



# ONAPA NEWS

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## Dogbane's fibers form strong cordage

Story and photos by Guy Denny

Early last spring I noticed what appeared to be a bird entangled and desperately struggling in some of last year's waist-high dead plant stems quite a distance down along the edge of my long driveway. I quickly grabbed my binoculars to get a closer look expecting to see some predator with a grasp on the bird.

A closer look revealed no life and death struggle, but rather very much to my surprise, a female Baltimore oriole (*Icterus galbula*) was fluttering up and down stripping long stem fibers from a plant I immediately recognized as common dogbane or Indian hemp (*Apocynum cannabinum*).

I watched as she flew off with the strips of fibers fluttering behind her in the wind as she took them back to the hanging nest she was building in the eastern cottonwood next to my house. She used the fibers to firmly anchor her nest on the drooping branchlets of the cottonwood.

Later that summer, as a tornado passed close by my house, tearing many limbs off the tree, her nest held fast and she successfully fledged her young. The nest continued to hold a firm grasp onto the branchlets throughout the winter and into this spring, a testament to the incredible strength and endurance of Indian hemp fibers even when soaking wet.

Indian hemp or common dogbane can be found growing throughout Ohio and most parts of the United States and the southern half of Canada. This perennial is typically three to four feet tall with small, somewhat inconspicuous greenish-white flowers clustered at the ends of the branches. The fruits are paired, very long slender pods containing fluffy white, wind-dispersed seeds.

Indian hemp occurs in fields, along roadsides and stream banks, and in prairies. This deep-rooted plant is considered a prairie species, but is not a good candidate for a prairie garden since it is very aggressive, forming large clones from its extensive network of creeping, far-reaching rhizomes.

In addition to common dogbane, a second species of dogbane known as spreading dogbane (*A. androsaemifolium*) occurs throughout Ohio and hybridizes with common dogbane giving rise to

intermediate dogbane (*Apocynum x floribundum*).

This hybrid has intermediate features between its two parents. Some botanists recognize a third species of dogbane known as clasping-leaved dogbane (*A. sibiricum*). Others, just consider it to be a variant of common dogbane that has somewhat sessile leaves with cordate bases.

The genus name *Apocynum* is derived from the Greek *apo* meaning "far from", and *cyon* meaning "dog". Members of this genera were considered poisonous to dogs. It seems unlikely that a dog might

actually eat it since its sap is very bitter.

All parts of this plant, especially the roots, contain cardiac glycosides that are toxic if ingested. If a leaf or stem is broken, a sticky, white sap is exuded that reportedly has been known to cause skin blisters. Although considered toxic to humans, the roots were commonly harvested in the 19<sup>th</sup> and 20<sup>th</sup> centuries for medicinal purposes. As the saying goes, "the difference between a poison and a medicine is dosage."

Various tribes of Native Americans used this plant to treat a number of ailments: as a heart



**Dogbane**  
(*Apocynum cannabinum*)

(Continued on page 2)

Continued from page 1

## Dogbane common prairie plant in Ohio

stimulant, cathartic, diaphoretic, diuretic, emetic, and expectorant. The Potawatomi made a tea from the green fruits as a heart and kidney medicine. The Ojibwa inhaled smoke from the dried root to treat headaches while the Chippewa sniffed the dry powdered root to cure colds and treat headaches. They also used root tea to cure ear aches. Early settlers, in turn, learned of its medicinal value from native peoples. Accordingly, it was listed in the U.S. Pharmacopeia from 1831 -1916, and in the National Formulary from 1916 – 1960.

The specific epithet, *cannabinum*, as well as the alternative common name, “Indian hemp”, refers to this plant’s widespread use among Native American Indians as a strong and durable stem fiber comparable to, but not to be confused with, those of industrial hemp (*Cannabis sativa*), a totally



Milky sap may irritate skin

unrelated plant (marijuana) that also produces strong durable fibers used in a number of modern-day products.

Native Americans used the stem fibers of dogbane or Indian hemp for making rope, twine, thread, fabric, fishing nets and fishing lines, snares, bowstrings, mats and baskets. Fabric discovered from the early Archaic Period around 3,000 - 4,000 years ago, was made of Indian hemp.

Watching that Baltimore oriole building her nest, I couldn’t help but wonder if long ago, some indigenous person in North America watched, just as I had, a Baltimore oriole build her nest using Indian hemp fibers and learned from that bird the value of this plant as a source of natural fibers.

That thought made me smile with pride. I wanted to see for myself, so using last year’s dried plant stems, I soaked, hammered and then separated thin strands of fibers which I then rolled into a fine thread. I was absolutely amazed at the strength of this thread. Indian hemp is truly an incredible and abundant fiber plant that is a welcome and wonderful addition to the flora of Ohio.



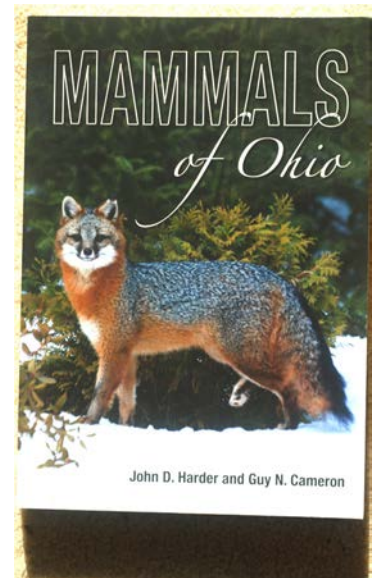
Dogbane fiber (Photo by Gail Martin)

## Mammals of Ohio a must-have in your home library

*Mammals of Ohio*, co-authored by John D. Harder, Associate professor emeritus in evolution, ecology, and organismal biology at The Ohio State University, where he taught courses in mammalogy and conservation biology, and Guy N. Cameron, professor emeritus and former head of biological science at the University of Cincinnati where he taught courses in ecology, population biology, and ecological techniques.

*Mammals of Ohio* is an exceptionally informative and comprehensive book recently published by Ohio University Press. It covers all of the state’s mammals, from tiny shrews to American black bears, and includes Ohio county distribution maps for each species.

This book is a definitive resource for students, amateur naturalists, and wildlife professionals. It is available through Ohio University Press as well as many book outlets.



## Eastern Wood-Pewee is a common summer visitor

### Story and photos by John Watts

“The rush of warblers has mainly passed now, but the last of the blackpolls are marching through, and the northern thrushes, the oliveback and the graycheek, the rear guard of the migration, are hiding in the shadows. It is as this time of the year, when spring is in full bloom, when the countryside is brilliant green and the forest leaves are almost summer size, that the wood pewee calmly takes his place among the big trees of our woodlands, the shade trees of our streets, even in our gardens. His slow, sweet, quiet three-note song tells us that he is here, hidden among the leaves, although the bird remains for the most part so high up in the thick foliage that we may not catch a glimpse of him for weeks unless we look sharply”. (contributed species account by Winsor Marrett Tyler, Bent 1942).



**Eastern Wood-Pewee**

The Eastern Wood-Pewee, the most common nesting forest flycatcher in Ohio, is described as a seclusive, peace-loving little bird that prefers to perch on the dead branches amid the gloom of the forest. Found in all 88 Ohio counties (Rodewald et al 2016), it is a fairly common to common summer resident throughout the state.

It is found in nearly all types of woodlands from large mature forests to small woodlots and parks, preferring areas with openings in the canopy and understory. This habitat structure presumably aids their ability to hunt flying insects from open and hidden perches. Wood-Pewees often perch still on a dead branch within these woodlands waiting for a small insect to fly through, then suddenly darts out capturing the insect while in flight, or on the wing, and then quickly circles back to its perch (a technique often referred to as “fly catching or hawking”).

Wood-Pewees eat a variety of insects mainly consisting of flies, wasps, beetles, small moths, and bugs. Most of their prey is very small; therefore, they seem to need to consume a fairly large quantity of insects. In fact, while studying the food preferences of flycatchers for the Department of Agriculture in 1912, Foster E.L. Beal criticized the food preferences of the Wood-Pewee noting “that it eats too many parasitic Hymenoptera (wasps) (Bent, 1942); presumably owing to the fact that these wasps prey on a variety of harmful agriculture insects. He went on to note that the “bird does far more good than harm” as it also ate a variety of harmful insects.

The Eastern Wood-Pewee belongs to the Flycatcher Family and specifically the Tyrant Flycatchers. The family consists of 35 species in North America and approximately 375 species worldwide. The Eastern Wood Pewee scientific name, *Contopus virens*, is derived from Greek *kontos*

meaning short and *pous* for foot referring to the short tarsus; the portion of the leg that extends from the ankle to up the leg to the first joint. The specific name *virens* is from Latin and means “greenish,” describing the olive-gray colors of the upper parts. Pewees have two noticeable white wing-bars on each wing as well as a yellow lower mandible. The underparts are usually white but pale yellow can show in some individuals.



**Eastern Wood-Pewee singing**

Their unmistakable song is often one of the first one may hear in warm, summer mornings and one of the last in the evenings. The song paraphrased “pee-a-wee” with a short break then a descending “pee-oh” is often sang repetitively from its perch. It may take a break, catch a flyby snack, and then continue singing.

As mentioned earlier, most birds arrive in the spring during the first week of May; however, records exist for birds arriving between April 18 and 25. Fall migration begins during the last half of August and they remain common through the third week of September. A few birds will linger into early October; however, most individuals have departed by October 15. While there are a few reports of November individuals, there are currently no accepted November records for Ohio (Peterjohn, 2001; Harlan 2022).

The Eastern Wood-Pewee is nearly identical in all visual aspects to its western counterpart the Western Wood-Pewee and can only be distinguished by song. Some range overlap does occur in western Nebraska north into very southern and western Manitoba. While hybridization is extremely rare, some evidence suggests that hybrids were found northeastern Colorado based on vocalizations. Others also found evidence of hybridization in Nebraska where habitat contact zones occurred between the two species (Silcock and Jorgensen, 2022).

### References:

- Bent, Arthur Cleveland. 1964. *Life Histories of North American Flycatchers, Larks, Swallows, and Their Allies*. Dover Publications Inc., New York. 244p + plates. pp. 266-279.
- Harlan, Robert N. 2022. Ohio Bird Records Committee Annotated Checklist of the Birds of Ohio 65 p.
- Meiter, Gary H. 2020. *Bird is the Word, An Historical Perspective on the Names of North American Birds*. McDonald Woodward Publishing. Newark, Ohio p 237.
- Peterjohn, Bruce G. 2001. *Birds of Ohio*. The Wooster Book Company. Wooster, Ohio. pp. 306-307.
- Silcock, W.R., and J.G. Jorgensen. 2022. *Western x Eastern Wood-Pewee (hybrid) (Contopus sordidulus x virens)*. In *Birds of Nebraska — Online*.
- Terres, John K. 1980. *The Audubon Society Encyclopedia of North American Birds*. Alford Knopf. New York.



## Spring a busy time for stewardship projects & surveys

By Jennifer Windus

The ONAPA stewardship team had a full schedule this spring, March-May, with 22 projects as well as five prescribed burns. ONAPA works with partners to conduct prescribed burns on prairies and savannas. This spring we burned at Honey Run Highlands Park with Knox County Park District, Newell Recreational Preserve with Licking County Park District, Daughmer Savanna, Cedar Bog for the Cedar Bog Association (with help from eight partners), and North Kingsville Sand Barrens with the Cleveland Museum of Natural History. These are important land management tools to control woody species and stimulate growth of prairie, savanna, and barrens species.

Most of our spring stewardship focused on garlic mustard and Dame's rocket control. In March, we were still working on woody species at Sheldon's Marsh (March 8, woody species on the barrier beach), Zimmerman Prairie (March 9), Killbuck Marsh Wildlife Area (March 16), Brinkhaven Barrens (March 21), Mentor Marsh (March 22), and Cedar Bog (March 28). In April, we had projects at Honey Run Highlands Park (April 4), Killbuck Marsh Wildlife Area (April 6), Wolf Run Regional Park (April 13), Milford Center Prairie (April 18), Clifton Gorge (April 20), Howard Collier Preserve (April 22), Rhododendron Cove (April 25), and Kendrick Woods (April 27).

By mid-April, we had shifted to herbaceous invasives' control. An Earth Day project at Howard Collier Preserve was held Saturday, April 22, which focused on garlic mustard in the good wildflower areas. Thirteen people attended, including three new volunteers.



May was a particularly busy month with eight projects and our full stewardship assistant team was back. This included Madison Brown and Lydia Radcliffe, who stayed on through the winter. Returning assistants, Mariola Castrejon and Rachael Patterson, were joined by new assistant Jordan Tackett. We worked at DuPont Marsh (May 4, clearing brush for a rare iris species), Lake Katharine (May 9, garlic mustard), Davey Woods (May 11, garlic mustard & Dame's rocket), Irwin Prairie (May 16, garlic mustard), Crane Hollow (May 17, pine plantation clearing), Lakeside daisy monitoring (May 18), Bonnett Pond Bog (May 30, Dame's rocket), and Lakeside daisy seed collection (May 25 & June 1). The stewardship assistants gained good experience with invasive plant control and rare plant recovery efforts.

June was a busy month with more rare plant projects and invasive plant control. The July-September schedule is posted on our website, so we hope to see returning and new volunteers! We could not accomplish all this great work without our loyal volunteers: Thank you!



**Clockwise from top left: garlic mustard team at Davey Woods (photo by Madison Brown); prescribed burn at Cedar Bog (Lydia Radcliffe); woody species removal at Jackson Bog (Madison Brown); ONAPA group collecting Lakeside Daisy seeds (Jennifer Windus).**

## Summer Stewardship Projects need your help

The July-September Stewardship Projects are listed on the ONAPA website, including location, directions and details of each activity. Projects are performed in every region of Ohio, many with partners. Check out where you could help at [ONAPA.org/2023 JULY-SEPTEMBER STEWARDSHIP PROJECTS](https://www.onapa.org/2023-july-september-stewardship-projects).

DATE AND TIME	PRESERVE, COUNTY, AND PROJECT TYPE
<b>JULY</b>	
Thursday, July 13—10am-3pm	Daughmer Savanna, Crawford Co.—Teasel, woodies, & other invasives
Tuesday, July 18—10am-3pm	Honey Run Highlands Park, Knox Co.—Control of woody species
Wednesday, July 19—10:30am-3:30pm	Jackson Bog, Summit Co.—Control of purple loosestrife, cattails
Thursday, July 27—10:30am-3:30pm	Cedar Bog, Champaign Co.—Control of woody species
<b>AUGUST</b>	
Tuesday, August 1—10:30am-3:30pm	Clifton Gorge, Greene Co.—Control of woody species & other invasives
Thursday, August 3—10am-3pm	Wolf Run Regional Park, Knox Co.—Control of woody species
Thursday, August 10—10:30am-3:30pm	Kiser Lake Wetlands, Champaign Co.—Woody species & cattails
Tuesday, August 15—10:30am-3:30pm	Myersville Fen, Summit Co.—Control of woody species
Thursday, August 17—10am-3pm	Brinkhaven Barrens, Holmes Co.—Woody species & Japanese stiltgrass
Tuesday, August 22—10:30am-3:30pm	Myersville Fen, Summit Co.—Control of woody species
Thursday, August 24—10:30am-3:30pm	Gallagher Fen, Clark Co.—Control of woody species
Tuesday, August 29—10:30am-3:30pm	Kitty Todd Preserve, Lucas Co.—Control of woody species
<b>SEPTEMBER</b>	
Tuesday, September 5—10am-3pm	Brinkhaven Oak Barrens, Holmes Co.—Control of woody species
Thursday, September 7—10am-3pm	Cranberry Bog, Licking Co.—Control of woody species in west meadow
Tuesday, September 12—10am-3pm	OIPC invasive plant workshop at Cedar Bog Nature Center
Thursday, September 14—10am-3pm	Cranberry Bog, Licking Co.—Control of woody species in west meadow
Tuesday, Sept. 19—10:30am-3:30pm	Meilke Road Wildlife Area, Lucas Co.—Control woody species
Thursday, Sept. 21—10:30am-3:30pm	Kitty Todd Preserve, Lucas Co.—Control of woody species
Tuesday, Sept. 26—10:30am-3:30pm	Cedar Bog, Champaign Co.—Control of woody species
Thursday, Sept. 28—10:30am-3:30pm	Prairie Road Fen, Clark Co.—Control of woody species

### 2023 ONAPA Annual Meeting Saturday, August 5 — 10 a.m. to 5 p.m.

Caesar Creek Lake Visitor's Center  
4020 N. Clarksville Road, Waynesville

#### Guest Speakers:

**Dave Nolin**, Retired Director of Conservation for Five Rivers MetroParks in Dayton  
*"Reconsidering Ohio's Pre-European Settlement Vegetation and Its Relevance Today"*

**DeVere Burt**, Director Emeritus, Cincinnati Museum of Natural History  
*"Art and Science on the American Frontier — The Audubon Story"*

Includes box lunch, short business meeting and choose one of three field trips in the afternoon. Register no later than July 27 for a box lunch. Registration after July 27 (including walk-ins) welcome, but plan to bring your own lunch.

To register, visit [2023 ONAPA Annual Meeting Tickets, Sat, Aug 5, 2023 at 10:00 AM | Eventbrite](https://www.onapa.org/2023-onapa-annual-meeting-tickets-sat-aug-5-2023-at-10:00-am-eventbrite)

## Field trips capture some of the best of Ohio's natural areas

By Guy Denny

### Spring Brook Sanctuary Endangered Trout

The June 10 Spring Brook Sanctuary tour was planned by ONAPA member and retired Geauga Park District Senior Naturalist Dan Best. This educational adventure focused on Spring Brook, a small stream within the Geauga Park District's Bass Lake Preserve. Home to the last native brook trout population surviving in our state, this dedicated state nature preserve is owned and managed by the Park District.

The Brook Trout (*Salvelinus fontinalis*) is a small, colorful, native species of trout, typically six to eight inches in length that only thrives in small (shallow 10-15 feet wide), spring-fed, cold, clear, unpolluted year-round streams with clean rock and gravel substrate bottoms and shaded forest cover. These pristine habitats are uncommon in Ohio, partly why this species is so rare here. Extreme northeastern Ohio is at the most southerly edge of Brook Trout's natural range, which extends throughout much of the far northeastern United States up through New England, then northward across much of the eastern half of Canada.

One of the earliest accounts of this rare trout's presence in our state came from nationally renowned Ohio naturalist Dr. Jared P. Kirtland (1793-1877) who in 1838 wrote, "The speckled trout (as he called it) are to be found in Ohio in only two streams, a small creek in Ashtabula County, and a branch of the Chagrin River, in Geauga County." The small creek in Ashtabula County was in Kingsville. Unfortunately, trout are no longer present there.

Over time, due to critical habitat destruction, Brook Trout were thought to have been extirpated from Ohio sometime after 1857. But in 1972, Ohio fish biologist Dr. Andrew White re-discovered surviving native Brook Trout populations in two small spring-fed tributaries in Geauga County, Woodie Brook and Spring Brook. Unfortunately, the Woodie Brook population was lost to residential development in 1993, leaving only Spring Brook as the last remaining, undisturbed native brook trout populated stream in Ohio.

Prior to Dr. White's re-discovery of naturally occurring Brook Trout in Ohio, numerous efforts were made to establish new populations using hatchery brood stock collected outside of the state. The first such restocking introduced this species into Cold Creek in Erie County in 1868. Many more attempts followed to stock Brook Trout in streams throughout the state. With few exceptions, most failed to establish self-sustaining populations due to a lack of suitable critical habitat. In more recent years, between 1996 -2003, in an effort to preserve Ohio's unique genotype of Brook Trout, the ODNR Ohio Division of Wildlife, Fish Management staff's restocking efforts used wild native Ohio brood stock from Spring Brook populations reared at the Castalia Fish Hatchery in Erie County. Using this approach, four additional self-sustaining populations of native Brook Trout released into small streams have been successful, including re-establishing the population of Brook Trout in Geauga County's Woodie Brook following extensive stream habitat restoration efforts.

Our Spring Brook tour began with Geauga Park District's



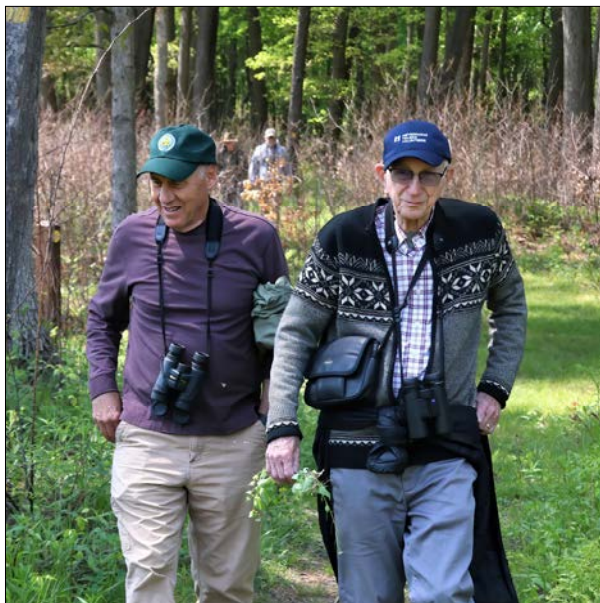
**Top, Cameron Layne and Paul Piro apply non-lethal electric shock to study Brook Trout; shows a captured trout in aquarium; above, Piro shows captured Brook Trout. (Photos by Tom Fishburn)**

talented fish biologist Paul Pira giving an informative Power-Point presentation in the Bass Lake Preserve lodge, tracing the history of Brook Trout in Ohio and current efforts to keep the Spring Brook population viable. Following his presentation, Dan, Paul, along with Cameron Layne, a fish biologist and founding member and officer of a newly formed non-profit, Native Fish Coalition ([info@NativeFishCoalation.org](mailto:info@NativeFishCoalation.org)), led us out to the banks of Spring Brook, a short distance from the lodge, to see native Brook Trout.

A mild electrical charge from a fish shocker brought the shy and elusive trout out from their hiding places beneath undercut banks, logs and stones. They were netted and placed in a small glass aquarium which was passed around for us to see these beautiful specimens up-close and personal.

At the end of the tour, Dan led participants upstream along Spring Brook for a better look at some of the remarkable habitat restoration work Paul had designed and supervised to sustain a healthy population of Brook Trout. The Spring Brook Preserve tour was informative and entertaining. Dan, Paul and Cameron agreed to repeat this field trip for ONAPA members; something for us to look forward to.

*Continued on page 7*



**Jerry Jankowski (left) and Dr. Elliot Tramer lead the group through lupine meadows in the Oak Openings Metropark. (Photos by Tom Fishburn)**

### Oak Openings Region Birds and Botany

May 17 was the peak of the spring bird migration in northwestern Ohio, and perfect weather for our tour of the Oak Openings with Dr. Elliot Tramer, retired professor from the University of Toledo, and Jerry Jankowski, retired manager of Oak Openings Metropark. Both are excellent naturalists, with Elliot specializing in birding for the day and Jerry in botany.

I had asked my dear friend Elliot for the opportunity to see a Blue Grosbeak (*Passerina caerulea*), a bird more typical of southern Ohio, but now expanding its range northward. This would be a life bird for me, and sure enough, Elliot came through with lots of great looks at this beautiful bird. Other specialties of the day: Lark Sparrows (*Chondestes grammacus*), numerous Orchard Orioles (*Icterus spurius*), and Red-headed Woodpeckers (*Melanerpes erythrocephalus*).

Wild Lupines (*Lupines perennis*) were at peak bloom, blanketing the open fields. Jerry showed us a number of other rare plants of the Oak Openings as well, including Birdfoot Violet (*Viola pedata*), Virginia Dwarf-Dandelion (*Krigia virginica*), Hoary Puccoon (*Lithospermum canescens*), and Prickly-Pear Cactus (*Opuntia cespitosa*).

### Mosses and Ferns of Deep Woods Farm

With the threat of rain looming, we had a smaller than expected turnout for Dr. Robert Klips' Mosses and Ferns field trip May 13 at Deep Woods Farm Nature Preserve in the Hocking Hills Region. Fortunately, it never rained on us until the end, and even then, it was a light, warm rain most appropriate for looking at mosses and ferns.

Of the numerous species of mosses, ferns and other special plants Dr. Klips showed us, the highlight for me was the rare Appalachian Gametophyte Fern or Appalachian Shoestring Fern (*Vittaria appalachiana*). At the Preserve, these tiny and easily overlooked ferns occur deep in the Blackhand Sandstone grotto-like shelter, requiring a flashlight to see them. Several colonies of these ferns were restricted to their typical habitat: moist, cool and dark recesses of the sandstone walls. Most ferns that go through an alternation of two generations, the sporophyte (the typical large conspicuous leafy stage we

most often see), and the tiny gametophyte generation somewhat resembling a liverwort that gives rise to the adult sporophyte generation. The Appalachian Shoestring Fern only occurs in the gametophyte form, never reaching the adult sporophyte generation. Although this unusual fern is widespread in the Appalachian Mountains, it is rare here in Ohio.

It was a great day spent in the Hocking Hills Region with Dr. Klips' extensive botanical knowledge and quick wit. His newly released book, *Common Mosses, Liverworts, and Lichens of Ohio* is an easy-to-use, well-illustrated reference guide for Ohio nature lovers.

### North Kingsville Sand Barrens Botany

All morning it rained, but by the time Dr. James K. Bissell started the May 20 tour of the North Kingsville Sand Barrens, the skies cleared. By the tour's end, the sun was shining.

The Sand Barrens originated in a proglacial lake that preceded the creation of modern Lake Erie during the last Ice Age. As glacial ice melted away from the Niagra outlet, Lake Erie dropped to current levels, leaving ancient sand deposits high and dry. Flowing springs under the sand deposits emerge downslope toward the lake, creating interesting wetlands.

Wild Lupines (*Lupines perennis*) were in full bloom just as they were in the Oak Openings of Northwestern Ohio, the only other place where they occur in this state. Dr. Bissell showed us other rare plants growing in the dunes, including the very rare Tufted Fescue Sedge or Short Beaked Sedge (*Carex brevior*). Downslope into the wetlands, he pointed out several other rare species characteristic of this northern area of the glaciated Allegheny Plateau Region of Ohio: Canada Mayflower (*Maianthemum canadense*), Striped Maple (*Acer pensylvanicum*), Starflower (*Lysimachia borealis*), and Bluebead Lily (*Clintonia borealis*).

The Sand Barrens is one of the best natural areas in Ohio with a diversity of rare plants and animals, especially enlightening when you are in the company of Dr. Jim Bissell, a great botanist and naturalist.

**For ONAPA's remaining 2023 Field Trips, visit [ONAPA.org/2023 ONAPA FIELD TRIPS.](https://www.onapa.org/2023-ONAPA-FIELD-TRIPS)**



## Ohio Natural Areas & Preserves Association

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***Saturday, August 5, 2023 ONAPA Annual Meeting,  
Caesar Creek Lake Visitor Center, Waynesville***