



Wisconsin Entomological Society

Newsletter

Volume 35, Number 2

August 2008

Janice went to be with her Lord on March 18, 2008. She suffered a burst intestine at home about 3 p.m. on March 17 and was immediately taken by ambulance to Door County Memorial Hospital. The diagnosis was that she would not survive. She died peacefully at 8:40 p.m. the following day with John, Kay, Mark, and his wife Kay at her side.

Janice was born in Chicago, IL and lived in Skokie, IL while attending grade school. Even the name of the school fit with her interests— East Prairie Grade School. She spent whatever free time she had on the prairie around

their house exploring and playing with all the "critters" that she found.

After her graduation in 1949 the family moved to a farm in Pittsville, WI. She at-

Janice J. Stiefel

Editor: Wisconsin Entomological Society Newsletter

January 4, 1936—March 18, 2008

tended Pittsville High School and graduated in 1953. The high school years were busy with schooling, farm work, and any spare moments spent in the field with her beloved "critters."

Once again, the family moved, this time to Milwaukee, WI, and Janice found employment as an executive secretary at Cleaver-Brooks Co. She and John met at Christ Memorial Lutheran Church in 1954

and were married in that church on Sept. 7, 1957. They spent the next two years at Madison, WI where she worked as executive secretary at Wisconsin Power and Light Co. while John finished his BSME degree at UW.

Upon graduation in 1959, John took a job with Cleaver-Brooks Co. and they moved to a new home they designed and were building in Mequon, WI. Janice became a stay-at-home mom when Kay was born in 1960, followed by

Mark in 1962. She gave priority to managing the household while continuing to nurture her interest in things natural.

In 1971, John took a job with Gilson Brothers Co. in Plymouth, WI. The family moved into a new home they designed and were building on 3+ acres along the Mullet River. Janice continued managing the house but was also active with the kids at St. John Lutheran Church and School. De-



Janice J. Stiefel
January 4, 1936 ~ March 18, 2008

In This Issue...

**In Memoriam
Janice Stiefel**
Page 1

**Notes on Celastrina
(Lepidoptera: Lycaenidae)
In Wisconsin**
Page 2

WES Officers
Page 2

Lab Notes & Fall Meeting
Page 3

Mystery Insects
Page 4

Moths in Caves
Page 5

Pink-Legged Tiger Moths
Page 7

The Wisconsin Entomological Society Newsletter is published three times a year, at irregular intervals. The newsletter is provided to encourage and facilitate the exchange of information by the membership, and to keep the members informed of the activities of the organization. Members are strongly encouraged to contribute items for inclusion in the newsletter. Please send all news items, notes, new or interesting insect records, season summaries, and research requests to the editor by Jan. 15, May 15, or Sept. 15:

J. Mingari, P.O. Box 105, New Holstein, WI 53061, email: turkeyfeather@tds.net (Put WES in subject line)

NOTE: Please report any address changes to Les Ferge, 7119 Hubbard Ave., Middleton, WI 53562, email: ferge@netzero.net

Please see, **JANICE**, page 8

Celastrina is a most perplexing genus of butterflies, with a number of closely similar North American species being described and named in recent years (Wright & Pavulaan 1999, Pavulaan and Wright 2005). Two species have previously been recognized in Wisconsin; the Spring Azure, *Celastrina lucia* (Kirby, 1837), and the Summer Azure, *Celastrina neglecta* (W. H. Edwards, 1862). A third newly described species has now been documented in Wisconsin.

A single female specimen answering the description of the Cherry Gall Azure, *Celastrina serotina* Paavulan and D. Wright 2005, was located in the collection of Les Ferge. It was captured in Marathon County on 3 June 1968, and its identity verified by Harry Paavulan and David Wright. It is likely that other specimens may be found in collections at the UW-Madison and the Milwaukee Public Museum, but these resources have not yet been searched.

Celastrina serotina is unique in that its larvae feed on elongate red galls on the upper surface of Black Cherry (*Prunus serotina*) leaves. The galls are produced by the Eriophyid mite *Phytoptus cerasicrumena* Walsh (Pavulaan and Wright 2005).

The following identification tips are extracted from the original description of *Celastrina serotina* (Pavulaan and Wright 2005), which also con-

tains much more detailed information on all these species. *Celastrina lucia* is the most easily identifiable of the three, with the underside dusky gray and heavily marked with black. It

**Notes on
Celastrina
(Lepidoptera: Lycaenidae)
in Wisconsin**

Article and Photos by Les Ferge

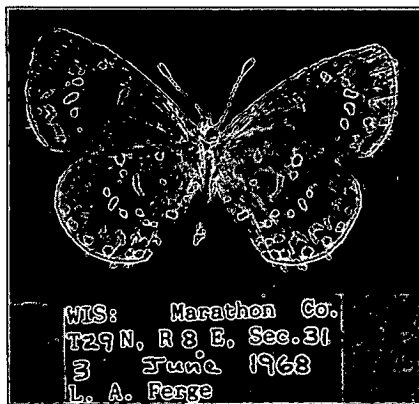
is the earliest of the species in Wisconsin to emerge, with its flight occurring from early April into early May. Distinguishing the closely similar *C. neglecta* and *C. serotina* solely by wing characters is challenging. Both have a similar arrangement of black spots on a white underside. The flight of *C. serotina* in Wisconsin is likely to occur from late May into early June, while *C. neglecta* begins its emergence in late June. While this seems quite straightfor-

ward up to now, there is another source of confusion. *C. neglecta* has been found to produce a spring brood occurring at about the same time as *C. lucia*. The best way to distinguish spring *neglecta* is by examining the dorsal forewing, which has strong whitish veins along the leading edge (David Wright, pers. comm.).

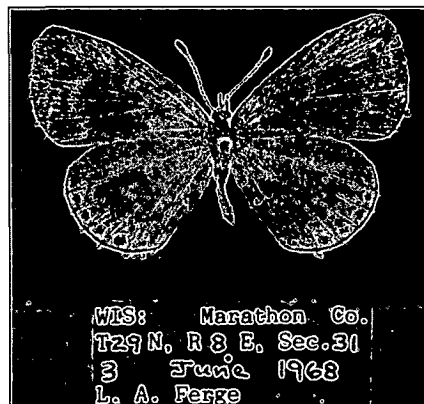
References Cited:

Pavulaan, H. and D. M. Wright. 2005. *Celastrina serotina* (Lycaenidae: Polyommattinae): a New Butterfly Species From the Northeastern United States and Eastern Canada. The Taxonomic Report of the International Lepidoptera Survey 6: 1-16.

Wright, D. M. and H. Pavulaan. 1999. *Celastrina idella* (Lycaenidae: Polyommattinae): a New Butterfly Species From the Atlantic Coastal Plain. The Taxonomic Report of the International Lepidoptera Survey 1: 1-11.



Celastrina serotina ventral



Celastrina serotina dorsal



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There are so many wonderful treasures to witness in the world. Insects bring millions of possibilities to those of us who study and observe them. Most people do not stop and take the time to learn about or even look closely at the hexapod world. We have lost one very special treasure this year- our newsletter editor and friend, Janice Stiefel.

My first contacts were from a woman from Plymouth, Wisconsin who took great pictures of any caterpillar she could find. They were great photos, and Janice would rear many of the larvae out and then document the adult moths and butterflies that developed. She had so much enthusiasm, passion, and energy. Janice always had a smile and a great observation to share.

You could tell John and Janice had a very special relationship. Door County was the perfect place for them to settle. Every time I saw Janice and John, it was as special to me as a Door County vacation.

The WES newsletter blossomed when Janice took over as editor. Her lovely writing and her many contacts with other writers and lovers of the natural world brought the newsletter to new heights.

Janice had an impact on a national level, and her passing has been acknowledged by a number of people and societies. I feel blessed at having had a chance to know such a special person who was as much a treasure to me as swallowtail butterflies, wild silkworms, and shiny beetles.

Lab Notes

In the world of insects, 2008 has been on the damp side. **Mosquitoes** have had a great year, and we may have added a new species, which brings the

Fall Meeting

Our fall meeting of the Wisconsin Entomological Society will be on

Sat., October 18
1- 4 pm
at Russell Laboratory
UW Campus
1630 Linden Drive
Madison

This will be the 25th anniversary of the annual William A. Seiker memorial photo salon. You can bring, email or send a CD to me of 1-5 images. We judge the photo quality as well as the difficulty of getting pictures of the subject matter, with equal points given to each.

We will also have a couple of talks to round out the day. Please contact me if you have something to share or want to be on the program. We will have elections of officers and a discussion and vote on raising the membership dues. If you have any questions, you can email me at pellitte@entomology.wisc.edu or call (608) 262-6510.

total to 56 species in the state.

I saw my first **monarch** on May 18th and have had a couple of successful larvae on our butterflyweed, but overall it seems a down year for day-flying leps. The **red admiral** outbreak of 2007 has not been repeated.

I have had a number of calls on and have seen in our own garden a low number of bee pollinators. **Honeybees** had an average winter kill, and the colony collapse disorder that has caused so many problems for migratory beekeepers and is getting so much press is not an issue in Wisconsin. I have been getting more swarm calls in the

last few years, which suggest feral colonies are returning. This means some honeybees have partially solved the mite issues.

The pest of the year is the **Japanese beetle**. Populations are taking off for the first time in Appleton and Green Bay but have been high for a number of years in the southeast and south-central parts of the state. My colleague Chris Williamson found grub densities of 75/sq ft. in a golf course in Madison (new world record?). The heavy rains of last August, little frost in the ground, and a wet spring made for ideal conditions for the grubs. The good news is the adult feeding is cosmetic.

The **earwigs** liked the wet spring, and I received a specimen of a three-inch long spotted **garden slug** (*Limax maximus*) from Manitowoc County. This is the first one of these European critters I have ever seen in the state. The rains did promote an outbreak of the *Entomophaga* fungus and helped drastically reduce **Gypsy moth** populations in many parts of the state. It has been a great year for **fire-flies**- but overall I would say has not been a banner year for anything that does not swim.

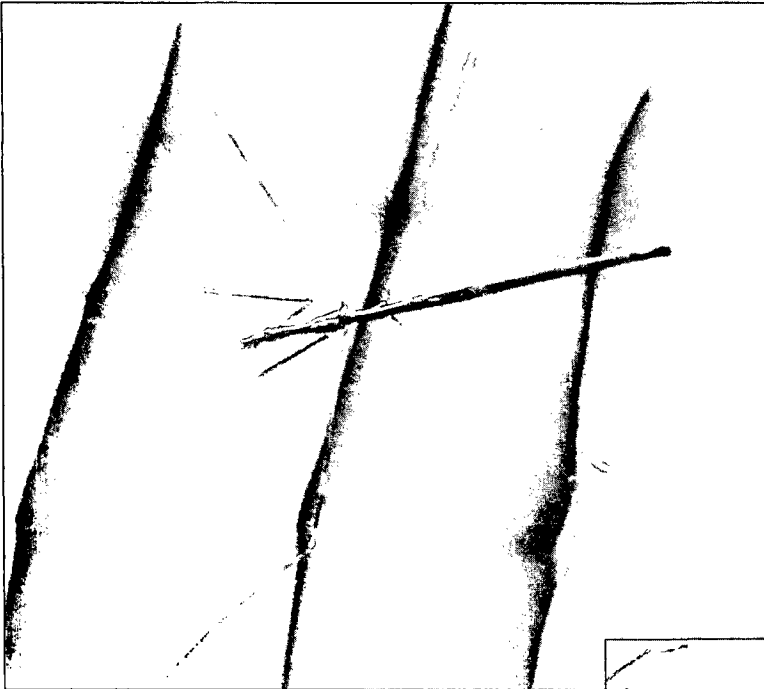
Phil Pellitteri



Spotted Garden Slug
Limax maximus

Mystery Insects

Submitted by Phil Pellitteri



1. At left is an insect that was found in Columbia County, Wisc., in early August, crawling on garden plants.

2. At right is a "ball" of insects found on a spruce tree in Lincoln County, Wisc. Close-up of one of the insects below.



Send your answers to the editor:

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New Holstein, WI 53061

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(Please put WES in the subject line)

The staff at Ledge View Nature Center in Chilton had a good laugh back in 2006. Something we said to retired biology teacher Carroll Rudy—who had recently developed a fascination with the beauty and amazing life cycles of moths—caused her to exclaim in surprise that we'd never told her there were moths in our caves.

We were so accustomed to seeing them that we'd given them no thought, but her surprise made us begin to think there might be something strange about moths in a cave. Our curiosity was piqued.

The moths are found in Mothers Cave, which can only be accessed and traversed in a belly-crawl. From April through November staff are in the caves every day with school kids, teaching geology and biology. The moths sit quietly, wings flat against the rock ceiling, pretty much the same color as the dirt, the rock, and the bat poop—brown, gray, dark brown. They cling to the cool limestone and are dotted, like it, with condensation. Their tiny eyes shine like copper beads in a flashlight beam, but the water droplets shine like silver beads, so the

Moths in Caves

Article and Photo by J. Mingari

moths are easy to overlook. The kids almost never even notice them. Carroll identified them as hopvine moths, *Hypena humuli* Harris (thanks to Phil Pellitteri and the UW-Madison entomology lab for verifying the vouchers' ID).

It was difficult to locate resources specifically on hopvine moths and caves, and we didn't find much on hopvine moths alone, either. Most literature on hopvine moth ecology appears to focus on their damage to crops. Our search was aided by Janice Stiefel, who kindly shared entries in her reference database.

We found that though it is unusual for moths to be found in caves, it is not extraordinary to find them there. A few species have previously been reported in caves, such as the herald (*Scoliopterix libatrix*) and *Triphosa haesitata**. We can recall three occasions when a herald was seen in our caves; we thought it was accidental.

Much of the little information we found tended to generalize. Personal observations of course simultaneously widened and narrowed the knowledge we had. For example, Wagner/Schweitzer/Sullivan/Reardon's online draft, "Owlet Caterpillars of Eastern North America (Lepidoptera: Noctuidae)," reported that

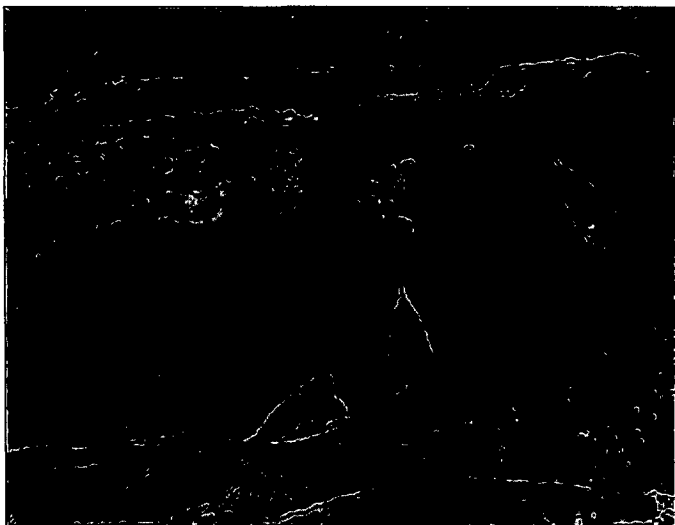
hopvine moths are found in wet, mesic, or riparian areas. Ledge View sits on an outcropping of the Niagara dolostone (limestone) with no water. The nearest water is half a mile away. However, the moths are found exclusively in one room of Mothers Cave, and this room exits out the damp and cool north-facing, mossy bluff of the ledge, into mature deciduous woodland. Clearweed (*Pilea pumila*), a type of nettle, grows at the cave exit, and nettles (usually found in damp places) are one of the reported food plants of hopvine moths.

The Arnett book, *American Insects* (1985), described sexual dimorphism in coloration. Based on their color, our moths appeared to all be males. In fact, Carroll found that our cave moths comprised both males and females. A random sample of seven produced four males and three females, and our population could not be gender-separated based on variations in color or pattern.

After two years of observations, we hypothesize that the moths are using Mothers Cave as an aestivation and hibernation site. Carroll found hopvine moths coming to lights generally in May, at which time there were no moths in the cave. The first "cave" moths have only been found in July (48 counted 7-30-06, 49+ counted 7-13-07, 30+ counted 7-29-08). There may have been more: Moths tucked into crevices could not be counted, as we would not have been able to see them.). The room temperature in July is 46-49F and relative humidity 93-96%. On 8-3-07 we counted 125 moths in the cave.

Carroll reported again seeing hopvine moths at evening lights in late August-mid September. Numbers of moths in the cave dropped to little more than sin-

Please see, **MOTHS IN CAVES**, page 6



Four hopvine moths, Mothers Cave, Chilton, WI
Hypena humuli Harris (Noctuidae)

From **MOTHS IN CAVES**, page 5

gle digits. By the end of September, though, there had been another influx of moths (24 counted 9-30-06, 26 counted 9-23-07), and these seemed to constitute the hibernators for the winter, for the numbers did not increase any more after that, but instead slowly dropped. The cave room temperature at that time was 50F in 2006, and 52F with 97% rh in 2007.

The caves close in November and remain closed to the public until April.

Through the winters of '06-'07 and '07-'08, several visits were made to Mothers Cave to count moths and record temperatures and humidity levels. This was eye-opening, for staff had assumed that the cave temperatures and humidities would be more or less uniform and constant through the winter, with all doors kept closed and insulated. We were very surprised to find that the "cave moth" room tended to be the coldest and the driest, dropping steeply from a relatively humidity in the 90 percents to only 54% on 2-13-07; while the temperature on that date actually fell below freezing in that room: 29F. Elsewhere in the cave system (which is all connected underground), temperatures ranged up into the 30s and low 40sF, with humidities at 86 and 98%, respectively.

In spite of the low temperature, the moths were easily roused to brief fluttering by a finger's touch.

Carroll had found, in attempts to macrophotograph the moths, that they were not slowed down by refrigeration. Her next resort was a brief visit to the freezer (14F), which apparently

had the same effect on five of the seven as would losing the head: severe brain damage (Rudy 2006). This made us wonder if the moths in the cave were surviving the low temperature due to adaptive strategy like concentration of glycerols, or if they were just "deadheads," since the observed behaviors were similar. Nevertheless, the numbers of moths in the cave dwindled through the winter. On 4-9-07 there were four left. By the end of April '07 and '08, none were found.

The moth population inside the cave was impacted by predation. Loose little piles of wings were occasionally observed on stones against the walls. Joe Senulis (Wisc. Dept. of Natural Resources) did a bat survey on 1-22-07, counting 25 *myotis* (*lucifugus* and *septentrionalis*) and pipistrelles. These are the smallest of the Wisconsin bats, and they have been seen inside Mothers Cave. *Myotis* do glean (Faure 1993; Ratcliffe & Dawson 2003). My opinion is that the moths were instead eaten by mice, though, because every one of the little wing piles was on a small stone platform against a wall. In contrast, bats could have discarded moth wings anywhere.

In winter 2007 it was decided to drop the moth survey to protect the hibernating bats from disturbance.

(Other life found commonly in Ledge View's caves include cave spiders, *Meta menardi*; cave crickets, *Hadenocercus subterraneus*; big brown bats, *Eptesicus fuscus*; heliomyzid flies (thanks again to Phil P. for verification of voucher); an unidentified mosquito; and garter

(*Thamnophis sirtalis*) and fox snakes (*Elaphe vulpina*.)

*Amateur entomologist/photographer Bill Johnson of Minneapolis had photographed both heralds and hopvine moths in caves in August 1998; and McKillop (1993) reported heralds and *triphosa haesitata* in Manitoba caves. Kikukawa (1982) reported hopvine moths near the entrance of a Boone County, Missouri cave in January 1981.

References:

Faure, P.A. 1993. The gleaning attacks of the northern long-eared bat, *myotis septentrionalis*, are relatively inaudible to moths. *J. Exp. Biol.* 178: 173-189.

Kikukawa, S. 1982. An overwintering site of the hop looper, *hypena humuli* (Harris). *Entomological News* 93 (4).

McKillop, W.B. 1993. *Sciopteryx libatrix* (Noctuidae) and *Triphosa haesitata* (Geometridae) in caves in Manitoba, Canada. *Journal of the Lepidopterists' Society* 47 (2): 106-113.

Ratcliffe, J.M. and J.W. Dawson. 2003. Behavioural flexibility: the little brown bat, *myotis lucifugus*, and the northern long-eared bat, *m. septentrionalis*, both glean and hawk prey. *Animal Behavior* 66: 847-856.

Rudy, C. 2006. Can a moth live without its head? *Ledge View* 26 (1): 9.

Wagner, D., D.F. Schweitzer, J. Bolling Sullivan, and R.C. Reardon. Undated draft. *Owlet Caterpillars of Eastern North America* (Lepidoptera: Noctuidae). <http://www.eeb.uconn.edu/faculty/wagner/noctuidraft.htm>.



Treehoppers can be imperturbable - this one is not the least bit concerned that I manipulate the leaf - it is probably pretending to be a thorn.
The eggs look like they erupt from the leaf rachis



Pink-Legged Tiger Moths (*Spilosoma latipennis*)

Notes and photos by Carroll Rudy

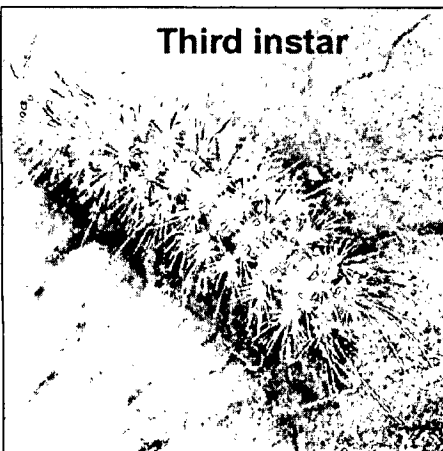
Here are photos of stages for #8133, Pink-Legged Tiger Moth (Editor's note: adults can be seen in color at <http://mothphotographers-group.msstate.edu/>)

The first 3 instars all looked the same except for size. They were greenish with white fuzz. They looked like bits of lint.

I did not photograph the first two instars as they were too tiny. It was all I could do to feed them without squashing them. Some got lost.

The first two instars were communal. I fed them dandelion leaves.

In third instar the caterpillars went their individual ways.

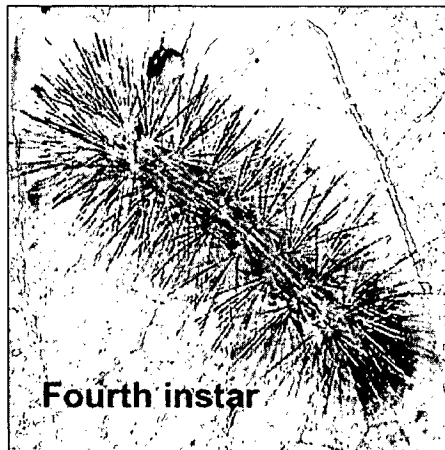


Third instar

It was always difficult to tell the heads from the tails. They had yellowish markings on the posterior end that make it look more like the head than the real head. The real head was very small for the size of the larva.

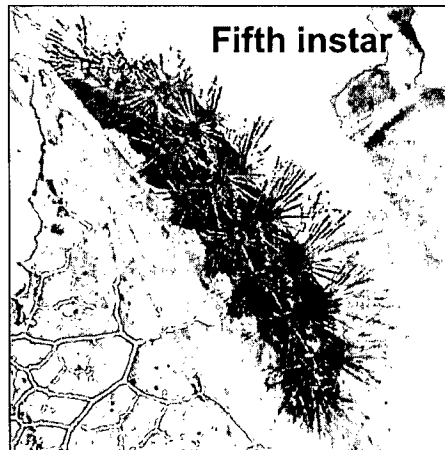
Photos all have the head in upper left corner.

In the fourth instar the bristles were longer and darker. I had 20 caterpillars left.



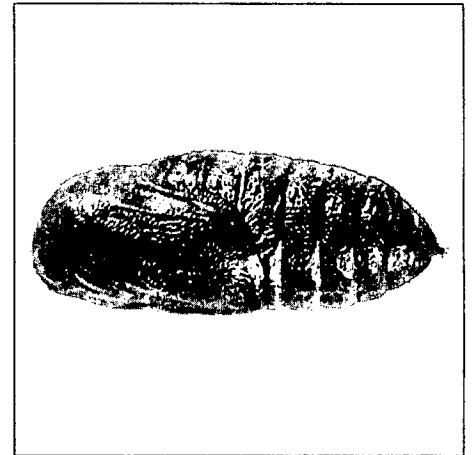
Fourth instar

The fifth instar changed color to chestnut brown. Caterpillars would not sit still anymore and ran very fast, making them difficult to photograph. One got away.

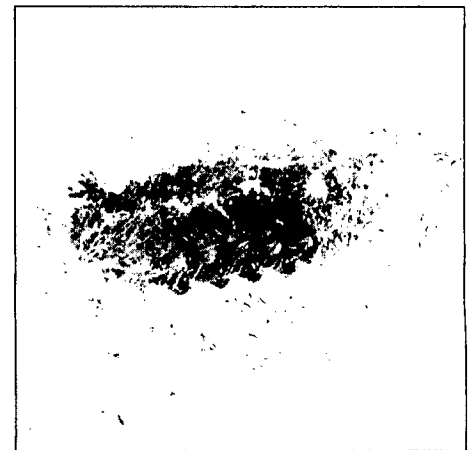


Fifth instar

At the end of the 5th instar they quit eating and began to roam for several days, then they became quiescent. Six pupated without cocoons.



Two spun cocoons that included their own bristles, and went into diapause.



The rest dried up and died. I don't know why.

And . . . Here's Mama before she laid her eggs. The eggs were white and placed in two patches inside the vial. She's playing dead as most tiger moths do when they are disturbed.



Wisconsin Entomological Society



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Wisconsin Entomological Society Newsletter — August 2008

Page 8

JANICE, from Page 1

spite so many responsibilities she also found time to continue her fascination with things natural, concentrating on plants.

By the time the kids were in high school she found more and more “free” time to pursue the study of wildflowers, accumulating over 1,000 typewritten pages of notes and photos. As the kids graduated and went off to college, Janice blossomed as a writer, researcher, and photographer. She eventually became editor of various publications. The 30 years at Plymouth ended when John retired from Sargento Foods Corp. in 1998. They decided to complete their retirement home which was under construction at “Hidden Corners Sanctuary” in Baileys Harbor, WI.

They moved in 2000 and Janice continued her research into things wild, concentrating mostly on moths and their life cycle— egg, larvae, pupae, and adult. She was now lecturing extensively to spread

her knowledge and to try to get others to share the same enthusiasm that she felt for her subjects. Her expertise became recognized nationally with more than 800 photos and documents on two different websites. She also provided photos and data for several different field guides.

On Sept. 7, 2007 Janice and John celebrated 50 years together with the kids at Hidden Corners Sanctuary. Janice’s edema health problems had already kept her off the trails for the previous two summers, and she was looking forward to better health for the summer of 2008. Unfortunately, that was not to be.

Her legacy of written works, photos, and data will continue to carry her memory forward. She would be quick, however, to play down her contribution and to give thanks to God “for great things He has done!”

Janice wrote many poems in

her lifetime and loved rhyming poetry. John found one poem that she had among her archives which contained no author. She may or may not have written it, but it sure fits.

God’s Gift of Today

Look to the day with a challenge.
Lift your eyes to the sun,
not the shade.
Keep your heart filled with Son,
as you travel along
For this is the day that the
Lord hath made.

Look to the day with a purpose
Of fulfilling the plans that
you’ve had.
With a joy in your heart that
will never depart
For God’s made this day to be glad.

Look to the day with a prayer
And a quiet request for His aid.
And be glad all day through
No matter whatever you do.

