

MINUTES OF THE THIRTEENTH ANNUAL MEETING OF THE  
PACIFIC SLOPE SECTION OF THE LEPIDOPTERISTS' SOCIETY

The thirteenth annual meeting of the Pacific Slope Section of the society was held at the Santa Barbara Natural History Museum in Santa Barbara, California, on June 11 and 12, 1966. Lloyd Martin, Los Angeles County Museum, called the morning session to order. In his opening remarks, Mr. Martin stated that the purpose of these meetings is to provide an opportunity for both professional and amateur lepidopterists to exchange views and information. Nelson W. Baker, Curator of Invertebrate Zoology at the museum, gave a short address of welcome in which he extended the good wishes of the museum staff to our members and guests.

John Lane of Los Angeles, California, was elected Secretary *pro tempore*.

The Presidential Address was read for President D. B. Stallings of Caldwell, Kansas, by Ronald Leuschner. In his address, Mr. Stallings said that in the past, lepidopterists have not applied an evolutionary basis to the proposal of new taxa and analysis of old ones; because of this, lepidopterology is behind other biological fields in applying new concepts and methods. Analysis and description of courtship behavior, life cycles, and genetically based differences are among the avenues of approach which might be used to improve our concepts of speciation. President Stallings pointed out as an example that introgressive hybridization seems to have been an important factor in the formation of new species of *Megathymus*.

Charles Hogue of the Los Angeles County Museum then introduced two short films. The first, "Desert Insects," was produced by Thomas Stanton, Los Angeles, with Frank Sala, Los Angeles, acting as consultant. The second film, "Butterfly Marvel," was by Tilden Roberts.

The business meeting included selection of a site for the 1967 Pacific Slope Meeting. E. J. Newcomer, Yakima, Washington, read an invitation to the group to hold that meeting at Corvallis, Oregon, using the facilities of Oregon State University. A letter from President Stallings was read in which the Pacific Slope Section was asked to include the National Meeting in its 1967 meeting plans.

The members present voted to accept the invitation from Oregon State University and to invite the National Meeting. Mr. Newcomer was elected program chairman for the 1967 meeting and Ernst Dornfeld, Oregon State University, was elected local arrangements chairman. It was agreed that Newcomer and Dornfeld would select the specific meeting date, keeping in mind that most members preferred a date in June.

The Secretary *pro tempore* was instructed to write letters of acceptance to Professor Dornfeld and Oregon State University; an invitation to President Stallings for the National Meeting to convene at Corvallis; and letters of appreciation to Charles Hogue, the program chairman, to Nelson W. Baker, the local arrangements chairman, to the Santa Barbara Natural History Museum for the use of its facilities and our delicious luncheon, to Mr. Levi Phillips for donating printed programs (as he has done for many years), and finally to all the speakers participating in the meeting.

J. A. Powell, University of California, Berkeley, and Thomas C. Emmel, Stanford University, Palo Alto, volunteered to act as the committee to investigate possible sites for the 1968 Pacific Slope Meeting. Finally, a motion was passed to reimburse the local arrangements chairman for his expenses.

In the time remaining before lunch, Richard Holland, the only member present who had attended the 1966 National Meeting at Ottawa, gave a brief report of that meeting. Lloyd Martin then adjourned the group to enjoy the fine luncheon provided by the Santa Barbara Natural History Museum.

The afternoon session convened with Charles Hogue presiding. The first paper, "A Collecting Trip to Newfoundland," was presented by Richard Holland of Albuquerque, New Mexico. Mr. Holland showed color slides of collecting sites and

commented on the lack of collecting in Newfoundland. Thirty-eight butterfly species and 249 moth species are recorded for the island; Holland collected 13 butterfly species and 12 species of moths.

The remainder of the afternoon session was devoted to a symposium on the biology of diurnal Heterocera. Ronald Leuschner of Cardena, California, began the symposium with a general survey of the day-flying phenomenon in his talk titled, "The Distribution and Variation of the Day-flying Habit in Moths." About four percent of the species of American macro moths are diurnal in habit. Variation in characteristics of flight, such as time of flight, and the occurrence of species flying both during the day and night hours were mentioned. Some reasons for the day-flying habit were suggested.

Frank Sala of Los Angeles, California, gave the next paper, "Taxonomy and Habits of Day-flying Moths." The members of the genus *Annaphila* (Noctuidae) found in southern California were used as examples. The distributions of the 14 species in the area were described in terms of favored habitats and areas of sympatry.

J. A. Powell, University of California, Berkeley, presented the final paper of the symposium, "Survey of Diurnal Microlepidoptera in California." Lack of time curtailed the presentation of prepared detailed data on *Adela*. Instead, Kodachromes of various representative microlepidoptera were shown. The point was made that lepidopterists have usually ignored these forms.

After some final remarks on diurnal heterocera and microlepidoptera, Dr. Hogue adjourned the afternoon session.

Saturday evening, members met at the El Encanto Hotel for a pleasant social hour and an excellent banquet. Lloyd Martin introduced the speaker for the evening, Thomas W. Davies of San Leandro, California. Mr. Davies spoke on his collecting experiences in Australia and New Zealand. The talk was illustrated with beautiful color slides of the unusual plants and animals that he had seen and the areas he had visited.

Ronald Leuschner presided over the Sunday morning session which began with a symposium on distributional patterns and geographic variability in butterflies. The first paper, "Zoogeography of the Genus *Boloria* in Western North America," was given by Jon H. Shepard of Stanford University. The distributions of the five species of the genus in this area were given and discussed. A good deal of the discussion was devoted to the *epithore* taxon.

The next paper, "The *Papilio machaon* group in California," was given by John F. and Thomas C. Emmel, of Stanford University. This paper was based on their studies of the variations, life histories, and distributions of this group. The distributions and zones of sympatry were given for the *polyxenes* sub-group. The *indra* sub-group was discussed in terms of geographic occurrence, habitats, and foodplant preferences.

O. E. Sette of Los Altos, California, gave the next paper, "Distributional Patterns of the Cupressaceae-feeding *Mitoura* Taxa in the Far West." This paper described the known distributions of some *Mitoura* forms in California and western Nevada. An area where *M. loki* meets *M. siva juniperaria*, and several areas where other forms nearly meet were described. A Cupressaceae-feeding *siva* form which is brown on the underside rather than green was reported from western Nevada.

Oakley Shields of La Mesa, California, presented the fourth paper, "Remarks on the Distribution of Some *Mitoura* Species." The variation between Colorado and California populations of *M. spinetorum*, and between northern Sierran and southern Sierran *M. johnsoni* was discussed. Lastly, a *Mitoura* population showing blending of characteristics of *M. s. juniperaria* and *M. loki* was discussed.

The symposium was completed with a summary paper given by Thomas C. Emmel on "Factors Affecting Distribution and Geographic Variation in Butterflies." The following factors were mentioned: foodplant specificity, tolerance to climatic bar-

riers such as deserts or wide rivers, migratory tendencies, vagility, and paleogeographic changes.

The final paper of the meeting, "Spiders and *Pseudohazis*," was given by David L. Bauer of Bijou, California. Mr. Bauer reported that male *Pseudohazis* were apparently seeking out and becoming entangled in the webs of spiders near Carson City, Nevada. The moths flew directly into the centers of the bushes where the spiders' webs were placed. *Pseudohazis hera* flew into the webs of the spider *Argiope trifasciata* and both *P. washingtonensis* and *eglanterina nuttalli* flew into the webs of the spider *Araneus gemma*. The possibility that the spiders produce a substance chemically related to pheromones known to be produced by female Saturniids of other genera was mentioned as one hypothesis.

The meeting was adjourned at noon after a brief business meeting.

The following 38 members of the society registered: Waldo Abbott, Nelson W. Baker, David L. Bauer, Peter F. Bellinger, Thomas Dimock, John F. and Thomas C. Emmel, Carl Goodpasture, C. F. Harbison, Chris Henne, Peter Herlan, Charles Hogue, Dick Holland, Peter Jump, Carl W. Kirkwood, John Lane, Robert Langston, Ronald Leuschner, Henry A. Madson, Lloyd M. Martin, Paddy McHenry, E. J. Newcomer, Paul A. Opler, J. A. Powell, Joe Roberds, A. Rubbert, Frank Sala, Ed and Scott Sampson, Elton Sette, Jon H. Shepard, Oakley Shields, Phil Smith, Ray Stanford, Fred Thorne, J. W. Tilden, Erich Walter, and Romain Young.

Respectfully submitted,

John Lane

Secretary *pro tempore*

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#### NEW HOST PLANT RECORDS FOR *Anthocaris* (PIERIDAE)

In the course of searching cruciferous plants for life history material representing the genus *Euchloe* for use in a revision of Nearctic species, eggs and larvae of *Anthocaris sara* Lucas and *A. lanceolata* Lucas were found on plants which represent new host records. The data for these collections are listed below. Determination of the *Arabis* and *Brassica* was confirmed by C. W. Sharsmith, San Jose State College.

##### *Anthocaris sara*

*Arabis sparsiflora* Nutt. var. *arcuata* (Nutt.) Roll.

Dry Crook, 3 miles south Piru Creek turnoff, Ventura County, California, 4 May 1964, eggs and larvae.

*Barbarea vulgaris* (L.)

Russelman Park, Mt. Diablo, Contra Costa County, California, 24 April 1966, larva.

*Brassica Kaber* (D.C.)

Strawberry Canyon, Alameda County, California, 18 April 1964, larva.

*Descurrainea* sp.

upper Cantillas Canyon, Sierra Juarez, Baja California del Norte, Mexico, 21 March 1967, larvae.

*Sisymbrium officinale* (L.) Scop.

Gates Canyon, Vaca Mountains, Solano County, California, 21 April 1966, larvae.

##### *Anthocaris lanceolata*

*Arabis sparsiflora* Nutt. var. *arcuata* (Nutt.) Roll.

Dry Creek, 3 miles west Piru Creek turnoff, Ventura County, California, 2 May 1964, larva.

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