



Newsletter

of the

Michigan Entomological Society

Volume 47, Number 1 & 2

February 2002

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The Newsletter of the Michigan Entomological Society is published as four numbers per year.

Join the Michigan 2002 Bioblitz

John Legge

The Nature Conservancy, West Michigan Office, 456 Plymouth Ave. NE, Suite A, Grand Rapids, MI 49505, E-mail: jlegge@tnc.org

The Michigan Chapter of The Nature Conservancy is sponsoring a "Bioblitz" at the 4,500-acre Camp Owasippe in the Blue Lakes region of Muskegon County, Michigan. Over the course of two 3-day periods this spring and summer, teams of ecologists, natural resource professionals, and highly qualified amateurs will conduct targeted, rapid, and detailed field inventories in areas likely to support high quality plant and animal populations, exemplary natural communities, and their associated ecological processes. We will focus on specific areas of Camp Owasippe that have been prioritized for field work through map and aerial photograph landscape analysis.

Goals and Purpose. Targets for inventories will include high quality, representative and restorable oak-pine barrens, dry sand prairies, coastal plain marshes, and other areas likely to support biodiversity "hotspots" and wildlife habitat. Although we are very interested in locating populations of rare reptiles, plants, and insects (particularly those associated with prairie and barrens communities), we are most interested in documenting as many species as possible from all taxonomic groups. The purpose for the *Bioblitz* is to provide much-needed baseline data on the natural features of Camp Owasippe in order to advise and assist the Camp in managing their lands to benefit biodiversity.

Where. Camp Owasippe covers 4,500 acres in north-central Muskegon County, Michigan. It borders Big Blue Lake and the White River as well as the Manistee National Forest. The camp includes large areas of white oak-white pine forest and barrens and numerous small wetlands. Many of the latter appear to have the characteristics of coastal plain marshes. There are also stretches of other wetlands and forest communities.

When. Two Bioblitzes are planned: Thursday - Saturday 16-18 June 2002 and Thursday - Saturday 18-20 August 2002. Participants may choose to come for only part of a Blitz.

Housing. We anticipate having cabins available for participants, and hope to be able to accommodate all volunteers. More details to follow.

Food Provided: All food will be provided during the Blitzes.

You Provide. Your incredibly valuable time, expertise, and knowledge. Of course we'd love for you to come for both 3-day events, but we would appreciate your assistance for even a single day. We are counting on you to help us collect field data, including species lists, site descriptions, and natural resource data for our site conservation plans and long-term management and monitoring. We will provide field data forms and protocols, but we are also relying on your expertise to help us in this regard.



Continued on page 2

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Current Annual Dues Schedule

Student (through High School)	\$ 5.00
Active	\$ 15.00
Institutional	\$ 35.00
Sustaining	\$ 25.00
Life	\$ 300.00

Continued from page 1

What you do next. RSVP: E-mail John Legge (jlegge@tnc.org), or call John Legge or Lara Kramarz (616-776-0230). Whichever way you choose, please let us know which days you can attend. We will follow up with more details.

Additional Information. Any specimens collected during the Bioblitzes may remain with the collector, subject, of course, to any Michigan Department of Natural Resources permitting requirements for state-listed species. Specimens that are federally protected, such as the endangered Karner blue butterfly, cannot be collected. We would welcome formal participation by the Michigan Lepidoptera Survey and the Michigan Odonata Survey.

Young Entomologists' Society — Over 1 Million Served!

Gary A. Dunn

Young Entomologists' Society, 6907 W. Grand River Ave.,
Lansing, MI 48906-9131, E-mail: YESnetwk@aol.com

The Young Entomologists' Society (Y.E.S.) has grown into the world's largest educational organization serving youth and amateurs interested in entomology and arachnology. The organization has been serving minibeast enthusiasts since 1965, and on 16 November 2001 Y.E.S. reached a significant educational outreach milestone – 1 million people served! This was achieved through face-to-face, direct interaction with 695,986 people plus indirect interaction (via mail, e-mail, phone, and websites) with an additional 310,208 people. Most of this outreach was accomplished in the period since 1984, when the organization expanded its' outreach programs to include educating the general public about the importance of invertebrate animals such as insects and spiders. Between 1965 and 1984 (a period of 20 years), the Society served only 31,432 people, but by December 1997 (13 years later) the ½ million mark had been reached. It has only taken the past four years to double that number to 1 million, mainly due to the Society's use of electronic technology to reach even larger audiences than before.

The Y.E.S. mission has always been to provide young people with a combination of programs, publications, and educational materials to enrich their insect and spider studies through dynamic, innovative, and enjoyable learning experiences. We have also found it vitally important to work with parents, youth group leaders, teachers, naturalists, and other educators because they often provide support and information on arthropods to the young people that they interact with. Therefore our organization maintains ten educational internet websites, publishes Cyberbugs Minibeast eMagazine, Insect World, Y.E.S. NewsBulletin, Y.E.S. Quarterly and a Special Publications series, and produces educational materials and software. The Society also provides an information and referral service, visits schools, libraries and family festivals (Bugs-On-Wheels), and operates the Minibeast Zooseum and Education Center, which is located near Lansing, Michigan. The Minibeast Zooseum features live invertebrate animals, collections and scientific artifacts, informative displays, hands-on interactives and computers, a library, a gift shop, a recycling center, and a 7 acre outdoor classroom with gardens and trails. Although only in operation since April 1999, this unique educational facility has already been voted one of the 5 best children's nature attractions in the United States (Child magazine, August 2001).

Despite all of the progress made towards educating the public about the importance of minibeasts, there remains much to be done and many more people to reach with our educational message about minibeasts. MES members who are interested in volunteering as mentors to youth or serving as docents at the Minibeast Zooseum can contact Gary or Dianna Dunn at the Young Entomologists' Society, 6907 W. Grand River Ave., Lansing MI 48906-9131. Or, give us a call at 517-886-0630 or send an e-mail message to YESbugs@aol.com. Complete details on Y.E.S. membership can be obtained from our Y.E.S. Homepage (<http://members.aol.com/yesbugs/bugclub.html>), while information on the Zooseum can be found at <http://members.aol.com/yesbugs/zooseum.html>.

Biographies of MES 2002 Candidates

PRESIDENT-ELECT:

Thomas E. Wallenmaier

Interests: Regulatory entomology; taxonomy of microlepidoptera, especially Gelechioidea and Tineoidea, entomology education.

Accomplishments: Ph.D. from MSU in Philosophy of Science, M.S. from UDM in Biology; retired from USDA, APHIS-PPQ as quarantine officer and staff specialist for insect identification, exotic pest detection and domestic survey programs at PPQ headquarters; Assistant Survey Coordinator for CAPS survey program including cooperative agreements, organizing national and regional survey meetings, and assisting in development of the national computer survey system; established the Maryland Insect Survey in 1983.

Experience: President of Entomological Society of Washington; President (twice) of the Maryland Entomological Society; chaired committees and developed symposia for the Entomological Society of America; MES Member-at-Large 1996-1999; given many talks and workshops to K-12 students and teachers about entomology.

MEMBER-AT-LARGE:

Martin J. Andree

Interests: My interest in entomology began with my first collection as a 4-H project in 1967. I have been collecting ever since. I am a lifelong resident of Michigan and my focus has always been Michigan's Lepidoptera, particularly Heterocera, where I have become fascinated with the Noctuidae. In recent years, I have also developed a keen interest in the bog-obligate Lepidoptera of Michigan's northern, sphagnum heath bogs. Currently in the initial stages of writing a large format, art type book featuring the moths of North America, set against the historical background of the golden age of discovery. **Accomplishments:** Active core member of the Michigan Lepidoptera Survey (MLS), assisting in ten (2001) collecting trips to the Michigan Upper Peninsula collecting data for the MLS species database. Have assisted in the discovery and verification of new locations, sampled known locations and contributed to the overall efforts of the team. Regularly contribute

moth collection data from light trap, sheet and bait sampling methods, particularly in Kent and Chippewa counties. Have begun assisting Mo Nielsen in the curation of the backlog of historical papered Lepidoptera specimens in the MSU collection. Have also recently begun writing articles for the MES Newsletter. Member of Lepidoptera Society and the Ontario Entomological Society. **Experience:** My twenty-five years as a private businessman, as well as my contribution to public service have given me experience and skill that would benefit the governing board of the MES. These include: independent business consultant, President and CEO of Flowers of the Field Inc., managing partner of Andree Brothers Farms LLC., elected Board Trustee for Grand Rapids Township. Also served on Fire Board and the Planning Commission of Grand Rapids Township. Currently farming in Kent County.

John F. Douglass

Interests: Distribution and ecology of Michigan Sphingidae, Geometridae, Papilionoidea, and Odonata; using insects as vehicles for helping people learn about and value the natural environments of Michigan; writing scientific papers; instructing young people in entomological techniques. **Accomplishments:** Teacher at St. John's High School, Toledo, OH; BA in biology, Harvard University; MS in zoology, University of Michigan; published about 20 scientific papers on insects, reptiles, birds, mammals, and prehistoric man in Michigan. **Experience:** Field Associate (Zoology) and Advisory Board member (zoology exhibits, 1989-1991), Field Museum, Chicago; Field Associate and organizer of 1991 Zaire Expedition, Allyn Museum of Entomology, Sarasota.

Toby R. Petrice

Interests: Exotic woodborers and bark beetles as well as native insects such as carabid beetles and the Karner blue butterfly. Graduate work involved research on hymenopteran parasitoids of the gypsy moth and native macrolepidoptera in West Virginia and Virginia. **Accomplishments:** MS in Entomology from West Virginia University. First author on two refereed journal papers, and co-author on five journal papers. **Experience:** Currently employed as an Entomologist with the USDA Forest Service, North Central Research Station, Insect Unit on the MSU campus.

2nd Great Lakes Odonata Meeting 1-4 July 2002

The second Great Lakes Odonata Meeting (GLOM) will be held 1-4 July 2002 at the Ralph A. MacMullen Center (RAM Center) located at Higgins Lake, near Roscommon, MI. This event will be an opportunity for Odonata enthusiasts in the Great Lakes Region to meet and share information, as well as experience some of the habitats in northern Michigan and the Odonata species living there.

GLOM 2002 will begin in the evening of Monday, July 1, and end the morning of July 4. Participants staying at the RAM Center in double occupancy rooms can expect to pay approximately \$172.00 per person for three nights lodging, which includes meals. Our proposed schedule of activities includes day trips to selected sites within 1.5 - 2 hr radius of the RAM Center, evening programs and workshops.

I encourage anyone planning to attend to register well before June 1, 2002, as space is somewhat limited. For those not wishing to stay at the RAM Center, there are camping facilities close by as well as a number of motels within a short distance of the Center. However, note that this a prime time for camping, so you'd better reserve a site if possible, well in advance of July 1.

For more information or to be put on the mailing list for a registration form, contact Mark O'Brien via e-mail at: mfbrien@umich.edu or call 734-647-2199. You can also send mail to me at Insect Division, Museum of Zoology, University of Michigan, Ann Arbor, MI 48109-1079.

Meeting registration, information, maps, and guest info are on the web at: <http://insects.ummz.lsa.umich.edu/GLOM2002/>

Louis F. Wilson: 1932-2002

Louis F. Wilson was born on 22 November 1932 in Milwaukee, Wisconsin, and he died on 30 January 2002 in Punta Gorda, Florida, at the age of 69. Louie earned his B.S. (1955) and M.S. (1957) degrees in Zoology at Marquette University in Milwaukee. Louie earned his Ph.D. in 1962 in Entomology under the direction of A.C. Hodson at the University of Minnesota in St. Paul, MN. Louie's dissertation was entitled "Host and location preference for oviposition by the spruce budworm, *Choristoneura fumiferana* (Clem.), (Lepidoptera: Tortricidae)."

While working towards his Ph.D., Louie was hired in 1958 by the Lake States Forest Experiment Station of the U.S. Forest Service in St. Paul, MN. The headquarters of the Lake States Forest Experiment Station (now called the North Central Research Station) is located on the University of Minnesota campus in St. Paul. After graduating in 1962, Louie was transferred to the US Forest Service Insect Unit in East Lansing, MI, which is located on the Michigan State University (MSU) campus. Louie was a member of the East Lansing Insect Unit until his retirement in 1990. Louie was an adjunct professor in the Departments of Entomology and Forestry at MSU, and served as the major professor for 6 M.S. and 8 Ph.D. students at MSU. Louie taught Forest Entomology at MSU for 8 years.

During his career, Louie worked on more than 70 different species of forest insects and authored or co-authored more than 200 publications. The insects that were studied most intensely by Louie and his students included the pine root collar weevil (*Hylobius radialis*), pales weevil (*Hylobius pales*), Saratoga spittlebug (*Aphrophora saratogensis*), and redheaded pine sawfly (*Neodiprion lecontei*).

Louie was an active member of the Michigan Entomological Society, serving as president in 1969 and Newsletter Editor during 1972-1988. Louie helped initiate the MES *Entomology Notes* series in 1972 and wrote six of the *Notes*. Louie was also a frequent contributor to the MES journal *The Great Lakes Entomologist*, with nearly 40 of his 200-plus papers published there.

Louie also had many interests outside of entomology. Louie loved to collect, including stamps, coins, and barbed wire. He enjoyed interpreting dreams and was an avid bromeliad grower. In 1977, Louie published "*Bromeliads for Modern Living*" (Merchants Publishing, Kalamazoo, MI). Louie was also very interested in metaphysics and related subjects, and in 1994 he published "*A Universal Pattern of Consciousness*" (Christopher Pub House, Hanover, MA, 528 pp).

After retirement, Louie and his wife Diane moved to Punta Gorda, FL, where they built a house in the midst of slash pine trees, saw palmettos, and of course, bromeliads. Louie was active in the local bromeliad societies, and published an article on *Metamasius callizona*, a bromeliad-feeding weevil native to southern Mexico and Central America that was first detected in Florida in 1989: Wilson, L. 1994. Evil weevil in Charlotte County. Florida Council of Bromeliad Societies, Newsletter 14 (4): 12.

Louie was an extremely cheerful and optimistic person. His enthusiasm was infectious. He always had time to listen, talk, and explore new ideas. Louie's contributions were many and he'll certainly be remembered fondly by all that knew him.

Louie Wilson is survived by his wife, Diane Wilson, four children, and five grandchildren. Donations in memory of Louie Wilson can be made to the American Cancer Society.

Robert A. Haack

USDA Forest Service, North Central Research Station, 1407 S. Harrison Road, Michigan State University, East Lansing, Michigan 48823, E-mail: rhaack@fs.fed.us



Louie at the unveiling of the "Christmas Tree Pest Manual," 1983, E. Lansing, MI. Louie was the primary author of this manual.

Louie studying Saratoga spittlebug survival, 1968, Alcona County, MI.



Louie studying spruce budworm in Minnesota during his Ph.D. program, 1958-1962.



Memories of Louie Wilson

My first association with 'Louie' was sometime in 1966, when he became an active member of the Michigan Entomological Society. Without a doubt, Louie's energetic and outgoing personality made an instant impression on many of us. These two characteristics, plus many other personal qualities, solidified his friendship with all his MES colleagues. We became closer friends soon after my MES Newsletter editorial duties were turned over to him in 1972, after my four-year stint as editor. At that time, the MES Governing Board separated the Newsletter editorial functions from my other responsibilities as the MES Executive Secretary. Louie really 'took' to the job as Newsletter Editor with gusto, and his enthusiasm never diminished until he retired from the U.S. Forest Service, and persuaded Bob Haack, his colleague, to take over the Newsletter editorship. Louie was a man of many unique interests beyond his entomological profession. He was in many ways a 'Renaissance man;' his cosmopolitan tastes ranged from Chinese food, vintage wines, rare books, orchids and bromeliads to old barbed wire! In fact, he 'conned' me into retrieving old, rusted barbed wire during my Lepidoptera forays! ha. Ginny and I always enjoyed and appreciated an evening with Louie and Diane at their home over a gourmet meal, usually orchestrated by the 'master' himself! He was always a paragon and inspiration to so many of us, and he will surely be missed by all who came in contact with him!

Mogens C. Nielsen

Department of Entomology, Michigan State University, East Lansing, MI 48824, E-mail: nielsen4@pilot.msu.edu

Lincoln Moore, left, (one of Lou's former graduate students, Ph.D. 1984), Louie, and George Heaton, right, (Louie's technician 1967-1990). Louie's retirement party, 1990, Lansing, MI.



Louie during a "coffee break" at the 1978 MES Annual Meeting at Central Michigan University, Mt. Pleasant, MI.

I first met Lou as an undergraduate in Forestry at MSU in 1979, and later studied under Lou for my M.S. degree in forest entomology (1979-1981). Louie would supply, at no cost, bromeliads and other plants to the MSU Forestry Club for their annual plant sale. Louie would man the sales booth right along side the student members of the Forestry Club. Many of us learned and practiced his schtick where he could tell a funny story associated with each and every plant that was for sale. Thank you Lou for teaching me to check every bromeliad for spiders, about the dreaded fer-de-lance, about barbed wire taxonomy, and how to cook with reckless abandon!

As a graduate student, Louie taught me to approach a problem from all angles, and how to think from outside the box. Most importantly, Lou taught me how to be passionate about what I do. Thank you for that. I will miss you.

Lou, by the way, let me know what's good on the menu, if someday I am lucky enough to join you, perhaps we can enjoy it together!

Frank J. Sapio

Program Leader; Forest Health, Inventory, and Monitoring; Michigan DNR; Lansing, MI, E-mail: sapiof@michigan.gov

It was because of Louie that I chose a career in forest entomology, and studied under him for my Ph.D. degree in entomology at Michigan State University (1973-1978). Louie and Gary Simmons were dominant forces in forming what is now the Michigan Forest Health Program. Their interest in cooperative, interagency efforts and holistic management were aided by their genuine interest in and ability to work productively with others. Louie's mentoring extended beyond the office environment. He was a student of life. His passion for philosophical & religious discussion affected all who took the time to listen and, perhaps, to join the debate. When Louie was in the room there was always an extra spark of life. Thanks Louie.

Robert Heyd

Forest Health Specialist, Michigan DNR, Marquette, MI 49855, E-mail: heydr@michigan.gov

48TH ANNUAL MEETING OF THE MICHIGAN ENTOMOLOGICAL SOCIETY

Saturday 8 June 2002

This year's 48th meeting of our society will be held just south of the Michigan border in the NW corner of Indiana within the Indiana Dunes National Lakeshore, Chesterton, Indiana. The meeting will be held at the Indiana Dunes Environmental Learning Center which is a public-private partnership within the Indiana Dunes National Lakeshore. Located in the heart of the Dunes, the Learning Center offers woodlands, native prairies, wetlands, dunes and lakeshore within a short drive. The Indiana Dunes have long been recognized as globally significant ecosystems with 15,000 acres in northwest Indiana. It ranks as among America's most botanically diverse national parks and was the first national park nearby a large urban area (Chicago). Learning at this site began more than a hundred years ago by Dr. Henry Chandler Cowles who many consider to be the father of ecology in North America. It is among these dunes that Cowles and his students did much of their classic work describing ecological succession. Nearby are found several remnant prairies, notably the Calumet Prairie State Nature Preserve, a heron rookery, and a floating bog. We are planning an informal field trip to the prairies on Saturday evening. Early June is a wonderful time to visit the prairie and the dunes! Based on last years success, we are again having the meeting on **Saturday**, which should benefit members that have to travel some distance or have a difficult time getting a weekday off to attend an annual meeting. We are actively seeking papers, posters, and exhibits. The annual meeting pre-registration form and call for papers and exhibits form are included in this newsletter. This year's featured speakers will be **Dr. Ron Panzer** of Northeastern Illinois University, Chicago and **Dr. John Shuey**, Director of Conservation Science, Indiana Office of The Nature Conservancy. Both speakers are well-published and highly regarded as experts in the area of insect conservation, especially in the controversial area of fire management. The title of Ron's talk will be "Compatibility of management burning with the conservation of insects within small, isolated prairie preserves" and John's talk will be titled, "Conserving insects in dynamic successional communities." Their talks will address the dire question of what effects do prescribed burns have on the resident insects? We are sure you won't want to miss their important presentations and participate in the lively discussions. They will also be available for informal discussions throughout the day.

The *desired* theme for this year's meeting is the importance of habitat or habitat management in the conservation of insects. Studies involving habitat restoration or habitat degradation and their effects on insect populations or diversity are encouraged. Of course, presentations dealing with any aspect of entomological research are always welcome. We are also featuring the opportunity for **students** to present talks as part of the Student Competition. As with last year, there will be prizes (money!) for the top three presentations. Please refer to the registration form for more information.

To build on last year's successful 2001 **photosalon**, all MES members and their families are invited to submit their best photographs of insects and related arthropods. The contest is designed to recognize the best efforts of photographers to

document both the biological and aesthetic aspects of insect life. William Westrate is coordinating the photosalon and an application form is included as an insert of this newsletter. Judging will take place Friday prior to the meeting and members attending the meeting on Saturday will view the winning photographs. This is your opportunity to see your best shots displayed on a future color page of the Newsletter or on the cover of The Great Lakes Entomologist!

Of course, we are allowing time to socialize with fellow members. Early arrivals can lodge Friday night at the Learning Center. Several modern cabins (dormitory style) with showers have been reserved. **You must bring your own bed linens or a sleeping bag, and towels.** Meals will be served on the campus. This will allow time to catch up on conversation and meet with the speakers. Plan to arrive Friday evening and join in the fun! Bring your slides, collecting lights, favorite beverage, and stories.

Field activities are planned on Saturday evening with a visit to the nearby Calumet Prairie. You can stay Saturday night at the center for \$10.00. Plan to collect in the varied habitats of the Lakeshore Dunes, or hike along the extensive trail network, but remember that much of the area is a national park and a collection permit is required (see p. 9). You'll enjoy what the area has to offer, from great restaurants, art galleries and boutiques to the scenic dunes and other natural areas.

Costs for meals and lodging at The Indiana Dunes Environmental Learning Center are listed on the pre-registration form. They are very reasonable. If you plan on staying at the Learning Center on Friday night, or arriving on Saturday for the meeting and eating breakfast and lunch and partaking in coffee breaks, you are strongly **encouraged** to submit your pre-registration form as soon as possible. There is a nice campground within the park and other types of lodging available in the area, ranging from bed and breakfast establishments to hotels. Please go to <http://www.chesterton.net> for information on the area. You are also encouraged to go to <http://www.mapquest.com> for travel directions to Indiana Dunes National Lakeshore from wherever you are departing, and go to www.nps.gov/indu/learning/ for information on the meeting facility.

To drive to the Indiana Dunes Environmental Learning Center from Michigan go west on I-94. In Indiana exit I-94 at exit 22B (east US HWY 20/Porter). Continue on US 20 approximately 1 mile to Mineral Springs Road Turn left onto Mineral Springs Road and then left onto Oak Hill Road. Turn left again onto Howe Road and turn right at the entrance into the Learning Center. Driving to the Center from Chicago go east on I-94. In Indiana, exit I-94 at exit 22-B (East US HWY 20/Porter). Continue on US 20 approximately 1 mile to Mineral Springs Road. Turn left onto Mineral Spring Road and then left onto Oak Hill Road. Turn left again onto Howe Road and turn right at the entrance into the Learning Center. See you in Indiana!

Please contact Jim Dunn if you have questions about the meeting: James P. Dunn, Grand Valley State University, Allendale, MI 49401. Phone: 616-895-3439; Fax: 616-895-3446. Email: dunnj@gvsu.edu



Meeting and Lodging Pre-Registration Form
Michigan Entomological Society

48th Annual Meeting

Indiana Dunes Environmental Learning Center,
 Indiana Dunes National Lakeshore, Chesterton, IN
 Friday 7 June to Saturday 8 June 2002

Pre-registration deadline is 17 May 2002

Name _____

Guest Name(s) _____

Address _____

City _____ State/Prov. _____ Zip _____ Email _____

Phone: _____ Day _____ Eve _____ Fax _____

Date and Estimated Time of Arrival _____

Accommodations: Cabins are modern with showers and bunk beds (dormitory style). *You will need to provide your own linens and beddings, bring a sleeping bag.*

Rates include dinner on Friday (served at ca. 6:00 pm), continental breakfast (8:00-8:30 am) & lunch on Saturday. Meals are served American style in the dining hall. You are encouraged to pre-register, which will allow the Learning Center to plan for meals.

Please indicate which night(s) you'll be staying

LODGING/MEALS (pick one)	PRICE	x	# of people	SUBTOTAL
Arrive Friday PM, Leave Saturday PM includes lodging Friday night, with dinner Friday night, Breakfast and lunch Saturday	44.00	_____	_____	_____
Arrive Saturday, Breakfast, lunch, coffee and no lodging	22.00	_____	_____	_____
Annual meeting Registration Fee	20.00			20.00

TOTAL ENCLOSED: _____

NOTE - If staying Saturday Night add an extra \$10 (no meals Saturday night or Sunday)

Note: Make checks payable to: **Michigan Entomological Society.**

Return by **17 May** to:

James P. Dunn, Biology Department, Grand Valley State University, Allendale, MI 49401

Phone: 616-895-3439, fax 616-895-3446; email: dunnj@gvsu.edu

[*Retain a copy for your records*]

Call for Papers and Poster & Display Pre-Registration Form



Michigan Entomological Society
Forty-eighth Annual Meeting
Indiana Dunes Environmental Learning Center
Chesterton, Indiana
Saturday, 8 June 2002

Please submit an abstract of your paper (post meeting date) by 1 July 2002 to MES Newsletter editor Bob Haack on disk or by e-mail (haack@fs.fed.us). Papers may be submitted to the Editor of *The Great Lakes Entomologist* or to the Editor of the Newsletter to be considered for publication. *Talks greater than 15 minutes in length by special arrangement only.*

Presentation: PAPER (15 min talk) POSTER DISPLAY

Title: _____

Author(s): _____

Affiliation: _____

STUDENT COMPETITION ENTRY* STUDENT FACULTY OTHER

Equipment required: 35mm slide projector Overhead projector

Other _____

Poster and Display Parameters:

Size: X

Support: Free Standing Need Support (Specify _____)

Electricity needed: Yes No

Other needs: _____

Contact person: _____

Name _____

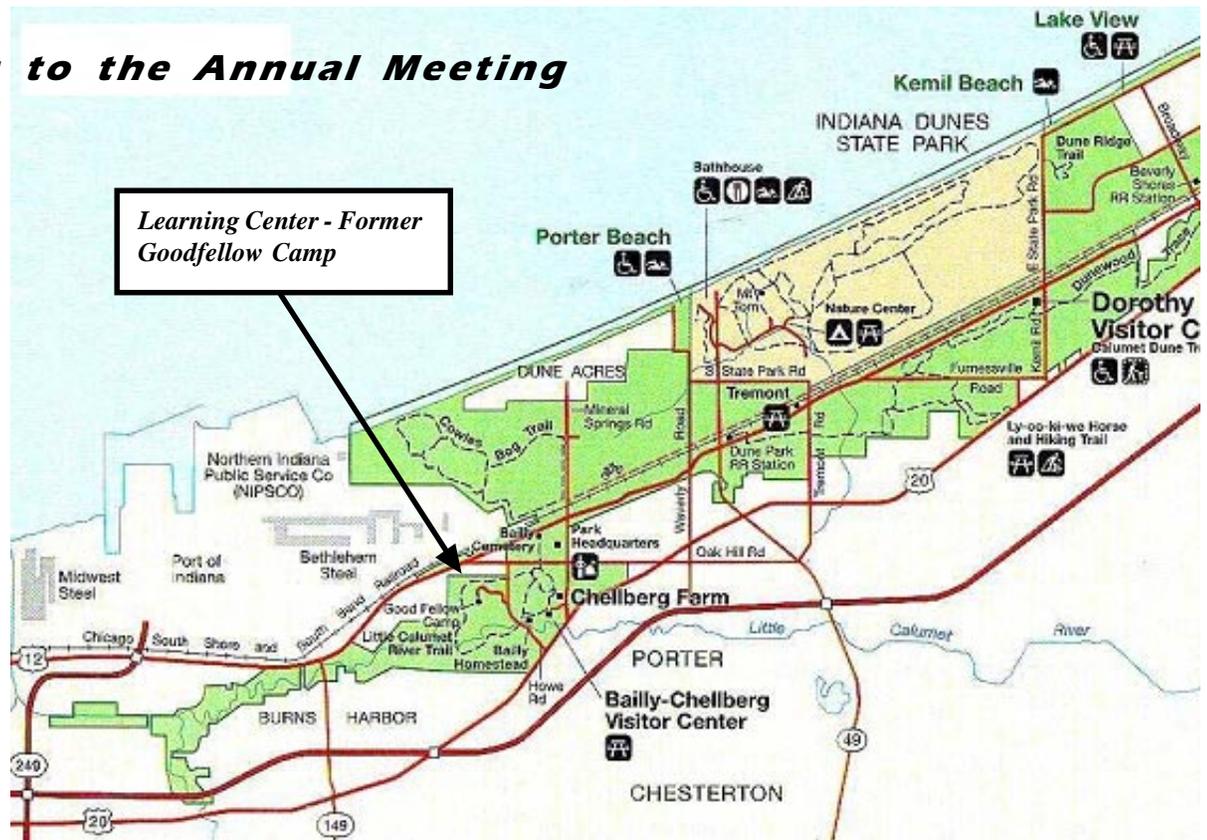
Address _____

Phone _____ Fax _____ E-mail _____

Student Competition* - open to any undergraduate or graduate student. Entries for the Student Competition must include an abstract (no more than 1/2 page) **submitted with this form, as well as a signed statement of student's status submitted by his/her academic advisor.

Return by 17 May to: James P. Dunn, Biology Department, Grand Valley State University,
Allendale, MI 49401. Phone: 616-895-3439, Fax: 616-895-3446, E-mail: dunnj@gvsu.edu

Directions to the Annual Meeting



Learning Center see map above



For Information and collecting permits, write Indiana Dunes National Lakeshore, 1100 N. Mineral Springs Road, Porter, IN 46304-2399 or call 219-926-7561

Try That Today

Martin J. Andree

3990 Four Mile Road NE
Grand Rapids, MI 49525-9713,
E-mail: mjandree@aol.com

On Tuesday morning, September 11, as I was driving east on M-44 my mind was on everything, that a few minutes later would seem like nothing. As I drove along, listening to the events unfold on the radio, not having seen any images yet, my mind reeled with terrifying pictures that would never compare to what I would watch on the television an hour later.

The lives of all of us have been, in some way, affected. At the time, Lepidoptera was the farthest thought from my mind. Who really cared that day about one more split in the Polyommata, the distribution of *Syngrapha montana* or the larval host of *Dipterygia rozmani*? On that morning scale-winged insects and the World Trade Center just couldn't have been more disconnected. As the fall out of the tragedy began to settle around us, I could see that just about everything, including the pursuit of Lepidoptera would never be the same.

I had just returned home from a collecting trip to Belize in late August. Since I am primarily interested in moths, the organization and transportation of the necessary gear was more than cumbersome. Even in the best of times the immediate air transport of portable generators, lighting gear, sheet frames, nets, bait traps and specimen storage systems was a challenge. With the changes that have taken place since the terrorists attacks, a trip of that nature, with that amount of gear, has become logistically improbable. At the time, the litany of problems, regulations, snares and just hard work seemed almost more trouble than it was worth. Looking back now, all that trouble seems like luxury.

For the airline I was flying, regulations simply required that I remove the gas tank from the generator. I took out the old tank and drained all remaining fuel and oil from the unit. I purchased a new tank from the manufacture and packed it, still in the sealed plastic wrapper, in my carry on.

Fortunately my generator was small enough to pass as my "carry on." I packed enough tools, clamps and repair parts to reassemble the generator once I was in the jungle. Just to ease my mind, I took the generator to the airport a week before departure and talked with the ticket agent and the security people. I explained my destination and need. They complied by attaching a notation to my seating assignment that indicated I would be carrying a generator on board. No one ever inspected the generator to see if I had indeed removed the tank. I carried it on board like it was ordinary luggage. After three different flights and 4000 miles it never raised an eyebrow. Try that today.

For the sheet frame and lighting gear, I fabricated a 36 inch long case out of 6 inch diameter PVC pipe. I had a lock and hasp on the back end and a handle riveted on the top side. I had clearly labeled the outside with markings about the fragile and scientific nature of the contents. It looked like a miniature Exocet missile. Inside were all of the wires, electrical switching boxes, transformers and Mercury vapor bulbs. Like a pair of skis or a set of golf clubs, I checked it all of the way through to Belize City. I was never asked to open it up and no one said a word. Try that today.

My briefcase was full of typical collecting gear; a GPS, batteries, forceps, uncharged killing jars, mounting pins, spreading needles; pest strips, desiccant, tools for the generator, and syringes. I carried it with me all the way there with no questions asked. Try that today.

Al-Qaida has dealt science a severe blow. It will never be as easy to ship equipment as it once was, but there are options. Trips will require more in-depth planning with the logistics of gear transport being second only to the permitting process. It is possible to ship generating equipment by air, but it will be costly and your options are limited.

I recently surveyed 3 major US airlines to determine if they would allow a generator to be taken on board as a carry on, shipped as checked baggage or shipped through their cargo department. The results were grim. Under no circumstances would they allow a

generator to be taken on board the aircraft as a carry on or as checked baggage. I also found that it would not be possible to ship the generator as cargo. They are no longer able to accept freight from anyone who was not a "known customer" prior to September 11. A "known customer" is one who possesses a shipping account with the airline and has made at least three shipments prior to the September tragedy.

Since shipping a generator overseas on a passenger flight was no longer allowed, I investigated the possibility of using a freight forwarder. These are shipping companies that do the paperwork, see that your cargo meets shipping requirements and then get it on a plane to your destination. The information was all too familiar. They could not help me unless I was an established "known shipper." I was told that this policy was a direct result of a FFA ruling issued since September 11.

Lastly I looked into the possibility of shipping a generator via a commercial freight carrier. I began with DHL Express. They would ship a generator, but only if it was brand new and had never been filled with gas or oil, no exceptions. Next I spoke with the staff at Fed-Ex. They would ship a used generator only after it had been "cleaned and purged according to manufactures specifications." Just to get an idea of the expense I had them quote me a price. It would cost \$498.42, one way from Grand Rapids, MI to Belize City.

Some items are just not shippable. For example, the killing agent of choice for many Lepidopterists, ethyl acetate carries a class 3 embargo on all airlines. That means that, under no circumstances will it be allowed on planes. Cyanide of course is totally out of the question.

A resolution to this difficult question proved to be quite simple. I found that in most international locations ethyl acetate is not commonly available. My search for an answer led me to the cosmetic department of a local drug store, where I proceeded to set on the floor all of the brands of fingernail polish remover they carried. In looking at the ingredient labels I chose four brands that listed ethyl acetate as the first ingredient and bought them. There are two types of fingernail polish removers, acetone and non-acetone. Only non-acetone has ethyl acetate as the main ingredient.

Next I ran a few simple timed trials with each of the four brands against pure ethyl acetate using *Psedaletia unipuncta* as subjects. All four brands, Cutex, Equate, Hansen and Revlon performed satisfactorily, usually subduing the moth in less than 10 seconds. Cutex, however, consistently worked faster than the other brands. I realize that the airlines do allow for a certain amount of cosmetics, even fingernail polish remover to be taken on planes. However, I opted not to go this route as I have found that fingernail polish remover is readily available and easily obtainable in most foreign countries. I now buy it upon my arrival and have learned to shrug off the strange looks from the salespersons.

I have also discovered that many brands of nail polish remover are available in a more convenient form. They are offered as a small, single use, saturated pad, sealed in a foil packet. They can be carried into the field or in the car with ease and relative safety. They don't spill or evaporate. One only needs to tear open the packet and place it in the kill jar under cotton. Depending on use, they can last for several days.

I checked with airlines on the prospect of carrying a butterfly net on board. I was told to expect problems, as it would be subject to individual airport security. Most likely they told me it would be treated the same as a golf club or a hockey stick and would not be allowed in the cabin. I can easily disassemble my net and pack my bail, net bag and collapsible Bio-Quip handle in my luggage. I have also fabricated a travel handle that breaks down into two pieces and fits conveniently into my check-in baggage. The best advice is to take the time to figure out a way to pack as much as possible into your checked baggage.

Even our somewhat obscure discipline of Entomology has been brought into this terrible fray. The events of that horrific day and the furthering of entomological study have been irreversibly intertwined. I'm reminded of that old proverb, "A cow knows not the value of her tail, until she has lost it." We will all miss the ease of travel we so effortlessly took for granted, but with planning and common sense it is possible to mitigate the new impediments placed in the way of science.

Perhaps now is the time to rediscover the solace of collecting in our own backyards, to get out the state and provincial maps, to look at old areas in new ways, to revisit collecting sites you haven't visited for years and to search out new habitat. The redefined world that we are now faced with is here to stay. In the mean time collecting here in the wonderful state of Michigan is looking as inviting as ever. Try that today.

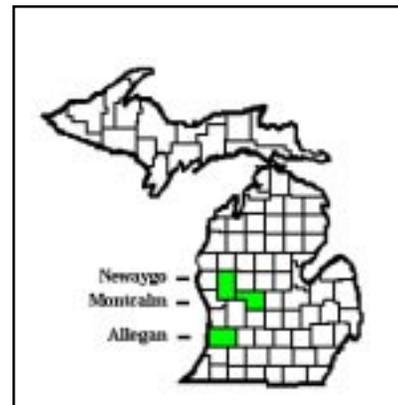
2001 Field Survey for the Ottoe Skipper

Robert D. Kriegel

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The Ottoe skipper, *Hesperia ottoe* (Lepidoptera: Hesperidae), is a brownish orange skipper typically found in tall grass prairies of the Great Plains. The species' range extends eastward to Michigan where its occurrence is limited to dry sand prairies and oak savannas. The skipper is very seldom encountered in Michigan and is listed by the Michigan Department of Natural Resources as a threatened species. Due to the encouragement of Owen Perkins and Mogens Nielsen several Michigan Lepidoptera Survey participants began conducting field surveys for this species in July 2000. In 2001, Martin Andree, James Dunn, Terry Herig, Bob Kriegel, Mogens Nielsen and Owen Perkins all participated in these surveys.

In 2001, we were fortunate to document *H. ottoe* from four locations in three Michigan counties: Allegan, Montcalm, and Newaygo (see map). Most of the individuals observed were encountered nectaring on prickly pear cactus and spotted knapweed flowers. According to records of the Michigan Lepidoptera Survey and Michigan Natural Features Inventory, this skipper had previously only been observed on two occasions in Michigan since it was listed by Michigan as a state threatened species in 1992. Both of these observations occurred in Allegan County, one in 1993 the other in 1997. Until our observations in 2001, Allegan County contained the only 'confirmed extant' population of the Ottoe skipper in Michigan. Last year's encounter in Montcalm County by Mogens Nielsen occurred at the same location where Mo originally discovered the species in Michigan back in 1953. Prior to this event, *H. ottoe* had not been seen in Montcalm County since 1983. Similarly, although *H. ottoe* had been observed in Newaygo County sand prairies in at least 10 different years beginning in 1956; it had not been documented in the county since 1978. Any lepidopterists interested in participating in field survey work for this species in 2002 are encouraged to contact Owen Perkins at oapgkp@home.com.



Please refer to the MES Newsletter for March 1996 Vol. 41(1): 10-11 for more information about the Michigan Lepidoptera Survey. To learn more about *H. ottoe* and other Michigan plant and animal species of concern, please refer to the Michigan Natural Features Inventory species and habitat community abstracts available on the Internet (<http://www.dnr.state.mi.us/wildlife/heritage/mnfi/abstracts.htm>).

MES 2001 Annual Meeting Minutes

The MES annual meeting was held at the Leelanau School in Glen Arbor, MI on Saturday, June 9, 2001. The business meeting followed a day of interesting, invited presentations on the theme *Biodiversity of the Great Lakes Region*. Thirty six people attended the annual meeting.

Election results. Bob Haack presented results of the election of officers. The new President-Elect is Jim Dunn. The new governing board Members-at-large is Gary Parsons. Mogens Nielsen and Bob Kriegel were re-elected as Treasurer and Secretary, respectively.

Journal editor's report. Randy Cooper gave the Journal Editor's report. Currently publication of the journal is behind schedule. Issues 3 and 4 of volume 33 will be combined. Twenty three papers have already been accepted for volume 34 and 26 papers are in process for volume 35. We are currently accepting manuscripts for 2003, volume 35.

Newsletter editor's report. Bob Haack, provided an update on the MES Newsletter. Several members commented that they liked the addition of color pictures to the Newsletter.

Treasurer's report. Mogens Nielsen delivered the Treasurer's report. Details of his report were published in the August Newsletter.

Secretary's report. Bob Kriegel gave the Secretary's report. In January, Bob met with our direct mailer, Aldinger's, to resolve continuing problems with our address list. He discovered that their system is very outdated and has difficulty handling international addresses. Bob had been submitting membership changes to them in Excel but found out that they are manually reentering these changes into their database. He concluded that it will continue to be very difficult to keep our list and theirs synchronized and suggested that it may be time to investigate an alternate firm to handle our mailings. Members can submit change of address requests to Bob at the following address: 3270 Anthony Hall, Dept. of Animal Science, Michigan State University, 48824; or by e-mail at kriegelr@msu.edu.

New business. The changes to the Constitution discussed at last year's annual meeting and published in the Newsletter passed on a vote of 76 yes, 4 no. The mail-in vote on this issue was on the same ballot as the election of officers.

Mogens Nielsen was recognized for his long standing commitment to the Society with an honorary membership. Ron Priest presented Mo with a certificate, card and a fine insect net from some of his friends in the Society.

Our 50th annual meeting will be held in 2004. Owen Perkins is chairing a committee to plan for this event. Any members interested in assisting should contact Owen.

Owen Perkins moved that a committee be formed to focus on using personal contacts to increase attendance at society events, such as the annual meeting. The motion passed. Gwen Pearson added that our branch of the Entomological Society of America is also trying to address attendance issues at their annual meeting. An ESA branch meeting will be held in East Lansing, MI in spring 2002. She suggested we consider a joint meeting.

This annual meeting was held on Saturday, rather than the traditional Friday date. An informal poll indicated that most meeting attendees preferred a Saturday meeting over one on Friday. Members suggested adding a workshop to the meeting to increase attendance.

Respectfully submitted, Robert D. Kriegel, Secretary

Fall 2001 MES Governing Board Meeting Minutes

At 7:00 PM on 17 October 2001 the Governing Board of the Michigan Entomological Society met at The University of Michigan Museum of Zoology in Ann Arbor. The following Board members were present: George Balogh, James Dunn, Bob Haack, Bob Kriegel, Mogens Nielsen, Mark O'Brien, Gary Parsons, Gwen Pearson, Owen Perkins, and Ronald Priest. The following issues were discussed:

Plans for the 2002 MES annual meeting were discussed. The meeting will be held on Saturday June 8, 2002 at the Indiana Dunes National Lakeshore in northwest Indiana. Additional information about the annual meeting and a call for submitted papers and posters will be published in the MES Newsletter.

A discussion on the nomination of MES Officers for 2002-2003 followed. Potential candidates for President and Member-at-Large were discussed. A final ballot will be prepared and mailed to the membership during Spring 2002. The Board also discussed a potential change in the MES By-Laws to add a student member to the Board. This change will be discussed and voted on during the annual meeting in June.

Randy Cooper, the Editor of the Great Lakes Entomologist was unable to attend the meeting. Mark O'Brien delivered a status report on the journal provided by Randy. At the time of the Governing Board meeting the Summer 2000 issue, volume 33(2), was in press and 33(3-4) was about to be mailed to the typesetter. The Summer 2000 issue had been at the printer for two months. Mark reported that our journal is a low priority for commercial printers because our circulation is low, each issue is small, and the journal is saddle-stitched. Very few printers currently do saddle-stitching. The Board discussed ways to reduce our journal publication backlog. A motion passed to change the journal from four separate to two combined annual issues with a minimum of 128 pages per combined issue. The motion also modified the instructions to authors regarding the electronic submission of both text and graphics. Changes in submission guidelines were published in the December 2001 newsletter. Gwen Pearson volunteered to assist Randy in the manuscript handling and review process to help reduce the backlog.

Bob Haack gave a report on the MES Newsletter. Mailing of the Summer 2001 issue of the Newsletter was delayed because the printer mistakenly printed a color test strip in the margins of the color pages and then had to trim the margins from all copies by hand prior to mailing. Bob was not informed of the problem until after the fact. Therese Poland is investigating the capabilities and printing costs of other service providers in the area.

Mogens Nielsen delivered the Treasurer's report. As of 15 October 2001, MES' holdings were distributed between petty cash (\$122), checking account (\$7,281), checks on hand (\$75), certificates of deposit (\$10,014 @ 6.75% and 8.0% interest) and accounts receivable (\$441). Total assets were \$17,933. This compares to assets in 2000 (Dec 16) of \$18,010, and 1999 (Dec 12) of \$15,567. Expected income for the remainder of the year is \$4,100. Expected expenses for the remainder of the year are \$2,300. The prognosis for the Society's finances for the next year is good.

Bob Kriegel delivered the Secretary's report and read the minutes of the annual meeting on 9 June 2001. Bob continues to have problems keeping the MES membership list synchronized with our direct mailer provider. MES members are encouraged to promptly submit address changes to Bob by e-mail at kriegelr@msu.edu or by snail mail at 3270B Anthony Hall, Michigan State University, East Lansing, MI 48824-1225. The meeting was adjourned at 9:20 PM.

Respectfully submitted, Robert D. Kriegel, Secretary

Ode to Ethel A. Seatate

By P. Aweme (Lyman, 1908)

Way up in Iron County, near the old Soo grade,
Down 421, to the Boloria glade.
That's the spot to set up your light,
And see what shows up on a dark summer's night.

The moths come in droves and hang on your sheet,
As you slip into slumber and wonder if you'll meet?
You've seen her before, just a glimpse by the bog,
As she glides past the tamarack and disappears in the fog.

And if ever you met her, alone in the black,
If she called out your name, could you answer back?
When suddenly she emerges from the edge of the light
And opens her mouth as she's readies for flight.

She whispers your name, in rich soft round sounds,
In a tongue you don't know, as she lifts off the ground.
You answer her loudly in fluid Noctuid, mystified as she starts to go.
Seems she spoke only splendid Spingid, but how were you to know?

Submitted by

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Greatest Prize of Northern Collectors

Owen A. Perkins

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My grandson, Spenser R. McKee, age 10, surveys Lepidoptera for me at various sites, including one in Kalkaska County, Michigan. Before noon on 19 May 2001, he was collecting on a piece of high ground in a beech woodlot. When he returned home he brought to me several specimens, including Clouded Sulphur (*Colias philodice*), Mustard White (*Pieris napi oleracea*), American Painted Lady (*Vanessa virginiensis*), and several blue butterflies that I casually spread for him.

Upon returning from a Michigan Lep Survey collecting trip in Michigan's Upper Peninsula on 1 June 2001, I removed Spenser's specimens from the spreading boards. I realized that one of the "blues" was unusual since it was a very dark blue on the ventral surface. It was not just a dark female Northern Spring Blue (*Celastrina lucia*), but was really a hairstreak. Much to my amazement and glee, the dorsal side confirmed (using my trusted field guide and reference, "Michigan Butterflies & Skippers: A Field Guide and Reference" by Mogens C. "Mo" Nielsen), YES, it was the **Early Hairstreak** (*Erora laetus*). Spenser had collected a new county record, and the first collection record for this species in 2001. It was the species that I had just been searching for in the U.P.

And now, "Here's the Rest of the Story." Spenser now joins the exclusive company with the likes of Dr. Edward G. Voss, Dr. Warren "Herb" Wagner, Richard B. Wilson, Daniel P. Oosting, Dr. Olle Pellmyr a friend of "Ed" while in Voss' presence, Edward "Ted" Herig, James A. Bess, Mogens C. "Mo" Nielsen, Elwin "Duke" Elsner and subsequently in 2001, Mark Churchill and Robert D. Kriegel, all of whom have collected *Erora laetus* in Michigan, and James Davidson who photographed this species in Schoolcraft County as depicted on page 14 of "Michigan Butterflies and Skippers." To quote from Alexander B. Klots in his 1951 "A Field Guide to the Butterflies," "*Laeta* [as it was then nominated] is perhaps the greatest prize of northern collectors. It should be sought (and never expected) along rather shaded trails and 'woodroads' in Canadian Zone forest where Beech trees occur. The butterflies alight on bare ground along the trails, and (females) may be seen around the Beeches. They have a fast flight and are not easily seen in the dappled light and shade."

Spenser told me: "I was trying to catch a butterfly near some tall purple flowers. It got away. I was heading for the garage to put my net away. Along the dirt car path I scared up a blue butterfly. It flew fast in front of me and I ran to catch it. It was flying fast." Spenser was excited, as were his parents, as I related to them how I have spent many hours in search of this "prize" and how it was a new county record and how he was at the time only the tenth person to collect this species in the state of Michigan. Of course I had to telephone "Mo" to apprise him of the good news. Photographs of Spenser's specimen may be viewed at www.lepalert.org or <http://members.home.net/lepalert/AlertWebPages/AlertHomePage1.htm>.

Book Reviews of "Butterflies Of The North Woods"

Weber, L. 2001. *Butterflies of the North Woods*.

Kollath-Stensaas Publishing,
Duluth, MN. 172p. \$14.95. Dis-
tributed by: Adventure Publica-
tions, P.O. Box 269, Cambridge,
MN 55008 (1-800-678-7006).

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This little pocket-sized guide offers chapters on: What is a butterfly, Behavior, Butterfly biology 101, Butterfly observation, and Appendices A through H that comprise a Checklist of "north woods butterflies" [114 species], Habitat guide, Phenology flight chart, Favorite food list, Titles of interest [a pseudo-bibliography], Binoculars for butterflying, Butterfly conservation groups and websites, and Photographic credits. The map on the back cover indicates that "North Woods" includes parts of Minnesota, Wisconsin, Michigan, and Ontario. Because only 61 common species from this area are pictured, anyone encountering any of the remaining 53 species will be frustrated. Perhaps the title might better have read "Selected Common Butterflies of the North Woods."

The meat-and-potatoes of this guide, however, are the color photographs of "free-flying butterflies" and their favorite food plants. The Canadian Tiger Swallowtail on page 20 (and also on the front cover) appears to have a pin showing above the thorax, and the right hindwing is "out of joint" above the right forewing, which might inhibit any "free flying." The photo is in dorsal aspect, so it is difficult to tell for certain, but it appears to be an Eastern Tiger Swallowtail rather than Canadian.

The photographs are generally of good quality, but the quality does vary considerably. This is probably because the author had some partial assistance with the photographs from Rod Planck, Ann Swengel, Sparky Stensaas, and Jeffrey Glassberg.

Glassberg also is credited with proofreading the text, and making sure that all butterfly facts were accurate. The author states, "We are proud that this book is a NABA-approved field guide."

Despite a profusion of sentences ending with prepositions, the text is otherwise well-written and informative, but it is sometimes confusingly worded. Some examples: (p. 1) "Moths have a coupling mechanism, the **frenulum**, that attaches the wings." (to the body ? to each other ?); (p. 2) "In the tropics, butterflies are much bigger than in our part of the country." (always ? none smaller ?); (p. 10) "Unfortunately, butterfly names have been in a state of flux for quite some time. In 1995, the North American Butterfly Association (NABA) published a checklist of butterfly names. This has been a step towards standardization and has been adopted by many authors." (time for a reality check! local plant lists, local bird lists, local herp lists, *etc.*, are all being updated regularly as we acquire new knowledge. Generally this is a result of scholarly research done with specimens rather than with binoculars); (p. 13) "Butterfly caterpillars are often duller, smaller and less distinct than most moth caterpillars," and "Only the Monarch is a long-distance migrant in our area," (but in the species accounts, Painted Lady and Red Admiral are noted as migrants), and "Caterpillars eat leaves," (in species accounts, he acknowledges that larvae of the Silvery Blue eat flowers and pods of legumes). These are minor criticisms that could probably be solved by more careful wording and better concordance with later pages.

Unfortunately, there are somewhat more egregious examples of misinformation. On page x, the drawing that shows "Parts of the Caterpillar," has what appear to be scoli labelled as "antenna." The Bog Copper on p. 41 is very yellowish beneath, like the nominotypic race from the cranberry bogs of New Jersey, rather than grayish-white beneath like our Great Lakes race *michiganensis*. The Great Spangled Fritillary in dorsal view on p. 62 looks suspiciously like the Aphrodite. The Baltimore Checkerspot in dorsal view on p. 78 is absolutely NOT that species; it appears to be one of the western species, perhaps the Chalcedon Checkerspot. The Eastern Comma on both pp. 84 and 85 is almost certainly the Gray Comma. The Green Comma underside on p. 87 appears

to be a very pale Compton's Tortoiseshell (cf. Compton's on p. 91). The Eyed Brown in dorsal view on p. 108 could well be the Appalachian Brown. Finally, the Indian Skipper in ventral view on p. 134 is certainly a Long Dash (correctly shown on p. 141). One concern here is that some photographers may not keep good detailed notes or data when they are taking their pictures (yes, just as some collectors can be careless about the data on their envelopes!).

Although these disputed identifications (and there may be a few others that I have overlooked) detract from the book's overall usefulness, it is still a handy guide (small enough to carry in the pocket) and it is offered at an affordable price. I recommend it for people with expensive close-focusing binoculars who just like to watch butterflies and enjoy nature, and for whom accurate identifications are not critical.

Robert Dana

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B*utterflies of the North Woods* is an excellent concept: a field guide for butterfly-watchers tailored specifically to the forested region of northeastern Minnesota, northern Wisconsin, upper-peninsula Michigan, *etc.*, a popular destination for large numbers of people seeking to experience nature. A guidebook limited to the butterflies people are likely to encounter is certain to be popular.

The book's size and proportions are well chosen: it will fit nicely in the pocket of a field vest or backpack. There is some introductory material explaining in simplified terms appropriate for a novice the fundamentals of butterfly morphology, behavior, and biology. There is a helpful glossary, a good list of other books that cover the butterflies of the region as part of a larger area of coverage, and a guide to close-focus binoculars, an indispensable tool for "butterflying" (though one wonders how long this will be useful given how rapidly products come and go nowadays).

The meat of the book is in the individual species accounts. Each species is given a two-page spread with one to several close-up photographs of living individuals (though some appear to have been unnaturally immobilized by chilling or pinching, and one, the unfortunate swallowtail also featured on the cover, looks like the victim of a car windshield, with its smashed abdomen and dislocated hindwing). Usually there is a picture of both the dorsal and ventral aspects, but for most species that seldom hold their wings open at rest, only the ventral side is shown. There is a description of both dorsal and ventral appearances with some selected "field marks" indicated in the now familiar "Peterson Field Guide" manner. A brief comparison with some similar species is provided.

There is usually a brief description of larval and pupal stages, along with information about larval host plants, adult nectar plants, and other favored nutrient sources. A prominent graphic shows when to expect to see adults; as this is based on the author's experience in the region it is more precise than the usual guidebook phenologies that apply to much larger areas. I particularly like the author's decision to organize the presentation taxonomically rather than by color. I applaud Mr. Weber's justification for this: "in the long run it is better to learn butterfly families."

Although the concept is great, the execution leaves something to be desired. There are a number of errors or infelicities in the introductory matter, though none is terribly serious. On page 2 the specialized scent scales of males are referred to as "androconia or stigma." The latter is a structure on the wing that includes androconia. The assertion on page 7 that "mating usually happens in flight" does not apply to northwoods butterflies, if it applies to butterflies anywhere. The initial phases of courtship typically occur in flight, but coupling almost always takes place after landing. The sentence "[b]utterfly caterpillars are often duller, smaller, and less distinct [*sic*] than most moth caterpillars" on page 13 is so qualified that it isn't clear that it makes any assertion at all, but the impression one gets on first reading it is badly misleading.

Mr. Weber flubs an opportunity to help clear up a matter that seems particularly confusing to beginners and casual

students: the difference between a chrysalis and a cocoon. The chrysalis, he says on page 6, "is composed of a translucent skin" that lacks "the camouflaging coverings of the cocoon." The "skin" of most chrysalises is opaque until just before the adult is ready to eclose, and of course the chrysalis is composed of more than just the skin. What the reader will not learn from this is that all Lepidoptera molt at the completion of growth into a pupal stage, but that some do so inside of enclosures that they first construct for the purpose ("sleeping bags" in the charming coinage of Anne Kilmer in a recent post to the Leps-L newsgroup), and some pupate "in the open." It is just because they are not hidden that the latter group assumes such a variety of forms and colors—for camouflage, for crypsis, even to warn of distastefulness. It is worth noting, as Mr. Weber does not, that some butterflies, especially skippers, pupate inside loose cocoons.

The list of plants in Appendix D is a nice feature, but the author is a bit confusing about what he intends it to be. On page 14 he describes it as a list of "favorite nectar flowers," but it includes trees, shrubs, and grasses that are clearly not nectar sources. It looks in fact to be a list of both nectar plants and larval host plants. There is one error I noted: *Sonchus* is included with *Cirsium* under "Thistles" (p. 164). Plants in the former genus are commonly known as sowthistles, and their "flowers" are bright yellow, resembling those of dandelions (to which they are more closely related than to thistles). Presumably the author meant to list *Carduus* with *Cirsium*.

Detailed, double-page treatment is provided for 61 of the 114 species included in the "Checklist of North Woods Butterflies" (Appendix A). (Mr. Weber's assertion on page 13 that the list includes "120-plus" species presumably represents an editing oversight.) The principle of species selection is not apparent: some commonly encountered species are not included (e.g., *Ancyloxypha numitor*, *Celastrina neglecta*, *Plebejus saepiolus*, *Callophrys augustinus*), while some less-common or harder-to-find species are (e.g., *Lycaena epixanthe*, *Lycaena dorcas*, *Boloria eunomia*, *Oeneis jutta*). Nor does the selection seem to have been based on what photos were available to the author, as he uses photos by Glassberg and

others for some species. Whatever the basis for inclusion, the author's decision to provide a complete checklist will be appreciated, as it can narrow the user's search for images and information in other publications when he or she can't match something seen with any of the 61 species treated in detail.

I noticed only three obvious omissions from the checklist: *Callophrys lanoraieensis*, *Erora laeta*, and *Pyrgus centaureae freija*. All are uncommon to rare within the area covered by this book.

There is a slightly greater problem with the inclusion of taxa that are not really part of the "North Woods." *Pontia occidentalis* and *Erynnis baptisiae* are western and southern taxa, respectively; neither occurs within the north woods except as a rare stray. (At least one occasional stray into the north woods is omitted: the buckeye, *Junonia coenia*.) *Limenitis arthemis astyanax* is another southern taxon, but because of gene flow between this and the northern subspecies *L. arthemis arthemis*, individuals with *astyanax*-like phenotype may occur rarely in *arthemis* populations.

There are several taxa whose inclusion on the checklist is warranted by the map of "The North Woods" on the back cover of the book but which are associated with habitats that are not really part of the northern forest, such as savannas and sand barrens. These are *Lycaeides melissa samuelis*, *Hesperia leonardus*, *Hesperia metea*, *Polites origenes*, *Wallengrenia egeremet*, *Pompeius verna*, and *Atrytonopsis hianna*. They would certainly have to be excluded if the map corresponded to Mr. Weber's definition of the North Woods on page 10: "the area underlain by the granite of the Canadian Shield." If they are to be included, however, *Erynnis persius* and perhaps *Callophrys irus* should be added.

I have similar reservations about treating as part of the north-woods fauna a group of wetland skippers included by Mr. Weber: *Poanes viator*, *Euphyes dion*, and *Euphyes conspiciua*. Again, these species occur within "The North Woods" as depicted on the back cover, but not as defined on page 10. If we are to go by the map then *Poanes massasoit* should be added.

In the individual species accounts the photos are generally acceptable to good, although the previously mentioned

lack of dorsal views of some species will be felt by novice users (e.g., in trying to distinguish *Colias philodice* and *C. eurytheme*). Unfortunately, both sexes of sexually dimorphic taxa are rarely illustrated, which will handicap many beginners. Sometimes when dimorphism is more pronounced the sex of the figured individual is specified, but sometimes it is not (e.g., several of the "branded" skippers). Although seasonal dimorphism in 3 of the *Polygonia* species is described in the text, it is not illustrated nor is the form of the individuals in the photos specified. For some reason a highly aberrant female of *Lycaena helloides* was chosen (page 45), but there is no mention of its atypicality.

There are a few probable misidentifications and a few other questionable ones. Disputable identifications of photographed butterflies are inevitable, but there is an unfortunate number for a book this limited in scope. The butterfly on page 78 identified as *Euphydryas phaeton* looks for all the world to be a female *Euphydryas chalcedona*, a western species. If it is actually *phaeton* it is a highly unusual one. The "*Polygonia comma*" on page 85 is *Polygonia progne* (the individual on page 84, the dorsal view, also appears to be *progne*, from the overwintering generation). The

"*Polygonia progne*" on page 88 appears to be the summer-brood form of *Polygonia comma*. The "*Hesperia sassacus*" ventral view on page 134 is clearly *Polites mystic*.

The butterfly on page 41 meant to show the ventral appearance of *Lycaena epixanthe* is much yellower than the subspecies that occurs in the north woods. The latter (subspecies *michiganensis*) is a pale whitish-gray. The figured insect looks more like *Lycaena helloides*, or perhaps *L. dorcas*. The male "*Celastrina ladon*" on page 54 doesn't look like this species. The black border is too pronounced, and there is no evidence of the "checkered" fringe that typifies *ladon*. The blue color is also wrong, though this could be just poor color matching in reproduction. The insect looks like a *Lycaeides* species to me. (Note also that the "Spring Azure" silhouette on page 34 gives an altogether misleading impression of the wing shape of this butterfly.) The "*Speyeria cybele*" shown in dorsal view on page 62 is almost certainly *Speyeria aphrodite*. "*Chlosyne harrisi*" on page 76 is likewise probably *Chlosyne nycteis* (the individual figured as *C. nycteis* on page 74 is unusually dark for our region).

A valuable moral from all this for the eager beginner is that identification of free-

living butterflies is often a tricky and inconclusive business. There's no need to be discouraged, though; just pick up a copy of another guide to supplement this one and study and compare the illustrations with those in this book. *Butterflies through Binoculars: the East*, by Jeffrey Glassberg (Oxford Univ. Press, 1999) is good. Even better, in my opinion, though it is a reference book and not a field guide, is *The Butterflies of Canada*, by R. A. Layberry and others (Univ. of Toronto Press, 1998). The complete citations for these as well as other useful books are very helpfully provided by Mr. Weber in Appendix E of his book.

American Burying Beetle

Reprinted from: *Endangered Species Bulletin*. January/February 2002, Vol. 27, Number 1, page 24.

The largest American burying beetle (*Nicrophorus americanus*) reintroduction effort in the 12-year history of the species' recovery program took place recently on Nantucket Island off the Massachusetts coast. The Roger Williams Park Zoo in Providence, Rhode Island, raised well over 300 of the endangered beetles for release on Nantucket Island, a historic locality for the species. On 11 and 12 June 2001, 320 American burying beetles (160 pairs) were given dead quail for food (the beetles require carrion to reproduce) and released at the Massachusetts Audubon Society's Sesachacha Wildlife Sanctuary. With each pair of beetles capable of raising 10-20 larvae, the 2001 release may result in thousands of beetles on the island by late fall. This effort is probably the largest reintroduction ever undertaken for an endangered insect species.

Present to document the work was a film crew from the TV program, *Wild Moments*, and the *Providence Journal* newspaper. Partners in the work include the Rhode Island Division of Fisheries and Wildlife, Massachusetts Division of Fisheries and Wildlife, Roger Williams Park Zoo, Massachusetts Audubon Society, University of Massachusetts' Boston Field Station, University of Rhode Island, Maria Mitchell Natural History Museum, and Nantucket Conservation Foundation.

Early announcement for an August 2002 Field Trip to Lost Nations State Game Area in Hillsdale County: Michigan Entomological Society and Michigan Odonata Survey Field Trip

When: Saturday, August 3, 2002: 9:30 a.m. until we can't take it any longer!

Where: Lost Nations State Game Area (LNSGA), Hillsdale County, MI

The LNSGA is an interesting, yet seldom-visited area just north of the Indiana border. A large fen, small streams, ponds, marshes, old fields, lush woodlands and hilly terrain should provide us with potential for acquiring many interesting species and perhaps new county and state records. The Maumee River gets its start here, and the numerous glacial ridges make for some good hiking. The LNSGA is over 2,000 acres, but is not in one large block, so access points are not always easily seen. It is most easily reached by driving South (for most of us) to US-127. Take 127 to Hudson, MI and go West on M-34. About one mile after you go through Pittsford, turn South on Rumsey Road, and then turn West on Way Rd. About 0.4 mi later you'll come to a pulloff and park in a small gravelly lot. Bring a lunch and plenty of water.

There are numerous sites in this large area, so I encourage all of you to bring one of those small FRS radios and we can keep in touch while working our way around the Lost Nations. We don't want any lost entomologists!

For more information about the field trip, contact Mark O'Brien at mfobrien@umich.edu or call 734-647-2199.

Checklist of Butterflies and Skippers for Muskegon County, Ottawa County, and Allegan County, Michigan

Compiled by: **Chip Francke**

Ottawa County Parks and Recreation, 12220 Fillmore St., West Olive, MI 49460, E-mail: lfranck@co.ottawa.mi.us

Prior to the publication of *Michigan Butterflies and Skippers* by Mogens C. Nielsen in 1999, it was difficult for avocational butterfly watchers and collectors to know where to focus their activities if they wished to contribute to the growing amount of information on the status and distribution of Michigan's butterflies. The life history information, flight periods, and county-by-county distribution maps in Nielsen's book provide the baseline information needed for others to take a closer look at specific regions of Michigan.

Nielsen's book presented a challenge to a small group of butterfly watchers in west Michigan. The challenge was to find and submit new county records for Muskegon, Ottawa and Allegan Counties (see Map) based on the distribution maps presented in Nielsen's book. When a new county record was found, a voucher specimen or photograph was submitted for verification. To date, close to 50 new county records have been submitted and verified for these three Michigan counties.

Since the maps in Nielsen's book are based on voucher specimens and photographs (no sight records), there were some gaps that were easy to fill, such as finding a Clouded Sulphur, *Colias philodice*, in Muskegon County and a Question Mark, *Polygonia interrogationis*, in Ottawa County. Other species were more challenging to find such as a Giant Swallowtail, *Papilio cresphontes*, in Muskegon and Allegan Counties, a Dainty Sulphur, *Nathalis iole*, in Muskegon County, a Northern Pearl Crescent, *Phyciodes selenis*, in Ottawa County, and an Arctic Skipper, *Carterocephalus palaemon mandan*, in Muskegon County.

In addition to all verified county records, the list below also includes those species that are represented by sight records only. Sources for sight records include Michigan Butterfly Atlas Project data, Xerces Society Greater Muskegon Butterfly Count (1986), Allegan County Butterfly Count (2001) and individual sight records.

Two individuals deserve special mention for their contributions to this list. Linda Koning spent many field hours searching for butterflies and found a number of new county records. Linda has also increased interest in butterfly watching in west Michigan by starting a local chapter of the North American Butterfly Association. Mike Moran spent countless field hours in Muskegon County and has found and photographed many new county records. Most of the new skipper records were verified using Mike's photographs. Special mention also goes to Jim Granlund, Steve Mueller, and Greg Swanson for contributing data to the list. I would also like to thank 'Mo' Nielsen for his enthusiastic support and review of this list.

The compilation of this checklist is a work in progress and is by no means complete. It is expected that new species and new records will be added as more people spend time in the field. If any reader has additional records for these three Michigan counties, please send details to Chip Franck

Nomenclature and checklist order follow the book: *Michigan Butterflies and Skippers*.

Family Papilionidae: Swallowtails

Mu-R	Ot-R	Al-R	Black Swallowtail <i>Papilio polyxenes asterius</i>
Mu-R	Ot-R	Al-R	Giant Swallowtail <i>Papilio cresphontes</i>
Mu-R	Ot-R	Al-R	Tiger Swallowtail <i>Papilio glaucus</i>
Mu-R	Ot-N	Al-N	Canadian Tiger Swallowtail <i>Papilio canadensis</i>
Mu-R	Ot-R	Al-R	Spicebush Swallowtail <i>Papilio troilus</i>
Mu-S	Ot-R	Al-R	Zebra Swallowtail <i>Eurytides marcellus</i>

Family Pieridae: Whites, Sulphurs

Mu-R	Ot-R	Al-R	Checkered White <i>Pontia protodice</i>
Mu-R	Ot-N	Al-N	Mustard White <i>Pieris napi oleracea</i>
Mu-R	Ot-R	Al-R	Cabbage Butterfly <i>Pieris rapae</i>
Mu-R	Ot-R	Al-R	Olympia Marble <i>Euchloe olympia</i>
Mu-R	Ot-R	Al-R	Clouded Sulphur <i>Colias philodice</i>
Mu-R	Ot-R	Al-R	Orange Sulphur <i>Colias eurytheme</i>
Mu-S	Ot-N	Al-N	Pink-edged Sulphur <i>Colias interior</i>
Mu-S	Ot-R	Al-R	Little Sulphur <i>Eurema lisa</i>
Mu-R	Ot-R	Al-N	Dainty Sulphur <i>Nathalis iole</i>

Family Lycaenidae: Harvesters, Coppers, Hairstreaks, Blues

Mu-N	Ot-R	Al-N	Harvester <i>Feniseca tarquinius</i>
Mu-R	Ot-R	Al-R	American Copper <i>Lycaena phlaeas americana</i>
Mu-R	Ot-R	Al-N	Bronze Copper <i>Lycaena hyllus</i>



Checklist Legend

Mu - Muskegon County

Ot -Ottawa County

Al - Allegan County

R - Record based on a voucher specimen or photograph

S - Sight record only

N - No record of any kind

NOTICES

Exchange: Belgian entomologist interested in palearctic and arctic heterocerans and rhopalocerans. I work on the distribution of the species of Lepidopteres. I would like to find contacts in the United States to exchange specimens. List available for exchange. Thanks in advance. Jean-paul Herzet. Contact: jp.herzet@euronet.be

Microlepidoptera Interest Group:

Tom Wallenmaier will facilitate an open discussion on the merits and/or problems with respect to forming a Microlepidoptera group at the 2002 Breaking Diapause Meeting, 16 March 2002 (see p. 20). Topics will include: What form the organization should take, could it be integrated into a current society such as Mich. Ent. Soc. or Lepidopterists' Society, and how broad is the interest in such a group?

2002 Summer Field Courses: Several entomology field courses will be offered at the Humboldt Field Research Institute, PO Box 9, Steuben, Maine 04680 (207-546-2821; FAX 207-546-3042; <http://maine.maine.edu/~eaglhil>; humboldt@mail.loa.com): Odonata 26 May-1 June; Lepidoptera 30 June-6 July, Mayflies 4-10 August, aquatic entomology 11-17 August.

ESA North Central Branch Meeting: 24-27 March 2002, Kellogg Center, Michigan State University, East Lansing, MI.

<http://esa.ent.iastate.edu/>

Mu-N	Ot-N	Al-R	Bog Copper	<i>Lycaena epixanthe michiganensis</i>
Mu-N	Ot-N	Al-R	Dorcas Copper	<i>Lycaena dorcas</i>
Mu-R	Ot-R	Al-R	Purplish Copper	<i>Lycaena helloides</i>
Mu-R	Ot-R	Al-R	Coral Hairstreak	<i>Satyrrium titus</i>
Mu-R	Ot-R	Al-R	Acadian Hairstreak	<i>Satyrrium acadicum</i>
Mu-R	Ot-N	Al-R	Edward's Hairstreak	<i>Satyrrium edwardsii</i>
Mu-R	Ot-R	Al-R	Banded Hairstreak	<i>Satyrrium calanus falacer</i>
Mu-S	Ot-R	Al-R	Hickory Hairstreak	<i>Satyrrium caryaevorum</i>
Mu-R	Ot-R	Al-R	Striped Hairstreak	<i>Satyrrium liparops strigosum</i>
Mu-R	Ot-N	Al-R	Brown Elfin	<i>Incisalia augustinus</i>
Mu-R	Ot-N	Al-R	Hoary Elfin	<i>Incisalia polia</i>
Mu-R	Ot-N	Al-R	Frosted Elfin	<i>Incisalia irus</i>
Mu-N	Ot-N	Al-R	Henry's Elfin	<i>Incisalia henrici</i>
Mu-R	Ot-N	Al-R	Eastern Pine Elfin	<i>Incisalia niphon clarki</i>
Mu-R	Ot-N	Al-N	White-M Hairstreak	<i>Parrhasius m-album</i>
Mu-R	Ot-R	Al-R	Gray Hairstreak	<i>Strymon melinus humuli</i>
Mu-N	Ot-N	Al-R	Reakirt's Blue	<i>Hemiargus isola</i>
Mu-R	Ot-R	Al-R	Eastern Tailed Blue	<i>Everes comyntas</i>
Mu-R	Ot-R	Al-R	Spring Azure	<i>Celastrina ladon</i>
Mu-R	Ot-R	Al-R	Summer Azure	<i>Celastrina neglecta</i>
Mu-R	Ot-R	Al-R	Silvery Blue	<i>Glaucopsyche lygdamus couperi</i>
Mu-R	Ot-R	Al-R	Karner Blue	<i>Lycaeides melissa samuelis</i>

Family Nymphalidae: Brushfoots

Mu-R	Ot-R	Al-N	Snout Butterfly	<i>Libytheana carinenta bachmanii</i>
Mu-R	Ot-R	Al-R	Variogated Fritillary	<i>Euptoieta claudia</i>
Mu-R	Ot-R	Al-R	Great Spangled Fritillary	<i>Speyeria cybele cybele</i>
Mu-R	Ot-R	Al-R	Aphrodite Fritillary	<i>Speyeria aphrodite</i>
Mu-N	Ot-N	Al-R	Regal Fritillary	<i>Speyeria idalia</i>
Mu-S	Ot-N	Al-N	Atlantis Fritillary	<i>Speyeria atlantis</i>
Mu-R	Ot-R	Al-R	Silver Bordered Fritillary	<i>Boloria selene myrina</i>
Mu-R	Ot-R	Al-S	Meadow Fritillary	<i>Boloria bellona</i>
Mu-S	Ot-R	Al-R	Pearl Crescent	<i>Phyciodes tharos</i>
Mu-R	Ot-R	Al-N	Northern Pearl Crescent	<i>Phyciodes selenis</i>
Mu-R	Ot-N	Al-N	Tawny Crescent	<i>Phyciodes batesii</i>
Mu-R	Ot-R	Al-R	Baltimore	<i>Euphydryas phaeton</i>
Mu-R	Ot-R	Al-S	Question Mark	<i>Polygonia interrogationis</i>
Mu-R	Ot-R	Al-N	Comma	<i>Polygonia comma</i>
Mu-R	Ot-R	Al-N	Gray Comma	<i>Polygonia progne</i>
Mu-S	Ot-R	Al-S	Compton Tortoise Shell	<i>Nymphalis vau-album j-album</i>
Mu-R	Ot-R	Al-R	Mourning Cloak	<i>Nymphalis antiopa</i>
Mu-R	Ot-R	Al-R	Milbert's Tortoise Shell	<i>Nymphalis milberti</i>
Mu-R	Ot-R	Al-R	American Painted Lady	<i>Vanessa virginiensis</i>
Mu-R	Ot-R	Al-R	Painted Lady	<i>Vanessa cardui</i>
Mu-R	Ot-R	Al-R	Red Admiral	<i>Vanessa atalanta rubria</i>
Mu-R	Ot-R	Al-R	Buckeye	<i>Junonia coenia</i>
Mu-N	Ot-N	Al-R	White Admiral	<i>Limenitis arthemis arthemis</i>
Mu-R	Ot-R	Al-R	Red Spotted Purple	<i>Limenitis arthemis astyanax</i>
Mu-R	Ot-R	Al-S	Viceroy	<i>Limenitis archippus</i>
Mu-N	Ot-R	Al-N	Goatweed Butterfly	<i>Anaea andria</i>
Mu-N	Ot-R	Al-R	Hackberry Butterfly	<i>Asterocampa celtis</i>
Mu-N	Ot-R	Al-S	Tawny Emperor	<i>Asterocampa clyton</i>

Family Satyridae: Satyrs, Wood Nymphs, Arctics

Mu-R	Ot-R	Al-N	Northern Pearly Eye	<i>Enodia anhedon</i>
Mu-R	Ot-R	Al-R	Eyed Brown	<i>Satyrodes eurydice</i>

Mu-R	Ot-S	Al-S	Appalachian Eyed Brown <i>Satyroides appalachia leeuwi</i>
Mu-R	Ot-R	Al-R	Little Wood Satyr <i>Megisto cymela</i>
Mu-R	Ot-R	Al-R	Wood Nymph <i>Cercyonis pegala nephele</i>
Mu-R	Ot-N	Al-N	Chryxus Arctic <i>Oeneis chryxus strigulosa</i>

Family Danaidae: Milkweed Butterflies

Mu-R	Ot-R	Al-R	Monarch <i>Danaus plexippus</i>
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Family Hesperiiidae: Skippers

Mu-R	Ot-R	Al-R	Silver-spotted Skipper <i>Epargyreus clarus</i>
Mu-N	Ot-R	Al-R	Hoary Edge <i>Achalarus lyciades</i>
Mu-S	Ot-R	Al-R	Southern Cloudywing <i>Thorybes bathyllus</i>
Mu-S	Ot-R	Al-R	Northern Cloudywing <i>Thorybes pylades</i>
Mu-R	Ot-R	Al-R	Dreamy Dusky Wing <i>Erynnis icelus</i>
Mu-R	Ot-R	Al-R	Sleepy Dusky Wing <i>Erynnis brizo</i>
Mu-R	Ot-R	Al-R	Juvenal's Dusky Wing <i>Erynnis juvenalis</i>
Mu-N	Ot-N	Al-R	Horace's Dusky Wing <i>Erynnis horatius</i>
Mu-N	Ot-N	Al-R	Columbine Dusky Wing <i>Erynnis lucilius</i>
Mu-N	Ot-N	Al-S	Wild Indigo Dusky Wing <i>Erynnis baptisiae</i>
Mu-R	Ot-N	Al-R	Persius Dusky Wing <i>Erynnis persius</i>
Mu-N	Ot-R	Al-R	Checkered Skipper <i>Pyrgus communis</i>
Mu-R	Ot-R	Al-R	Common Sooty Wing <i>Pholisora catullus</i>
Mu-R	Ot-N	Al-N	Arctic Skipper <i>Carterocephalus palaemon mandan</i>
Mu-S	Ot-R	Al-R	Least Skipper <i>Ancyloxypha numitor</i>
Mu-R	Ot-R	Al-R	European Skipper <i>Thymelicus lineola</i>
Mu-R	Ot-R	Al-N	Fiery Skipper <i>Hylephila phyleus</i>
Mu-N	Ot-N	Al-R	Ottoe Skipper <i>Hesperia ottoe</i>
Mu-R	Ot-R	Al-R	Leonard's Skipper <i>Hesperia leonardus</i>
Mu-R	Ot-N	Al-R	Cobweb Skipper <i>Hesperia metea</i>
Mu-R	Ot-R	Al-R	Indian Skipper <i>Hesperia sassacus</i>
Mu-R	Ot-R	Al-R	Peck's Skipper <i>Polites peckius</i>
Mu-R	Ot-R	Al-R	Tawny-edged Skipper <i>Polites themistocles</i>
Mu-R	Ot-N	Al-R	Crossline Skipper <i>Polites origenes</i>
Mu-S	Ot-R	Al-R	Long Dash <i>Polites mystic</i>
Mu-R	Ot-R	Al-R	Northern Broken Dash <i>Wallengrenia egeremet</i>
Mu-S	Ot-R	Al-S	Little Glassywing <i>Pompeius verna</i>
Mu-N	Ot-N	Al-R	Sachem Skipper <i>Atalopedes campestris</i>
Mu-R	Ot-R	Al-R	Delaware Skipper <i>Atrytone logan</i>
Mu-N	Ot-N	Al-R	Mulberry Wing <i>Poanes massasoit</i>
Mu-R	Ot-R	Al-R	Hobomok Skipper <i>Poanes hobomok</i>
Mu-N	Ot-R	Al-S	Broad-winged Skipper <i>Poanes viator</i>
Mu-R	Ot-R	Al-R	Dion Skipper <i>Euphyes dion</i>
Mu-R	Ot-R	Al-R	Black Dash <i>Euphyes conspicuus</i>
Mu-R	Ot-R	Al-R	Dun Skipper <i>Euphyes vestris metacomet</i>
Mu-R	Ot-N	Al-R	Dusted Skipper <i>Atrytonopsis hianna</i>
Mu-R	Ot-R	Al-R	Roadside Skipper <i>Amblyscirtes vialis</i>

Checklist Legend

Mu - Muskegon County

Ot - Ottawa County

Al - Allegan County

R - Record based on a voucher specimen or photograph

S - Sight record only

N - No record of any kind

Corrections for "MICHIGAN BUTTERFLIES & SKIPPERS"

Since the date of publication (May 28, 1999) of my Michigan Butterfly & Skipper Field Guide, certain errors and omissions have come to my attention. I call your attention to the following pages:

P. 36: Captions for the three plates were omitted: Male-Upper, Male-Under, Female-Upper;

P. 48: Caption for Male-Under should be Female-Under;

P. 98: *Glaucopsyche* should be *Glaucopsyche*;

P. 159: *creole* should be *creola*;

P. 224: Omitted- Flight period: Two broods; May 30 to September 9., and Remarks: Uncommon. Males perch on foliage several feet above trails in sunlit areas; they are more pugnacious than Hobomok males.

Since the publication, I have received over 400 verifiable new county records, and can add three new state records: Great Southern White, *Ascia monuste*, Funereal Skipper, *Erynnis funeralis*, and Brazilian Skipper, *Calpodus ethlius*. New county/state records should be verified by specimens or good photographs.

I wish to thank all the users of this book for their great interest!

Mogens C. Nielsen

Department of Entomology,

Michigan State University,

East Lansing, MI 48824,

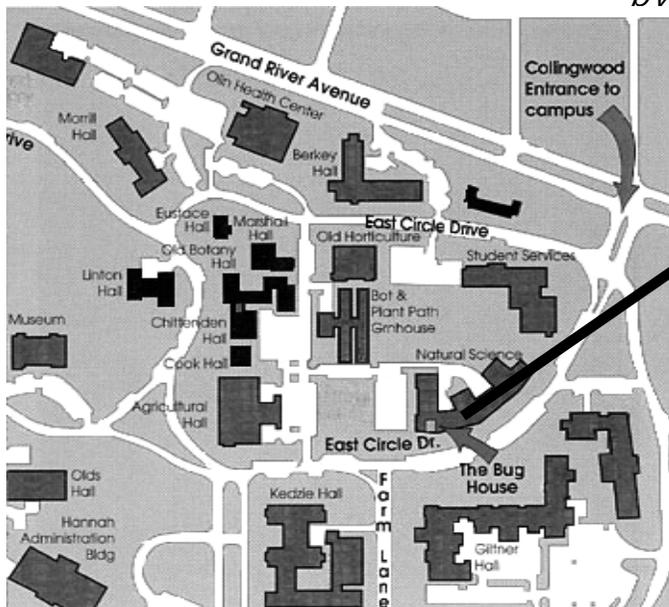
E-mail: nielsen4@pilot.msu.edu

**Breaking Diapause
16 March 2002**

Come and meet with other fellow entomologists and insect enthusiasts! Bring along insects to identify. Refreshments will be provided. Tour the Michigan State University Insect Collection and the Bug House.

Discuss the formation of a Microlepidoptera Working Group: See Notice on p. 18

For more information, contact Mo Nielsen by phone at 517-355-7294 or by e-mail at nielsen4@pilot.msu.edu



Where?

When?

Saturday, 16 March 2002
9 AM until mid-afternoon
Room 244
Natural Science Building
East Circle Drive, MSU
(above the Bug House)

MICHIGAN ENTOMOLOGICAL SOCIETY



Department of Entomology
Michigan State University
East Lansing, Michigan 48823

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