

Williamsonia

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Welcome to the MOS!

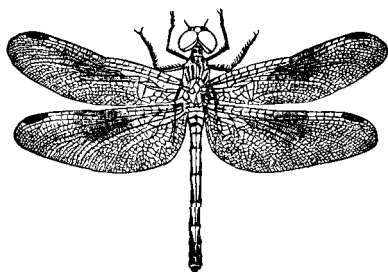
by Mark O'Brien

This newsletter marks the beginning of 1997, and the second six months of the Michigan Odonata Survey. I decided to name the newsletter *Williamsonia* due to the fact that E.B. Williamson's collection is the nucleus of our Odonata collection at the UMMZ, and also because the genus bearing his name is a most desirable one, especially in Michigan. The Michigan Odonata Survey is barely six months old as I write this, and I feel that we have accomplished some goals in a short time.

The past summer was an exciting one for me, really getting my feet wet (and other body parts) with Odonata in the field. Mike Kielb and I and shared some real good collecting days. We were lucky this past summer to have found some significant records, and the number of new county and state records will likely increase next season. We have been busy identifying our catches from the summer, and here is a quick list of the other projects we have going on:

1. Sorting, identification and cataloging of the larval odonate collections by Ethan Bright. (More about this later in this issue).
2. Cataloging the Michigan adults in the UMMZ Collection. Mike Kielb and I have been entering the data from the summer 1996 specimens, and we have only just begun to enter the UMMZ specimens into the database. As of the end of December, there are about 1700 specimens catalogued. Of course, we are always looking for volunteers for this monumental task.
3. Cataloging the UMMZ exuviae collection - a project undertaken by Alexis Kielb, a student at Ann Arbor Community High School. We inherited the Kennedy and Williamson collections, but the exuviae were definitely not well-curated. Most have been locked away in storage for many years, and as a result the data (much of it valuable) has been unavailable until now. Alexis is doing a great job getting the collection into a useful state. About half of the exuviae collection is now catalogued and curated.

We have plans for a spring MOS meeting/workshop



Michigan Odonata Survey - 1st Meeting Highlights

On Sept. 28, the MOS held its first meeting, and 14 Odonata enthusiasts attended. Tim Vogt gets the award for "farthest travelled" as he drove from Springfield IL. His knowledge and enthusiasm were greatly appreciated by all of us. With the exception of Tim Vogt and Bob Glotzhofer, the attendees were from SE lower Michigan.

Bob Glotzhofer of the Ohio Dragonfly Survey shared some of his experience from the ODS's activities. He made some very pertinent suggestions and observations that we'll try to follow. He also brought along some copies to sell of the very beautiful Ohio Dragonflies poster. I know that was appreciated by several of us.

By far, the best aspect of the meeting was the sharing of ideas and experiences that we have had. I think everyone took something useful away with them from the meeting. There were all levels of experience present, from beginners to established experts.

Everyone was able to contribute to the meeting, which bodes well for the survey. Several items stand out and some of them have already been acted upon:

- Specify targeted species, areas and habitats for future collecting efforts
 - Use exuviae surveys in places like the MetroParks to acquaint visitors with Odonata and to survey without worrying about collecting living insects.
 - Make changes to the database to accommodate UTM coordinates, as well as numbering each specimen.
 - Finish an updated distribution map for each species to be used by MOS members
 - Find volunteers to help catalogue specimens in the database
 - Prepare an MOS member packet to provide as much information for the participants as possible
 - Provide an MOS "ID Card" and MOS fact sheet for field workers
 - Provide "target species" fact sheets to participants
- We all agreed that a late winter-early spring workshop in 1997 would be a good idea, and we are making plans to do so. Such a workshop would likely be held in Ann Arbor, and might include:

- Identification of adults using keys
- Larval morphology and keys to identification
- Specimen preparation techniques

continued on page 3

Surveying for Odonata in the Huron Mountains in 1996

by Mark O'Brien

The Huron Mountains region in Marquette County, MI (about an hour northwest of Marquette) is an interesting area for dragonflies, due to the variety of undisturbed stream systems, lakes, beaver ponds and other wetland areas. I had made five previous trips to the Huron Mountains from 1984-94 to work on solitary and social wasps, and had made incidental collections of some odonates. However, in the past year I began to transform myself into an odonatologist, and I knew that the Huron Mountain region would be a great place for a survey. In late June, Mike and Susan Kielb, Ethan Bright, and I arrived at the Huron Mountain Club to begin an Odonata survey. Our research was funded by the Huron Mountain Wildlife Foundation.

We were pleased with the diversity of Odonata in the areas we studied in late June early July and again in mid-August, and hope to finish up our survey in another season or two. Based upon our estimates, there should be about 100 species of Odonata in the Huron Mountains region, and we found approximately half of them on our first trip. During early summer, *Libellula julia* (Uhler) was the most common species of Anisoptera. At Lily Pond, Mike and Susan Keilb saw thousands on a single day. We probably witnessed a big emergence, so it would be interesting to see what the numbers are in a subsequent year.

From the 25 June to 3 July 1996, we collected a total of 391 adult specimens of Odonata, representing 40 species. In addition, 15 sites were sampled for aquatic stages (larvae), with a total of 20 species found as larvae. Two exciting finds for the trip (aside from claiming numerous new county records) was the discovery of *Stylogomphus albistylus*, a small stream-dwelling gomphid dragonfly that was previously unreported from the UP. That find is published in the summer, 1996 issue of the **Great Lakes Entomologist** (Kielb, Bright, & O'Brien 1996. *Great Lakes Entomol.* 29[2]:87-88). The second major discovery wasn't realized until we were sorting specimens in the fall back at the Museum. I was sorting out the aeshnids, and found that we had collected four *Gomphaeschna furcillata* from three sites in the Huron Mountains. This species has not been recorded from Michigan since the late 1800's by Hagen. *Gomphaeschna furcillata* is a resident of alder swamps and similar habitats. There is no lack of those types of habitats in the UP, so there ought to be more records (See Tennesen's note!). The funny thing about those specimens is that I recall making some comment about collecting an aeshnid that looked like a gomphid, not knowing what *Gomphaeschna* was at the time...

Mountain Stream is an interesting place to collect, due to the diversity of stream micro-habitats and substrates. We were rewarded with many memorable encounters with *Cordulegaster maculata* (the two-spotted spiketail) along stretches of the stream. Both sexes cruised back and forth along lengths of the the stream, dodging fallen trees and insect nets with equal ease. Of course, our encounter with *Stylogomphus albistylus* was most worthwhile! Ethan found a lot of good catches in his sweep samples, with larvae of

Stylogomphus albistylus, *Boyeria vinosa*, *Cordulegaster maculata*, *Ophiogomphus colubrinus*, and *Hagenius brevistylus*.

At Ives Lake, we were successful at catching many *Didymops transversa* and *Macromia illinoensis*, both county records for Marquette. *Basiaeschna janata* was the most common aeshnid in late June and early July. *Epithea canis*, *spinigera* and *cynosura* were all present in the Huron Mountains. *Dorocordulia libera* and *Cordulia shurtleffi* were abundant in many locations. Four species of *Somatochlora* were taken, and hopefully, we'll catch a few more. A small open area surrounded by trees at Conway Bay was a "sink" for dragonflies. Catching *Somatochlores* that had dropped into the clearing was way too easy, but I'm not complaining! Mike and I had a wonderful time on the two occasions we collected there.

Ethan Bright collected aquatic samples from Ives Lake, Canyon Lake, Mountain Stream, Salmon-Trout River, Elm Creek, and many smaller ponds and the shore of Lake Superior. He will likely have some new records of other aquatic insects for his effort.

We have not even started to sort and identify the damselflies from our trips, but I am sure we found something interesting among those, too. Luckily, we now have the monumental publication by Westfall and May to work with.

The end result our Huron Mountains work will be a publication devoted to the dragonflies and damselflies of the Huron Mountains region, probably published in the *Great Lakes Entomologist*. We welcome any other collection data from Marquette County to add to our database. D

Seney National Wildlife Refuge - A Target Area

by Mark O'Brien

On my way to the Huron Mts. in late June 1996, I stopped for a break at Seney National Wildlife Refuge, and was quite amazed at the number of dragonflies that were in the air. There were hundreds hawking around the parking lots, and all along the side of the road. Since I did not have a permit, I didn't collect any that day. However, I made a mental note to try and get a permit for another trip. Mike Tansey, the Refuge Manager, provided me with a permit for my visit on August 13. Adrienne, Marjorie and I made a one-day survey along the major loop road, and although not a comprehensive effort, we did pretty well. It is obvious to me that early summer is really the time to be there, and perhaps even *Williamsonia* might be found off in the big bogs that are there.

I missed the refuge's biologist that day, but on the following day, I met with Rich Urbanek, and I discussed with him the aims of the MOS, and what a great site that Seney would be for an Odonata survey. He readily agreed, and I am hopeful that the MOS will be able to come up with some real "finds" up there. I hope to go back again in June 1997, and collect in the more remote areas of the Refuge. The Strangmoor Bog is HUGE, and there are a large series of string bogs—perfect places for a variety of Corduliidae, especially *Somatochlora*

MOS meeting from page 1

•Slide show of habitat types and targeted species

We will keep you posted on any meeting developments.

List of MOS meeting attendees:

Bob Glotzhober, Ohio Odonata Survey

Richard S. Taylor, Cranbrook Inst. Science

David Cuthrell, MI Nat. Features Inventory

Laura Krueger, U of M

Ethan Bright, UMMZ

Allan Chartier, Michigan Birds & Natural History

Tom Heatley, Clinton Twp, MI

Mike Kielb, UMMZ

Mark O'Brien, UMMZ

Jennifer McDonough, Lake Erie Metropark

Jerry Sadowski, Dearborn, MI



Scenes from the MOS meeting

Maps on the Web

by Mark O'Brien

Early in the fall, I started transferring county records from Kormondy's Michigan Catalogue to standardized forms containing a list of counties and an outline map of Michigan.

I used a dark circle to indicate Kormondy's records and an × on the map to show records added since 1958. Mostly, this was to help me with collecting efforts, but it also served to show others what the status is of the known distributions of the Michigan odonates. Another result is the generation of distribution maps for use on our web pages. Although a bit cumbersome, I use Clarisworks or another drawing program to place dots on the blank county outline maps for each species. I then transfer the map from a PICT file format to a jpeg file for the web. I have started to link the maps to the species names on the list of Michigan Odonata. You can check the list and maps at:

<http://insects.ummz.lsa.umich.edu/fauna/MIODONAT.HTML>



BUY THIS BOOK!!

A new publication, "*The Dragonflies and Damselflies of Algonquin Provincial Park*" by Matt Holder (Algonquin Park Technical Bulletin No. 11), will be of interest to everyone, particularly beginners. This 40-page booklet contains species accounts and full color paintings the 36 most common species of Odonata in the park. Most of these species also occur in northern Michigan, which makes it a useful guide for UP collecting. The species accounts are well written and contain useful biological information for the field observer. The introduction covers some of the basics of dragonfly biology and the book ends with a glossary and park checklist of 85 species. This delightful publication is very well done, and it has to be the biggest bargain of the year! The price is only \$2.95 (Canadian). Order from: The Friends of Algonquin Park, P. O. Box 248, Whitney, ONT, K0J 2M0 (credit cards accepted). I suggest buying a half-dozen copies just to have as extras for friends.

OHIO ODONATA SURVEY MEETING

by Bob Glotzhober

The **Ohio Odonata Survey** is planning for its annual meeting for **Saturday, February 22, 1997** at the Museum of Biological Diversity, The Ohio State University in Columbus. Maps can be sent by snail mail to anyone e-mailing a request to Bob Glotzhober at rglotzhb@infinet.com.

For the past four years we have tried to combine informative presentations with an afternoon field trip - usually in June. The value of each part of these meetings has created a pressure of time, which we will eliminate this year by holding a short business meeting followed by "papers" during February, and then hold several Ohio regional field trips during the Odonate flight season.

The tentative agenda includes the following items:

- Voting on forming an official Ohio organization & other business
- Keynote presentation on the federally endangered Hine's Emerald, *Somatochlora hineana*, by Tim Cashatt and Tim Vogt from the Illinois State Museum.
- Introduction to the Tiger Spiketail, *Cordulegaster erronea*, a rare SE Ohio species, by Dan Riggs who his doing his master's thesis on this species at Ohio University.
- Survival of Odonata larvae in Little Raccoon Creek in Southern Ohio, gleaned from his thesis research by Jan Trybula, Miami University
- Odonata ID Charts from the WPA. Bob Glotzhober, Ohio Historical Society, will offer a brief presentation about hand-painted charts prepared for the OSU entomology department between 1942 and 1945 under the federal Works Progress Administration.
- Dragonfly Web Sites. Dave McShaffrey, Marietta College, will demonstrate a variety of useful and interesting web sites from Ohio, Michigan, the IORI, and more.
- Best Finds of 1996. Review of the Ohio efforts this past year by Bob Glotzhober.
- Identification of genus level in the Family Libellulidae. This mini-workshop by Bob Restifo, Ohio Department of Health, Vector Borne Disease Unit, will take place at the end of the meeting for those interested in staying and delving deeper. Included will be a key to the genera, adapted from keys produced by the late Donald Borror of Ohio State University.

Times: 9:00 to 9:30 arrival & registration.
9:30 - 12:00 and 1:00 - 3:00 presentations

Hetaerina americana



A REQUEST FOR ADDITIONAL INFORMATION FOR E-MAIL DIRECTORY

by Bill Mauffray, I.O.R.I

I am updating the e-mail directory for the IORI World Wide Web site, located at <http://www.afn.org/~ioir/>. I would like to do a brief profile of each person on the list. Please (1) check to see if you are on the list, (2) check to see if the address is correct, (3) If you are not on the list, or if any of the following information is missing, send it to me: your name, e-mail address, institution or affiliation, City, state or province or other, and country, and a brief description of your interest (please no more than 100 characters).

If you have a picture of your self and would like it as part of your profile, it must be "scanned" and submitted to me as a .gif" file on diskette; or you can send me a non returnable picture and I will scan it into a file. If your picture is on the internet already, then provide with the address for your picture so that I can link your name to your picture. You might try to e-mail the photo to me as an attached file (some systems allow this). Mail diskette or photo to Bill Mauffray, 3906 NW 32nd Place, Gainesville, FL 32606, or e-mail: iori@afn.org

So far I do not know of any instance of where someone on the e-mail list has received spam or junk e-mail messages, unless; however, if you would count my book sales notice that I sent everyone last spring!!! For my personal data base, I would also like your postal mailing address, home, work, and ~~cell phone. The address and phone numbers will not be~~

COLLECTION NOTES

Another UP record for *Gomphaeschna furcillata*

Ken Tennesen

I collected one specimen of *Gomphaeschna furcillata* in Baraga County, near Tioga Creek, Hwy. 41 & 28, on June 24, 1996. This aeshnid, known as the Harlequin Darner, is rather rarely reported in the Great Lakes states, and was thought by Kormondy not to be resident in Michigan. However, recent records for northern Wisconsin and Canada indicate the species breeds in the northern part of the Great Lakes region.

New MI County Records for *Hagenius brevistylus*
Mark O'Brien & Mike Kielb

MARQUETTE CO.: Huron Mtn. Club, 08/22/1993, M & A. O'Brien 1m; Huron Mtn. Club, 06/28-07/02 1996, O'Brien, Kielb, & Bright, larvae & exuviae. SCHOOLCRAFT CO.: Seney National Wildlife Refuge, 08/13/1996, M. & A. O'Brien, 1 m. CASS CO.: Three Rivers State Game Area, 07/13/1996, M. & A. O'Brien, 1 m. BENZIE CO.: 3.3. mi NE Thompsonville, Betsie River at Reynolds Road, 07/07/1988, E.D. & P.D. Cashatt, 1m, 1f.

After we enter the larval records from the fluid collections, there should be a lot more new records since

Michigan Odonata Survey

ANISOPTERA

CHECKLIST OF MICHIGAN ODONATA

ZYGOPTERA

Calopterygidae

- ___ Calopteryx aequabilis Say
- ___ Calopteryx maculata (Beauvois)
- ___ Hetaerina americana (Fabr.)
- ___ Hetaerina titia (Drury)

Lestidae

- ___ Lestes congener Hagen
- ___ Lestes disjunctus disjunctus Selys
- ___ Lestes dryas Kirby
- ___ Lestes eurinus Say
- ___ Lestes forcipatus Rambur
- ___ Lestes inaequalis Walsh
- ___ Lestes rectangularis Say
- ___ Lestes unguiculatus Hagen
- ___ Lestes vigilax Hagen

Coenagrionidae

- ___ Amphigrion saucium (Burmeister)
- ___ Argia apicalis (Say)
- ___ Argia moesta (Hagen)
- ___ Argia sedula (Hagen)
- ___ Argia tibialis (Rambur)
- ___ Argia fumipennis violacea (Hagen)
- ___ Chromagrion conditum (Hagen)
- ___ Coenagrion interrogatum (Hagen)
- ___ Coenagrion resolutum (Hagen)
- ___ Enallagma antennatum (Say)
- ___ Enallagma aspersum (Hagen)
- ___ Enallagma boreale Selys
- ___ Enallagma carunculatum Morse
- ___ Enallagma civile (Hagen)
- ___ Enallagma cyathigerum (Charp.)
- ___ Enallagma cyathigerum vernale Gloyd
- ___ Enallagma divagans Selys
- ___ Enallagma ebrium (Hagen)
- ___ Enallagma exsulans (Hagen)
- ___ Enallagma geminatum Kellicott
- ___ Enallagma hageni (Walsh)
- ___ Enallagma signatum (Hagen)
- ___ Enallagma traviatum (Selys)
- ___ Enallagma vesperum Calvert
- ___ Ischnura kellicotti Williamson
- ___ Ischnura posita (Hagen)
- ___ Ischnura verticalis (Say)
- ___ Nehalennia gracilis Morse
- ___ Nehalennia irene (Hagen)

Petaluridae

- ___ Tachopteryx thoreyi (Hagen)

Cordulegastridae

- ___ Cordulegaster erronea Hagen
- ___ Cordulegaster maculata Selys
- ___ Cordulegaster obliqua (Say)
- ___ Cordulegaster (Zoraena) bilineata Carle
- ___ Cordulegaster (Zoraena) diastatops (Selys)

Aeshnidae

- ___ Aeshna canadensis Walker
- ___ Aeshna clepsydra Say
- ___ Aeshna constricta Say
- ___ Aeshna eremita Scudder
- ___ Aeshna interrupta Walker
- ___ Aeshna juncea Linn.
- ___ Aeshna mutata Hagen
- ___ Aeshna sitchensis Hagen
- ___ Aeshna subarctica Walker
- ___ Aeshna tuberculifera Walker
- ___ Aeshna umbrosa Walker
- ___ Aeshna verticalis Hagen
- ___ Anax junius (Drury)
- ___ Anax longipes Hagen
- ___ Basiaeschna janata (Say)
- ___ Boyeria grafiana Williamson
- ___ Boyeria vinosa (Say)
- ___ Epiaeschna heros (Fabr.)
- ___ Gomphaeschna furcillata (Hagen)
- ___ Nasiaeschna pentacantha (Rambur)

Gomphidae

- ___ Dromogomphus spinosus Selys
- ___ Gomphus brevis Hagen
- ___ Gomphus cornutus Tough
- ___ Gomphus exilis Selys
- ___ Gomphus fraternus (Say)
- ___ Gomphus furcifer Hagen
- ___ Gomphus graslinellus Walsh
- ___ Gomphus lineatifrons Calvert
- ___ Gomphus lividus Selys
- ___ Gomphus quadricolor Walsh
- ___ Gomphus spicatus Hagen
- ___ Gomphus submedianus Williamson
- ___ Gomphus vastus Walsh
- ___ Gomphus ventricosus Walsh
- ___ Gomphus villosipes Selys
- ___ Gomphus viridifrons Hine
- ___ Hagenius brevistylus Selys
- ___ Ophiogomphus aspersus Morse
- ___ Ophiogomphus carolus Needham
- ___ Ophiogomphus colubrinus Selys
- ___ Ophiogomphus howei Bromley

- ___ Ophiogomphus rupinsulensis (Walsh)
- ___ Progomphus obscurus (Rambur)
- ___ Stylogomphus albistylus (Hagen)
- ___ Stylurus amnicola Walsh
- ___ Stylurus laurae Williamson
- ___ Stylurus notatus Rambur
- ___ Stylurus plagiatus Selys
- ___ Stylurus scudderii Selys
- ___ Stylurus spiniceps (Walsh)

Macromiidae

- ___ Didymops transversa (Say)
- ___ Macromia illinoiensis Walsh
- ___ Macromia taeniolata Rambur

Corduliidae

- ___ Cordulia shurtleffi Scudder
- ___ Dorocordulia libera (Selys)
- ___ Epicordulia princeps (Hagen)
- ___ Epitheca canis MacLachlan
- ___ Epitheca cynosura (Say)
- ___ Epitheca spinigera Selys
- ___ Neurocordulia yamaskanensis (Provancher)
- ___ Somatochlora cingulata (Selys)
- ___ Somatochlora elongata (Scudder)
- ___ Somatochlora forcipata (Scudder)
- ___ Somatochlora franklini (Selys)
- ___ Somatochlora incurvata Walker
- ___ Somatochlora kennedyi Walker
- ___ Somatochlora linearis (Hagen)
- ___ Somatochlora minor Calvert
- ___ Somatochlora tenebrosa (Say)
- ___ Somatochlora walshi (Scudder)
- ___ Somatochlora williamsoni Walker
- ___ Williamsonia fletcheri Williamson

Libellulidae

- ___ Celithemis elisa (Hagen)
- ___ Celithemis eponina (Drury)
- ___ Celithemis monomelaena Williamson
- ___ Erythemis simplicicollis (Say)
- ___ Leucorrhinia frigida (Hagen)
- ___ Leucorrhinia glacialis Hagen
- ___ Leucorrhinia hudsonica (Selys)
- ___ Leucorrhinia intacta (Hagen)
- ___ Leucorrhinia proxima Calvert
- ___ Libellula cyanea Fabr.
- ___ Libellula incesta Hagen
- ___ Libellula julia (Uhler)
- ___ Libellula luctuosa Burmeister
- ___ Libellula lydia (Drury)
- ___ Libellula pulchella Drury
- ___ Libellula quadrimaculata Linn.
- ___ Libellula semifasciata Burm.
- ___ Nannothemis bella (Uhler)
- ___ Pachydiplax longipennis (Burmeister)
- ___ Pantala flavescens (Fabr.)
- ___ Pantala hymenaea (Say)

- ___ Perithemis tenera (Say)
- ___ Sympetrum ambiguum (Rambur)
- ___ Sympetrum corruptum (Hagen)
- ___ Sympetrum costiferum (Hagen)
- ___ Sympetrum danae (Sulzer)
- ___ Sympetrum internum Montgomery
- ___ Sympetrum obtrusum (Hagen)
- ___ Sympetrum occidentale Bartenev
- ___ Sympetrum rubicundulum (Say)
- ___ Sympetrum semicinctum (Say)
- ___ Sympetrum vicinum (Hagen)
- ___ Tramea carolina (Linn.)
- ___ Tramea lacerata Hagen

Species to look for but not yet recorded from Michigan:

LESTIDAE:

Archilestes grandis (Rambur)

CORDULIIDAE:

Somatochlora hineana Williamson

LIBELLULIDAE:

Sympetrum janae Carle

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Recent New Literature

Conniff, Richard. 1996. It's a bird...It's a plane...It's a dragonfly. Smithsonian. July, Vol. 27(4):70-81. (A nice article about Odonata and people who study them!)

Glotzhober, R.C., R.A. Restifo, T.E. Perry, and R.W. Alrutz. 1995. New dragonfly (Odonata) species in Ohio, and additions to county records. Ohio J. Science 95 (3):233-239.

Holder, M. 1996. The dragonflies and damselflies of Algonquin Provincial Park. Algonquin Park Tech. Bull. No. 11. 40 pp.

Kielb, M.A. 1996. Preliminary checklist of the dragonflies (Odonata) of the Great Lakes Region. Michigan Birds & Natural History. 3(2):77-82.

Kielb, M.A. 1996. Occurrence of libellulid dragonflies (Odonata: Libellulidae) in southeastern Michigan and adjacent Essex County, Ontario. Great Lakes Entomol. 29(1):1-9.

Kielb, M.A., E. Bright & M.F. O'Brien. 1996. Range extension of *Stylogomphus albistylus* (Odonata: Gomphidae) for the Upper Peninsula of Michigan. Great Lakes Entomol. 29(2):87-88.

Kielb, M.A. and M.F. O'Brien. 1997. Discovery of an isolated population of *Anax longipes* in Michigan (Odonata: Aeshnidae). Great Lakes Entomol. 29 (3): (In press).

Westfall, M.J. and M.L. May. 1996. Damselflies of North America. Scientific Publishers, Gainesville, FL. 649 pp. (Available from IORI store).

MOS "Membership" List

First Name	Last Name	Street	Address	City	ST	ZIP	email	phone
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Ethan	Bright	Insect Division, Museum of Zoology	University of Michigan	Ann Arbor	MI	48109-1079	ethanbr@umich.edu	313-647-2199
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Dan	Farmer	Seven Ponds Nature Center	3854 Crawford Road	Dryden	MI	48428-9776		
Chip	Franke	7774 Leonard		Coopersville	MI	49404		
Nancy & Rob	French	3340 Hudson		Dexter	MI	48130	robertsf@aol.com	313-426-3068
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Kip	Miller	9464 Old M-62		Eau Claire	MI	49111		616-782-7315
Darrin & Vickie	O'Brien	602 W. Cummins, Apt. 6		Tecumseh	MI	49286		517-423-8869
Mark	O'Brien	Insect Division, Museum of Zoology	University of Michigan	Ann Arbor	MI	48109	mfobrien@umich.edu	313-647-2199
Robert	Petit	23393 Meadows St.		Flat Rock	MI	48134	userbobpet@aol.com	313-379-4558
Gerald	Sadowski	22934 Wilson		Dearborn	MI	48128		313-565-4020
Ellie	Shappirio	608 Soule Blvd.		Ann Arbor	MI	48103		665-6613
Fred A.	Stehr	Dept. of Entomology	Michigan State University	East Lansing	MI	48824-1115		
John	Swales	546 Fifth Street		Ann Arbor	MI	48103	jmswales@umich.edu	
Charles	Swift	415 Longshore Drive		Ann Arbor	MI	48105	charless@umich.edu	665-8125
Ed & Barb	Taylor	4040 Woodland Drive		Ann Arbor	MI	48103		
Richard S.	Taylor	145 Manor Way		Rochester Hills	MI	48309-2027		810-375-1738
Tim	Vogt	Illinois State Museum	Spring & EdwardsStreets	Springfield	IL	62706		
Tex	Wells	3525 Greenbrier #2A		Ann Arbor	MI	48105		662-2223
William	Westrate	21406 McKenzie St.		Cassopolis	MI	49031		616-782-3280

MOS Larval Identification and Cataloging

by Ethan Bright

Many researchers and enthusiasts of Odonata have been reluctant to study larvae. This is unfortunate for at least two reasons. First, most of a dragon- or damselfly's life is spent as an aquatic larva (with rare exceptions), and there is a great deal of ecological information to be gleaned from careful surveying and collection. Second, ecological and taxonomic information learned from aquatic larvae is important in expanding our knowledge about aquatic ecosystems, with important extensions into ecosystem management and preservation. In fact, the habitats where most odonates live - wetlands and streams - are two of the most endangered ecosystem types, largely because of the deleterious impact by agriculture and the explosive growth of urban and suburban areas.

The collection here at the UMMZ-Insect Division contains a huge number of adult Odonata, and is well-regarded for its taxonomic breadth and quality of specimens. It is well-organized and maintained, with a large number of specimens identified and cataloged over a number of years by many of the

most renowned Odonata authorities. However, the same cannot be said of the large number of larval specimens that have been collected over the past 90 years. Larval identification has lagged considerably behind that of adults, largely because efforts have been mostly placed on collecting adults, and because of the difficulty of associating larvae and exuviae with the adults necessary for proper identification. Further, it is not always easy to find exuviae, from which many larval characters can be deduced. Finally, I suspect that many researchers have simply shied away from getting wet! Indeed, most of the large number of larvae here at UMMZ were collected not by entomologists but by ichthyologists. Carl Hubbs, Robert Miller and many other researchers and students in the UMMZ Fish Division have added a gold mine of specimens during years of collecting in Michigan, Southwestern USA, Mexico and Guatemala. Unfortunately, except for some work done by C. Francis Byers in the late 1920s and James G. Needham in the late 1930s to identify specimens collected principally in Michigan, the identification and organization of these specimens was largely ignored. A large number of specimens collected in the 1930s and 40s and donated by Mike Wright were usually accurately identified. Subsequent additions from entomologists - Edward Kormondy, Justin Leonard, Edward Williamson and others have added

continued on page 8

DSA Meeting: Gainesville FL June 6-8, 1997

by Bill Mauffray

The 1997 Dragonfly Society of the Americas meeting will be held June 6-8 1997 in Gainesville FL. This meeting will be to commemorate Dr. Minter J. Westfall Jr. It will be hosted by Bill & Carol Mauffray. Access to the Florida State Collection of Arthropods and the International Odonata Research Institute collections will be one of the features. Collecting trips to Gold Head Branch State Park and the Santa Fe River. *Libellula jesseana* and *Progomphus alachuensis* will be available for taking along with a host of other goodies such as *Gomphurus dilatatus*, and *Arigomphus pallidus*.

There are many restaurants and motels within a 2 mile radius of the IORI and most of the collecting sites are within a hours drive. The following cluster of motels offers a variety of classes of accommodations. They all within walking distance of one another. The area code for Gainesville is (352)

Motel 6 -- 4000 SW 40th Blvd @ I-75 & Sr-24 373-1604
rates quoted= \$27.99 single. \$31.99 double +\$2 per extra person

Super 8 -- 4202 SW 40th Blvd @ I-75 & Sr-24 378-3888
rates quoted= \$38.13 single \$44.03 double

Ramada Limited-- 4021 SW 40th Blvd @ I-75 & Sr-24
373-0392 rates quoted= \$54.00 single \$59.00 double

SR-24 is Archer Road for those of you who remember Gainesville.

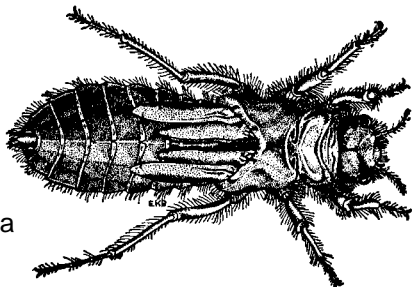
These rates are their standard rates, If we have 10 or more rooms at the later two hotels we would probably get a better rate. If enough of you all notify me by e-mail of which hotel you prefer and how many rooms you want then I can negotiate for a better price. I would need to know by March 1, 1997, Otherwise you would be on your own.

Camping is available at nearby Oleno State Park (904) 454-1853 (45 minutes from IORI) and also at Gold Head Branch State Park (352) 473-4701 (1:15 from IORI).

There is an Airport at Gainesville with Delta and US Air providing service; however much better rates are usually available from either Jacksonville (1:30 from IORI), or Orlando (2:15 from IORI). Rental cars are available at all three airports. they can be picked up at one and dropped of at another with no penalty any where in the state of Florida.

By the time you read this the Web site for the meeting should be set up. It will included useful tourist information about Gainesville and North Central Florida.

Bill is soliciting volunteers to host workshops and also post meetir panhandle *Ophiogomph* (352) 375-5



Libellula lydia

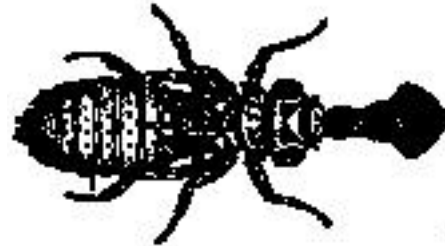
Mauffray:

...larvae from p. 7

many valuable specimens.

I have been working here at UMMZ Insect Division, organizing the larval Odonata collection and identifying the large number of nymphs. Things are looking good! A large database of specimens is accumulating, which hopefully will provide a useful source of information for Odonata taxonomists for years to come. (We encourage all to use our facilities for their research and systematic studies). From this large base of information, a web-based visual, easy-to-use key for larvae of Michigan species as well as information regarding the larval collection will be completed in 1997.

A larval and exuviae workshop will be planned for 1997 (date to be announced). This will include information from our larval collection, a workshop on larval collection morphology and ecology, and keys to the identification of Michigan larval Odonata. If there is sufficient interest, there could also be a local expedition to collect specimens from streams and, weather permitting, ponds and lakes. Although I will be "jumping in" in order to collect those wishing also



Sympetrum rubicundulum

ABOUT WILLIAMSONIA...

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