers appearing in mid-May to June. The distinctive large green fruit produced on the female trees appears in September. The fruit contains many seeds the



size of a grapefruit seed imbedded in the fleshy calyx. The trunk divides into several limbs that spread into arching branches. The root spread laterally and form large clones if left unchecked.

When Lewis encountered the species, its natural range was limited to a small area of the Red River valley of Texas, Oklahoma and Arkansas, but it had been spread to other areas by Native Americans. According to Meriweather Lewis, Native Americans "...esteem the wood of this tree for the purpose of making their bows" and "they travel many hundreds of miles in quest of it." Native American tribes in the Plains used the strong, yet flexible wood of the Osage orange to make superior-quality bows. Early settlers soon discovered the many helpful uses of the wood.

The wood of the Osage orange is one of the hardest, strongest and densest of all hardwoods. It was used by pioneers for firewood during the brutal winters on the Plains and prairies. The wood was also the perfect material for railroad ties, and was the material of choice for wooden wagon wheels.

Osage orange trees grow easily from seed, and the thick, dense branches are covered in long,

hard thorns. This made them ideal for use as hedge fences to keep cattle in their pastures prior to the invention of barbed wire in 1874. The trees can grow up to six feet per year, and the thorny branches can be woven together to form impenetrable fences. Once barbed wire came into widespread use, Osage orange made the ideal fence posts. Following the Dust Bowl, wind breaks of Osage orange trees were planted to reduce wind erosion of soil in the Great Plains.

Pioneers placed the fruit of the Osage orange tree in their cellars, pantries and basements to keep insects away. The unusual green fruit is commonly collected and sold in garden centers and florists for use in fall and Christmas decorations.

Because it was so useful by Native Americans and early settlers, and for soil conservation, it was planted widely, and is now found throughout the United States. If the tree had not been widely planted by humans, it would have likely become very rare with specimens limited to botanical gardens, because no living wildlife species is known to eat the large green fruit of the Osage orange tree or distribute its seeds. The big, fleshy obvious fruit is an ecological anachronism, a nonsensical fruit that is missing the evolutionary partner that once feasted on it and spread it's seeds far and wide.

It's thought that hedge apples evolved as food for woolly mammoths, mastodons, giant sloths, horses and other prehistoric Ice Age herbivores that browsed the canopies of trees. The large size and easy-to-see fruit forged a symbiotic relationship with prehistoric tree-browsing mammals to spread its seeds. The prehistoric animals were easily killed for food when humans arrived in North America 15-20,000 years ago, leaving nothing to eat the fruit of Osage orange.

### Kentucky Coffeetree

Another "Ghost Tree" found in the Midwest that appears to be missing its evolutionary dispersal partners is Kentucky coffeetree (KCT), (*Gymnocladus dioica*). KCT grows naturally in bottomland forests or rocky open woodlands. Its range has extends from the Ohio River valley into New York, Pennsylvania, Indiana and Illinois, and is found in isolated colonies as far north as Minnesota. It's alternate, bipinnately compound leaves are the largest of any native species. The trees are dioecious, so male and female flowers

## Recap of January Presentation (cont'd)

appear on separate trees. The fruit is a flat, thick, woody legume pod that ripens in September or October that usually persists unopened on the tree until late winter or early spring. The pods, seeds and leaves of KCT are toxic to wildlife and therefore not a source of food.

The leaves, bark and pulp were reportedly used by Native Americans to treat insanity, combat fever and treat headaches. A tea made from the leaves and pulp was used as a laxative. The seeds and pods can be poisonous if eaten without treatment. Some Indian tribes may have roasted the beans for food, and early settlers roasted and ground the beans as a substitute for coffee...which is where it gets its name. The alkaloids in the seeds are neutralized in the roasting process.

The seeds of KCT are as hard as marbles! They apparently need to go through the digestive tract of an animal to break the thick seed coat. Unfortunately, nothing seems to eat the pods or seeds!

The genus *Gymnocladus* originated during the Oligocene...about 30 million years ago. The pods hang on the branches well into the spring, but the pulp remains palatable during the winter. When they fall to the ground in the Spring they would entice Ice Age herbivores to eat the pods and swallow the seeds whole. A mastodon may have ground the pods between its large molars to get to the sweet pulp and then subjected the seeds to gastric acids before excreting them far from the parent. Now that these evolutionary partners are gone, nobody disperses the bulky fruit and large seeds of KCT. The pods and seeds mostly remain where they fall.

KCT has another partner in dispersal...humans. Like Osage orange, KCT may owe its survival as part of our flora to Native Americans, who planted it near their camp sites, and used the hard, shiny seeds for gaming, beads and ceremonial purposes. Colonies of KCT are often found near known Indian village sites, and Indian mounds along the Pecatonica and Rock Rivers. The northern-most colony of KCT in Minnesota is found growing below the Mississippi River bluffs within Effigy Mounds National Monument near McGregor Iowa.

Native Americans in the Great Lakes Region used the roots, pulp and bark of KCT for medicinal purposes. The seeds were used as dice or to keep score in a bowl-and-dice game played by nearly every tribe. They were known to be used in healing

ceremonies, in rattles, and made into beads for jewelry. It is likely that many of these seeds were lost or discarded and sprouted into trees.

Because few other means of dispersal of the seeds of KCT exist today, the tree's current range is probably due to the intentional and unintentional planting by humans.

### Honey Locust

Honey locust (*Gleditsia triacanthose*) has long, woody pods and hard coated seeds like its distant cousin, Kentucky coffeetree. It grows naturally along rivers in our region, and seedless and thornless cultivars are planted widely in urban areas. Like KCT, it is thought that the natural range of Honey locust was extended by Native Americans who dried the pods, ground the dried pulp and used it as a sweetener and thickener, cooked the seeds, and fermented the sweet pulp from the pods to make alcohol. The pods are eaten by cattle, goats, deer and other wildlife, so the seeds, which are not digested, are spread widely.

But Honey locust has an adaptation that serves no useful function...very large, sharp clusters of thorns that grow out of the trunks. Honey locust trees have exceptionally long, multipronged daggers, longer than needed to ward off deer and rabbits that eat the bark of young trees. Many of the large mammals of the Pleistocene were browsers. The spines on the trunks of honey locust once protected the leaves and immature pods from excessive browsing by animals that disappeared 10,000 years ago. They would also have protected the bark from being stripped by hungry prehistoric horses in the winter.

### Paw Paw

There is one more tree that grows in our region that retains characteristics of having evolved with prehistoric partners, the Paw Paw (*Asimina triloba*). Paw Paw grows wild in 25 eastern states, as far north as southern Michigan and northern Illinois. It is found in moist, shaded, sheltered sites where it forms groves or patches. The reddish-brown flowers have a leathery texture and a slightly fetid scent. The color and scent attract mostly flies, which are more common in early spring than other pollinators.

It is the only species of the *Annonaceae* or Custard apple family, which are mostly found in tropical or sub-tropical forests. It bears the largest, edible



## Recap of January Presentation (cont'd)

fleshy fruit of any tree native to the U.S. and produces large seeds with the ability to sprout in the shade of its parent tree. The fruit is eaten by bears, raccoons, opossums, foxes, skunks and other animals. The seeds are swallowed whole and excreted in dung or they are spit out, they are not chewed. The seeds contain a powerful alkaloid that is harmful to the nervous system of mammals not equipped to detoxify them.

If the seeds are rarely dispersed by animals, how has this tree survived so long? The earliest European explorers of eastern part of North America reported that Native Americans planted and tended groves of Paw Paw for the fruit and carried the fruit to camp sites. They did not eat the seeds, so these were discarded, and started new patches. Early settlers that moved into eastern states quickly discovered the delicious fruit and competed with wildlife to collect the fruit when it

matured in the fall. They even grew the fruit around their homesteads. Paw Paws are short-lived, so they survive the lack of seed dispersal partners by cloning. Colonies of Paw Paws can be hundreds of years old, surviving by sending up new stems when the old tree dies.

Paw Paw has survived since the end of the Ice Age, and the loss of prehistoric megafauna, with the help of human horticulturalists and its own cloning skills. So, if you want to help the survival of Paw Paw, plant one. (Wild Ones RRV sells Paw Paw plants in our fall tree and shrub sale, or you can order plants online from many nurseries.)

Some of our most interesting, and beautiful trees have lost the animals that they evolved with to disperse their seeds and help them survive, leaving it to us to plant these species in our yards, parks, farms and natural areas. We have become the dispersal agents for these trees by default.

## 2021 Chapter Programs and Events

- February 18** Natural History of Boone Co. & Plants Used by the Potawatomi and Winnebago Peoples 7:00 p.m. Josh Sage & Pam Stock, Boone Co. Conservation District via You-tube videos followed by Zoom question & answer
- March 18** Woodpeckers | Peggy Doty, University of Illinois Extension via live Zoom program  
7:00 p.m.
- April 15** The Sedges You Know, the Sedges You Don't | Andrew Hipp, Morton Arboretum  
7:00 p.m. via live Zoom program
- May 20** Rare Spring Flora of Apple River Canyon | Randy Nyboer via virtual tour  
7:00 p.m.
- June 17** Dragonflies & Damselflies | Cindy Crosby via live Zoom program  
7:00 p.m.
- July 15** Virtual Yard Tour | Ken Keilsmeier via virtual tour  
7:00 p.m.
- August 19** Invasive Species ID and Control | Michael Hansen-Land Care Manager, University of Wisconsin-Morton Arboretum via live Zoom program  
7:00 p.m.
- September 16** Conservation Planning in the Raccoon Watershed | Kerry Leigh, Natural Land Institute  
7:00 p.m.
- October 21** TBD  
7:00 p.m.
- November 21** TBD  
6:00 p.m.
- December** No Meeting - Happy Holidays!

Unless noted, programs are free and open to the public. Programs are subject to change.  
For more information, contact Lisa Johnson at (779) 537.8939

## *Membership Updates* Sallie Krebs, Membership Coordinator

A membership e-form and our membership brochure describing the benefits of membership are both available on the chapter website (www.wildonesrrvc.org). Click on Join/Renew under the Membership tab. You can renew (or join) with any major credit card through PayPal (no PayPal account required) by using our website. We appreciate your support!

### **190 memberships as of January 23, 2021**

#### **Special thanks to our members who made contributions above the basic \$40 dues!**

Bob & Bev Beebe, Rockford  
 Mike & Kathy Crandall, Winnebago  
 Janet Giesen, Sycamore  
 Brian Hale, Sycamore  
 Dan Kane, Belvidere  
 Thomas & Nancy Mangan, Clare  
 Krista Witzig, Oregon

#### **Welcome to our new member(s)!**

Krista Witzig, Oregon

*New members are identified with a green ribbon on their meeting name badges. Please introduce yourself to them and help us welcome all new members to our great chapter!*

38 attended the January Virtual Meeting

#### **Anniversaries:**

15 Years:

Janet Giesen, Sycamore  
 Anne Remington, Rockford

5 Years:

Bruce & Celeste Jelinek, Rockford

#### **In Memoriam**

In memory of our former Wild Ones Rock River Valley Chapter members  
 Ron Dierks - Member 2014-2020

It is preferred that renewal memberships be sent directly to the chapter for quicker processing and to avoid delays in receiving your chapter newsletter. Remember that your dues include membership in both National Wild Ones and our chapter. Please use the address below:

Sallie Krebs  
 Membership, Wild Ones Rock River Valley Chapter  
 7492 Renfro Rd.  
 Cherry Valley, IL 61016-9788

Your expiration date is on your chapter newsletter above your name on the label. You will be mailed a renewal reminder from the chapter two months prior to your expiration date with a completed membership form and return envelope for your convenience.

A portion of all dues paid is returned to the chapter by National Wild Ones to support our chapter activities. National Wild Ones provides liability insurance for our meetings and events. All dues and donations are fully tax deductible.

Please send address and email address changes to the Membership Coordinator: Sallie Krebs  
 Email: membershipworrvc@gmail.com or call (815) 540-4730 if you have any questions about membership.

#### **Wild Ones Annual Memberships:**

Household \$40,  
 Limited Income/Full-Time Student \$25,  
 Affiliate Non-Profit Organization \$90,  
 Business \$250.

#### **Thank you for your continuing support!**

## *February Speaker Bios*

**Pam Stock** is a graduate of Judson College in Elgin and has a bachelor's degree in Psychology. She worked in local school districts with special needs students, was the Outdoor Education Director at Lutheran Outdoor Ministries Center in Oregon, IL and retired from the Boone County Conservation District as the Special Events and Public Outreach Manager. She spent years in self-study in the fields of ethnobotany and folk medicine and is a Master Gardener Intern with the U of IL Extension Services.

**Josh Sage** has worked for the Boone County Conservation District since 2001. He is a graduate of Western Illinois University and has been studying or participating in natural areas management since the late 1990's. He resides in Boone County on an old farmstead where he enjoys tinkering, growing vegetables, and converting portions of his property to natives. He spends this time of year drinking coffee, staring at maps, and daydreaming about being in the backcountry, above tree line.



## ROCK RIVER VALLEY

ROCK RIVER VALLEY CHAPTER NEWSLETTER

c/o Sallie Krebs  
1643 N. Alpine Rd., Suite 104  
PMB 233  
Rockford, IL 61107

### *Don't become extinct!*

If the expiration date on the mailing label is 02/1/2021, this is your last chapter newsletter and you have received your last Wild Ones *Journal* until you renew your membership. National Wild Ones drops expired memberships the first week of the expiration month, so please don't be late! See the *Membership Update* for renewal information.

Mail your renewal to:

Sallie Krebs  
Wild Ones Rock River Valley  
7492 Renfro Rd.  
Cherry Valley, IL 61016

ADDRESS SERVICE REQUESTED



## *Wild Ones Mission*

Wild Ones: Native Plants, Natural Landscapes promotes environmentally sound landscaping practices to preserve biodiversity through the preservation, restoration and establishment of native plant communities. Wild Ones is a not-for-profit environmental education and advocacy organization.

## *Rock River Valley Chapter Meetings*

Regular meetings are held the third Thursday of the month at 7:00 p.m. at Rock Valley College, Physical Education Center PEC0110 (lower level), 3301 North Mulford Road, Rockford, 61114.

*Special meetings, outings, and events are scheduled periodically and sometimes replace the regular meeting. Contact any officer to confirm information about our next meeting.*

## *Rock River Valley Chapter Board and Coordinators*

### **BOARD**

*President:* Jerry Paulson  
(815) 222.4414 [paulsonjerry@aol.com](mailto:paulsonjerry@aol.com)

*Vice president:* Constance McCarthy  
(815) 282.0316 [kublaikhan@mac.com](mailto:kublaikhan@mac.com)

*Secretary:* Cathy Johnson (815) 978.0865  
[catjohn\\_22@yahoo.com](mailto:catjohn_22@yahoo.com)

*Treasurer:* Janet Giesen (815) 762.5912  
[janetgiesen@gmail.com](mailto:janetgiesen@gmail.com)

*Board member at-large:*  
Kim Lowman Vollmer (815) 397.6044  
[kimlowvol@aol.com](mailto:kimlowvol@aol.com)

*Board member at-large:* Ken Kielsmeier  
(815) 289.2812 [jodikiels@gmail.com](mailto:jodikiels@gmail.com)

### **APPOINTED COORDINATORS**

*Merchandise coordinator:* Cynthia Chmell  
(815) 969.7435 [cynthiachmell@gmail.com](mailto:cynthiachmell@gmail.com)

*Native Plant Sale:* Jerry Paulson (as above)

### *External plant sale event coordinators:*

Constance McCarthy (as to the left) &  
Jane Evans (815) 399.3787  
[jayevans.9985@comcast.net](mailto:jayevans.9985@comcast.net)

Tree & shrub sale coordinators: Brian Hale  
(815) 289.2384 [moyogi2@gmail.com](mailto:moyogi2@gmail.com) &  
Jerry Paulson (as to the left)

*Booth coordinator:* [open position]

*Membership coordinator:* Sallie Krebs  
(815) 540.4730 [membershwpwrrvc@gmail.com](mailto:membershwpwrrvc@gmail.com)

*Facebook coordinator:* Sallie Krebs (as above)

*Program committee:* Lisa Johnson (chair)  
(779) 537.8939

[lejohnson3804@outlook.com](mailto:lejohnson3804@outlook.com)  
Mark Luthin (815) 543.7412

[m.luthin@comcast.net](mailto:m.luthin@comcast.net)  
Jerry Paulson (as to the left)

*Publicity coordinator:* Dawn Skupien  
(815) 262.7864 [dawnskupien@gmail.com](mailto:dawnskupien@gmail.com)

*Youth education & grants coordinator:* Kim Lowman Vollmer (as to the left)

*Library coordinator:* Ginnie Watson  
(815) 398.0138 [vsatson47@aol.com](mailto:vsatson47@aol.com)

*Mentor coordinator:* [open position]

*Newsletter: editorial coordinator:* [open position]

*Newsletter: production coordinator:* Jessie Crow Mermel (815) 955.0653 [serendipitree@gmail.com](mailto:serendipitree@gmail.com)

*Plant rescue/seeds coordinator:* Mary Anne Mathwich (815) 721.5187 [mprairiedock@aol.com](mailto:mprairiedock@aol.com)

*Volunteer coordinator:* Laura Sjoquist  
(815) 298.1387 [sjoquist.laura@gmail.com](mailto:sjoquist.laura@gmail.com)

*Show Me/Help Me coordinator:*  
Linda Ricker (217) 649.3966  
[greencreations.lejoi@gmail.com](mailto:greencreations.lejoi@gmail.com)