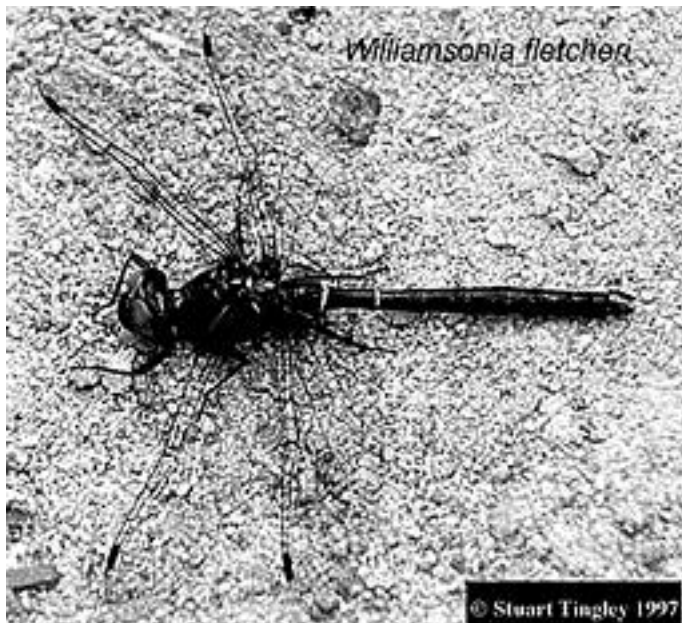


Williamsonia

Volume 2, Number 1

Michigan Odonata Survey Newsletter

February, 1998



Williamsonia fletcheri, photo by Stuart Tingley (see his web site at: <http://www.geocities.com/Yosemite/8425/odes/>)

It's A New Season!

Well, it's nearly March as I write this, so calling this a "winter issue" is a misnomer. However, I had planned to get a newsletter out earlier than this, so winter it is, even though the effects of el Niño are having us believe otherwise. By the time you read this, I am sure that many of you are thinking about spring and perhaps even the coming collecting season. There is always something exciting about anticipating the coming spring and summer months, whether it is gardening, birding, or entomology that interests you. Hopefully, the list of proposed collecting MOS collecting trips will also whet your appetite.

This issue contains a list of species that we consider to be poorly represented in collections thus far. Michigan is a big state, and as many of you know, getting any site sampled with any degree of thoroughness takes a considerable amount of time. The best that we can do most of the time is take a "snapshot" for a general idea of what taxa are in a given locality. Over time, our database will provide us some better understanding of the overall species composition. More bodies in the field in a variety of places will certainly help this along.

Make plans to attend the spring MOS meeting on April 18 in Ann Arbor at the UMMZ. We hope to have several people presenting short talks about work in the field, as well as the usual general discussion and short instructional sessions. As always, if you have an idea for an activity or would like to present a short talk, please let me or Ethan Bright know!

Lastly, if you would like to do any volunteer work for the MOS at the UMMZ, there are the following opportunities available:

1. Data collection at other museums.
2. Sorting larvae to the family level.
3. Entering specimen-level data into the MOS database.
4. Transcribe map data on the computer.

RESOURCES

Did you know that you can obtain a series of Michigan maps from the Mich. Dept. of Natural Resources and other sources in Lansing? Here is a list of map providers that you can write or call for information on selection and prices.

AERIAL PHOTOS - are available from the Real Estate Division, BOX 30448, Lansing, MI 48909-7948. 517-373-9123.

COUNTY MAPS are available from the DNR Real Estate Division, same address, 517-335-3236.

GEOLOGICAL MAPS - for bedrock geology, surface geology, and oil and gas maps are available from the DEQ Geological Survey Division, Box 30256, Lansing, MI 48909. 517-334-6943.

INLAND LAKE MAPS - scale and details vary, but they show lake outline, depth contours, weedbeds and shoreline features. Approx size 18 x 24". Michigan United COnservation Clubs, Box 30235, Lansing, MI 48909. 517-371-1041.

STREAM MAPS OF MICHIGAN are available from Michigan Natural Resources Magazine, 30600 Telegraph Road, Suite 1255, Bingham Farms, MI 48025-4531. 800-444-3412.

TOPOGRAPHIC MAPS - varying scales, are available from the DEQ Geological Survey, same as above.

WILDLIFE DIVISION MAPS - game areas, public lands, recreational areas. Available from Wildlife Division, Box 30444, Lansing, MI 48909-7944. 517-373-1263.



OHIO DRAGONFLY POSTERS

The 20 x 28" full color poster, The Dragonflies and Damselflies of Ohio, is still available from the Ohio Biological Survey. This poster makes an excellent wall decoration, and is useful for education, too. They are available plain (\$5) or laminated (\$7.50) plus \$1.50 postage & handling. The OBS also has posters of caddisflies, frogs and toads of Ohio, and bats of Ohio. Contact the Ohio Biological Survey, 1315 Kinnear Road, Columbus, OH 43212-1192.



MICHIGAN ODONATA SURVEY

SPRING MEETING

Saturday, April 18
1-5 pm Museum of Zoology
1109 Geddes Avenue
University of Michigan, Ann Arbor

Tentative Agenda

- 1 pm - Arrival, Introductions
- 1:30 - Current Status of the Survey
- 2:00 - Presentations
- 3:15 - Refreshments
- 3:40 - Techniques Forum
- 4:30 - Business Meeting
- 5:00 - ? Collections open

Parking: Park at the Palmer Drive parking lot near the UMMZ off of Washtenaw.

Topics for discussion: MOS Data-gathering; Field Trips, Survey Teams, Coordinators

1998 Species Search

(sort of like "Star Search..")

Mark O'Brien

After having looked at many, many dot maps and database entries in the past year, I have developed a "short list" of species for which we need to be searching for within the state of Michigan. The past year has seen quite a few county record additions as well as recollection of species already listed for some counties, especially in the SE part of the state. Re-collection is as important as new records, since we'd like to know if distributions have changed since Kormondy's 1958 and 1961 papers. A range of dates are provided for the adult flight period, and habitat refers to larval habitat and places where adults have been captured (as noted). I also point out that several species are candidates for removal from the list unless they are recollected. Many species have indeed been recollected and the UP is producing a lot of new county records. Based upon what has happened in the past couple of years, I expect that trend to continue as we explore many new localities and habitats. Refer to the Collector's Handbook (1997) for maps of the species listed below, as well as the criteria for reporting habitat information, etc.

ZYGOPTERA

CALOPTERYGIDAE

Hetaerina titia - we have no verified records for Michigan at this time. Kormondy (1958) listed it for Oakland

Williamsonia

Co., but no other records are known. The earlier report may have been in error, or maybe we need to look at specimens more carefully.

Habitat: Slow-moving streams and small rivers with vegetation and a permanent current. Females oviposit underwater in wet wood.

LESTIDAE

Archilestes grandis Rambur - Although not yet found in the state, this species has been expanding its range across North America. It's in OH, IL, and IN, and ought to be in our state. It is one of the most robust damselflies, with males averaging 56 mm long. The thorax of the adult is tan or brown with longitudinal yellow stripes. Larval habitats are slow-moving streams, drainage ditches, impoundments and sloughs. Collection dates in Ohio are from July 3 to Oct. 21 (Glotzhober 1995).

Lestes inaequalis Walsh - only 9 counties are recorded, all in the LP. Dates: early June to late July. Habitat: Marshy zones of mucky-bottomed ponds and lakes.

COENAGRIONIDAE

Coenagrion interrogatum (Hagen) - only record for Michigan is Isle Royale! This is a boreal species that is found in open fens and marshes. Adults have been collected from early June to mid-August. Catling & Bownell (1997) shows records on the N. shore of Lk. Superior and E of the Georgian Bay in Ontario.

Enallagma aspersum (Hagen) - This small bluet has dark tarsi and cream-colored legs, and is only recorded from Montmorency, Lapeer, and Livingston Counties. According to Westfall & May (1996), this species inhabits lentic situations ranging from clear lakes to boggy swamps and semipermanent ponds, and doesn't usually cohabit ponds with fish (McPeck 1989).

Enallagma basidens Calvert - This species has been in Michigan at least since 1992, and is expanding its range. This small bluet has distinctive twin humeral stripes on the thorax. So far, only known from Lenawee and Tuscola Counties. O'Brien (1988) summarized the new localities. Usually found in disturbed situations, ranging from man-made ponds to irrigation ditches. The specimens from Michigan were collected in July and August.

Enallagma divagans Selys - only known thus far from Shiawassee, Livingston, Oakland and Washtenaw Counties. The habitat appears to be sluggish streams and sloughs. Adults have been collected from early June to mid- July.

Enallagma traviatum (Selys) - This species is recorded from Montcalm, Livingston, Oakland, and Washtenaw Counties. Macomb Co. is a new record for 1998. Although Westfall and May (1996) presents this to be a fairly common species in the eastern US, it does not appear to be so in Michigan, where it approaches its westernmost limit. Collection dates are early June to late July.

Ischnura kellicotti Williamson - Only recorded from Branch County! This species ought to be more commonly encountered. It is associated with lily pads of *Nuphar* and *Nymphaea*, where the adults perch on the upper side of the leaf, and the larvae cling to the lower surface (Westfall & May 1996). Williamson caught several specimens at Girard Lk. on 07/30/1925.

ANISOPTERA

PETALURIDAE

Tachopteryx thoreyi (Hagen) - This petalurid dragonfly is found near seeps small streams near wooded hardwood swamps. Adults fly in sunny openings and often perch on the bark of trees or posts. Known only thus far from Berrien and Cass/St. Joseph Counties. It should be found in similar habitats in the lower tier of counties. As of the end of 1997, it was State Listed as a T & E species. I don't think the proposed status change will take place until spring, 1998. The flight date is early June - mid-July, and the known habitat in Cass and St. Joseph counties also supports several other listed species, such as Mitchell's Satyr and Kirtland's Water Snake.

AESHNIDAE

Aeshna juncea Linnaeus - This widespread holarctic species is only known so far from Isle Royale. It may occur in other parts of the Upper Peninsula. Adults are found over open marshes and shallow lakes edged by reeds. Capture dates are late July to late August in Canada (Walker 1912). On Isle Royale, larvae were found in rocky splash pools near the shoreline of Lk. Superior (Van Buskirk 1992).

Aeshna mutata Hagen - This early summer darner is known primarily from the southern LP. Kormondy recorded it from St. Joseph, Washtenaw and Livingston Counties, and we have added Allegan, Barry, Oakland, Presque Isle. Adults have been captured near the edge of wooded areas. The only other aeshnid flying this early is *Basiaeschna janata*, which is fairly common. Collection dates are late May to mid-June.

Aeshna sitchensis Hagen - Seven counties in the UP and Charlevoix County in the LP are recorded. Again, this is another boreal species that is more common north of the Great Lakes. The flight period is from late June to mid-August.

Aeshna subarctica Walker - Another boreal species, Kormondy recorded it from Isle Royale, Gogebic, Keweenaw, Houghton and Chippewa Counties. The adults have been collected from late July to mid-August, and are similar in appearance to *A. juncea*.

Aeshna tuberculifera Walker - Although Kormondy only listed 8 counties, seven have been added since then, and the species could be found just about anywhere in the state. It should be found near boggy lakes and ponds, and the adults have been collected from mid-July to early September.

Anax longipes Hagen - Although Kielb and O'Brien (1997) found this species in only Livingston Co., it should be looked for in small ponds and runoff ponds where fish are absent. It is likely to be encountered in mid to late summer. Its brick-red abdomen, long hind legs and non-yellowish wings, as well as the lack of a "bulls-eye" on the clypeus distinguishes the species from the very common green darner, *A. junius* Hagen. Teneral green darners often have a reddish cast to the abdomen, but it disappears after a few days of maturation feeding. This is one species where a voucher specimen is desirable. Exuviae are found about 1 ft. above the water on *Typha* stems. Adults perch near the top until the wings harden enough to allow them to fly.

Boyeria grafiana Williamson - known thus far only from Isle Royale, this species should be looked for in riverine habitats. It is fairly common in the southeastern US, and

the single UP record is puzzling. I need to verify the identity of the specimen at MSU that was listed by Kormondy. Its sister species, *B. vinosa* (Say), is quite widespread in the state, and larval records are common. Perry (1977) found *B. grafiana* in a small river in Ohio, and said that adults were flying very late in the day.

Epiaeschna heros (Fabr.) The swamp darner is known from 8 counties, all in the LP, and it never seems to be abundant. It is found in mid to late summer. The adults are quite large, and the abdomen hangs down at a peculiar angle while in flight. Of course, it should be looked for in *Typha* - dominated wetlands. Adult collection dates range from mid-June to early August.

Gomphaeschna furcillata (Hagen) - Until 1996, this species was known only from a lit. record (Hagen 1875). However, work in the UP by the MOS, Tennesen and Hudson, and others, reveals it to be fairly common and widespread in the Upper Peninsula (6 counties). It should be looked for where alder swamps are nearby. Females apparently oviposit in wood near the waterline, and adults often perch on logs or branches (atypical behavior for a darner). The harlequin darner is quite distinctive, and should be looked for in the Upper LP in early to mid-June.

Nasiaeschna pentacantha (Rambur) - The cyrano darner is now found in 5 counties in the LP (Osceola, Newaygo, Livingston, Ingham, Macomb). Larvae should be looked for in slow-moving streams and impoundments, perhaps ponds. Adults have been collected in late June through July.

CORDULIIDAE

Neurocordulia yamaskenensis (Provancher) - So far, known only from Cheboygan and Marquette Counties, but we assume that it is far more widespread. The adults fly at dusk and are therefore difficult to capture and document. Larval collections for this species are important. Larval habitat seems to range from slow-moving deep streams to clear lakes. Adults are probably on the wing in Michigan from late June to late July. Another species, *N. obsoleta* (Say) is also possible as a resident species, but we have no adult records as yet, and the larval record is inconclusive. Like *N. yamaskenensis*, this species also flies at dusk.

Somatochlora species - most *Somatochlora* are represented by only a few records. With the addition of a federally listed species (*S. hineana* Wmson.), looking for other species makes it a bit difficult to collect in Mackinac Co. without some preparation. Only *S. walshi* (Scudder) and *S. williamsoni* Walker are widespread in their distribution, but most records are from the UP and NLP. *Somatochlora linearis* (Hagen) is recorded from Midland Co. (R.R. Driesbach), and this specimen and locality needs verification. Unfortunately, a lot of Driesbach's material contains such dubious records that cannot be verified. I hope to have a graphic chart of adult *Somatochlora* diagnostic characters available in the next Williamsonia.

Williamsonia fletcheri Williamson - So far, recorded only from Schoolcraft and Grand Traverse counties. It is very likely that this species has a broader distribution, but due to its early emergence in boggy areas, it is going to be a difficult species to document. The most recent record by Foley (1966) was collected on June 4 in Grand Traverse Co. This species may be out as early as mid-May in the LP, but we really have very few records to make any generalizations. I expect that once people start looking for it,

it will be found to be more common than previously thought. Due to the mild winter and elevated temperatures this year, it might be found earlier than usual, mid- to late May is a time to look for it.

CORDULEGASTRIDAE

Cordulegaster bilineata Carle - This cryptic species is recorded from five counties in the LP (Berrien, Washtenaw, Antrim, Crawford, Oscoda). Habitat may be in fens and boggy areas. Adults are recorded from June and July. This species was only recently separated from *C. diastatops* (Carle 1983), so earlier records may refer to either species.

Cordulegaster diastatops (Selys) - widespread in the state, but only 7 counties recorded - Keweenaw, Cheboygan, Antrim, Crawford, Berrien, Cass, & Washtenaw. This species also has adult records from June and July.

Cordulegaster erronea Hagen. This species appears to inhabit small seepage areas leading into small streams. Marquette and Oceana counties were listed by Kormondy (1958). I believe that the Marquette record by Andrews (1929) is in error. The inlet of Silver Lake in Oceana Co. is one known locality where the species has recently been taken. Western LP areas should harbor more populations, especially where streams are emerging from wooded hillsides. Adults appear from early July to early August.

Cordulegaster obliqua (Say) - Only recorded from Berrien, Wayne, Oakland, and Midland counties. It should turn up in large streams and small rivers.

MACROMIIDAE

Macromia taeniolata Rambur - Only known from St. Joseph Co. (1919 by Williamson) and Ingham Co. (unknown collector, 1948), and these records need to be verified. Larval collections would certainly establish this as a resident species. Based upon Ohio and Indiana records, this species should be collected in the southern tier of counties in July and early August. Creeks and rivers should also be checked for exuviae.

GOMPHIDAE

Argomphus submedianus (Williamson) - only recorded from Wayne Co. by Hagen in 1885 (as *G. pallidus*). Unlikely to be a resident species, and no larvae have been recorded. This is a candidate for being stricken from the state list.

Argomphus villosipes Selys - Only known from Washtenaw, Wayne (Hagen 1875) and Gratiot (1959 larval coll.) counties. Only date for adult is late June.

Gomphus (Hylogomphus) adelphus Selys - formerly known as *G. brevis* Hagen. This species is known from a number of counties in the UP and NLP. New county records have turned up in the past 10 years. I list it here only because some people may not be aware of the change in name. This species is found in rivers and large streams.

Gomphus graslinellus Walsh - Four widely scattered records - Marquette, Emmet [Carp Lk.], Cheboygan and Washtenaw counties - no recent records have been found.

Gomphus lineatifrons Calvert - SLP - Midland, Gratiot, Ingham, Jackson, Livingston, Oakland & Washtenaw counties. No recent records - adults collected early - late June. Larvae have been collected from Sandstone Cr. in Jackson Co, and Honey Cr. in Livingston Co.

Gomphus quadricolor Walsh - Only known from St. Clair and Midland counties. Glotzhober (1995) states that this species often perches on rocks in rapids of large creeks.

Gomphus viridifrons Hine - Only known from the Chippewa R. in Midland Co. Again, another R.R. Driesbach specimen, and may be erroneous, as the date was late May.

Ophiogomphus aspersus Morse - Records are from Alpena, Gogebic, Oakland and Crawford Co. Rivers and large creeks are its habitat.

Ophiogomphus howei Brimley - A few recent records (unpubl.) from Menominee Co. in the Menominee R. It probably occurs elsewhere in the UP. Larvae live in clear, undisturbed rivers with sand/gravel bottoms (Tennessee 1993).

Stylogomphus albistylus (Hagen)- Baraga, Marquette, Delta, Lake and Montmorency Co. Rocky, swift streams with pools and gravelly bottoms. Kielb, et al. (1996) published the first records for the UP. Adults fly from late June to late July. Larvae are much easier to collect than the adults - and a more sampling of the appropriate streams should reveal it to be more common.

Stylurus amnicola Walsh - Allegan, Osceola, Alpena, and Schoolcraft Co. (Mead Creek). Most of the records are very recent. Adults are flying in July & August.

Stylurus laurae Wmson. - The only record for this species was the Huron River in 1934. This is a species more typical of the southeast, and it might be an occasional vagrant.

Stylurus notatus Rambur - Recent records from St. Clair and Wayne Co. are encouraging signs. Adults are flying in August.

*Stylurus plagiatu*s Selys - Alpena Co. is the only record for this species.

*Stylurus scudder*i Selys - Adults have been collected in August from Schoolcraft, Mackinac, Gogebic, and Luce Co. The Brevort R. in Manistique has a population.

Stylurus spiniceps (Walsh) - So far, exuviae and possible adult sightings only in the Huron River in Washtenaw Co. The adults are flying in mid July - late August, and exuviae are found on rocks and vegetation (see O'Brien, 1998).

LIBELLULIDAE

Libellula semifasciata Burm. - This species is recorded from Huron, Ingham, Kalamazoo, Oakland, Shiawassee, Washtenaw, Monroe, and Wayne Co (Kielb 1996). Primarily a southern pond species, it appears that we get occasional vagrants and temporary populations in Michigan.

Nannothemis bella (Uhler) - Kielb (1997) summarized the records of this species in Michigan. As usual, more localities keep appearing. This diminutive species is probably a lot more commonplace than we realize. Fens and boggy areas seem to be the appropriate habitat. Flight dates are late June to Late July.

Pantala flavescens (Fabr.) - This wandering species is associated with temporary pools - larvae develop quickly in a single season (although we do not know what happens in

Michigan). However, the few records (8 counties) we have are attributable to the fact that the adults are usually difficult to catch. In Mackinac Co. I caught a pair after stalking them for over an hour. This is a mid- to late summer species, and they are often seen in migration swarms farther south.

Pantala hymenaea (Say) - This is another southern species that is seen occasionally in Michigan. Perhaps in an El Nino year we'll see more of them!

Sympetrum ambiguum (Rambur) - Only a single record from 1919 - Glotzhober (1995) shows it to be widely distributed in Ohio, so perhaps it will show up again in the lower tier of counties.

Sympetrum occidentale Bartenev - This is a western species, and the only record thus far is from Isle Royale (Glotzhober 1985). Perhaps additional records will be found in the western UP.

Tramea carolina (Linn.) - This is another vagrant species, and should be found in the SLP when weather fronts push them northward. Unknown if breeding populations could exist.

Tramea onusta Hagen - Not yet recorded for Michigan, but numerous specimens were seen on the Canadian side of the St. Clair River in late summer of 1997 (Pratt 1997).

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Annual Meeting of the Ohio Odonata Society

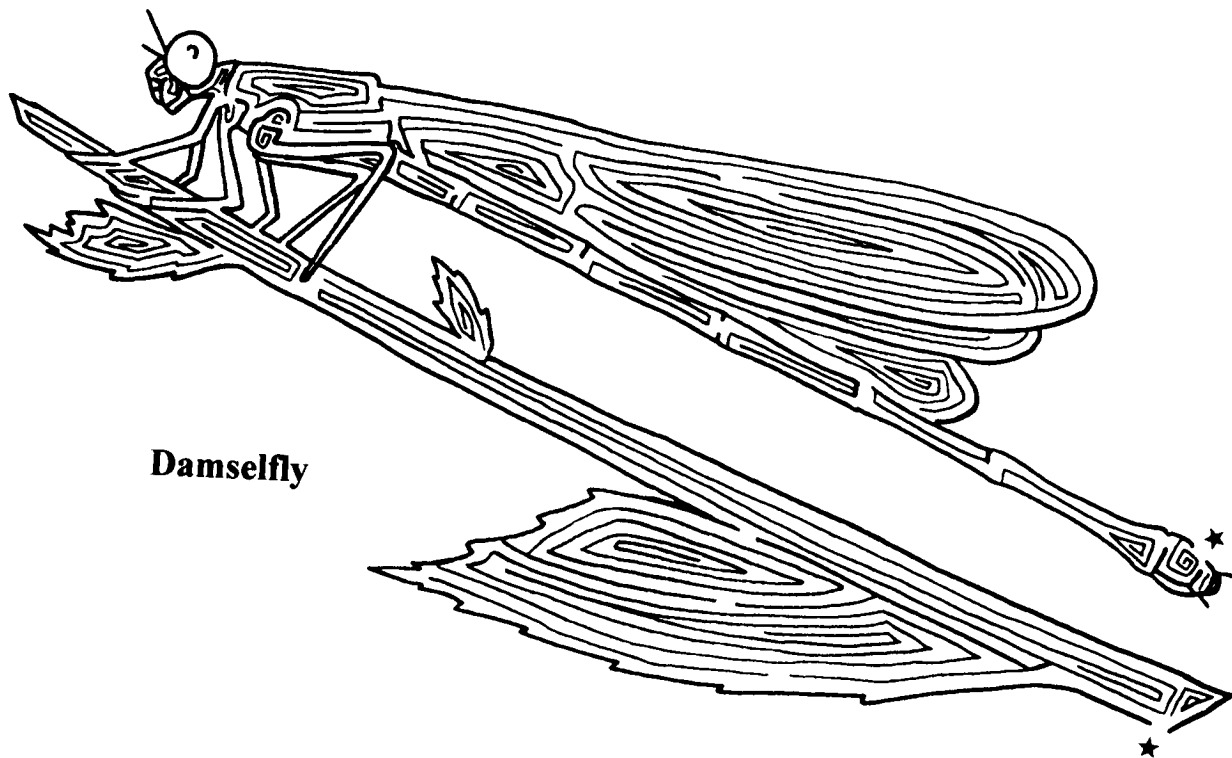
Saturday, March 28, 1998
Museum of Biological Diversity, Ohio State University
Columbus, Ohio
9:30 to 3:00 (plus over???)

Tentative agenda included in the latest issue of the "Dragon-Flier". You need not be a member of OOS to attend, we welcome and invite everyone.

If you are not a paid-member and need directions or a tentative agenda, e-mail me and I respond via e-mail.

Alternatively, join the OOS, and we'll send our 8-page newsletter which has the above information. Dues are \$5/year, payable to "Ohio Odonata Society", and mailed to:
Carmen Trisler, OOS Treasurer
Wittenburg University
P.O. Box 720
Springfield, Ohio 45501-0720

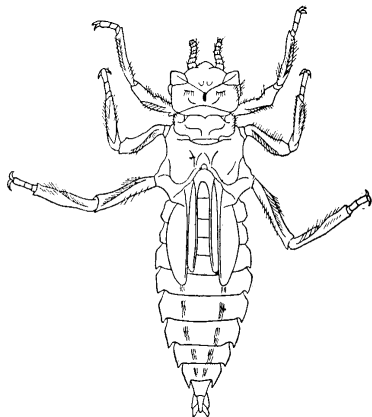
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Damselfly

Here is a puzzle for the younger readers. It almost looks like one of my routes during a field trip.

1998 MOS Field Trips



Tachopteryx thoreyi larva

The following list is tentative and subject to change. Bring a lunch, collecting equipment, binoculars, etc.

24 May (Sunday) 11 am - Livingston Co., Sayles Lake, Pinckney SRA

21 June - Summer Solstice - 9 am - dusk. Suggested Area: Berrien Co., Warren Woods; Cass Co., St. Joseph Co., Three Rivers SGA, all going back towards AA. The rendezvous point should be Warren Woods Nat. Area parking area at 9:30.

5 July - Hudson Mills MetroPark; noon - 5 pm

9 August - Lapeer Co. Ortonville S.R.A.. Big Fish Lake and nearby marshes and streams. Meet at Big Boy in Fenton off US 23 at 10 am. We'll coordinate and car pool from there.

13 Sept. Livingston Co. - Gregory SGA; Washtenaw Co., Chelsea SGA 10 am -

18 Oct. - MOS Fall Business Meeting - place TBA.

Williamsonia - A quarterly newsletter of the Michigan Odonata Survey.

Editor: Mark O'Brien
 If you like *Williamsonia*, and would like to contribute towards its operating expenses, make your donation payable to the the University of Michigan Museum of Zoology.

web site: <http://insects.ummz.lsa.umich.edu/michodo/mos.html>
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