

Ohio Dragon-Flyer

Newsletter of the Ohio Odonata Society



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Cover Photo: Sedge Sprite *Nehalennia irene*. Clark County, OH. OM System OM-1 and the Olympus 100-400mm @400mm, F6.3, 1/1250, ISO 2500. Found and photographed by Terri Norris during the Ohio Dragonfly Conference Post Conference Field Trip at the CJ Brown Spillway Marsh.

Ohio Odonata Society Conference 2022 – In Review

By all measures, OOS Conference 2022 was a resounding success: Presentations and fieldtrips were opportunities to, once again, interact with OOS members while gathering bit more knowledge of the Order Odonata within Ohio. Key board positions were filled, allowing the OOS to continue as a functioning entity. A proposal to change ID vetting was approved which should improve timely feedback to observers and generally improve ID skills within the community.

Maple Ridge Reserve, Miami Co, Jun 24, 2022

Unicorn Clubtail, *Arigomphus villosipes*
 Slaty Skimmer, *Libellula incesta*
 Comet Darner, *Anax longipes*
 Calico Pennant, *Celithemis elisa*
 Eastern Pondhawk, *Erythemis simplicicollis*
 Blue Dasher, *Pachydiplax longipennis*
 Twelve-spotted Skimmer, *Libellula pulchella*
 Azure Bluet, *Enallagma aspersum*
 Westfall's Slender Bluet, *Enallagma traviatum westfalli*
 Widow Skimmer, *Libellula luctuosa*
 Blue-tipped Dancer, *Argia tibialis*
 Ebony Jewelwing, *Calopteryx maculata*
 Violet Dancer, *Argia fumipennis violacea*
 Carolina Saddlebags, *Tramea carolina*
 Black Saddlebags, *Tramea lacerata*
 Common Green Darner, *Anax junius*



Maple Ridge Reserve, Miami Co, June 24 2022.
 Photo Kati Barricklow

Farrington Reserve, Miami Co, Jun 24, 2022

Cobra Clubtail, *Gomphurus vastus*
 American Rubyspot, *Hetaerina americana*
 Powdered Dancer, *Argia moesta*
 Stream Bluet, *Enallagma exulans*
 Blue Dasher, *Pachydiplax longipennis*
 Unicorn Clubtail, *Arigomphus villosipes*
 Familiar Bluet, *Enallagma civile*
 Common Whitetail, *Plathemis lydia*
 Eastern Amberwing, *Perithemis tenera*
 Black Saddlebags, *Tramea lacerata*
 Eastern Pondhawk, *Erythemis simplicicollis*
 Wandering Glider, *Pantala flavescens*
 Widow Skimmer, *Libellula luctuosa*
 Blue-fronted Dancer, *Argia apicalis*
 Blue-tipped Dancer, *Argia tibialis*
 Prince Baskettail, *Epitheca princeps*
 Black-shouldered Spinyleg, *Dromogomphus spinosus*
 Blue-ringed Dancer, *Argia sedula*



Maple Ridge Reserve, Miami Co, June 24 2022.
 Photo Terri Norris

Midland Clubtail, *Gomphurus fraternus*
 Sweetflag Spreadwing, *Lestes forcipatus*
 Slender Spreadwing, *Lestes rectangularis*
 Eastern Forktail, *Ischnura verticalis*
 Citrine Forktail, *Ischnura hastata*
 Spot-winged Glider, *Pantala hymenaea*
 Swift River Cruiser, *Macromia illinoiensis*

Lake Loramie, Shelby Co, Jun 24, 2022

Jade Clubtail, *Arigomphus submedianus*
 Eastern Amberwing, *Perithemis tenera*
 Blue Dasher, *Pachydiplax longipennis*
 Common Whitetail, *Plathemis lydia*
 Familiar Bluet, *Enallagma civile*
 Prince Baskettail, *Epithea princeps*
 Eastern Forktail, *Ischnura verticalis*
 Unicorn Clubtail, *Arigomphus villosipes*
 Blue-fronted Dancer, *Argia apicalis*
 Orange Bluet, *Enallagma signatum*
 Fragile Forktail, *Ischnura posita*



Jade Clubtail Lake Loraimie, Shelby Co, June 24 2022.
 Photo Chad Arment



Identification Presentation by Malisa Spring. June 25 2022.
 Photo Cathy Lundberg



Ohio Odonata Society Members at the Education Building at Possum Creek MetroPark in Dayton, Ohio. June 25 2022 Photo: Jim Lemon

Siebenthaler Fen, Greene Co, Jun 25, 2022

Twelve-spotted Skimmer, *Libellula pulchella*
 Blue-tipped Dancer, *Argia tibialis*
 Double-striped Bluet, *Enallagma basidens*
 Fragile Forktail, *Ischnura posita*
 Common Whitetail, *Plathemis lydia*
 Eastern Pondhawk, *Erythemis simplicicollis*
 Blue Dasher, *Pachydiplax longipennis*
 Spangled Skimmer, *Libellula cyanea*
 Stream Bluet, *Enallagma exsulans*
 Sphagnum Sprite, *Nehalennia gracilis*
 Eastern Red Damsel, *Amphiagrion saucium*
 Familiar Bluet, *Enallagma civile*
 Eastern Forktail, *Ischnura verticalis*



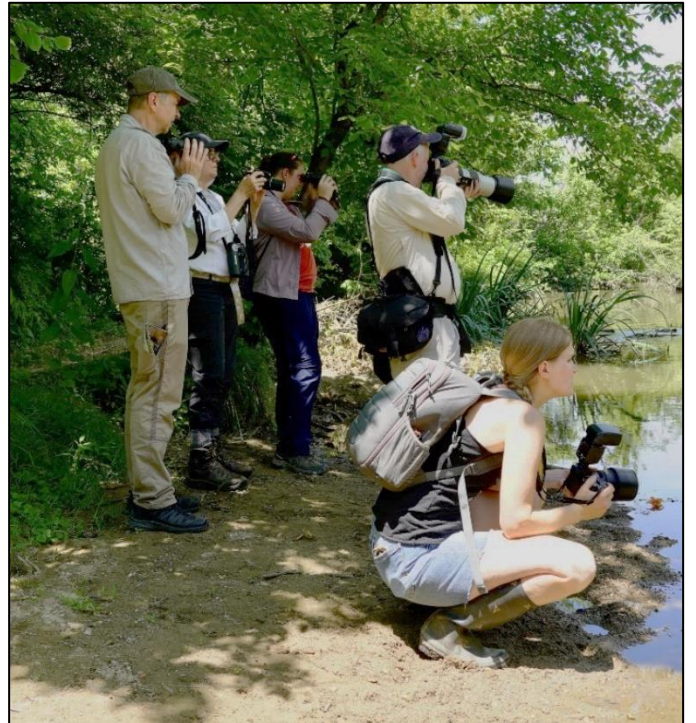
Siebenthaler Fen, Greene Co, June 25 2022 Photo: Jessica Lowery

Possum Creek, Montgomery Co, Jun 25, 2022

Calico Pennant, *Celithemis elisa*
 Double-striped Bluet, *Enallagma basidens*
 Westfall's Slender Bluet, *Enallagma traviatum westfalli*
 Eastern Pondhawk, *Erythemis simplicicollis*
 Halloween Pennant, *Celithemis eponina*
 Dusky Dancer, *Argia translata*
 Violet Dancer, *Argia fumipennis violacea*
 Widow Skimmer, *Libellula luctuosa*
 Blue Dasher, *Pachydiplax longipennis*

Koogler Wetland Prairie, Greene Co, Jun 25, 2022

Blue-ringed Dancer, *Argia sedula*
 Blue-tipped Dancer, *Argia tibialis*
 Common Whitetail, *Plathemis lydia*
 Stream Bluet, *Enallagma exsulans*
 Ebony Jewelwing, *Calopteryx maculata*
 Blue-fronted Dancer, *Argia apicalis*
 Twelve-spotted Skimmer, *Libellula pulchella*
 Widow Skimmer, *Libellula luctuosa*
 Fragile Forktail, *Ischnura posita*
 Violet Dancer, *Argia fumipennis violacea*
 American Rubyspot, *Hetaerina americana*



Koogler Wetland Prairie, Greene County. Photo: Cathy Lundberg

Taylorsville, Montgomery Co, Jun 25, 2022

Ebony Jewelwing, *Calopteryx maculata*
 Cobra Clubtail, *Gomphurus vastus*
 Paiute Dancer, *Argia alberta*
 Seepage Dancer, *Argia bipunctulata*
 Eastern Red Damsel, *Amphiagrion saucium*
 Powdered Dancer, *Argia moesta*
 Widow Skimmer, *Libellula luctuosa*
 Common Whitetail, *Plathemis Lydia*

Germantown, Montgomery Co, Jun 25, 2022

Eastern Pondhawk, *Erythemis simplicicollis*
 Stream Bluet, *Enallagma exulans*
 Twelve-spotted Skimmer, *Libellula pulchella*
 Dragonhunter, *Hagenius brevistylus*
 Gray Petaltail, *Tachopteryx thoreyi*
 Powdered Dancer, *Argia moesta*
 American Rubyspot, *Hetaerina americana*
 Common Whitetail, *Plathemis lydia*
 Citrine Forktail, *Ischnura hastata*
 Blue-fronted Dancer, *Argia apicalis*
 Ebony Jewelwing, *Calopteryx maculata*
 Widow Skimmer, *Libellula luctuosa*
 Violet Dancer, *Argia fumipennis violacea*
 Double-striped Bluet, *Enallagma basidens*
 Unicorn Clubtail, *Argomphus villosipes*
 Eastern Amberwing, *Perithemis tenera*
 Fragile Forktail, *Ischnura posita*
 Blue Dasher, *Pachydiplax longipennis*

Cedar Bog, Champaign Co, Jun 26, 2022

Seepage Dancer, *Argia bipunctulata*
 Elfin Skimmer, *Nannothemis bella*
 Ebony Jewelwing, *Calopteryx maculata*
 Eastern Red Damsel, *Amphiagrion saucium*
 Common Whitetail, *Plathemis lydia*
 Painted Skimmer, *Libellula semifasciata*
 Violet Dancer, *Argia fumipennis violacea*
 Blue Dasher, *Pachydiplax longipennis*

CJ Brown Spillway, Clark Co, Jun 26, 2022

Sedge Sprite, *Nehalennia irene*
 Slender Spreadwing, *Lestes rectangularis*
 Paiute Dancer, *Argia alberta*
 Citrine Forktail, *Ischnura hastata*
 Seepage Dancer, *Argia bipunctulata*



Cobra Clubtail. Taylorsville Dam 25 June 2022. R.C. Glotzhober



Elfin Skimmer. Cedar Bog, Champaign Co. Jun 26 2022 Jim Lemon



CJ Brown Spillway, Clark Co. Jun 26 2022. Photo: Terri Norris

Eastern Forktail, *Ischnura verticalis*
 Twelve-spotted Skimmer, *Libellula pulchella*
 Band-winged Meadowhawk, *Sympetrum semicinctum*
 Eastern Red Damsel, *Amphiagrion saucium*
 Painted Skimmer, *Libellula semifasciata*
 Common Whitetail, *Plathemis lydia*
 Eastern Amberwing, *Perithemis tenera*
 Familiar Bluet, *Enallagma civile*
 Halloween Pennant, *Celithemis eponina*
 Autumn Meadowhawk, *Sympetrum vicinum*



CJ Brown Spillway, Clark Co. Jun 26 2022. Photo: Terri Norris

OOS Conference 2022 Field Trip Totals <small>Jim Lemon jlem@woh.rr.com</small>		
Common Name	Scientific Name	# Observations
Eastern Red Damsel	<i>Amphiagrion saucium</i>	16
Common Green Darner	<i>Anax junius</i>	1
Comet Darner	<i>Anax longipes</i>	8
Paiute Dancer	<i>Argia alberta</i>	20
Blue-fronted Dancer	<i>Argia apicalis</i>	9
Seepage Dancer	<i>Argia bipunctulata</i>	36
Violet Dancer	<i>Argia fumipennis violacea</i>	11
Powdered Dancer	<i>Argia moesta</i>	20
Blue-ringed Dancer	<i>Argia sedula</i>	13
Blue-tipped Dancer	<i>Argia tibialis</i>	35
Dusky Dancer	<i>Argia translata</i>	3
Jade Clubtail	<i>Argomphus submedianus</i>	14
Unicorn Clubtail	<i>Argomphus villosipes</i>	37
Ebony Jewelwing	<i>Calopteryx maculata</i>	19
Calico Pennant	<i>Celithemis elisa</i>	19

Halloween Pennant	<i>Celithemis eponina</i>	5
Black-shouldered Spinyleg	<i>Dromogomphus spinosus</i>	2
Azure Bluet	<i>Enallagma aspersum</i>	8
Double-striped Bluet	<i>Enallagma basidens</i>	8
Familiar Bluet	<i>Enallagma civile</i>	11
Stream Bluet	<i>Enallagma exsulans</i>	24
Orange Bluet	<i>Enallagma signatum</i>	1
Westfall's Slender Bluet	<i>Enallagma traviatum westfalli</i>	10
Prince Baskettail	<i>Epitheca princeps</i>	3
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	33
Midland Clubtail	<i>Gomphurus fraternus</i>	1
Cobra Clubtail	<i>Gomphurus vastus</i>	8
Dragonhunter	<i>Hagenius brevistylus</i>	3
American Rubyspot	<i>Hetaerina americana</i>	14
Citrine Forktail	<i>Ischnura hastata</i>	11
Fragile Forktail	<i>Ischnura posita</i>	3
Eastern Forktail	<i>Ischnura verticalis</i>	8
Sweetflag Spreadwing	<i>Lestes forcipatus</i>	1
Slender Spreadwing	<i>Lestes rectangularis</i>	7
Spangled Skimmer	<i>Libellula cyanea</i>	2
Slaty Skimmer	<i>Libellula incesta</i>	13
Widow Skimmer	<i>Libellula luctuosa</i>	14
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	11
Painted Skimmer	<i>Libellula semifasciata</i>	5
Swift River Cruiser	<i>Macromia illinoensis</i>	1
Elfin Skimmer	<i>Nannothemis bella</i>	11
Sphagnum Sprite	<i>Nehalennia gracilis</i>	7
Sedge Sprite	<i>Nehalennia irene</i>	2
Blue Dasher	<i>Pachydiplax longipennis</i>	16
Wandering Glider	<i>Pantala flavescens</i>	3
Spot-winged Glider	<i>Pantala hymenaea</i>	1
Eastern Amberwing	<i>Perithemis tenera</i>	12
Common Whitetail	<i>Plathemis lydia</i>	24
Band-winged Meadowhawk	<i>Sympetrum semicinctum</i>	14
Autumn Meadowhawk	<i>Sympetrum vicinum</i>	1
Gray Petaltail	<i>Tachopteryx thoreyi</i>	4
Carolina Saddlebags	<i>Tramea carolina</i>	2
Black Saddlebags	<i>Tramea lacerata</i>	6

Moving Forward – Changes to Ohio Survey ID Vetting within iNaturalist

Note: the following proposal was made during the OOS business meeting on Jun 25, 2022. A motion to accept changes was approved.

Background.

We have been using iNaturalist (iNat) to capture data in the Ohio Dragonfly Project for about 5 years. We now have 142,000 records in the project. 131,000 are identified to species as "Research Grade" (RG). This means at least two people have agreed on the ID, one of which could be the "user" that submitted the photo. Sometimes there is a discussion on the ID, but all in all, this community vetting works very well.

At the beginning of the recent statewide survey (2017), it was a goal that every record goes beyond the iNat requirement and have at least a third identifier, and it was hoped that one of the approvers was an Ohio Odonata Society (OOS) member. A large majority of the records in the project have met this goal, largely through the efforts of Jim, Sally, and MaLisa. We would like to reconfigure this goal based on our experiences using iNat. Part of this is to share the load. Part of it is to provide an opportunity to broaden the group expertise.

Of the 131K RG records, 115-117K comprise around 50+ species that are, for the most part, not controversial. This is 88-90% of the data. Our proposal is that the general iNat community vetting will be acceptable for this list of species (proposed initial list is below). Further, for the balance of species, we would like to reconfigure the OOS Photo Records Committee to be a group of "Curators" as supported by the iNat system. This group will not be limited in size and can be flexible on things like term of contribution and focus. As project admin and OOS database manager, Jim will oversee the Curator group and make updates as needed.

What will this look like?

Based on the last 5 years, the iNat observations that will require Curator group attention will likely be in the range of 3,000/year. These would be species that are uncommon or special to us for some reason. I would like volunteer curators to have a focus on a group or groups by family/genus/species - based on the individual interest/expertise/availability. Ideally, we will have some redundancy to provide timely coverage. So, while 3,000 might sound like a lot, if it's divided up it shouldn't be too bad. Also, focusing on a specific genus quickly leads to knowing the field marks to grant or dismiss an ID. There is no limit to the number of people that can add their ID to an observation.

A few examples:

Pond Spreadwings (genus *Lestes*) can be a problematical genus. A Curator for *Lestes* would have to look at 300-500/year if we assume Slender Spreadwing is acceptable for community vetting.

Clubtails (family Gomphidae) covers a fairly wide range - but likely something in the 600/year range. And this could be further divided into *Phanogomphus*, *Gomphurus*, *Arigomphus*, etc as needed.

Saddlebags that are red (genus *Tamea*). This is really just 3 species - Carolina, Red, and Striped. Someone just needs to check.

River Cruisers (genus *Macromia*). Natural variation and possible hybridization can make these a bit tricky.

Female Damselflies (mostly *Enallagma*, *Ischnura*). Sometimes these can be adequately identified. We probably have some of these wrong.

There will be more to come like these examples.

First things first.

One of the keys to our success with the statewide survey was *timely feedback* to observers. Many are new to Odonata and are learning. Others need to know if something they've reported needs follow-up. So, timeliness is important in keeping people engaged. Obviously real-time is not sustainable, but there is also a point in time that is too long. Maybe

a goal of 3-7 days? We know people have lives and jobs and some interested people may simply not have the time. So, no arm-twisting. We can work on this going forward.

Developing ID skills. Sally and I are both willing to help bring new curators up to speed.

What to expect.

Starting immediately, you will not be seeing jimlem and probably sallypsandpiper on as many of your observations. So, things like Blue Dasher may be considered research grade and eligible for the OOS database with a single additional approval. Things like Ruby Meadowhawk will still get bounced back to Sympetrum without the necessary macro photos.

As new curators come on board, you will see their username on your observations. And maybe iNat community member usernames – there are very skilled ID people beyond OOS.

There may be some bumps in the road. Welcome to Citizen Science, it's OK. Remember that we do this for fun. We'll figure it out.

What you can do.

1st - Keep doing your observations! 2nd - Think about your level of interest in keeping the Ohio Dragonfly Survey moving ahead. Ask me questions – asking a question doesn't equate to obligation. We can message through iNat or email. 3rd – Try doing an ID. Pull up any observation of someone other than yours. There is -nothing- wrong with having multiple or many IDs on an observation. You might like it 😊. If so, we should talk. I'd be happy to have someone say they want to do Common Whitetail – while that's on the list below, it might be a place to start.

The List.

Below is a list of species considered for general iNat community vetting. This list is a draft and will be modified as needed. Obviously, the species not on this list are the ones that are special. Only 3 species not on the list below have more than 500 observations: Carolina Saddlebags, Lancet Clubtail, and Dot-tailed Whiteface.

Name	Species	# Recs
American Rubyspot	<i>Hetaerina americana</i>	1899
Autumn Meadowhawk	<i>Sympetrum vicinum</i>	3414
Azure Bluet	<i>Enallagma aspersum</i>	1241
Banded Pennant	<i>Celithemis fasciata</i>	375
Band-winged Meadowhawk	<i>Sympetrum semicinctum</i>	449
Black Saddlebags	<i>Tramea lacerata</i>	1670
Blue Dasher	<i>Pachydiplax longipennis</i>	8076
Blue-faced Meadowhawk	<i>Sympetrum ambiguum</i>	767
Blue-fronted Dancer	<i>Argia apicalis</i>	3164
Blue-ringed Dancer	<i>Argia sedula</i>	1407
Blue-tipped Dancer	<i>Argia tibialis</i>	2010
Calico Pennant	<i>Celithemis elisa</i>	1580
Citrine Forktail	<i>Ischnura hastata</i>	575
Comet Darner	<i>Anax longipes</i>	321
Common Green Darner	<i>Anax junius</i>	2323
Common Whitetail	<i>Plathemis lydia</i>	5804
Double-striped Bluet	<i>Enallagma basidens</i>	2565

Dragonhunter	<i>Hagenius brevistylus</i>	243
Dusky Dancer	<i>Argia translata</i>	762
Eastern Amberwing	<i>Perithemis tenera</i>	4920
Eastern Forktail	<i>Ischnura verticalis</i>	7738
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	8515
Eastern Red Damsel	<i>Amphiagrion saucium</i>	629
Ebony Jewelwing	<i>Calopteryx maculata</i>	4049
Elfin Skimmer	<i>Nannothemis bella</i>	305
Familiar Bluet	<i>Enallagma civile</i>	2547
Flag-tailed Spinyleg	<i>Dromogomphus spoliatus</i>	393
Fragile Forktail	<i>Ischnura posita</i>	6358
Great Blue Skimmer	<i>Libellula vibrans</i>	221
Great Spreadwing	<i>Archilestes grandis</i>	466
Halloween Pennant	<i>Celithemis eponina</i>	2314
Orange Bluet	<i>Enallagma signatum</i>	1689
Painted Skimmer	<i>Libellula semifasciata</i>	654
Paiute Dancer	<i>Argia alberta</i>	230
Powdered Dancer	<i>Argia moesta</i>	2164
Prince Baskettail	<i>pitheca princeps</i>	1227
Seepage Dancer	<i>Argia bipunculata</i>	553
Skimming Bluet	<i>Enallagma geminatum</i>	1662
Slaty Skimmer	<i>Libellula incesta</i>	2289
Slender Bluet	<i>Enallagma traviatum</i>	979
Slender Spreadwing	<i>Lestes rectangularis</i>	1822
Spangled Skimmer	<i>Libellula cyanea</i>	522
Spatterdock Darner	<i>Rhionaeschna mutata</i>	192
Spot-winged Glider	<i>Pantala hymenaea</i>	199
Stream Bluet	<i>Enallagma exsulans</i>	1910
Swamp Darner	<i>Epiaeschna heros</i>	408
Swift Setwing	<i>Dythemis velox</i>	219
Twelve-spotted Skimmer	<i>Libellula pulchella</i>	2033
Unicorn Clubtail	<i>Argomphus villosipes</i>	868
Vesper Bluet	<i>Enallagma vesperum</i>	301
Violet Dancer	<i>Argia fumipennis violacea</i>	3142
Wandering Glider	<i>Pantala flavescens</i>	721
Widow Skimmer	<i>Libullula luctuosa</i>	6088

Plan & Persist – Search for the Tiger Spiketail David Hochadel



Well, it took two years of scouting and searching miles of tiny headwater streams in the wooded highlands of Geauga/Lake County, but it finally paid off when I found my lifer, Tiger Spiketail. Thought we had a second one later and it turned out to be an Arrowhead Spiketail, patrolling the same tiny stream. In a few weeks, Mocha and Clamp-tipped Emeralds will be on the same stream as well. This is a perfect example of the type of ephemeral wetland that has lost protection under our current state government. Luckily this particular site is protected. Photo is a little dark – it was in the forest interior. *David Hochadel*

Tiger Spiketail *Cordulegaster erronea*. Lake County, OH. June 28 2022. David Hochadel

Great Blue Skimmers – Another Big Year Rick Nirschl

If you're looking for Great Blue Skimmers *Libellula vibrans*, woodland ponds are a favored location. Look for them perching in the branches that overhang the edge of the water and making short feeding forays over the water. In the Toledo area they are commonly found along roadside ditches that are still holding water. The ditch should have very small trees or large shrubs with bare branches overhanging the water. *Rick Nirschl*

Great Blue Skimmer *Libellula vibrans*. Kitty Todd Preserve, Lucas Co. June 28 2022. Rick Nirschl.

Editor's note: 2019 is the biggest year for Ohio iNat observations of GBS. 2022 is on track to exceed 2019.



Flight Photos – Subject Blur Factors Jim Lundberg lundbergj@hotmail.com

Subject motion blur is the result of image movement across the sensor during exposure. There are six factors:

- 1) **Subject Speed** – The faster the flight (uncorrected with panning) the greater the movement across the sensor.
- 2) **Relative direction of travel** – When a dragonfly is headed straight towards the camera, there is little subject movement across the sensor. Traveling at right angles to the camera increases subject movement across the sensor.
- 3) **Subject Distance** – The closer the subject, the quicker its image will move across sensor during the exposure period.
- 4) **Focal length** – For the same reason that subject distance affects motion blur, amplifying the image with longer focal lengths increases image movement across the sensor. Shorter focal lengths decrease image movement.
- 5) **Shutter speed** - Preventing motion blur is largely controlled with faster shutter speeds. The minimum shutter speed to prevent flight photo subject blur is between 1/1000 and 1/5000 depending on the other factors.
- 6) **Panning accuracy** – The more accurate the subject-following, the less the subject-movement across the sensor. Wings move on a different plane than the body, so panning doesn't prevent wing blur. Fine wing detail is seldom required for a positive species ID, but if preserving wing detail is desired, then higher shutter speeds are required regardless of panning accuracy.



Speed and Relative Direction of Movement: Body and wings of this Common Whitetail *Plathemis Lydia* illustrate effect of these two factors in contrast; The subject is hovering slowly and the movement is directly toward the photographer minimizing body blur. In contrast, the wings are moving quickly and at right angles to the lens maximizing wing blur.

Subject Distance and Focal Length: Wing movement is greatly amplified by the combination of long focal length (600mm) and close subject (8 feet distant); the Whitetail wingtips moved $1/4^{\text{th}}$ of the sensor height during the $1/2000^{\text{th}}$ exposure period!



Panning accuracy: A predictable shoreline patroller, the Prince Baskettail *Epithica Princeps* is a favored flight photo subject. But, introduce an intruder, and its flight becomes accelerated and erratic, degrading panning accuracy.

Poor wingtip detail – Is it always motion blur? Wing speed and blur progressively increase from base to tip as in the Common Whitetail image, but blur isn't always to blame for poor wingtip detail. In this broadside Prince Baskettail shot, shutter speed (1/2500) was adequate to stop blur; note the normal wingtip shape. In this case, poor wingtip detail is due to a shallow DOF created by the $f/7.1$ aperture and close-in subject distance. Point of focus is on the body. Wingtips, both near and far, are outside the workable DOF.

Red-ish Saddlebags! Sally Isacco disacco@roadrunner.com | Jim Lemon jlem@woh.rr.com

July in Ohio has four Saddlebags species in flight. These are mid-sized Dragonflies with wide wings for soaring. The name derives from the prominent pigmentation on the hind wings, close to the body. In flight they do appear to be carrying a pack. Males and females are quite similar in appearance. Color and marking vary with species. Saddlebags are quite mobile and many individuals fly in from surrounding areas. So we get migration in and out as well as local emergence. It seems most of what we see is mature individuals. The OOS database has nearly 3,000 records for *Tamea*. 1,877 are Black Saddlebags, 758 are Carolina, 86 are Red, and 34 are Striped. If we use Carolina as a starting point, we are 9 times more likely to see a Carolina than a Red, & 22 times more likely to see a Carolina than a Striped.

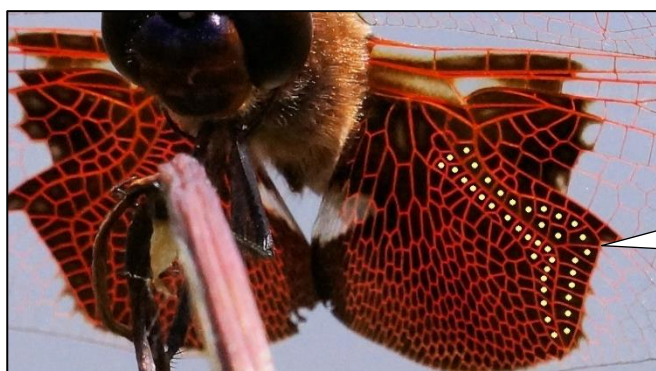
Carolina Saddlebags *Tamea Carolina*. This is the bright red Saddlebags that we see. While we have had Ohio records for Carolina since 1895, they were uncommon until recently. For the survey years starting in 2017, we have more new County Records for Carolina than any other Ode. As the name implies, Carolina is a Southern species expanding range to the north. Interesting to me is that the Carolina is redder than the Red! Field marks for the Carolina, in addition to being bright red are a blue or purple frons, dark pigmentation on abdominal segments S8-S10. The key separating Carolina from Red is the size of the saddle. This is defined by the anal loop, or 'boot' cells in the hind wing.



Carolina Saddlebags
Hamilton Co, 24 May 2018 Jim Lemon.



Carolina Saddlebags
Lucas Co, Aug 18, 2019, Rick Nirschl.



Carolina Saddlebags
Wing detail with 'boot' defined by dots (added).
Champaign Co, May 23, 2017, Jim Lemon.

Red Saddlebags *Tamea onusta* This is the red Saddlebags we all want to see. Ohio data for Red goes back to 1898, but they have never had the numbers or break out that we've seen with Carolina. The numbers may be better than the data – don't look past the possible! Our Reds come to us from the Southwest, arriving on the winds of storm fronts. A bit smaller than the Carolina, the Red is less vivid and the face is red rather than purple. While the size of the saddle is the key field mark, the dark pigmentation on S8-S10 is greatly reduced when compared to the Carolina.



Red Saddlebags Male.
Auglaize Co, Jul 26, 2018, Jim Lemon.



Red Saddlebags Female.
Lucas Co, Sep 23, 2010, Rick Nirschl.

Striped Saddlebags *Tamea darwini*. Our newest *Tamea*, first spotted in Lucas County in 2006. Now documented in four Counties. Another visitor from the Southwest, most of our observations are late September and early October. Roughly the same size as the Carolina, again not as vivid, but marked with pale stripes on the thorax. Consider yourself lucky if you come across one of these tropical treasures.



Striped Saddlebags Male.
Lucas Co, Sep 24, 2010, Rick Nirschl.

Striped Saddlebags Female.
Lucas Co, Sep 27, 2019, Rick Nirschl.



Black Saddlebags *Tramea lacerate*. We got this far, let's finish with our most observed Saddlebags. A common sight at any open water. While Black Saddlebags are by far the most common, they seem to be the least likely to land for photo. Large and dark-appearing over the water, Black Saddlebags seem to patrol endlessly, frequently with Prince Baskettails. When days are hot, they glide with one or more legs extended. Mating pairs fly in tandem until at a suitable location the female drops to the water, then bounces back up to the male, and they resume their tandem flight. Sometimes teneral females can have a reddish cast, but they darken quickly. Some females retain one or more yellow dots on the dorsal abdomen.



Black Saddlebags Teneral Female.
Logan Co, Sep 3, 2019, Jim Lemon.

Black Saddlebags Tandem pair
Champaign Co, May 31, 2016, Jim Lemon.



July Odes – numbers peak! Jim Lemon jlem@woh.rr.com

So quickly here and plenty in flight but, from now, Odonata numbers will be on the way down. Here is a table of the species that have been first recorded in July. I've also added the one species that arrives in August. This is the balance of all Ohio species. Sightings prior to the date will constitute new early flight dates.

Species	Early	Observations All Data	Recent Years
Arrow Clubtail	1-Jul	18-Sep	87
Black-tipped Darner	2-Jul	10-Apr	40
Scarlet Skimmer	2-Jul	2-Jan	2
Great Spreadwing	3-Jul	29-Jul	414
Striped Saddlebags	11-Jul	3-Feb	20
Saffron-winged Meadowhawk	12-Jul	20-Jan	1
Duckweed Firetail	14-Jul	14-Jan	14
Smoky Rubyspot	7-Aug	8-Aug	156

Then we have our first set of species that are likely done for this season. Observations beyond the late date will constitute new late flight dates. See ya next year on these!

Species	Late	Observations All Data	Recent Years
Beaverpond Baskettail	11-Jun	35	10
Slender Baskettail	11-Jun	13	9
Uhler's Sundragon	18-Jun	43	10
Harlequin Darner	21-Jun	67	39
American Emerald	23-Jun	14	5
Blue Corporal	24-Jun	283	216
Belted Whiteface	24-Jun	32	30

The Season so Far – Stats Year to Date. Jim Lemon jlem@woh.rr.com

So far for 2022: nearly 14,000 research grade observations; 121 species; all 88 counties; over 500 users. These are very good numbers. Jun 2022 was our biggest month ever in terms of submissions, at this point 9,875 RG observations. This could go over 10K as people finish up their data entry. Lots of interesting observations with new sites for "special" species and 70+ new county records. We also went over the 500-mark for members of the Dragonfly Survey project on iNat. Busy, busy. Following are statistics by county. Then by species.

County	# Obs.	# Sp	# Users	Co Records
Adams	39	18	10	
Allen	13	10	3	
Ashland	139	26	6	
Ashtabula	253	40	11	
Athens	20	14	7	
Auglaize	50	21	2	3
Belmont	120	18	1	1
Brown	33	16	4	
Butler	278	33	19	1
Carroll	4	4	2	1
Champaign	726	56	21	1
Clark	493	47	14	2
Clermont	222	42	25	
Clinton	53	21	3	
Columbiana	55	29	4	5
Coshocton	228	34	4	1
Crawford	88	28	6	3
Cuyahoga	253	40	59	
Darke	96	36	5	1
Defiance	29	16	4	
Delaware	91	21	22	
Erie	94	22	11	
Fairfield	15	11	8	
Fayette	107	25	5	2
Franklin	1237	47	73	
Fulton	18	11	5	
Gallia	16	12	5	
Geauga	269	51	23	1
Greene	335	43	40	

Guernsey	73	16	1	
Hamilton	257	40	33	2
Hancock	269	46	14	2
Hardin	56	25	3	1
Harrison	142	21	3	1
Henry	90	24	2	1
Highland	43	17	5	
Hocking	59	23	13	
Holmes	21	11	4	
Huron	222	19	3	2
Jackson	38	16	3	
Jefferson	114	22	3	2
Knox	23	5	9	
Lake	304	56	23	
Lawrence	102	22	3	
Licking	110	29	11	1
Logan	107	33	12	1
Lorain	337	36	16	
Lucas	911	62	40	1
Madison	173	27	6	2
Mahoning	50	26	4	1
Marion	159	15	5	
Medina	150	38	18	2
Meigs	78	25	1	2
Mercer	67	19	2	1
Miami	357	49	17	
Monroe	96	26	2	2
Montgomery	596	58	37	1
Morgan	20	16	3	
Morrow	417	30	12	1
Muskingum	20	12	4	
Noble	193	21	4	
Ottawa	27	12	17	1
Paulding	13	7	2	
Perry	40	15	1	1
Pickaway	73	25	13	2
Pike	74	28	5	2
Portage	227	54	27	1
Preble	70	33	3	3

Putnam	45	20	1	
Richland	66	17	7	1
Ross	24	17	4	
Sandusky	102	30	6	2
Scioto	33	14	8	1
Seneca	48	19	4	3
Shelby	101	26	11	3
Stark	791	65	23	4
Summit	366	53	52	
Trumbull	43	23	6	
Tuscarawas	96	23	2	1
Union	167	16	7	
Van Wert	12	10	1	
Vinton	25	19	3	
Warren	48	24	13	
Washington	89	24	2	
Wayne	62	15	10	1
Williams	77	26	2	
Wood	53	16	13	
Wyandot	24	16	3	

<i>Species</i>	<i># Obs</i>	<i># Co</i>	<i># Users</i>	<i>Co Records</i>
Amber-winged Spreadwing	47	15	17	1
American Rubyspot	101	20	31	
Arrowhead Spiketail	18	10	13	1
Ashy Clubtail	88	18	27	
Aurora Damsel	43	15	21	1
Autumn Meadowhawk	10	6	5	
Azure Bluet	169	40	54	1
Band-winged Meadowhawk	24	4	10	
Banded Pennant	38	12	15	1
Beaverpond Baskettail	2	1	1	
Black Saddlebags	236	53	57	
Black-shouldered Spinyleg	23	9	11	
Blue Corporal	25	10	17	1
Blue Dasher	1054	86	164	
Blue-faced Meadowhawk	7	5	7	1

Blue-fronted Dancer	200	42	55	
Blue-ringed Dancer	46	16	19	
Blue-tipped Dancer	346	53	71	
Brown Spiketail	15	4	5	
Calico Pennant	189	41	57	
Carolina Saddlebags	140	31	48	2
Citrine Forktail	96	27	27	1
Cobra Clubtail	36	4	18	
Comet Darner	73	25	31	5
Common Baskettail	32	17	21	1
Common Green Darner	184	52	62	
Common Sanddragon	14	3	3	
Common Whitetail	904	80	194	
Cyrano Darner	17	11	10	2
Delta-spotted Spiketail	8	2	3	
Dot-tailed Whiteface	199	32	37	3
Double-ringed Pennant	6	1	1	
Double-striped Bluet	311	53	47	
Dragonhunter	39	11	17	1
Dusky Clubtail	16	4	7	
Dusky Dancer	38	9	13	
Eastern Amberwing	322	61	77	
Eastern Forktail	1119	78	108	
Eastern Least Clubtail	43	6	10	
Eastern Pondhawk	749	78	122	
Eastern Red Damsel	152	20	36	2
Ebony Jewelwing	604	62	192	
Elegant Spreadwing	40	16	17	
Elfin Skimmer	56	1	11	
Familiar Bluet	224	49	51	
Fawn Darner	4	4	4	
Flag-tailed Spinyleg	6	4	3	
Fragile Forktail	884	84	113	
Furtive Forktail	1	1	1	1
Gilded River Cruiser	1	1	1	
Golden-winged Skimmer	4	1	2	
Gray Petaltail	43	13	24	2
Great Blue Skimmer	89	22	29	7
Green-faced Clubtail	13	1	4	

Halloween Pennant	96	35	45	
Handsome Clubtail	16	6	7	1
Harlequin Darner	24	3	8	
Jade Clubtail	25	4	10	2
Lancet Clubtail	189	35	33	1
Lilypad Clubtail	1	1	1	
Lilypad Forktail	25	6	11	
Little Blue Dragonlet	1	1	1	1
Lyre-tipped Spreadwing	4	1	3	
Midland Clubtail	72	17	20	2
Northern Bluet	3	2	3	
Northern Emerald Spreadwing	56	15	24	
Orange Bluet	210	50	42	
Painted Skimmer	265	41	72	7
Paiute Dancer	40	3	12	
Plains Clubtail	22	1	6	
Powdered Dancer	196	41	62	
Prince Baskettail	183	54	48	
Pronghorn Clubtail	16	5	10	
Racket-tailed Emerald	6	3	5	
Rainbow Bluet	20	6	10	
Rapids Clubtail	14	7	9	1
Red Saddlebags	9	4	6	1
Riffle Snaketail	3	1	3	
River Bluet	9	1	7	
River Jewelwing	1	1	1	
Royal River Cruiser	4	4	4	
Ruby Meadowhawk	3	1	1	
Rusty Snaketail	21	3	8	
Sedge Sprite	63	10	19	1
Seepage Dancer	127	5	22	
Shadow Darner	1	1	1	
Skimming Bluet	221	46	46	
Slaty Skimmer	155	31	52	
Slender Baskettail	1	1	1	1
Slender Spreadwing	275	47	56	
Southern Pygmy Clubtail	5	3	4	1
Southern Spreadwing	4	3	4	1
Spangled Skimmer	114	36	36	5

Spatterdock Darner	14	6	10	
Sphagnum Sprite	50	8	16	
Splendid Clubtail	11	2	7	
Spot-winged Glider	7	7	7	
Spotted Spreadwing	3	2	3	
Springtime Darner	24	14	17	1
Stream Bluet	245	48	54	
Stream Cruiser	17	4	6	1
Swamp Darner	62	27	43	3
Swamp Spreadwing	10	5	5	3
Sweetflag Spreadwing	25	11	14	
Swift River Cruiser	8	7	8	
Swift Setwing	8	3	4	
Tiger Spiketail	4	3	3	
Tule Bluet	17	4	5	
Turquoise Bluet	70	15	18	1
Twelve-spotted Skimmer	304	51	96	
Twin-spotted Spiketail	3	3	3	1
Uhler's Sundragon	6	1	1	
Unicorn Clubtail	260	47	59	
Vesper Bluet	34	18	17	
Violet Dancer	344	63	72	
Wandering Glider	8	5	8	
Westfall's Slender Bluet	162	41	45	
White-faced Meadowhawk	1	1	1	
Widow Skimmer	463	68	117	
Yellow-sided Skimmer	16	1	2	