

Newsletter of the Ohio Odonata Society

# Ohio Dragon Flyer



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**Four-spotted Skimmer** *Libellula quadrimaculata*  
Ohio, June 2023, Sony DSC-HX400V, 215mm, 1/250, ISO 250

*On my first trip to a local marshy field, I saw no Four-Spotted Skimmers....in fact barely any ode activity at all. This time I saw 13 Four-Spotted Skimmers at the front of the field. and as many as 5-7 more could be seen deeper in the marsh. Marsha Gilger*

*Photographers reserve all rights to their images published within Ohio Dragon Flyer. The next newsletter is October.*

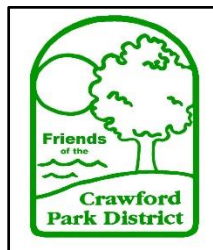
## 2023 Ohio Odonata Society (OOS) Annual Meeting

First, a thank you to the Crawford Park District, Lowe-Volk Nature Center and to Chelsea Gottfried, OOS Vice President, author, entomologist, nature-based pre-school teacher and naturalist for the Crawford Park District, who organized the Ohio Odonata Society 2023 meeting. Ode enthusiasts from across the state (and beyond) gathered at Lowe-Volk Park in north central Ohio for the one-day event. Chelsea opened the doors at 8:30 and attendees mingled, made new acquaintances and reestablished old friendships under the trees and inside the nature-themed Center. The business meeting kicked off at 9:30. After lunch from 12:00 to 1:00, members met on-site for one of five guided field trip options.



Attendees: Chelsea Gottfried, Jim Lemon, Jim McCormac, Jessica Lowery, Sally Isacco, Dave Isacco, Tracy Clark, Jay Heiser, Jim Heflich, Bob Glotzhober, Ron Boudouris, Lee Miller, Lisa Miller, Jim Lundberg, Cathy Lundberg, Paul Schweigert, Donna Parry, Christine Siarka, Wayne Dannels, Heather Gilford, Darin Myers, Rick Barricklow, John Navarro, Donna Allen, Christie Holmes, Karen Scott, Adam Seefeldt, Grace Seefeldt, Joseph Seefeldt, Rebecca Rose, Alesia Miller, Mark Miller, Chuck Jakubchak, Jeanne Jakubchak, Jane Weiland, Sheree Cyra, Greg Moorman, David Goldstein, Phyllis Kelly, Shane Myers, Randy Huber, Hal Brown, Kathi Fernandez, Hollis Humphries, Dave McShaffrey, David Hochadel, Dave Tracht, Kate McNeece, Karen Cline, Warren Uxley, Cheryl Harner, Steve Pollick, Matt Cary.

## Crawford Park District and Lowe-Volk Nature Center



If you would like to make a donation to the **Lowe-Volk Nature Center**, which was the host site for the OOS 2023 meeting, send a check to:

Crawford Park District  
2401 SR 598  
Crestline, OH 44827

## OOS Business

**OOS Website** One of the most important items on the OOS business agenda was the issue of an OOS web-site, essential for accessing data, charts, historical newsletters, OOS news and business. A small committee is working on a plan - more to follow in the coming months.

**OOS Treasury** Society financial data will be available when transfer of financial records to Treasurer, Sherree Cyra, is complete.

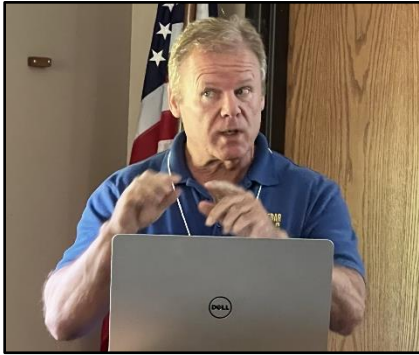
**OOS Elections** Shane Meyers was elected, uncontested, as the new Member-at-Large, and promotions were confirmed for Dave McShaffrey to President and Chelsea Gottfried to Vice President. MaLisa Spring, Past-President, is moving on, possibly out of state. Our heart-felt thank you, MaLisa, for your easy-going and effective leadership. You will be missed. Best wishes in the next chapter of your life.

**Survey Data** Jim Lemon offered a brief history on the original Survey conducted from 1991 to 2001 and the 2017 to 2019 Survey supported by the Ohio Division of Wildlife as part of the Ohio Biodiversity Conservation Partnership. Jim updated us on the Ohio Dragonfly Survey as it continues today. One measure of Survey success is raw observation numbers – Ohio Ode observations exceed 172,000, more than three times the combined total observations of the five states bordering Ohio. How does Jim apply all that horsepower? In addition to the value of Jim's data projects for the Ohio Division of Wildlife and other researchers for science, management and conservation, Jim has produced Species Maps and Flight Charts on Ohio's 172 Odes which are very useful in planning your next Ode field trip.

**DSA 2024** Dave McShaffrey discussed the 2024 Meeting of the Dragonfly Society of the Americas to be held in Marietta, Ohio, June 28th and June 29th with field trips on days before and after. Expect more information in the upcoming months. Meanwhile, Dave is reaching out to you to submit your favorite field trip sites in Ohio or across state borders. In the last week of June, Clubtail numbers decline while Skimmer numbers ramp up. Don't look at it as a lull between Ode Family flight; June is the best month for numbers of species reported; as Dave pointed out, even the most common species observation might make an Ode enthusiast's trip if they traveled from another region or country. Still, when choosing a site, consider expectations for late June through early July. Additionally, field trip site information should include description of where to concentrate efforts, directions, parking, site access and distance to gas stations and restaurants. Site habitat photos are especially needed. Better to show than tell; would you enjoy a field trip with some of the foremost experts in the field? You don't need to be an in the field of Odontology, just a willingness to lead a field trip to an Ode site familiar to you. Contact Dave. [mcshaffd@marietta.edu](mailto:mcshaffd@marietta.edu)



# OOS Presentations



## Ohio Damsels and Dragons: Habitat, Distribution, Rarity and Change

Jim McCormac, author, photographer, knowledgeable naturalist and a truly engaging speaker, discussed habitat types, habitat change and how it affects Odonata and other life in Ohio. Jim's presentation connected the value of unique, but disappearing habitat with the rarest of Odonata species. Jim also offered insight into the ongoing changes we are seeing in climate. Where Ohio is at the southern end of species' range, these Odes (and other animals) are disappearing, while southern Odes are being reported across the state in record numbers.



## Enallagma – Ohio's Bluets

Jim Lemon, OOS Data Manager, Lead Survey Observer, and Lead ID Curator, presented an overview and identification primer of Ohio's 16 Bluets. After introducing the Enallagma group, we looked at the common morphological attributes that help make the species distinctions: general color, head/eyespot, thorax/shoulder stripe, and abdomen/cerci. Jim then shared his experiences in

documenting the 16 species from the most common (Familiar Bluet) to the least (Marsh Bluet). This involved looking at range and flight period, and unique attributes of each of the Bluet species.



## OOS Field Trips

At 9 am, the temperature in Crawford County was 63 degrees. Early afternoon, the warming promise of a sunny day was fulfilled, and bugs were out. Attendees broke up into five groups with each group scheduled to visit two or three sites. All five field trip sites combined for 35 observed species, summary below.

Blue-fronted Dancer	<i>Argia apicalis</i>	1
Violet Dancer	<i>Argia fumipennis violacea</i>	16
Powdered Dancer	<i>Argia moesta</i>	11
Blue-tipped Dancer	<i>Argia tibialis</i>	22
Unicorn Clubtail	<i>Argomphus villosipes</i>	7
Ebony Jewelwing	<i>Calopteryx maculata</i>	13
Aurora Damsel	<i>Chromagrion conditum</i>	8
Rainbow Bluet	<i>Enallagma antennatum</i>	2
Azure Bluet	<i>Enallagma aspersum</i>	4
Double-striped Bluet	<i>Enallagma basidens</i>	2
Tule Bluet	<i>Enallagma carunculatum</i>	3
Familiar Bluet	<i>Enallagma civile</i>	2
Turquoise Bluet	<i>Enallagma divagans</i>	2
Stream Bluet	<i>Enallagma exsulans</i>	16
Skimming Bluet	<i>Enallagma geminatum</i>	5
Orange Bluet	<i>Enallagma signatum</i>	1
Westfall's Slender Bluet	<i>Enallagma traviatum westfalli</i>	4
Prince Baskettail	<i>Epitheca princeps</i>	3
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	12
American Rubyspot	<i>Hetaerina americana</i>	9
Fragile Forktail	<i>Ischnura posita</i>	13
Eastern Forktail	<i>Ischnura verticalis</i>	24
Emerald Spreadwing	<i>Lestes dryas</i>	8
Elegant Spreadwing	<i>Lestes inaequalis</i>	1
Slender Spreadwing	<i>Lestes rectangularis</i>	5
Swamp Spreadwing	<i>Lestes vigilax</i>	2
Dot-tailed Whiteface	<i>Leucorrhinia intacta</i>	6
Slaty Skimmer	<i>Libellula incesta</i>	8
Widow Skimmer	<i>Libellula luctuosa</i>	3
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	3
Four-spotted Skimmer	<i>Libellula quadrimaculata</i>	4
Swift River Cruiser	<i>Macromia illinoensis</i>	4
Blue Dasher	<i>Pachydiplax longipennis</i>	4
Eastern Amberwing	<i>Perithemis tenera</i>	10
Common Whitetail	<i>Plathemis lydia</i>	10



**Low-Volk Park and Sandusky Headwaters Preserve**

Shane Meyers guided seven attendees. While discussing a broad range of nature topics and entertaining the group with light-hearted description of occupational hazards including an 8-hour commute, rattlesnakes, bears and a concerning wilderness tumble, Shane identified every Ode brought to his attention. A word mentioned in the business meeting came to mind – *Gestalt* – the whole is greater than the sum of the parts. Used in the context of Ode ID, Gestalt is an awareness of Ode species habits, flight, region, habitat, coloration and size. It is quite apparent that Shane has spent many-thousand outdoor hours acquiring the Ode ID Gestalt factor; enlarging a

telephoto camera image confirms that the damsel Shane identified with a casual appraisal from 30 feet was indeed an Azure Bluet. Our first site was the man-made pond next to the Center which yielded Slender Bluets, Azure Bluets, Eastern Pondhawks, Violet Dancers, Eastern Amberwings, Blue Dashers and Eastern and Fragile Forktails. The second Pond held Blue-tipped Dancers, Aurora Damsels, a Slender Spreadwing and a fast-moving Comet Darner which Shane netted on his first swipe. A trip to the Sandusky Headwaters Preserve produced Blue-tipped Dancers, Turquoise Bluets, more Aurora Damsels, Common Green Darner, Twelve-spotted Skimmer, Blue-tipped Dancers and more forktails. *Shane displays the Comet Darner, which complemented his burgundy polo shirt, before he released it to dart off unharmed.*

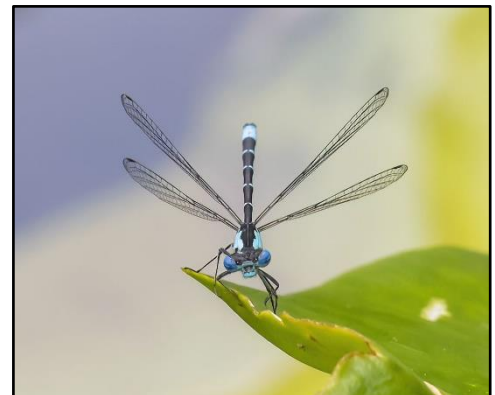


**Amman Reservoir, Galion Bog and Hecker Nature Preserve**

Jim McCormac and Chelsea Gottfried led a group to Galion Bog, a small, degraded, relatively unexplored bog. Heckert Nature Preserve has constructed wetlands and large vernal pools. *Group photo: Karen Cline*

**Clear Fork Reservoir and Ohio Bird Sanctuary**

Bob Glotzhober and Dave McShaffrey were guides. Clear Creek Reservoir is a large lake on the Clear Fork River. The Ohio Bird Sanctuary features wetlands and the Clear Fork River. *Photo: Aurora Damsel, Ohio Bird Sanctuary, Dave McShaffrey*







### Unger Park and Sandusky Wildlife Area

Guided by Jim Lemon and Donna Parry, an enthusiastic group of 10 gathered at Unger Park under a weak but warm sun. One thing that stuck out was that the group was a nice mix of experienced folks and others newer to the Ode scene. This made for a lot of energy and enjoyment no matter what we were finding. Beating the bushes, we did find some of the usual pond species. Unger has a well vegetated pond, and vernal wetland that was mostly dry. Initial highlights were Slaty Skimmer, Twelve-spotted Skimmer, Dot-tailed Whiteface, Spreadwings, Dancers, Bluets. More to follow.

When we thought we had exhausted Unger we went down the road to Sandusky Wildlife Area. Sandusky WA in on the Sandusky River - the Sandusky was running a little high and quite silt-laden. We found

typical stream species at Sandusky. We had at least one cooperative Swift River Cruiser flying the river and folks got their photos. Other things flying were a host of damsel - American Rubyspot, Stream Bluet, Ebony Jewelwings, Blue-tipped Dance, Powdered Dancer. The big excitement happened post field trip when Donna Parry realized she had Four-spotted Skimmer at Unger. This is a new County Record. The rest of the story at this point can be found in the overview in this newsletter. *Photo: Donna Parry Four-spotted Skimmer, Libellula quadrimaculata, Unger Park, Jun 17, 2023.*



### Daughmer Savanna State Nature Preserve and Sears Woods State Nature Preserve

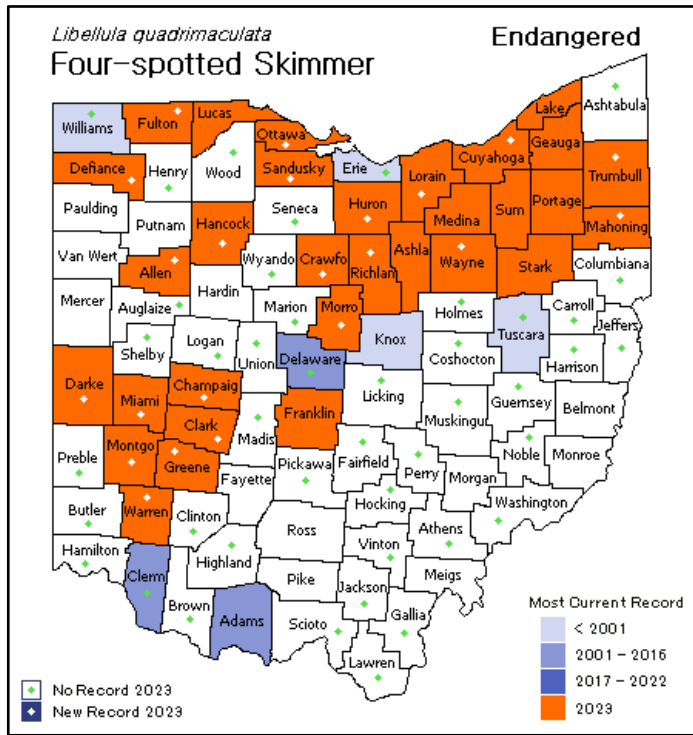
Led by Sally Isacco and Jim Heflich, went to the Daughmer Savanna State Nature Preserve and Sears Woods SNP. The Burr Oak Trees at Daughmer were impressive. Some showing their age at 200 years old! Although the Odes

were not many, we found other things of interest. The group was great. It was nice meeting new people and enjoying the day with mother nature. At Sears no real access to the river, and it was high. *Photos: Emerald Spreadwing by Ron Boudouris. Group photo by Sally Isacco*





**Four-spotted Skimmer: An Unexpected Visitor** Dave Goldstein with input from Dave McShaffrey, Larry Rosche, Judy Semroc, Bill Hull, Linda Gilbert and Jim Lemon. Chart – Jim Lemon.



The four-spotted skimmer, *Libellula quadrimaculata*, is a widespread dragonfly species, with a distribution that circles the globe across North America, Europe, and Asia. In the US, Four-spotted Skimmers are dragonflies of the north. Reports in iNaturalist derive most heavily from southern Canada and the bordering US states, and this dragonfly is actually the state insect of Alaska! (If you’re wondering, Ohio’s is the ladybug.) Before this year, iNaturalist listed barely a dozen sightings of four-spotted skimmers in Ohio, including just one in the previous five years (As noted below, though, there apparently was an incursion of this species into Ohio in 2009 as well). So, what a surprise when reports of four-spotted skimmers started coming in from across the state in mid-June. In an odd happenstance, some of the first sightings occurred at one of the post-OOS meeting field trips with others following quickly. What do we make of this “invasion”?

At the time of writing this note, much remains to be learned, including the duration, geographic scope, and magnitude of the outbreak. What we do know is that Four-spotted Skimmers appeared pretty much simultaneously across Ohio. It appears that almost all individuals have been males, and it appears that the phenomenon is restricted to this one species; there is no evidence that other northerly Odonates expanded their ranges into Ohio at the same time.

One factor that could, in principle, account for the surge in reports of four-spotted skimmers in Ohio is that the OOS, including particularly efforts associated with the Ohio Dragonfly Survey, has spawned an avid community of Odonate enthusiasts. As a result, reports to iNaturalist of Ohio Odonates have mushroomed in recent years. The speed with which reports of Four-spotted Skimmers came in from across Ohio is testament to the power of iNaturalist and social media, combined with those years of galvanizing efforts, to catalyze documentation of natural phenomena. By comparison, while more than 200 reports of *L. quadrimaculata* have come in from more than 30 counties across Ohio in the two weeks since they were first sighted, almost none have been posted to iNaturalist from Indiana (3 sightings), Kentucky (0), or Pennsylvania (1). Still, though, it seems clear that the outbreak of four-spotted skimmers in Ohio is a real phenomenon, not just an artifact of better reporting. Surely the species would have been noticed in previous years if it had been present. So, how to explain the sudden appearance?

Intermittent, irregular southern incursions of certain northerly species are well known for birds. These irruptions, as they are known, occur as birds wander in search of food. For example, Waxwings seek out fruits, Crossbills wander in search

of pine seeds, and Snowy Owls come south for rodents. None of these species are migratory per se; rather, they are nomadic and go where the resources are. Some insects also roam in search of food, especially when populations are high; locusts are the classic example, and Nevada is seeing an invasion of Mormon crickets this year. However, it seems unlikely that northern dragonflies would head south for insect prey in summer, and we doubt if this irruption model can explain the Four-spot incursion into Ohio.

There are dragonflies that migrate into Ohio, though. Those migrations are seasonal; Common Green Darners, Variegated Meadowhawks, and several others appear in the springtime from their more southern wintering grounds, then the next generation head back south in fall. A mid-summer migration event would be unusual. Nevertheless, Four-spotted Skimmers are known to migrate en masse every 10-15 years in Europe, perhaps associated with outbreaks of parasitic trematode worms (<https://uwm.edu/field-station/four-spotted-skimmer/>). This phenomenon is not known for North American populations, and it seems unlikely that such an event would be so male-biased, but it's possible.

Insect movements can be influenced by environmental change. On a broad scale, climate warming has induced progressive northward range expansion for a number of species. Slaty Skimmers, Great Blue Skimmers, and Carolina Saddlebags, for example, are much more common in Ohio now than just a few years ago. However, the Four-spot incursion—the sudden appearance of a northern species—does not seem to fit well as a consequence of long-term climate change.

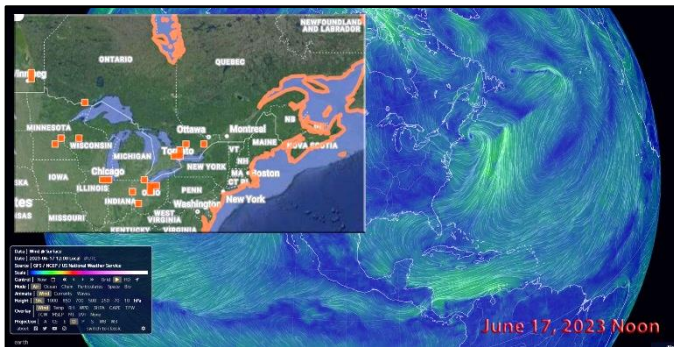
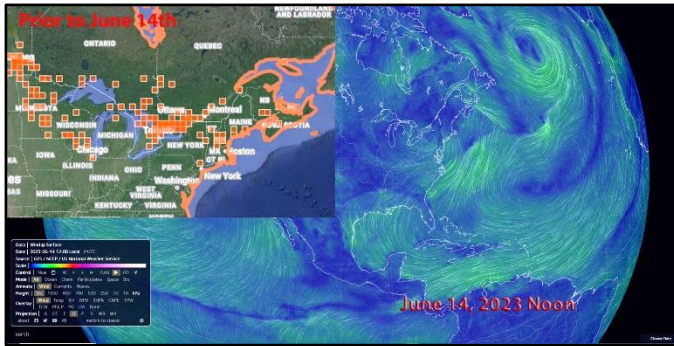
On the other hand, shorter-term environment change can have more idiosyncratic consequences. For example, cold, wet weather in spring, 2023, slowed the northward migration of green darners so that, unlike the prior three years, there were sightings in Ohio in March. Could weather explain the mid-June appearance of four-spotted skimmers? Two factors might contribute. First, pressure fronts created prevailing winds from the north and northwest that could have blown dragonflies in from Ontario and/or Wisconsin and Illinois. And second, Canada experienced widespread wildfires during the first weeks of June; those fires, or the poor air quality they created, might have induced movement of dragonflies.

Could those environmental influences affect primarily males of just this one species? We can only speculate. It's possible that aspects of the seasonal phenology of four-spotted skimmers, such as simultaneous emergence and/or flight habits of males vs. females, could favor the observed pattern of incursion. For example, it is common that males and females differentially move away from water bodies associated with the progression of the breeding season.

Interestingly, this recent spate of four-spot sightings has resurrected records of a previous appearance. In July, 2009, four-spotted skimmers showed up in Adams, Butler, Clermont and Montgomery counties. Records provided by Bill Hull indicate sighting of 27 males and 5 females in Clermont County on 13 July, including 3 mating pairs and 3 ovipositing females; by the end of the month, they were gone.

That reproductive activity in 2009 apparently did not result in a sustained population of four-spotted skimmers in Ohio. We probably will never know whether the factors responsible for the 2009 incursion were similar to those pertaining this year. However, we now have a well-informed community of "Odonatophiles" in Ohio with the habit of posting sightings on iNaturalist. Going forward, we at least can have confidence that any lasting impact of the 2023 "four-spot invasion" will be well recorded.

## Four-spotted Skimmer – Notable Ohio Odonata Facebook Posts



**Dave McShaffrey** Where did the 4-Spotted Skimmers come from? There are populations to the north in Ontario and to the west in southern Wisconsin/northern Illinois. The figures show all observations on iNaturalist from before June 14th, as well as the wind direction (@ the surface) for the 14th through the 17th when they appeared. On the 13<sup>th</sup>, the winds were coming from the west. On the 14th, more northwest. On the 15th, the west. On the 16th, the north and on the 17th the northwest. If they came in on the 16th they came from Ontario, on the other days its more likely from the Wisconsin area. Pay attention to the map for the 15th where I've circled winds coming down from the north into the Chicago area, at which point they shift from the west. My best guess is that they blew into the state on the 15th and the north winds on the 16th helped move them south. Your mileage may differ.

**Rick Nirschl** The tornadoes came through Toledo last Thursday, the 15th. They came from the NW and traveled SE from Lucas to Ashland and Sandusky Counties and continues SE as less severe storms. That roughly coincides with their arrival.

## Four-spotted Skimmer - Observations across the State Donna Parry, Sarah M. White, David Goldstein, Linda Gilbert, Dave McShaffrey and Curtis Young

**Donna Parry** Trailing behind the group, I stepped into a break in the reeds which others had already explored. As I entered something yellowy flew in, hovered, then flew back out. I backed up a few steps, waited and hoped – really hoped – that it might return. Sometimes they don't; it's so frustrating never knowing what I missed. The next few minutes dragged. Thinking: "Something I've never seen before? Don't get your hopes up!" A dancer and a pair of Eastern Pondhawks kept me company. Then Yellow came back and perched! Got my photos, but couldn't ID it. A teneral of something common, maybe? Fell behind the group again later, explored another gap and found a second yellowy *whatsis!* On loading them to iNat that evening, I got an ID and was happy to have a new species. Still clueless that it was an unusual sighting until Jim Lemon filled me in. Whoa! So, I was pretty excited the next day to find more at Amman Reservoir. But when I pulled out of the parking lot and saw "Crawford-Morrow County Line Road" ahead, I just about lost it. Were those sightings truly in a different county? Only after a long day of travel would I get a chance to find out – and



the GPS tagging on the photos said yes! Blown away. So glad that I went to the meeting, and grateful to all who worked to make it a great experience.



**Sarah M. White** I was reviewing iNaturalist observations on Saturday evening, June 17th, when I came across David Goldstein’s report of a Four-spotted Skimmer from Bill Yeck Park. Four-spotted Skimmer observations in this part of Ohio is almost unheard of! Four-spotted Skimmers are a northern species, and our migrants usually come up from the south, not down from the north!

Like many dragonfly enthusiasts, I keep a list of target species to search for. However, Four-spotted Skimmers have never been on my list. Bill Yeck Park is close to where I live, so I headed over there first thing on Sunday, June 18th, to see if I could locate the skimmer. Success! After a brief search through the wetland, there it was: a beautiful, solitary, golden Four-spotted Skimmer, basking in the morning sunshine.

That skimmer was a lifer for me. I decided to try searching a couple of other locations with similar habitat, and I headed down the road to Caesar Creek Wildlife Area (Warren County). The habitat there is similar to Bill Yeck Park – shallow wetlands in a large, open meadow, with lots of emergent vegetation. After a brief survey, I found another Four-spotted Skimmer, the first one documented in Warren County. By this point, I realized that I was witnessing an unusual migratory event and wanted to document these dragonflies in as many locations as I could. I headed back to Montgomery County and drove to Cox Arboretum. Cox has the same type of habitat as the first two locations: a very small, shallow, well-vegetated wetland. I have been watching dragonflies at Cox Arboretum for over 12 years and . Never did I imagine that I would see Four-spotted Skimmers there ... and yet, there they were. I saw at least four individuals, several males fighting with each other for the best perches. By this point, I had seen Four-spotted Skimmers in two locations from Montgomery County and one from Warren County. I wanted to add Greene County to the list, so I headed up the road to Oakes Quarry in Fairborn. Oakes Quarry is always a good spot for migrants. The trip paid off. I found at least six Four-spotted Skimmers at Oakes Quarry (conservative estimate), the most at any location that day. Once again, there were several males, fighting over the best perches in the shallow quarry wetlands. It was incredible. I had visited four wetlands, and there were Four-spotted Skimmers at every single one. All of these locations are very well-known to me, but I had never seen this species at any of them before. There were no previous sightings in the OOS database for Montgomery, Greene, and Warren Counties prior to this 2023 outbreak—but in a single day, I was able to locate this species in all three counties. It was an absolutely incredible event, and one that I will never forget. *Photo: Sarah M. White*

**David Goldstein** June 17: I live immediately on Bill Yeck Park on the south side of Dayton and I walk my dog in the park every day. Yeck has a creek and a small wetland, and I have become well familiar with the park’s odes. After the OOS meeting this year, I returned home and immediately took my dog out to one of her favorite creek spots. There were depressingly few odes flying for a hot summer day, but I saw one pair of animals flying and occasionally perching. They let me get close enough to photograph, and I immediately knew that I didn't recognize the species. As soon as I returned home, I put the photos in iNat; the ID popped right up, and to my surprise it was a species with almost no sightings in Ohio. I was even more surprised when I looked at iNat again later in the evening and saw other postings of the same species from the other side of Ohio.



**Linda Gilbert** (Jun 18): Yes, this was a life dragonfly as well as the first time on my property. I was in my kayak on our 3-acre pond when I noticed a couple dragons whose color and behavior seemed "off". When one of them finally landed and I got some pictures, the 4-spotted was the first thing that came to mind. I remembered seeing a FB post about one being seen a few days earlier somewhere in Ohio. The next thing I did was try to convince myself that it really was not a 4-spotted, but

some female or immature of a more common species. Nothing added up. I finally took a picture of my camera screen and put it into iNat. I was shocked (and a little shaky) when the ID came up as a 4-spotted. So I texted the pic to Larry Rosche and Judy Semroc, and they were like WOW! Then I texted Jim Lemon. Did I mention I was thrilled? *Photo: Linda Gilbert*



**Dave McShaffrey** (Jun 17): Bob Glotzhober and I led a trip to the Clear Fork Reservoir area after the OOS meeting. We found a few good things like Rainbow Bluets and Aurora Damsels, but overall, not much was flying. I left, intending to stop at Spencer Lake on the way home, but missed the turnoff and decided to swing by Carlisle Reservation in Lorain County instead. I knew Duck Pond there would give me a good indication as to whether or not it was a good day for dragonflies – this year has been kind of slow. As I approached the pond, I saw a dragonfly perched on

a twig sticking up from the water. Its brown coloration suggested that maybe it was the rarest of all dragonflies, the Perched Common Baskettail, so I took a few shots. It didn't look right for the Baskettail, however. I didn't recognize it at all, in fact. I saw several more as I worked my way around the pond and gradually decided that it must be the 4-spot, which would be a lifer for me. I took as many pictures as I could – over 230, not counting the ones out of focus that I deleted – and headed home, about ½ hour away. Tried not to speed. Slapped the card in the computer, started the download and flipped open Rosche, Semroc and Gilbert – and I knew at that point it was the 4-spot. Still, it's not what you think it is until someone else thinks it's the same thing you think it is, so I grabbed a decent looking shot, cropped and sharpened, and slapped it on iNaturalist. Within an hour I had confirmation, though I still wasn't satisfied until someone I knew confirmed it. In the meantime, I could see reports coming in. When I pasted mine, it was the 13th for the state on iNaturalist, by the end of the day there were records from 5 counties. *Photo: Dave McShaffrey*

**Curtis Young** (Jun 16): A new find for me today, a four-spotted skimmer (*Libellula quadrimaculata*). Location of the find was Mclean Teddy Bear Park, Lima, Allen County, Ohio, 6-16-2023. I have visited this pond in the park for several years and this is the first time I have encountered this species here or anywhere else for that matter.

At first, I did not realize what I was looking at. I saw a female spotting eggs into the water and thought it was a Blue Dasher female, but then I saw the male chasing and hovering around her. The male flew off, but returned almost immediately to the cattail it was sitting on. It and about 4 or 5 others were very cooperative for taking numerous pictures. Unfortunately, I have returned to the pond several times since and did not see them again.

# Common Green Darner Radio Tracking – Volunteers Needed (Northern Ohio)

Help track migrating dragonflies! The US Forest Service invites you to help catch dragonflies in Northern Ohio on August 25th and 26th with dragonfly scientists Dr. Ami Thompson and Dr. Melissa Sanchez Herrera. The exact locations and times of the half-day workshops are still being determined. Participants will capture and attach MOTUS radio trackers before releasing the dragonflies. Data collected from this event will inform future international migratory dragonfly conservation and research. Please email Karin Theophile ([karin.theophile@usda.gov](mailto:karin.theophile@usda.gov)) if you are interested in participating.



The Motus Wildlife Tracking System (Motus) is an international collaborative research network that uses coordinated automated radio telemetry to facilitate research and education on the ecology and conservation of migratory animals <https://motus.org/>.



Available as digitally coded tags for the continental MOTUS array and as traditional beeper tags for local movement studies, Lotek produces NanoTags for insects. The latest and lightest NanoTag is the NanoPin, weighing 0.13g. Project managers hope to attach trackers onto any migrating dragonfly species captured, and the smaller NanoPin (image left) will be used on the smaller migrators. This workshop will primarily be for getting a better understanding of this methodology to apprise future

research. Superglue, or a combination of superglue and eyelash glue will be used to attach the Nanotags. Over the next few weeks, the project managers will conduct some simple preliminary tests to determine the effects of superglue on dragonfly survival.





## Sackett v. U.S. EPA: a sad day for protection of wetlands David Goldstein



[https://www.everycrsreport.com/reports/R44585.html#\\_Toc3541497](https://www.everycrsreport.com/reports/R44585.html#_Toc3541497)

In 1972, just two years after the EPA was established and Earth Day was first celebrated, Congress passed the Clean Water Act (CWA), which expanded the scope of federally protected waters from those navigable in interstate commerce to the broader "waters of the United States." In the years since that law was enacted, the definition of what constitutes "the waters of the United States," and of who is responsible for administering the CWA, have been the subject of recurring dispute and challenge.

The most prominent of those legal tests, *Rapanos v. United States*, challenged whether wetlands without direct connection to navigable waterways warranted protection under the CWA. In 2006, the U.S. Supreme Court (SCOTUS) split right down the middle: four justices voted against *Rapanos* and four voted in favor. Justice Anthony Kennedy fell in the middle; he voted neither for nor against but wrote a lengthy opinion in which he defined protected waters as those with a "significant nexus" (e.g., via underground hydrology) to navigable waters. That would include many of the nation's wetlands. Kennedy's criteria have been incorporated into subsequent legal decisions. Still, though, the 4-1-4 vote left legal guidance murky.

To remedy that ambiguity, the EPA and US Army Corps of Engineers crafted a document in 2015 known as the Clean Water Rule. That document substantially codified the principles defined by Justice Kennedy in *Rapanos*, extending federal clean water protections to streams and wetlands with significant hydrological or biological connection to navigable waters. This was a big win for wetlands. However, the Clean Water Rule was never enacted into law by Congress, and in 2017, it was revoked by President Trump.

While all that was going on, a family in Idaho, the Sacketts, pursued development of a parcel of land they owned. Although they initially received a building permit, the EPA ruled that their project violated the CWA. That was in 2008. The case made its way through the courts over the next 15 years, and on 25 May, 2023, SCOTUS handed down a decision in *Sackett v. U.S. EPA*. The justices ruled unanimously, 9-0, in favor of Sackett; their land did not warrant protections under the CWA. But alongside that decision, a majority of justices, led by Samuel Alito, also re-interpreted the protections of the CWA. The protected “waters of the USA,” they declared, include only those with direct connection via surface waters to navigable waterways. Other “functional connections”, e.g., via hydrology or ecosystem function, no longer justify protection.

As Justice Brent Kavanaugh noted in a (surprising) dissenting opinion, this ruling removes critical protections from vital US waterways and wetlands, and it retains substantial ambiguities. Many wetlands connect to navigable waters only underground or intermittently, or they may be separated by barriers, natural or artificial, that block navigation.

The impact of this ruling is likely to be that something like half of all US wetlands—tens of millions of acres- are removed from protection under the CWA. Now, with SCOTUS having ruled, the only recourse for restoring federal protections is for Congress to pass new legislation, essentially to encode into law the 2015 Clean Water Rule. Beyond that, efforts will need to be directed more locally, at levels from the states to local municipalities. If you value clean water and all of the values that wetlands provide—biodiversity, clean drinking water, carbon capture, and flood control—now is the time to make your voices heard!

## Survey Update June 2023 Jim Lemon

Exciting times. Many people had a dragonfly to their life-list with the Four-spotted Skimmer. Others were able to record their first County Record. Currently recorded in 31 counties, 54 people.

The spring weather has seemed unusual. While a northerly wind probably brought us the Four-spotted Skimmers, many of the expected southern species are still not here. We had several weeks of no rain at a critical time for emergence, and also the white sky of the Canada fires' smoke.

Our numbers are good, close to 2022, but below last years' record numbers.

Damselfly numbers and proportion are similar to 2022.

Notable dragonfly absences include 0 Great Blue Skimmer (5-year average through Jun is 38), drastically fewer Carolina Saddlebags with 23 (5-year average through June is 121), and even things like Blue Dasher numbers (358) are down compared to recent years (1,181 in 2022 through June). The list goes on with Slaty Skimmer (y22-197, y23-122), Twelve-spotted Skimmer (y22-346, y23-159), Black Saddlebags (y22-280, y23-111), Halloween Pennant (y22-109, y23-44), and Comet Darner (y22-89, y23-27). Maybe we're just behind. Hopefully we can catch up a bit.

We are at 114 species on the year, again well below the 5-year average of 124 species through June.

Our County Record count is at 81, pretty good! A bit less so if you consider the 23 of these that were new for Four-spotted Skimmer.

<b>88 Counties</b>	<b># Observations</b>	<b># Sp</b>	<b># Users</b>	<b># Co Records</b>
Adams	20	15	8	
Allen	15	11	4	1
Ashland	94	22	6	
Ashtabula	710	45	17	2
Athens	186	27	20	3
Auglaize	13	8	1	
Belmont	20	9	2	
Brown	110	26	3	2
Butler	243	33	17	1
Carroll	14	5	2	
Champaign	541	45	26	1
Clark	320	39	14	1
Clermont	198	41	14	1
Clinton	54	22	6	1
Columbiana	69	24	6	2
Coshocton	294	32	3	1
Crawford	216	35	18	2
Cuyahoga	184	40	40	1
Darke	44	23	2	1
Defiance	49	23	2	1
Delaware	51	22	9	
Erie	79	19	13	
Fairfield	23	14	7	
Fayette	6	4	2	
Franklin	1354	53	46	
Fulton	43	19	4	1
Gallia	193	28	1	3
Geauga	354	49	25	
Greene	373	46	32	1
Guernsey	35	7	4	1
Hamilton	255	44	29	
Hancock	169	39	10	1
Hardin	27	11	3	1
Harrison	111	20	5	
Henry	21	14	2	1
Highland	25	16	1	
Hocking	26	16	11	
Holmes	24	8	3	
Huron	47	17	4	1



Jackson	91	22	3	
Jefferson	67	19	4	
Knox	4	3	3	
Lake	341	51	21	
Lawrence	251	30	3	
Licking	49	14	7	
Logan	249	31	6	
Lorain	401	39	21	1
Lucas	500	46	35	
Madison	108	25	6	
Mahoning	56	25	9	1
Marion	37	11	3	1
Medina	188	34	23	2
Meigs	79	23	2	2
Mercer	33	14	1	2
Miami	109	28	6	1
Monroe	32	14	1	
Montgomery	437	58	22	2
Morgan	95	25	3	2
Morrow	315	31	13	3
Muskingum	137	35	10	1
Noble	57	16	3	
Ottawa	54	15	16	2
Paulding	11	7	1	1
Perry	172	37	7	5
Pickaway	79	26	9	1
Pike	49	21	5	1
Portage	188	45	20	
Preble	151	29	7	
Putnam	7	6	1	
Richland	134	24	8	2
Ross	44	19	11	1
Sandusky	131	17	2	1
Scioto	57	15	8	
Seneca	18	13	3	1
Shelby	60	25	2	2
Stark	301	48	18	
Summit	379	53	57	1
Trumbull	100	31	9	3
Tuscarawas	76	13	3	
Union	193	28	6	3

Van Wert	43	16	2	1
Vinton	61	18	3	
Warren	114	29	17	2
Washington	119	30	2	1
Wayne	64	23	16	3
Williams	87	27	3	
Wood	24	17	4	
Wyandot	20	14	2	1

<i><b>Species</b></i>	<i><b># Observations</b></i>	<i><b># Counties</b></i>	<i><b># Users</b></i>	<i><b># Co Records</b></i>
Fragile Forktail	1074	82	113	
Eastern Forktail	1032	81	114	
Eastern Pondhawk	670	76	95	
Common Whitetail	827	76	172	
Blue Dasher	358	64	79	
Widow Skimmer	326	63	77	
Ebony Jewelwing	547	61	155	
Prince Baskettail	174	59	49	
Violet Dancer	335	58	63	
Eastern Amberwing	254	57	62	
Orange Bluet	291	54	54	
Double-striped Bluet	276	54	48	
Common Green Darner	325	53	73	
Twelve-spotted Skimmer	159	51	65	
Stream Bluet	347	51	63	
Unicorn Clubtail	296	49	68	2
Skimming Bluet	316	49	57	
Blue-tipped Dancer	334	49	76	
Familiar Bluet	141	48	44	
Westfall's Slender Bluet	198	45	43	
Lancet Clubtail	305	42	33	1
Black Saddlebags	111	42	38	
Slender Spreadwing	157	39	46	
Azure Bluet	144	38	47	
Blue-fronted Dancer	111	36	41	

Ashy Clubtail	194	35	40	
Slaty Skimmer	122	33	44	
Powdered Dancer	217	31	46	
Four-spotted Skimmer	235	31	54	23
Spangled Skimmer	115	30	34	
Dot-tailed Whiteface	220	30	41	1
Common Baskettail	81	29	35	3
Calico Pennant	181	28	37	
Vesper Bluet	61	24	22	5
Turquoise Bluet	158	24	29	5
Eastern Red Damsel	158	22	51	1
Springtime Darner	58	21	25	1
Painted Skimmer	66	21	31	
Elegant Spreadwing	56	21	21	3
Midland Clubtail	120	20	31	2
Cyrano Darner	26	18	17	3
Aurora Damsel	94	18	26	2
Comet Darner	27	17	20	
Swamp Darner	38	16	28	3
American Rubyspot	92	15	33	
Halloween Pennant	44	14	21	
Emerald Spreadwing	40	14	15	2
Amber-winged Spreadwing	38	14	16	1
Spatdock Darner	51	13	21	1
Carolina Saddlebags	23	13	13	
Rainbow Bluet	53	12	21	
Gray Petaltail	26	12	18	1
Dragonhunter	31	12	17	1
Blue Corporal	102	12	19	
Rapids Clubtail	107	11	17	
Swift River Cruiser	21	9	16	
Sweetflag Spreadwing	19	9	11	1
Pronghorn Clubtail	70	9	15	2
Dusky Dancer	22	9	8	
Black-shouldered Spinyleg	17	9	11	
Banded Pennant	46	9	12	
Stream Cruiser	22	8	10	1
Swamp Spreadwing	15	7	7	1
Sedge Sprite	19	7	9	1
Lilypad Forktail	44	7	14	1
Citrine Forktail	33	7	8	1

Blue-ringed Dancer	28	7	11	
Variegated Meadowhawk	16	6	7	2
Twin-spotted Spiketail	10	6	8	1
Spot-winged Glider	15	6	9	
Southern Spreadwing	11	6	9	1
Eastern Least Clubtail	38	6	12	1
Cobra Clubtail	32	6	14	1
Arrowhead Spiketail	16	6	12	
Tule Bluet	25	5	12	
Sphagnum Sprite	17	5	6	1
Lilypad Clubtail	27	5	7	1
Wandering Glider	8	4	6	
Rusty Snaketail	121	4	12	
Ruby Meadowhawk	4	4	3	
Brown Spiketail	17	4	8	
Blue-faced Meadowhawk	13	4	8	
Seepage Dancer	28	3	14	
Plains Clubtail	6	3	6	1
Harlequin Darner	13	3	7	
Handsome Clubtail	61	3	10	
Flag-tailed Spinyleg	8	3	5	
Dusky Clubtail	28	3	5	
Band-winged Meadowhawk	4	3	3	
Southern Pygmy Clubtail	41	2	9	
River Bluet	8	2	2	1
Paiute Dancer	7	2	5	
Uhler's Sundragon	3	1	1	
Tiger Spiketail	1	1	1	
Swift Setwing	1	1	1	
Stygian Shadowdragon	1	1	1	
Splendid Clubtail	13	1	4	
Slender Baskettail	1	1	1	
Royal River Cruiser	1	1	1	
River Jewelwing	10	1	6	
Red Saddlebags	1	1	1	
Racket-tailed Emerald	2	1	1	
Northern Bluet	7	1	3	
Mocha Emerald	1	1	1	
Lyre-tipped Spreadwing	1	1	1	1
Jade Clubtail	2	1	2	
Green-faced Clubtail	4	1	3	



Fawn Darner	1	1	1	
Elfin Skimmer	12	1	7	
Delta-spotted Spiketail	42	1	6	
Chalk-fronted Corporal	1	1	1	
Boreal Bluet	3	1	3	1
Beaverpond Baskettail	1	1	1	
Autumn Meadowhawk	1	1	1	

## Article Submissions Jim Lundberg

Ohio has over three times as many observations as the five bordering states combined. In terms of iNaturalist Odonata observations, Ohio remains the most active state within the United States, but the Ohio Odonata Society is much more than iNaturalist numbers, as it connects our members across the state. The Ohio Dragon Flyer newsletter cannot exist without OOS member article submissions – all things Odonate, including but not limited to: Field trips (whether an afternoon in your backyard or a week-long road trip). Surveys and studies of any scope. Habitat restoration. Habitat loss. Any Ode Question. Any Ode Answer. Odonata book reviews. Photos. Favorite destinations and hotspots. Member profiles with a photo of you in your element. Submissions in draft form are welcomed! To submit an article or for more information: [lundbergj@hotmail.com](mailto:lundbergj@hotmail.com)



### Parting Shot – *Dragonflyer*

Rick Barricklow, OOS member, attending Dollywood with grandkids on June 19th, found this ride, the *Dragonflyer*. Dollywood Marketing offered no comment to our request for Dolly to consider updating the sign to read *Dragon Flyer*. Thank you for sharing, Rick.