



The Photographic Big Year

Getting the Shot
When it Really Counts

Nina Harfmann







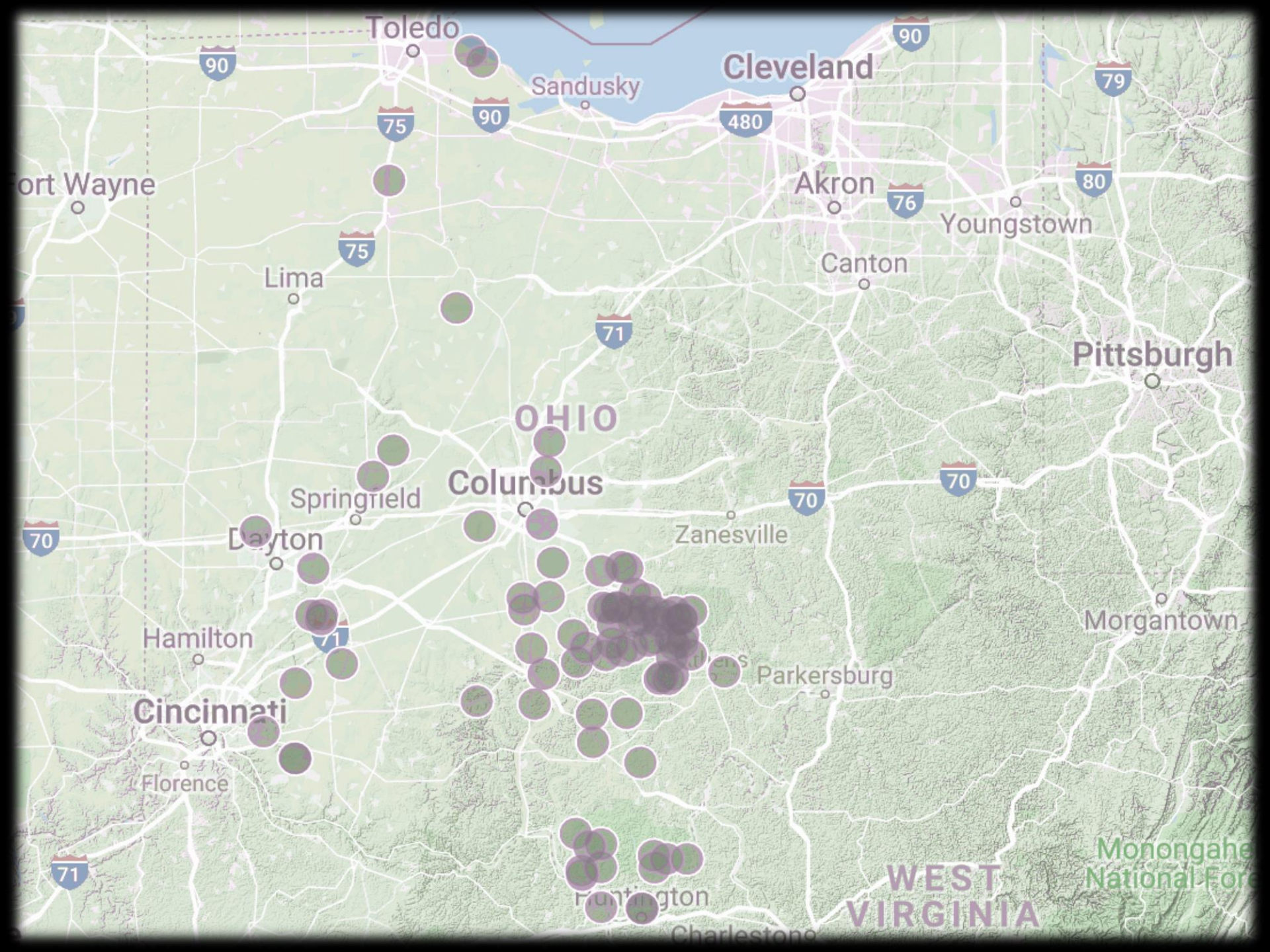
“You must have
a really good camera!”

“You don't make a photograph just with a camera. You bring to the act of photography all the pictures you have seen, the books you have read, the music you have heard, the people you have loved.”

— Ansel Adams

Canon 100-400mm IS II lens

- Super-telephoto zoom
- Focuses close to 3.2 ft
- Good in low light
- Weighs 3.46 lbs.
- Because the best odes are in the middle of the river
- Unless they land on YOU
- Flash units add weight
- Field days are Long days



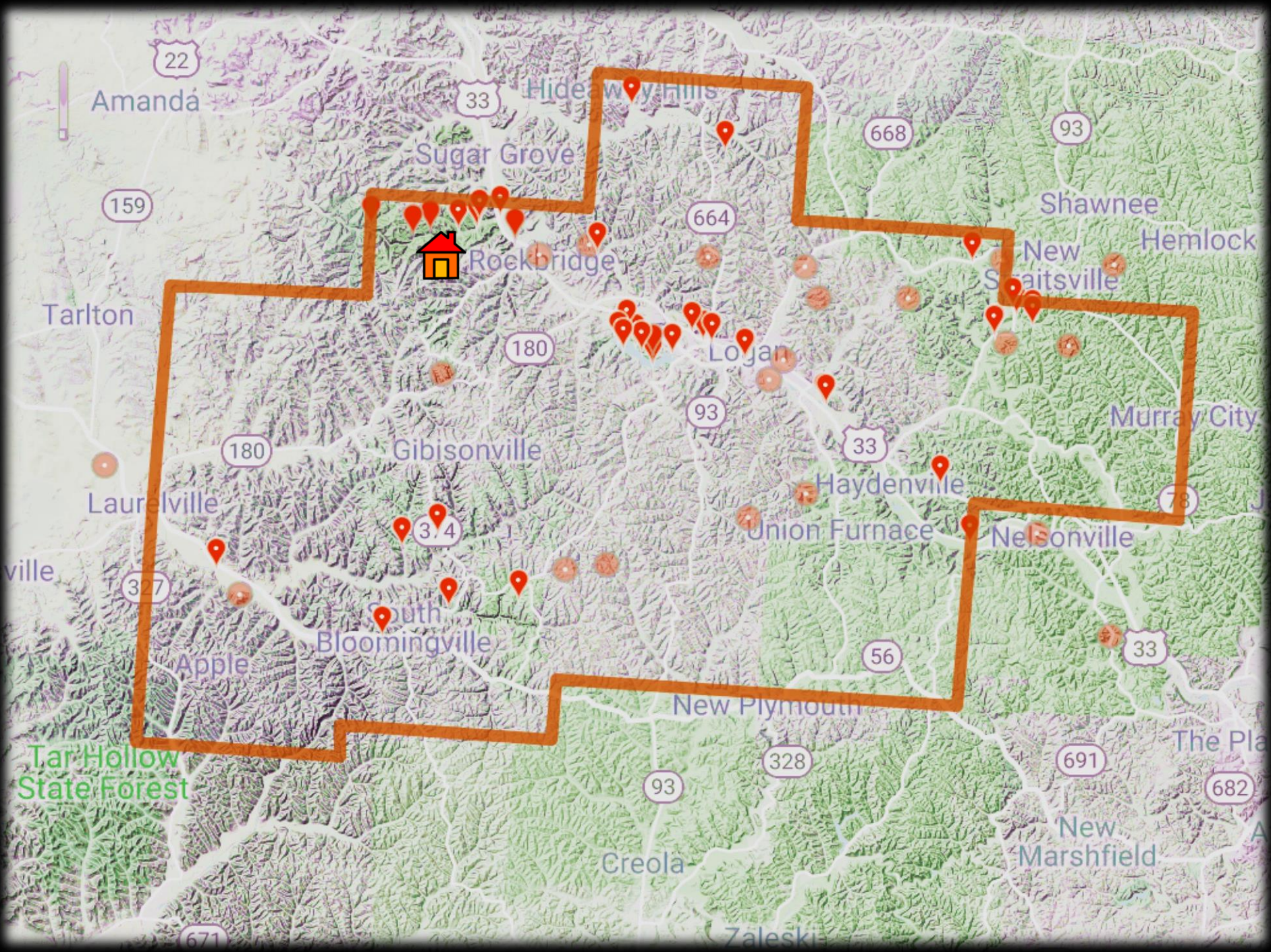




Photo by Tim
Daniel





Common Green Darner	Apr 27, 2018
Carolina Saddlebags	May 13, 2018
Blue Corporal	May 13, 2018
Spangled Skimmer	May 20, 2018
Painted Skimmer	May 20, 2018
Dot-tailed Whiteface	May 20, 2018
Eastern Pondhawk	May 28, 2018
Blue Dasher	May 28, 2018
Elegant Spreadwing	June 1, 2018
Ebony Jewelwing	June 1, 2018
Slaty Skimmer	June 1, 2018
Fragile Forktail	June 2, 2018

1/160 sec at f/ 7.1
(overexposed)
ISO 100 200 mm



To capture color, over-expose subjects when shooting against a bright background. Adjust exposure compensation (+++) to prevent silhouettes!





Use a slow shutter speed on a stationary subject to overexpose.



1/80 sec at f/8.0
ISO 500 400mm



1/2000 sec at f/7.1
ISO 800 400mm



To isolate subject from background, use a shallow depth of field...lower f/stop and step back in order to keep entire subject in focus.

Depth of Field

- Distance in front of and behind the point of focus in a photograph in which the scene remains in acceptably sharp focus
- Lower f/stops create shallower depth of field



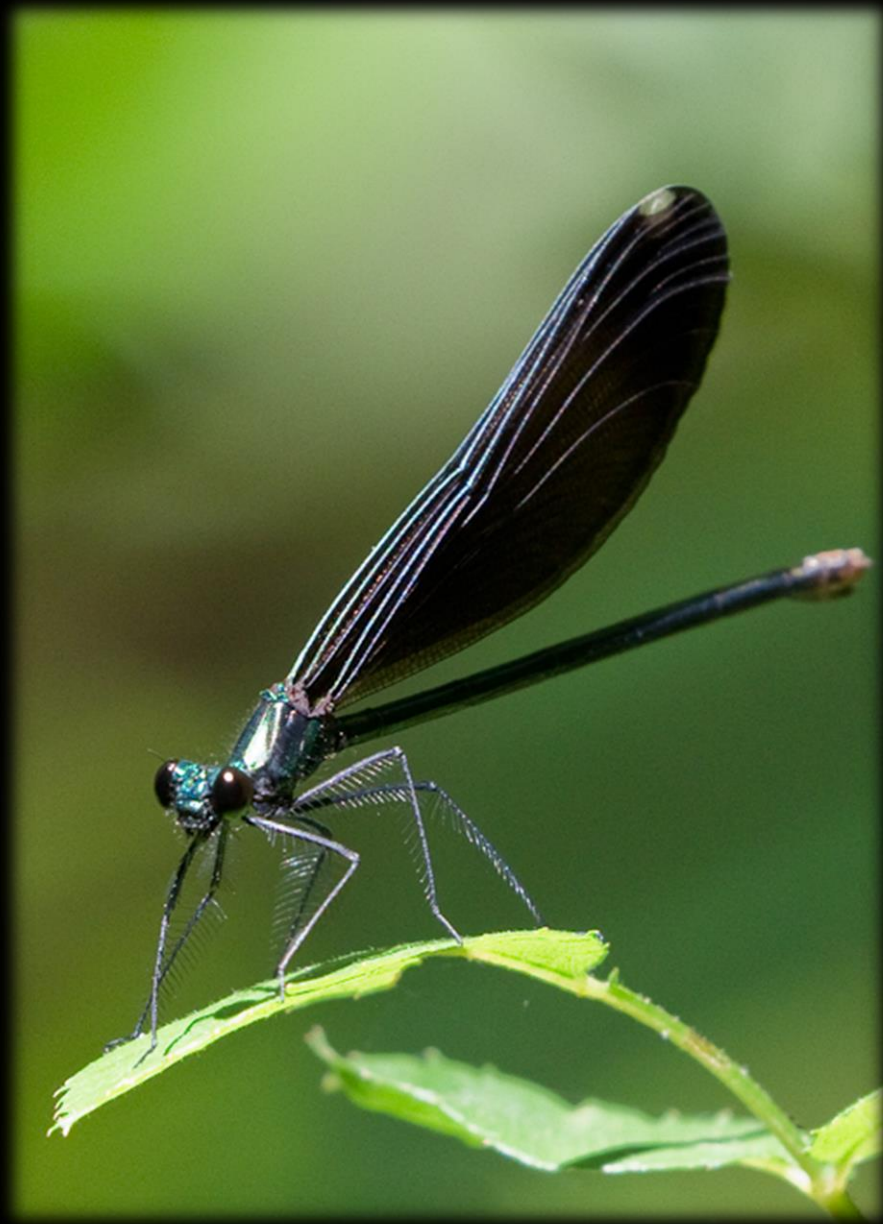
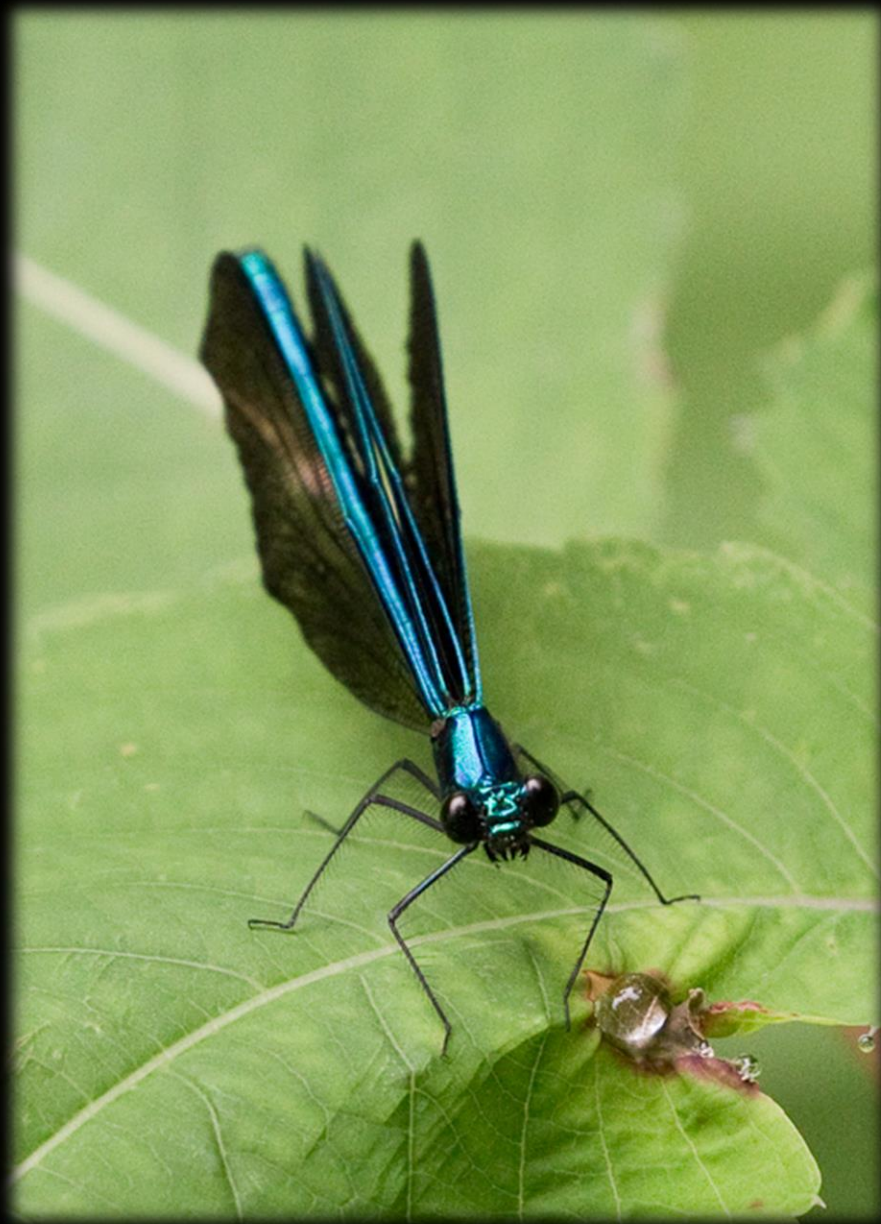
f/ 2.8



f/ 22



Observe and record *behavior*. Mating wheels, ovipositing, foraging behavior, ...





Common Green Darner	Apr 27, 2018
Carolina Saddlebags	May 13, 2018
Blue Corporal	May 13, 2018
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Eastern Pondhawk	May 28, 2018
Blue Dasher	May 28, 2018
Elegant Spreadwing	June 1, 2018
Ebony Jewelwing	June 1, 2018
Slaty Skimmer	June 1, 2018
Fragile Forktail	June 2, 2018
Skimming Bluet	June 2, 2018
Common Sanddragon	June 2, 2018
Twelve-spotted Skimmer	June 2, 2018
Widow Skimmer	June 2, 2018
Common Whitetail	June 3, 2018
Prince Baskettail	June 3, 2018
Swamp Darner	June 4, 2018
Calico Pennant	June 7, 2018
Comet Darner	June 8, 2018
Azure Bluet	June 9, 2018
Stream Cruiser	June 9, 2018
Banded Pennant	June 9, 2018



When shooting a flat subject, be aware of your plane of focus. Keep camera sensor parallel to subject for uniform focal plane.



1/3200 sec at f/ 6.3
ISO 500 400mm



Flight shots need FAST shutter speed (1/2500 sec.) and lots of LIGHT.
Autofocus needs *contrast* to find focus...try to shoot against sky or water and overexpose.



1/2500 sec at f/ 6.3
ISO 800 400 mm





1/2000 sec at f/9.0 ISO 500 400mm



If you're using a photograph to document a species, know what field marks must be documented. Thoracic stripes? Terminal appendages? Consult a good field guide to be sure.

Common Green Darner	Apr 27, 2018	Citrine Forktail	June 12, 2018
Carolina Saddlebags	May 13, 2018	Orange Bluet	June 12, 2018
Blue Corporal	May 13, 2018	Blue-fronted Dancer	June 12, 2018
Spangled Skimmer	May 20, 2018	Double-striped Bluet	June 17, 2018
Painted Skimmer	May 20, 2018	Blue-ringed Dancer	June 17, 2018
Dot-tailed Whiteface	May 20, 2018		
Eastern Pondhawk	May 28, 2018		
Blue Dasher	May 28, 2018		
Elegant Spreadwing	June 1, 2018		
Ebony Jewelwing	June 1, 2018		
Slaty Skimmer	June 1, 2018		
Fragile Forktail	June 2, 2018		
Skimming Bluet	June 2, 2018		
Common Sanddragon	June 2, 2018		
Twelve-spotted Skimmer	June 2, 2018		
Widow Skimmer	June 2, 2018		
Common Whitetail	June 3, 2018		
Prince Baskettail	June 3, 2018		
Swamp Darner	June 4, 2018		
Calico Pennant	June 7, 2018		
Comet Darner	June 8, 2018		
Azure Bluet	June 9, 2018		
Stream Cruiser	June 9, 2018		
Banded Pennant	June 9, 2018		
Violet Dancer	June 9, 2018		
Sedge Sprite	June 10, 2018		
Lancet Clubtail	June 10, 2018		
Aurora Damsel	June 10, 2018		
Gray Petaltail	June 10, 2018		
Unicorn Clubtail	June 10, 2018		
Eastern Forktail	June 12, 2018		





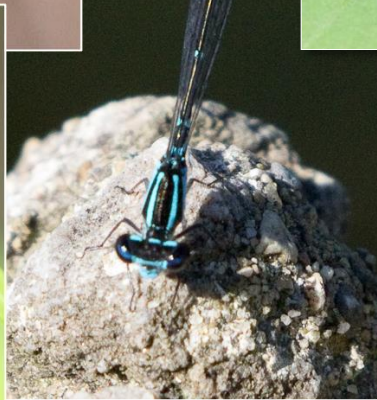
In low light situations, raise ISO and increase aperture (use lower f/stop).



1/400 sec at f/5.6
ISO 1000 400mm



Antehumeral stripes and postocular spots?



ALWAYS take more than 1 shot of a damsel from different angles.

Common Green Darner	Apr 27, 2018	Citrine Forktail	June 12, 2018
Carolina Saddlebags	May 13, 2018	Orange Bluet	June 12, 2018
Blue Corporal	May 13, 2018	Blue-fronted Dancer	June 12, 2018
Spangled Skimmer	May 20, 2018	Double-striped Bluet	June 17, 2018
Painted Skimmer	May 20, 2018	Blue-ringed Dancer	June 17, 2018
Dot-tailed Whiteface	May 20, 2018	Slender Spreadwing	June 18, 2018
Eastern Pondhawk	May 28, 2018	Powdered Dancer	June 18, 2018
Blue Dasher	May 28, 2018	Blue-tipped Dancer	June 18, 2018
Elegant Spreadwing	June 1, 2018	American Rubyspot	June 18, 2018
Ebony Jewelwing	June 1, 2018	Stream Bluet	June 20, 2018
Slaty Skimmer	June 1, 2018	Dragonhunter	June 20, 2018
Fragile Forktail	June 2, 2018	Black-shouldered Spinyleg	June 20, 2018
Skimming Bluet	June 2, 2018	Eastern Amberwing	June 20, 2018
Common Sanddragon	June 2, 2018	Wandering Glider	June 24, 2018
Twelve-spotted Skimmer	June 2, 2018	Fawn Darner	June 24, 2018
Widow Skimmer	June 2, 2018	Lilypad Forktail	June 26, 2018
Common Whitetail	June 3, 2018	Halloween Pennant	June 28, 2018
Prince Baskettail	June 3, 2018		
Swamp Darner	June 4, 2018		
Calico Pennant	June 7, 2018		
Comet Darner	June 8, 2018		
Azure Bluet	June 9, 2018		
Stream Cruiser	June 9, 2018		
Banded Pennant	June 9, 2018		
Violet Dancer	June 9, 2018		
Sedge Sprite	June 10, 2018		
Lancet Clubtail	June 10, 2018		
Aurora Damsel	June 10, 2018		
Gray Petaltail	June 10, 2018		
Unicorn Clubtail	June 10, 2018		
Eastern Forktail	June 12, 2018		



Include habitat for context.







Photo by Tim Daniel





In low light situations, raise ISO. (or use flash)



1/640 sec at f/5.6
ISO 2000 234mm





Common Green Darner	Apr 27, 2018	Citrine Forktail	June 12, 2018
Carolina Saddlebags	May 13, 2018	Orange Bluet	June 12, 2018
Blue Corporal	May 13, 2018	Blue-fronted Dancer	June 12, 2018
Spangled Skimmer	May 20, 2018	Double-striped Bluet	June 17, 2018
Painted Skimmer	May 20, 2018	Blue-ringed Dancer	June 17, 2018
Dot-tailed Whiteface	May 20, 2018	Slender Spreadwing	June 18, 2018
Eastern Pondhawk	May 28, 2018	Powdered Dancer	June 18, 2018
Blue Dasher	May 28, 2018	Blue-tipped Dancer	June 18, 2018
Elegant Spreadwing	June 1, 2018	American Rubyspot	June 18, 2018
Ebony Jewelwing	June 1, 2018	Stream Bluet	June 20, 2018
Slaty Skimmer	June 1, 2018	Dragonhunter	June 20, 2018
Fragile Forktail	June 2, 2018	Black-shouldered Spinyleg	June 20, 2018
Skimming Bluet	June 2, 2018	Eastern Amberwing	June 20, 2018
Common Sanddragon	June 2, 2018	Wandering Glider	June 24, 2018
Twelve-spotted Skimmer	June 2, 2018	Fawn Darner	June 24, 2018
Widow Skimmer	June 2, 2018	Lilypad Forktail	June 26, 2018
Common Whitetail	June 3, 2018	Halloween Pennant	June 28, 2018
Prince Baskettail	June 3, 2018	Westfall's Slender Bluet	June 28, 2018
Swamp Darner	June 4, 2018	Black Saddlebags	June 30, 2018
Calico Pennant	June 7, 2018	Amber-winged Spreadwing	July 1, 2018
Comet Darner	June 8, 2018	Arrowhead Spiketail	July 2, 2018
Azure Bluet	June 9, 2018	Midland Clubtail	July 5, 2018
Stream Cruiser	June 9, 2018	Dusky Dancer	July 18, 2018
Banded Pennant	June 9, 2018	Familiar Bluet	July 21, 2018
Violet Dancer	June 9, 2018	Green-striped Darner	Aug 15, 2018
Sedge Sprite	June 10, 2018	Spot-winged Glider	Aug 20, 2018
Lancet Clubtail	June 10, 2018	Arrow Clubtail	Aug 28, 2018
Aurora Damsel	June 10, 2018	Smoky Rubyspot	Aug 31, 2018
Gray Petaltail	June 10, 2018	Autumn Meadowhawk	Sep 30, 2018
Unicorn Clubtail	June 10, 2018	Blue-faced Meadowhawk	Sep 30, 2018
Eastern Forktail	June 12, 2018	Vesper Bluet	Oct 8, 2018



1/40 sec at f/18
ISO 1250 400mm



Higher f/stops will give greater depth of field to capture both ends of subject.





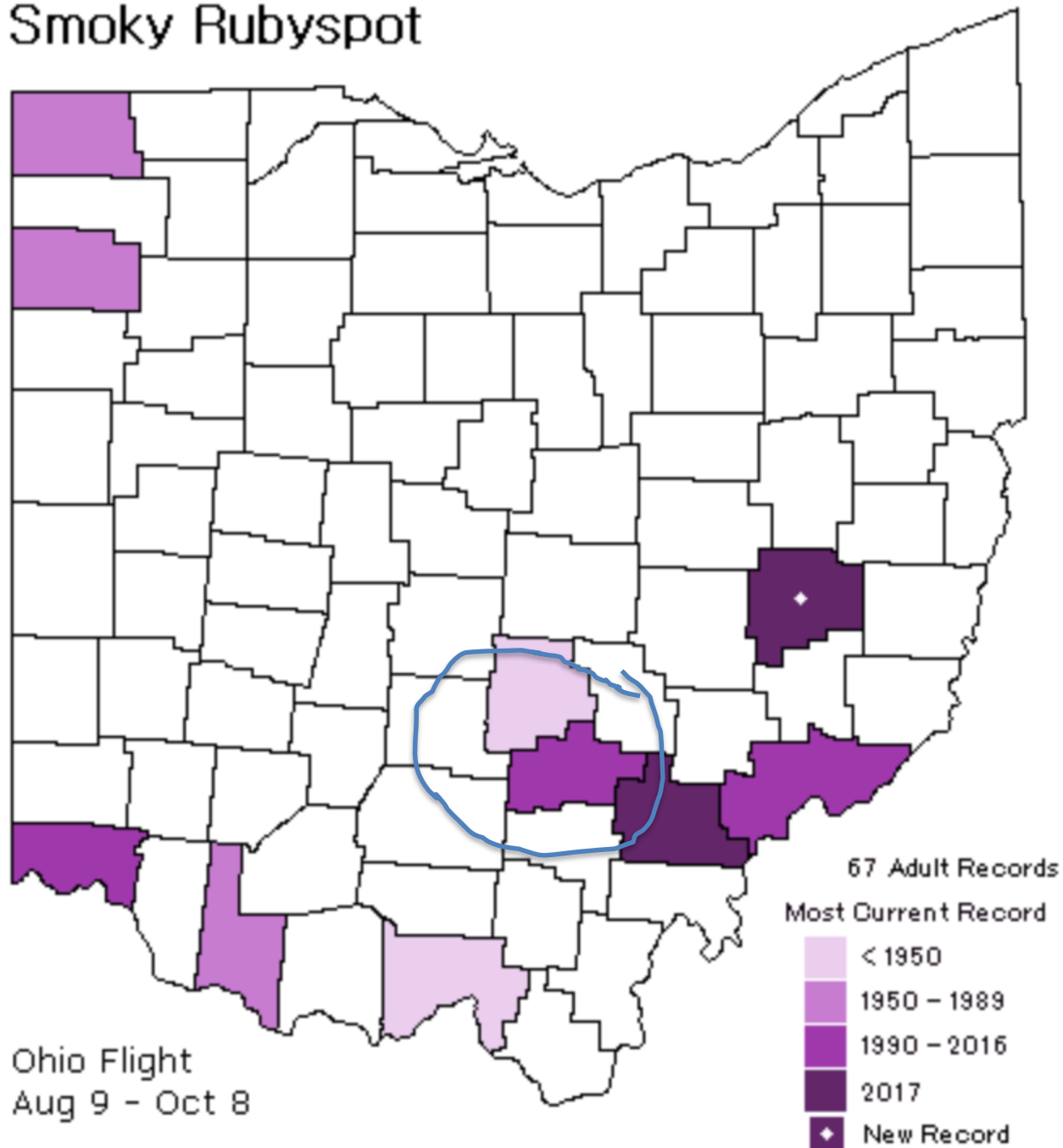
1/250 sec at f/8.0 ISO 1000 400mm





Hetaerina titia

Smoky Rubyspot





Hocking River

Wolet Rd

514



Take a distant shot, and several closer shots as you approach subject.



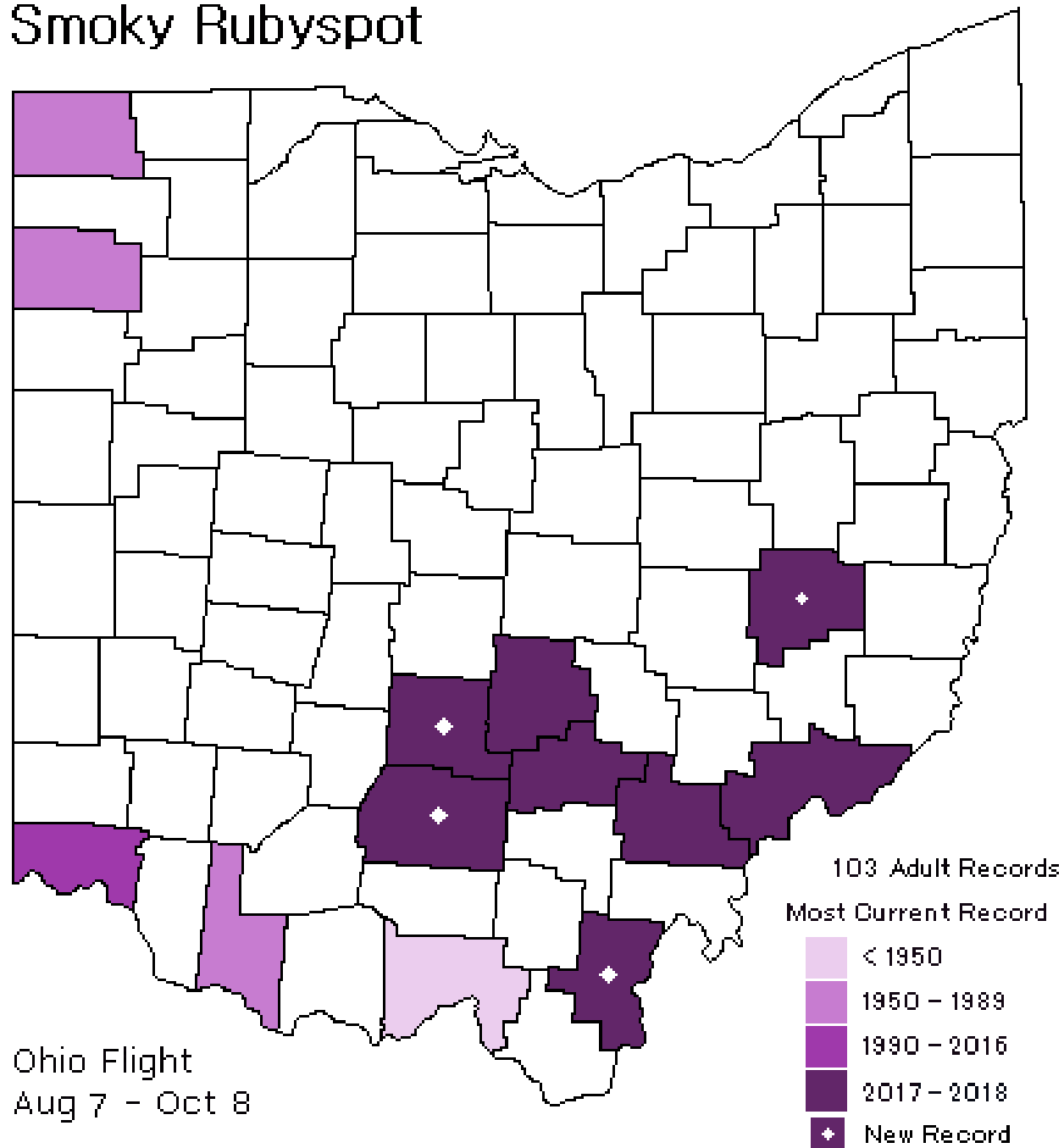




Include context.

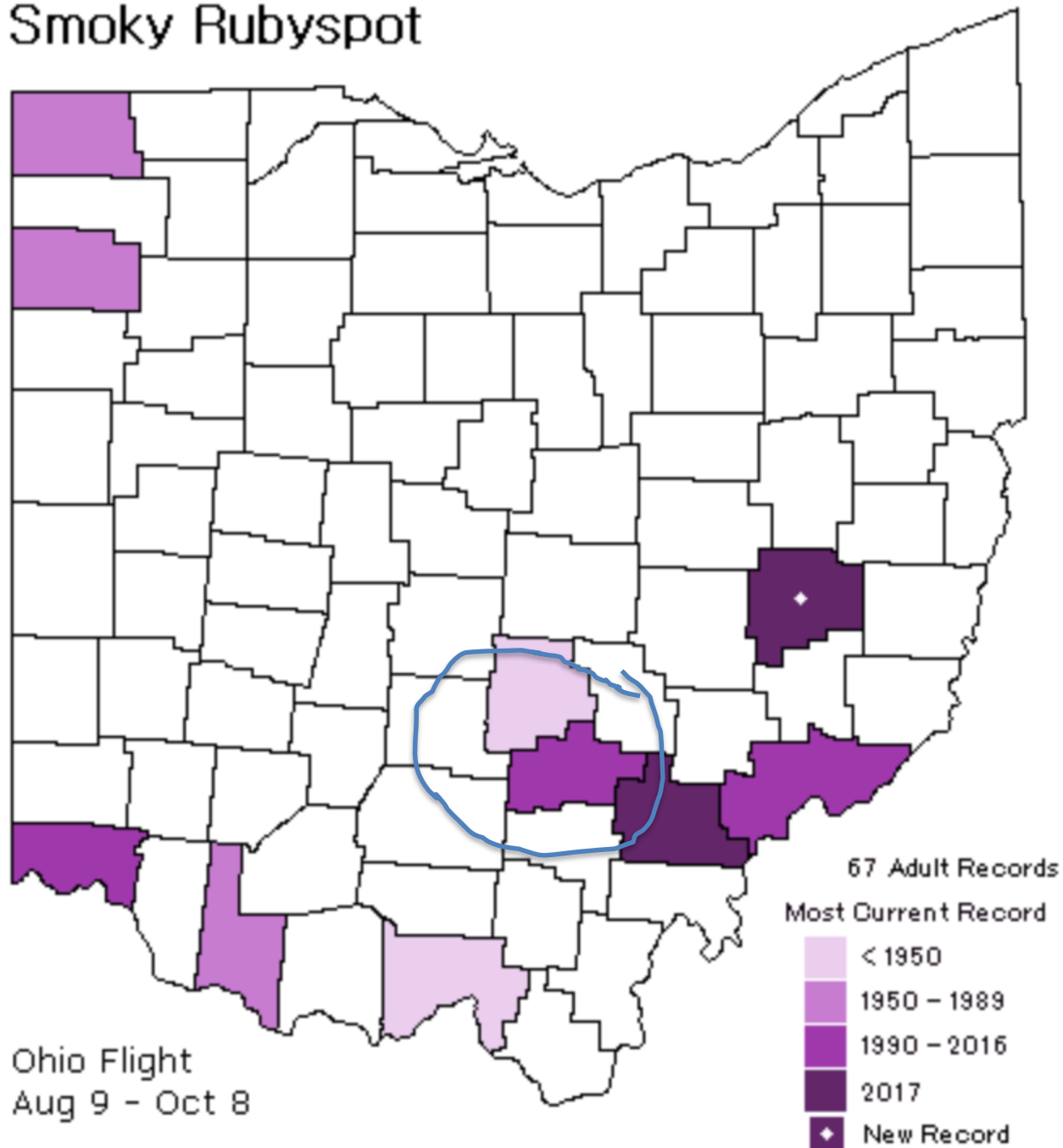
Hetaerina titia

Smoky Rubyspot



Hetaerina titia

Smoky Rubyspot



Smoky Rubyspot	0	0	0	Williams	St. Joseph	St. Joseph's River				9 Sep	1952
Smoky Rubyspot	0	0	0	Fairfield		Kellicott, 1898; Borrer, 37	Publication Only			0 ---	1898
Smoky Rubyspot	1	0	0	Hamilton		Whitewater N39 12'0.8	W84 47'15 S2			30 Aug	2009

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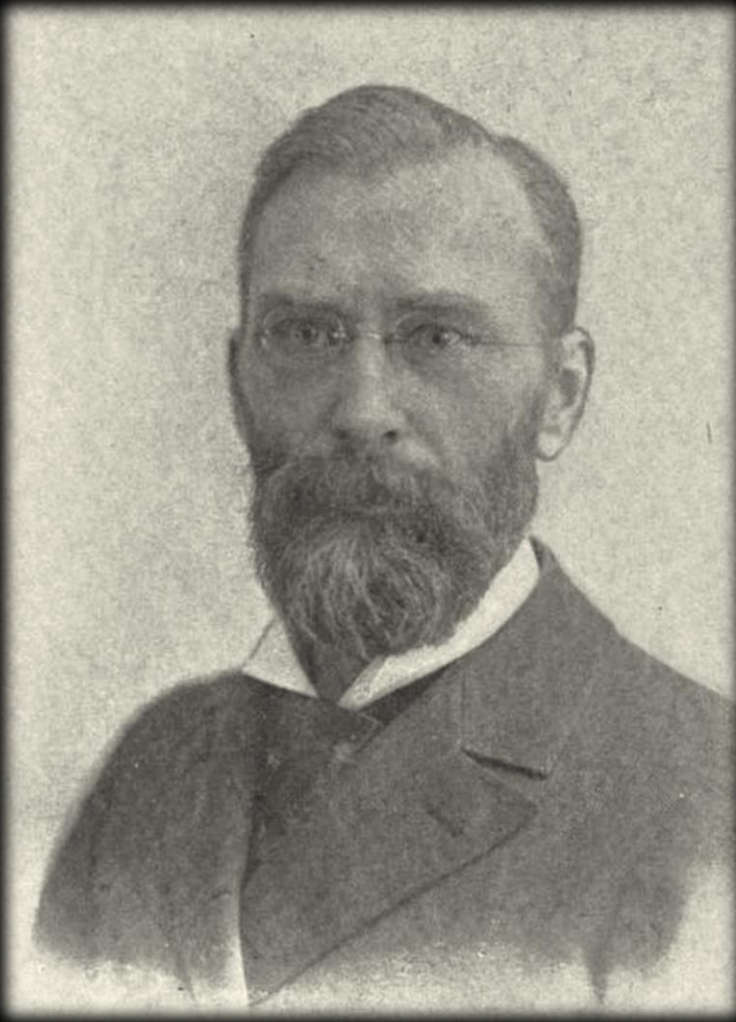
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TO MY ASSOCIATES AND STUDENTS
IN THE
DEPARTMENT OF ZOOLOGY
OF THE
OHIO STATE UNIVERSITY, THIS BOOKLET IS DEDICATED,
IN MEMORY OF
HAPPY HOURS SPENT TOGETHER
AS NATURALISTS IN FIELDS AND WOODS.

*Yours truly,
D. S. Kellicott.*

