

Dragonflies and Damselflies of Calvert County 2021 Final Report



Double-striped Bluets (*Enallagma basidens*)

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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 look 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 data base 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 data base now has synched observations with iNaturalist.

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 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.

Volunteer Duties

- Explore different types of landscapes to locate and identify odonata
- Map locations accurately on paper maps or online
- 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, 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 15

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 2021 field study

2021 was the fourth year of the field study in which the cumulative list was increased from 83 species to 85 different species known to occur throughout Calvert County. One of the first species discovered this season was a single female Common Green Darner that was ovipositing at Calvert High School on March 25th. This was a new early date for *Anax Junius* in the county.

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 became a major source of record keeping due to its popularity and the number of observations being submitted. Thanks to iNaturalist, a second Tiger Spiketail was recorded at the Huntingtown Natural Area off Smokey Road in Huntingtown by Maggie Silverman. Rick Smith has been a devoted volunteer and covers Calvert Cliffs State Park very frequently and reported the continuing of the Eastern Red Damsel, Southern Sprite, and Slender Bluets among other species.

NO NEW locations were added as part of this research project : Battle Creek Cypress Swamp, Bennett O. Hughes Memorial Tree Farm, Briscoe Gray Heritage Park, Calvert Cliffs State Park, Calvert County Business Park, Calvert High School 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, 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, Smoky Road/Huntingtown Wildlife Management Area, Ward Road Farm Nature Park, Wetlands Overlook Park.

Bennett O. Hughes Memorial Tree Farm

The "Tree Farm" was fruitful in 2021 as nine new species were added to list bringing it to 41. A Southern Spreadwing was found at the pond followed by Rambur's Forktail, and a Familiar Bluet. A single male Turquoise Bluet was discovered down by the stream. On June 19th a female Clamp-tipped Emerald was found hanging in a tree above the stream and on July 19th a male, Blue-tipped Dancer was found way up stream on an exhausting 101-degree day. On the same day, an Arrowhead Spiketail was caught while patrolling one of the small seeps that trickles down from the north end of the farm. On July 23rd a Carolina Saddlebags was found perched on the fallen tree in the pond and on August 23rd, an early season Shadow Darner flew by and landed up in a tree in the shadows. The farm has recovered from the storm from 2020 and I was able to relocate the Sable Clubtail, Laura's Clubtail and the Dragonhunter. The farm had lower numbers of Ebony Jewelwings this year but that could be cyclical.



Arrowhead Spiketail (*Cordulegaster obliqua*)

[Battle Creek Cypress Swamp Sanctuary](#)

Battle Creek Cypress Swamp also had a great year for odes. The first species added to the list was the Furtive Forktail on April 11th. Originally thought to be a Rambur's Forktail, which still would have been a new species for the swamp, but much to my surprise and excitement, the observation was corrected the next morning on iNaturalist as a Furtive Forktail. This was the first record for the county, and it is considered an S1 - Highly State Rare. On May 11th, a single Harlequin Darner was found on the boardwalk and on June 15th, three new species were discovered for the species list: Turquoise Bluets, Blue-tipped Dancers, and a Cyrano Darner. This brings the total numbers of odes to 32.



Furtive Forktail (*Ischnura prognata*)

[A few species that were previously discovered were also relocated during this season:](#)

- **Sable Clubtail** (First record, Cove Point 2011. Rediscovered during 2021, Bennett O. Hughes Memorial Tree Farm)
- **Cyrano Darner** (First record, Cove Point in 2011. New location 2021, Battle Creek Cypress Swamp)
- **Fine-lined Emerald** (First record, Cove Point in 2011. Relocated in 2021, Calvert Cliffs State Park)
- **Dragonhunter** (First record, Cove Point in 2011. Relocated 2021, Bennett O. Hughes Memorial Tree Farm)
- **Double-striped Bluet** (First record, Cove Point in 2011. New record 2020, Calvert High School ponds and NEW location in 2021, Hutchin's Pond) This proved to be a good location for them as several mating pairs were observed.

[Summary of new species for the county:](#)

- **Furtive Forktail** (Discovered at Battle Creek Cypress Swamp, 1st county record)
- **Attenuated Bluets** (Discovered at Cove Point Lake, 1st county record)

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

Volunteers

Despite the ongoing COVID restrictions, we were able to recruit four new volunteers for the project for a total of seven.

- Rick Smith logged in with 94hrs
- Mary Hollinger logged in with 7.25hrs
- Karen Anderson logged in 5.5hrs
- Mollie King logged in 8hrs
- Maggie Silverman logged in 7hrs
- Sue Hamilton logged in 4hrs
- Mike Carpenter logged in 4.5

Partnerships with Community Groups and other Organizations

We continue to collaborate with Bill Hubick of the Maryland Biodiversity page to ensure all information on sensitive species are 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 low this year. The increase of breeding Red-winged Blackbirds is one theory for the low numbers.

Other partners were 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 accomplish thorough searches throughout Calvert County
- To identify new habitats and locations worth monitoring
- To expand the current list of 85 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



Banded Pennant (*Celithemis fasciata*)
Photo by Rick Smith



Attenuated Bluet (*Enallagma daeckii*)

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

2021 Annual Report

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CALVERT STEWARDS VOLUNTEER PROGRAM
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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

