

2013 Addendum: Dragonflies and Damselflies of Catoctin Mountain Park (Frederick County, MD)

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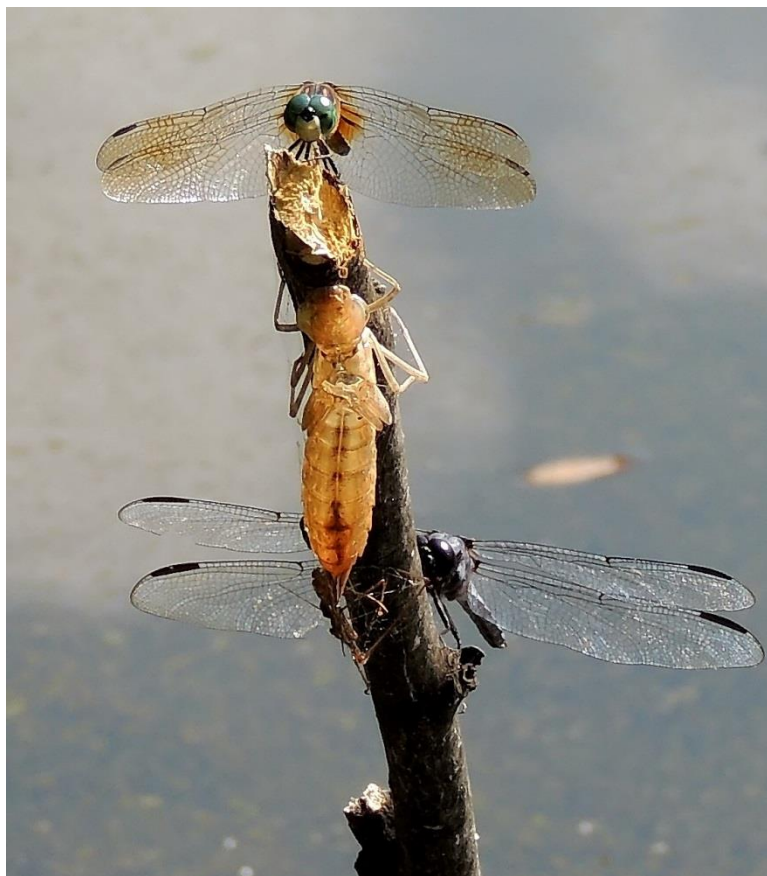
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Top: Blue Dasher Middle: Common Green Darner (cast skin) Bottom: Slaty Skimmer
Lewis Property Pond August 28, 2012

January 3, 2014

INTRODUCTION: A survey of the Dragonflies and Damselflies was completed in 2009 for Catoctin Mountain Park (Orr, 2009). Twenty-seven (27) species of odonata were found during the 2009 survey. However, the survey did not cover any large pond habitat, only a couple of small ponds of limited size. By the 2012-2013 bee survey two additional properties (Lewis & Braestrup) had been added to the Park. These properties were included in the 2012-2013 bee survey. The large ponds (one at the Lewis property and two at the Braestrup property) provided new habitats for dragonflies and damselflies that were not surveyed for during the 2009 odonata survey.



Lewis Pond August 28, 2012



Braestrup Large Pond July 31, 2013



Braestrup Small Pond July 31, 2013

METHODS: No attempt was made to systematically survey for dragonflies and damselflies during the 2012-2013 bee survey, but when dragonflies and damselflies were seen they were identified. The majority of the odonate species encountered were identified using binoculars. A few were netted and released. No voucher specimens were taken but photographs were taken of several of the new species additions. Photographs will be submitted as part of this report on a CD.

RESULTS: Eighteen (18) additional species for the Park were added during the 2012-2013 bee survey from the Lewis and Braestrup Ponds. Table 1 provides a complete list of the current forty-five (45) dragonfly and damselfly species known from Catoctin Mountain Park. Those marked in yellow are new species additions since the 2009 survey.

Table 1: LIST OF THE DRAGONFLIES & DAMSELFLIES OF CMP

Damselflies	Family	Genus	Species	Known Flight Period At CMP
Ebony Jewelwing	Calopterygidae	<i>Calopteryx</i>	<i>maculata</i>	7-Jun to 14-Aug
Northern Spreadwing	Lestidae	<i>Lestes</i>	<i>australis</i>	14-Sep
Swamp Spreadwing	Lestidae	<i>Lestes</i>	<i>vigilax</i>	31-Jul to 28-Aug
Violet Dancer	Coenagrionidae	<i>Argia</i>	<i>fumipennis</i>	14-Jul to 14-Sep
Powdered Dancer	Coenagrionidae	<i>Argia</i>	<i>moesta</i>	14-Jul to 14-Aug
Blue-tipped Dancer	Coenagrionidae	<i>Argia</i>	<i>tibialis</i>	14-Jul
Dusky Dancer	Coenagrionidae	<i>Argia</i>	<i>translata</i>	14-Aug
Azure Bluet	Coenagrionidae	<i>Enallagma</i>	<i>aspersum</i>	31-Jul
Familiar Bluet	Coenagrionidae	<i>Enallagma</i>	<i>civile</i>	19-Jun to 14-Sep
Orange Bluet	Coenagrionidae	<i>Enallagma</i>	<i>signatum</i>	

				27-May
Slender Bluet	Coenagrionidae	<i>Enallagma</i>	<i>triviatum</i>	11-Jun
Fragile Forktail	Coenagrionidae	<i>Ischnura</i>	<i>posita</i>	19-May to 28-Aug
Eastern Forktail	Coenagrionidae	<i>Ischnura</i>	<i>verticalis</i>	27-May to 31-Jul
Dragonflies:				
Unicorn Clubtail	Gomphidae	<i>Arigomphus</i>	<i>villosipes</i>	27-May to 11-Jun
Lancet Clubtail	Gomphidae	<i>Gomphus</i>	<i>exilis</i>	31-Jul
Ashy Clubtail	Gomphidae	<i>Gomphus</i>	<i>lividus</i>	24-May to 7-Jun
Sable Clubtail	Gomphidae	<i>Gomphus</i>	<i>rogersi</i>	Known only from larvae
Dragonhunter	Gomphidae	<i>Hagenius</i>	<i>brevistylus</i>	14-Jul
Southern Pygmy Clubtail	Gomphidae	<i>Lanthus</i>	<i>vernalis</i>	19-May to 25-Jun
Eastern Least Clubtail	Gomphidae	<i>Stylogomphus</i>	<i>albistylus</i>	25-Jun to 14 Jul
Shadow Darner	Aeshnidae	<i>Aeshna</i>	<i>umbrosa</i>	25-Sep
Common Green Darner	Aeshnidae	<i>Anax</i>	<i>junius</i>	11-Jun to 25-Sep
Swamp Darner	Aeshnidae	<i>Epiaeschna</i>	<i>heros</i>	27-Apr to 14-Jul
Twin-spotted Spiketail	Cordulegastridae	<i>Cordulegaster</i>	<i>maculata</i>	Not known
Brown Spiketail	Cordulegastridae	<i>Cordulegaster</i>	<i>bilineata</i>	26-May
Common Baskettail	Corduliidae	<i>Epithica</i>	<i>cynosura</i>	27-May
Prince Baskettail	Corduliidae	<i>Epithica</i>	<i>princeps</i>	1-Jun to 11-Jun
Mocha Emerald	Corduliidae	<i>Somatochlora</i>	<i>linearis</i>	7-Aug
Calico Pennant	Libellulidae	<i>Celithemis</i>	<i>elisa</i>	7-Aug
Eastern Pondhawk	Libellulidae	<i>Erythemis</i>	<i>simplicicollis</i>	27-May to 28-Aug
Golden-winged Skimmer	Libellulidae	<i>Libellula</i>	<i>auripennis</i>	7-Aug
Spangled Skimmer	Libellulidae	<i>Libellula</i>	<i>cyanea</i>	11-Jun to 9-Jul
Slaty Skimmer	Libellulidae	<i>Libellula</i>	<i>incesta</i>	11-Jun to 28-Aug
Widow Skimmer	Libellulidae	<i>Libellula</i>	<i>luctuosa</i>	11-Jun to 28-Aug
Common Whitetail	Libellulidae	<i>Libellula</i>	<i>lydia</i>	26-May to 25-Sep
Twelve-spotted Skimmer	Libellulidae	<i>Libellula</i>	<i>pulchella</i>	11-Jun to 31-Jul
Painted Skimmer	Libellulidae	<i>Libellula</i>	<i>semifasciata</i>	19-Jun
Great Blue Skimmer	Libellulidae	<i>Libellula</i>	<i>vibrans</i>	11-Jun
Blue Dasher	Libellulidae	<i>Pachydiplax</i>	<i>longipennis</i>	1-Jun to 14-Sep
Wandering Glider	Libellulidae	<i>Pantala</i>	<i>flavescens</i>	14-Sep
Spot-winged Glider	Libellulidae	<i>Pantala</i>	<i>hymenaea</i>	14-Sep
Eastern Amberwing	Libellulidae	<i>Perithemis</i>	<i>tenera</i>	27-May to 28-Aug

Autumn Meadowhawk	Libellulidae	<i>Sympetrum</i>	<i>vicinum</i>	7-Aug to 25-Sep
Carolina Saddlebags	Libellulidae	<i>Tramea</i>	<i>carolina</i>	11-Jun to 14-Sep
Black Saddlebags	Libellulidae	<i>Tramea</i>	<i>lacerata</i>	11-Jun to 28-Aug

Table 2 lists the four species of odonata found at CMP that are listed by the state of Maryland as of conservation concern. No additional listed species were added since the 2009 report.

Table 2: MARYLAND STATE LISTED ODONATES OF CMP

<i>Gomphus</i>	<i>rogersi</i>	Gomphidae	S2 = State Threatened
<i>Lanthus</i>	<i>vernalis</i>	Gomphidae	S2 = State Threatened
<i>Cordulegaster</i>	<i>bilineata</i>	Cordulegastridae	S3 = State watch list
<i>Somatochlora</i>	<i>linearis</i>	Corduliidae	S3 = State watch list

Table 3 provides the location of larval habitats identified since the 2009 field season. The life style column gives information on how the larvae normally exist within that environment. The life style information (C = climber, B = burrower, S = sprawler) was obtained from Tennesen, 2008. This table complements Table 3 in the 2009 report.

Table 3: LARVAL HABITATS AND LOCATIONS WITHIN CMP

GENUS	SPECIES	HABITAT	OWENS CREEK	ROUND TOP POND	LEWIS POND	BRAESTRUP PONDS	LIFE STYLE
<i>Calopteryx</i>	<i>maculata</i>	Streams	X				C
<i>Lestes</i>	<i>vigilax</i>	Ponds			X		C
<i>Enallagma</i>	<i>aspersum</i>	Ponds				X	C
<i>Enallagma</i>	<i>civile</i>	Ponds, Slow Streams		X			C
<i>Enallagma</i>	<i>signatum</i>	Ponds			X		C
<i>Enallagma</i>	<i>triviatum</i>	Ponds			X		C
<i>Ischnura</i>	<i>posita</i>	Standing or slow moving water	X		X	X	C
<i>Ischnura</i>	<i>verticalis</i>	Ponds			X	X	C
<i>Arigomphus</i>	<i>villosipes</i>	Ponds			X		B
<i>Gomphus</i>	<i>exilis</i>	Ponds				X	B
<i>Anax</i>	<i>junius</i>	Ponds, Pools			X	X	C
<i>Cordulegaster</i>	<i>bilineata</i>	Streams	X				B, S
<i>Epithica</i>	<i>cynosura</i>	Ponds			X		C, S
<i>Epithica</i>	<i>princeps</i>	Ponds			X		C, S
<i>Celithemis</i>	<i>elisa</i>	Ponds		X			S
<i>Erythemis</i>	<i>simplicicollis</i>	Ponds, Swamps, Pools		X	X	X	S
<i>Libellula</i>	<i>auripennis</i>	Ponds		X			S
<i>Libellula</i>	<i>cyanea</i>	Ponds			X		S
<i>Libellula</i>	<i>incesta</i>	Ponds			X	X	S

<i>Libellula</i>	<i>luctuosa</i>	Ponds		X	X	X	S
<i>Libellula</i>	<i>lydia</i>	Ponds, Pools, Swamps	X			X	S
<i>Libellula</i>	<i>pulchella</i>	Ponds, Pools			X		S
<i>Libellula</i>	<i>semifasciata</i>	Ponds, Pools		X			S
<i>Libellula</i>	<i>vibrans</i>	Ponds			X		S
<i>Pachydiplax</i>	<i>longipennis</i>	Ponds, Pools, Swamps		X	X		S
<i>Perithemis</i>	<i>tenera</i>	Ponds			X	X	S
<i>Tramea</i>	<i>carolina</i>	Ponds			X		S
<i>Tramea</i>	<i>lacerata</i>	Ponds			X	X	S

DISCUSSION: The National Park Service is considering removal of the two ponds at the Braestrup property to enhance the water quality of Owen’s Creek. Pond habitats are nearly non-existent within the Park. The presence of the Braestrup Ponds does increase the overall diversity of the dragonflies and damselflies found within the Park. However, the species found at the Braestrup and Lewis Ponds are common and widespread throughout the Catoclin Mountains in similar habitats and are not considered in need of conservation. To the best of my knowledge removal of the ponds would not impact the overall population of any species of dragonfly or damselfly.

Improvement of the water quality of Owen’s Creek is important since two state-threatened (S2) species (*Gomphus rogersi* and *Lanthus vernalis*) exist nearby, within the Park, in the upper sections of Big Hunting Creek (Orr, 2009) but as of yet not been found in Owen’s Creek. The reason may well be related to water quality.

LITERATURE CITED:

- Orr, R.L. 2009. The 2009 Survey of the Dragonflies and Damselflies of Catoclin Mountain Park (Frederick County, MD). Research Report to the National Park Service, Catoclin Mountain Park, January 20, 2010. 17 pages.
- Tennessen, K.L. 2008. Odonata. Chapter 12 in the Fourth Edition of Aquatic Insects of North America edited by R.W. Merritt, K.W. Cummings and M.B. Berg. Pages 237-294.