DRAGONFLIES AND DAMSELFLIES OF OHIO field guide

DIVISION OF WILDLIFE

Introduction

Ohio is a great state for dragonfly and damselfly diversity. To date, 164 species have been recorded, and like vagrant birds, out-of-range dragonflies can appear far from their normal haunts. The newest addition to Ohio's Odonata (the order of insects that includes dragonflies and damselflies) were several striped saddlebags, *Tramia calverti*, which were found in late summer of 2006 at Magee Marsh Wildlife Area on western Lake Erie – far from their normal range in the extreme southern U.S. With 7,000 miles of streams and scores of lakes, ponds, and wetlands, Ohio has plenty of good places to look for dragonflies and damselflies. Some of the best spots are listed beginning on page 9.

Until recently, learning about dragonflies and damselflies has been difficult for the casual naturalist. The only books available were out-of-date technical manuals. This booklet is one of several new publications that provide an introduction to dragonflies and damselflies. There has been an enormous increase in interest in the Odonata; not surprising, given their beautiful appearance and incredible flying abilities. The Odonata are also excellent indicators of water quality and thus serve as barometers of the health of our streams, lakes, and wetlands.

photography | DRAGONFLY: ODNR DIVISION OF WILDLIFE

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Text by: Dave McShaffrey and Bob Glotzhober

Front Cover • Widow Skimmer/Back cover • Common Green Darner (photos by:©Dave McShaffrey)

How to use this booklet

Many *odonates* (dragonflies and damselflies) can be identified in the field with a good look. Close-focusing binoculars are very helpful for making observations. Occasionally you will need to capture a specimen for close study. Long-handled insect nets are indispensable for this purpose. Handle the insect with care, and after study release it. Advances in digital cameras have made it possible to photograph odonates so well that many can be identified later, if you can't figure it out at the time. However, there will be occasional specimens that must be examined under a microscope to properly identify – and even then it might not be easy! Warm, sunny days are always best for finding active damselflies and dragonflies.

To use this booklet you only need to know a few simple terms, shown to the right. Additional terms can be found in the glossary at the back of this booklet. The front of an insect is the anterior end, the tail is the posterior, the upper surface is dorsal and the lower surface is ventral. An insect's body is divided into three main parts, the head, the thorax, and the abdomen of 10 segments or sections. Segment 10 is the most posterior; segment 1 is next to the thorax. There are two pairs of wings and six legs, all of which are attached to the thorax. The main parts of the leg are the upper leg or femur, the lower leg or tibia, and the foot or tarsus (which is comprised of three segments and ends with a pair of claws). The head bears two small antennae and enormous compound eyes as well as the various mouthparts.

Few animals – humans included – can see as well as dragonflies. They have specialized compound eyes, and each eye can have up to 30,000 facets. These eyes are so large that they make up the bulk of the head, and each facet serves as a photoreceptor angled in a slightly different direction than the others. The upshot is that dragonflies have extraordinarily acute vision, and can see in nearly every direction simultaneously. Because of the presence of four to five *opsins* (light sensitive proteins), they see layers of color (especially ultraviolet light) undetectable to people.

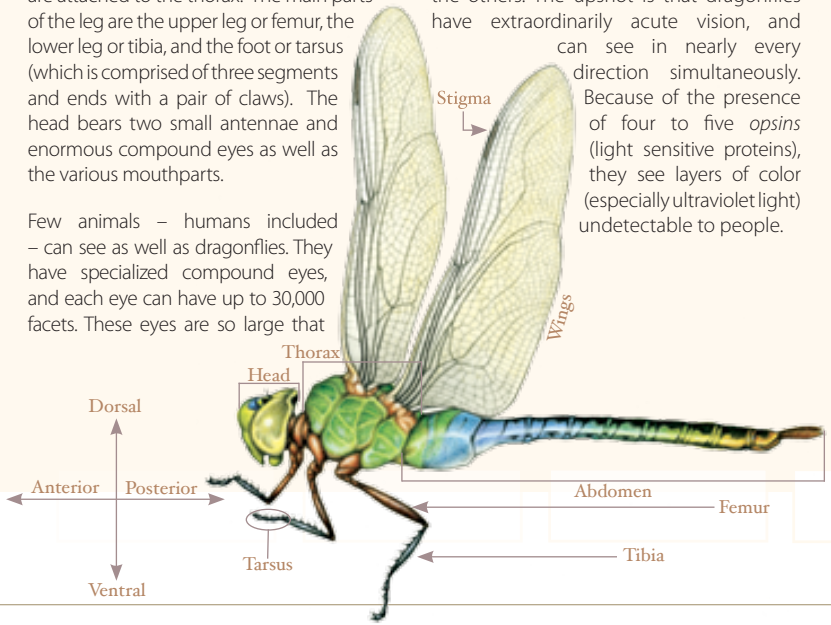


illustration | DRAGONFLY: TRACY L. GREENWALT

How to use this booklet

When you see a dragonfly or damselfly, ask yourself these questions: How does it hold its wings? Are there any patterns on the wings? What colors and patterns do you see on the abdomen? What color is the face? What habitat is it flying in? What is it doing – patrolling a territory, laying eggs, perching over the water, or eating? How large is it? The scale across the bottom of each page illustrates the length of each species, which ranges from the tiny fragile forktail (< one inch) to the giant swamp darner (3 ½ inches). Once you have answered these questions refer to this booklet and see if you can find a similar species. Remember too that this booklet contains only about a third of the 164 species known from Ohio. Check the list of more comprehensive guides at the end of the booklet to help you identify species not covered here.

*On pages indicating both male and female of the species, images are not in relative proportion to one another.

Dragonfly & damselfly families

Ohio's damselflies are grouped into three families and the dragonflies into seven families. The table below will help you identify the families and move more quickly to the appropriate section of this booklet.

FAMILY	CHARACTERISTICS	PAGE
Damselflies: Slender bodied, eyes well separated on head, slender wings held over back when at rest.		
Broad-winged Damselflies	Wings attached broadly to thorax, body metallic-colored, wings often with dark areas or with red spot at base. Usually found near rivers or streams.	11
Pond Damselflies	Formerly known as narrow-winged damselflies. Wings narrowly attached to body, body various colors, often blue and black, wings clear. Found in all aquatic habitats.	13
Spreadwing Damselflies	Wings held at a 45° angle to body at rest, body may or may not be metallic-colored, but wings either clear or tinged with amber. Most prefer still waters, but some are found near rivers or streams.	30
Dragonflies: Stout-bodied, eyes separated or meeting, broader wings held outstretched at rest.		
Petaltails	Stocky, large, eyes widely separated, gray and black body. Found near seeps.	32
Darners	Eyes meet in a seam along top of head. Size and coloration variable, wings usually clear. Found near ponds, lakes, streams, and rivers.	33
Clubtails	Eyes widely separated, tip of abdomen expanded into a "clubtail." Most often found near rivers, but some species prefer still waters.	38
Spiketails	Eyes meet only at a single point or are just slightly separated, ovipositor of female extends past the end of the abdomen, body usually brown with yellow markings. Found near small to very small streams.	43
Cruisers	Large, eyes bright green, body with black and yellow pattern, usually found near rivers.	44
Emeralds	Green eyes, body green and brown with muted yellow patterns, often noticeably hairy, sometimes with patterned wings. Near wetlands, ponds or streams.	45
Skimmers	Everything else! A large group ranging from tiny to large, a wide variety of colors, many species with patterned wings, eyes highly variable. Usually near open water, but found in other habitats as well.	47

Life cycle of dragonflies & damselflies

Conspicuous and easily observed adult dragonflies and damselflies are but part of an amazing life cycle. Depending upon the species, adults may only live for a few weeks to a few months. The adults exist primarily to reproduce, and serve important ecological roles as predators of small insects – including lots of mosquitoes!

Mating dragonflies are referred to as being in tandem, and they couple together using specialized clamp-like structures. When transferring sperm, the pair assumes a ring-like position called the wheel position; somewhat suggestive of a valentine heart.

Soon after mating, the adult female places her eggs into an appropriate substrate in a process called *ovipositing*. Depending upon the species, eggs might be deposited into water, saturated soil, on aquatic plants, or even drilled into plants or wet wood.

From the eggs hatch larvae, which are sometimes called *nymphs*. These larvae are highly predatory, and are completely aquatic. In some species, larvae may take four years to reach the point of transformation into adults – far longer than the adult will live. Larvae grow in incremental stages known as instars, each stage a bit more developed than the last. In some species there are as many as 15 instars. Dragonfly larvae are stout-bodied, while damselfly larvae are more slender and have three long, flat "tails" at the ends of their bodies.

When the larva is ready to transform to an adult, it crawls from the water and climbs onto adjacent plants. In an amazing metamorphosis, an adult dragonfly bursts from the shell of the larva. Newly transformed adults are called tenerals, and can take several days to fully harden and become capable of strong flight.

The adults are what we see most often, and are the focus of this booklet. Among nature's most incredible flying machines, Igor Sikorsky even named one of his first helicopters the "Dragonfly." No other group of animals – even birds – is as aerially adept as a dragonfly. They can travel forward, backward, and any other direction. Shifts in direction take place at lightning speed, and this agility makes dragonflies awesomely efficient aerial predators. And that's what they're doing on the wing – hunting a variety of other flying insects. Prey can range from small flies and mosquitoes, clear up to other dragonflies. Large species have even been observed capturing swallowtail butterflies!

photography | HALLOWEEN PENNANTS IN MATING WHEEL: DAVE McSHAFFREY; DARNER EMERGING FROM EXUVIAE: R.C. GLOTZHOBER

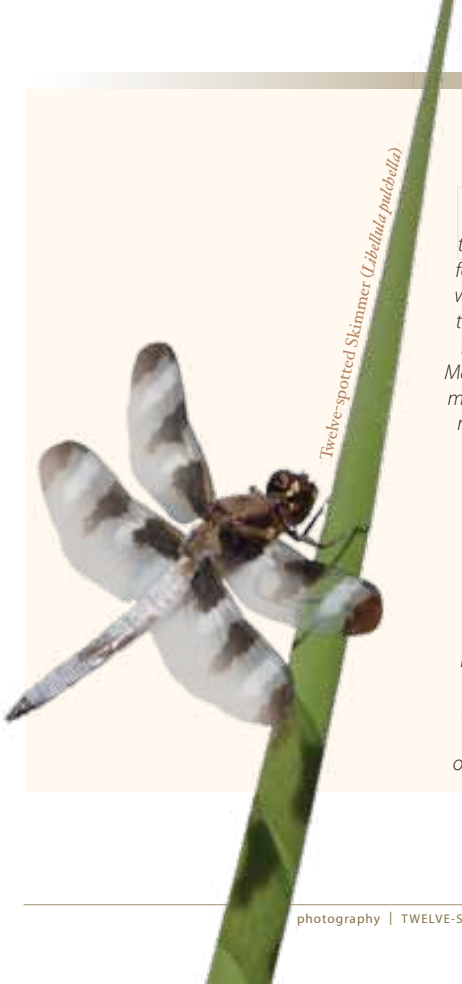
Dragonfly & damselfly habitats

Everyone who has spent time during the summer months around water has seen dragonflies and damselflies. All unpolluted water bodies — whether a river, stream, lake, marsh, swamp, bog, fen or even a temporary rain-pool — are home to these fascinating creatures. Streams and wetlands are vital for dragonflies and damselflies, and pictured on the following pages are some of the important types of habitats in which they can be found.

Spring-fed fens like Cedar Bog State Memorial in Champaign County support an interesting diversity of Odonata, including uncommon or rare species like gray petaltail, elfin skimmer, and seepage dancer.

Shaded woodland pools are good places to look for shadow darners.

photography | CEDAR BOG: JIM McCORMAC; WOODLAND POOL: JIM McCORMAC



Twelve-spotted Skimmer (Libellula pulchella)

Lake Erie beaches seem to act as swarming areas for migratory dragonflies, which often gather along them in late summer and fall. This beach at Magee Marsh Wildlife Area hosted many black, Carolina, and red saddlebags in August 2006, and was the site of the first Ohio record of striped saddlebags.

Lushly vegetated ponds, such as this one at McCracken Fen State Nature Preserve in Logan County, support great diversity and numbers of Odonata. Many species of skimmers, in particular, are conspicuous in such habitats.

photography | TWELVE-SPOTTED SKIMMER: ODNR DIVISION OF WILDLIFE; MAGEE MARSH: JIM McCORMAC; McCRACKEN FEN: JIM McCORMAC

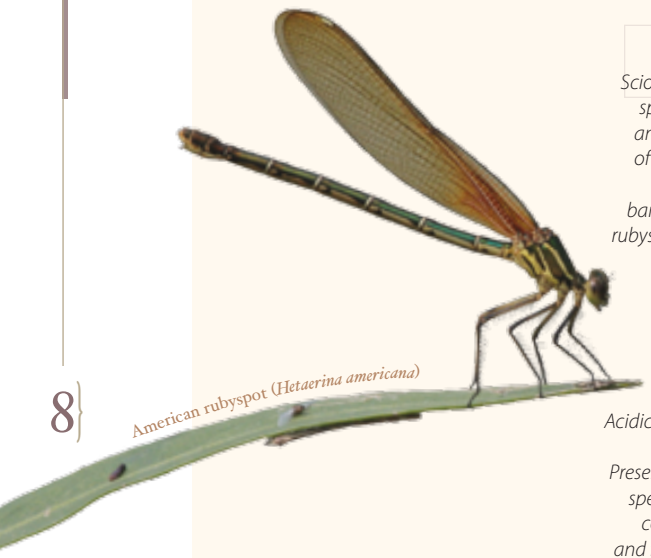
Dragonfly & damselfly habitats

Stream bluet (*Enallagma exsulans*)

Small and medium-sized streams, like Raccoon Creek in Gallia County, are great for damselflies like ebony jewelwing, violet dancer, and many species of bluets.

The margins of open ponds, like this one at Resthaven Wildlife Area, are good places to look for species like Eastern amberwing, twelve-spotted and widow skimmers, and Eastern pondhawk.

photography | STREAM BLUET: JOHN POGACNIK; RACCOON CREEK: JIM McCORMAC; RESTHAVEN WILDLIFE AREA: JIM McCORMAC



American rubyspot (*Hetaerina americana*)

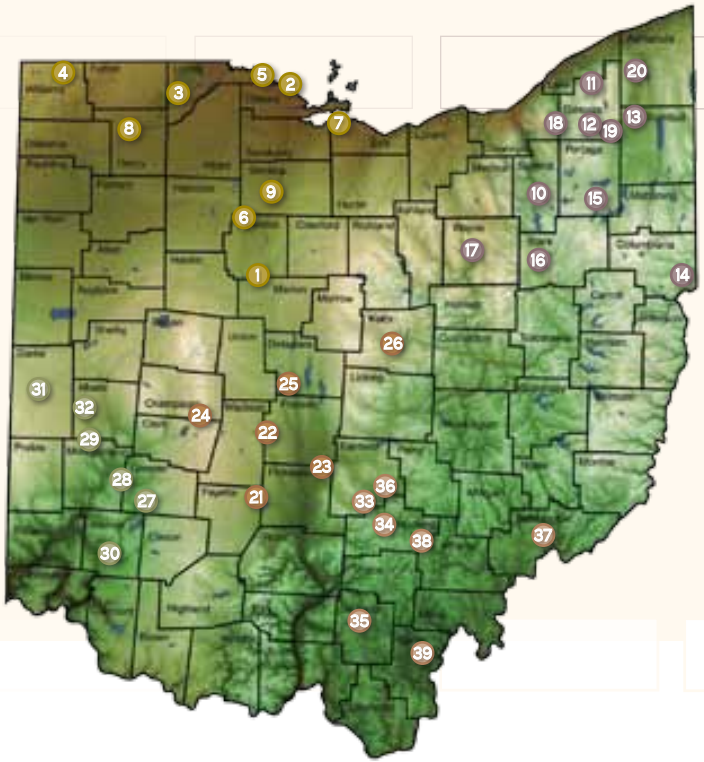
Large rivers, like the Scioto, provide habitat for species like river cruisers and dragonhunter. Beds of water-willow, Justicia americana, *along the banks, support American rubyspot and various other damselflies.*

Acidic bogs such as Triangle Lake Bog State Nature Preserve support many rare species like chalk-fronted corporal, Hagen's bluet, and frosted whiteface, and many other more common species.

photography | AMERICAN RUBYSPOT: WILLIAM HULL; SCIOTO RIVER: JIM McCORMAC; TRIANGLE LAKE BOG: JIM McCORMAC

Places to find dragonflies & damselflies

Almost any aquatic habitat in Ohio has some dragonflies and damselflies, but here are some exceptional habitats to explore.



Northwest

1. Killdeer Plains Wildlife Area
2. Magee Marsh Wildlife Area
3. Oak Openings Metro Park
4. Mud Lake State Nature Preserve (with permission only)
5. Ottawa National Wildlife Refuge
6. Springville Marsh State Nature Preserve
7. Resthaven Wildlife Area
8. Maumee State Scenic River
9. Sandusky State Scenic River

Northeast

10. Singer Lake Bog Nature Preserve (with permission only, Cleveland Museum of Natural History)
11. Big Creek Park, Geauga Park District
12. Burton Wetlands, Geauga Park District
13. Grand River Wildlife Area
14. Beaver Creek State Park & State Scenic River
15. Triangle Lake Bog State Nature Preserve
16. Jackson Bog State Nature Preserve
17. Brown's Lake Bog (Nature Conservancy)
18. Chagrin State Scenic River
19. Upper Cuyahoga State Scenic River
20. Grand State Scenic River

Central

21. Deer Creek Wildlife Area
22. Darby Creek Metro Park & State Scenic River
23. Slate Run Metro Park
24. Cedar Bog State Memorial (Ohio Historical Society)
25. Highbanks Metro Park & Olentangy State Scenic River
26. Kokosing State Scenic River

Southwest

27. Spring Valley Wildlife Area
28. Beaver Creek Wildlife Area
29. Aullwood Audubon Center
30. Little Miami State Scenic River
31. Greenville Creek State Scenic River
32. Stillwater State Scenic River

Southeast

33. Clear Creek Metro Park
34. Conkle's Hollow State Nature Preserve
35. Lake Katherine State Nature Preserve
36. Wahkeena Nature Preserve (Ohio Historical Society)
37. Little Muskingum River
38. Lake Hope State Park
39. Tycoon Lake Wildlife Area

Note: Binoculars and cameras are welcome at all of these sites, but special permission will be required at most of them to collect specimens. A few of the nature preserves require special access permits.

photography | ODNR DIVISION OF WILDLIFE

Calopteryx maculata (Kay-lop-ter-ix • mak-you-lay-tah)

EBONY JEWELWING

HINDWING
1.1" – 1.4" (28-37 mm)

HABITAT
Shady stream banks and riparian woods

FLIGHT PERIOD
May 5 to September 22

AREA OF OHIO
Common statewide where suitable habitat is located

DISCUSSION ebony jewelwing

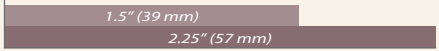
The beautiful ebony jewelwing is easily recognized by its all-black wings and iridescent metallic green body (the body may also appear black, blue or even bronze depending on the light). Other jewelwings (other species rare) have either clear wings or clear wings with dark bands at the tips. Female ebony jewelwings have a white *stigma* near the wing tip. Ebony jewelwings are often found on tiny streams. Both sexes can be found together; males often face off in slow, circular "dances" that call to mind World War I aces squaring off for battle.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH ebony jewelwing
1.5" – 2.25" (39-57 mm)

Species' length (shown to scale)



photography | EBONY JEWELWING (male): ODNR DIVISION OF WILDLIFE; (female): JIM McCORMAC

AMERICAN RUBYSPOT

Hetaerina americana (Het-ee-rye-nah • ah-mer-ih-kan-ah)

HINDWING
1" – 1.2" (25-30 mm)

HABITAT
*Sunny, vegetated riparian sites, particularly water-willow (*Justicia americana*) beds on gravel banks of larger streams and rivers*

FLIGHT PERIOD
May 7 to October 23

AREA OF OHIO
Common statewide where suitable habitat is located

*Color indicates counties with recorded species collection**

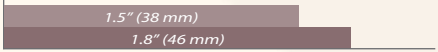
**Reflects historic and modern records*

DISCUSSION american rubyspot

A gorgeous damselfly, the American rubyspot takes its name from the red patches at the base of the wings in the males. The bodies of both sexes have a metallic reddish to bronze sheen. Both males and females are found perched on vegetation on gravel banks or in adjacent shallows. Searching patches of water-willow is a reliable way of locating this species.

LENGTH american rubyspot
1.5" – 1.8" (38-46 mm)

Species' length (shown to scale)



photography | AMERICAN RUBYSPOT (male & female): DAVE McSHAFFREY

Amphiagrion saucium (Amf-ee-ag-ree-on • saw-see-um)

EASTERN RED DAMSEL

HINDWING
0.5″ – 0.7″ (14-18 mm)

HABITAT
Bogs, seeps, small streams

FLIGHT PERIOD
May 8 to August 22

AREA OF OHIO
Common in central and northeast Ohio where undisturbed wetlands are found

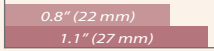
DISCUSSION eastern red damsel
The Eastern red damsel is distinctive; a tiny red damselfly with black on the top of the thorax and on abdominal segments 7 through 10. Look for it in wetlands and areas of emergent vegetation rather than over open water. This species flies slowly low to the ground, often remaining partially concealed among vegetation and can be easy to miss.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH eastern red damsel
0.8″ – 1.1″ (22-27 mm)

Species' length (shown to scale)



photography | EASTERN RED DAMSEL (male & female): JUDY SEMROC

Argia apicalis (ar-jee-ah • ap-ih-kal-iss)

BLUE-FRONTED DANCER

HINDWING
0.75" – 1" (20-25 mm)

HABITAT
Streams, rivers, and ponds

FLIGHT PERIOD
May 28 to October 1

AREA OF OHIO
Common statewide where suitable habitat is found

DISCUSSION blue-fronted dancer

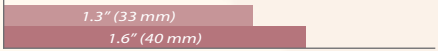
The bright blue thorax with a thin, clean black line running down the back is the best diagnostic character to identify the males; however in some cases the color may be brown (young), black or purple, and the females appear quite different. There are pale rings separating the first seven abdominal segments; the last three segments are blue on top. They are often seen perching on the ground, vegetation, or streamside debris.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH blue-fronted dancer
1.3" – 1.6" (33-40 mm)

Species' length (shown to scale)



photography | BLUE-FRONTED DANCER (male): DAVE McSHAFFREY; (female): JOHN POGACNIK

Argia fumipennis subspecies *violacea* (ar-jee-ah • fume-ih-pen-iss • vi-ole-ace-ee-ah)

VIOLET DANCER

HINDWING
0.7″ – 0.9″ (18-23 mm)

HABITAT
Streams, small rivers, ponds

FLIGHT PERIOD
May 17 to September 21

AREA OF OHIO
Common statewide where suitable habitat is located

DISCUSSION violet dancer

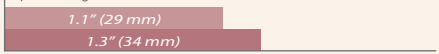
The male violet dancer is easily recognized by the purple color of the thorax and abdomen and the forked black stripe on its shoulders. Females are usually brownish where the males are violet. They prefer running water and may perch anywhere near the shoreline, from the ground to well up in the vegetation. This is a subspecies of the widespread, more southerly variable dancer.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH violet dancer
1.1″ – 1.3″ (29-34 mm)

Species' length (shown to scale)



photography | VIOLET DANCER: WILLIAM HULL

Argia moesta (ar-jee-ah • mo-ess-tah)

POWDERED DANCER

HINDWING
0.8" – 1.2" (22-29 mm)

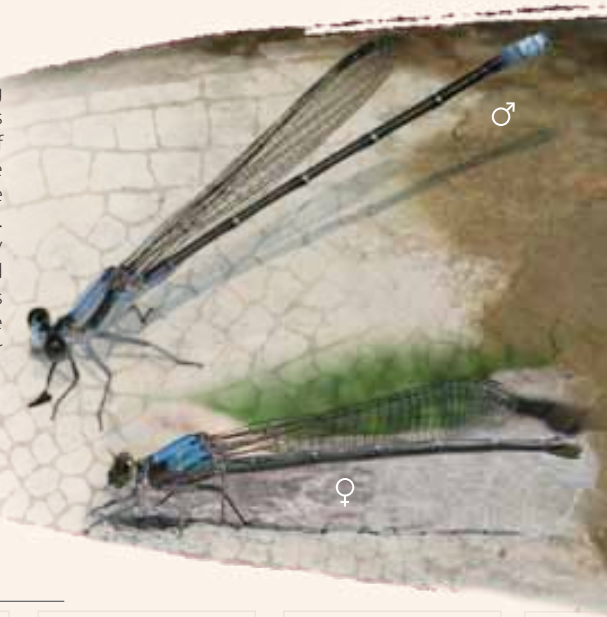
HABITAT
Rivers; larger, faster streams; lake shores

FLIGHT PERIOD
May 23 to November 2

AREA OF OHIO
Common statewide where suitable habitat is located

DISCUSSION powdered dancer

A large powder-blue damselfly with a long light brown stigma with a cross-vein near its center. The "powdered" surface is a result of *pruinosity*, the deposit of a waxy substance on the outer surface of the body. Females are bluer while males are more grayish-white. They are often seen perching on sunny streamside rocks or where driftwood and other debris have gathered at the water's edge. Males hold the females even as the latter deposit their eggs on underwater vegetation.

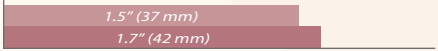


*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH powdered dancer
1.5" – 1.7" (37-42 mm)

Species' length (shown to scale)



photography | POWDERED DANCER (male): WILLIAM HULL; (female): DAVE McSHAFFREY

Argia sedula (ar-jee-ah • sed-you-lah)

BLUE-RINGED DANCER

HINDWING
0.7″ – 0.8″ (18-21 mm)

HABITAT
Lakes, streams, rivers

FLIGHT PERIOD
May 30 to September 26

AREA OF OHIO
Common statewide where suitable habitat is found

DISCUSSION blue-ringed dancer

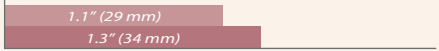
The male blue-ringed dancer may be recognized by a royal blue thorax contrasting with the light blue abdomen, particularly the tip of the abdomen. Most of the rest of the abdomen is dark, interrupted by light blue rings at the base of the abdominal segments. The females are usually brownish. They prefer running water and are often found in the company of powdered dancers, though the latter are usually more numerous.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH blue-ringed dancer
1.1″ – 1.3″ (29-34 mm)

Species' length (shown to scale)



photography | BLUE-RINGED DANCER (male): WILLIAM HULL; (female): JOHN POGACNIK

Argia tibialis (ar-jee-ah • tib-ee-al-iss) BLUE-TIPPED DANCER

HINDWING
0.7" – 0.9" (18-24 mm)

HABITAT
Streams and rivers

FLIGHT PERIOD
May 23 to September 19

AREA OF OHIO
Common statewide where suitable habitat is found

DISCUSSION blue-tipped dancer

Male blue-tipped dancers have very dark thoraxes and abdomens, although the thorax has dark violet stripes and the last two abdominal segments are light blue. The females are slightly lighter in shade and lack the blue tip of the abdomen. The females are usually brownish where the males are violet. They may oviposit in waterlogged wood above the waterline.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH blue-tipped dancer

1.2" – 1.5" (30-38 mm)

Species' length (shown to scale)

photography | BLUE-TIPPED DANCER (male): WILLIAM HULL; (female): JOHN POGACNIK

Chromagrion conditum (Kro-mag-ree-on • kon-dee-tum)

AURORA DAMSEL

HINDWING
0.8" – 1.0" (20-26 mm)

HABITAT
Pools, small stream mouths, and marshy seepage areas

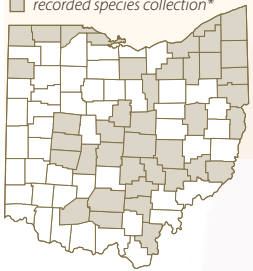
FLIGHT PERIOD
May 5 to July 12

AREA OF OHIO
Found in about half the counties in the state, more common in the central and northeast

DISCUSSION aurora damsel

At rest, the aurora damsel holds its wings partially open. Males have a "tricolor" thorax, with black above, blue in the middle, and yellow at the bottom rear. Like the Eastern red damsel they prefer undisturbed wetlands and small pools and thus are not as common in areas with extensive agriculture or steep hills.

*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

LENGTH aurora damsel
1.3" – 1.5" (32-39 mm)

Species' length (shown to scale)

photography | AURORA DAMSEL (pair): CLARK SHIFFER

Enallagma antennatum (En-all-ag-mah • an-ten-ate-um)

RAINBOW BLUET

HINDWING
0.6" – 0.8" (15-20 mm)

HABITAT
Lakes, gravel pits, slow streams

FLIGHT PERIOD
May 21 to September 24

AREA OF OHIO
Scattered over most of the state; conspicuously absent in the Ohio River counties downstream of Belmont County

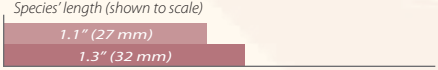
DISCUSSION rainbow bluet

An easily recognized bluet, this species has an orange face, blue-green on the top of the head and on the underside of the thorax, yellow and black on the top of the thorax, and a dark abdomen with blue on the first three and last three segments. Look for them in sunny areas where water is moving slowly.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH rainbow bluet
1.1" – 1.3" (27-32 mm)



photography | RAINBOW BLUET: JUDY SEMROC

Enallagma aspersum (En-all-ag-mah • as-per-sum)

AZURE BLUET

HINDWING
0.6" – 0.8" (15-20 mm)

HABITAT
Fishless ponds, lakes, boggy swamps

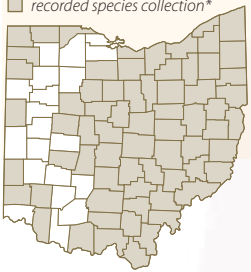
FLIGHT PERIOD
May 12 to October 8

AREA OF OHIO
Found in most of the state; more local in the western 1/3 of the state

DISCUSSION azure bluet

The male azure bluet certainly has a lot of blue, but there are also dark areas, particularly on the prothorax and on the dorsal parts of abdominal segments 4-6 (the females are more greenish on the thorax and tan on the abdomen where the males are blue). Like the familiar bluet, the female may submerge completely when ovipositing.

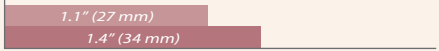
*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

LENGTH azure bluet
1.1" – 1.4" (27-34 mm)

Species' length (shown to scale)



photography | AZURE BLUET (single): JUDY SEMROC; (pair): DAVE McSHAFFREY

Enallagma basidens (En-all-ag-mah • bas-ih-denz)

DOUBLE-STRIPED BLUET

HINDWING
0.4" – 0.6" (10-15 mm)

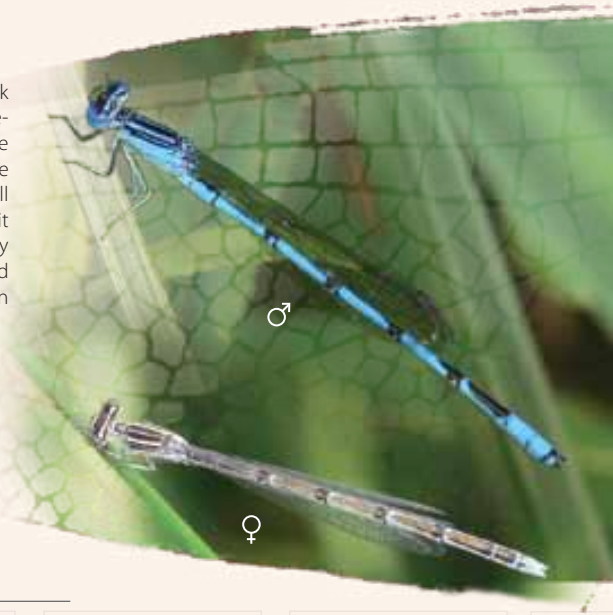
HABITAT
Ponds, lakes, still waters of rivers

FLIGHT PERIOD
May 16 to October 24

AREA OF OHIO
Common statewide

DISCUSSION double-striped bluet

Where most bluets have alternating black and blue stripes on the thorax, the double-striped bluet has the black shoulder stripe interrupted by a slender bluish stripe – the double stripe. This, combined with the small size compared to other bluets, makes it relatively easy to identify. The males stay with the females during ovipositing, and the eggs are laid at the water's surface in floating vegetation.



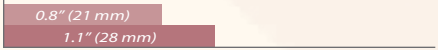
*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH double-striped bluet

0.8" – 1.1" (21-28 mm)

Species' length (shown to scale)



photography | DOUBLE-STRIPED BLUET (male & female): JOHN POGACNIK

Enallagma civile (En-all-ag-mah • siv-il-ee) FAMILIAR BLUET

HINDWING
0.6" – 0.8" (16-21 mm)

HABITAT
Ponds, small lakes, streams, ditches

FLIGHT PERIOD
May 8 to November 13

AREA OF OHIO
Common statewide

DISCUSSION familiar bluet

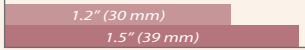
One of the larger Ohio bluets, the familiar bluet is mostly blue. All segments of the abdomen have blue, with only segment 7 having an extensive black area. The abdomen tip is completely pale blue, contrasting with the darker blue of the rest of the abdomen. Look for it near most small bodies of water, and even in your yard. When ovipositing, the female may climb down a stem to completely submerge herself while the male stands guard above.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH familiar bluet
1.2" – 1.5" (30-39 mm)

Species' length (shown to scale)



photography | FAMILIAR BLUET (single & pairs): WILLIAM HULL

Enallagma exsulans (En-all-ag-mah • ex-sule-anz)

STREAM BLUET

HINDWING
0.6" – 0.8" (16-21 mm)

HABITAT
Streams, small rivers

FLIGHT PERIOD
May 14 to November 2

AREA OF OHIO
Common statewide

DISCUSSION stream bluet

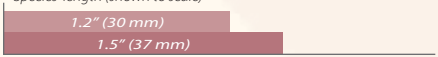
One of several bluets that can be difficult to identify without a close look. The thorax has broad black stripes and narrow blue ones. The abdomen is dark except for blue bands on segments 4-6, blue on the side and bottom of segment 8, and blue all over segment 9. Look for the males perching along the shoreline.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH stream bluet
1.2" – 1.5" (30-37 mm)

Species' length (shown to scale)



photography | STREAM BLUET: DAVE McSHAFFREY

Enallagma geminatum (En-all-ag-mah • jim-in-ate-um)

SKIMMING BLUET

HINDWING
0.5″ – 0.7″ (12-17 mm)

HABITAT
Rivers, lakes, ponds

FLIGHT PERIOD
May 5 to October 20

AREA OF OHIO
Common statewide in suitable habitat

DISCUSSION skimming bluet

A small bluet often found flying low over the edge of a body of water, skimming bluets are often associated with emergent vegetation. In the male the thorax is blue with black stripes and the abdomen is black except for a blue spot on the top of segments 8 and 9 near the tip.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH skimming bluet
0.7″ – 1.1″ (19-28 mm)

Species' length (shown to scale)

0.7″ (19 mm)

1.1″ (28 mm)

photography | SKIMMING BLUET: TOM SCHULTZ

Enallagma signatum (En-all-ag-mah • sig-nate-um)

ORANGE BLUET

HINDWING
0.6" – 0.8" (15-21 mm)

HABITAT
Lakes, ponds, slow rivers, and streams

FLIGHT PERIOD
May 19 to October 12

AREA OF OHIO
Common statewide in suitable habitat

DISCUSSION orange bluet

This one isn't all that tough to identify – the males in particular are orange, with black stripes on the thorax. They have black on the dorsal surfaces of most of the abdominal segments (an orange or tan color covers most of abdominal segment 9 and sometimes 10). Like many orange or yellow colored damsels, orange bluets tend to be more active in late afternoon through dusk. They prefer areas of emergent vegetation.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH orange bluet
1.1" – 1.5" (29-37 mm)

Species' length (shown to scale)

photography | ORANGE BLUET: CLARK SHIFFER

Ischnura hastata (Ish-nur-ah • has-tate-ah)

CITRINE FORKTAIL

HINDWING
0.4" – 0.6" (9-15 mm)

HABITAT
Ponds, pools, marshes

FLIGHT PERIOD
May 6 to November 8

AREA OF OHIO
Scattered statewide in wetlands with good water quality

DISCUSSION citrine forktail

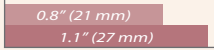
This is one of the smallest damselflies in the state; lucky for us it is brightly colored! As the name implies, most of the male abdomen is citrus yellow (or tannish-yellow or orangish) contrasting with black stripes and rings. The stigma does not touch the front edge of the short wings; this feature can be seen under magnification. Females resemble those of the fragile forktail. Citrine forktails lurk in vegetation adjacent to wetlands; it has probably been overlooked in a number of counties.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH citrine forktail
0.8" – 1.1" (21-27 mm)

Species' length (shown to scale)



photography | CITRINE FORKTAIL: WILLIAM HULL

Ischnura posita (Ish-nur-ah • po-see-tah)

FRAGILE FORKTAIL

HINDWING
0.4" – 0.6" (10-16 mm)

HABITAT
Streams, rivers, ponds, lakes, marshes, ditches, etc.

FLIGHT PERIOD
April 11 to October 18

AREA OF OHIO
Common statewide

DISCUSSION fragile forktail

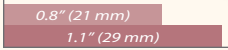
A tiny damsel, the fragile forktail is often called by the name "exclamation forktail" because of the paired markings resembling exclamation points on the top of the thorax. The small size, secretive habits (hiding in vegetation or shade near the water's edge) and the exclamation points make this forktail easy to identify. Females can be cannibalistic and may also feed on various species of bluets.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH fragile forktail
0.8" – 1.1" (21-29 mm)

Species' length (shown to scale)



photography | FRAGILE FORKTAIL (single & pair): DAVE McSHAFFREY

Ischnura verticalis (Ish-nur-ah • ver-tih-cal-iss)

EASTERN FORKTAIL

HINDWING
0.4" – 0.8" (11-19 mm)

HABITAT
Streams, rivers, ponds, lakes, marshes, ditches, etc.

FLIGHT PERIOD
April 26 to November 30

AREA OF OHIO
Common statewide

DISCUSSION eastern forktail

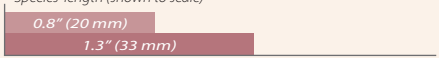
Slightly larger than the fragile forktail, the Eastern forktail is the most common damsel in Ohio. It hides in vegetation near the water's edge. The Eastern forktail has the "exclamation points" replaced by two solid greenish lines, and males have a blue tip to the abdomen. This blue tip stands out like a beacon and can be seen from considerable distances. The females are variable, usually a blue-gray color (but with others orange and black) with all colors fading as they age.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH eastern forktail
0.8" – 1.3" (20-33 mm)

Species' length (shown to scale)



photography | EASTERN FORKTAIL (pair): WILLIAM HULL

Lestes australis (Les-tees • au-stral-iss)

SOUTHERN SPREADWING

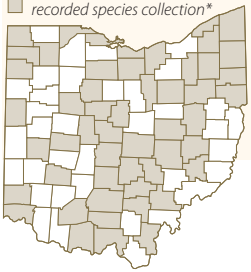
HINDWING
0.7" – 1.0" (18-25 mm)

HABITAT
Ponds, marshy habitats, slow streams

FLIGHT PERIOD
April 20 to September 27

AREA OF OHIO
Found scattered throughout the state

*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

DISCUSSION southern spreadwing

Spreadwings hold their wings partially open – in between the posture of a dragonfly and a damselfly. This spreadwing is somewhat difficult to separate from the Northern spreadwing, *Lestes disjunctus*. Males of both species have blue eyes, pale blue undersides of the thorax, and the posterior abdominal segments are washed with light gray. In the Southern spreadwing, this wash is on segment 9 and part of 10, but to be positive you need to examine the specimen with a microscope for other characteristics. Females are even tougher to tell apart! They oviposit in living aquatic plants such as bulrushes and cattails.

LENGTH southern spreadwing

1.3" – 1.7" (32-44 mm)

Species' length (shown to scale)

photography | SOUTHERN SPREADWING: CLARK SHIFFER

Lestes rectangularis (Les-tees • rek-tan-gu-lar-iss)

SLENDER SPREADWING

HINDWING
0.8" – 1.0" (20-25 mm)

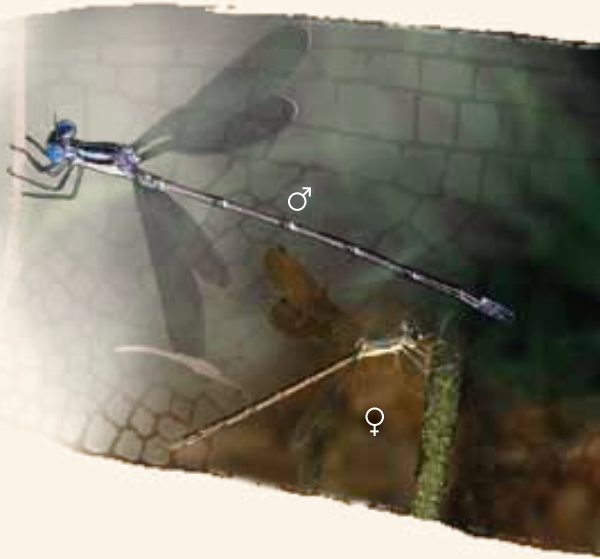
HABITAT
Ponds, marshes, wetlands

FLIGHT PERIOD
May 21 to October 28

AREA OF OHIO
Common statewide in suitable habitat

DISCUSSION slender spreadwing

The most common spreadwing in Ohio. Males have a very long, slender abdomen without any light areas (some have a pale blue "rivet-shaped" mark on the top of abdominal segment 9). The eyes, face, and sometimes the stripes on top of the thorax are bluish, while the rest of the thorax is striped brown or tan. Females are darker and stouter; their abdomens are somewhat clubbed. The wingtips of this species are edged with pale white; a good field character. Eggs are laid above the waterline in aquatic plants like bulrushes or cattails.



*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH slender spreadwing

1.5" – 2.1" (37-53 mm)

Species' length (shown to scale)

photography | SLENDER SPREADWING (male & female): JUDY SEMROC

Tachopteryx thoreyi (Tak-op-ter-ix • thor-ee-eye)

GRAY PETALTAIL

HINDWING
1.8" – 2" (48-53 mm)

HABITAT
Sunny, wet seeps in forested areas

FLIGHT PERIOD
May 12 to August 22

AREA OF OHIO
Scattered and local; habitat is rare and so are petaltails

DISCUSSION gray petaltail

Our only large gray and black dragonfly. They frequently land on the sides of tree trunks and watch for mates or prey. Petaltails can capture prey the size of large butterflies and other dragonflies, which may be caught in flight or gleaned from vegetation. Occasionally they act quite tame, even landing on people. The larvae are partially terrestrial, crawling above the waterline of seeps between layers of leaves kept wet by capillary action.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH gray petaltail
2.9" – 3.1" (71-80 mm)

Species' length (shown to scale)

photography | GRAY PETALTAIL: R.C. GLOTZHOBER

Aeshna umbrosa (Eesh-nah • um-brose-ah)

SHADOW DARNER

HINDWING
1.6" – 1.9" (42-47 mm)

HABITAT
Small forested streams, woodland pools, bogs, swamps, and fens

FLIGHT PERIOD
July 4 to November 6

AREA OF OHIO
Widespread and common. Reported in 50 of the 88 Ohio counties, but could be found almost anywhere in the state

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

DISCUSSION shadow darner

This darner seems to prefer shaded streams and frequents the shadows. Males often fly about a foot above the water, often hovering in one place momentarily. The brown thorax has two lateral stripes (blue to green in males; yellowish in females) that are outlined with black. The green mark on fore part of thorax often resembles the Nike "swoosh." Females oviposit in wet or rotted wood close to the water. Shadow darners fly later in the fall than any other darner.

LENGTH shadow darner
2.5" – 2.8" (64-71 mm)

Species' length (shown to scale)

photography | SHADOW DARNER: JOHN POGACNIK

Anax junius (an-ax • joo-nee-us)

COMMON GREEN DARNER

HINDWING
1.8" – 2.0" (45-52 mm)

HABITAT
Almost any aquatic habitat, particularly ponds without fish

FLIGHT PERIOD
April 5 to October 25

AREA OF OHIO
Common statewide

DISCUSSION common green darner

Easily recognized by the green thorax. The male has a blue abdomen (purple when cool); the female's is rusty brown to purple. The similar but rare comet darner has a brick-red abdomen and lacks the black bulls-eye pattern on the forehead. This is one of about a dozen species of dragonflies that migrate north in early spring and south in fall. Occasionally swarms of thousands of green darners have been observed in uni-directional flights in late August through September, often in front of a storm. The details of such migratory flights are still poorly understood.

LENGTH common green darner

2.7" – 3.3" (68-84 mm)

Species' length (shown to scale)

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

photography | COMMON GREEN DARNER: WILLIAM HULL

Epiaeschna heros (Ep-ih-eesh-nah • he-rose)

SWAMP DARNER

HINDWING
2.0″ – 2.4″ (53-62 mm)

HABITAT
Wooded swamps and shady pools, forests along sluggish streams; sometimes in woodland clearings or along road openings

FLIGHT PERIOD
April 25 to August 25

AREA OF OHIO
Scattered locales in 33 counties to date.

DISCUSSION swamp darner

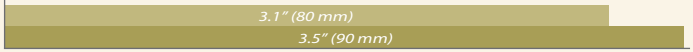
In overall dimensions, this is our biggest dragonfly, although dragonhunters are bulkier and probably slightly heavier. Easily recognized in the field by the massive size, conspicuously long petal-like claspers, prominent green thorax stripes and narrow green rings circling the brownish abdomen. The eyes are blue. While most will be seen in shady wooded habitats, this species has a propensity for entering buildings to rest.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH swamp darner
3.1″ – 3.5″ (80-90 mm)

Species' length (shown to scale)



photography | SWAMP DARNER: JOHN POGACNIK

Basiaeschna janata (Bas-ih-eesh-nah • jah-nate-ah)

SPRINGTIME DARNER

HINDWING
1.2" – 1.6" (32-40 mm)

HABITAT
Forests along rivers and streams and sometimes wooded lakes and ponds

FLIGHT PERIOD
April 29 to July 15

AREA OF OHIO
Statewide, except streams without forest edges in northwestern counties

DISCUSSION springtime darner

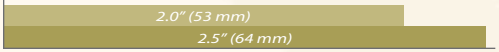
A small brownish darner with two lateral yellow stripes on the thorax and blue and brown spots along the abdomen. Males patrol the shoreline. Females oviposit below the waterline in aquatic plants. This is one of only three early season darners, appearing about the same time as the swamp darner. Early green darners are migrants from further south – making the springtime darner one of the earliest to emerge locally each year.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH springtime darner
2.0" – 2.5" (53-64 mm)

Species' length (shown to scale)



photography | SPRINGTIME DARNER: JOHN POGACNIK

Boyeria vinosa (Bo-yer-ee-ah • vih-no-sah)

FAWN DARNER

HINDWING
1.5" – 1.7" (38-43 mm)

HABITAT
Shady edges of streams and rivers

FLIGHT PERIOD
June 26 to October 25

AREA OF OHIO
Statewide. Larvae are found more often than the secretive, inconspicuous adults

DISCUSSION fawn darner

A brownish dragonfly with tawny-tinted wings. The two bright yellow, rounded spots on the thorax are seldom visible in flight. Adults fly along the shore and are highly visible in full sun, but "magically disappear" with their tawny color when they enter shady patches. Females oviposit into roots and branches overhanging the banks. Occasional incidents of females attempting to oviposit on motionless legs or arms of wading people may have contributed to false stories of "stinging" dragonflies.

LENGTH fawn darner
2.4" – 2.8" (60-71 mm)

Species' length (shown to scale)

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

photography | FAWN DARNER: JOHN POGACNIK

Arigomphus villosipes (Are-ih-gom-fus • vil-oh-sip-ees)

UNICORN CLUBTAIL

HINDWING
1.1" – 1.4" (29-36 mm)

HABITAT
Ponds and slow moving streams with mud bottoms

FLIGHT PERIOD
April 25 to September 1

AREA OF OHIO
Widespread, especially in northeast counties

*Color indicates counties with recorded species collection**

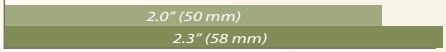
**Reflects historic and modern records*

DISCUSSION unicorn clubtail

A gray-green dragonfly with widely separated blue-green eyes, a series of dorsal yellow streaks on the abdomen, and a moderate club (enlarged tip of the abdomen). Positive identification may be made only in hand or with excellent photos, by the horn-like spines on the crest between the eyes, yellow stripes on the legs, and distinctive male reproductive structures. This is one of only a handful of clubtails that frequent ponds instead of rivers. They often rest on logs, rocks or mud near the shore or on algae mats. Females release eggs into the water by tapping their abdomens onto the surface of the water, similar to the behavior of pond skimmers.

LENGTH unicorn clubtail
2.0" – 2.3" (50-58 mm)

Species' length (shown to scale)



photography | UNICORN CLUBTAIL: DAVE McSHAFFREY

Dromogomphus spinosus (Dro-mo-gom-fus • spy-no-sus)

BLACK-SHOULDERED SPINYLEG

HINDWING
1.3" – 1.4" (33-36 mm)

HABITAT
Large streams and rivers, and sometimes large lakes

FLIGHT PERIOD
May 13 to September 12

AREA OF OHIO
Common in most of the state

DISCUSSION black-shouldered spinyleg

A large clubtail with the dark stripes on the thorax restricted to the shoulder area. This species and the related flag-tailed spinylegs, *Dromogomphus spoliatus*, each have large raptorial spines along the lower ventral edge of the hind femur (upper leg). This clubtail is somewhat more resistant to pollution than most other clubtails. It is one of only six clubtails (of Ohio's 30 species) that flies during September.

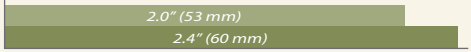
*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH black-shouldered spinyleg

2.0" – 2.4" (53-60 mm)

Species' length (shown to scale)



photography | BLACK-SHOULDERED SPINYLEG: WILLIAM HULL

Gomphus fraternus (Gom-fus • frah-ter-nus)

MIDLAND CLUBTAIL

HINDWING
1.1" – 1.3" (28-33 mm)

HABITAT
Medium-sized to large rivers

FLIGHT PERIOD
April 26 to August 10

AREA OF OHIO
Much of the state, so far recorded in 45 of 88 counties

DISCUSSION midland clubtail

This is an average-sized clubtail with a well-developed club that has large yellow spots on the sides of segments 8 and 9. Positive ID may require examination under a hand lens or microscope, or excellent photos. Larvae prefer sandy bottoms, but may also burrow into silt or mud. They are rarely found on streams with rocky bottoms. Adults frequent riffles and perch on rocks or elevated banks. They fly fast and low over the water.

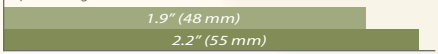
*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH midland clubtail

1.9" – 2.2" (48-55 mm)

Species' length (shown to scale)



photography | MIDLAND CLUBTAIL: SID DUNKLE

Gomphus lividus (Gom-fus • liv-ih-dus)

ASHY CLUBTAIL

HINDWING
1.1" – 1.3" (29-34 mm)

HABITAT
Slow moving streams, rivers and occasionally lakes

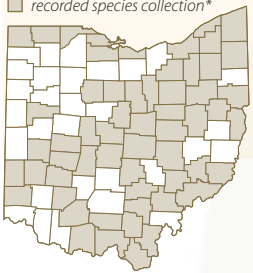
FLIGHT PERIOD
May 4 to July 24

AREA OF OHIO
Much of the state, recorded in 54 counties

DISCUSSION ashy clubtail

A relatively small dragonfly with a club that is only slightly wider than the rest of the abdomen. Its coloration is very dull – gray with drab brown and green markings and only small, dull yellow stripes. The typical hunting flight is low along the water's edge. They perch on leaves or on the ground. When disturbed, they often fly off in an interesting roller-coaster-like undulating flight.

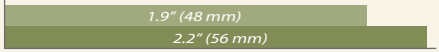
*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

LENGTH ashy clubtail
1.9" – 2.2" (48-56 mm)

Species' length (shown to scale)



photography | ASHY CLUBTAIL: CLARK SHIFFER

Hagenius brevistylus (Hay-gen-ee-us • brev-ih-sty-liss)

DRAGONHUNTER

HINDWING
1.8" – 2.3" (47-58 mm)

HABITAT
Woodlands along streams and rivers

FLIGHT PERIOD
June 8 to September 6

AREA OF OHIO
Widely scattered. Most likely in southeastern and northeastern counties

DISCUSSION dragonhunter

While not very common, when seen this dragonfly will be noticed and remembered. It is our largest clubtail and probably the heaviest of all Ohio dragonflies. Its large thorax and small head are distinctive. As the name suggests, it eats large prey including dragonflies up to the size of the swift river cruiser. They are very sensitive to pollution, and thus require clean streams. The distinctive, large (1 to 1.5-inch across) roundish-shaped larvae spend up to four years living under leaf litter and bark debris at the river's edge.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH dragonhunter
2.9" – 3.5" (73-90 mm)

Species' length (shown to scale)

photography | DRAGONHUNTER: ANGELA ZIMMERMAN–U.S. FISH & WILDLIFE SERVICE

Cordulegaster obliqua (Kor-dule-eg-gas-ter • oh-blee-kwa)
ARROWHEAD SPIKETAIL

HINDWING
1.6″ – 2.0″ (41-50 mm)

HABITAT
Small forested streams, sometimes intermittent streams

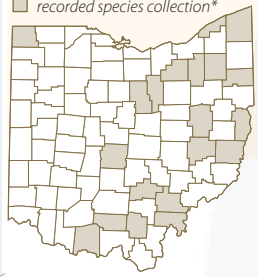
FLIGHT PERIOD
May 13 to August 1

AREA OF OHIO
About half of the forested eastern counties; a few records from extreme northwest Ohio

DISCUSSION arrowhead spiketail

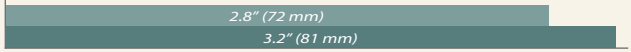
This is the largest of Ohio's five spiketails and is easy to identify by its green to blue eyes, nearly black body, with a brilliant row of yellow arrows or spear-shaped marks running down the center of its back. Adults patrol a few inches above the tiny, forested streams where the larvae live buried in sediments. Larvae appear to survive despite occasional (sometimes annual) drying up of the small streams they inhabit.

*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

LENGTH arrowhead spiketail
2.8″ – 3.2″ (72-81 mm)



photography | ARROWHEAD SPIKETAIL: R.C. GLOTZHOBER

Macromia illinoiensis subspecies *illinoiensis* (Mah-crome-ee-ah • ill-in-oy-en-sis)

SWIFT RIVER CRUISER

HINDWING
1.6" – 1.9" (40-49 mm)

HABITAT
Streams and flowing rivers

FLIGHT PERIOD
May 3 to September 19

AREA OF OHIO
Much of Ohio, but absent in many counties, especially in northwestern Ohio

DISCUSSION swift river cruiser

This is a large, dark (almost black) dragonfly with long hind legs, a noticeable bright yellow spot on the dorsal surface of segment 7, and large bright green eyes. They prefer riffles and smaller flowing streams and rarely use larger rivers with sluggish flows, such as those that have been dammed. Look for them along riffles in streams, especially at the edges of islands. They fly swiftly in long patrols, returning at intervals of five minutes or longer. They never seem to land, and it requires a persistent and fortunate searcher to spot one perched.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH swift river cruiser
2.6" – 3.0" (65-76 mm)

Species' length (shown to scale)

photography | SWIFT RIVER CRUISER: JOHN POGACNIK

Epitheca cynosura (Eh-pith-eh-ka • sigh-no-sur-ah)

COMMON BASKETTAIL

HINDWING
1.0″ – 1.2″ (26-31 mm)

HABITAT
Edges of ponds, lakes and slow streams

FLIGHT PERIOD
April 9 to July 24

AREA OF OHIO
Statewide, although unreported from some northwestern counties

DISCUSSION common baskettail

A small, brownish, hairy dragonfly with yellow stripes on the sides of the abdomen. The wings are mostly clear, but they often have a semi-triangular dark spot near the base of the hindwing. It is very similar to a couple of other baskettails, and is especially hard to separate from the slender baskettail (*E. costalis*), with which it may hybridize. They are swift, erratic, agile fliers, often hunting over fields in large swarms.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH common baskettail
1.5″ – 1.7″ (37-44 mm)

Species' length (shown to scale)

photography | COMMON BASKETTAIL: DAVE McSHAFFREY

Epitheca princeps (Eh-pith-eh-ka • prin-seps)

PRINCE BASKETTAIL

HINDWING
1.5" – 1.9" (38-48 mm)

HABITAT
Lakes, ponds, and slow-moving rivers

FLIGHT PERIOD
May 6 to September 21

AREA OF OHIO
Common statewide

DISCUSSION prince baskettail

Much larger than the common baskettail, with a spotted pattern in the wings that is highly variable. Some authors place this species in a separate genus, *Epicordulia*. Eyes of mature males are bright green; females and immatures have brownish eyes. Often perches with abdomen curled upwards. They patrol five or six feet off the water or over fields with wing beats alternating with brief glides. Frequently active very late into the evening.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH prince baskettail
2.2" – 2.7" (56-68 mm)

Species' length (shown to scale)

photography | PRINCE BASKETTAIL: DAVE McSHAFFREY

Celithemis elisa (Sel-ih-theme-iss • e-lize-ah)

CALICO PENNANT

HINDWING
0.9" – 1.1" (24-28 mm)

HABITAT
Ponds and lakes

FLIGHT PERIOD
May 23 to September 26

AREA OF OHIO
Common statewide

DISCUSSION calico pennant

Look for the large reddish spot at the base of the hindwing, and the red (males) or yellow (females or immature males) heart-shaped markings on the top of the abdomen. Other Ohio pennants have orange and black wings, or clear wings with dark bands. When not patrolling the edge of a pond, they can often be found perching at the tips of tall shore-side vegetation.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH calico pennant
0.9" – 1.3" (24-34 mm)

Species' length (shown to scale)

photography | CALICO PENNANT (male): WILLIAM HULL; (female): DAVE McSHAFFREY

Celithemis eponina (Sel-ih-theme-iss • ep-oh-nee-nah)
HALLOWEEN PENNANT

HINDWING
1.2" – 1.4" (30-34 mm)

HABITAT
Ponds, lakes, marshes, slow streams

FLIGHT PERIOD
June 5 to October 8

AREA OF OHIO
Common statewide

DISCUSSION halloween pennant

This is the largest of the three pennants found in Ohio, and one of our most striking dragonflies. Its orange and black wings are distinctive; other Ohio pennants have clear wings with dark markings (pennants not matching the characters for the two pennants in this booklet are probably banded pennants). Like calico pennants, Halloween pennants often perch on tall plants adjacent to water.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH halloween pennant
1.2" – 1.7" (30-42 mm)

Species' length (shown to scale)

photography | HALLOWEEN PENNANT (male): JIM McCORMAC; (female): WILLIAM HULL

Erythemis simplicicollis (Er-ee-theme-us • sim-plis-ih-col-iss)

EASTERN PONDHAWK

HINDWING
1.2" – 1.3" (30-33 mm)

HABITAT
Ponds, lakes, and slow-moving streams

FLIGHT PERIOD
May 14 to October 18

AREA OF OHIO
Common statewide

DISCUSSION eastern pondhawk

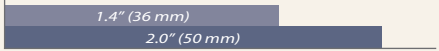
This ferocious mid-sized dragonfly eats anything it can catch, from deer flies, horseflies, and butterflies to other dragonflies as big as itself. Females and immature males are a distinctive lime-green. As males mature they turn powder-blue; first the abdomen, then gradually the thorax. They are easily separated from other blue dragonflies by their green face and off-white claspers.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH eastern pondhawk
1.4" – 2.0" (36-50 mm)

Species' length (shown to scale)



photography | EASTERN PONDHAWK (male & female): WILLIAM HULL

Leucorrhinia intacta (Loo-kor-rye-nee-ah • in-tak-tah)

DOT-TAILED WHITEFACE

HINDWING
0.9" – 1.1" (24-28 mm)

HABITAT
Ponds and lakes with marshy or boggy edges

FLIGHT PERIOD
April 29 to August 1

AREA OF OHIO
About half of the state, mostly northeast, northwest and central regions

DISCUSSION dot-tailed whiteface

Easily recognized by its white face and dorsal yellow spot on segment 7 (2 to 7 in females and immature males). They perch on lily pads or low vegetation near the water's edge, flying up to forage one or two feet above the water. Like other skimmers, females oviposit by tapping their abdomen onto the water's surface. The male hovers nearby during oviposition to keep other males away.

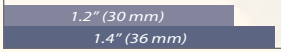
*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH dot-tailed whiteface

1.2" – 1.4" (30-36 mm)

Species' length (shown to scale)



Close-up of white face

Eggs on the female's abdomen

photography | DOT-TAILED WHITEFACE (dragonfly, close-up, & abdomen): DAVE McSHAFFREY

Libellula luctuosa (Lee-bel-you-lah • luk-tew-oh-sa)

WIDOW SKIMMER

HINDWING
1.5″ – 1.6″ (38-40 mm)

HABITAT
Ponds, lakes, marshes and slow streams

FLIGHT PERIOD
May 4 to October 17

AREA OF OHIO
Common statewide

DISCUSSION widow skimmer

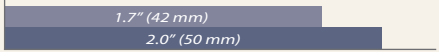
A large, frequently seen dragonfly characteristic of all manner of ponds and wetlands. Our only skimmer with a dark band covering the basal third of both wings. The male has whitish markings just beyond the black basal band and females often have dark wing tips. The female oviposits by dipping its abdomen on the surface of the water and is usually not guarded by the male. Both sexes often feed in fields.

*Color indicates counties with recorded species collection**

*Reflects historic and modern records

LENGTH widow skimmer
1.7″ – 2.0″ (42-50 mm)

Species' length (shown to scale)



photography | WIDOW SKIMMER (male): WILLIAM HULL; (female): JIM McCORMAC

Libellula pulchella (Lee-bel-you-lah • pul-chel-ah)

TWELVE-SPOTTED SKIMMER

HINDWING
1.5" – 1.8" (39-46 mm)

HABITAT
Ponds, lakes, marshes and slow streams

FLIGHT PERIOD
May 11 to October 7

AREA OF OHIO
Common statewide

DISCUSSION twelve-spotted skimmer

Pulchella is a Greek word meaning beautiful – which aptly fits the male. They have showy white spots interspersed between the 12 dark wing spots, creating a flashing kaleidoscope effect in bright sunshine. Females are similar to female common whitetails, but have straight yellow stripes on the abdomen instead of white zig-zag stripes. This strong flier returns regularly to territorial perches on plants or branches over the water. Females oviposit unguarded by their mate, and as a result are often chased by other males, making egg-laying a real challenge.

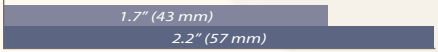
*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH twelve-spotted skimmer

1.7" – 2.2" (43-57 mm)

Species' length (shown to scale)



photography | TWELVE-SPOTTED SKIMMER (male): DAVE McSHAFFREY; (female): WILLIAM HULL

Libellula semifasciata (Lee-bel-you-lah • sim-ee-fas-see-ate-ah)

PAINTED SKIMMER

HINDWING
1.2" – 1.5" (31-37 mm)

HABITAT
Ponds with vegetated margins, fens, wet meadows – preferably fishless

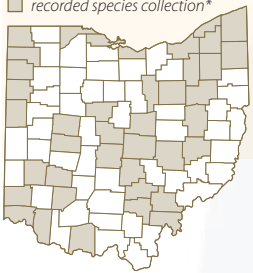
FLIGHT PERIOD
April 25 to August 9

AREA OF OHIO
Widely scattered throughout much of the state

DISCUSSION painted skimmer

Each wing has three amber-colored spots and the body is rusty brown. Like other skimmers, it perches on tall weeds in its territory. They may feed in fields far from aquatic habitats. Along the eastern coastal states, it is considered a spring migrant, but such behavior is not known here. Mating takes place in flight and the male guards the ovipositing female.

*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

LENGTH painted skimmer
1.4" – 1.9" (36-48 mm)

Species' length (shown to scale)

photography | PAINTED SKIMMER: JUDY SEMROC

Libellula incesta (Lee-bel-you-lah • in-ses-tah)

SLATY SKIMMER

HINDWING
1.4" – 1.8" (36-45 mm)

HABITAT
Ponds, marshy lakes, and sluggish muck-bottomed streams

FLIGHT PERIOD
May 26 to September 22

AREA OF OHIO
Mainly extreme southern Ohio and north along the Allegheny Plateau; scattered records elsewhere

DISCUSSION slaty skimmer

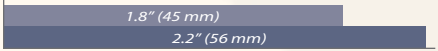
A large, striking dragonfly that is distinctive in that it is almost completely bluish-black (the "blueberry dragonfly") with clear wings marked by black stigmas, and a long slender abdomen. Females and immature males are quite different, with cream-colored and black thoraxes, and black abdomens marked on the sides with broken yellow dashes. Slaty skimmers often return to the same conspicuous perch, frequently a twig over the water, after making frequent, relatively brief patrols.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH slaty skimmer
1.8" – 2.2" (45-56 mm)

Species' length (shown to scale)



photography | SLATY SKIMMER: WILLIAM HULL

BLUE DASHER

Pachydiplax longipennis (Pak-ee-dih-plax • lon-gih-pen-iss)

HINDWING
1.0″ – 1.7″ (25-42 mm)

HABITAT
Ponds, lakes, marshes, and slow streams

FLIGHT PERIOD
May 9 to October 4

AREA OF OHIO
Common statewide

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

DISCUSSION blue dasher

Males are small with a bluish abdomen, three dark stripes on the side of the thorax, and relatively long wings. Females are similar, but with brownish coloration. Dashers can live in almost any aquatic habitat, but are most numerous in shallow, marshy ponds and well-vegetated lake borders. In high densities they are very aggressive and highly territorial. Males face off inches from each other with raised abdomens, darting skyward and sometimes out of sight. Dashers often perch with their wings angled downward. In hot weather they point their abdomen toward the sun in the *obelisk* position to reduce heat exposure.

LENGTH blue dasher
1.0″ – 1.8″ (26-45 mm)

photography | BLUE DASHER (male & female): WILLIAM HULL

Pantala flavescens (Pan-tal-ah • fla-ves-ens)

WANDERING GLIDER

HINDWING
1.4″ – 1.7″ (36-43 mm)

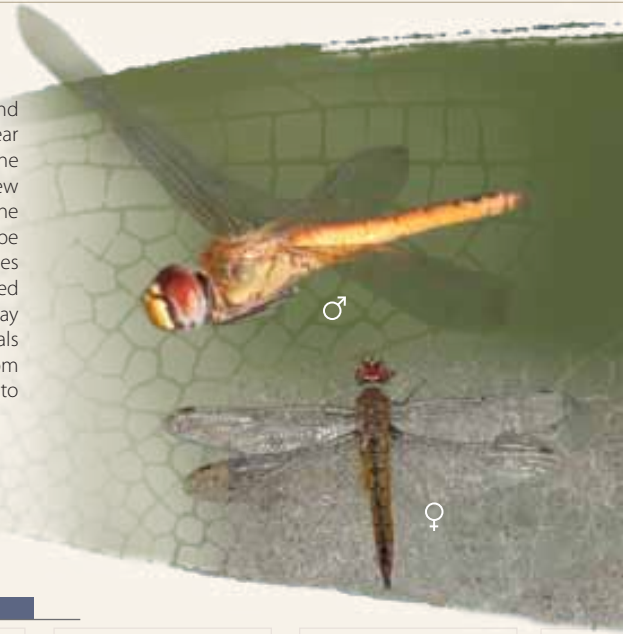
HABITAT
Ponds and temporary pools; migrants can appear anywhere, even far from water

FLIGHT PERIOD
June 19 to November 1

AREA OF OHIO
Only reported from 43 counties, but highly migratory and could be expected anywhere in the state

DISCUSSION wandering glider

The exceptionally broad hindwings and overall tawny to orange color and clear wings quickly identify this species. The nearly effortless gliding flight with few wing beats is also distinctive. This is the only dragonfly found all around the globe and they have been seen hundreds of miles out to sea. Wandering gliders select isolated ponds and even temporary rain pools to lay their eggs; habitats that few other animals can easily utilize. They can transform from an egg, to larva, to emerging adult in 51 to 72 days.



*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH wandering glider
1.7″ – 2.0″ (44-51 mm)

Species' length (shown to scale)

1.7″ (44 mm)

2.0″ (51 mm)

photography | WANDERING GLIDER (male): WILLIAM HULL; (female): DAVE McSHAFFREY

Perithemis tenera (Per-ih-theme-iss • ten-er-ah)

EASTERN AMBERWING

HINDWING
0.6" – 0.8" (16-20 mm)

HABITAT
Ponds, lakes, and slow streams

FLIGHT PERIOD
May 30 to September 30

AREA OF OHIO
Common statewide

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

DISCUSSION eastern amberwing

The smallest dragonfly you are likely to see in Ohio (the even smaller elfin skimmer is discussed under "Endangered Species"). Eastern amberwing males are commonly seen on the edges of ponds and lakes. The males have amber to orange wings while the females' wings are clear with brown patches. They fly low over the water and may perch on shoreline vegetation or on material floating in the water. Females often occur in vegetation far from water and are much less obvious than males. They are quite wasp-like, both in manner of flight and how they twitch their abdomen when perched.

LENGTH eastern amberwing
0.75" – 1.0" (20-25 mm)

Species' length (shown to scale)

photography | EASTERN AMBERWING (male & female): WILLIAM HULL

Plathemis lydia (Pla-theme-iss • lid-ee-ah)

COMMON WHITETAIL

HINDWING
1.1" – 1.4" (29-35 mm)

HABITAT
Ponds, lakes, and slow streams

FLIGHT PERIOD
April 14 to October 1

AREA OF OHIO
Common statewide

DISCUSSION common whitetail

Male common whitetails are easily recognized by the white abdomen, black band in the middle of the wings, and the small white patch on the hindwings. Females are similar to some other skimmers, but look for spots at the base, the nodus (middle) and tips of the wings, and diagonal white or yellowish stripes along the abdomen. Males often perch on the ground in a sunny spot near a lake or pond. At ponds they defend a territory up to 30 feet long and chase away other males. Females are more secretive, coming to the water to mate and lay eggs.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH common whitetail
1.5" – 1.9" (38-48 mm)

Species' length (shown to scale)

photography | COMMON WHITETAIL (male): DAVE McSHAFFREY; (female): WILLIAM HULL

Sympetrum rubicundulum (Sim-pet-rum • roo-bih-kun-dule-um)

RUBY MEADOWHAWK

HINDWING
1.0" – 1.2" (24-30 mm)

HABITAT
Ponds, marshes, and other aquatic habitats

FLIGHT PERIOD
May 30 to October 25

AREA OF OHIO
Documented in most counties; likely occurs in all of them

DISCUSSION ruby meadowhawk

This is the most common of eight species of meadowhawks in Ohio. Males are bright red, with a yellowish face. Females are yellow to yellow-green-brown. Both sexes have dark brown to black triangles along the sides of the abdomen. Ruby meadowhawks often forage in fields, sometimes well away from water. They oviposit in tandem; the male using its claspers to hold the female's head (as in copulation) while the female dips her abdomen on the surface of the water. Rarely, the female oviposits alone.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH ruby meadowhawk
1.1" – 1.5" (29-38 mm)

Species' length (shown to scale)

photography | RUBY MEADOWHAWK: DAVE McSHAFFREY

Sympetrum semicinctum (Sim-pet-rum • sem-eye-sink-tum)

BAND-WINGED MEADOWHAWK

HINDWING
0.7" – 0.9" (18-23 mm)

HABITAT
Vegetated pond and lake borders, marshes and other wetlands

FLIGHT PERIOD
May 20 to September 26

AREA OF OHIO
Widespread; in about half of the counties, but apparently absent in extreme southern counties

DISCUSSION band-winged meadowhawk

The only reddish meadowhawk with amber to brownish coloring on the basal third of the wings (further west, the ruby meadowhawk often has the same wing coloring. While this coloring has not been noted in Ohio, positive ID is best done by examination of the genitalia). As in other meadowhawks, they often forage in fields and oviposit in tandem. Apparently they are very susceptible to predation by fish while in the larval stage, hence the tendency to inhabit shallow, fishless wetlands.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH band-winged meadowhawk

0.9" – 1.2" (24-31 mm)

Species' length (shown to scale)

photography | BAND-WINGED MEADOWHAWK: DAVE McSHAFFREY

Sympetrum vicinum (Sim-pet-rum • vih-sin-um)

AUTUMN MEADOWHAWK

HINDWING
0.8" – 1.0" (20-26 mm)

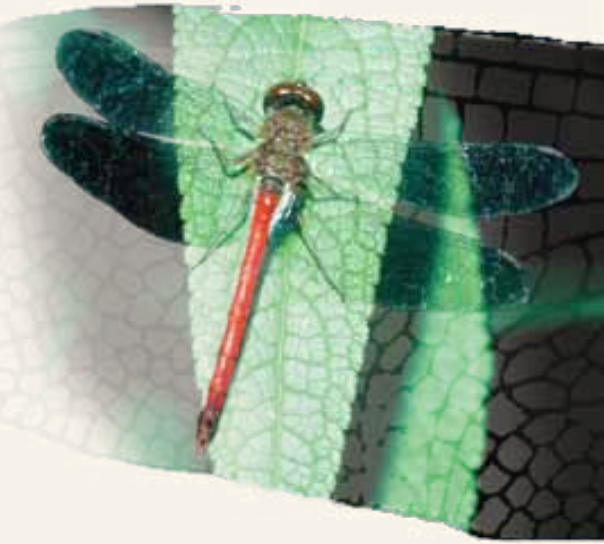
HABITAT
Ponds and slow streams

FLIGHT PERIOD
May 29 to November 18

AREA OF OHIO
Reported from most counties and should occur in every county

DISCUSSION autumn meadowhawk

Previously known as the yellow-legged meadowhawk, this is one of the latest flying species in the fall. While the legs are typically yellow, they may become red-brown in old males. There are unofficial sight records into December in extreme southern Ohio. They can feed at temperatures slightly below 50°F and survive hidden during cold weather, reappearing on Indian summer days. The sighting of an autumn meadowhawk on a sunny November day adds a pleasant touch to late fall.



*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

LENGTH autumn meadowhawk

1.1" – 1.4" (29-35 mm)

Species' length (shown to scale)

photography | AUTUMN MEADOWHAWK: R.C. GLOTZHOBER

Tramea lacerata (Tram-ee-ah • las-er-ate-ah)

BLACK SADDLEBAGS

HINDWING
1.6" – 1.9" (41-48 mm)

HABITAT
Ponds, lakes, marshes, slow streams

FLIGHT PERIOD
May 9 to October 15

AREA OF OHIO
Common statewide

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

DISCUSSION black saddlebags

The black band on the base of the hindwing is diagnostic (note that the widow skimmer has black on the base of *both* wings). The hind wings are also very wide, making them excellent fliers and gliders. They are known to migrate and probably do this in stages; the newly emerged adults fly north in the spring, mate and oviposit; the resulting larvae transform to adults in late summer to early fall and fly south, mating after they arrive. The last (third brood) larvae emerge as adults the following spring and start the cycle over again. Migrants can appear anywhere, even far from water.

LENGTH black saddlebags

1.8" – 2.2" (45-55 mm)

Species' length (shown to scale)

1.8" (45 mm)

2.2" (55 mm)

photography | BLACK SADDLEBAGS (single & pair): WILLIAM HULL

ENDANGERED SPECIES

DISCUSSION endangered species

Dragonflies and damselflies spend the majority of their life as eggs or larvae in the water. Since Ohio has lost over 90 percent of its wetlands and many of its rivers and streams have been adversely impacted by pollution, it's not surprising that 16 species of Odonata have been listed as endangered in Ohio. The cause of endangerment in every case has been habitat destruction or degradation. The solution to protecting dragonflies and damselflies is to protect our aquatic resources. Clean water for drinking and recreation, clean water for many other aquatic and wetland species, and adequate wetlands to help reduce flooding and drought — these are also complemented by the enjoyment of gossamer-winged beauties making spectacular aeronautic maneuvers on lazy summer afternoons. Report sightings of any of these species to the Ohio Division of Wildlife, and/or the authors.

We discuss only three of the 16 state endangered species, in this booklet. The last, the Hine's emerald, is also the only federally endangered dragonfly in the United States. For the status of other rare Ohio dragonflies, check the complete list of species at the back of this booklet.

photography | DRAGONFLY: R.C. GLOTZHOBER

Dorocordulia libera (Dor-oh-kor-dule-ee-ah • lib-er-ah) • (family *Corduliidae*)

RACKET-TAILED EMERALD

HINDWING
1.0" – 1.2" (26-31 mm)

HABITAT
Acidic kettle lake bogs

FLIGHT PERIOD
May 24 to July 15

AREA OF OHIO
Known historically from a single boggy pond in Geauga County, but not seen there since 1924. An apparently healthy population was discovered in 1999 at Singer Lake Bog in Summit County and a smaller population was found in 2002 near the historic site in Geauga County.

*Color indicates counties with recorded species collection**

**Reflects historic and modern records*

DISCUSSION racket-tailed emerald

This small, hairy emerald is distinctive with its almost clubtail-like swollen tip of the abdomen that provides its common name. At Singer Lake Bog they are easy to approach and observe. It was fortuitous that this species was discovered at Singer as the Cleveland Museum of Natural History has acquired and protected most of this wetland.

THREATS racket-tailed emerald

Since the racket-tailed emerald seems confined to boggy pond and lake edges, the draining of wetlands likely caused significant loss of this species. Ninety-eight percent of Ohio's original bogs have been destroyed, and these are where this species would have occurred. However, there remain wetlands in Ohio that seem to be appropriate habitat, but which lack this species. There are likely other yet unidentified threats to this species in Ohio.

LENGTH racket-tailed emerald

1.5" – 1.7" (37-43 mm)
Species' length (shown to scale)

photography | RACKET-TAILED EMERALD: R.C. GLOTZHOBER

Nannothemis bella (Nan-oh-theme-iss • bel-lah) • (Family *Libellulidae*)

ELFIN SKIMMER

HINDWING
0.4" – 0.6" (10-16 mm)

HABITAT
Bogs and fens, with water only a few inches deep

FLIGHT PERIOD
June 1 to September 17 (mostly in June and July)

AREA OF OHIO
Currently known only from Cedar Bog Nature Preserve in Champaign County, Singer Lake Bog, and Myersville Fen Preserve in Summit County.

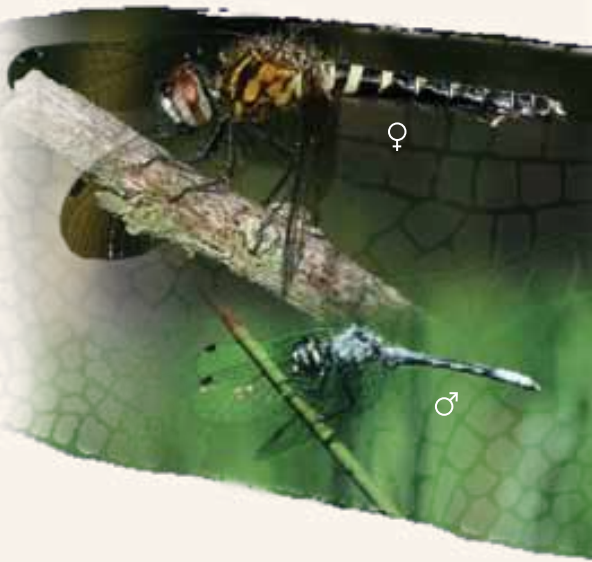
**Reflects historic and modern records*

DISCUSSION elfin skimmer

This is the smallest dragonfly in North America. Males become bluish with age, females are a wasp-like black with yellow rings on the abdomen. They perch very low over ankle-deep water, often sitting with wings angled downward. A male will defend a territory of only two square yards. Females may oviposit in tandem with the male, or alone, dipping their abdomen into water one to two inches deep.

THREATS elfin skimmer

Throughout its range the elfin skimmer lives in widely scattered populations. Ohio's populations are 130 miles apart, and an equal distance from the next closest known populations. Such isolation can lead to genetic degradation. At least three other areas with this species were briefly known between 1930 and 1960 before they disappeared due to drainage for agriculture and other habitat changes. No one knows why this species does not survive at other remnant fens or bogs in Ohio.



LENGTH elfin skimmer
0.7" – 0.8" (18-21 mm)
Species' length (shown to scale)

photography | ELFIN SKIMMER (male): CLARK SHIFFER; (female): JUDY SEMROC

Somatochlora hineana (So-mat-oh-klor-ah • hine-ee-an-ah) • (Family *Corduliidae*)

HINE'S EMERALD

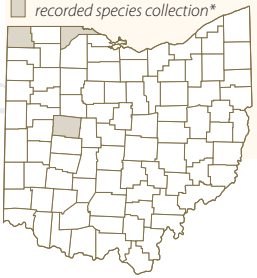
HINDWING
1.6" – 1.7" (40-42 mm)

HABITAT
Tiny rivulets flowing through wetlands over dolomite or limestone soils

FLIGHT PERIOD
June 7 to July 1 in Ohio. Through August in some other parts of its range

AREA OF OHIO
Once known from the Indian Lake area of Logan County, around Mud Lake in Williams County, and the Oak Openings of Lucas County. It is possibly now extirpated from Ohio, having not been found since 1961.

*Color indicates counties with recorded species collection**



**Reflects historic and modern records*

DISCUSSION hine's emerald

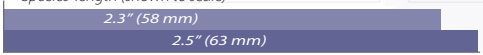
Populations of this rare species persist in a small area south of Chicago, in the Door County Peninsula of Wisconsin, several areas near the Mackinaw Bridge in Michigan, and a small area of fens in Missouri. The bright green eyes of a mature adult, the yellow stripes on the sides of the thorax, and the uniquely shaped claspers of the male are clearly diagnostic. This species was discovered by Professor James Hine, first curator of natural history of the Ohio Historical Society from specimens in a shallow stream near Indian Lake. Living in shallow wetlands, the larvae have been discovered to survive winter and drought by using crayfish burrows. It is not clear yet how they avoid getting eaten by the crayfish!

THREATS hine's emerald

Loss of habitat from wetland drainage and pollution (limestone mining in some areas).

LENGTH hine's emerald
2.3" – 2.5" (58-63 mm)

Species' length (shown to scale)



Close-up of male claspers

photography | HINE'S EMERALD (single & close-up): R.C. GLOTZHOBER

Glossary

Abdomen – The most posterior section of an odonate; elongate and cylindric, comprised of 10 segments. Sometimes incorrectly referred to as the "tail."

Antenna - Whip-like sensory organs attached to the top of the head. In odonates these are very short.

Anterior – Towards the front

Bog – Acidic wetlands formed in kettle-lake depressions with a dominant substrate of Sphagnum moss

Brood – Offspring from a hatch

Claspers – Small appendages at the end of the abdomen of male odonates; used to grasp the female during mating

Compound Eye – The paired, large eyes of odonates, which are comprised of many individual facets (photoreceptor units), collectively forming a large multi-faceted eye (odonates also have three smaller simple eyes, the ocelli)

Damselfly – Small odonates that generally hold their wings together over the abdomen when perched

Dorsal – Upper surface

Dragonfly – An odonate that generally perches with wings held straight out from the body

Extirpated – Locally extinct; gone in a given region, but still present in others

Exuviae – The castoff shell or exoskeleton of the larva

Facet – An individual unit of the compound eye, also known as ommatidia. Each facet contains photoreceptor cells.

Femur – Section of leg closest to the body

Fen – Neutral to alkaline wetlands formed from cold flowing waters derived from artesian springs and dominated by sedges and other specialized flora

Genitalia – The external sex organs. In males these are typically visible on the ventral surface of the 2nd abdominal segment. Female sex organs in Odonata are all internal.

Head – The most anterior section segment of an odonate, to which the eyes are attached

Instar – A specific stage of development of a larva. Each successive instar is larger than the previous, and some species of odonata may have as many as 15 instar stages.

Larva – Aquatic immature stage of an odonate; also known as a nymph. The plural form is larvae.

Leg – Odonates have six, and each leg can be divided into three parts. The femur is the top section closest to the body; the tibia is the second section; and the tarsus (or foot) is formed by three segments and a claw at the bottom of the leg.

Marsh – A type of wetland dominated by emergent herbaceous plants, such as cattails

Nodus – A small indentation about midway on the leading edge of the forewing of some species

Nymph – An older term referring to the aquatic larval stage of odonates

Obelisking – A method of perching in which the dragonfly tilts its abdomen sharply upward and towards the sun; aids in heat dissipation on hot sunny days

Ocelli – Three very small, simple eyes found between the antennae of odonates

Odonata – The order of insects that includes dragonflies and damselflies (odonates)

Opsin – Light sensitive protein-based receptors found within the photoreceptors of the compound eye

Oviposit – Placement of eggs into water, plants, or other medium by the female

Ovipositor – Structure used for egg-laying in females; located on ventral surface of abdomen segments 8-10

Photoreceptor – Also known as ommatidia, they convert light into signals that are sent to the brain and form visual images

Posterior – Towards the rear

Prothorax – Foremost of the three thorax segments, and the one to which the front pair of legs are attached

Pruinosity - A waxy whitish coating that forms with age on some species of Odonata, such as the common whitetail

Raptorial Spine – Stiff projections on the legs of some odonates such as black-shouldered spinyleg; used to form a basket to better secure prey

Segment – Any of 10 separate sections comprising the abdomen; they are often cited as numbers; 1 being the most anterior, 10 being the most posterior

Spreadwing – Large, long-bodied damselflies that hold their wings partially spread when perched

Stigma – Small colored patches or cells near the tip of the leading edge of the wing

Swamp – A forested wetland dominated by woody plants such as trees or shrubs

Tandem – A position in which the male holds female with claspers. When a pair is in tandem, they are connected head to tail and are often seen in flight in this position

Tarsus – A claw and three individual segments attached to the tibia. The foot of the insect

Teneral – A dragonfly or damselfly newly emerged from the larva; the wings and exoskeleton have not yet hardened. Tenerals have a shiny, soft appearance and a very weak fluttery flight. They are very vulnerable during this stage, which may last several days.

Thorax – The middle section of an odonate, to which the legs and wings are attached

Tibia – Second section of the leg, to which the tarsus attaches

Ventral – Lower surface

Wheel Position – Male and female are connected during mating, forming a rough heart shape. The male clasps the female's head, and the female's abdomen tip is locked to the male's genitalia under abdomen segment two.

Wing – Odonates have four; the posterior pair is the hindwings, the anterior pair are the forewings

Checklist for Ohio's dragonflies & damselflies

(includes all species thus far recorded in Ohio; page numbers given for species included in this booklet)

Broad-winged Damsel Family – *Calopterygidae*

- ☐ American Rubyspot, *Hetaerina americana* 12
- ☐ Appalachian Jewelwing, *Calopteryx angustipennis*
- ☐ Ebony Jewelwing, *Calopteryx maculata* 11
- ☐ River Jewelwing, *Calopteryx aequabilis*
- ☐ Smokey Rubyspot, Hetaerina titia

Pond Damsel Family – *Coenagrionidae*

- ☐ Atlantic Bluet, *Enallagma doubledayi*
- ☐ Aurora Damsel, *Chromagrion conditum* 19
- ☐ Azure Bluet, *Enallagma aspersum* 21
- ☐ Blue-fronted Dancer, *Argia apicalis* 14
- ☐ Blue-ringed Dancer, *Argia sedula* 17
- ☐ Blue-tipped Dancer, *Argia tibialis* 18
- ☐ Boreal Bluet, *Enallagma boreale*
- ☐ Citrine Forktail, *Ischnura hastata* 27
- ☐ Double-striped Bluet, *Enallagma basidens* 22
- ☐ Dusky Dancer, *Argia translata*
- ☐ Eastern Forktail, *Ischnura verticalis* 29
- ☐ Eastern Red Damsel, *Amphiagrion saucium* 13
- ☐ Familiar Bluet, *Enallagma civile* 23
- ☐ Fragile Forktail, *Ischnura posita* 28
- ☐ Furtive Forktail, *Ischnura prognata*
- ☐ Hagen's Bluet, *Enallagma hageni*
- ☐ Lilypad Forktail, *Ischnura kellicotti*
- ☐ Marsh Bluet, *Enallagma ebrium*
- ☐ Northern Bluet, *Enallagma cyathigerum*
- ☐ Orange Bluet, *Enallagma signatum* 26
- ☐ Powdered Dancer, *Argia moesta* 16
- ☐ Rainbow Bluet, *Enallagma antennatum* 20
- ☐ Sedge Sprite, *Nehalennia irene*
- ☐ Seepage Dancer, *Argia bipunctulata*
- ☐ Skimming Bluet, *Enallagma geminatum* 25
- ☐ Sphagnum Sprite, *Nehalennia gracilis*
- ☐ Stream Bluet, *Enallagma exsulans* 24
- ☐ Taiga Bluet, *Coenagrion resolutum*
- ☐ Tule Bluet, *Enallagma carunculatum*
- ☐ Turquoise Bluet, *Enallagma divagans*
- ☐ Vesper Bluet, *Enallagma vesperum*
- ☐ Violet Dancer, *Argia fumipennis violacea* 15
- ☐ Western Slender Bluet, *Enallagma traviatum westfalli*

Spreadwing Damsel Family – *Lestidae*

- ☐ Amber-winged Spreadwing, *Lestes eurinus*
- ☐ Northern Spreadwing, *Lestes disjunctus*
- ☐ Elegant Spreadwing, *Lestes inaequalis*
- ☐ Emerald Spreadwing, *Lestes dryas*
- ☐ Great Spreadwing, *Archilestes grandis*
- ☐ Lyre-tipped Spreadwing, *Lestes unguiculatus*
- ☐ Slender Spreadwing, *Lestes rectangularis* 31
- ☐ Southern Spreadwing, *Lestes australis* 30
- ☐ Spotted Spreadwing, *Lestes congener*
- ☐ Swamp Spreadwing, *Lestes vigilax*
- ☐ Sweetflag Spreadwing, *Lestes forcipatus*

Petaltail Family – *Petaluridae*

- ☐ Gray Petaltail, *Tachopteryx thoreyi* 32

Darner Family – *Aeshnidae*

- ☐ Black-tipped Darner, *Aeshna tuberculifera*
- ☐ Canada Darner, *Aeshna canadensis*
- ☐ Comet Darner, *Anax longipes*
- ☐ Common Green Darner, *Anax junius* 34
- ☐ Cyrano Darner, *Nasiaeschna pentacantha*
- ☐ Fawn Darner, *Boyeria vinosa* 37
- ☐ Green-striped Darner, *Aeshna verticalis*
- ☐ Harlequin Darner, *Gomphaeschna furcillata*
- ☐ Lance-tipped Darner, *Aeshna constricta*
- ☐ Mottled Darner, *Aeshna clepsydra*
- ☐ Ocellated Darner, *Boyeria grafiana*
- ☐ Shadow Darner, *Aeshna umbrosa* 33
- ☐ Spatterdock Darner, *Rhionaeschna mutata*
- ☐ Springtime Darner, *Basiaeschna janata* 36
- ☐ Swamp Darner, *Epiaeschna heros* 35
- ☐ Taper-tailed Darner, *Gomphaeschna antilope*
- ☐ Variable Darner, *Aeshna interrupta*

Clubtail Family – *Gomphidae*

- ☐ Arrow Clubtail, *Stylurus spiniceps*
- ☐ Ashy Clubtail, *Gomphus lividus* 41
- ☐ Black-shouldered Spinyleg, *Dromogomphus spinosus* 39
- ☐ Cobra Clubtail, *Gomphus vastus*
- ☐ Common Sanddragon, *Progomphus obscurus*
- ☐ Dragonhunter, *Hagenius brevistylus* 42
- ☐ Dusky Clubtail, *Gomphus spicatus*
- ☐ Eastern Least Clubtail, *Stylogomphus albistylus*
- ☐ Eastern Ringtail, *Erpetogomphus designatus*
- ☐ Elusive Clubtail, *Stylurus notatus*
- ☐ Flag-tailed Spinyleg, *Dromogomphus spoliatus*
- ☐ Green-faced Clubtail, *Gomphus viridifrons*
- ☐ Handsome Clubtail, *Gomphus crassus*
- ☐ Lancet Clubtail, *Gomphus exilis*
- ☐ Laura's Clubtail, *Stylurus laurae*
- ☐ Lilypad Clubtail, *Arigomphus furcifer*
- ☐ Midland Clubtail, *Gomphus fraternus* 40
- ☐ Northern Pygmy Clubtail, *Lanthus parvulus*
- ☐ Plains Clubtail, *Gomphus externus*
- ☐ Pronghorn Clubtail, *Gomphus graslinellus*
- ☐ Rapids Clubtail, *Gomphus quadricolor*

Clubtail Family – *Gomphidae (continued)*
- ☐ Riffle Snaketail, *Ophiogomphus carolus*
- ☐ Riverine Clubtail, *Stylurus amnicola*
- ☐ Russet-tipped Clubtail, *Stylurus plagiatus*
- ☐ Rusty Snaketail, *Ophiogomphus rupinsulensis*
- ☐ Skillet Clubtail, *Gomphus ventricosus*
- ☐ Southern Pygmy Clubtail, *Lanthus vernalis*
- ☐ Spine-crowned Clubtail, *Gomphus abbreviatus*
- ☐ Splendid Clubtail, *Gomphus lineatifrons*
- ☐ Unicorn Clubtail, *Arigomphus villosipes* 38

Spiketail Family – *Cordulegastridae*
- ☐ Arrowhead Spiketail, *Cordulegaster obliqua* 43
- ☐ Brown Spiketail, *Cordulegaster bilineata*
- ☐ Delta-spotted Spiketail, *Cordulegaster diastatops*
- ☐ Tiger Spiketail, *Cordulegaster erronea*
- ☐ Twin-spotted Spiketail, *Cordulegaster maculata*

River Cruiser Family – *Macromiidae*
- ☐ Allegheny River Cruiser, *Macromia alleghaniensis*
- ☐ Georgia River Cruiser, *Macromia illinoiensis georgina*
- ☐ Gilded River Cruiser, *Macromia pacifica*
- ☐ Swift River Cruiser, *Macromia illinoiensis* 44
- ☐ Royal River Cruiser, *Macromia taeniolata*
- ☐ Stream Cruiser, *Didymops transversa*
- ☐ Wabash River Cruiser, *Macromia wabashensis*

Emerald Family – *Corduliidae*
- ☐ American Emerald, *Cordulia shurtleffii*
- ☐ Beaverpond Baskettail, *Epitheca canis*
- ☐ Brush-tipped Emerald, *Somatochlora walshii*
- ☐ Clamp-tipped Emerald, *Somatochlora tenebrosa*
- ☐ Common Baskettail, *Epitheca cynosura* 45
- ☐ Hine's Emerald, *Somatochlora hineana* 66
- ☐ Incurvate Emerald, *Somatochlora incurvata*
- ☐ Kennedy's Emerald, *Somatochlora kennedyi*
- ☐ Mocha Emerald, *Somatochlora linearis*
- ☐ Plains Emerald, *Somatochlora ensigera*
- ☐ Prince Baskettail, *Epitheca princeps* 46
- ☐ Racket-tailed Emerald, *Dorocordulia libera* 64
- ☐ Slender Baskettail, *Epitheca costalis*
- ☐ Smoky Shadowdragon, *Neurocordulia molesta*
- ☐ Stygian Shadowdragon, *Neurocordulia yamaskanensis*
- ☐ Uhler's Sundragon, *Helocordulia uhleri*
- ☐ Umber Shadowdragon, *Neurocordulia obsoleta*

Skimmer Family – *Libellulidae*
- ☐ Autumn Meadowhawk, *Sympetrum vicinum* 61
- ☐ Banded Pennant, *Celithemis fasciata*
- ☐ Band-winged Dragonlet, *Erythrodiplax umbrata*
- ☐ Band-winged Meadowhawk, *Sympetrum semicinctum* 60
- ☐ Black Saddlebags, *Tramea lacerata* 62
- ☐ Blue Corporal, *Ladona deplanata*
- ☐ Blue Dasher, *Pachydiplax longipennis* 55
- ☐ Blue-faced Meadowhawk, *Sympetrum ambiguum*
- ☐ Calico Pennant, *Celithemis elisa* 47
- ☐ Carolina Saddlebags, *Tramea carolina*
- ☐ Chalk-fronted Corporal, *Ladona julia*
- ☐ Cherry-faced Meadowhawk, *Sympetrum internum*
- ☐ Common Whitetail, *Plathemis lydia* 58
- ☐ Dot-tailed Whiteface, *Leucorrhinia intacta* 50
- ☐ Eastern Amberwing, *Perithemis tenera* 57
- ☐ Eastern Pondhawk, *Erythemis simplicicollis* 49
- ☐ Elfin Skimmer, *Nannothemis bella* 65
- ☐ Frosted Whiteface, *Leucorrhinia frigida*
- ☐ Four-spotted Skimmer, *Libellula quadrimaculata*
- ☐ Golden-winged Skimmer, *Libellula auripennis*
- ☐ Great Blue Skimmer, *Libellula vibrans*
- ☐ Halloween Pennant, *Celithemis eponina* 48
- ☐ Little Blue Dragonlet, *Erythrodiplax minuscula*
- ☐ Painted Skimmer, *Libellula semifasciata* 53
- ☐ Red Saddlebags, *Tramea onusta*
- ☐ Ruby Meadowhawk, *Sympetrum rubicundulum* 59
- ☐ Saffron-winged Meadowhawk, *Sympetrum costiferum*
- ☐ Slaty Skimmer, *Libellula incesta* 54
- ☐ Spangled Skimmer, *Libellula cyanea*
- ☐ Spot-winged Glider, *Pantala hymenaea*
- ☐ Striped Saddlebags, *Tramia calverti*
- ☐ Twelve-spotted Skimmer, *Libellula pulchella* 52
- ☐ Variegated Meadowhawk, *Sympetrum corruptum*
- ☐ Wandering Glider, *Pantala flavescens* 56
- ☐ White-faced Meadowhawk, *Sympetrum obtrusum*
- ☐ Widow Skimmer, *Libellula luctuosa* 51
- ☐ Yellow-sided Skimmer, *Libellula flavida*

Suggested References for More Study

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Readers are encouraged to consult any of the above references. If you are interested in joining the Ohio Odonata Society, contact them at: The Ohio Odonata Society, c/o OHS, 800 East 17th Ave., Columbus, Ohio 43211, or visit their website at http://www.marietta.edu/-odonata/index.html

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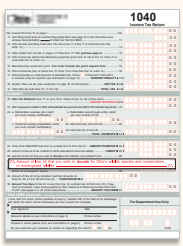

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