

Minnesota Dragonfly Society

To ensure conservation of Minnesota's dragonflies and damselflies through research, education, and outdoor recreation.

An effort to determine the ranges and distributions of the dragonflies and damselflies of Minnesota



2006-2012



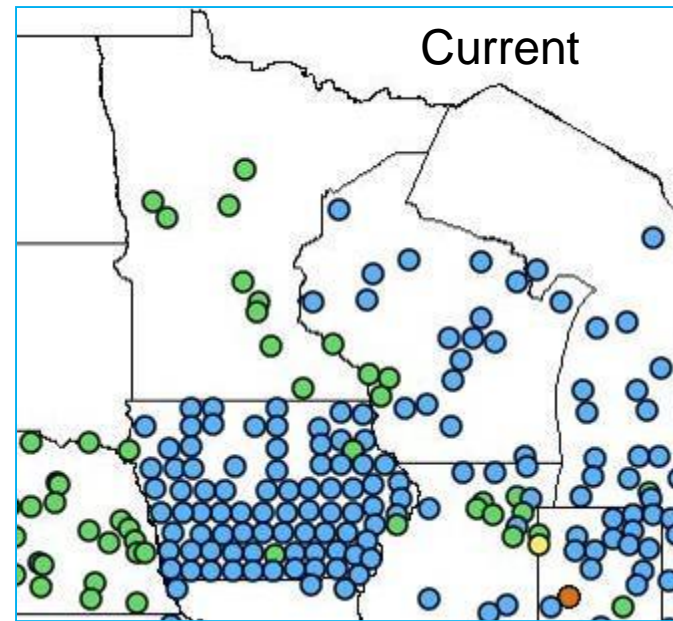
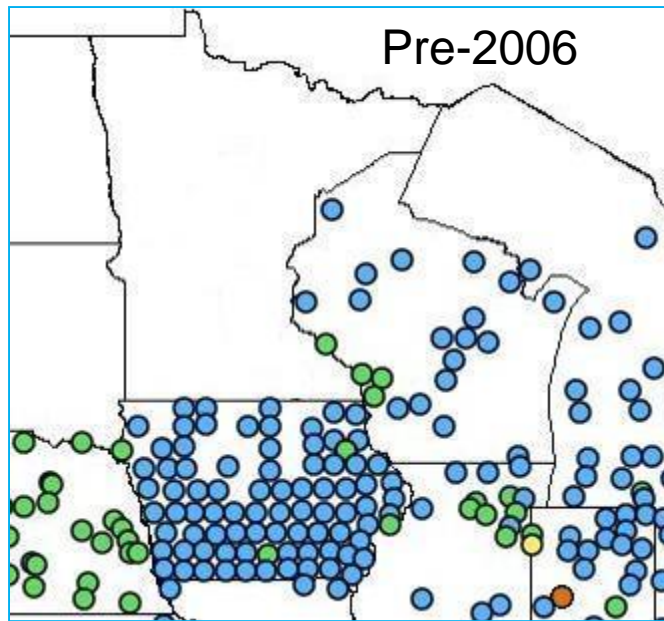
Targeted Surveys

Survey Workshops
With Volunteers



Historical Collections

“A Minnesota-shaped Hole”



- Minnesota range of the Skimming Bluet.

Minnesota Biomes



Methods

Part 1

- Determine the historical record by cataloguing the known collections at universities, museums, and other sites.
- UMSP
- Science Museum of MN
- Warner Nature Center
- Carleton College
- Gustavus Adolphus
- St Olaf College
- Winona State University
- UM Morris



Methods

Part 3

- Citizen Science
- In seven years we held 29 one-day survey workshops and 7 weekend-long Minnesota Dragonfly Gatherings
- An average of 17 participants per workshop and an average of 45 participants for the weekend events in the last two years.

Results

- 23 Odonata species added to the Minnesota state list.
- 2 species removed from the state list.
- 2580 specimens collected by the MOSP
- During the 7 years of the MOSP, 1881 new county records were generated in Minnesota.
- Current total Minnesota Odonata list sits at 148 species

Post-2013

Damselflies

10 species of Damselflies have
been added to the Minnesota List
since 2006

Red Damsel

Amphiagrion sp.



Kurt Mead

- Seep-fed marshes and spring-fed streams
- One museum specimen from 1935
- Rediscovered in 2008

Great Spreadwing

Archilestes grandis

- Small, wooded streams
- First photographed in 2010
- Found in two counties in 2011



Scott King

Violet Dancer

Argia fumipennes violaceae

- **Museum specimen from 1935**
- **Rediscovered in 2011**
- **Widespread and common**



Kurt Mead

Springwater Dancer

Argia plana

- Common through the Great Plains, SW to Mexico
- Discovered at Blue Mounds State Park in 2011



Kurt Mead

River Bluet

Enallagma anna

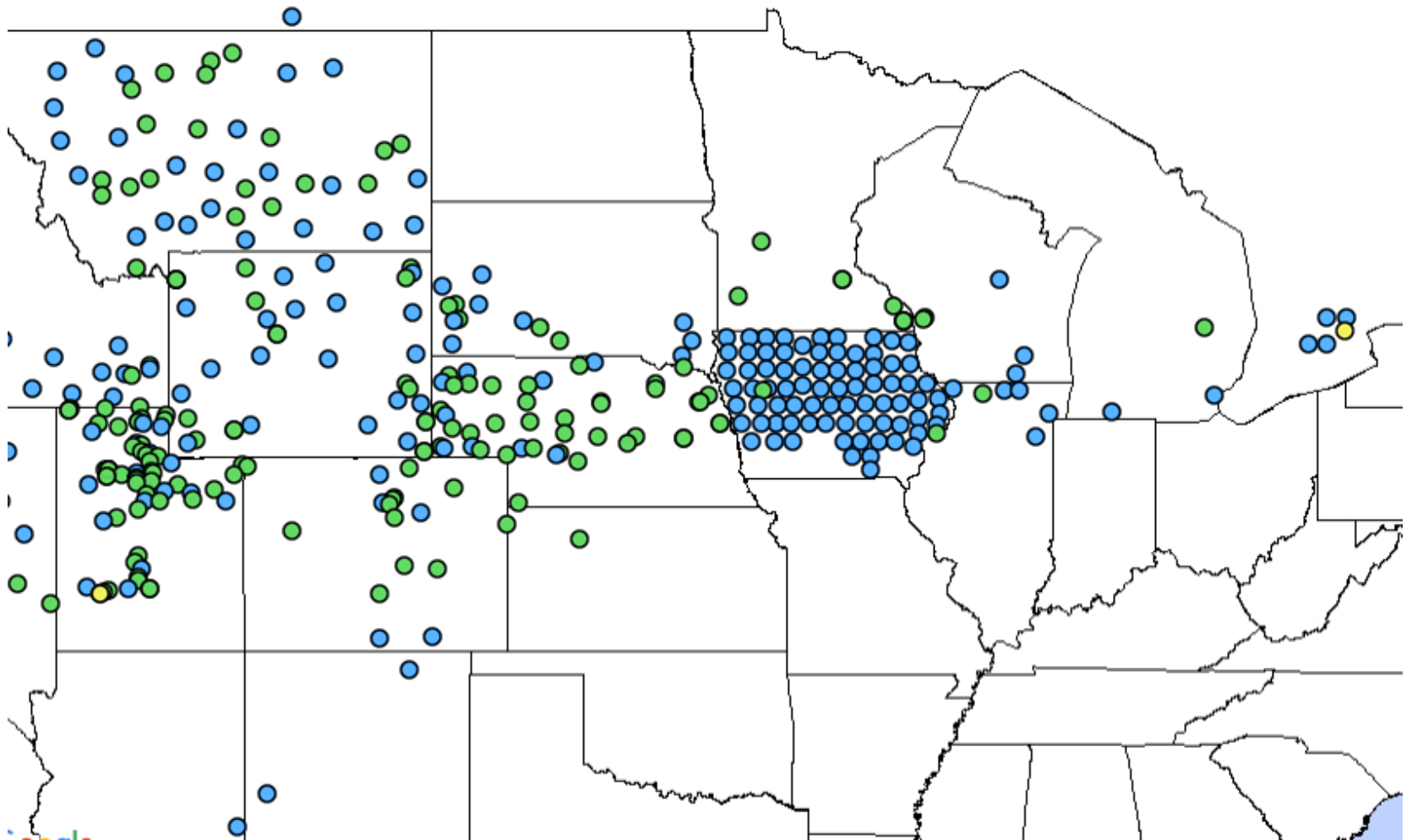


Dan Jackson

- Museum specimen from 1965
- Rediscovered in 2006

River Bluet Distribution in the Midwest

(map from odonatacentral.com, June 22, 2018)



Azure Bluet

Enallagma aspersum

- Discovered in 2009
- Requires fishless waters



Scott King

Skimming Bluet

Enallagma geminatum

- Discovered in 2006
- Now widespread throughout Minnesota



Arne Myrabo

Vernal Bluet

Enallagma vernale

- Discovered in 2013
 - Possibly widespread, but easily confused with other species

Citrine Forktail

Ischnura hastata

- Museum specimen from 1968
- Rediscovered in 2010
- Probably irruptive in Minnesota



Dan Jackson

Southern Spreadwing

Lestes australis



- Discovered in 2011, widespread
- Newly recognized species (was subspecies of a common species)

Joe Frisk

Post-2013

Dragonflies

- 13 Dragonfly species have been added to the Minnesota List since 2006

Harlequin Darner

Gomphaeschna furcillata



- One specimen from Minnesota in 2012.

Spatterdock Darner

Rhionaeschna mutata



- One isolated population in Washington County, breeding in one pair of ponds
- Require fishless waters

Blue-eyed Darner

Rhionaeschna multicolor

- Common in the western US
- Only found in eastern MN
- Why not in prairies?



Kurt Mead

Cyrano Darner

Nasiaeschna pentacantha

Scattered
records
throughout the
northern half of
Minnesota



Kurt Mead

Sioux Snaketail

Ophiogomphus smithi

- First described in 2004
- Dependant on clean, sandy bottomed rivers
- Discovered in 2011 in upper reaches of the Zumbro River in SE MN
- Specimens from the 1990's uncovered in museum collections from Chisago County

John Arthur

Jade Clubtail

Arigomphus submedianus

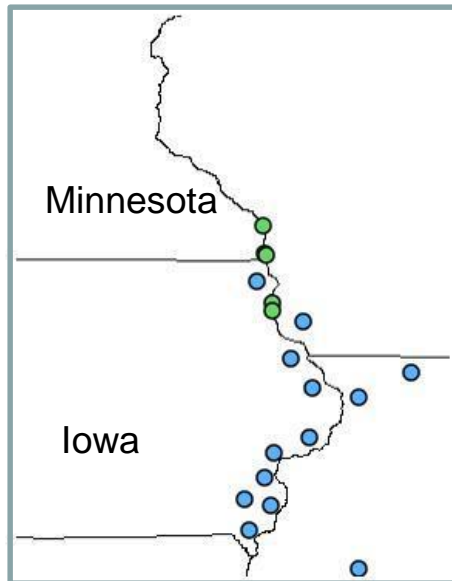
- Two photo records from the Twin Cities



Dan Tallman

Royal River Cruiser

Macromia taeniolata



* Data from Odonata Central



In Minnesota, found only from the Mississippi River in SE counties.

Quebec Emerald

Somatochlora brevicincta

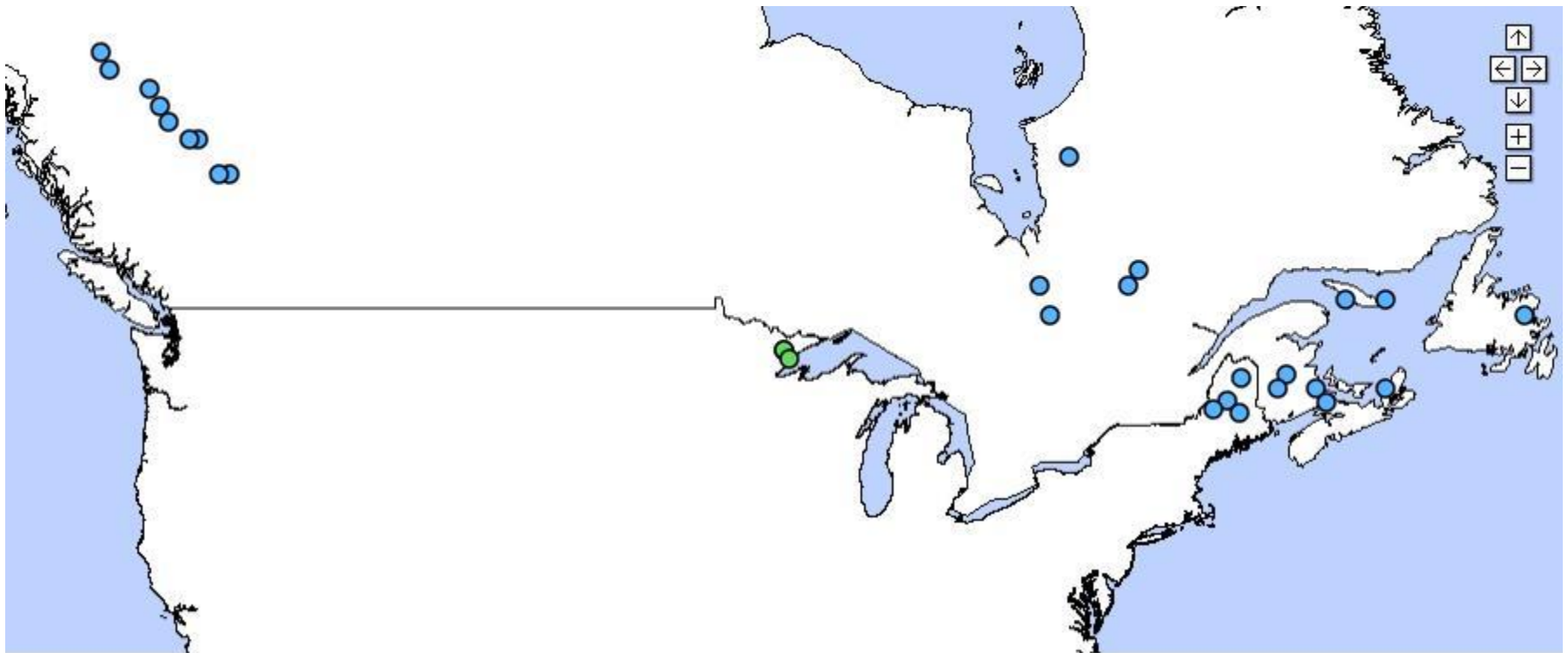


Quebec Emerald male
Somatochlora brevicincta
(c) 2005 June Tveekrem

- Breed in patterned fens, a very rare habitat type in MN.

Quebec Emerald Distribution

(map from odonatacentral.com)



Ringed Emerald

Somatochlora albicincta

- One adult specimen from Lake County
- Efforts targeting the adult and nymph have turned up nothing. We have the habitat...

Ebony Boghaunter

Williamsoni fletcheri



- Breed in tiny bog pools and emerge very early in the spring.

Slaty Skimmer

Libellula incesta

Great Blue Skimmer

Libellula vibrans

Striped Saddlebags

Tamea calverti

- All are likely strays to Minnesota

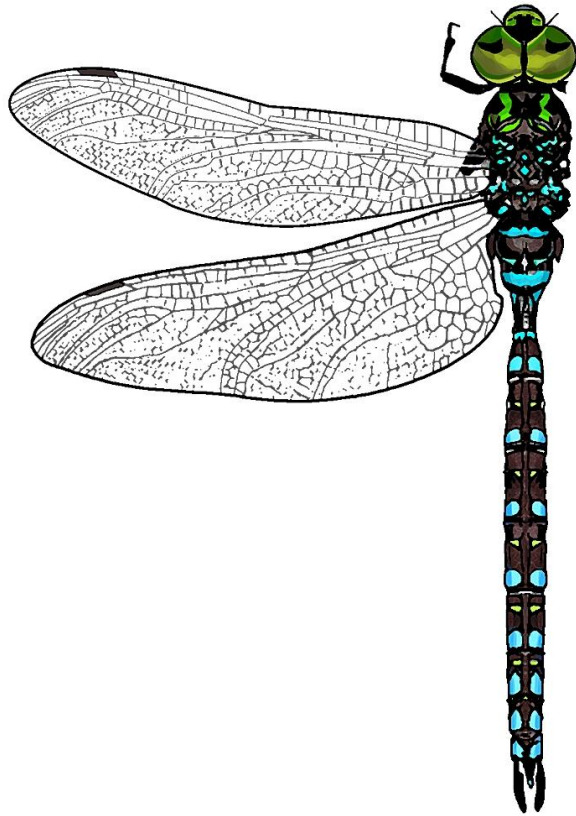
**What species are still
hiding in Minnesota?**



Or should we ask...

What species are still
hiding in Ohio?





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