



# Ohio Spreadwings

2019 Ohio Dragonfly Conference

June 1, Rio Grande



## Spreadwing Damselflies - Family *Lestidae*

Factoid - Ancestral Spreadwing was the precursor to all Odonates

Factoid – largest Odonates are Spreadwings

Two Genera, only 11 OH species (NA 19)

How hard can this be?

## Well... Spreadwings


- Are sexually dimorphic
- Have similar coloration – typically not as bright
- Go through developmental changes

### Look for male and female

- together they can be defined to species
  - some males are very similar
  - some females are very similar
  - but pairs are unique when taken together
- 
- Most do best in waters with few or no fish
  - Many have egg-wintering habit



## Let's review field marks/indicators

- Wings spread - as opposed to folded over abdomen
  - Large stigma
  - Typically larger than other damsel groups
  - Mostly still-water habitats
  - Perch with abdomen angled down - in thick cover
  - Mate/fly at water later in the day
  - Oviposition is usually in tandem
  - Long legs with very long leg spines
- 



## Male Characteristics

- thinner abdomen
- terminal appendages (paraprocts/cerci)
- blue eyes

## Female Characteristics

- robust abdomen
- ovipositor

Size is a good starter

Flight date helps



## Thoracic markings

- wide stripes
- spots
- shoulder stripe
- middorsal carina

## Cerci - shape, size

## Ovipositor

- basal plate
  - rim of ovipositor
  - length relative to S10
- 




Wing color - amber or clear

Pruinosity – can help, then hinder

Coloration - muted

- back of head
- dorsal thorax/abdomen
- tarsi
- wingtips

S9 v S7 length





## Great Spreadwing *Archilestes grandis*

Largest Spreadwing, largest damsel

Bold yellow stripes on thorax

Only Spreadwing consistently associated with moving water

Flies late - Sept peak

Has greatly expanded its range in the last 100 years - now basically country-wide

Oviposits on woody stems over water

Tolerates poor water quality

Slightest smoky tint to wings – sometimes hard to see in photos

most similar - Amber-winged

Photo courtesy Rick Nirschl





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## Amber-winged Spreadwing *Lestes eurinus*

Large - size variable

Amber or golden or honey-colored wings

Female and immature Male have distinct thoracic pattern

Late Spring - Early Summer

Overwinters as late instar nymph (hence early flight)

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## Elegant Spreadwing

*Lestes inaequalis*

Large

Dark, metallic pigmentation

Bright pruinose terminal segments in  
Male

Flies late in the afternoon

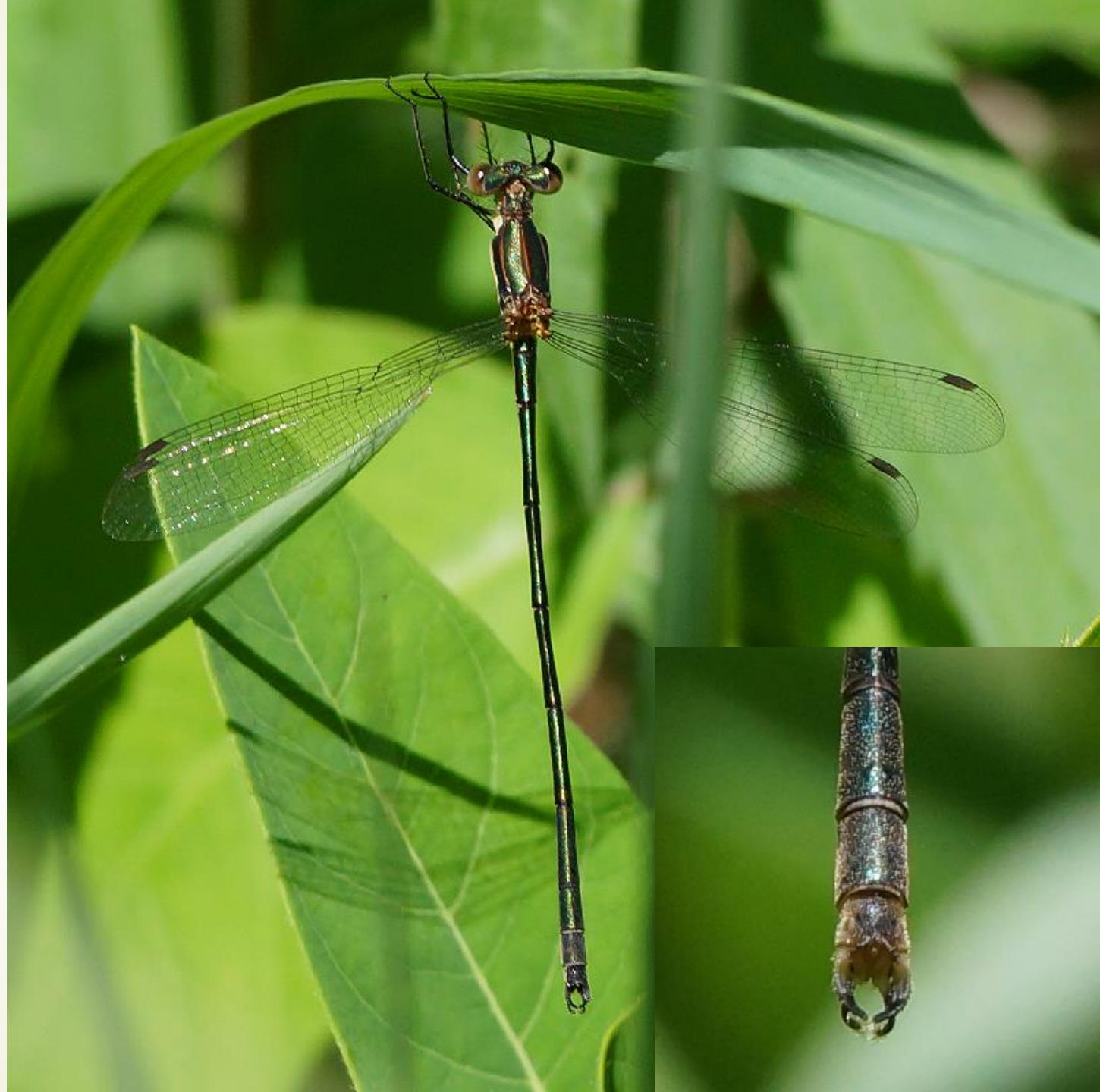
Late Spring - Early Summer

Distinctive terminal appendages in  
Male - paraprocts longer than cerci

Female has pale yellow on tibia, and  
back side of head

observed ovipositing on lily pads

most similar - Swamp



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## Swamp Spreadwing *Lestes vigilax*

Large

Dark pigmentation

July - peak in Late-July

Male paraprocts are long and thin, S8 not pruinose

Females have dark tibia, dark on back of head, reddish-brown shoulder stripes

most similar - Elegant



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of head, reddish-brown shoulder  
stripes

most similar - Elegant





## Slender Spreading *Lestes rectangularis*

Medium-Large

Mid-June through August, fly later in the day than most

Male abdomen twice as long as wings  
- not pruinose, paraprocts curved downward

White vein on wing-tips

Female - S7/S9 ratio, bulbous abdomen, ovipositor does not extend beyond abdomen





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Photo courtesy Sally Isacco



## **Emerald Spreadwing** *Lestes dryas*

Small - stocky

Habitat - fishless pools

Green metallic - glittering when newly emerged

Overwinters as egg

Long ovipositor, females proportionately stouter than other species

Distinctive, boot-shaped paraprocts

Photo courtesy Curtis Young





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## Lyre-tipped Spreadwing *Lestes unguiculatus*

Small

Male - unique paraprocts - shaped like a lyre, stigmas bordered with white

Male - more bronze than others, green shoulder stripe

Early Summer

Overwinters as egg



Photo courtesy Rick Nirschl



## Spotted Spreadwing *Lestes congener*

Smallest Spreadwing

Latest Flight - September

Unique pair of spots on ventral thorax

Least showy

Overwinters as egg



Photo courtesy Sarah White

## Spotted Spreadwing *Lestes congener*

Smallest Spreadwing

Latest Flight - September

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Least showy

Overwinters as egg



Photo courtesy Rick Asamoto



## Sweetflag Spreadwing

### *Lestes forcipatus*

Small - dark, Males become pruinose  
(except top of apical S3)

July

Females have large ovipositor

– length exceeds S10

Males can show single spot on ventral  
thorax, pruinose at wing base

Associated with habitat containing  
Sweetflag





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## Southern Spreadwing *Lestes australis*

Small - dark

Early Flight - May

Female - dark ovipositor, small dark spot ventrolaterally S3-7





## Northern Spreadwing *Lestes disjunctus*

Small - dark

Later Flight - Aug

Female - uniformly light colored  
ovipositor



# Spreadwing?

➤ Male



➤ Female





# Male

- ▶ Big? ~2"
- ▶ Thoracic stripes? late summer/autumn, moving water - Great
- ▶ Amber wings? late spring/early summer - Amber-winged
- ▶ White wingtips? - Slender
- ▶ Paraprocts longer than cerci? - Elegant
- ▶ Not these? - Swamp
- ▶ Small? < 1.5"
- ▶ Uniformly metallic green? - Emerald
- ▶ Two spots on underside of thorax? - Spotted
- ▶ Lyre shaped paraprocts? stigma bordered with white - Lyre-tipped
- ▶ Now it gets hard - you probably need a net, and look for females
- ▶ Common/Southern/Sweetflag





# Female

- ▶ Big?
- ▶ Thoracic stripes? robust? late summer/autumn - Great
- ▶ Amber wings? late spring/early summer - Amber-winged
- ▶ White *wingtips*? - Slender
- ▶ Dark legs and dark on back of head - Swamp
- ▶ Light stripes on legs and light on back of head - Elegant
- ▶ Small?
- ▶ Uniformly metallic green? - Emerald
- ▶ Two spots on underside of thorax? - Spotted
- ▶ Bronze head - Lyre-tipped
- ▶ Long ovipositor - Sweetflag
- ▶ Dark spots on lateral abdomen - Southern
- ▶ Light ovipositor - Northern

# References

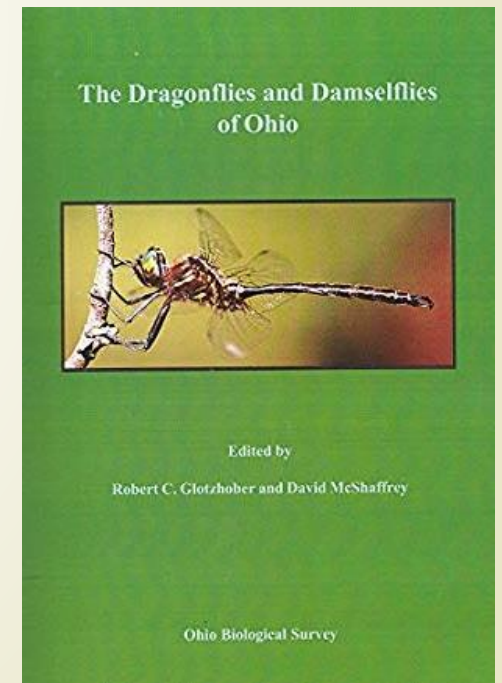
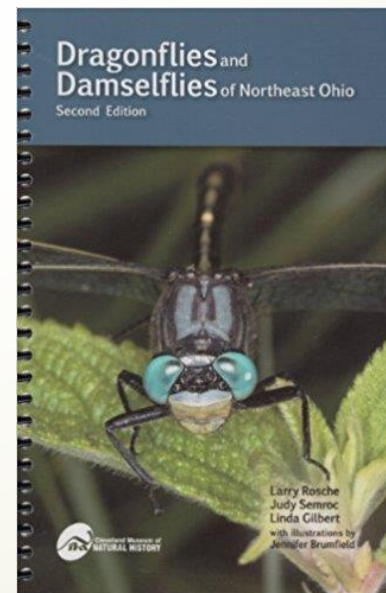
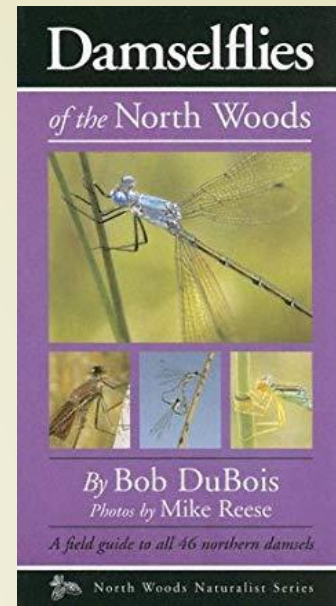
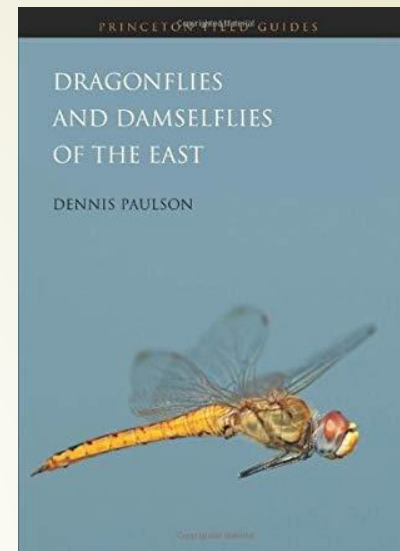
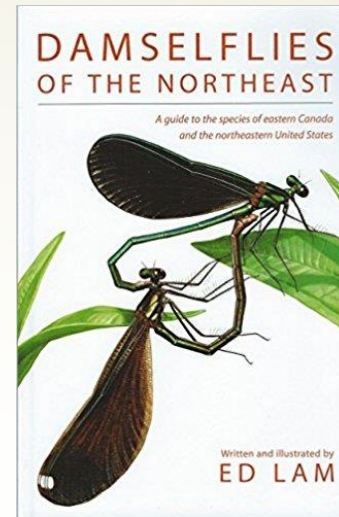
Dragonflies and Damselflies of Ohio –  
Glotzhober and McShaffrey

Dragonflies and Damselflies of  
Northeast Ohio – Rosche, Semroc,  
Gilbert

Damselflies of the Northeast - Lam

Damselflies of the Minnesota,  
Wisconsin & Michigan – DuBois

Dragonflies and Damselflies of the East  
- Paulson





## Contact Info

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Photo courtesy Phyllis Kelly