

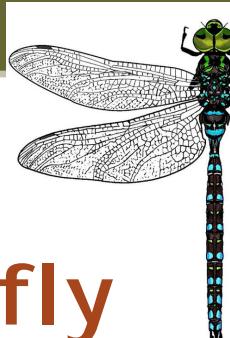
MINNESOTA ODONATA GAZETTE

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Minnesota
Odonata
Survey
Project

The 2008 Dragonfly Workshops a Success!

MOSP offered numerous workshops throughout Minnesota in 2008. Kurt Mead led some early-season trainings for MN Department of Natural Resources employees; unfortunately, not very many odonates attended on these cool days.

Dianne Rowse led five summer workshops, with 58 participants and 37 new county record species collected. Here are the details:

- *June 14 at Prairie Wetlands Learning Center, Fergus Falls, Otter Tail County - 3 new records
- *June 21 at Lebanon Hills Visitor Center, Eagan, Dakota County - 6 new records
- *June 28 at Quarry Hill Nature Center, Rochester, Olmsted County - 8 new records
- *July 11-13, the annual MN Dragonfly Gathering, at the Audubon Center of the North Woods, Sandstone, Pine County - 15 new records

- *Aug. 9 at Sherburne National Wildlife Refuge, Zimmerman, Sherburne County- 5 new records

Many of the county records are damselflies, including Rainbow Bluet, Sedge Sprite and Lyre-tipped, Northern and Amberwinged Spreadwings.

Also, there were a few common dragonflies that had not been previously recorded in some of the counties, such as the Wandering Glider, Blue Dasher and Common Pondhawk.

If you have 2008 Minnesota odonate specimens or photos on a disk, please label and send these to me by December 5, to the address above.

Plan to attend a workshop next summer to refresh your skills and learn from other odonate enthusiasts. The annual MN Dragonfly Gathering is already scheduled for July 17-19, 2009, at Shalom Hill Farm Retreat Center near Windom, in Cottonwood County (southwest MN).

The 2009 Summer Calendar will be posted this winter at the MOSP website:
www.mndragonfly.org.

Check it out!

-Dianne Rowse

More Odonates for Minnesota

By Kurt Mead

The first edition of my book, *Dragonflies of the North Woods*, is useful throughout Minnesota, although there are 10 dragonfly species in the southern parts of the state that are not in this book. A useful reference that includes most of these is *Dragonflies and Damselflies of Northeast Ohio*, available from the Cleveland Museum of Natural History (\$25).

1. Unicorn Clubtail, *Arigomphus furcifer*
 2. Plains Clubtail, *Gomphus externus*
 3. Russet-tipped Clubtail, *Stylurus plagiatus*
 4. Quebec Emerald, *Somatochlora brevicincta*
 5. Smoky Shadowdragon, *Neurocordulia molesta*
 6. Eastern Amberwing, *Perithemis tenera*
 7. Blue-faced Meadowhawk, *Sympetrum ambiguum*
 8. Red-veined Meadowhawk, *Sympetrum madidum*
 9. Carolina Saddlebags, *Tramea Carolina*
 10. Red Saddlebags, *Tramea onusta*
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RECORDS:

Anyone interested in submitting records to the MOSP should do the following:

1. Check out the MOSP at www.mndragonfly.org for general info and specifics on how to conduct surveys and submit records and specimens.
2. Attend one of the five MOSP training workshops to be held throughout Minnesota. Dates and locations are posted on the website in January.
3. Contact us at the email address on the website to get on our database of volunteers. We will send you occasional email announcements and newsletters.

4. Brush up on your dragonfly and damselfly ID skills, then gather in packs of similarly-minded folks and head out into the wilds (or your backyard). Teach each other what you know and figure the rest out. Be resourceful with field guides and the internet, and ask questions of those with more experience.
5. Go to the Odonata Central website at www.odonatacentral.com (there is a link to this on the MOSP website) and look up the list of known species for your county. I have printed out the data for all Minnesota counties (no small task) and I carry them around in a large three-ring binder. Consider doing so for any and all counties to which you regularly visit, as well as some of the surrounding counties, just in case. □

Superior National Forest Odonate 2008 Survey

By Dave Grosshuesch

During the cold days of March 2008 (when odonates are only a figment of our imagination), the Superior National Forest (SNF) and MOSP personnel sat down to discuss a potential partnership for the upcoming odonate season. The discussion was spurred on by the lack of odonate information available on the SNF and the new Minnesota odonate project (MOSP) initiated by Kurt Mead. It seemed like an ideal situation for the SNF and MOSP to partner in the development of a list for the SNF, as well as, providing the general public with opportunity to learn more about the diverse community of odonates in northeastern Minnesota. Kurt's enthusiastic nature for odonates helped energize the SNF to propose three weekend events throughout the summer (May 31 – June 1; June 28 – 29; August 16 – 17) – with the hope of capturing different emergence times for species of interest (i.e. RFSS and Species of Special Concern). The purpose of the survey was to: 1) develop a species list for the SNF, 2) identify locations for future monitoring, and 3) provide people with an opportunity to learn more about the diverse community of odonates on the SNF. Sampling occurred at sixteen different locations, with 8 river locations, 4 bog locations, 2 wetland ponds, 1 fen and 1 lake. In total, 55 species of dragonflies and damselflies were found during the three weekends, with 41 species of dragonflies and 14 species of damselflies. There were 37 species found at rivers, 21 species at bogs, 17 species at Sullivan Lake, 10 species at wetlands and 6 species at the fen. Two species were new records for St. Louis County (Prince Baskettail and Calico Pennant). Thirteen species were added to the SNF odonate list (i.e. species not previously reported within the boundaries of the forest), with 8 dragonflies and 5 damselflies. The overall composite list for the SNF is 82 species, with 60 dragonflies and 22 damselflies. The highlights of the season were Subarctic Darner (Species of Special Concern), Least Clubtail (species of interest), Delicate Emerald (species of interest), and Ski-tailed Emerald (species of interest). The best highlight of the season was the 21 participants that helped to collect this information and made the event a huge success! If you are interested in seeing the 2008 report or would like information about the 2009 surveys, please contact Dave Grosshuesch at: dgrosshuesch@fs.fed.us or call 218 229-8815.

The composite species list during the three SNF weekend surveys included:

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|---|---|--|
| <ul style="list-style-type: none">• Canada Darner• Lake Darner• Variable Darner• Subarctic Darner• Shadow Darner• Common Green Darner• Springtime Darner• Fawn Darner• Ashy Clubtail• Dusky Clubtail• Mustached Clubtail• Dragonhunter• Riffle Snaketail• Least Clubtail• Twin-spotted Spiketail• Swift River Cruiser• American Emerald• Racket-tailed Emerald• Prince Baskettail | <ul style="list-style-type: none">• Beaverpond Baskettail• Common Baskettail• Spiny Baskettail• Ski-tailed Emerald• Delicate Emerald• Brush-tipped Emerald• Williamson's Emerald• Calico Pennant• Chalk-fronted Corporal• Frosted Whiteface• Hudsonian Whiteface• Dot-tailed Whiteface• Belted Whiteface• Widow Skimmer• Twelve-spotted Skimmer• Four-spotted Skimmer• Blue Dasher• Common Whitetail• Saffron-winged Meadowhawk | <ul style="list-style-type: none">• Cherry-faced Meadowhawk• White-faced Meadowhawk• Yellow-legged Meadowhawk• River Jewelwing• Ebony Jewelwing• Spotted Spreadwing• Northern Spreadwing• Emerald Spreadwing• Sweetflag Spreadwing• Lyre-tipped Spreadwing• Powdered Dancer• Taiga Bluet• Boreal Bluet• Marsh Bluet• Hagen's Bluet• Eastern Forktail• Sedge Sprite |
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The Dragonhunters On Mallard Island: A Journal of Dragonfly Encounters

By Scott King

Poet and MOSP Volunteer

www.reddragonflypress.org

Sunday, July 20, 2008: After a day traveling to the far northern border of Minnesota, I arrived on Mallard Island. The island is small, no more than a forested splinter of rock, "an acre and a half rocky island in Rainy Lake, half a mile from the Canadian border" is how Ernest Oberholtzer (1884-1977) referred to it. Oberholtzer, who lived on the island many years, fashioned it into a place of real wonder and charm, building a number of eccentric dwellings, stocking each with books, as many books as the walls and floor joists would allow—sometimes more. The island is now protected and preserved by the Oberholtzer Foundation. The Foundation also works to preserve the legacy of Ernest Oberholtzer, who was an important American conservationist, by inviting naturalists, writers, artists, and musicians to visit and use the island. I came to the island to spend a week with a few other poets and a number of musicians. I did, however, bring along my dragonfly net (in addition to pens and notebooks). I knew there would be time for a survey of the island's dragonflies, and I wished to discover some species not found in southern Minnesota.



(*Hagenius brevistylus* photographed by Diane Tessari)



(*Hagenius brevistylus* eating a mayfly, photo by Diane Tessari)

A few drops of rain fell on us while aboard the pontoon boat as we were ferried across the waters of Rainy Lake to the island. But the sky soon cleared and the sun was out by the time we had unpacked and settled into our rooms. I took my first walk to the west end of the island. Near the steps at the swimming beach, I netted a large black and yellow dragonfly from off a jackpine branch. My guide book was back in my room, so I brought the dragonfly back there for identification. *Hagenius brevistylus*, a Dragonhunter, the largest dragonfly in Minnesota. I read in the guide book that "the Dragonhunter is a fierce predator and has been known to eat large butterflies and even other dragonflies....They usually attack from above and will sometimes knock prey into the water before coming in for the kill." The island, as I would soon discover, was dominated by a large population of this huge dragonfly, the t-rex of the insect world.

Monday, July 21: A different species, a kind of skimmer, was encountered on the eastern end of the Island. I first noticed a pair near the library, and later was able to net one along the trail to Front House and identify it as *Libellula quadrimaculata*, a Four-spotted Skimmer. These dragonflies like to perch on dead plant stems, tree stumps, even overturned boats, anything a few feet off the ground though usually not as high as tree branches. From their perch they will make numerous forays, darting out and back, returning quite often with a small insect for a snack.

Later, the same afternoon, I went for my first swim. The bottom of the channel between Mallard Island and the adjacent Crow Island is sandy, and I touch rocks here and there. To really know dragonflies one



(*Libellula quadrimaculata* perched, photographed by Diane Tessari)

must study the lake bottom and the sediments in ponds because this is where dragonflies spend the majority of their lives. The larvae are ferocious predators, more other-worldly looking than even the adults, having jaws that can unfold and extend far out from their bodies, a mechanism that resembles that of a garbage truck. The larvae wait in ambush, hidden among the rocks, sunken leaf litter, and other detritus. Dragonflies often spend several years in the larval stage, living and growing in the depths where my toes just barely touch, patrolling the edges of the known world, until it's time for them to emerge.

Near sundown, once again at the western end of the island, I observed a few Eastern Forktail damselflies near the swimming beach. The tiny damselflies were feeding on a small cloud of even tinier black trichos. I then took up vigil on the rock wall at the bridge to Japanese House. After some time, I caught sight of a large dragonfly heading directly toward me, flying

just a few inches of the water. It continued to fly in a straight line across the water almost as though intent upon being netted and identified. Though a bit late in the year, it was a *Basiaeschna janata*, a Springtime Darner. When I let it go, it struck a new vector, flying off arrow-straight.

There's a limit to what one can learn from a captured dragonfly. In fact, a dragonfly is hardly a dragonfly at all with its wings clasped and held motionless. The act of netting seems a brute first step toward knowledge. Though subsequently, when the same species is encountered without the need to identify or capture it, the doors of observation swing open and true learning begins. Only then can one learn what couldn't be learned at the beginning, more experience than knowledge, an involvement in the phenomena of the world. If one watches carefully enough, often enough, long enough, they begin to know and feel how each particular dragonfly stitches and seams itself into its surroundings.

Tuesday, July 22: I walked to the floating dock below Ober's House, carrying my fishing rod. Dragonhunters were on the wing, a dozen or so flying slowly like giant awkward wasps. When they landed on leaves or on a branch it was with such little grace that they resembled ornaments badly placed upon a Christmas tree. They looked relieved to have landed at all. Their body language, the tilt of their head, was that of a climber at the top of a cliff after a strenuous and risky ascent. As I was walking, a dragonhunter landed on my fishing rod. I lifted it very slowly, until the dragonfly was inches from my face and I was able to take a good look. Dragonhunters are the largest of the clubtail dragonflies, and this one was well over three inches in length. It was patterned in yellow and black like other clubtails, its burly thorax and relatively small head giving it a hunch-back look. The wings had black veins and a subtle glow of yellow on their leading edges. The legs were long, black, and thorny and looked well-suited for capturing and carrying off lunch, if not nearly so well-suited for perching. When it flew, the sudden clatter of its wings brought to life a fossil sound. Another Dragonhunter splashed into the water nearby, flying off with a mayfly.

At the dock, a small northern pike, the first I had seen all week, followed the spinner bait in from deeper water, but showed little interest in exerting the additional effort needed to actually strike the lure. I cast again. Retrieving faster this time, running closer to the surface, the lure was struck—not from below as expected but from above by a dragonhunter swooping down from a pine tree. Something an eagle or a hawk might do, not an insect. These big dragonflies flew down, off and on, as I continued to cast near shore.

Wednesday, July 23: Throughout the week I had found a number of dragonfly exuviae, the larval exoskeletons cast off when the dragonfly emerges. Each one I found, I added to a collection stretching across my desk like a row of those buried Chinese warrior statues. The large, leaf-shaped exuviae of the Dragonhunter were found low on the rocks and rock walls of the island, usually no more than a foot to two feet above

the water. Several darner exuviae were found on these rocks as well. Much higher up, on the walls and under the eaves of the buildings near the water, the large, spider-like exuviae of the cruisers were found, one being found on a screen about twenty-five feet above the water. There exists a rather obvious correspondence between the shape of the Dragonhunter larvae and the birch and alder leaves one can find on the island. These leaves turn black after they fall and sink under water, explaining the larva's color as well. There is also a correspondence between the shape of the cruiser exuvia and the large wolf spider which roams the rocks and shadows, but for less apparent reasons.



(Row of dragonfly exuviae, photographed by Scott King)

Thursday, July 24: Swimming late in the morning, I decided to cross the channel to a small area of bulrushes where I had been seeing dragonflies fly all week. Swimming near I was buzzed several times by large blue darners. One dragonfly hovered in front of me for a couple of seconds before darting off, as if it were examining me instead of me examining it.

After sunset, walking toward the Big House near the middle of the island, I noticed a darner feeding just overhead. I hurried to my room to get my net. It was feeding near the tree tops by the time I returned.

Friday, July 25: After a morning of rain, the sky cleared and the sun came out. The Dragonhunters followed, descending from the shadows to sun themselves and begin their feast upon the night's hatch of mayflies. They flew here and there. The ends of their abdomens often curved downward making them resemble giant wasps.

At about 11am, I set out with my net, intending to capture the elusive and blindingly fast dragonfly I had observed cruising the shores and channels of the island throughout the week. Seeing it often toward evening, its wings just inches above the water, it looked spectral and prehistoric, fluttering its fossil wings. Its uncapturability, and my subsequent doubts concerning its existence, had led me to give it a temporary name—the slaty ghost skimmer—a creature perhaps more imagined and more mythical than real. Persistence and patience only goes so far in capturing such a being, what I needed was luck, old-fashioned blind luck.

My first encounter was on the way to the west tip of the island. A large, mosaic darner landed on a tree trunk right in front of me. I succeeded in knocking it to the ground beneath my net, but it escaped before I could catch it with my hand. The darners are blessed difficult beings to capture. And missing them, a skill I take some pride in perfecting. A luck at odd angles to luck.

At the stone bridge I watched one of the dragonhunters land and then be blown over in the wind coming off the lake in a manner resembling a plane flipping over frontwards. It was able to right itself but clumsily like a turtle. While standing there observing that dragonfly, another of the same species was blown off course and flew into my net. My luck was changing. I took it out and held it. I marveled once more at the enormous back legs that reminded me of grasshopper legs. I let it go, and as it flew away down the shore, it was challenged by several of its brethren, each swooping down from the pine branches above. I caught and released a number of male Hagen's bluets near the bridge. The slaty ghost skimmer flew by beneath my feet. By the time this fact registered in my brain, it was at least a dozen or so yards farther down the shoreline. I waited, hoping it would pass by again. After ten minutes or more, I decided to try another site. From the wall along the channel beneath Cook's house on the north side of the island I had yet another glimpse of the slaty ghost skimmer, but just a glimpse. There were a number of Hagen's bluets in the grass. From there I decided to walk out on the small terrace on the south side of the eastern tip of the

island. I found bluets there as well. I tried to net a small green damselfly that might have been a sedge sprite—but I have the suspicion I was hallucinating. Not long after this I noticed the slaty ghost skimmer working the channel, so I moved into a position and readied the net. Suddenly the dragonfly was nearby making great runs and loops up from the water like a car on one of the world's great roller coasters. Then it went back down the channel. When it returned about ten minutes later it did the same thing, only this time lodged in a tree a few feet away. I moved slowly until I was close enough to reach it. I swung my net and caught it and the bug it was chewing on. After five days as a slaty ghost skimmer, the dragonfly turned out to be *Macromia illinoiensis*, a Swift River Cruiser. A beautiful, stunning dragonfly in the hand, but far removed from its true fleeting existence on the wing.



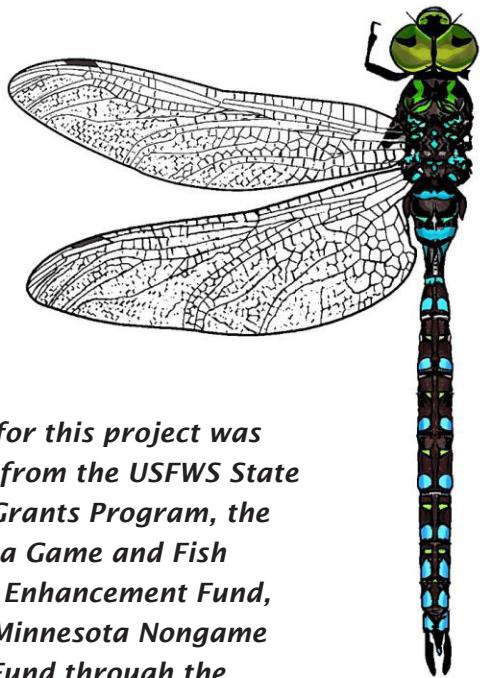
(*Macromia illinoiensis* photographed by Duncan Storlie)

Saturday, July 26: We left the island in the morning. I packed and cleaned up the house and rooms I stayed in during the week. The single Dragonhunter wing I had found outside my door one morning and the collection of exuviae on my writing desk were returned to the island. As we made for the landing, a new dragonfly landed on the deck of the pontoon boat, sitting motionless on the green carpet, introducing itself just as we were saying our goodbyes.

Odonata species netted and observed on Mallard Island, July 20-26, 2008:

Dragonhunter, *Hagenius brevistylus*
Springtime Darner, *Basiaeschna janata*
Hagen's Bluet, *Enallagma hageni*
Eastern Forktail, *Ischnura verticalis*
Four-spotted Skimmer, *Libellula quadrimaculata*
Swift River Cruiser, *Macromia illinoiensis*
Lancet Clubtail, *Gomphus exilis*

Note: The Lancet Clubtail was observed on the pontoon boat and at Bald Rock Landing.



Minnesota Odonata Survey Project

Support for this project was received from the USFWS State Wildlife Grants Program, the Minnesota Game and Fish Heritage Enhancement Fund, and the Minnesota Nongame Wildlife Fund through the Minnesota Department of Natural Resources, Division of Ecological Resources.

MOSP logo designed (and donated) by Rick Kollath of Kollath Graphic Design in Duluth

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The old saying, “Many hands make light work” applies directly to our situation.

Our hope is that there will be many hands, in Minnesota, all adding a little bit to our knowledge of the Odonata of Minnesota. The result, hopefully, will be a better understanding of these charismatic insects in Minnesota.

