SPRING COLLECTING TRIP ANNUAL MEETING and ISSUE

# NEWSLETTER

## Michigan Entomological Society

Volume 14 Number 1 — 12 May 1969

### THE FIFTH ANNUAL SPRING COLLECTING TRIP

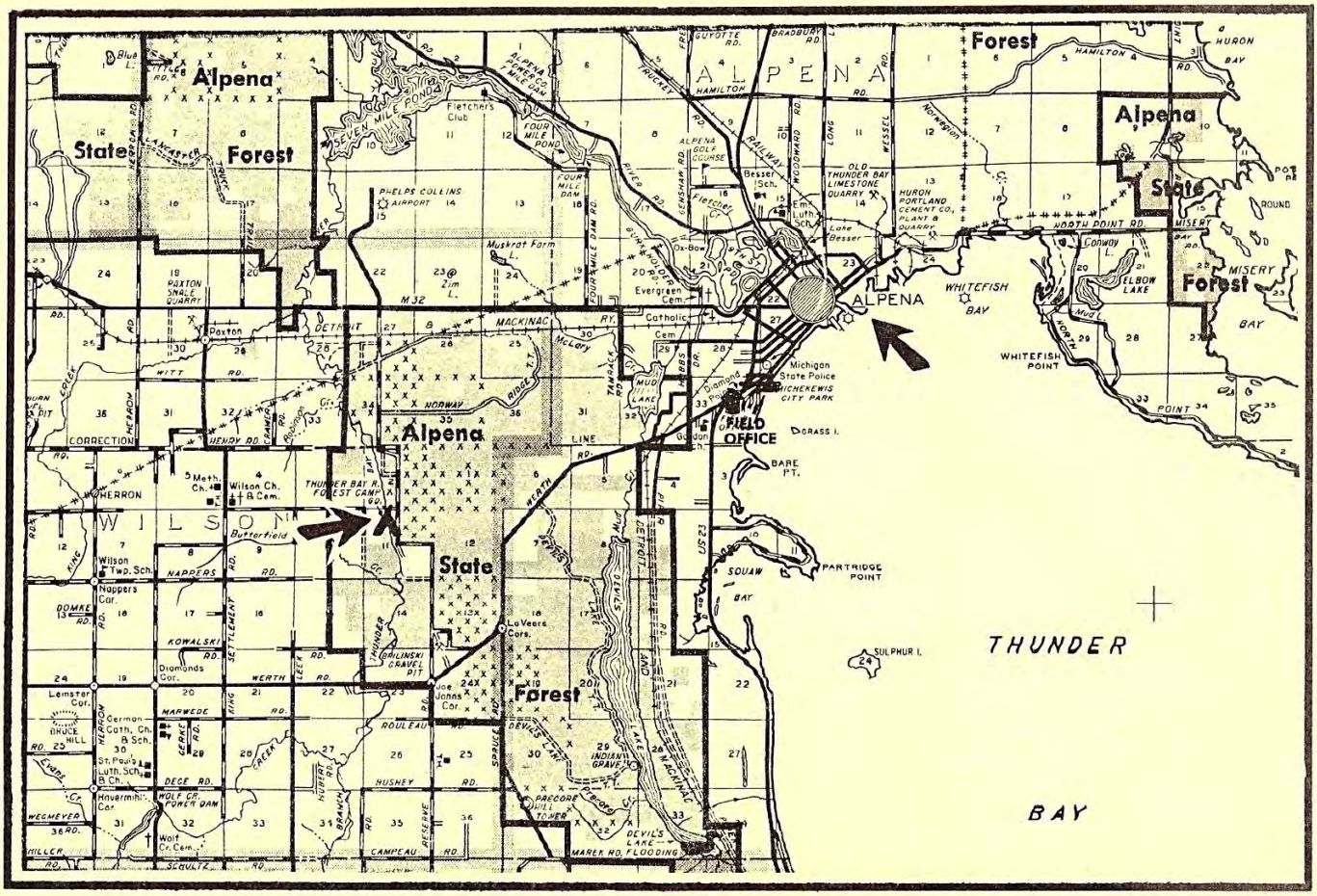
WHERE: The Fifth Annual Spring Collecting Trip of the Society will be held in the Alpena State Forest, Alpena County, Michigan, focusing on the Thunder Bay River Forest Campground. The campground is located approximately 10 miles southwesterly of Alpena on the Forest Reserve Road, just south of highway M-32 and the Collins Airport.

WHEN: 23-25 May—right after the adjournment of the Society's Annual Meeting at the Alpena Community College. (Some of us are planning to arrive the afternoon of 22 May.)

PURPOSE: To collect all groups of insects in this general forest area which has, heretofore, been poorly collected. The State Forest and vicinity contain many interesting ecological areas situated on relatively shallow soils over vast limestone deposits. Jack pine (plantations), scrub oak, aspen and hardwoods represent much of the forested areas. All methods and techniques will be used to obtain both diurnal and nocturnal species (weather cooperating). This will also present a fine opportunity to direct the younger participants to field collecting under the guidance of experienced collectors.

SPECIAL INTERESTS: Collecting in the pine plantation in the vicinity of the above campground should produce many coniferous-feeding insects. Pitcher plants, growing on wet beach sand along the western portion of Squaw Bay (west of US-23), should be searched for larvae of two interesting noctuids, Exyra rolandiana and Papaipema apassionata. Sinkholes, especially those along M-65 north of Long Rapids, may yield new records of insects inhabiting these limestone features.

(continued on page 3)



# The Executive Secretary's Page

1968-1969 OFFICERS OF THE MICHIGAN ENTOMOLOGICAL SOC.

President: . . . . . Dr. T. Wayne Porter
President-Elect: . . . . . Dr. Louis F. Wilson
Executive Secretary: . . . . . M.C. Nielsen

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## THE ENTOMOLOGISTS' CALENDAR

23-25 MAY 1969, 15th Annual Meeting and 5th Annual Spring Collecting Trip, combined, Michigan Entomological Society. Alpena, Michigan, and vicinity. Annual Meeting on Friday, 23 May, followed by Collecting Trip on 24 & 25 May. See complete details elsewhere in this issue.

14-17 JUNE 1969, 20th Annual Meeting, The Lepidopterists' Society, Michigan State University, East Lansing (local arrangements: F.W. Stehr; program chairman, J.P. Donahue, Dept. of Ent., Mich. State Univ., E. Lansing 48823).

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## ATTENTION ALL MES MEMBERS

Sorry to state that many members (approximately 30%) have NOT paid their 1969 dues. Some have not paid their 1968 dues and will automatically be dropped by 31 Dec. 1969 if these dues are not paid. Please do not delay in paying your dues; if you are not certain about your dues, contact the Executive Secretary.

THE NEXT ISSUE OF THE NEWSLETTER, to be published in the format of the journal, will contain the 1969 membership list, constitution and by-laws of the Society. To insure that you receive a copy, be certain that we have your correct address if you have moved within the past few weeks.

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## NEW OFFICERS OF MES FOR 1969-1970

On 22 March 1969 the ballots were counted for the election of a new President-Elect and Executive Secretary. A total of 190 ballots were cast. The tabulation was as follows:

President-Elect: Julian P. Donahue, 162; Richard J. Snider, 26; David Evans (write-in), 1; William Clerke (write-in—no longer a member), 1.

Executive Secretary: M.C. Nielsen, 186; Edwin G. Gemrich II (write-in), 1.

We are disappointed that more qualified members did not cast a ballot. Nevertheless, the Society thanks those members who did exercise their membership right, and congratulates the new officers.

## NEWS OF THE BRANCHES

### TORONTO BRANCH

Apparently the only Branch at present that is actively scheduling meetings, field trips and other entomological functions is that in Toronto. Their most recent plan calls for an exhibit of MES publications at the annual meeting of the Federation of Ontario Naturalists, which will be attended by some 800 naturalists. Later, they will prepare a similar display at one of the meetings of the Toronto Field Naturalists. Also, they are interested in starting up a Branch library to promote greater interest among their fellow members (if this is possible!). Let's hope their tremendous enthusiasm will generate greater interest in the inactive branches and even promote more branches. For details on the Toronto Branch, contact Ron Michaels, Secretary-Treasurer, 53 Duncan Drive, Georgetown, Ont., Canada.

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## NEWSLETTER REPRINTED

Due to popular demand, Volume 12, Number 4 (15 December 1967) of the MES NEWSLETTER was reprinted. This issue contains the lead article, "An Effective Method of Drawing Figures Directly from a Stereo Microscope," by H.C. Gordinier, Jr., and the article entitled "The Search for the Columbia Moth in Michigan," by Julian P. Donahue. Copies can now be obtained for $0.50 by writing to the Executive Secretary.

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## OPPORTUNITY KNOCKS . . .

As noted in the Minutes of the Governing Board (p. 6), the Society desperately needs more volunteer assistance from its members. If you have ANY talents whatsoever (legal, organizational, editorial, political, etc.) OR you are willing to learn these skills, please contact the Executive Secretary. This is an ideal opportunity for members—amateur or professional—to improve their skills, gain stature, and serve their Society.

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## SHIPMENT OF LIVING INSECTS

Included with this issue is a brochure distributed by the Plant Pest Control Division, USDA, describing the Federal regulations concerning the shipping of living insects. Individuals should make every effort to comply with these laws, which are designed to protect our agricultural industry. Remember the Gypsy Moth!

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The NEWSLETTER of the Michigan Entomological Society is published four times yearly, with luck, at irregular intervals. Please send all notes, news, research requests, season summaries, important dates for the Entomologists' Calendar, other items for the NEWSLETTER, membership inquiries, dues, etc. to the Executive Secretary, Michigan Entomological Society, Department of Entomology, Michigan State University, East Lansing, Michigan 48823.

Manuscripts intended for THE MICHIGAN ENTOMOLOGIST should be mailed directly to the Editor, Ronald S. Wilkinson, The Library, Michigan State University, East Lansing, Michigan 48823.

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ACCOMMODATIONS: The Thunder Bay River Forest Campground has 14 rustic campsites with tables, pit toilets and water. Perhaps some may wish to camp at the Ossineke Forest Campground located 1 mile east of Ossineke off US-23 on Lake Huron (it may be cooler here!). Electricity is NOT available at either campsite, nor are fees charged.

Camping is also permitted on state-owned lands within the Alpena State Forest. Persons camping on these lands are urged to be especially careful not to leave unattended fires or litter the area.

MOTELS are numerous in Alpena, especially on US-23, north and south of town.

MAPS: Individuals may obtain free single copies of the Alpena Co. map from the Dept. of Natural Resources, Publications, Mason Bldg., Lansing, Mich. 48926, or by stopping at the Department's District Office on M-32 just west of Alpena.

COMMENTS: Mort Neff and his film crew of the "Michigan Outdoors" TV Show plan to film our many collecting activities; therefore, we would like to see as many as possible camping and meeting at the Thunder Bay River Forest Campground so we may plan interesting and fruitful activities. Nielsen and Donahue, coordinating these activities, will attempt to arrive in this campground in the evening of 22 May; so look for the Society's sign and decals in the car windows. We encourage all attending to bring various types of collecting apparatus, such as aerial and sweeping nets, UV & MV lights (with portable battery power sources), pit traps, bait traps, Malaise traps, aspirators, etc.

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Christopher Morley:

Timid roach, why be so shy?
We are brothers, thou and I.
In the midnight, like thyself
I explore the pantry shelf!

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INFORMATION ON NATURE SANCTUARIES

For those entomologists who would like to sample some of the unspoiled areas in Michigan, you can now obtain a set of 12 information sheets, with maps and photographs, of nature sanctuaries and plant preserves presently owned by the Eastern Michigan Nature Association. There is information on certain choice ecological areas such as acid bogs, hardwoods, stream borders, prairies, and so on. This set is invaluable to those who wish to study the life histories of certain insects in an undisturbed environment. The set sells for $1.25, or $1.75 in a ring binder with hard cover and back. For details write to: Eastern Michigan Nature Assoc., 124 Miller St., Mt. Clemens, Michigan 48043.

## NEWS OF MEMBERS

SIDNEY A. HESSEL was recently elected 1st Vice President of The Lepidopterists' Society for the 1969-70 period. As a Life Member of that society, he is interested in the collection and study of butterflies and moths, especially Papaipema and Catocala.

ERIC METZLER left in early February to begin a three-year tour of duty with the U.S. Coast Guard. He will be attending Officer Candidate School at Yorktown, Virginia. Eric received his B.S. from Mich. State Univ. in December, 1968, in Park Management. We wish him well and much success.

JOHN H. NEWMAN has just been elected a Fellow of the Royal Entomological Society of London.

NORMAN OTHELLO SIBLEY has been named Taxidermist of the Year by the American Taxidermy Magazine. Sibley is a ranger at the Rifle River State Park, in charge of all taxidermy for the Dept. of Natural Resources parks interpretive displays. His other interests include banding the Monarch Butterfly and writing poetry. He is now on sick leave following surgery in the University of Michigan Hospital.

GEORGE STEYSKAL, past President of MES (1955-1956) and now working at the Systematic Entomology Laboratory in Washington, D.C., spent 5 weeks during the past year on Dominica Island working on Diptera for the Smithsonian Institution. He was also fortunate enough to spend two weeks on four of the Hawaiian Islands collecting Diptera on his annual leave. During that time, he was able to collect 700 specimens, including one of the tephritids that feeds on the seeds of the silversword plant on Mount Haleakala. George has recently authored a few fascicles of the Catalogue of Diptera of the Americas South of the U.S., and has several papers in progress on Neotropical flies.

RONALD S. WILKINSON, editor of THE MICHIGAN ENTOMOLOGIST, recently received his Ph.D. degree from the History Department at Michigan State University. Ron specializes in the history of entomology and the history of chemistry.

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GUIDE TO BIOLOGICAL ABSTRACTS

A new, 20-page Guide to the Indexes for Biological Abstracts and Bioresearch Index has been prepared by BioSciences Information Service to aid researchers in using the four indexes to these publications. The indexes provide easy access to the more than 220,000 research reports published annually by BIOSIS. The new guide is available at no cost from BioSciences Information Service, 2100 Arch Street, Philadelphia, PA 19103.

. . . . . AIBS Newsletter

CAMP KETT — 1969

Notes of Special Interest to 4-Hers and Leaders

The 4-H Entomology Laboratory was held at Camp Kett, near Tustin, Michigan in conjunction with Soils Science on March 7 and 8, 1969. A total of 76 leaders were present at roll call at 10 a.m. on March 7. Dr. James Butcher presented an exceptionally fine and detailed short course on the minute soil arthropods. To many of the leaders present, this was an entirely new field of investigation not previously considered for 4-H work. Berlese funnels were set up and the movement of insects from soil samples into the containers was well demonstrated for all to see. The talk was enhanced with many fine slides; most of the insects shown were viewed for the first time by many of those present. In another room, a battery of microscopes was set up on a long table and many soil samples were viewed by the leaders. Many of the interested participants drew what they were viewing. Dick Snider led the drawing phase of the program with some freehand drawings of exceptional quality.

Mrs. Dorothy Connor and her son Mike conducted an excellent demonstration session with a class of nearly 30 people on the actual making of a plastic embedment. The mount of an alfalfa weevil was completed in three steps, allowing sufficient time for drying of the different layers. Many members of the Soils program embedded various types of seeds with a great deal of success.

Dr. Gordon Guyer, Chairman of the Dept. of Entomology, presented an excellent slide talk entitled "Pesticides—Boon or Bane?" The talk illustrated everyday food comparisons with and without chemical assists, and also pinpointed the areas of pollution, as established by pertinent surveys. The role of the professional entomologist was also emphasized with the need for additional youth to enter the field of entomology.

Dr. Richard C. Fleming conducted two field trips, which were well attended. Participants examined fallen logs, overturned rocks, checked tree trunks, took soil samples, etc. The weather was clear and sunny, and the participants thoroughly enjoyed the field trip; many brought specimens back to the meetings for examination.

The "Leader We Honor" segment of the program became, for the first time, "The Family We Honor": the John Folkertsma family of Grand Rapids. This outstanding family has sought to produce entomologists "by the dozen"—many being in their own family. Truly this is an entomologically oriented family. Mr. Werner Davids delivered the address, and Dr. Gordon Guyer presented the award, an artistic metal model of a praying mantis.

An insect identification contest, organized and conducted by John H. Newman, was held for the first time. About 15 individuals accepted the challenge of naming 49 specimens. Mrs. Irons from Jackson Co. scored 43-1/2 points, while Mrs. Ratliff was close behind with 41-1/2 points. A few of the junior leaders sat in on the test and produced some fine scores: David Eppelheimer 45, Bob Morris 43-1/2, and Sharon Sullivan 40.

Mr. John Aylsworth, 4-H Agent from Clinton Co., delivered a fine talk entitled "Role the County Group Should Play." This discourse was well received and encouraged considerable commentary from the audience.

Next on the entomology phase of the program was a series of brief talks by some of the advanced youth; Mary Ann Fabry delivered a fine talk on spiders, and Rick Cater thoroughly covered the bee-keeping program from beginners on up. Dr. Mike Shinkle presented a stimulating talk on livestock pests which elicited much lively discussion. John H. Newman talked about the additional species that were being added to the new larval rearing program. Actual specimens were displayed through the generosity of Dr. Ron Wilkinson, an amateur entomologist on the MSU campus. Handout sheets and specimens were displayed for all to examine. The additions to the rearing program appeared to make a fine adjunct to the year-old scientific project. A slight charge will be made for eggs of the rarer tropical species, and a pamphlet was made available to all who were present. This special leaflet is available on request from John H. Newman, 152 Natural Science Bldg., Michigan State University, East Lansing, Michigan 48823.

Two tables were used to display informative booklets, many fine exhibits, some entomological books, and a series of Riker mounts of tropical specimens. Dick Snider provided the necessary supplies for the drawing session. Many of the youth took advantage of this to display their fine talents. It was apparent that everyone had an enjoyable and wonderful time at Camp Kett 1969. The meeting adjourned at 4:00 p.m. on March 8.

. . . . . John H. Newman

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## RESEARCH REQUEST

WANTED: data for a monograph on the Catocalinae (Lepidoptera: Noctuidae) of Michigan. Many native species of underwing moths and their allies have not been recorded at all regularly in Michigan; I urgently need data records from private collectors to fill in distributional maps.

In all cases I need a minimum of species name, date and place of capture, and present location of specimen in case a question of determination arises. I will furnish mailing boxes and pay postage both ways for the loan of specimens. All specimens will be returned with determination labels. Records of even the most common species will be gratefully acknowledged. I hope that 4-H members and students will aid in the task.

Any information as to means of capture (at light, at bait, on bark of tree during day, etc.) will be helpful, as will be foodplant or other data.

Ronald S. Wilkinson, Editor, The Michigan Entomologist, Library, Michigan State University, East Lansing, Michigan 48823.

## MORE ON PRESERVING NATURAL AREAS

Leonard M. Stuttman, Director of Woldumar, has reported to us that the Nature Way Association is another organization concerned with retaining the status of natural areas, especially for environmental educational purposes within the Tri-County Area of Ingham, Eaton and Clinton counties. We neglected to include this organization in our lead article in the last issue of the NEWSLETTER (Vol. 13, No. 4). If anyone is interested in reporting such natural areas, or would like information about their activities, they may write to Nature Way Association, 5539 Lansing Rd., Route 3, Lansing, Michigan 48917.

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## PRICELESS LAKE SUPERIOR SHORE THREATENED

Again we note with sadness that another chunk of our "good earth" is being threatened with exploitation; this time by the U. P. Power Company, which plans to develop 400 acres for a large coal-fired power plant, complete with fly ash disposal site. All this is planned for the land lying between Sugarloaf Mountain and Little Presque Isle, about 5 miles north of Marquette extending to the Superior shore. Unfortunately, this is one of the few popular scenic sites in this area offering a spectacular view of the rocky sandstone shore from atop Sugarlof. It would appear there may be good alternatives to this site that should be carefully studied by all before final plans are made. It does seem a shame that we must always wait until the '11th' hour to galvanize the public into action on some of OUR priceless natural heritage, when this type of natural area should have been acquired years ago for public use and enjoyment. Anyone wanting further details is urged to contact "Citizens to Save the Superior Shoreline," P. O. Box 831, Marquette, Michigan 49855.

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## SLEEPING BEAR DUNES

Will Sleeping Bear Dunes on Lake Michigan, the unique sand dune shoreline of Benzie and Leelanau Counties, Michigan, be saved?? This 61,000 acre unit is again being proposed as an addition to the country's National Park System by Congressman James G. O'Hara (H. R. 4287) and Senator Philip A. Hart (S. 1023). These identical congressional bills have the support of many people in Michigan and the Great Lakes area, including the Commission of the Department of Natural Resources. During the past 8 years similar attempts to set up this Park have failed or were stalled in Congress; this may be the last opportunity to acquire the area before private interests completely develop this magnificent landscape shaped by ice age glaciers. If you wish additional information on this legislation, write directly to the above legislators in Washington, D. C.

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## ECOLOGY OF ISLE ROYALE

Those of you who plan to visit Isle Royale (National Park) on vacation, or study the island's natural history, may wish to obtain a copy of "An Ecological Survey of Isle Royale, Lake Superior," by Chas. C. Adams, 1908. This publication, originally a part of the Geological Survey, describes in detail the geological history, the many ecological areas, and their unique flora and fauna. Of particular interest to MES members are the annotated lists of plants and insects. This book, 468 pages, bound, is still available in limited quantities at $3.00 (a real bargain) from the Publications Office, Dept. of Natural Resources, Stevens T. Mason Bldg., Lansing, Mich. 48926.

## WINTER-SPRING COLLECTING

MES members Donahue, Nielsen, Taft and Tuttle searched tamarack bogs of Livingston, Montcalm and Oakland Counties this past winter for Columbia silkmoth cocoons on three separate days. A total of 21 cocoons were found in five separate areas, but only four were alive; Donahue found one on red-osier dogwood growing beneath a tamarack in Oakland Co. David Eppelheimer also searched diligently in Newaygo Co. for Columbia but has been unsuccessful to date. Did other members have any luck?

Initiating the moth collecting season, Donahue, Nielsen and Taft used UV and bait in the Rose Lake Wildlife Experiment Station on 23 March, 7-9:30 p.m. The weather was ideal for this time of year, with an overcast sky, a southerly breeze and an average temperature of 50° during the collecting hours. Nine species of Noctuidae (mostly 'hibernators'), 3 Geometridae and at least a dozen "Micros" were collected. The most desirable "Macro" taken was Eupsilia devia, one at UV, the rest at bait. Any evening comparable to this one should be sampled for both hibernating and spring-emerging moths—many of which are scarce or unrecorded.

## NEW MICHIGAN "INSECT" SPECIALIST

In response to the list of Insect Specialists (and the need for more specialists) in the last NEWSLETTER (Vol. 13, No. 4), we can now add the following:

ARANEAE—Thomisidae (crab spiders): Richard J. Sauer, Dept. of Entomology, Michigan State Univ., East Lansing, Mich. 48823. (While NOT insects, we add this important order to our list, hoping to encourage greater interest in the role of the predator in the insect world. —Ed.)

## INSECT PHOTOGRAPHY

Insect photography is an interesting hobby in itself, or as an additional tool in highlighting various aspects of insect research. In Kodak's "The Sixth Here's How Techniques for Outstanding Pictures," John F. Brandow has an interesting article, "Photography of Insects," describing the fundamental equipment and techniques used in getting good pictures. This publication is available at most camera supply stores.

## MINUTES OF THE GOVERNING BOARD

21 Feb. 1969, Michigan State University, East Lansing. In attendance: I.J. Cantrall, S.K. Gangwere, M.C. Nielsen, T.W. Porter, R.J. Snider, L.F. Wilson. Visiting: J.P. Donahue (briefly). Absent: F.B. Knight, J.C.E. Riotte.

A tentative agenda was mailed to all members of the Governing Board, and the Editor, prior to the meeting. The meeting, 7:50 to 10 p.m., was presided over by T.W. Porter, President. The following items were discussed and decided:

1. Plans for Annual Meeting were discussed. Porter read letter from Alpena Community College agreeing to offer their facilities for the meeting on Friday, 23 May. Cantrall will invite Luther West, from Marquette, as featured luncheon speaker; Society will arrange for transporation for West. Exec. Sec. was requested to invite Rev. J.C.E. Riotte, Chairman of the Toronto Branch, and Dr. M. Shinkle, MSU, to attend meeting and appear on program. Gov. Bd. will meet from 9-10 a.m. prior to program. Final program announcement to appear later.

2. Discussed affiliation with the Entomological Society of America. Nielsen presented letter from ESA and their provisions for affiliation. To qualify, at least 50% of our membership should be members of ESA. At present MES has 122 ESA members out of about 600 members. MES will look into affiliations with other similar societies, such as AIBS.

3. Discussion of increasing size of Governing Board. Porter suggested that perhaps the 3 past presidents be included as ex-officio members of the Board. Agreed that at least the 2 past presidents be included. The Exec. Sec. will prepare proposal to amend Constitution at annual meeting.

4. Agreed to co-host the forthcoming Lepidopterists' Society Annual Meeting at MSU (14-17 June). To facilitate handling of various costs, MES will serve as "banker" for all monies collected from participants for registration, cost of banquet, & misc. Opportunity for greater exposure of MES and perhaps getting additional members and selling subscriptions to THE MICHIGAN ENTOMOLOGIST.

5. Discussed the need for Standing Committees (Art. VI, By-Laws; Art. IX, Const.) to handle many of the increasingly important chores of the Society, i.e., membership/subscription; youth; constitutional amendments; annual meeting program; annual spring collecting trip, etc. Agreed to discuss further at next Gov. Bd. and Annual Meeting.

6. Nielsen presented brief financial and secretarial report indicating that as of 31 Dec. 1968 the Society was in reasonably sound shape with membership increasing at a good rate (570 members in good standing, NOT over 600 as was stated). Disturbing was the fact that while the report covered only 9 months, our disbursements EXCEEDED the receipts by some $250.00, yet our assets continue to increase! (see financial statement elsewhere in this Newsletter.) Motion made by Cantrall to have financial records audited by A. Wells and J. Newman, as outlined in Art II of the By-Laws.

7. Considerable discussion followed on the need to increase dues for active and student membership (now $2.00 and $1.00, respectively). It appears that with increasing publication costs and the monumental job of running a large and growing Society, substantial increases in dues will be required. Also, a need exists to establish a new class of membership for organizations. Exec. Sec. will submit his findings and recommendations on dues at next Gov. Bd. meeting.

8. In Editor's absence, the Exec. Sec. read the Editor's report concerning status of Journal and future activities. Starting with Vol. II, the Journal will appear as a quarterly, the numbers being dated Spring, Summer, Autumn and Winter 1969. Index to Vol. I will be mailed with Vol. II, No. 1.

9. Also read was Editor's proposal for the reorganization of the presently inactive branches and for the organization of new branches. Suggested that volunteer committee of Donahue, Nielsen and Wilkinson, and others, be used to hold meetings in the inactive area, or new areas, so that some type of branch structure could be developed with local members. Discussion followed with feeling that perhaps the Society is outgrowing its need for such branches, especially since many of the members now reside outside the state. Gangwere made motion to adopt above committee of three to explore further this proposal and report at the Annual Meeting.

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## NEW PUBLICATIONS OF MEMBERS

Fleming, Richard C. "Head musculature of sphinx moths (Lepidoptera: Sphingidae)," Contr. Amer. Entomol. Inst. 3(3): 1-32, 1968.

Fremling, Calvin R. "An experiment in diffusion, water pollution, and bioassay using polyethylene film as a semipermeable membrane," Amer. Bio. Teacher 30(6): 575-579, 1968.

_____ & L.L. Thomforde. "Synchronous emergence of Hexagenia bilineata mayflies in the laboratory," Ann. Entomol. Soc. Amer. 61: 1235-1239, 1968.

Masters, John H. "Euphydryas phaeton in the Ozarks (Lepidoptera: Nymphalidae)," Entomol. News 79: 85-91, 1968.

_____, John T. Sorensen & Patrick J. Conway. "Observations on Oeneis macounii (Satyridae) in Manitoba and Minnesota," J. Lepid. Soc. 21:258-260, 1967.

Sauer, Richard J. "Two new species of crab spiders (Araneae: Thomisidae) from North Dakota," Can. Entomol. 100: 1048-1050, 1968.

Stehr, Frederick W. & Edwin F. Cook, "A revision of the genus Malacosoma Hübner in North America (Lepidoptera: Lasiocampidae): systematics, biology, immatures, and parasites," U.S. Nat. Mus., Bull. 276: 321 p., 1968. Illustrated.

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FREE 1969 MICHIGAN STATE HIGHWAY MAPS are now available. Just drop a card to Dept. of State Highways, Highway Bldg., Lansing, Mich. 48926.

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## U.S. GOVERNMENT PUBLICATIONS

Order by number and title from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Remit by check, money order, or Superintendent of Document Coupons (available in 5¢ denomination, in any quantity).

"Controlling Household Pests," rev. 1969. 32 p., illus. A 1.77:96/3. 20¢

"National Parks and Landmarks," 1968. 127 p., illus. I 29.66:968. 55¢

"Control of Pesticide Residues in Foods, Industry Guidelines," 1969. 8 p., illus. FS 13.111:59. 10¢

"Common Aquatic Weeds," 1969. 43 p., illus. A 1.76:352. 50¢

"Control of Caterpillars on Commercial Cabbage and other Cole Crops in the South," rev. 1968. 24 p. illus. A 1.9:2099/5. 15¢

"Grasshopper Control," rev. 1968. 11 p., illus. A 1.9:2193/3. 15¢

"Silverfish and Firebrats, How to Control Them," rev. 1968. 6 p., illus. A 1.35:412/5. 10¢

"The Sweetpotato Weevil," 1968. 7 p., illus. A 1.68:874. 15¢

"Spraying and Other Controls for Diseases and Insects that Attack Trees and Shrubs," 1968. 52 p. I 29.26:6/4. 35¢

"Controlling Potato Insects," rev. 1969. 16 p., illus. A 1.9:2168/4. 15¢

"Insects and Diseases of Vegetables in the Home Garden," rev. 1968. 48 p., illus. A1.77:46/8. 30¢

"The Golden Nematode Handbook, Survey, Laboratory, Control and Quarantine Procedures," 1968. 81 p., illus. A 1.76:353. $1.25

"Soil Treatment, an Aid in Termite Control," rev. 1967, published 1968. 7 p., illus. A1.35:324/6. 10¢

"U.S.D.A. Summary of Registered Agricultural Pesticide Chemical Uses (3rd Edition), Volume 1," 1968. (220) leaves. A77.302:P43/4968/v.1. $3.50

"Using Honey Bees to Pollinate Crops," 1968. 7 p., illus. A 1.35:549. 10¢

"Beekeeping for Beginners," 1968. 12 p., illus. A 1.77:158. 15¢

"Profiles, Careers in the U.S. Department of Agriculture," rev. 1968. 200 p., illus. A 1.38:1071. $3.25

"Key to the Native Perennial Grasses—Midwest Region East of the Great Plains," 1968. 116 p., illust. (abstracted from Hitchcock's Manual of the Grasses) A 57.15:151. $1.00

"National Forest Vacations," rev. 1968. 60 p., illus. A 13.2:V13/4/968. 45¢

"Camping on Public Lands," 1968. 8 p., illus. I 53.9:3/5. 5¢

"National Forest Wildernesses and Primitive Areas," rev. 1968. 12 p., illus. A 13.2:W64/968. 15¢

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Launching that satellite with insects inside was quite an achievement. After thousands of years running this world, man is finally getting some of the bugs out of it. (Changing Times)

## NOTICES

FOR SALE: Two copies of the first edition of Alvah Peterson's "Larve of Insects, Part I." Unused except for name on flyleaf; $5.00 each, or best offer. Irving J. Cantrall, Museum of Zoology, The University of Michigan, Ann Arbor, Michigan 48104.

WANTED: Specimens and information of Clearwing Moths (Aegeriidae) and Slug Caterpillar Moths (Eucleidae). Would like to contact anyone familiar with these moths; especially interested in rearing. William Taft, Jr., 3427 Pickwick Place, Lansing, Michigan 48917.

FOR SALE: Used copies of the USDA "Yearbook of Agriculture" for 1927, 1931, 1937, 1939, 1940, 1941, 1942, 1943-47, 1948, 1950-51, 1957 and 1958. All in good condition. Here's a chance to complete your series. $2.50 each, or the lot for $25.00, postpaid. M.C. Nielsen, 3415 Overlea Drive, Lansing, Michigan 48917 (phone AC 517, 484-3471).

FOR SALE: Cecropia and Polyphemus cocoons, $0.40 ea. or $4.50 per doz. Contact either Pete Tomko, A-220 Bailey, Michigan State Univ., East Lansing 48823, OR Merton Harris, Mobile Communications Service, 940 N. Campbell, Royal Oak, Mich. 48067.

FOR SALE: Cocoons. 15¢ ea. for Cynthia; 15¢ ea. for Promethea; 25¢ ea. for Cecropia; 15¢ ea. for mantid egg cases. Cynthia available now, send letters of inquiry before ordering others. Melvin Goliger, 1411 Linden Blvd., Brooklyn, N.Y. 11212.

WANTED: Good condition specimens of Syrphidae (Diptera) for taxonomic research. Will trade or buy. Accurate and complete data must accompany specimens. Before sending, contact Gary Coovert, 36 Prospect Ave., Dayton, Ohio 45415.

FOR SALE: Large selection (over 40 species) of living moth and butterfly cocoons and chrysalids as available in season. Includes Saturniidae, Sphingidae, Citheroniidae, Papilionidae, Nymphalidae, etc. Satisfaction guaranteed. Write for lists. Will also trade U.S. Lepidoptera. Eric L. Quinter, Route 1, Auburn, Pennsylvania 17922.

FOR SALE: Fertile ova of many species of moths and butterflies. Send stamp with request for list. Duke Downey, Box 558, Sheridan, Wyoming 82801.

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## NATURE'S WAY IS BEST

LAWRENCE, Kan. (AP)—Dr. Lamont C. Cole said man is tampering too much with nature, and to illustrate his point he told this story:

A village in northern Borneo was sprayed to rid it of mosquitoes. The mosquitoes were eliminated but not the roaches. They absorbed the spray. Lizards that fed on the roaches were contaminated. They were eaten by the village cats, which died. The rat population burgeoned.

"In essence," Dr. Cole said, "the villagers had traded malaria for the plague."

Dr. Cole is chairman of ecology and systematics at Cornell University.

NEW SCIENTIFIC JOURNAL

A new journal, ZEITSCHRIFT FUR MORPHOLOGIE DER TIERE, will begin publication within 3-4 months and will accept papers based on research in animal morphology at all levels of ontogeny and organization including ultrastructure. One or two volumes (four issues per volume) are expected annually. The price per volume is $45.00 plus postage. Orders may be directed to Springer-Verlag New York Inc., 175 Fifth Ave., New York, New York 10010.

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And now comes summer when every good mosquito hopes to pass his screen test. (Changing Times)

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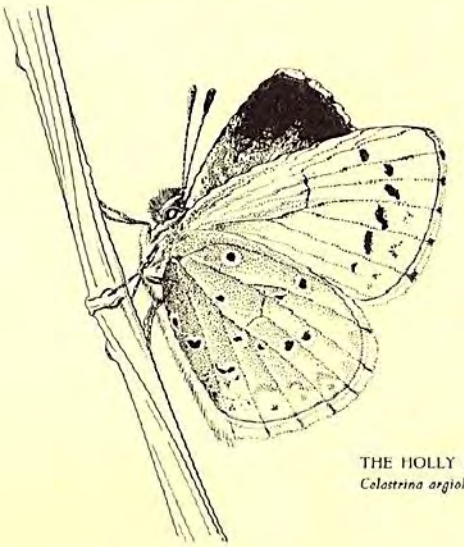

THE HOLLY BLUE
*Celastrina argiolus* L.

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