

Dragonflies and Damselflies of Calvert County 2023 Annual Report

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PURPOSE

The Calvert County Natural Resources Division is sponsoring an ongoing research program to document what species of the order Odonata (*Dragonflies and Damselflies*) occur in the county. The Calvert Stewards volunteers will search county and state parks, public and private property, and any suitable habitat within the county to search for different types of Odonates and the abundance of those species. They will obtain photographs and identify locations and species of Odonates so that records can be submitted to the Odonata Central database to be properly vetted and confirmed. Additionally, records will also be submitted to Richard Orr of Mid-Atlantic Invertebrate Field Studies and the Dragonflies and Damselflies of Calvert County project within iNaturalist. The Maryland Biodiversity Project and the Calvert County Biodiversity project have synched observations with iNaturalist and continue to be the main resource for tracking volunteer and non-volunteer sightings in the county.



Selv's Sundragon (*Helocordulia selvsii*)

SKILLS NEEDED

- All skill levels are encouraged to participate
- The ability to work alone or with a group
- The ability or desire to learn and properly identify Odonata
- The ability to walk in and on all types of landscapes to include (*ponds, creeks, lakes, fields, forest, and swamps*)

Preferred Skills

The ability to have basic computer skills to submit records via the internet.

The ability to photograph species found

VOLUNTEER DUTIES

- Explore different types of landscapes to locate and identify Odonata
- Accurately mapping locations and obscuring observations of sensitive species
- Photograph Odonates well enough for proper identification
- Identify the habitat characteristics and abundance

REQUIREMENTS AND EXPECTATIONS

- Walk and methodically search for odonates
- Be considerate of sensitive species and information regarding locations
- Be exposed to ticks, chiggers, mosquitoes, people, stinging insects, poison ivy, and getting wet.
- Follow all rules, regulations, and guidelines while on county, state, and private properties

TRAINING

- Orientation through a presentation of odonata (TBD)
- An advanced class on odonata and records and submission (TBD)
- On-going opportunities to join scheduled odonata research (TBD)

PROJECT DATES

Early Spring – can start as early as March 26

Summer – research will be at its peak

Fall – continue to check established locations for species of odonata still flying to establish late flight period dates and look for species that emerge late in the season.

SUMMARY OF 2023 FIELD STUDY

2023 was the sixth year of the field study and what an interesting one it was. Despite achieving new early dates for the Common Green Darner and Fragile Forktail, and the discovery of the Sely's Sundragon, the unseasonably cool weather at the end of April and into May seemed to keep water temperatures too cool for normal emergence. It truly was a struggle to find odes in the hot spots and if any were found it would be in very small numbers. This was echoed throughout the east coast as many ode enthusiasts would voice their disappointments on social media. On a personal note, this was the first season I experienced an "Ode drought" and found it hard to stay motivated and venture out every day. No data is still data. As the summer forced its way in and brought some warmth, odes started to show up but observations still remained low.

The cumulative list was increased from 88 species to 89 different species for Calvert County. The Sely's Sundragon (#89) was discovered on April 4, 2023, at Calvert Cliffs State Park by volunteer Rick Smith. A rare (S2) and threatened species of the Emerald Family. Not only was this a fantastic discovery but it got the attention of many odonata enthusiasts to include Bill Hubick and Jim Brighton of the Maryland Biodiversity Project. An exceptional find that also led to the recruitment of three additional volunteers for the program. On April 11th the Sely's Sundragon was relocated, and which led to the discovery of two male Furtive Forktails in Grays Creek. This was the third location for the county. Another first was the very first Springtime Darner at the Gatewood Nature Preserve.

The cumulative list for the state, *"The Dragonflies and Damselflies of Maryland and the District of Columbia"* is still maintained by Richard Orr of the Mid-Atlantic Invertebrate Field Studies. In conjunction with Richard Orr's list, iNaturalist continues to be a major source of record keeping due to its popularity, simplicity and the number of observations being submitted. Our volunteers, Rick Smith AND Tonyia Johnson, continue to be the most active of our volunteers and have recorded the most observations for the program. Last year was the first time the Lyons Creek stream was observed, which proved very fruitful for the Russet-tipped Clubtails. This year many trips were made throughout the season to get a better view of the diversity. A Georgia River Cruiser, a sub species of the Swift River Cruiser was observed as well as a dozens of Autumn Meadowhawks in the fall. This is also a new location for Laura's Clubtail. The Laura's Clubtail was also documented at Ward District Park this year which makes this an especially exciting observation. This makes four locations in Calvert County for this very special ode!

Although 2022 was the year of the Tiger Spiketail, it was not relocated in 2023 at the Huntingtown Wildlife Management Area. However, on July 4th, an observation was posted to iNaturalist around Scientists Cliffs (*Prince Frederick Quad*) by a visitor from North Carolina who happened to find a deceased specimen. Hopefully, this area can be surveyed in 2024 and additional observations can be recorded.

NO NEW locations were added as part of this research project :

All updates have been submitted to Odonata Central and Richard Orr.

Current Locations:

Battle Creek Cypress Swamp
Bennett O. Hughes Memorial Tree Farm
Biscoe Gray Heritage Park
Calvert Cliffs State Park
Calvert County Business Park
Calvert High School pond
Calvert Marina Community Pond
Chesapeake Beach Wetlands park
Chesapeake Highlands Memorial Gardens
College of Southern Maryland Prince Frederick campus
Cove Point Park
Cove Point Community Lake
Cove Point Beach
Dares Beach Road pond (Dares Beach @ Rt. 4)
Dominion Energy Warehouse pond
Dowell Road Natural Area
Dunkirk District Park
Fastop Natural Area in St. Leonard
Flag Ponds
Gatewood Nature Preserve
Hutchins Pond
Jefferson Patterson Park and Museum
Kings Landing Park
Lake Collusion
Lyons Creek Road Community pond
Lyon's Creek Stream (Rt.4 / 260 interchange)
"Smoky Road" Huntingtown Wildlife Management Area
Ward Farm Nature Park
Wetlands Overlook Park.

Bennett O. Hughes Memorial Tree Farm

The “Tree Farm” was not as active with high numbers in 2023 as it was in 2020 and 2021. After many desperate attempts to locate at least one Laura’s Clubtail, a female was found on July 19th at approximately 5 o’clock in the evening. Remarkably she landed and a photo was captured which revealed an egg sack. This is a small sign of hope that the population there will recover and perhaps there will be more sightings in 2024. Fingers and Cerci crossed!



Battle Creek Cypress Swamp Sanctuary

Battle Creek Cypress Swamp had another good year for odes. Although the Furtive Forktail and the Harlequin Darners were not relocated, seven new odes were added to the list: Stream Cruiser, Southern Spreadwing, Spangled Skimmer, Slaty Skimmer, Illinois River Cruiser, Shadow Darner, and FINALLY the Autumn Meadowhawk. This brings the total number of odes to 41.



An update on species that were previously discovered/relocated/missing during this season:

- **Sable Clubtail** – MISSING (First record, Cove Point 2011. Rediscovered during 2021, Bennett O. Hughes Memorial Tree Farm)
- **Taper-tailed Darner** – MISSING
- **Arrowhead Spiketail** – MISSING
- **Dragonhunter** – Located at Ward District Park but ONLY two sightings for the whole county. This could have been a low year as 2022 seemed to be a peak for this species.
- **Double-striped Bluet** – a few located at Hutchin’s Pond but generally low numbers.
- **Laura’s Clubtail** – A better year for Laura’s as two new locations were added. This is still an S2 in the state.

Summary of new species for the county:

- **Sely’s Sundragon** (Discovered at Calvert Cliffs State Park by Rick Smith, 1st county record)



VOLUNTEERS

The combined total number of volunteer hours for 2023 was 622.5. This is a 52% increase from 2022!!

Jason Avery	393
Tonyia Johnson	109.5
Rick Smith	67
Sharon Forsyth	19
Jeff Shenot	11
Mary Hollinger	6.5
Karen Anderson	3.0
Mike Carpenter	3.0
Michelle LaCombe	3.0
Carrie Buswell	3.0
Jack Felsher	3.0

PARTNERSHIPS WITH COMMUNITY GROUPS AND OTHER ORGANIZATIONS

On April 4, 2023, the Calvert Pines Senior Center hosted an Easter Family Day which incorporated many speakers throughout the day. We were able to share our program through a power point presentation which also had visual exhibits with a small group. Also in April, we had an opportunity for community members and volunteers to attend the power point presentation at Flag Ponds Nature Park education building. This was a big success and had a nice response. Through these talks, we hope to educate the community on the importance of having odonata and why habitat for all species needs to be protected.

We continue to collaborate with Bill Hubick and Jim Brighton of the Maryland Biodiversity page to ensure all information on sensitive species is handled in the correct manner. Those submissions will be added to the MBP Sensitive species project which has limited permissions.

The College of Southern Maryland continued to allow us access to the pond which was initially denied to us. Thanks to Steve Campbell, head of Security, we were allowed onto the campus during the weekend hours. The odonate count for CSM was very low this year. The increase of breeding Red-winged Blackbirds continues to be a problem for the low numbers. Recent pruning and tree removal in the fall could have a positive or negative effect come 2024.

Other partners are Dominion Energy for continuing to allow us access to the pond. Richard Orr of the Mid-Atlantic Invertebrate study for maintaining the updated list of Dragonflies and Damselflies of Maryland and DC. The vetters who contribute their time and effort on Odonata Central. The Maryland Department of Natural Resources staff at Calvert Cliffs State Park for allowing us to have parking access on days they are at full capacity.

FUTURE PLANS

- To obtain more interest in this research project and to recruit more volunteers.
- To continue thorough searches throughout Calvert County
- To identify new habitats and locations worth monitoring
- To expand the current list of 89 species of odonata for Calvert County
- To continue to submit data to Odonata Central, Richard Orr of Mid-Atlantic Invertebrate Field Studies, iNaturalist and the Maryland Biodiversity Project.
- Work in conjunction with the Dragonfly Larva Mercury study
- To further research in the use and operation of the MOTUS tagging project



A male Unicorn Clubtail (*Arigomphus villosipes*) and a male Common Whitetail (*Plathemis lydia*)



Presentation at the Calvert Pines Senior Center



A female Slender Spreadwing (*Lestes rectangularis*)



A female Swamp Darner (*Epiaschna heros*) ovipositing on a log

Supporting Calvert County's nature parks and natural spaces



CALVERT STEWARDS

VOLUNTEER PROGRAM

A partnership between Calvert Nature Society and Calvert County Natural Resources Division

2023 Annual Report

Date of Issue March 2024

CALVERT STEWARDS VOLUNTEER PROGRAM
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2880 Grays Road
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Volunteer Portal: <https://calvertstewards.galaxydigital.com/>

Calvert Nature Society: www.calvertparks.org

Calvert County Natural Resources Division:
www.calvertcountymd.gov/NaturalResources

