



NEWSLETTER of the Wisconsin Entomological Society

Volume 8 Number 1

Dean B. Faber, Editor

May, 1980

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EDITOR'S NOTES:

The response to the call for contributions to the NEWSLETTER included in the last meeting notice was very gratifying. Several articles were received, along with letters, some brief items for the News of Members section, and also our first contributed book review. Thank you one and all! It is only through the contributions of the membership that the NEWSLETTER can reflect the activities and interests of the Wisconsin Entomological society. Let's continue this trend.

Beginning with this issue of the NEWSLETTER the membership list is being published in segments, with a brief description of each member's interests. We hope that this will enhance communication within the membership between individuals with common interests. If the information presented with your name is inaccurate or incomplete, please write us and the corrected information will be printed in the next issue of the NEWSLETTER.

The NEWSLETTER of the Wisconsin Entomological Society is published several times yearly at irregular intervals. Please send all news, notices, and contributions for the NEWSLETTER to: Editor, Wisconsin Entomological Society NEWSLETTER, c/o Insect Research Collection, Dept. of Entomology University of Wisconsin, Madison, Wisconsin 53706

FORUM:

Dear Newsletter Editor,

Thought I would drop you a line concerning your recent comments in the last Meeting Notes. ... I belong to the Mich. Entomological Society, and the Lepidopteran Society, and find the newsletters the most enjoyable part of the membership.

To your point, you will need quite a lot of help to pump out these newsletters every so often. No one expects you to do it by yourself. But there are a majority of people, probably like me, that are really not an authority on anything. I've never published ... anything with regards to my lepidoptera collecting. ... I took a Michigan state record this year, and will probably do nothing about it. ... So, perhaps you might explain what you're looking for.

Perhaps maybe to help fill the newsletter, a yearly summer summary for new county records, new collecting spots shared by us all, new ideas on collecting, etc.

Sincerely yours,
James C. Parkinson

(I believe this letter expresses a concern that perhaps many of our members have, that of whether single interesting records or observations are worth reporting. I think they are and that a newsletter is the perfect place to report them! The only criterion for submission of items is that the person submitting them wants to tell what he has discovered. The yearly summer summary idea is a fine one. Report your findings and share them with the other members. ed.)

Dear Mr. Pellitteri,

I'm distressed that the Wisc. Ent. Soc. is languishing for lack of attendance and newsletter material. ... may I suggest a few ideas. We need a project to involve members. Research? Conservation? Education? Surveys? Taking stands on issues? A publication like the Wisc. Botanical Club? ... The society needs a "cause". - not necessarily political, although a stand on pesticide controversies could be worked out (myths and facts). For example, what are people's experiences with a. pest problems with minimum tillage b. attractant and repellant plantings to deter pest insect attacks in gardens or forests. ...

Sincerely,
James Zimmerman
Landscape Architecture

(The ideas expressed above struck me very favorably. The Society will flourish only to the extent to which the membership is active in pursuing projects which they feel to be important. ed.)

FAMOUS WISCONSIN ENTOMOLOGISTS -I^{*}

GEORGE AND ELIZABETH PECKHAM

by Dean B. Faber

George and Elizabeth Peckham would have to be listed among the most prominent of Wisconsin's 19th century entomologists. Though amateurs (he was a high school biology teacher and she a librarian), they significantly influenced the careers and thinking of several famous professional zoologists. The world-renowned ant authority, William Morton Wheeler, and the pioneer ethologists, C. O. Whitman, were both close friends of the Peckhams and both acknowledged their debt to the Peckhams for shaping their approaches to the study of animal behavior. In addition to influencing others, the Peckhams themselves produced a number of interesting and important papers on wasp behavior.

George Williams Peckham was born in Albany, New York but lived in Milwaukee from 1853 until his death in 1914. He would qualify as a renaissance man in anyone's eyes, having received a commission in the Union Army to command an artillery battery (at age 19), studied law and been admitted to the bar in Wisconsin, obtained an M.D. degree from the University of Michigan and begun teaching high school biology, all by the age of 27.

This is not to say that the remainder of his life was uneventful. From 1870-1892 he was a biology teacher and later principal at Milwaukee's East Division High School. In 1892 he became Superintendent of Public Instruction for the city of Milwaukee. Finally, he completed his career as Director of the Milwaukee Public Library from 1896-1910.

Comparatively little is known about Elizabeth Peckham. Born Elizabeth Gifford, she graduated from Vassar College in 1876. She worked as a librarian in Milwaukee prior to her marriage to George Peckham in 1880. Yet, virtually all of the Peckhams' work was published jointly and many individuals acquainted with them have observed that their respective roles in these researches were equal and inseparable. There are to my knowledge few other examples of such prolonged, harmonious husband and wife collaboration in entomology.

The Peckhams' approach to studying wasp behavior was careful and persistent. Once, while on a vacation, they observed a species of sphecid wasp (Ammophila urnaria) for an entire week until they saw one sting its prey. They did this in order to compare this species' manner of prey capture to that of a related European species studied by Jean Henri Fabre. The prey (a caterpillar) was stung multiple times along its ventral surface, but in a different order of stings to particular segments than that noted by Fabre. They further noted that the order in which the segments were stung was not constant for different individuals of A. urnaria.

* Bill Sieker has suggested the fine idea of a series of articles on Wisconsin Entomologists, so this is the first in what I hope will be a continuing series. Since my main interest lies with the Hymenoptera, I know little about famous Wisconsin Entomologists who have worked on other orders. I hope some of you lepidopterists and coleopterists out there will share your knowledge and write an article for this series.

Thanks. ed.

Such persistence until a particular behavior is seen and the attention to detail when observing and describing the behavior is very characteristic of the Peckhams' work. Their conclusions were almost always also based upon the observation of large numbers of individuals. As Wheeler later said, this approach to research, combining careful observation and description, a thorough knowledge of the work of predecessors, and inductive logical argumentation, molded his own approach to the study of ants.

The following is a delightful quote from the Peckhams' 1898 work "On the Instincts and Habits of the Solitary Wasps". It concerns cooperative behavior between the sexes of the sphecid genus Trypoxylon in defense and provisioning of their nests.

"With both species (T. rubrocinctum and T. albopilosum) when the preliminary work of clearing the nest and erecting the inner partition has been preformed by the female, the male takes up his station inside the cell, facing outward, his little head just filling the opening. Here he stands on guard for the greater part of the time until the nest is provisioned, occasionally varying the monotony with a short flight. As a usual thing all the work is preformed by the female, who applies herself to her duties ... but the male doubtless discharges an important office in protecting the nest from parasites. We have frequently seen him drive away the brilliant green Chrysis fly (cuckoo wasps, family Chrysididae, ed.) which is always waiting about for a chance to enter an unguarded nest. On these occasions the defense is carried on with great vigor, the fly being pursued for some distance into the air. ...In one instance, with rubrocinctum, where the work of storing the nest had been delayed by rainy weather, we saw the male assisting by taking the spiders from the female as she brought them and packing them into the nest, leaving her free to hunt for more. This was an especially attentive little fellow, as he guarded the nest almost continuously for four days, the female sometimes being gone for hours at a time."

The wasp studies conducted by the Peckhams qualify them as famous Wisconsin entomologists, but it should be noted that they contributed also much excellent work and many publications on taxonomy and behavior of spiders. There follows a list of their publications on wasps:

- 1887. Some Observations on the Special Snesees of Wasps. Proceedings of the Wisconsin Natural History Society. pp. 91-132.
- 1887. On Duration of Memory in Wasps. American Naturalist. Vol. 21, pp. 1038-1040.
- 1895. Notes on the Habits of Trypoxylon rubrocinctum and Trypoxylon albopilosum. Psyche. pp. 303-306.
- 1898. On the Instincts and Habits of the Solitary Wasps. Bull. no. 2 Wisc. Geol. and Nat. Hist. Survey. 249 pp., 14 pls.

1900. Additional Observations on the Instincts and Habits of the Solitary Wasps. Bulletin of the Wisconsin Natural History Society. Vol. 1 (new series), pp. 85-93.
1900. Instinct or Reason? American Naturalist. Vol 34, pp. 817-818.
1905. Wasps, Social and Solitary. 324pp., 53 illustrations. Houghton, Mifflin and Company. Cambridge, Mass.

MIDWESTERN LEPIDOPTERISTS' SOCIETY FORMED

An organizational meeting of Chicago area Lepidopterists took place at the Field Museum of Natural History on January 20, 1980. Twenty people attended, representing the states of Illinois, Indiana and Wisconsin. The name Midwestern Lepidopterists' Society was adopted for the group. Formal meetings will be held three times a year, in Fall, Winter and Spring. Three field trips will be planned each summer. Yearly dues were set at \$3.00. After the meeting, the group was given the opportunity to view part of the Museum's Lepidoptera collection, courtesy of Dr. Eric Smith.

Anyone interested in becoming a member may contact Mark Myers, 6456 N. Seeley, Chicago, Illinois 60645.

Les Ferge

DAN CAPPS VOLUNTEERS ENTOMOLOGICAL EXPERTISE

One of our distinguished members has graciously offered his services to us all. Some of you may remember Dan Capps as a dealer of exotic insects - especially Lepidoptera. Well Dan is no longer "in the business", but he is willing to lend his expertise to anyone who is interested. Dan has contacts with a number of dealers, and can help put people in touch with these people. If you are interested in a particular group or species, he can lead you in the right direction. In some cases he may be able to put you in contact with the collectors themselves. For the beginners, Dan will be happy to give instructions on mounting, storage and equipment needed. Dan lives in Madison and can be reached by phone at 221-3716 between 5-8 p.m. For those who would like to write- his address is 702 Whitehall Dr.

Phil Pellitteri

NOTICE:

Research Notice: Wanted - Collecting data (species, locality & date) for any Wisconsin butterflies. To be used for article which will update the ranges and species found here. Roger M. Kuehn, 546 Jordan Circle, Colgate, Wi. 53017

1880 - ENTOMOLOGY CENTENNIAL SYMPOSIUM - 1980

at Iowa State University
June 4-5, 1980

A two-day celebration commemorating 100 years of entomology instruction at Iowa State University of Science and Technology in Ames is of special interest to entomologists. Professor Herbert J. Osborn, master teacher and pioneer hemipterist, took charge of entomology instruction at ISU in 1880, and developed full-term courses dealing primarily with insects of economic importance.

In addition to the formal program, social periods, luncheons, a banquet, exhibits, tours, and visits are also planned. Distinguished entomology alumni have been invited to speak on the status and future of various aspects of the science of entomology representing seven historically strong areas at Iowa State University. The subject areas, persons being honored, and speakers are:

- | | |
|--|--|
| 1. Administration
Herbert J. Osborn | Dr. D. Lyle Goleman
The Ohio State University |
| 2. Systematics
Dr. Harry H. Knight | Dr. James A. Slater
University of Connecticut |
| 3. Apiculture
Dr. Oscar W. Park | Dr. Walter C. Rothenbuhler
The Ohio State University |
| 4. Economic Entomology
Dr. George C. Decker | Dr. Wallace C. Mitchell
University of Hawaii |
| 5. Physiology
Dr. J. Franklin Yeager | Dr. Dale M. Norris, Jr.
University of Wisconsin |
| 6. Toxicology
Dr. Charles H. Richardson | Dr. Tsutomu Nakatsugawa
SUNY College of Environmental Science
& Forestry |
| 7. Extension
Dr. Harold Gunderson | Dr. Earle S. Raun
Pest Management Consultants, Inc. |

Alumni, friends, and entomological colleagues are cordially invited to participate in this historic event. Formal invitations and programs will be sent to alumni and former faculty members soon after April 1, 1980.

For additional information contact J. R. DeWitt, Department of Entomology, 102 Insectary, Iowa State University, Ames, IA 50011.

EARLY SPRING MOTH COLLECTING

The 1980 moth collecting season was initiated on 16 March in the Madison area. Six species of "winter moths", members of the Noctuid subfamily Cuculliinae, which hibernate over winter as adults, were taken at sugar bait. They were present in good numbers, over 100 moths estimated at 25 baited trees. A few bait patches had 8-10 moths each. Four of the five Wisconsin species of Eupsilia (sidus, vinulenta, morrisoni and tristigmata) were present, along with Lithophane grotei and unimoda.

The weather was ideal for early spring collecting. The high temperature that day was 52°F. at noon; it remained 45° long after dark. The overcast sky, high humidity and fog were very favorable for moth activity. Apparently the hairiness of these moths enables them to retain body heat, allowing flight at or below the usual threshold temperature, approximately 45°.

A number of interesting species were taken on April 1, also at sugar bait. The best catch was a single Lithophane semiusta, a very rare moth in the northeastern states. Its larva is known to feed on basswood. A couple Pyreferra pettiti were taken; this species is seldom encountered in numbers. Some of the earliest spring-emerging Noctuidae had made their appearance. Orthosia hibisci (one of the "Green Fruit-Worms") was fairly common. Single specimens of Phoberia atomaris and Pseudaletia unipuncta (Armyworm) were taken.

Les Ferge

WISCONSIN ENTOMOLOGICAL SOCIETY
MEMBERSHIP LIST PART I

In an attempt to promote interactions between our members, we are going to start publishing names, addresses, and interests of our members. If there are any omissions or errors, please contact me. Phil Pellitteri c/o Dept. of Entomology 1630 Linden Drive, Madison, Wi. 53706

Jacqueline Ackerman
4102 Lowell Street
Two Rivers, Wi.
54241

Strepsiptera, Hymenoptera,
Coleoptera, Insect/fungus
relationships

Carl Anhilger
Box 40
Clearwater Lake, Wi.
54518

Papilio

John Antone
6509 Rutland Place
Falls Church, Va.
22044

information misplaced
by secretary

Catherine Anway
Dept. of Entomology
UW - Madison

Insect behavior, pheromones

John Baker and
Carolyn Baker
532 Simonsen
Cambridge, Wi.

Chrysomelidae - esp. tortise
beetles and Scarabidae

George Balogit
3607 N. 98th Street
Milwaukee, Wi.
53222

Collecting, life history
and biology of Lepidoptera

Charles Behnke
Rt. 2, Box 152
Dodgeville, Wi.
53533

Insect photography

Timothy Clemens
210 Highland Avenue
Madison, Wi.
53705

No information available

Daniel Benjamin
Dept. of Entomology
UW - Madison

Forest Entomology, Hylobius
Sawflies, Coleoptera

Mallory Boush
Dept. of Entomology
UW - Madison

Life history, biology, behavior
of insects, Insect pathogens

Mrs. Ernest Bruns
3702 Council Crest
Madison, Wi.
53711

no information available

Wendell Burkholder
Dept. of Entomology
UW - Madison

Stored product insects, behavior,
biology

Thomas Burkot
Dept. of Entomology
UW - Madison

Insect photography
and Culicidae

Barb Campana
6112 Zimmerman N.E.
Albuquerque, N.M.
87110

no information available

Dan Capps
702 Whitehall Drive
Madison, Wi.
53714

Lepidoptera (esp. exotic)
Coleoptera

Donald Carlson
626 W. Lawn Ave.
Racine, Wi.
53405

Aquatic Diptera, Lepidoptera

1979 TREASURER'S REPORT

Balance in account 1 January 1979	\$346.52
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Disbursements

6 checks to Phil Pellitteri and Dean Faber for printing and postage costs	\$170.78
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Receipts

67 Regular memberships @ \$2.00 (1 person paid \$1 extra)	\$135.00
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5 Sustaining memberships @ \$5.00 (G. Drecktrah, H. Coppel, M. Klein, R. Topczewski, L. Ferge)	\$25.00
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2 Patron memberships @ \$25.00 (D. DeSwarte and W. Sieker)	\$50.00
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Back dues paid	\$4.00
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1980 dues received	<u>\$17.00</u>
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TOTAL	\$231.00
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Balance in account 1 January 1980	\$406.74
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Receipts for 1979 were \$43.22 greater than disbursements.
All expenses for 1979 were paid before the end of the year.
There were 79 members with dues paid for the year.

A reminder to members that haven't already paid their 1980 dues:
Prompt remittance of dues will be greatly appreciated. As of
20 March, 60 members have paid, which is about 2/3 of the current
membership.

NEWS OF MEMBERS:

Michael R. Wagner received an award as one of five outstanding Ph. D. candidates in the United States in 1979 from the Entomological Society of America

accepted an Assistant Professorship
Dept of Forestry
Northern Arizona University
Flagstaff Ariz.

awarded Ph. D. University of Wisconsin 1980

Robert A. Haack received award of outstanding M.S. candidate in 1980 from the Entomological Society of America - North Central Branch

Aunu Rauf awarded M.S. degree in Entomology
University of Wisconsin 1980

Congratulations to you all!

PUBLICATIONS OF INTEREST:

Diversity of Insect Faunas
L.A. Mound and N. Waloff eds.
Symposia of the Royal Entomological Society of London : Number Nine
Blackwell Scientific Publications 1978

What makes insects so successful that they comprise the largest single class in the animal kingdom? How many different kinds of insect are there? Surely every entomologist has at one time or another asked himself these questions. This, the latest in a distinguished series of publications, seeks to examine these questions from a variety of viewpoints.

The introductory chapter states that there are at least three approaches to the study of diversity. They are the mathematical one of the creator of theoretical models, the statistical one of the systematist and field ecologist using automated sampling techniques, and the natural historical one of the ethologist and habitat ecologist observing the interactions of individuals with one another and with their environment. All three approaches are essential to the study of diversity; all are considered in this volume.

Among the most interesting chapters is one by L.R. Taylor, "Bates, Williams, and Hutchinson - a Variety of Diversities", which discusses the different historical ideas of what constitutes

a measure of diversity. The chapter then discusses finding an optimal sampling method for obtaining an accurate estimate of diversity. Also excellent is a chapter titled "Evolution and Diversity Under Bark", by W.D. Hamilton. This chapter brings to light the richness and uniqueness of this environment and its demonstrated or possible role as the cradle of numerous insect adaptations. Among these are wing polymorphism, male haploidy in Hymenoptera, Thysanoptera, and Scolytidae, many cases of sexual dimorphism, and finally, multiple originations of eusocial and subsocial behavior in arthropods as diverse as ants and pseudoscorpions.

The book also includes chapters on ecological and behavioral origins of diversity in butterflies, urbanization and insect diversity, and island colonization by insects. This book is excellent for any entomologist wishing to look at an old topic in new ways.

Bees, Beekeeping, Honey, and Pollination
Walter J. Gojmerac
AVI Publishing Company, Inc.
Westport Connecticut 1980 192pp.

This is not a "how to" book on beginning beekeeping, but more of a survey of the diversified and intriguing world of the honey bee, Apis mellifera. Chapters cover a wide range of subjects including the history of beekeeping, general biology and behavior, equipment, specialized operations (two-queen colonies, etc.), enemies of honeybees, queen production, bee products, and honey. Beekeeping is explained from both the hobbyist and the commercial production points of view.

To me the most interesting and non-traditional chapter deals with the problems and challenges confronting the beekeeper. The changing face of agriculture, which has reduced the blooming wild flowers and weeds, and replaced large areas with monoculture deserts, has eliminated many bee foraging areas. Pesticides, the farmer, and the honeybee sometimes come into direct conflict. What about the African-Brazilian bee honeybee in America? Beekeepers are having to deal with all of these issues.

This book is written in a style which is enjoyable and easy to read. It is a great book for people without extensive biological training, yet it is not oversimplified. A serious student of Apiculture may find certain areas a bit basic, but all areas are well introduced, and references are given to more specialized aspects within the field.

Congratulations to our past president of the Wisconsin Entomological Society on a job well done.

Phil Pellitteri

The Life of Beetles
Glyn Evans
George Allen and Unwin, London 1975
1977 paperback edition 2.95 232pp.

Glyn Evans has written that rarest of entomological works: a book on the biology of an insect order which is interesting to laymen and specialists alike. Evans research area is functional morphology and it is the perfect background for the author of a book of this type. The unifying theme of the book is how the tremendous evolutionary success of the beetles can be related to their morphological specializations and associated behavior patterns.

There are chapters on all the various aspects of beetle biology, including chapters on life history, form and body function, and habits and habitats. I found most interesting the chapters on feeding habits and on beetle evolution. Can you name the five different ways of feeding on leaves and the families that specialize in each method? Evans can and does. He then goes on to consider the reasons for such gastronomic specialization. The different feeding methods of predatory coleoptera are also discussed in detail.

In the final chapter titled, "Conclusion: an Evolutionary Viewpoint", the author states that he believes the primary reasons for the order's success are: exploitation of subsurface habitats for protection with the concomitant development of a very strong cuticle, and improved designs for biting mouthparts. This is a most interesting book and it is written from a novel viewpoint.

WISCONSIN ENTOMOLOGICAL SOCIETY
MEMBERSHIP APPLICATION

Please Print:

Last Name First Name

Address: _____
Street City State Zip

Organization represented (if any) _____

Title or Occupation _____ Phone: (include area code) _____

- ____ Individual membership (\$2.00 per year)
____ Organization membership (\$10.00 per year)
____ Sustaining membership (\$5.00 per year)
____ Patron membership (\$25.00 or more per year)

General Interest Area

- | | |
|--|---------------------------------|
| ____ Aquatic Insects | ____ Collecting and/or Taxonomy |
| ____ 4-H or Scout Member | ____ Insect Photography |
| ____ Extension Worker | ____ Physiology |
| ____ Life History, Biology, & Behavior | ____ Apiculture |
| ____ Other _____ | ____ Pest Control |
| Specify | |

Specific Interests (Order, Family, Genus) _____

If you are an authority for certain insect taxa, would you be willing to identify Wisconsin specimens for members? ____ Yes ____ No

Make checks payable to Wisconsin Entomological Society and mail to the Treasurer, Wis. Entomol. Soc., Dept. of Entomology, 237 Russell Labs., U. Wisc., Madison, Wisc. 53706 .



THIRD CLASS

Leslie Ferge
2530 Commonwealth Ave.
Madison, WI 53711