

# Dragonfly Surveys at the Embarras River Bottoms State Habitat Area (ERBSHA)-Lawrence County

A project for the Illinois Department of Natural Resources

Natural Resource Damage Assessment and Restoration Fund Project #NRDA1511



©Richard Day/Daybreak Imagery

Jade Clubtail *Arigomphus submedianus*



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Spangled Skimmer *Libellula cyanea*

A report of research by  
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October 2016

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## Survey Methods and Materials

Between May 8, 2015 and September 3, 2016, I surveyed the area known as the Embarras River Bottoms State Habitat Area (ERBSHA) for dragonflies. I collected dragonflies with an aerial insect net for county records, and those species are listed on pages 5-11. Surveys were conducted by random walks in the natural areas specified in the contract. These surveys were conducted between the hours of 07:00h and 18:30h. After collection, I removed the odonates from glassine envelopes, euthanized them in acetone, and placed them in an acetone bath for 12-24 hours. These were air-dried and sent to Dr. Tim Cashatt at the Illinois State Museum (ISM) in Springfield, Illinois to be deposited in the ISM collections. Only species that were county records at ISM or significant finds were vouchered.

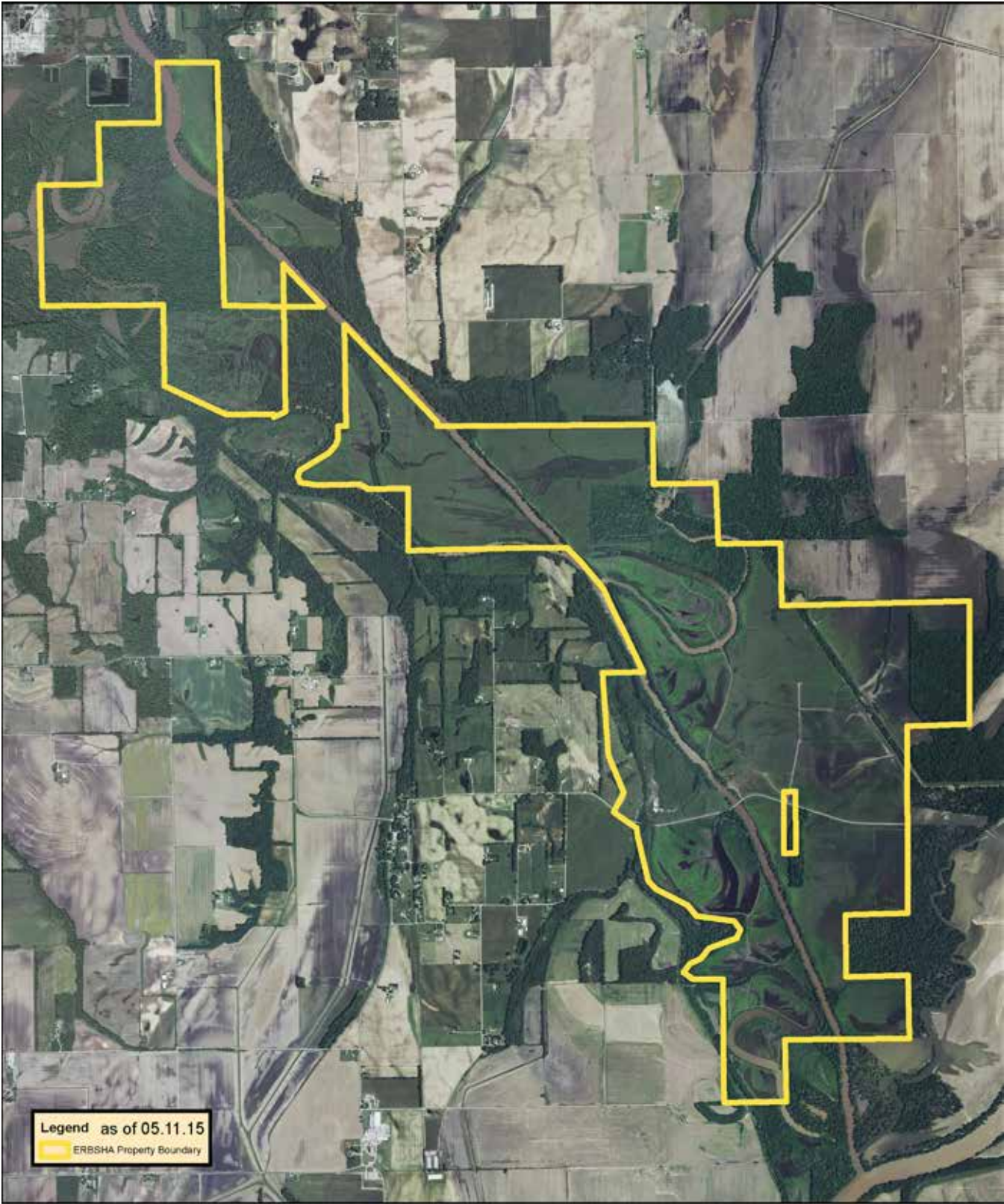
A total of 29 species of dragonflies and damselflies were recorded during this time period. A complete checklist is found on page 12. Wet summers in 2015 and 2016 prevented any surveying of the rivers within the project area until August. By this time many of the Gomphidae (clubtails) had quit flying. A total of 32 specimens were deposited at the Illinois State Museum. No Illinois Species of Conservation Concern were found during the survey.



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Great Blue Skimmer *Libellula vibrans*

Embarras River Bottoms State Habitat Area



## Species Vouchered Report

<b>Document ID</b>	790	<b>Date</b>	09/01/2015
<b>Scientific Name</b>	Argia apicalis	<b>Lat Long</b>	N38 40' 41.75" W87 38' 10.59"
<b>Common Name</b>	Blue-fronted Dancer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	791	<b>Date</b>	09/01/2015
<b>Scientific Name</b>	Anax junius	<b>Lat Long</b>	N38 39' 20.58" W87 37' 18.52"
<b>Common Name</b>	Common Green Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	792	<b>Date</b>	5/8/2015
<b>Scientific Name</b>	Basiaeschna janata	<b>Lat Long</b>	N38 41' 42.71" W87 40' 29.04"
<b>Common Name</b>	Springtime Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	793	<b>Date</b>	6/4/2015
<b>Scientific Name</b>	Nasiaeschna pentacantha	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Cyrano Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	794	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Nasiaeschna pentacantha	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Cyrano Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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## Species Vouchered Report

<b>Document ID</b>	795	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Macromia taeniolata	<b>Lat Long</b>	N38 39' 20.58" W87 37' 18.52"
<b>Common Name</b>	Royal River Cruiser	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	796	<b>Date</b>	5/8/2015
<b>Scientific Name</b>	Epitheca costalis	<b>Lat Long</b>	N38 39' 20.58" W87 37' 18.52"
<b>Common Name</b>	Slender Baskettail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	797	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Epitheca costalis	<b>Lat Long</b>	N38 41.830 W87 40.482
<b>Common Name</b>	Slender Baskettail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	798	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Erythemis simplicicollis	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Eastern Pondhawk	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	799	<b>Date</b>	5/8/2015
<b>Scientific Name</b>	Ladona deplanata	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Blue Corporal	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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# Species Vouchered Report

<b>Document ID</b>	800	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Libellula incesta	<b>Lat Long</b>	N38 41.830 W87 40.482
<b>Common Name</b>	Slaty Skimmer	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	801	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Libellula incesta	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Slaty Skimmer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	802	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Libellula vibrans	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Great Blue Skimmer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	803	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Libellula vibrans	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Great Blue Skimmer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	804	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Pachydiplax longipennis	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Blue Dasher	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

## Species Vouchered Report

<b>Document ID</b>	805	<b>Date</b>	9/1/2015
<b>Scientific Name</b>	Perithemis tenera	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Eastern Amberwing	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	806	<b>Date</b>	9/22/2015
<b>Scientific Name</b>	Sympetrum ambiguum	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Blue-faced Meadowhawk	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	807	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Arigomphus submedianus	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Jade Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	808	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Arigomphus submedianus	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Jade Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	809	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Arigomphus submedianus	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Jade Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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## Species Vouchered Report

<b>Document ID</b>	810	<b>Date</b>	6/4/2015
<b>Scientific Name</b>	Arigomphus submedianus	<b>Lat Long</b>	N38 40' 41.75" W87 38' 10.59"
<b>Common Name</b>	Jade Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	811	<b>Date</b>	5/28/2015
<b>Scientific Name</b>	Gomphus externus	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Plains Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	812	<b>Date</b>	6/4/2015
<b>Scientific Name</b>	Gomphus externus	<b>Lat Long</b>	N38 40' 41.75" W87 38' 10.59"
<b>Common Name</b>	Plains Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	813	<b>Date</b>	6/4/2015
<b>Scientific Name</b>	Gomphus externus	<b>Lat Long</b>	N38 40' 41.75" W87 38' 10.59"
<b>Common Name</b>	Plains Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	814	<b>Date</b>	6/4/2015
<b>Scientific Name</b>	Gomphus fraternus	<b>Lat Long</b>	N38 40' 41.75" W87 38' 10.59"
<b>Common Name</b>	Midland Clubtail	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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## Species Vouchered Report

<b>Document ID</b>	818	<b>Date</b>	5/8/2015
<b>Scientific Name</b>	Basiaeschna janata	<b>Lat Long</b>	N38 41' 42.71" W87 40' 29.04"
<b>Common Name</b>	Springtime Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	1/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	819	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Pantala hymenaea	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Spot-winged Glider	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	820	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Argia apicalis	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Blue-fronted Dancer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	821	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Libellula luctosa	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Widow Skimmer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	822	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Nasiaeschna pentacantha	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Cyrano Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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## Species Vouchered Report

<b>Document ID</b>	823	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Nasiaeschna pentacantha	<b>Lat Long</b>	N38 41.137 W87 37.965
<b>Common Name</b>	Cyrano Darner	<b>Deposited</b>	ISM
<b>Sex</b>	Female	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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<b>Document ID</b>	824	<b>Date</b>	7/15/2016
<b>Scientific Name</b>	Argia moesta	<b>Lat Long</b>	N38 39' 46.48" W87 36' 49.74"
<b>Common Name</b>	Powdered Dancer	<b>Deposited</b>	ISM
<b>Sex</b>	Male	<b>Date Deposited</b>	10/31/2016
<b>County</b>	Lawrence	<b>Survey</b>	ERBSHA Survey 2015-16

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## ERBSHA Survey

### Survey Species Checklist

#### Odonata

Black Saddlebags	<i>Tramea lacerata</i>
Blue Corporal	<i>Ladona deplanata</i>
Blue Dasher	<i>Pachydiplax longipennis</i>
Blue-faced Meadowhawk	<i>Sympetrum ambiguum</i>
Blue-fronted Dancer	<i>Argia apicalis</i>
Calico Pennant	<i>Celithemis elisa</i>
Carolina Saddlebags	<i>Tramea carolina</i>
Common Baskettail	<i>Epithea cynosura</i>
Common Green Darner	<i>Anax junius</i>
Common Whitetail	<i>Plathemis lydia</i>
Cyrano Darner	<i>Nasiaeschna pentacantha</i>
Eastern Amberwing	<i>Perithemis tenera</i>
Eastern Pondhawk	<i>Erythemis simplicicollis</i>
Great Blue Skimmer	<i>Libellula vibrans</i>
Jade Clubtail	<i>Arigomphus submedianus</i>
Midland Clubtail	<i>Gomphus fraternus</i>
Plains Clubtail	<i>Gomphus externus</i>
Prince Baskettail	<i>Epithea princeps</i>
Royal River Cruiser	<i>Macromia taeniolata</i>
Slaty Skimmer	<i>Libellula incesta</i>
Slender Baskettail	<i>Epithea costalis</i>
Spangled Skimmer	<i>Libellula cyanea</i>
Spot-winged Glider	<i>Pantala hymenaea</i>
Springtime Darner	<i>Basiaeschna janata</i>
Swamp Darner	<i>Epiaeschna heros</i>
Swift River Cruiser	<i>Macromia illinoensis</i>
Twelve-spotted Skimmer	<i>Libellula pulchella</i>
Wandering Glider	<i>Pantala flavescens</i>
Widow Skimmer	<i>Libellula luctuosa</i>

## ERBSHA Observation Dates and Hours

May 8, 2015	9 hours
May 28, 2015	10.5 hours
June 4, 2015	10 hours
August 20, 2015	8.5 hours
September 1, 2015	9 hours
September 22, 2015	8 hours
July 15, 2016	11 hours
August 11, 2016	9 hours
September 3, 2016	5 hours

# ERBSHA Survey Observations May 8, 2015

Date 5/8/2015      Weather 81 degrees    Partly Cloudy      mph

Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Springtime Darner Scientific Name Basiaeschna janata	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Swamp Darner Scientific Name Epiaeschna heros
Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Corduliidae Common Name Common Baskettail Scientific Name Epithea cynosura
Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Swamp Darner Scientific Name Epiaeschna heros
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Corduliidae Common Name Slender Baskettail Scientific Name Epithea costalis	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Blue Corporal Scientific Name Ladona deplanata	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Carolina Saddlebags Scientific Name Tramea carolina	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata



# ERBSHA Survey Observations May 28, 2015

Date 5/28/2015      Weather 83 degrees    Partly Cloudy    10 mph

Location ERBSHA-Transect #1 ERBSHA County Larwence Order Odonata      Family Gomphidae Common Name Jade Clubtail Scientific Name Arigomphus submedianus	Location ERBSHA-Transect #1 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia
Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Cyrano Darner Scientific Name Nasiaeschna pentacantha
Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Calico Pennant Scientific Name Celithemis elisa	Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis
Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Spangled Skimmer Scientific Name Libellula cyanea	Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella
Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis	Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia
Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Carolina Saddlebags Scientific Name Tramea carolina	Location ERBSHA-Transect #2 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Aeshnidae Common Name Cyrano Darner Scientific Name Nasiaeschna pentacantha

# ERBSHA Survey Observations May 28, 2015

Date 5/28/2015      Weather 83 degrees    Partly Cloudy    10 mph

Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera	Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata      Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata      Family Gomphidae Common Name Jade Clubtail Scientific Name Arigomphus submedianus
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia
Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius

# ERBSHA Survey Observations May 28, 2015

Date 5/28/2015      Weather 83 degrees    Partly Cloudy    10 mph

Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Swamp Darner Scientific Name Epiaeschna heros
Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Swamp Darner Scientific Name Epiaeschna heros	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Cyrano Darner Scientific Name Nasiaeschna pentacantha
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Cyrano Darner Scientific Name Nasiaeschna pentacantha	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Gomphidae Common Name Jade Clubtail Scientific Name Arigomphus submedianus
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Gomphidae Common Name Plains Clubtail Scientific Name Gomphus externus	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Corduliidae Common Name Slender Baskettail Scientific Name Epitheca costalis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Calico Pennant Scientific Name Celithemis elisa	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis
Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Spangled Skimmer Scientific Name Libellula cyanea
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella	Location ERBSHA-North End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella

## ERBSHA Survey Observations May 28, 2015

Date 5/28/2015	Weather 83 degrees Partly Cloudy 10 mph
Location <input type="text" value="ERBSHA-North End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Great Blue Skimmer"/> Scientific Name <input type="text" value="Libellula vibrans"/>	Location <input type="text" value="ERBSHA-North End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Blue Dasher"/> Scientific Name <input type="text" value="Pachydiplax longipennis"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Blue Dasher"/> Scientific Name <input type="text" value="Pachydiplax longipennis"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Amberwing"/> Scientific Name <input type="text" value="Perithemis tenera"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>	Location <input type="text" value="ERBSHA-North End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Carolina Saddlebags"/> Scientific Name <input type="text" value="Tramea carolina"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Black Saddlebags"/> Scientific Name <input type="text" value="Tramea lacerata"/>

## ERBSHA Survey Observations June 4, 2015

Date 6/4/2015	Weather 83 degrees Clear 10 mph
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Black Saddlebags"/> Scientific Name <input type="text" value="Tramea lacerata"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Common Green Darner"/> Scientific Name <input type="text" value="Anax junius"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Cyrano Darner"/> Scientific Name <input type="text" value="Nasiaeschna pentacantha"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Swamp Darner"/> Scientific Name <input type="text" value="Epaieschna heros"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Gomphidae"/> Common Name <input type="text" value="Jade Clubtail"/> Scientific Name <input type="text" value="Arigomphus submedianus"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Gomphidae"/> Common Name <input type="text" value="Plains Clubtail"/> Scientific Name <input type="text" value="Gomphus externus"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Gomphidae"/> Common Name <input type="text" value="Midland Clubtail"/> Scientific Name <input type="text" value="Gomphus fraternus"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Corduliidae"/> Common Name <input type="text" value="Prince Baskettail"/> Scientific Name <input type="text" value="Epitheca princeps"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Pondhawk"/> Scientific Name <input type="text" value="Erythemis simplicicollis"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Widow Skimmer"/> Scientific Name <input type="text" value="Libellula luctuosa"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Twelve-spotted Skimmer"/> Scientific Name <input type="text" value="Libellula pulchella"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Blue Dasher"/> Scientific Name <input type="text" value="Pachydiplax longipennis"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Amberwing"/> Scientific Name <input type="text" value="Perithemis tenera"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>

# ERBSHA Survey Observations August 20, 2015

Date 8/20/2015	Weather 80 degrees Clear 10 mph
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Macromiidae Common Name Swift River Cruiser Scientific Name Macromia illinoiensis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Corduliidae Common Name Prince Baskettail Scientific Name Epietheca princeps	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Slaty Skimmer Scientific Name Libellula incesta	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Widow Skimmer Scientific Name Libellula luctuosa
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Wandering Glider Scientific Name Pantala flavescens	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Spot-winged Glider Scientific Name Pantala hymenaea	



# ERBSHA Survey Observations September 1, 2015

Date 9/1/2015	Weather 86 degrees Partly Cloudy 5 mph
Location <input type="text" value="ERBSHA-Transect #1 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Common Green Darner"/> Scientific Name <input type="text" value="Anax junius"/>	Location <input type="text" value="ERBSHA-Transect #1 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>
Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Common Green Darner"/> Scientific Name <input type="text" value="Anax junius"/>	Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Pondhawk"/> Scientific Name <input type="text" value="Erythemis simplicicollis"/>
Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Slaty Skimmer"/> Scientific Name <input type="text" value="Libellula incesta"/>	Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Widow Skimmer"/> Scientific Name <input type="text" value="Libellula luctuosa"/>
Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Twelve-spotted Skimmer"/> Scientific Name <input type="text" value="Libellula pulchella"/>	Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Great Blue Skimmer"/> Scientific Name <input type="text" value="Libellula vibrans"/>
Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Blue Dasher"/> Scientific Name <input type="text" value="Pachydiplax longipennis"/>	Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Amberwing"/> Scientific Name <input type="text" value="Perithemis tenera"/>
Location <input type="text" value="ERBSHA-Transect #2 ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>	Location <input type="text" value="ERBSHA-Transect #3-Fishtail Wetland"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Aeshnidae"/> Common Name <input type="text" value="Common Green Darner"/> Scientific Name <input type="text" value="Anax junius"/>
Location <input type="text" value="ERBSHA-Transect #3-Fishtail Wetland"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Pondhawk"/> Scientific Name <input type="text" value="Erythemis simplicicollis"/>	Location <input type="text" value="ERBSHA-Transect #3-Fishtail Wetland"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Slaty Skimmer"/> Scientific Name <input type="text" value="Libellula incesta"/>

# ERBSHA Survey Observations September 1, 2015

Date 9/1/2015	Weather 86 degrees Partly Cloudy 5 mph
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata Family Libellulidae Common Name Widow Skimmer Scientific Name Libellula luctuosa	Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis	Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #3-Fishtail Wetland County Larwence Order Odonata Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Macromiidae Common Name Royal River Cruiser Scientific Name Macromia taeniolata	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Coenagrionidae Common Name Blue-fronted Dancer Scientific Name Argia apicalis
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Slaty Skimmer Scientific Name Libellula incesta
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Great Blue Skimmer Scientific Name Libellula vibrans	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Wandering Glider Scientific Name Pantala flavescens	Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera

## ERBSHA Survey Observations September 1, 2015

Date 9/1/2015	Weather 86 degrees Partly Cloudy 5 mph
Location ERBSHA-Transect #4 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius
Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera
Location ERBSHA-Transect #5 ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata	

## ERBSHA Survey Observations September 22, 2015

Date 9/22/2015	Weather 82 degrees Clear 5 mph
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Pondhawk"/> Scientific Name <input type="text" value="Erythemis simplicicollis"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Slaty Skimmer"/> Scientific Name <input type="text" value="Libellula incesta"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Common Whitetail"/> Scientific Name <input type="text" value="Plathemis lydia"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Great Blue Skimmer"/> Scientific Name <input type="text" value="Libellula vibrans"/>
Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Eastern Amberwing"/> Scientific Name <input type="text" value="Perithemis tenera"/>	Location <input type="text" value="ERBSHA-South End ERBSHA"/> County <input type="text" value="Larwence"/> Order <input type="text" value="Odonata"/> Family <input type="text" value="Libellulidae"/> Common Name <input type="text" value="Blue-faced Meadowhawk"/> Scientific Name <input type="text" value="Sympetrum ambiguum"/>

# ERBSHA Survey Observations July 15, 2016

Date 7/15/2016      Weather 90 degrees Partly Cloudy    5 mph

Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Aeshnidae Common Name Cyrano Darner Scientific Name Nasiaeschna pentacantha
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Macromiidae Common Name Royal River Cruiser Scientific Name Macromia taeniolata	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Corduliidae Common Name Prince Baskettail Scientific Name Epithecina princeps
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Slaty Skimmer Scientific Name Libellula incesta
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Widow Skimmer Scientific Name Libellula luctuosa	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Twelve-spotted Skimmer Scientific Name Libellula pulchella
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Great Blue Skimmer Scientific Name Libellula vibrans	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Blue Dasher Scientific Name Pachydiplax longipennis
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Spot-winged Glider Scientific Name Pantala hymenaea	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera
Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	Location ERBSHA-South End ERBSHA County Larwence Order Odonata      Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata

## ERBSHA Survey Observations August 11, 2016

Date 8/11/2016	Weather 90 degrees Partly Cloudy 5 mph
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Black Saddlebags Scientific Name Tramea lacerata	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Aeshnidae Common Name Common Green Darner Scientific Name Anax junius
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Macromiidae Common Name Royal River Cruiser Scientific Name Macromia taeniolata	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Corduliidae Common Name Prince Baskettail Scientific Name Epithecya princeps
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Pondhawk Scientific Name Erythemis simplicicollis	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Slaty Skimmer Scientific Name Libellula incesta
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Widow Skimmer Scientific Name Libellula luctuosa	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Wandering Glider Scientific Name Pantala flavescens
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Spot-winged Glider Scientific Name Pantala hymenaea	Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Eastern Amberwing Scientific Name Perithemis tenera
Location ERBSHA-South End ERBSHA County Larwence Order Odonata Family Libellulidae Common Name Common Whitetail Scientific Name Plathemis lydia	



## ERBSHA Survey Observations September 3, 2016

Date 9/3/2016 Weather 80 degrees Partly Cloudy 5 mph

<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Aeshnidae</p> <p>Common Name Common Green Darner</p> <p>Scientific Name Anax junius</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Macromiidae</p> <p>Common Name Swift River Cruiser</p> <p>Scientific Name Macromia illinoensis</p>
<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Eastern Pondhawk</p> <p>Scientific Name Erythemis simplicicollis</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Widow Skimmer</p> <p>Scientific Name Libellula luctuosa</p>
<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Great Blue Skimmer</p> <p>Scientific Name Libellula vibrans</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Blue Dasher</p> <p>Scientific Name Pachydiplax longipennis</p>
<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Wandering Glider</p> <p>Scientific Name Pantala flavescens</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Spot-winged Glider</p> <p>Scientific Name Pantala hymenaea</p>
<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Eastern Amberwing</p> <p>Scientific Name Perithemis tenera</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Common Whitetail</p> <p>Scientific Name Plathemis lydia</p>
<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Blue-faced Meadowhawk</p> <p>Scientific Name Sympetrum ambiguum</p>	<p>Location ERBSHA-South End ERBSHA</p> <p>County Larwence</p> <p>Order Odonata Family Libellulidae</p> <p>Common Name Black Saddlebags</p> <p>Scientific Name Tramea lacerata</p>

# ERBSHA Survey

## Species Sighting by Species

Odonata			169 Total
<b>Black Saddlebags <i>Tramea lacerata</i></b>			<b>10 Total</b>
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Blue Corporal <i>Ladona deplanata</i></b>			<b>1 Total</b>
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
<b>Blue Dasher <i>Pachydiplax longipennis</i></b>			<b>15 Total</b>
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #4	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #5	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Blue-faced Meadowhawk</b>			<b>2 Total</b>
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Blue-fronted Dancer <i>Argia apicalis</i></b>			<b>1 Total</b>
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
<b>Calico Pennant <i>Celithemis elisa</i></b>			<b>2 Total</b>
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence

# ERBSHA Survey

## Species Sighting by Species

5/28/2015	ERBSHA-South End	ERBSHA	Larwence
<b>Carolina Saddlebags <i>Tramea carolina</i></b>		<b>3</b>	<b>Total</b>
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
<b>Common Baskettail <i>Epiheca cynosura</i></b>		<b>1</b>	<b>Total</b>
5/8/2015	ERBSHA-North End	ERBSHA	Larwence
<b>Common Green Darner <i>Anax junius</i></b>		<b>16</b>	<b>Total</b>
5/8/2015	ERBSHA-North End	ERBSHA	Larwence
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #1	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Common Whitetail <i>Plathemis lydia</i></b>		<b>20</b>	<b>Total</b>
5/8/2015	ERBSHA-North End	ERBSHA	Larwence
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #1	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #4	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #5	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #1	ERBSHA	Larwence

# ERBSHA Survey

## Species Sighting by Species

9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence

### Cyano Darner *Nasiaeschna pentacantha*

**6 Total**

5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence

### Eastern Amberwing *Perithemis tenera*

**12 Total**

5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #4	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence

### Eastern Pondhawk *Erythemis simplicicollis*

**18 Total**

5/8/2015	ERBSHA-North End	ERBSHA	Larwence
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #4	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #5	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence

# ERBSHA Survey

## Species Sighting by Species

6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #5	ERBSHA	Larwence
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence

### Great Blue Skimmer *Libellula vibrans*

**6 Total**

5/28/2015	ERBSHA-North End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence

### Jade Clubtail *Arigomphus submedianus*

**4 Total**

5/28/2015	ERBSHA-Transect #1	ERBSHA	Larwence
5/28/2015	ERBSHA-Transect #4	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence

### Midland Clubtail *Gomphus fraternus*

**1 Total**

6/4/2015	ERBSHA-South End	ERBSHA	Larwence
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### Plains Clubtail *Gomphus externus*

**2 Total**

5/28/2015	ERBSHA-South End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence

### Prince Baskettail *Epietheca princeps*

**4 Total**

6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence

### Royal River Cruiser *Macromia taeniolata*

**3 Total**

9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence

# ERBSHA Survey

## Species Sighting by Species

<b>Slaty Skimmer <i>Libellula incesta</i></b>			<b>7 Total</b>
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
9/22/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Slender Baskettail <i>Epiheca costalis</i></b>			<b>2 Total</b>
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
<b>Spangled Skimmer <i>Libellula cyanea</i></b>			<b>2 Total</b>
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
<b>Spot-winged Glider <i>Pantala hymenaea</i></b>			<b>4 Total</b>
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Springtime Darner <i>Basiaeschna janata</i></b>			<b>1 Total</b>
5/8/2015	ERBSHA-North End	ERBSHA	Larwence
<b>Swamp Darner <i>Epiaschna heros</i></b>			<b>5 Total</b>
5/8/2015	ERBSHA-North End	ERBSHA	Larwence
5/8/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
<b>Swift River Cruiser <i>Macromia illinoiensis</i></b>			<b>2 Total</b>
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Twelve-spotted Skimmer <i>Libellula pulchella</i></b>			<b>8 Total</b>
5/28/2015	ERBSHA-Transect #2	ERBSHA	Larwence
5/28/2015	ERBSHA-South End	ERBSHA	Larwence
5/28/2015	ERBSHA-North End	ERBSHA	Larwence
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence



## ERBSHA Survey

### Species Sighting by Species

9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Wandering Glider <i>Pantala flavescens</i></b>		<b>4 Total</b>	
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #4	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence
<b>Widow Skimmer <i>Libellula luctuosa</i></b>		<b>7 Total</b>	
6/4/2015	ERBSHA-South End	ERBSHA	Larwence
8/20/2015	ERBSHA-South End	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #2	ERBSHA	Larwence
9/1/2015	ERBSHA-Transect #3-Fishtail Wetland	ERBSHA	Larwence
7/15/2016	ERBSHA-South End	ERBSHA	Larwence
8/11/2016	ERBSHA-South End	ERBSHA	Larwence
9/3/2016	ERBSHA-South End	ERBSHA	Larwence

## Summary

The areas I visited at ERBSHA covered a variety of habitat types and various plant communities. None of these sites had been surveyed before. The one area that was not visited as much was the Embarras River. Due to flooding in late May and early June both years, I was not able to document many river species.

Since this is the first survey in history on these areas I believe it's important to continue documenting the insect numbers and diversity in future years. These areas could lead to discovery of threatened or endangered odonates that inhabit this type of habitat. These surveys are important in creating awareness and providing historical information that will help with future management of these natural communities.

## Acknowledgements

I would like to thank the Natural Resource Damage Assessment and Restoration Fund for providing funding for this research project. I would also like to thank Beth Whitsell and Terry Esker for initiating this survey and for their assistance throughout the survey.



©Richard Day/Daybreak Imagery

Black Saddlebags *Tramea lacerata*