Ohio Dragon-Flyer

Newsletter of the Ohio Odonata Society



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Ohio Odonata Society Board

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Contents

Observations and IDs in iNaturalist – Jim Lemon and Sally Isacco have provided identifications for the majority of survey observations, combining for over 136,000 IDs at this point. They will co-author a series of ID articles in 2022.

Clubtails of the Grand River – Adapted from a presentation by John Pogacnik with additional direction, description and images provided by John, Jim Heflich, Dave Hochadel, Linda Gilbert, Judy Semroc, Larry Rosche and Sally Isacco, this article is a planning guide to visiting the ultimate Ohio Clubtail destination.

2021 County Records – Data for county records is in with 110 New County Records, 58 species and 54 counties from 48 Observers.

2021 More Statistics – Observer, Species, County and Combined Stats. Author: Jim Lemon.

Ohio Field Guide Species - Photos Needed.

Ode Lang Syne 2021 – Seems a long time since odes were flying. Our members offer a photographic farewell to 2021.

Cover: *Sympetrum ambiguum* (Blue-faced Meadowhawk); Lou Campbell Preserve, Lucas County, Ohio 13 Sep. 2021; Photograph by Rick Nirschl

Observations and IDs in iNaturalist

iNaturalist is a global, on-line information system for cataloging life. iNaturalist supports defined projects. One such project is Ohio Dragonfly Survey. The project purpose is to collect Ohio Odonata photographs as observations. These observations are subsequently reviewed by the iNaturalist community for ID (identification). Observations that are identified to species are extracted from iNaturalist and become part of the Ohio Odonata Society database.

The submission process is fairly straightforward. All you need is a digital camera, network connectivity, and an iNaturalist account. This works pretty well. At the time of this writing (end of 2021), there are over 126,000 submitted observations for the survey. nearly 115,000 observations have been vetted to species. We use general numbers because things change. But it is realistic to think that 91% of observations get identified to species. This is good.

That still leaves 9% on which there are questions on ID - this is the first installment on a Dragon Flyer series to help understand the process (and why we sometimes don't go to species).

The bulk of these 126,000 observations are in the period 2016-2021 (95%). iNaturalist allows historical records to be entered - and they go through the same process as current submissions.

We have recorded 157 species so far in iNaturalist. The historical database lists 173 species. Several are probably now extirpated, others likely vagrants, a couple imports. So maybe a dozen species that it's hit or miss. With 157 species, we are likely getting close to what can be found. It should be noted that we don't find 157 every year. We had 140 species in 2021 - which was the most species that have ever been reported in a year.

The majority of these 157 species can be identified in the field and from photographs based on distinctive features. We call these field marks. Field marks are comprised of a number of factors that are typically listed in the field guides. Featured field marks vary by species, but include color, size, wing pattern, terminal appendages, head characteristics, etc.

So, what's the problem? Actually, there are a number of concerns that we will be addressing in the coming months: Some groups, like Meadowhawks and Pond Spreadwings, have very similar individuals. Throw in sexual dimorphism, developmental changes, potential hybridization to make things interesting. Then challenging photo angles, aerial shots, high or low contrast, camera quality, and illumination and you have the recipe for making your identifiers look hard and maybe scratch their head.

Stay with – this should be fun.

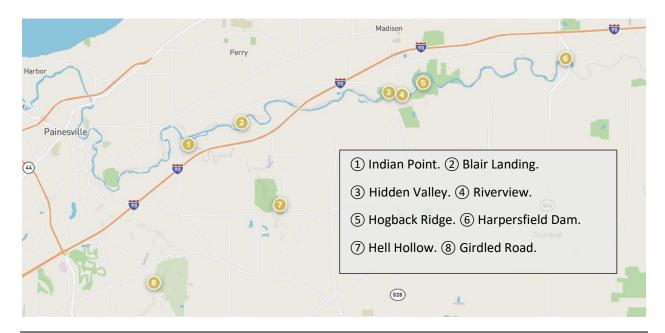
Jim and Sally



The Grand River watershed covers 712 square miles. The source of the 102.7 mile-long river is in Geauga County. It then flows through Trumbull, Ashtabula and Lake Counties. Designated a wild and scenic river on January 17, 1974. Wild River from the Painesville railroad trestle to the Harpersfield Bridge. Scenic River from the Harpersfield Bridge upstream to Ohio Route 332.

Clubtails of the Grand River

There is no other region in Ohio offering the Clubtail diversity found in the Grand River watershed. When visiting, respect its sensitive habitats and regulation prohibiting collecting. The water in the upper and lower sections of the Grand River is sluggish, with mud and clay bottoms, and does not have great species diversity. But through the middle section, where the river turns west towards Painesville, the Grand has greater descent and faster flow. This creates rocky shallow-water riffles preferred by many of the species and holds greater species diversity. Grand River tributaries, Paine Creek and Big Creek, also hold good species diversity. This article suggests destinations on the middle section of the Grand, Paine Creek and Big Creek. It also offers a quick study of behavior, ecology and preferred habitat of the 18 Grand River Clubtail species. With the permission of John Pogacnik, a Lake Metroparks biologist for over 30 years, and the gracious assistance of others familiar with the region, this newsletter article is adapted from a slide presentation authored by John. Thanks to all who offered their invaluable direction, description and images.





Indian Point Park.

Leroy Township, Ohio 44077.
Exit I-90 at Vrooman Road.
North on Vrooman Road to
Old Vrooman Road. Left turn
(west) downhill to Seeley
Road. There are three parking
lots off of Seely Road: Paine
Creek Lot, 12951 Seeley Road.
Upper Lot, 13165 Seeley
Road. West Lot: 12702 Seeley
Road.

ALERT: For safety reasons, Seeley Road is closed to vehicle traffic between the lower and upper entrances. Visitors can park in either lot and walk on Seeley Road (over the bridge and on the steep hill).

Between River Mile 13 and

River Mile 15, Indian Point is a 628-acre Lake Metropark with access to both the Grand River and Paine Creek. The best area to search for Clubtails is immediately below the debouchment of Paine Creek into the Grand River. The first 150 yards of the Grand downstream of Paine Creek offers a riffled flow with a multitude of mid-stream rocks of varying sizes that Clubtails utilize as perches and emergence sites. In some years, such as 2019, the Grand runs far too high from early season to late summer – all the rocks are underwater and dragons are scarce to non-existent. After this riffle area, there are just a few mid-river rocks scattered all the way downstream to the new high-level Vrooman Road Bridge. A walk along the path on the edge on the south bank is often productive. Look for dragonflies along the shingle shore here. Stream Bluets like the sedge edges along backstream quiet waters. Eastern Spiny Softshell Turtles commonly bask on the open muddy banks of the north shore of this stretch of the Grand River. You can easily access this area by parking along the edge of Seeley Rd. just west (around a curve in the road) of the lower parking area at Paine Creek. There is a well-used short path through a narrow screen of woods onto the beach. From car to dragons in two minutes flat! Upstream in Paine Creek can be productive for a host of species at any time. Across the street from the upper parking area of Seeley Rd. is a small pond just south of Seeley Rd. Amberwinged Spreadwings are regular here in early summer. The entire short loop trail is always worth a walk. With Seeley Road now not a thru-road, to reach this upper region of the park, take Exit I-90 at Vrooman Rd. South to Carter Rd. Turn left (east) to Paine Rd. Cross under I-90 then turn left (west) on Seeley Rd. Portable restrooms. Indian Point Park - Lake Metroparks



Blair Landing.

5280 Blair Road, Perry Ohio. Parking is off Blair Road on the north side of the river.

Blair Landing, a 62-acre Lake Metropark is in a large area floodplain with little rise until the valley wall. Relatively open, it has the characteristic vegetation make-up typical of the Grand River floodplain terrace. River access but no restrooms.

Blair Landing - Lake Metroparks



Hidden Valley Park.

Madison Township, Ohio 44057. Exit I-90 at Rt. 528 south to Klasen Road. Turn west, downhill to Park. ★South entrance: 4880 Klasen Road. ★North entrance: 6500 River Road.

Between RM 22 and RM 23, Hidden Valley is a 152-acre Lake Metropark, featuring views of 360-million year-old Chagrin Shale cliff. There are no driving or pedestrian connections within the park between the North and South entrances (on opposite sides of the river). The North section of the river is atop a steep cliff with no river access, so the South entrance (Klasen Road) is where you want to park. The description that follows is for the south section of the river. Just as at Indian Point Park, there is a short

section of rocky riffles in the Grand River just downstream (west) of the high-level Rt. 528 Bridge. Like Indian Point Park, low water levels are best. The emergent rocks continue upstream a short way past the Rt. 528 Bridge to just opposite the walk-in campsite at the end of Bailey Rd. (Riverview Park) on the north side of the Grand. But I would be very cautious of walking under the bridge (personal comment - Jim Heflich). In 2020 signs were posted along the river to beware of falling debris from the bridge. The signs were gone in 2021, but I never saw evidence of repair work to the bridge. Be careful! Continuing downstream along the south shore of the Grand from the Hidden Valley Park picnic area is a productive river-side trail that, every so often, allows one to drop down a few feet to the river and back eddies and in-water rocks. This area can be good for a host of Clubtails. River Breeze Trail (black), on the South entrance is a flat riverside trail. Trees along the river and trail display evidence of beavers. Crooked Tree Trail (red) is a pond and loop trail at the north entrance of the park with no river access. River access and pit restrooms. Hidden Valley Park - Lake Metroparks



Riverview Park.

4895 Bailey Road, Madison Township, Ohio 44057. Exit I-90 at Rt. 528 - south to River Road - (turn east) to Park.

Between RM 22 and RM 23, Riverview is a 62-acre Lake Metropark on the north side of the Grand. The 0.38-mile River Bottom Trail (dark green), rated *difficult*, takes visitors down a steep incline into the river floodplain. A favorite access spot is the end of Bailey Rd. (off River Road) where the road dead-ends into a single river-side park campsite with room for 4-5 cars to park (never full). You can walk downstream along the bank up to the high-level bridge, checking the riffled rocks – as long as the river isn't running too high. Check shoreside rocks or logs. Walking upstream

along the bank leads to a few scattered mid-stream rocks in the next mile. Scan them all carefully - anything could show up. The shore-side path here fades in and out, and in early summer the vegetation can easily be knee-high or taller, hiding all sorts of holes, logs and other pitfalls leading to a nasty fall. Be cautious walking here; probe ahead with a hiking stick. Better yet, walk in the river along the shore when water level allows. Footing is generally pretty good. River access and pit restrooms. Riverview Park - Lake Metroparks



Hogback Ridge Park.

Madison Township, Ohio. South entrance: 4700 Emerson Road. North entrance: 7300 Warner Road.

Between RM 23 and RM 26, Hogback Ridge is a 629acre Lake Metropark, named for its most prominent natural feature, a high narrow ridge of land. The hogback at this park is bordered on the north by the Grand River and on the south by Mill Creek. North side, the Grand River Trail (blue), rated more difficult, is a wide, naturally surfaced trail that leads through forests and down a large hill with Grand River access. South side, the Meadow Rim Trail (red), rated easy, with fields east of the parking lot, might be good for dispersal habitat. The Bluebell Valley Path Trail (dark blue), rated more difficult, by way of steps and dirt trail, flows down to the Mill Creek floodplain through a mature forest to a sea of spring wildflowers. Mill Creek is less productive for Clubtails since the 500-year flood of 2006. River access and pit restrooms.

Hogback Ridge Park - Lake Metroparks



Harpersfield Covered Bridge 1225 Harpersfield Rd, Geneva, OH 44041. Exit I-90 at Rt. 534 south on Route 534 or Harpersfield Rd. to the Park

Between RM 30 and RM 31, Hapersfield Covered Bridge is a 53-acre Ashtabula Metropark. The historic Harpersfield Covered Bridge (1868), spanning the Grand River closely parallels a dam. When

water levels are normal, the first 1/4 mile of river immediately downstream of the Covered Bridge is full of mid-stream rocks that can hold many interesting Clubtails. When able to wade this section (even completely across the river) photography is good, but you'll be competing with lots of families enjoying the shallow water too. Better yet, park at the far west end of the south shore parking lot and follow the river downstream on the shoreside path. Harpersfield — Ashtabula Metroparks



Hell Hollow Wilderness Area. 14437 Leroy Center Road, Thompson Ohio, 44086

Hell Hollow is a 981-acre Lake Metropark with pit restrooms and creek access. An excellent destination for Clubtails if the water is not too high and fast. Walking Paine Creek can be treacherous - slick and rocky in spots - recommend a hiking stick. Start out on the Beechridge Loop Trail rated easy. Connect to the the Wildcat Trail, rated very difficult. This last quarter mile leads down into a wooded area

at an oxbow of Paine Creek. It is famous for its steep 262 wooden steps down to Paine Creek, so be ready for an uphill hike back to your car. Hell Hollow Wilderness Area – Lake Metroparks



Girdled Road Reservation.

Concord Township, Ohio 44077 North Entrance: 12840 Girdled Road. South Entrance: 12926 Radcliffe Road.

Skok Meadow: 12415 Concord Hambden Road.

Girdled Road Reservation is a 942-acre Lake Metropark containing fields, forest, wetlands and Big Creek. The Oak Leaf Loop Trail is rated *very difficult* – but not all of this trail is *very difficult*; the Oak Leaf Trail sections alongside Big Creek are not difficult, and should be explored. Connect from the Oak Leaf Trail to the Big Creek Valley Trail, rated *easy* to access more creek-side farther south. Flush restrooms, pit restrooms and portable restrooms. Girdled Road Reservation - Lake Metroparks

Grand River Clubtails – 18 species: Lilypad clubtail Agrigomphus furcifer. Unicorn clubtail Agrigomphus villosipes. Black-shouldered spinylegs Drogomphus spinosus. Flag-tailed spinylegs Drogomphus spoilatus. Lancet Clubtail Gomphus exilis. Midland Clubtail Gomphus fraternus. Splendid Clubtail Gomphus lineatifrons. Ashy Clubtail Gomphus lividus. Rapids Clubtail Gomphus quadricolor. Dusky Clubtail Gomphus spicatus. Green-faced Clubtail Gomphus viridifrons. Dragonhunter Hagenius brevistylus. Riffle Snaketail Ophiogomphus carolus. Rusty Snaketail Ophiogomphus rupinsulensis. Eastern Least Clubtail Stylugomphus albistylus. Laura's Clubtail Stylurus laurae. Arrow Clubtail Stylurus spiniceps Russet-tipped Clubtail Stylurus plagiatus.

Lilypad Clubtail: Abundance – uncommon but appears to be very slowly increasing. Habitat – small to medium ponds with abundant floating vegetation, usually found on lilypads and other floating vegetation

Unicorn Clubtail: Abundance – common. Habitat – present at small ponds and wetlands throughout. Can usually be found perched along the shoreline.

Black-shouldered Spinyleg: Abundance – common in the middle and uncommon in the upper. Habitat – small ponds with scattered vegetation, small to large streams. Sandy or muddy bottoms. They usually emerge a week or more after the Rapids Clubtails. Their emergence is more staggered where you might see a small number in a day. They tend to spend a lot more time along the river than some of the other species.

Flag-tailed Spinylegs: Abundance – no recent records. One individual was collected at Indian Point. It is assumed this was a wandering individual. Small, clear sandy or mud-bottomed streams.

Lancet Clubtail: Abundance – common. Habitat – breeds in ponds and wetlands and can be found in open fields away from the lake, along wetland edges, and along streams.

Midland Clubtail: Abundance – uncommon in the middle, common at the divide between the lower and middle, not uncommon in the upper region. Habitat – breeds in the river and emerges with the Rapids and others, but in low numbers.

Splendid Clubtail: Abundance – uncommon, but at times can be common in small areas. Habitat – breeds in the Grand River. Very small numbers emerge with the Rapids.

Ashy Clubtail: Abundance – Common. Habitat – sluggish rivers and ponds.

Rapids Clubtail: Abundance – numbers vary highly from year to year. In odd years as many as 100+ have been seen emerging, while in even years they can be rare. Habitat – fast water.

Dusky Clubtail: Abundance – scattered through the region. Habitat – small ponds

Green-faced Clubtail: Abundance – rare. Habitat – fast water riffles with perching rocks available.

Dragonhunter: Abundance – uncommon. Numbers vary year to year. Higher numbers are typically in even years. Habitat – Grand River, but occasionally be found on the smaller streams. Often perches in small trees and shrubs on the floodplain

Rusty snaketail: Abundance – varies with higher numbers in odd years. They can be nearly absent some even years. They always hatch with Rapids and others. Habitat – river.

Eastern Least Clubtail: Abundance – appears to have become more common. They hatch over a wide period. Habitat – Grand River and small streams. They are more common on the Grand when hatching, but more common on smaller streams later in the summer.

Laura's Clubtail: Abundance - rare. Habitat - sandy streams. Flies later

Arrow Clubtail: Abundance – rare. Habitat – sandy-bottomed large rivers. Flies later.

Riffle Snaketail: Abundance – Uncommon to rare. Numbers vary annually. Habitat – smaller streams. Perches on rocks in rapids.

Russet-tipped Clubtail: Abundance – One record in the Grand River and if you happen to observe number two, it will likely be where the river is wide and sandy-bottomed. Flies later – August and September.





Laura's Clubtail. Rapids Clubtail. Linda Gilbert





Black-shouldered Spinyleg. Eastern Least Clubtail. Photos: David Hochadel





Splendid Clubtail. Rusty Snaketail. Jim Heflich





Riffle Snaketail. Green-faced Clubtail. Jim Heflich

Cyclical Clubtails: Many of the large Clubtails have multi-year nymph stages. Rapids, Splendid, Midland, Green-faced and Rusty are, historically, most numerous in odd-numbered years. During off years, numbers can range from a handful to none. In the last six years, heavy Spring rain events after the main Clubtail hatch have impacted the populations. Clubtails seem to really get knocked back during heavy rain events. Three of these major rain events were during odd years and caused a huge impact to the populations. It is too early to determine their resilience to this repetitve reduction in numbers. Time and observation will tell.

Cyclical Clubtail emergence: The cyclicals emerge within a day or two in late May to early June with dates ranging from 20 May to 2 June. Emergence – Prefer east-west stretches of river with vegetation to the edge. Emergence does not appear to be associated with water temperture. After emergence, the Clubtails move away from the river for a period. A survey of appropriate dispersal habitat can be productive, especially the last week of May and the first two weeks of June. Preferred dispersal habitat – open shrubby fields that are surrounded on all four sides by trees.

Rapids Clubtail Chronology 2011: Emerged May 24 and 25. By 11:00, they could not be found along the stream (for 3 weeks). Returned June 15. Large numbers were observed all along the river and there was a steady movement upstream over the river. Last noted on July 4. The locals and the lucky might observe a cyclical species emergence day in late May or early June. For the rest of us, planning mid-June to early-July might be the best strategy to observe the cyclical clubtails, after they have returned to the river.

Non-cyclical Clubtail emergence: Spinylegs, Ashy, Lancet and Least do not follow the odd year pattern. The non-cyclical clubtails appear to stagger emergence.

Timing emergence: Early May – Lancet, Dusky, and Ashy. Late May – Rapids, Splendid, Midland, Green-faced and Rusty. Very late May to early June – Eastern Least. Early June – Black-shouldered, Dragonhunter, Unicorn, Lilypad and Riffle. Late July to August – Arrow and Laura's.







Snaketail emergence sequence. Jim Heflich

Timing disappearance: Early July to last of the May hatching clubtails. Late July – Least Clubtail, Dragonhunter, Black-shouldered and Riffle. Early August – last of the Least, Arrow and Laura's. August and later – no Clubtails have been observed. By then the sun is lower in the sky and in most areas, sunlight is limited in duration.

Water Level: Higher water covers the rocks and riffles favored by many of these Clubtails. Water gage data from the USGS Grand River station near Painesville can be found at: https://waterdata.usgs.gov/monitoring-location/04212100/. Water levels reported of 2 to 3 feet exposes rocks and riffles in various river sections.

John's slide presentation also covers species identification and the history of Grand River studies. You can access the presentation, which resides in the OSU Ohio Dragonfly Survey Resources page, at:

Clubtails of the Grand River

2021 County Statistics

Counties w/Most Species (70+)

- 1. Geauga 78
- 2. Lucas 77
- 3. Montgomery 73
- 4. Stark 72
- 5. Lake 71

Counties w/Most Observations (1000+)

- 1. Ashtabula 1982
- 2. Lucas 1948
- 3. Franklin 1903
- 4. Stark 1468
- 5. Coshocton 1138
- 6. Summit 1049
- 7. Montgomery 1022

Counties w/Most Observers (70+)

- 1. Franklin 137
- 2. Summit 110
- 3. Hamilton 93
- 4. Cuyahoga 90

Most Observations in a County (500+)

- 1. roamingthewoods Ashtabula 1780
- 2. lisaclairemiller Franklin 1070
- 3. jheiser Coshocton 1032
- 4. jcefus Stark 896
- 5. rbarricklow Lucas 768
- 6. whateverwatcher Butler 590

Every Ohio county is represented in the data. These totals are good on observation and observer numbers, but short of the record years 2018 and 2019.

Great and varied habitat + core of dedicated observers = lots of species. Terrific to see counties with around 100 observers. Most of the counties got a big lift from individual observers; no substitute for local people getting dragon-fever, both quantitively and qualitatively.

2021 Species Statistics

Most Observed Species (500+)

- 1. Eastern Pondhawk 1733
- 2. Blue Dasher 1707
- 3. Common Whitetail 1465
- 4. Fragile Forktail 1385
- 5. Eastern Forktail 1383
- 6. Widow Skimmer 1378
- 7. Autumn Meadowhawk 1155
- 8. Eastern Amberwing 1038
- 9. Ebony Jewelwing 914
- 10. Violet Dancer 730
- 11. Familiar Bluet 713
- 12. Blue-fronted Dancer 671
- 13. Powdered Dancer 656
- 14. Slaty Skimmer 528
- 15. Common Green Darner 502

Species w/Most Observers (over 200)

- 1. Common Whitetail 332
- 2. Ebony Jewelwing 271
- 3. Widow Skimmer 271
- 4. Eastern Pondhawk 249
- 5. Blue Dasher 245

Days w/Most Species (60+)

- 1. 2021-06-12 66
- 2. 2021-06-15 64
- 3. 2021-06-06 63
- 4. 2021-06-23 63
- 5. 2021-06-01 62
- 6. 2021-06-16 627. 2021-06-26 60

140 species is the most we've ever recorded in a year.

2021 Observer Statistics

Observers w/Most Observations (1000+)

- 1. jimlem 2285
- 2. lisaclairemiller 1860
- 3. roamingthewoods 1815
- 4. jheiser 1318
- 5. monicap273 1274
- 6. jcefus 1072

Days Out Observing by Observer (100+)

- 1. roamingthewoods 150
- 2. jheiser 127
- 3. lisaclairemiller 125
- 4. laureldoc 103
- 5. jimlem 102

Observers w/Most Species (75+)

- 1. jimlem 112
- 2. dhochadel 95
- 3. laureldoc 95
- 4. sallypsandpiper 93
- 5. dmarsh2 86
- 6. jcefus 84
- 7. ricknirschl 81
- 8. kent_miller 80
- 9. smwhite 76

Most Counties Visited by Observer (12+)

- 1. monicap273 48
- 2. iimlem 44
- 3. dmarsh2 29
- 4. laureldoc 20
- 5. dhochadel 18
- 6. sallypsandpiper 18
- 7. lisaclairemiller 16
- 8. susanbrauning 16
- 9. dmcshaffrey 15

2021 Combined Statistics

	Species	Observations	Observers
MAR	1	14	11
APR	13	219	62
MAY	79	2263	225
JUN	118	8298	507
JUL	97	6646	504
AUG	79	4516	282
SEP	69	2946	208
OCT	40	1046	90
NOV	8	260	57

Species w/Most Counties (75+)

- 1. Blue Dasher 88
- 2. Eastern Forktail 88
- 3. Eastern Pondhawk 88
- 4. Fragile Forktail 88
- 5. Widow Skimmer 88
- 6. Eastern Amberwing 86
- 7. Common Whitetail 84

Days w/Most Observations (400+)

- 1. 2021-06-12 458
- 2. 2021-06-17 446
- 3. 2021-06-26 442
- 4. 2021-06-23 434
- 5. 2021-06-06 400

For the year, we had 26,232 Observations, comprising 140 Species from 1,071 Observers.

2021 County Records

Species	County	Date	Username
Smoky Shadowdragon	Adams	2021-06-11	jhoward
Carolina Saddlebags	Auglaize	2021-06-06	jimlem
Dusky Dancer	Auglaize	2021-09-14	jimlem
Spatterdock Darner	Auglaize	2021-06-06	jimlem
Spot-winged Glider	Auglaize	2021-08-08	jimlem
Halloween Pennant	Belmont	2021-08-05	monicap273
Dragonhunter	Butler	2021-08-02	dezclar
Banded Pennant	Champaign	2021-07-18	jimlem
Dragonhunter	Champaign	2021-07-03	lisaclairemiller
Spot-winged Glider	Champaign	2021-06-27	whateverwatcher
Amber-winged Spreadwing	Clark	2021-06-01	jimlem
Black-shouldered Spinyleg	Clark	2021-06-17	terrinorris
Great Spreadwing	Clark	2021-08-08	mangoverde
Royal River Cruiser	Clark	2021-08-10	jimlem
Double-ringed Pennant	Clermont	2021-06-28	dtibbetts
Duckweed Firetail	Clermont	2021-07-14	*
Elusive Clubtail	Clermont	2021-08-19	quick3beers
Lilypad Forktail	Clermont	2021-07-31	rainbowkitten
Lancet Clubtail	Clinton	2021-07-07	jimlem
Swamp Darner	Clinton	2021-06-05	edwolski
Carolina Saddlebags	Coshocton	2021-06-15	jheiser
Smoky Rubyspot	Coshocton	2021-09-06	jheiser
Sweetflag Spreadwing	Coshocton	2021-06-27	jheiser
Vesper Bluet	Coshocton	2021-09-24	monicap273
Arrowhead Spiketail	Crawford	2021-05-25	kylebailey
Dot-tailed Whiteface	Crawford	2021-05-24	chelsealynne
Lancet Clubtail	Crawford	2021-06-01	chelsealynne
Vesper Bluet	Crawford	2021-07-30	chelsealynne
Westfall's Slender Bluet	Crawford	2021-07-16	kylebailey
Swamp Spreadwing	Cuyahoga	2021-07-18	ken_ohio
Handsome Clubtail	Darke	2021-06-13	jimlem
Lilypad Forktail	Darke	2021-06-17	coachwhipbooks
Spangled Skimmer	Darke	2021-06-13	jimlem
Citrine Forktail	Defiance	2021-07-26	jimlem
Cobra Clubtail	Delaware	2021-06-13	katiegabe
Gray Petaltail	Erie	2021-07-23	maddy_coss
Ashy Clubtail	Fayette	2021-06-05	smwhite
Azure Bluet	Fayette	2021-06-05	jimlem

Blue Corporal	Fayette	2021-05-21	jimlem
Flag-tailed Spinyleg	Fayette	2021-09-02	mikeabel
Handsome Clubtail	Fayette	2021-06-05	smwhite
Ashy Clubtail	Fulton	2021-06-16	jimlem
Royal River Cruiser	Gallia	2021-07-26	morganloveday
Ashy Clubtail	Hardin	2021-06-06	jimlem
Slaty Skimmer	Hardin	2021-09-16	jimlem
Emerald Spreadwing	Harrison	2021-06-09	quddy
Azure Bluet	Henry	2021-06-17	jimlem
Citrine Forktail	Henry	2021-06-17	jimlem
Lancet Clubtail	Highland	2021-07-07	jimlem
Royal River Cruiser	Highland	2021-06-26	chelsealynne
Great Spreadwing	Knox	2021-11-16	jlaasmar
Amber-winged Spreadwing	Lawrence	2021-06-17	malisaspring
Black-shouldered Spinyleg	Logan	2021-07-09	jimlem
Spangled Skimmer	Logan	2021-07-05	bluebell101
Ashy Clubtail	Lorain	2021-05-30	pbkelly
Striped Saddlebags	Lorain	2021-10-14	critterfriends0725
Turquoise Bluet	Lorain	2021-06-14	pbkelly
Slender Baskettail	Lucas	2021-05-30	ricknirschl
Sphagnum Sprite	Lucas	2021-06-20	ricknirschl
Turquoise Bluet	Lucas	2021-06-06	monicap273
Spotted Spreadwing	Madison	2021-09-14	lisaclairemiller
Spotted Spreadwing	Madison	2021-09-14	lmillerua
Comet Darner	Mercer	2021-06-06	jimlem
Westfall's Slender Bluet	Mercer	2021-06-14	jimlem
Arrowhead Spiketail	Miami	2021-06-10	jimlem
Cobra Clubtail	Miami	2021-06-04	dmarsh2
Arrow Clubtail	Monroe	2021-09-14	dmcshaffrey
Amber-winged Spreadwing	Montgomery	2021-06-01	smwhite
Golden-winged Skimmer	Montgomery	2021-07-17	smwhite
Citrine Forktail	Morgan	2021-09-28	monicap273
Spotted Spreadwing	Morrow	2021-08-21	lisaclairemiller
Elusive Clubtail	Muskingum	2021-06-26	leanne44
Smoky Rubyspot	Muskingum	2021-09-19	jheiser
Westfall's Slender Bluet	Noble	2021-07-16	jcefus
Azure Bluet	Ottawa	2021-06-03	o-ma
Vesper Bluet	Paulding	2021-09-10	monicap273
Ashy Clubtail	Perry	2021-06-01	landrews
Dragonhunter	Perry	2021-06-20	mlski
Mocha Emerald	Pickaway	2021-07-08	johnson45

Variegated Meadowhawk	Pickaway	2021-07-19	turtlerunner
Golden-winged Skimmer	Pike	2021-06-27	ninaharfmann
Common Baskettail	Preble	2021-05-20	jimlem
Carolina Saddlebags	Putnam	2021-06-17	jimlem
Unicorn Clubtail	Putnam	2021-06-17	jimlem
Ashy Clubtail	Ross	2021-06-06	dmarsh2
Great Spreadwing	Ross	2021-09-19	monicap273
Mocha Emerald	Ross	2021-08-14	lisaclairemiller
Unicorn Clubtail	Ross	2021-06-05	jimlem
Royal River Cruiser	Sandusky	2021-09-04	carolr
Ashy Clubtail	Shelby	2021-05-27	jimlem
Azure Bluet	Shelby	2021-06-15	laureldoc
Brown Spiketail	Shelby	2021-05-27	jimlem
Cobra Clubtail	Shelby	2021-07-09	jimlem
Common Baskettail	Shelby	2021-05-14	jimlem
Pronghorn Clubtail	Shelby	2021-05-22	jimlem
Springtime Darner	Shelby	2021-05-14	jimlem
Cyrano Darner	Stark	2021-06-07	kent_miller
Rapids Clubtail	Summit	2021-06-13	ashleylarsen
Twin-spotted Spiketail	Summit	2021-05-23	rogue_biologist
Black-tipped Darner	Trumbull	2021-08-04	jmalmisur
Blue-faced Meadowhawk	Tuscarawas	2021-09-24	monicap273
Spotted Spreadwing	Tuscarawas	2021-09-24	monicap273
Citrine Forktail	Union	2021-05-16	jimlem
Slaty Skimmer	Union	2021-07-14	lisaclairemiller
Azure Bluet	Van Wert	2021-07-26	jimlem
Ashy Clubtail	Warren	2021-06-04	rasamoto
Cobra Clubtail	Warren	2021-05-23	smwhite
Eastern Ringtail	Warren	2021-08-14	smwhite
Turquoise Bluet	Warren	2021-06-06	rasamoto
Golden-winged Skimmer	Wyandot	2021-06-12	matthewschmalz
Shadow Darner	Wyandot	2021-09-25	chelsealynne
* Duckweed Firetail was a new State Record for Ohio in 2021.			
Duckweed Firetail was reported in iNaturalist by dtibbetts on 7/18.			
Duckweed Firetail was discovered at CNC by Dennis Meyers on 7/14.			

110 New County Records, covering 58 species, in 54 counties from 48 observers. County Records are based on best known data, and are subject to change as new historical information is submitted.

Data analysis: Jim Lemon jlem@woh.rr.com

Ohio Field Guide Species Photos Needed

Need both Male and Female Photos		
Gomphaeschna antilope	Taper-tailed Darner	
Epitheca costalis	Slender Baskettail	
Neurocordulia molesta	Smoky Shadowdragon	
Neurocordulia obsoleta	Umber Shadowdragon	
Neurocordulia yamaskanensis	Stygian Shadowdragon	
Somatochlora incurvata	Incurvate Emerald	
Somatochlora ensigera	Plains Emerald	
Somatochlora hineana	Hine's Emerald	
Somatochlora kennedyi	Kennedy's Emerald	
Hylogomphus viridifrons	Green-faced Clubtail	
Lanthus parvulus	Northern Pygmy Clubtail	
Hylogomphus abbreviatus	Spine-crowned Clubtail	
Stylurus amnicola	Riverine Snaketail	
Stylurus notatus	Elusive Clubtail	
Stylurus spiniceps	Arrow Clubtail	
Gomphurus ventricosus	Skillet Clubtail	
Gomphaeschna antilope	Taper-tailed Darner	
Enallagma boreale	Boreal Bluet	
Enallagma anna	River Bluet	
Macromia wabashensis	Wabash Belted Skimmer	
Lestes disjunctus	Northern Spreadwing	
Sympetrum costiferum	Saffron-winged Meadowhawk	
Sympetrum internum	Cherry-faced Meadowhawk	
Cordulegaster diastatops	Delta-spotted Spiketail	

Need Female Photos		
Cordulegaster erronea	Tiger Spiketail	
Epitheca canis	Beaverpond Baskettail	
Aeshna interrupta	Variable Darner	
Aeshna clepsydra	Mottled Darner	
Gomphurus externus	Plains Clubtail	
Gomphurus crassus	Handsome Clubtail	
Macromia i. georgina	Swift River Cruiser (southern)	
Progomphus obscurus	Common Sanddragon	
Erythrodiplax minuscula	Little Blue Dragonlet	
Leucorrhinia frigida	Frosted Whiteface	
Leucorrhinia proxima	Belted Whiteface	
Libellula auripennis	Golden-winged Skimmer	
Libellula quadrimaculata	Four-spotted Skimmer	
Libellula vibrans	Great Blue Skimmer	
Sympetrum obtrusum	White-faced Meadowhawk	
Sympetrum rubicundulum	Ruby Meadowhawk	
Sympetrum obtrusum	White-faced Meadowhawk	
Enallagma ebrium	Marsh Bluet	
Enallagma carunculatum	Tule Bluet	
Coenagrion resolutum	Taiga Bluet	
Enallagma annexum (cyathigerum)	Northern Bluet	
Enallagma hageni	Hagen's Bluet	
Ischnura prognata	Furtive Forktail	

The photos don't have to be taken in Ohio. Please note we have a very limited budget for photos. None of the authors are getting paid for the book. The Ohio Biological Survey (the publisher) is a non-profit, and any proceeds from the book will go to offsetting printing and production costs and then underwriting the next project (if you haven't heard about the new 2-volume Reptiles of Ohio, go to the OBS page http://www.ohiobiologicalsurvey.org/ to check it out (our field guide will be much less expensive).

Dave McShaffrey. mcshaffd@marietta.edu

Ode Lang Syne 2021



Riffle Snaketail (Ophiogomphus carolus). 2021 Kim Smith



Swift River Cruiser (Macromia illinoiensis). 2021 David Tibbetts



From top: Beaverpond Baskettail (Epitheca canis). Arrowhead Spiketail (Cordulegaster obliqua). Southern Pygmy Clubtail (Lanthus vernalis). Northern Bluet (Enallagma annexum). 2021 David Hochadel.









Common Baskettail (Epitheca cynosure). Halloween Pennant (Clithemis eponina). Black Saddlebags (Tramea lacerate). Great Spreadwing (Archilestes grandis). 2021 Rick Nirschl.









Smoky Rubyspot (Hetaerina titia).
Handsome Clubtail (Gomphurus crassus).
Swift Setwing (Dythemis velox).
Eastern Least Clubtails (Stylogomphus albistylus).
2021 Jim Lemon









Arrowhead Spiketail (Cordulegaster obliqua).
Golden-winged Skimmer (Libellula auripennis).
2021 Sarah White.

