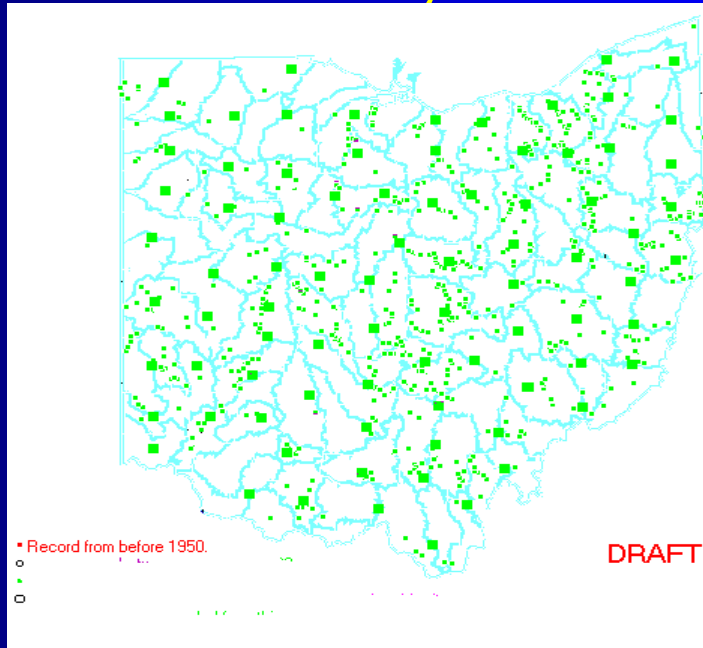




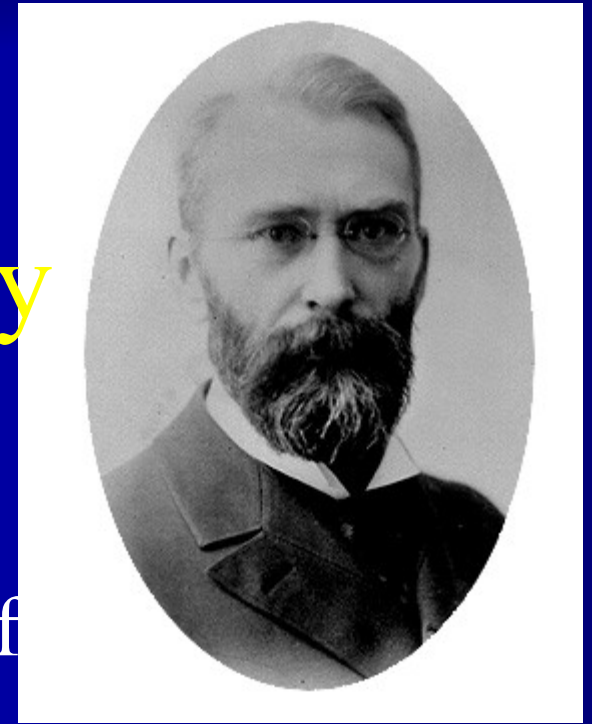
History of Odonata Study in Ohio



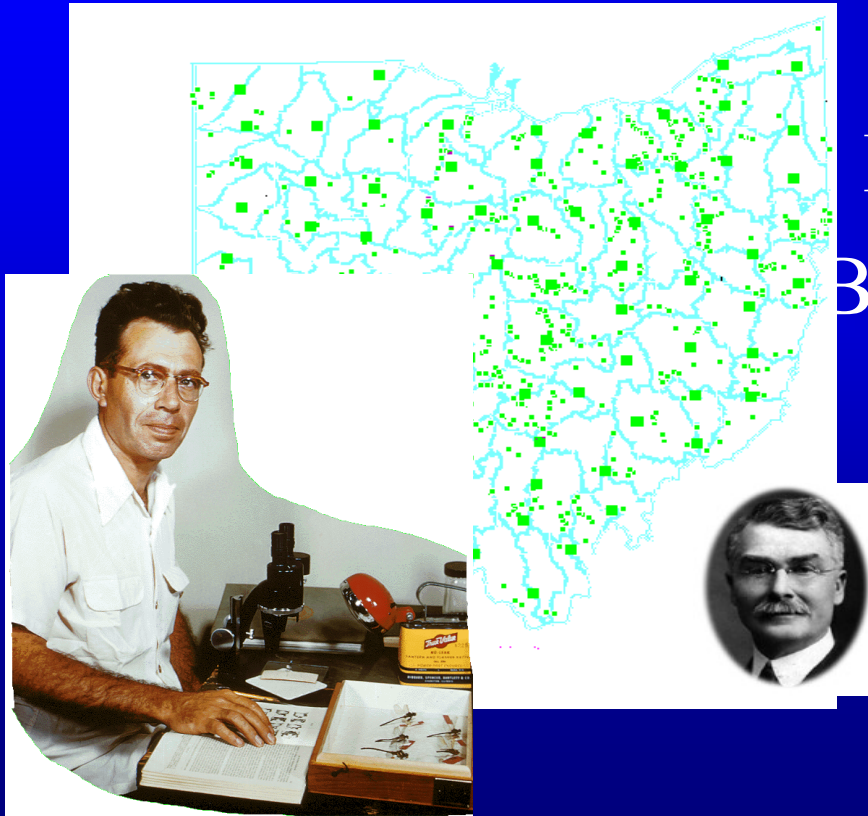
Dave McShaffrey
Biology Department
Marietta College



History of Odonata Study in Ohio



Dave McShaff
Biology Department
Marietta College



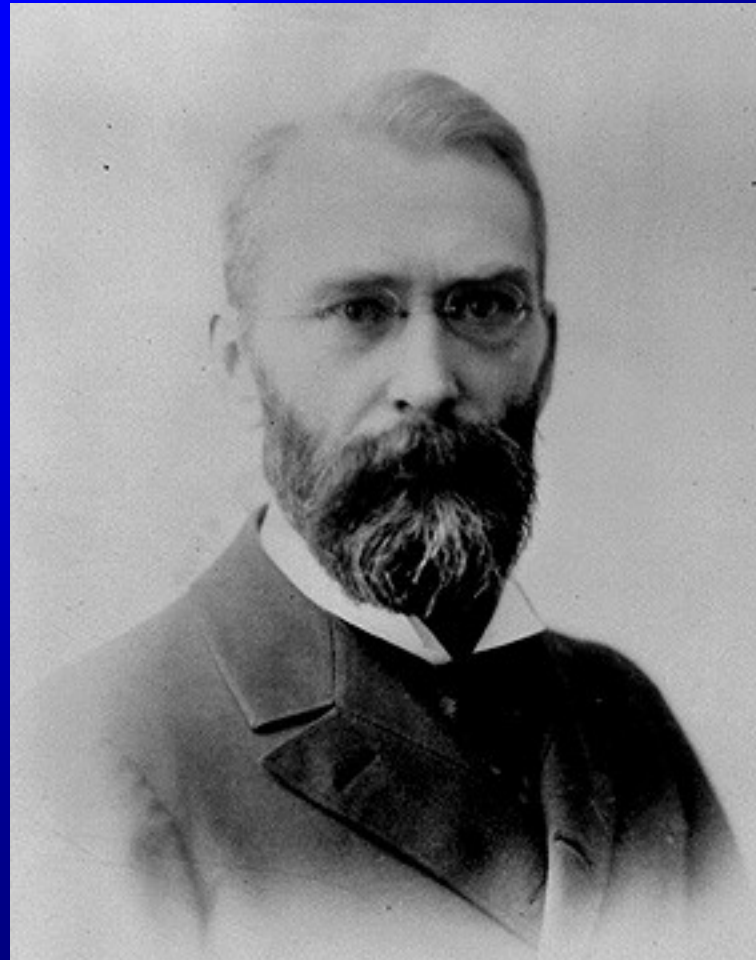
4 Epochs

- Before Borror - 1890-1930
- Borror/Price/Alrutz - 1930-1990
- Ohio Odonata Survey - 1990-2002
- Rise of the internet – 2002 - ????
- 2017 Ohio Odonata Survey 2.0

In the beginning....

David Simons Kellicott

- 1842 - 1899
- First 7 publications on Ohio Odonata
- Charter Member of Ohio Academy of Science
- President of Ohio Academy of Science (1898)



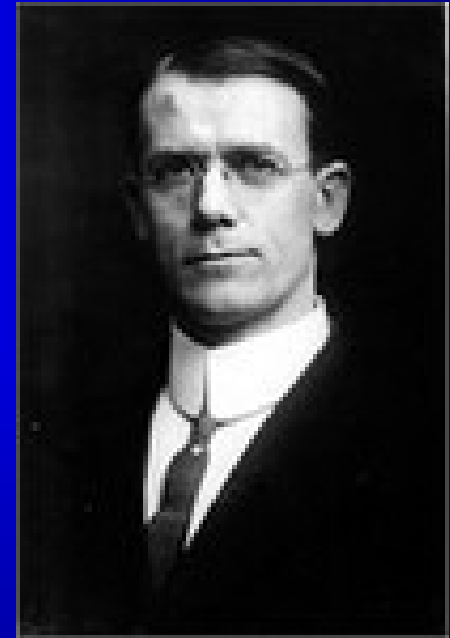
James Stewart Hine

- 1866 - 1930
- 280+ specimens
- Sandusky, Columbus area
- Kent, Indian Lake, Cedar Swamp
- B.S. from OSU - 1893
- Professor at OSU 1894 - 1930
- First Curator of Natural History at the Ohio State Archaeological and Historical Museum
- Probably was instructor for Osburn, Williamson
- Collected from 1896-1930



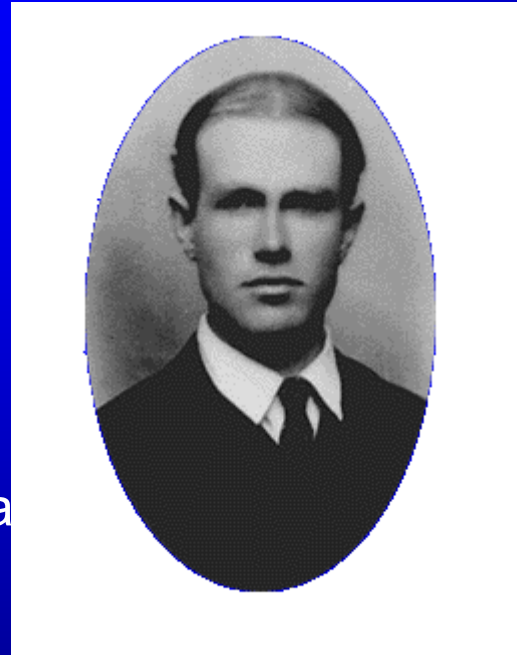
R.C. Osburn

- Raymond Carroll Osburn
- 1872 - 1955
- 450+ specimens
- Erie County, Columbus area
- OSU (B.S., M.S.) Columbia (Ph.D.)
- Classmate of E.B. Williamson
- Chair, Department of Zoology and Entomology, OSU
- Director of Stone Lab
- Collected from 1896-1942



Edward Bruce Williamson

- 1878 - 1933
- 109 records
- Sandusky, Columbus area
- Northern, western Ohio
- Banker, Iris farmer, Odonata collector
- Ohio State Graduate (1898)
- Taught, collected in Columbia County
- Curator of Odonata, Michigan Zoological Museum
- Collected from 1896-1932



Clarence Hamilton Kennedy

- 1879 - 1952
- 385+ specimens
- Bass Islands
- Degrees from Indiana, Stanford
Cornell
- Professor at OSU
- Instructor at Stone Lab
- Specialist in Odonata
- Advisor to D.J. Borror
- Collected from 1915? 1918 -1941



The Big 3 – Borrer, Price, Alrutz

Donald Joyce Borror

- 1909 - 1988
- 5625+ specimens
- Statewide collections
- Degrees from Otterbein, OSU
- Professor at OSU 1930 - 1977
- Pioneer in Bioacoustics
 - 14,000 recordings
 - 525 species
- 16 publications on insects
- Advisor to Bob Restifo
- Collected from 1926-1982



Homer F. Price

- 1895 - 1987
- 4,220+ specimens
- Northwestern Ohio
- 15,000 specimens of insects in Museum of Biological Diversity
- Collected from 1921-1965 (most from 1941-1963)



Fig. 2.17 Homer F. Price (1895-1987) and his wife, Gladys, at home in 1963.

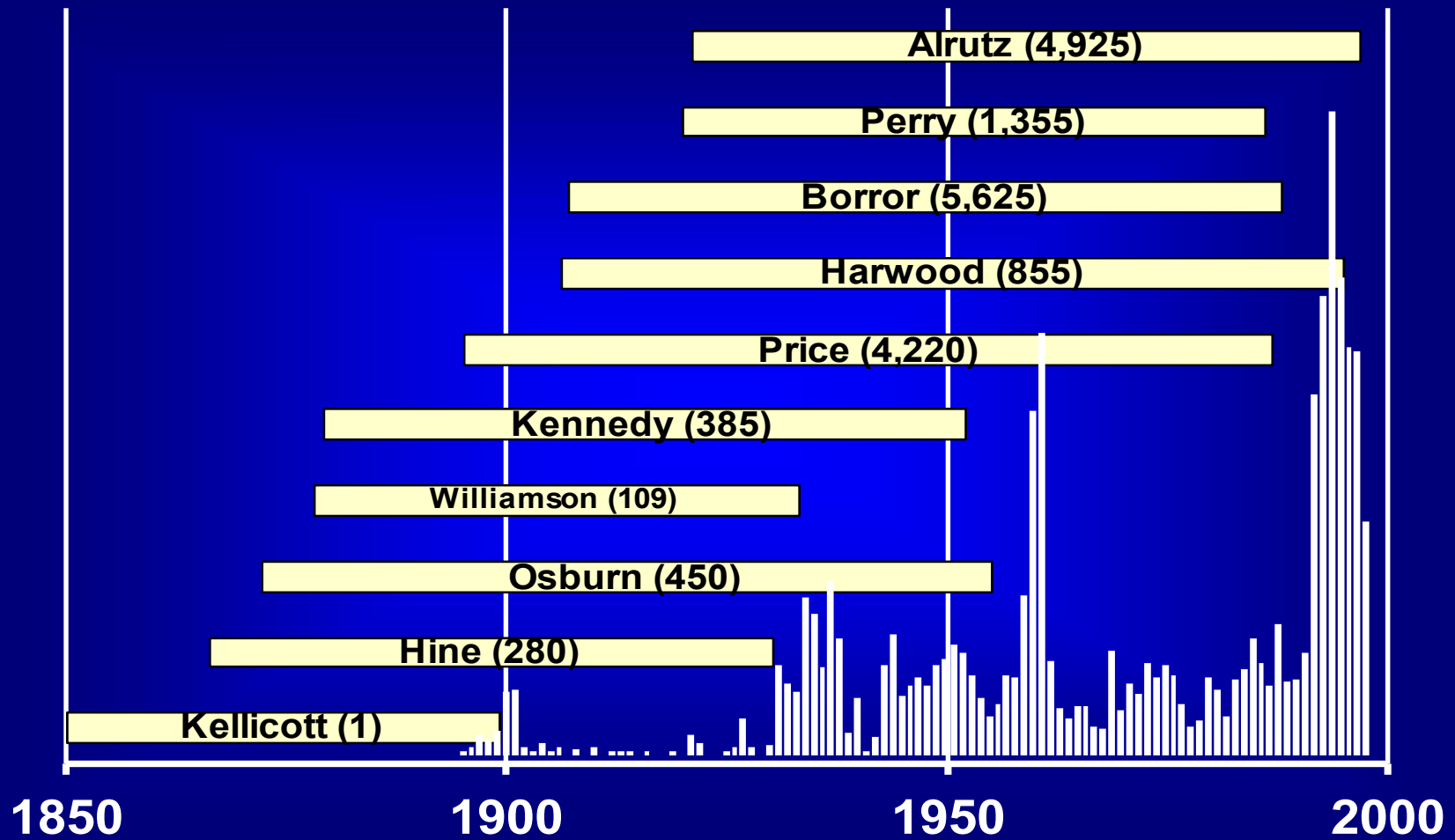
Source: Butterflies and Skippers of Ohio. 1992



W. Alrutz

- 1921 - 1997
- 4,925+ specimens
- 1st worker to really collect statewide
- Collected in 81 of 88 counties
- Degrees from Pittsburgh and Illinois
- Professor at Dennison 1952-1990
- Collected from 1955-1993
- Co-founder and first Honorary Life Member of the Ohio Odonata Survey

Flightline of Ohio Odonatists



Other Ohio Odonatists of Note

- Clem Uhler
- B.E. Montgomery (135)
- Paul Harwood (855)
- T.E. Perry (1,355)
- R.K. Finley (155)
- N.W. Britt (110)
- Bernie Counts
- Bob Glotzhober (1,220)
- Bob Restifo (3,590)
- Dan Riggs (1,185)
- Mark Dillon (700)
- Mike Greene (645)
- Dave McShaffrey (640)
- Steve Chordas (545)
- Dwight Moody (420)
- Alice Phillips (324)
- Lou Gardella
- Doug Horvath
- Eric R. Eaton
- Carmen Trisler
- Larry Rosche
- Judy Semroc
- Linda Gilbert

The Ohio Odonata Survey

- Ohio Odonata Survey 1990 to 2001.
- Directed by Bob Glotzhober.
- Assisted by about 250 volunteers.
- Funded by ODNR Division of Wildlife.
- Drew on example of Ohio Lepidopterists.
- Assembled database of over 25,000 records.
 - 1/3 of these by survey members

First Meeting of the Ohio Odonata Survey Steering Committee

January 31, 1990

Committee Members, 1990

**Dr. Robert W. Alrutz, Denison
Dr. Susan Heady, OSU
John Bater, OSU**

**Robert C. Glotzhober, OHS
Dr. Dwight L. Moody, Findlay
Robert A. Restifo, ODH**

The Ohio Odonata Survey

- Documented 162 species of Odonata.
- Produced 364 page book, published in 2002.
- Developed web site which was on first page of Google and AltaVista searches.
- Metamorphosed into the Ohio Odonata Society.

**The Dragonflies and Damselflies
of Ohio**



Edited by

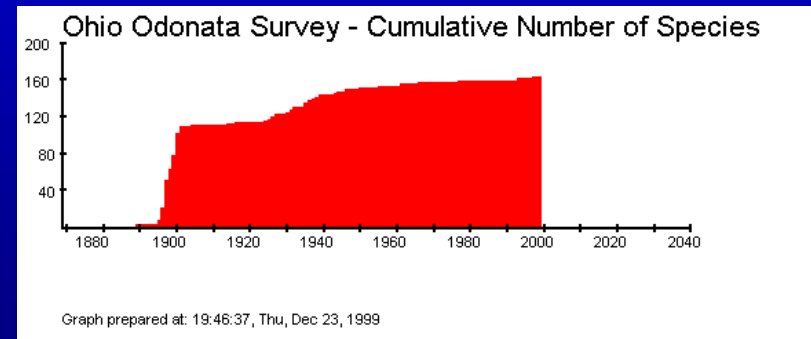
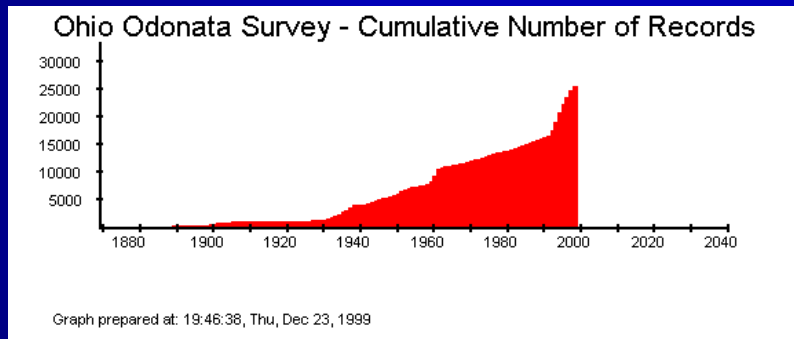
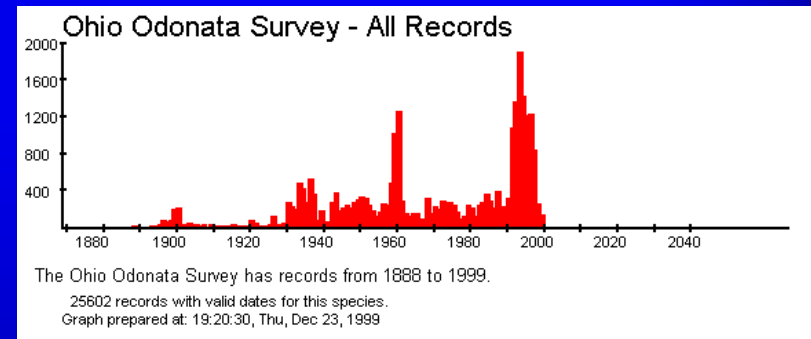
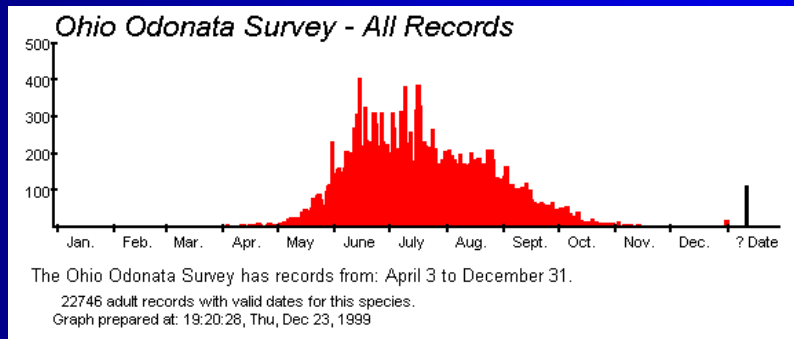
Robert C. Glotzhober and David McShaffrey

Ohio Biological Survey

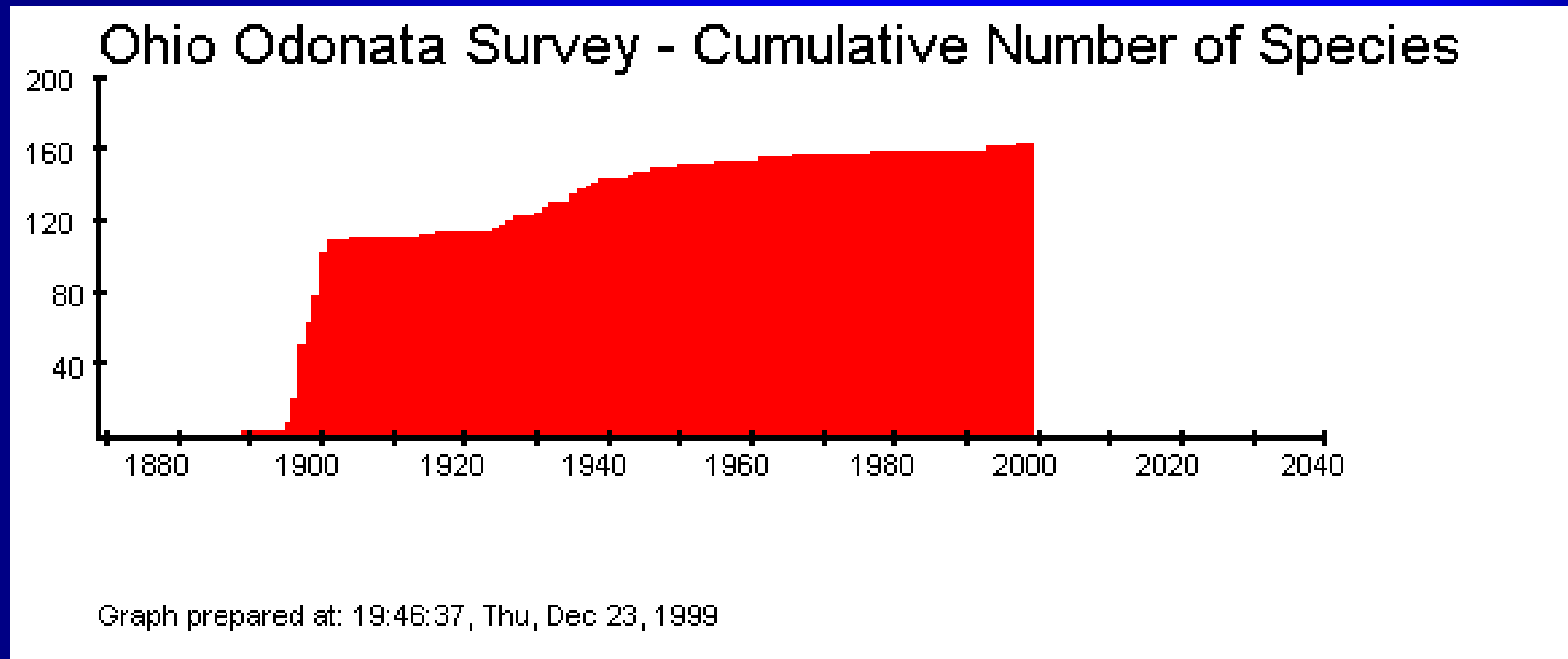
2002 Publication

**Eric Chapman
Steve Chordas
Bernie Counts
Bob Glotzhober
Dave McShaffrey
Dwight Moody
Bob Restifo
Dan Riggs
Ken Tennessen
Carmen Trisler
Jan Trybula**

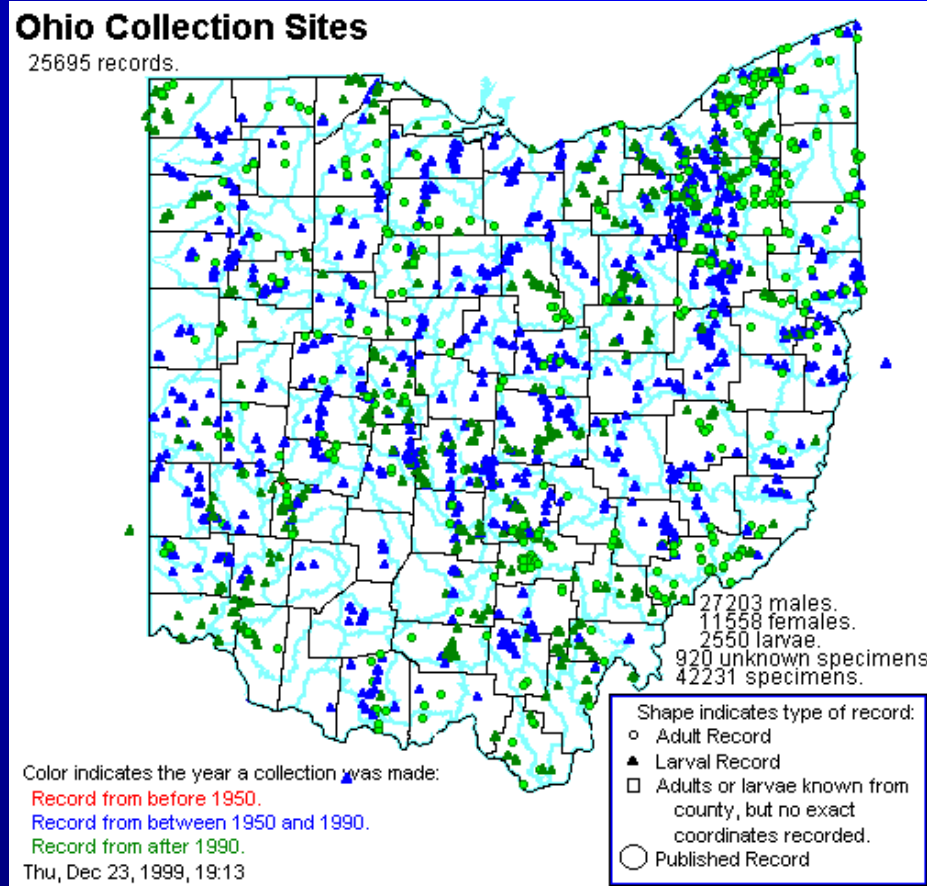
Collection Activity



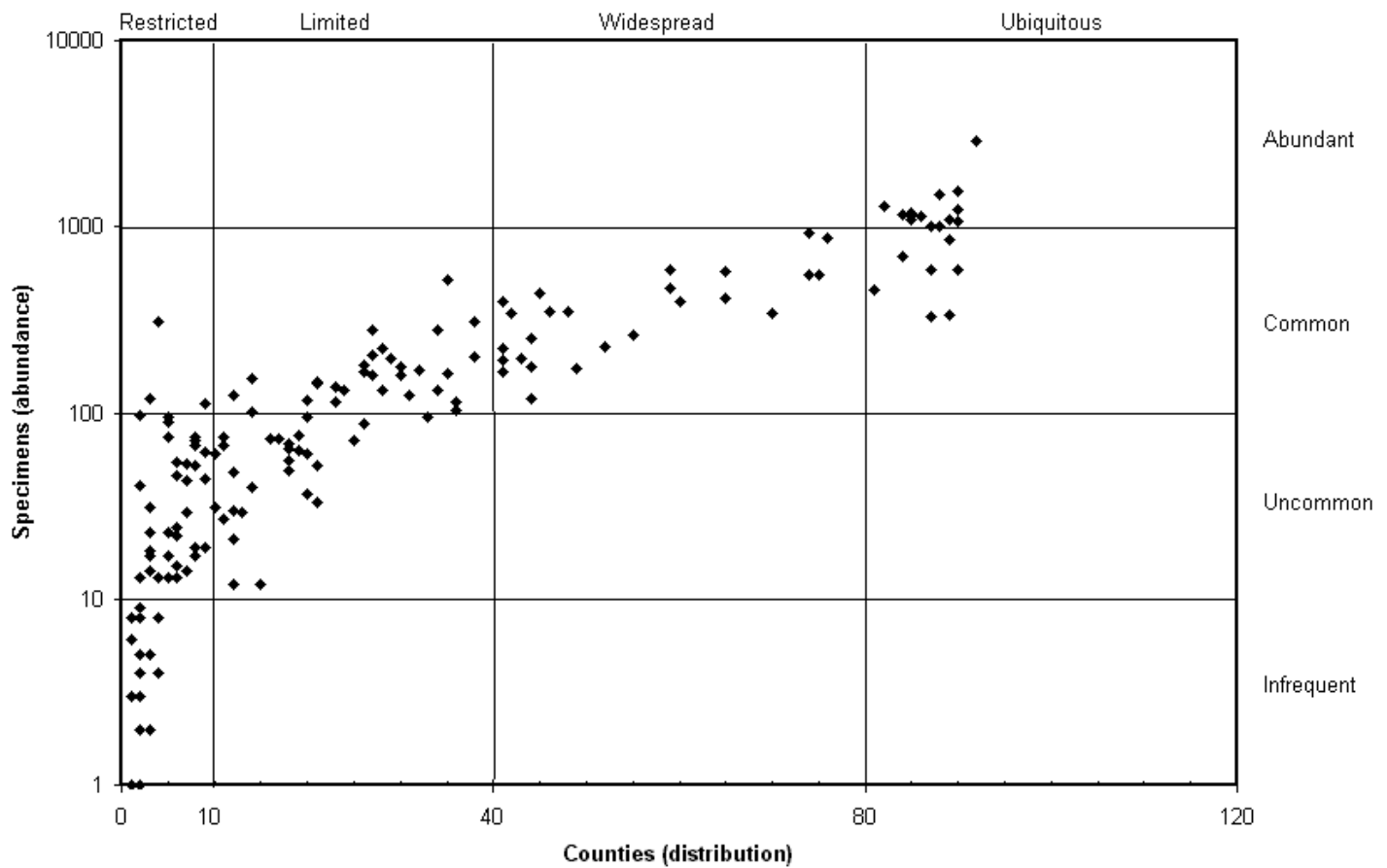
Collection Activity



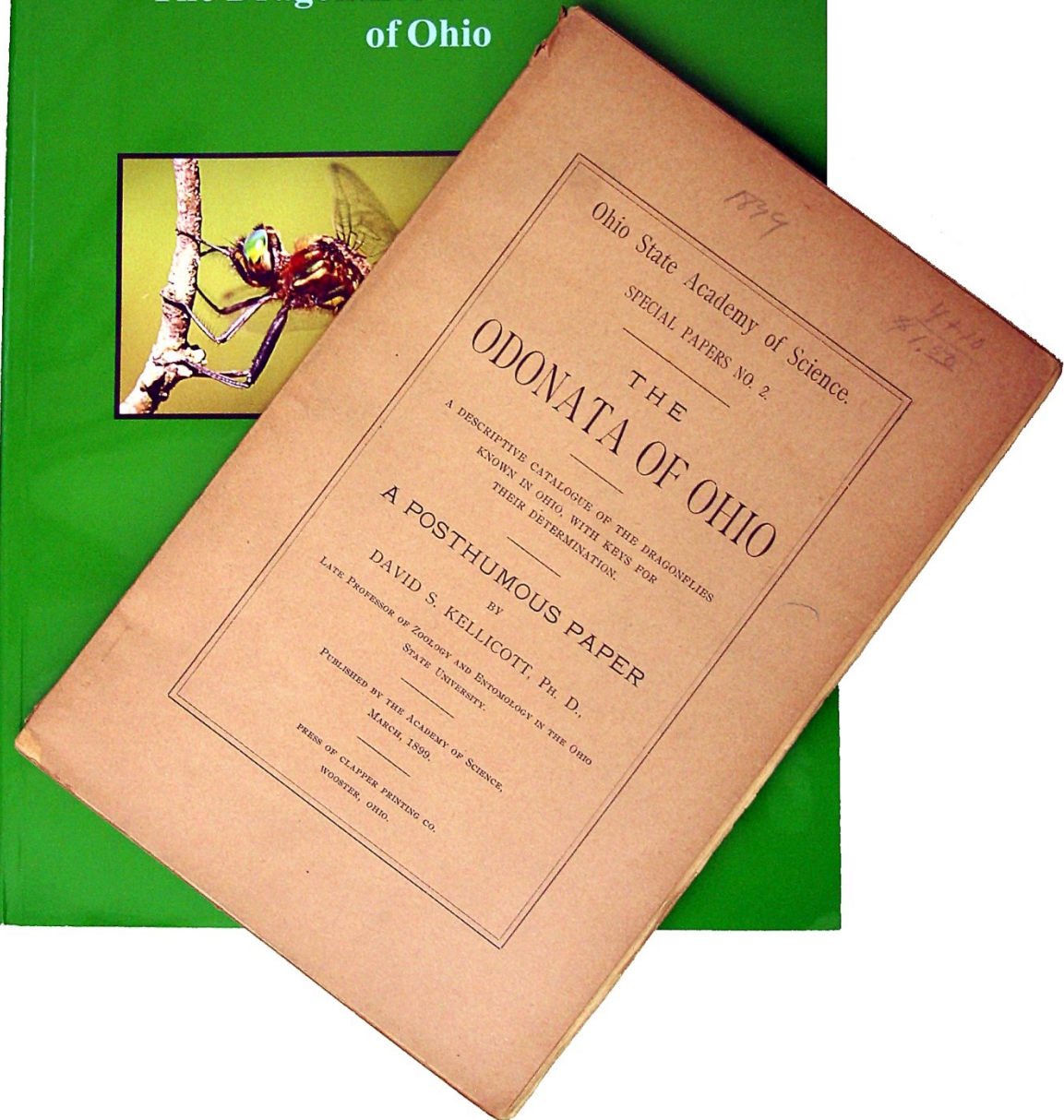
Collection Activity



Abundance and Distribution of Ohio Odonata



The Dragonflies and Damselflies of Ohio



Ohio State Academy of Science.
SPECIAL PAPERS NO. 2.

THE ODONATA OF OHIO

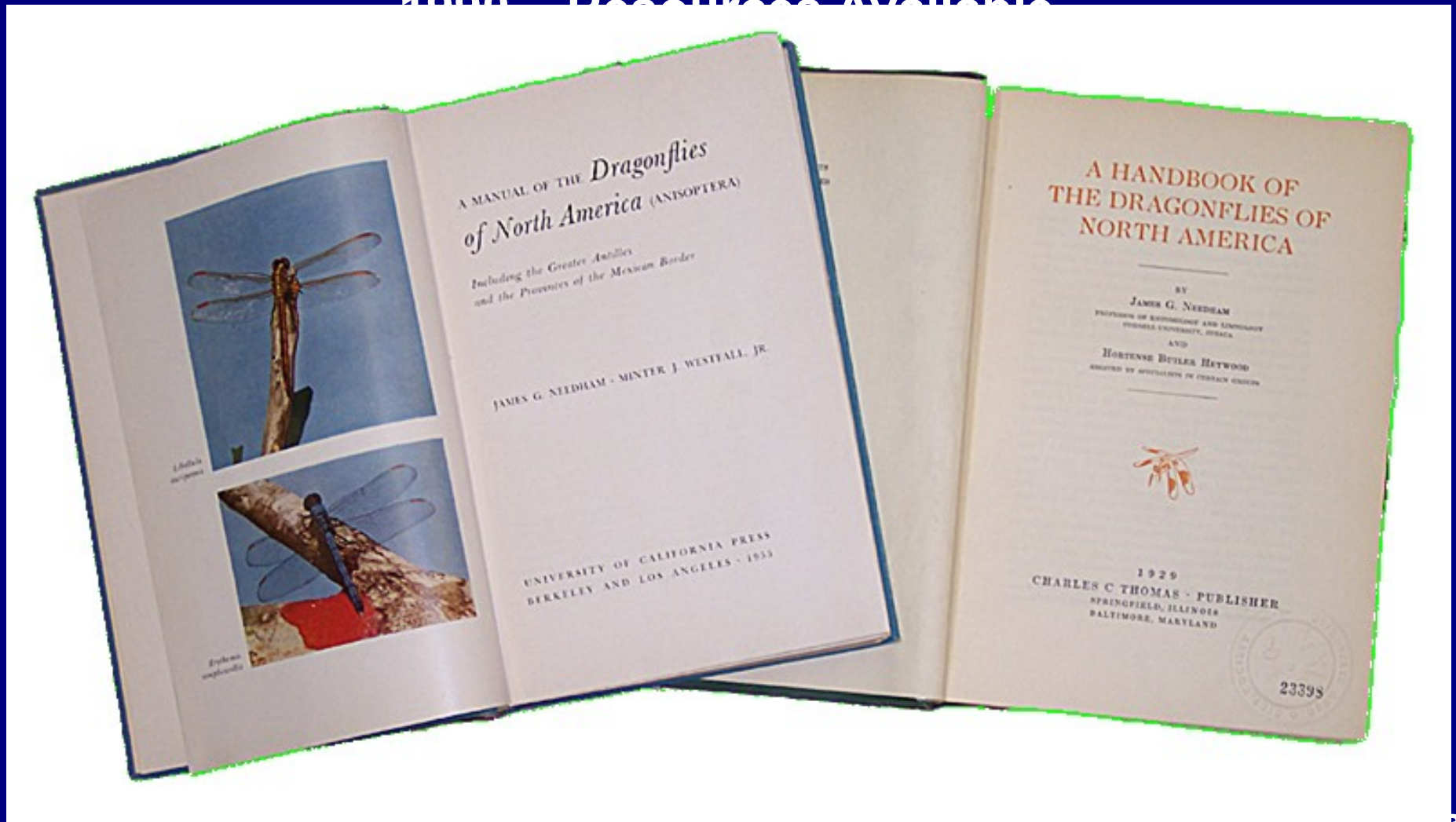
A DESCRIPTIVE CATALOGUE OF THE DRAGONFLIES
KNOWN IN OHIO, WITH KEYS FOR
THEIR DETERMINATION.

A POSTHUMOUS PAPER
BY
DAVID S. KELLICOTT, PH. D.,

LATE PROFESSOR OF ZOOLOGY AND ENTOMOLOGY IN THE OHIO
STATE UNIVERSITY.

PUBLISHED BY THE ACADEMY OF SCIENCE,
MARCH, 1899.

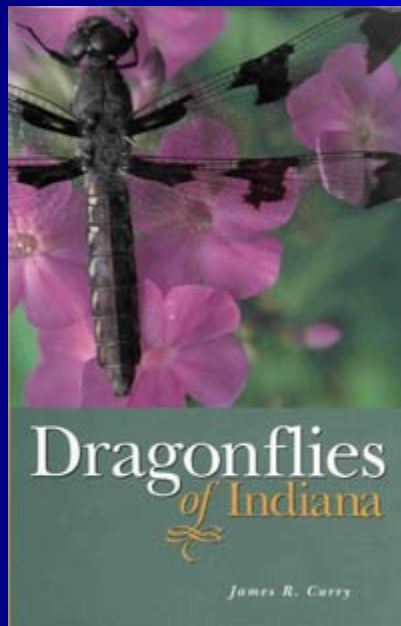
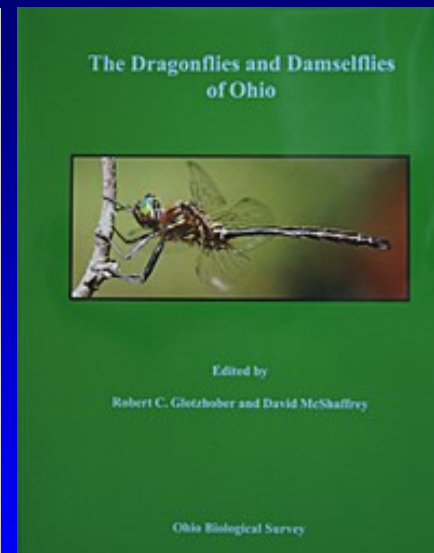
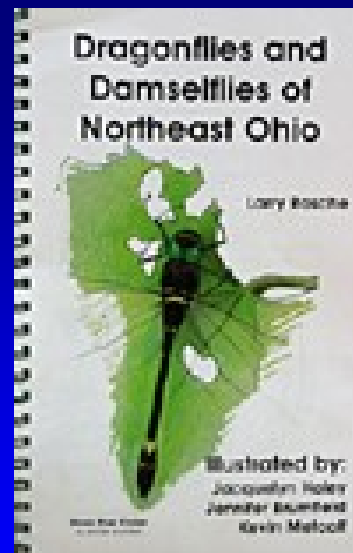
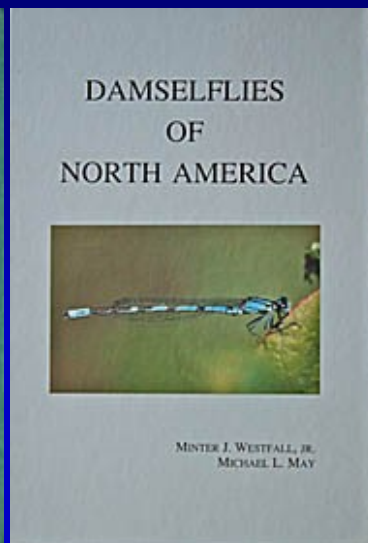
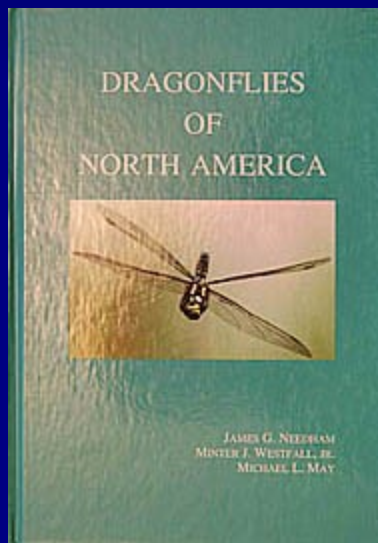
PRESS OF CLAPPER PRINTING CO.,
WOOSTER, OHIO.




● Needham and Heywood. 1929. Handbook of Dragonflies of North America

● Needham and Westfall. 1954. Manual of the Dragonflies of North America

● Walker (and Walker & Corbet). 1953, 1958, 1975
Odonata of Canada and Alaska



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ED LAM

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5.5 X 8.5 inches
96 pages
ISBN 0-9754015-0-5

Common Dragonflies Damselflies of Ohio

Ohio Division of Wildlife
By Dave McShaffr
& Bob Glotzhob
2007

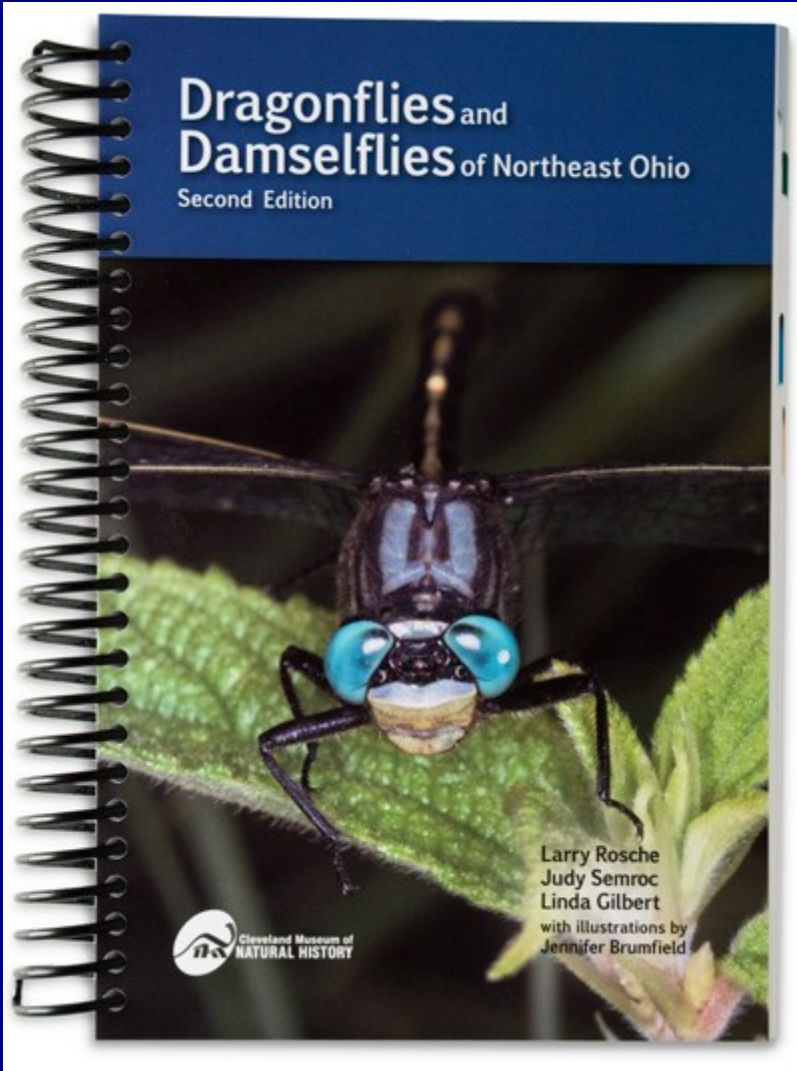


Dragonflies and Damselflies of Northeast Ohio

Second Edition



Larry Rosche
Judy Semroc
Linda Gilbert
with illustrations by
Jennifer Brumfield



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Species *Anax junius* - Common Green Darner

[Classification](#) · [Synonyms and other taxonomic changes](#) · [Size](#) · [Identification](#) · [Range](#) · [Habitat](#) · [Season](#) · [Food](#) · [Life Cycle](#) · [Remarks](#) · [Internet References](#)



Classification

Kingdom Animalia (Animals)
Phylum Arthropoda (Arthropods)
Subphylum Hexapoda (Hexapods)
Class Insecta (Insects)
Order Odonata (Dragonflies and Damselflies)
Suborder Anisoptera (Dragonflies)
Family Aeshnidae (Darners)
Genus *Anax*
Species *junius* (Common Green Darner)

Synonyms and other taxonomic changes

spiniferus

Size


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Welcome to OdonataCentral

This site is designed to make available what we know about the distribution, biogeography, biodiversity, and identification of Odonata (dragonflies and damselflies) world-wide. Use the navigation bars at the top of the page to move around in the site. Click here for a history and update of the site that appeared in [Argia 22\(4\): 2010](#).

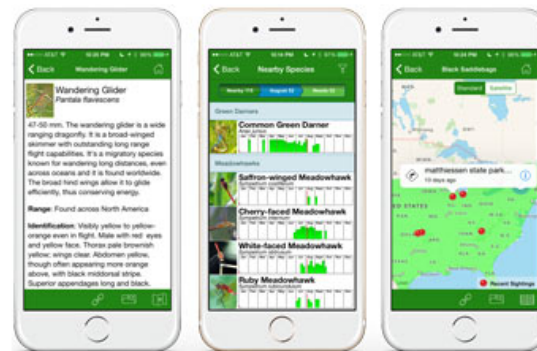
News



New Dragonfly ID app!

Dragonfly ID features bar charts built from the OdonataCentral database of sightings, recent sightings submitted to OdonataCentral displayed on maps, crowd-sourced text, images and more. Status and distribution information for odonates in North America!

Download from the [Apple App store](#) or learn more [here](#).



[Atlas of European Dragonflies available](#)



[Dragonfly Haiku by K. Issa, K. Tennessen.](#)



[Dragonflies & Damselflies of Trinidad & Tobago](#)



Photo Records Committee

Guidelines follow various State Bird Sightings Committees
And Ohio Lepidopterist guidelines, and others

Once approved, enter database as “Photo Record”

2003 = 6 new county records (NCR)

2004 = 10 NCR

2005 = 18 NCR

2006 = 19 NCR

+ 1 new State Record*, & repeat 1 1936 record**

2007 = 18 NCR + (repeats of above 2)

* Striped Saddlebags, *Tramea calverti*

** Band-winged Dragonlet, *Erythrodiplax umbrata*



Stripped Saddlebags,
Tramea calverti
Lucas Co., Ohio
August 21, 2006
Rick Nirschl

Band-winged Dragonlet,
Erythrodiplax umbrata
Hamilton Co., Ohio
August 14, 2006
William Hull





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Write something...

RECENT ACTIVITY

Victor Fazio III
12 hrs

Another Blue-faced Meadowhawk to follow up on Rick's from yesterday. This one at Garlo Heritage Park Nature Preserve, Seneca Co.



ADD MEMBERS

MEMBERS 521 Members



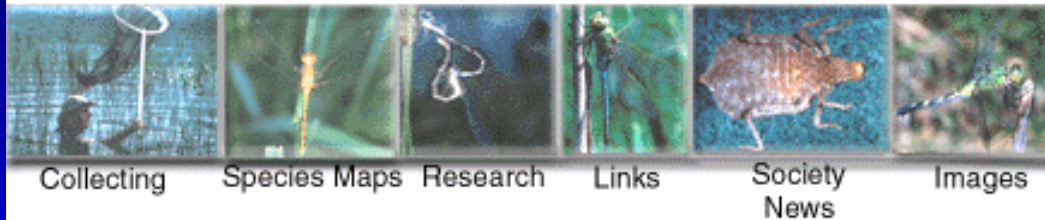
SUGGESTED MEMBERS Hide

- Tina Hickman
- Anna Cooper
- Christopher C Esker

DESCRIPTION

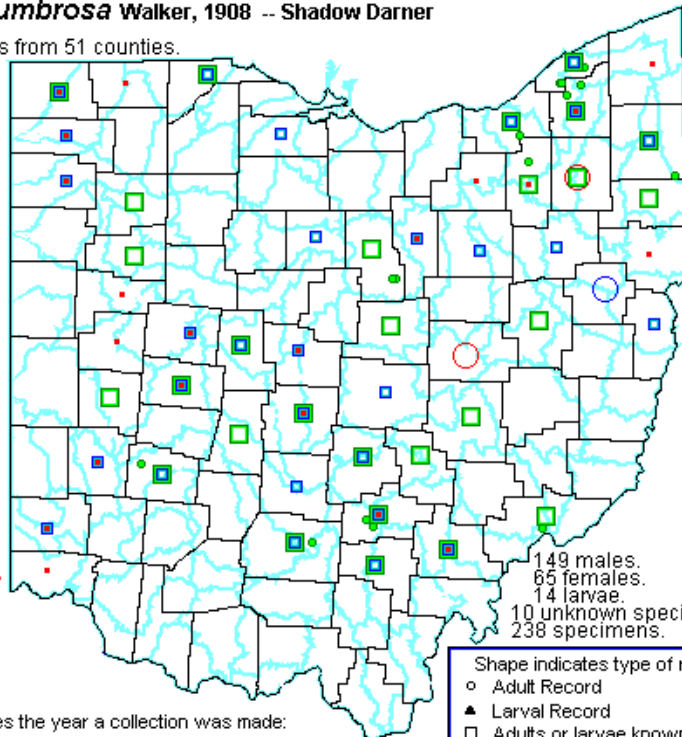
Welcome to Odonata Ohio! Feel free to post photos, ask questions, and mingle with other Odonata...

The Ohio Odonata Society



Aeshna umbrosa Walker, 1908 -- Shadow Darner

204 records from 51 counties.



DRAFT

149 males.
65 females.
14 larvae.
10 unknown specimens.
238 specimens.

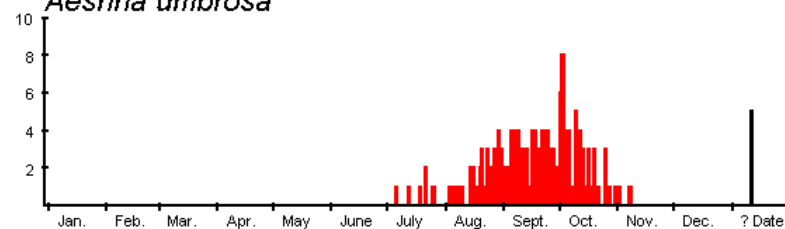
Shape indicates type of record:
 ○ Adult Record
 ▲ Larval Record
 □ Adults or larvae known from county, but no exact coordinates recorded.
 ○ Published Record

Color indicates the year a collection was made:

Record from before 1950.
 Record from between 1950 and 1990.
 Record from after 1990.

Sat, Jan 01, 2000, 12:23

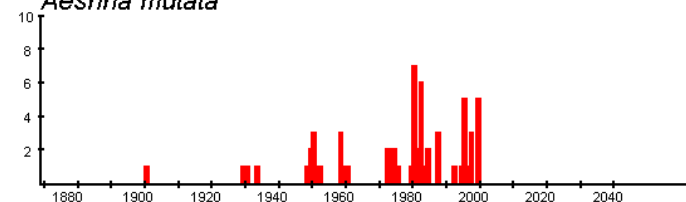
Aeshna umbrosa



Aeshna umbrosa has been taken from July 4 to November 6.

178 adult records with valid dates for this species.
 Graph prepared at: 12:23:43, Sat, Jan 01, 2000

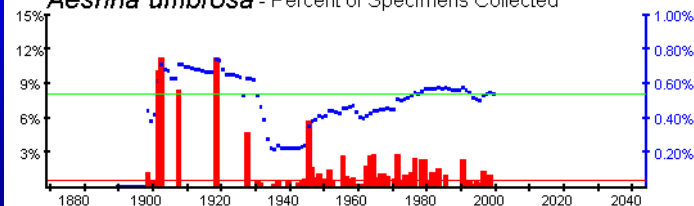
Aeshna mutata



Aeshna mutata has been collected from 1900 to 1999.

61 records with valid dates for this species.
 Graph prepared at: 12:23:35, Sat, Jan 01, 2000

Aeshna umbrosa - Percent of Specimens Collected

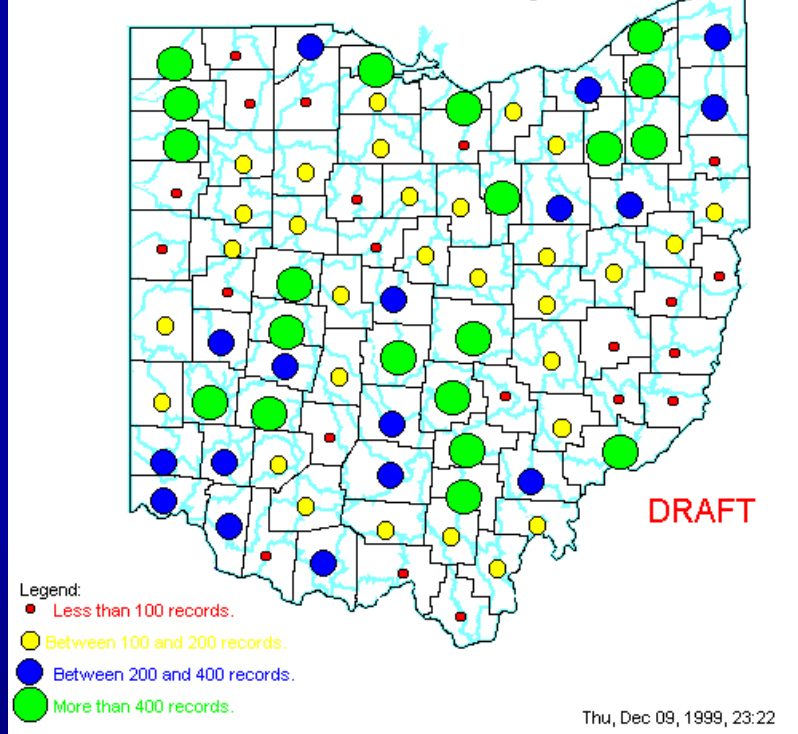


Red Bars indicate % of adult specimens of this species in database in any given year (black scale).
 Red Line indicates % of adult specimens of this species in database in 1999 (read on black scale).
 Blue points indicate cumulative % of adult specimens of this species in database over time (blue scale).
 Green line indicates % of adult specimens of this species in database in 1999 (read on blue scale).

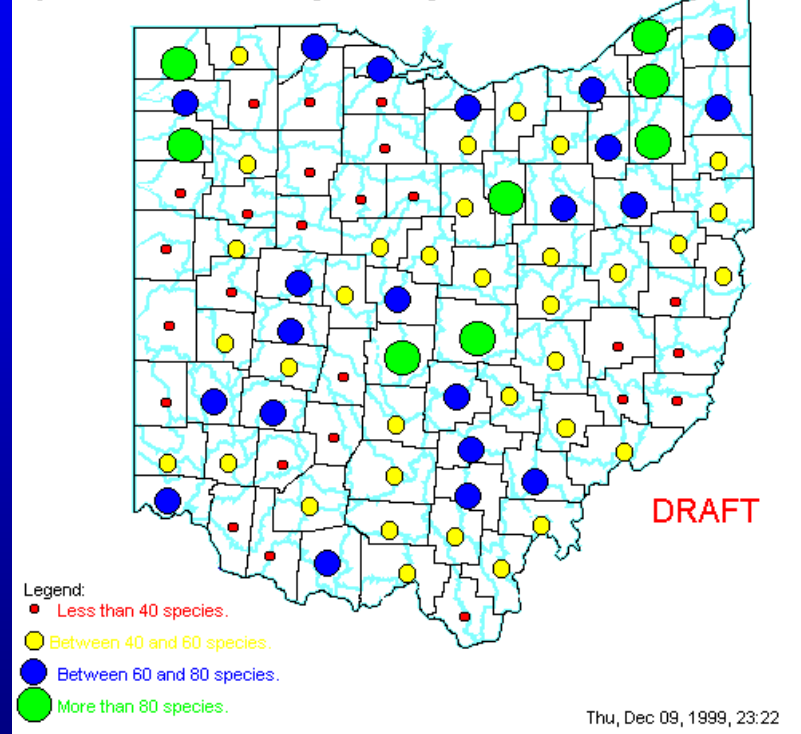
Aeshna umbrosa has been collected from 1898 to 1998.
 209 adult specimens for this species out of 38615 adult specimens (00.54%) in the database.
 Graph prepared at: 12:23:45, Sat, Jan 01, 2000

Collection Activity

Number of Records for each County



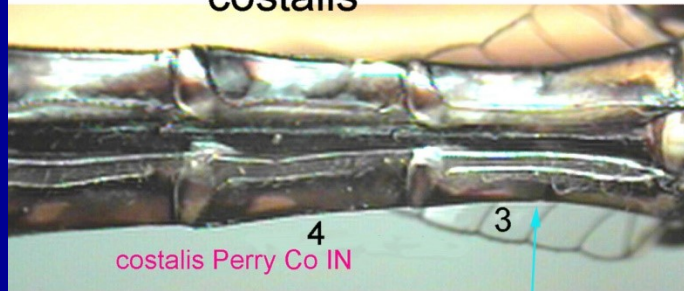
Species Collected by County



The Epitheca/Tetragoneura Problem

costalis - cynosura comparison

costalis



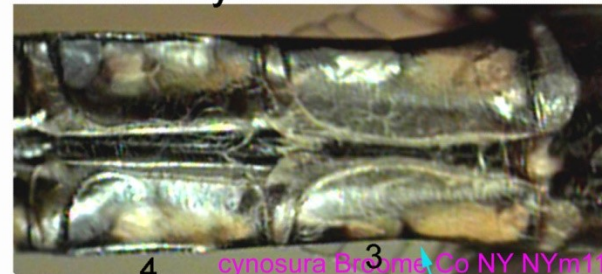
costalis Perry Co IN

4

3

segment 3 constricted

cynosura



cynosura Broome Co NY NYm11

4

3

segment 3 not constricted

cercus longer

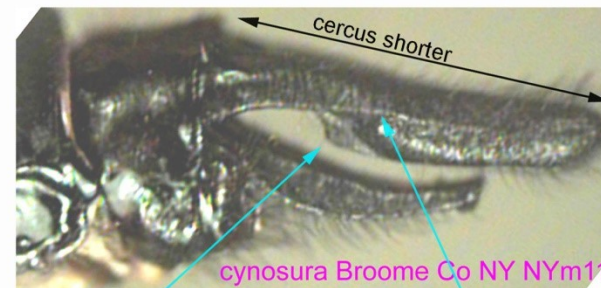


costalis Perry Co IN

corner of cercus rounded
thinned basal portion small

lateral keel
on cercus
poorly developed

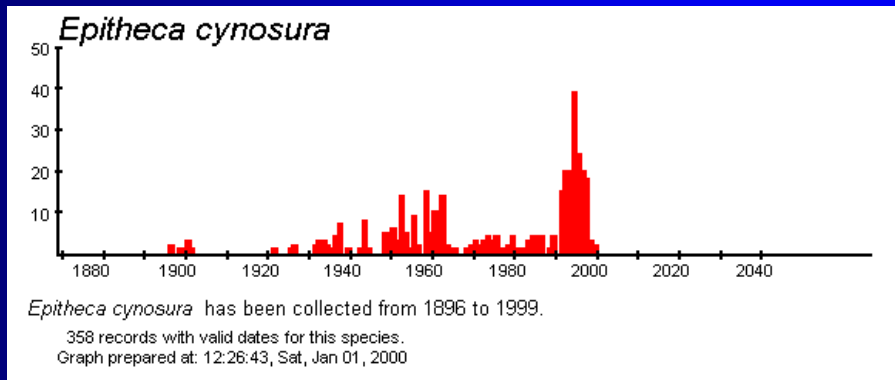
cercus shorter



cynosura Broome Co NY NYm11

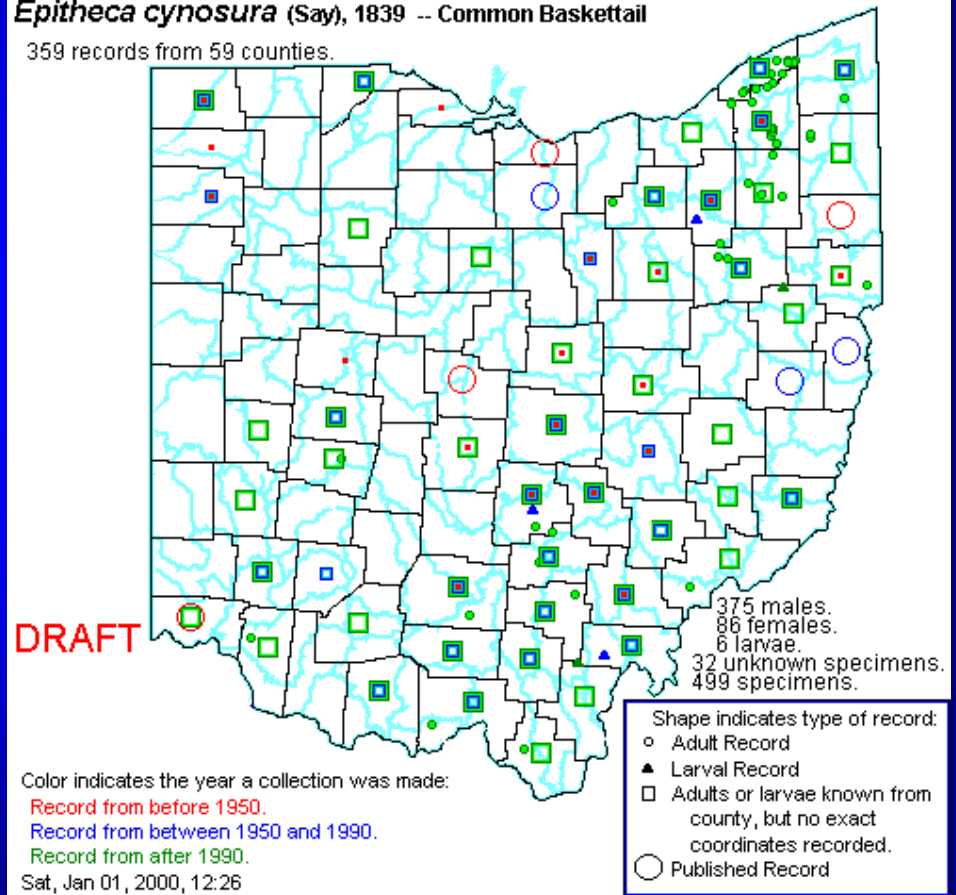
corner of cercus angulated
thinned basal portion larger

lateral keel
on cercus
well developed



***Epitheca cynosura* (Say), 1839 -- Common Baskettail**

359 records from 59 counties.



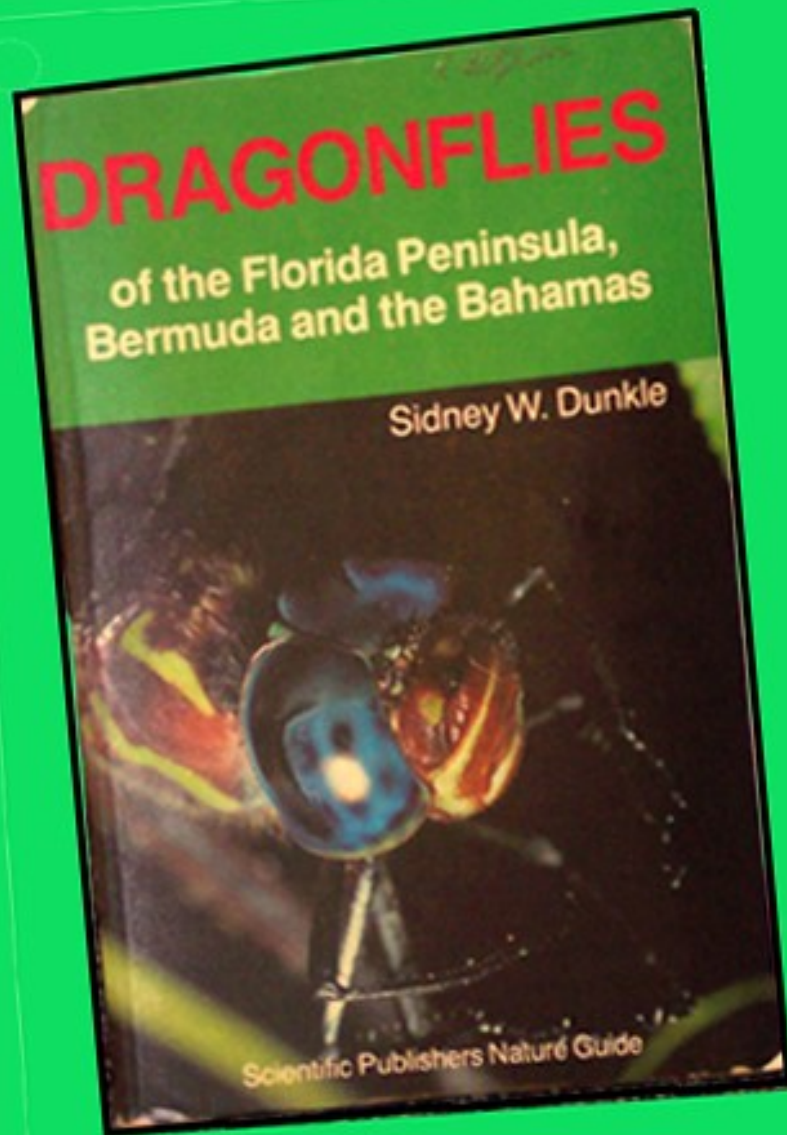
The Dragonflies and Damselflies of Ohio



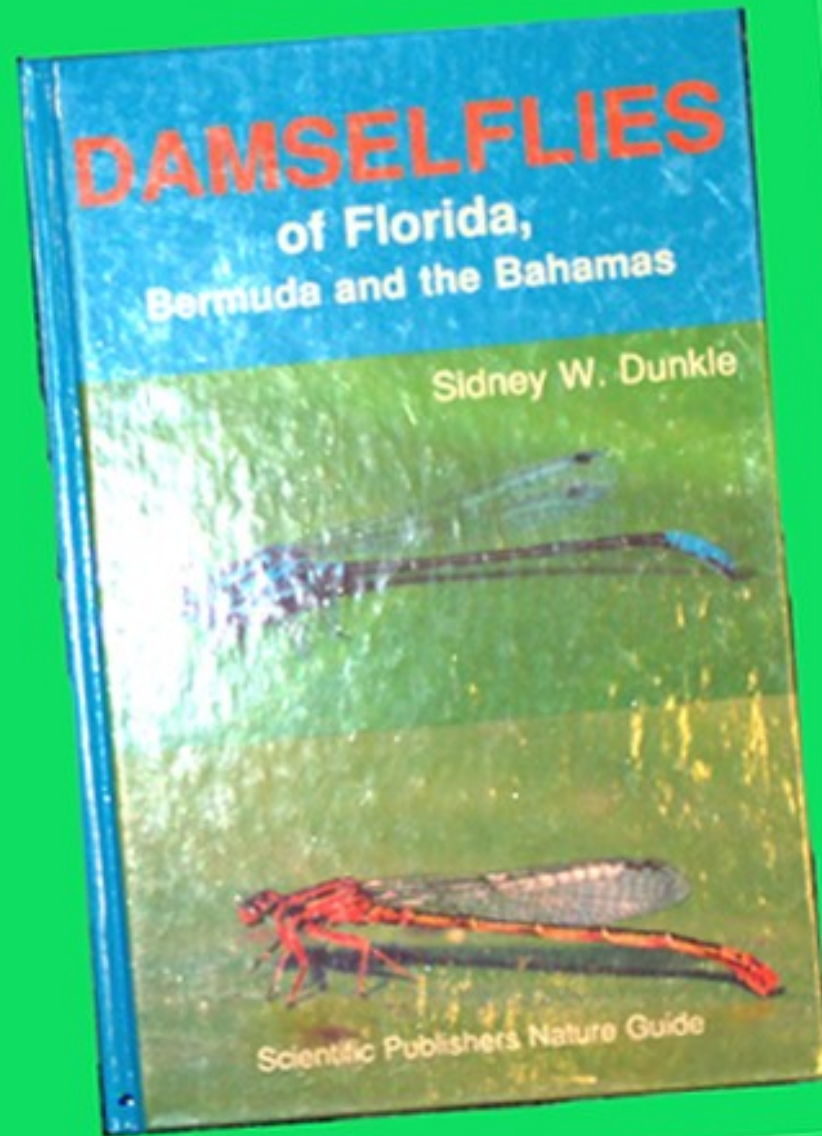
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Robert C. Glotzhober and David McShaffrey

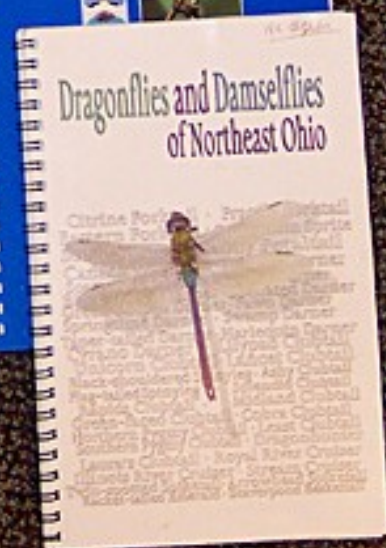
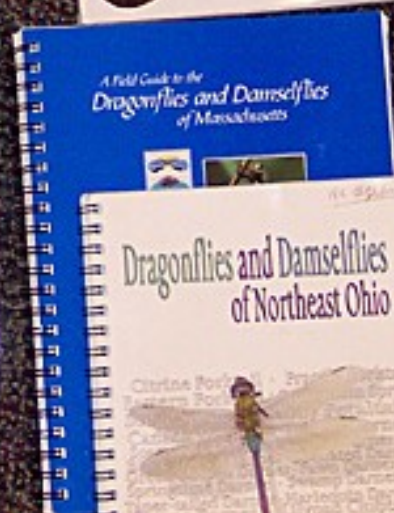
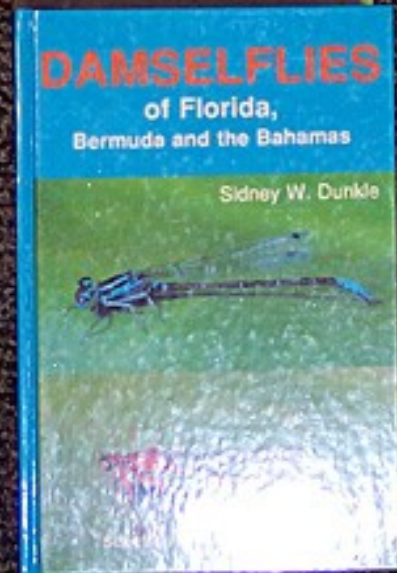
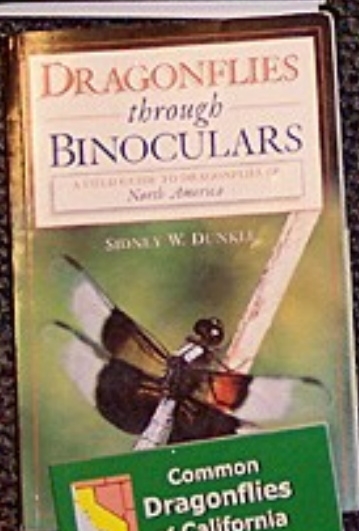
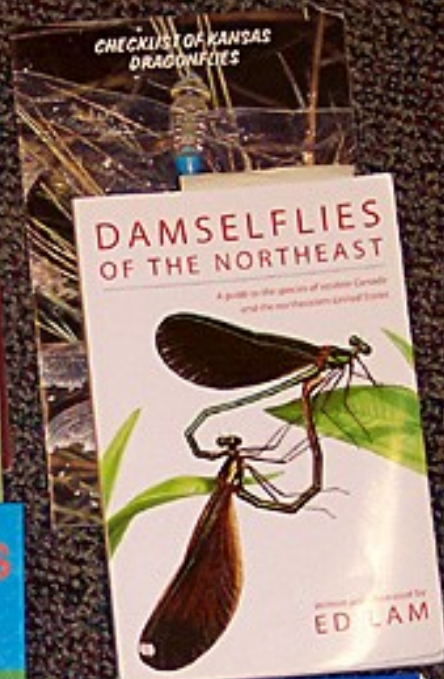
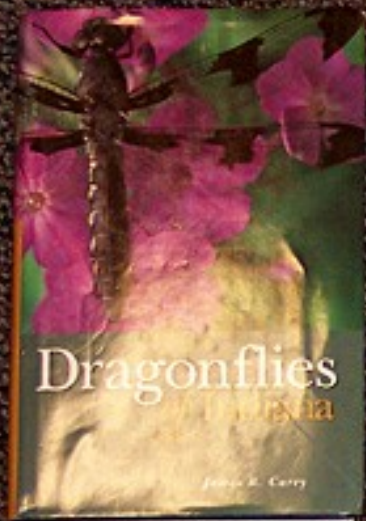
Ohio Biological Survey



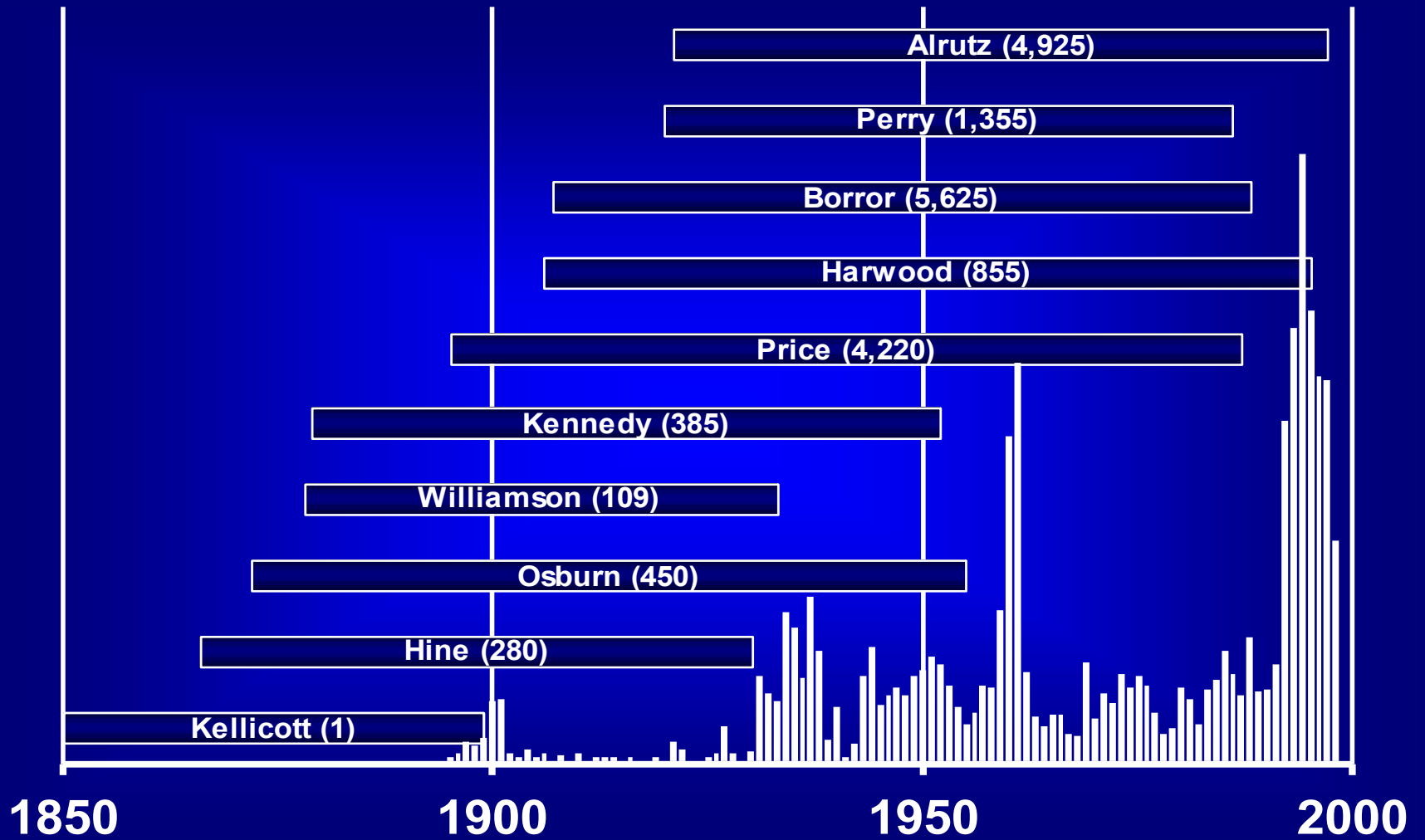
Dunkle's Field Guides for Florida
1989



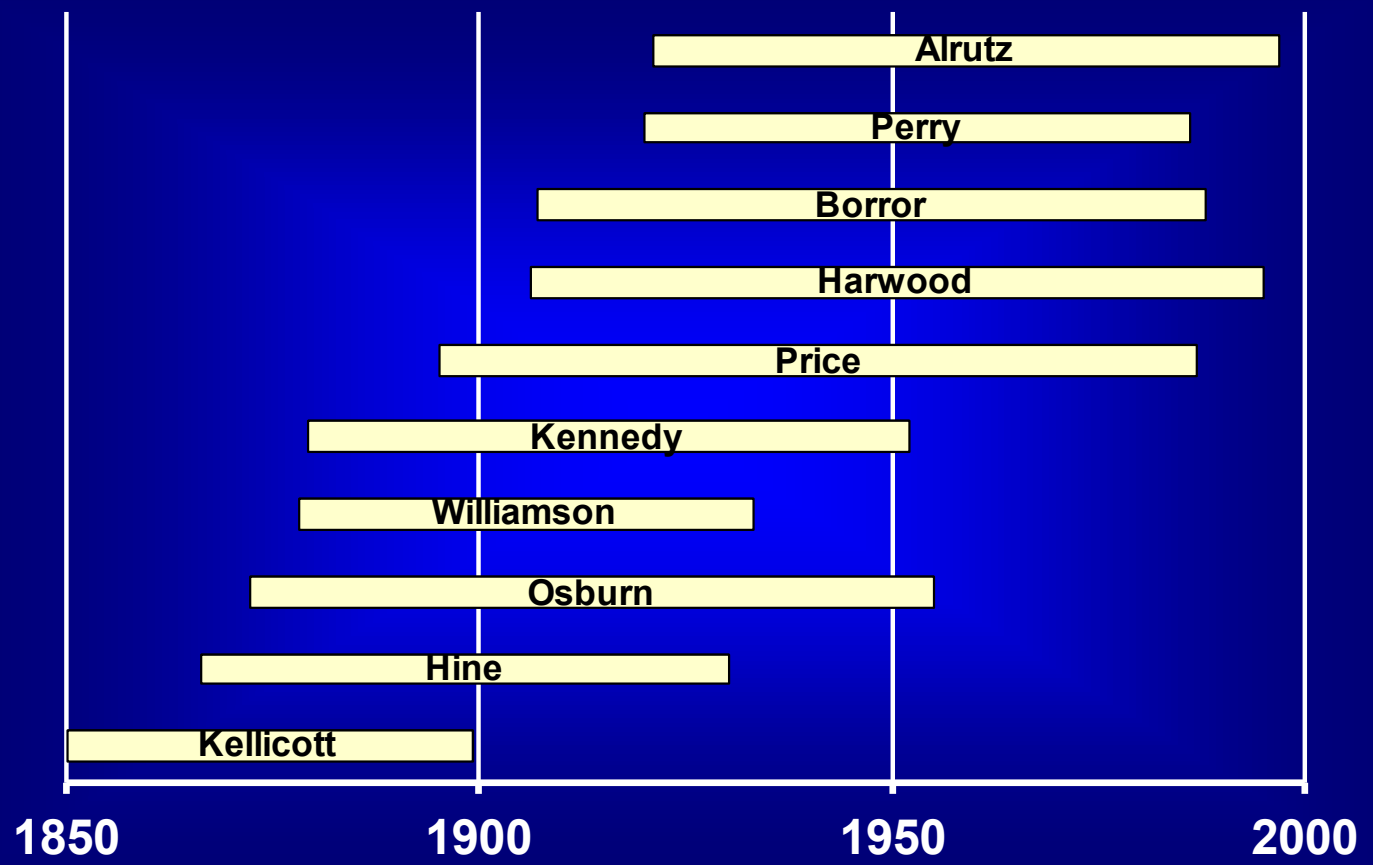
1990



Flightline of Ohio Odonatists



Flightline of Ohio Odonatists



Number of Odonata Records by Year

