

Pacific Coast  
Ent Club.

BUREAU OF ENTOMOLOGY  
★ JUN 20 1918 ★  
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The sixty-first regular meeting of the Pacific Coast Entomological Society was held on the evening of August 26, 1916, in the Board Room of the Mechanic's Institute, 57 Post street, San Francisco.

President Van Dyke in the chair.

The minutes of the preceding meeting were read and approved.

Thirteen members responded to roll call: Dr. E. C. Van Dyke, Percy Baumberger, F. W. Nunenmacher, Dr. F. E. Blaisdell, L. R. Reynolds, Chas. L. Fox, Wm. F. Breeze, E. P. Van Duzee, Winthrop Sargent, O. N. Sanford, J. O. Graves, Chas. Hill, and James E. Cottle.

The following nine guests were in attendance: Mrs. F. E. Blaisdell, Mrs. L. R. Reynolds, Mrs. Albert Mautz, Master Wolfgang Mautz, Dr. Saxton Pope, Thos. B. Porter, Saxton T. Pope, Jr., Frank E. Lutz, E. R. Leach.

The report of the Treasurer was then read.

A communication from Fordyce Grinnell, Jr., was read. It presented to the members of the Society the first number of "Lorquinia," a new publication of a young club of young and older naturalists.

The Secretary reported that Mr. O. N. Sanford had presented the Society with the pictures of John L. Conte and George H. Horn. It was moved and seconded that a vote of thanks be extended to Mr. Sanford for his donation. The motion was carried and so ordered.

The names of two candidates for membership in the Society was reported by the Secretary as follows: Master Wolfgang Mautz, proposed by Dr. Blaisdell and seconded by L. R. Reynolds; E. R. Leach, proposed by F. W. Nunenmacher and seconded by Mr. Cottle. Their election was unanimous and the names added to the list of members.

The next in order was the annual election of officers. A call for nominations was made by the President. Mr. Nunenmacher proposed that the same officers be retained for the ensuing year. Mr. Cottle seconded the proposal.

Mr. Breeze moved that the nominations be closed. The motions were carried and the officers were declared re-elected.

Mr. Reynolds reported the Reynolds-Blaisdell expedition to Humboldt County, California. Special mention was made of the species of *Omus* taken at Marsh's Ranch on Greenwood and Redwood Creeks, and at Arcata.

Mr. J. C. Huguenin spoke about his trip to Las Uvas Creek, in the Santa Cruz Mountains, on July 15, 1916. The

collecting was poor on account of dryness. The temperature was 97° in the shade. A few *Cychnus* were taken.

Mr. Breeze stated that he left on the 9th of July for Crocket, outside of the National Reservation and from there to Hetch-Hetchy. *Lepidoptera* was very abundant. *Papilios* were particularly plentiful. *Rutulus* appeared to be the species but Dr. Van Dyke thought that *daunus* was also among them. *Parnassius* were abundant and at higher altitudes *Chionobas* were taken. Lycæneæ and Theclæ were everywhere.

Mr. Fox reported that he collected at Palm Springs, Riverside County, Southern California, from March 19th to April 7th of this year. The region lies at the eastern base of the San Jacinto Mountains on the edge of the Colorado desert, and about eighty miles from the Mexican border. The collecting was better in the canyons at altitudes varying from 500 to 2000 feet than on the desert. Notwithstanding being handicapped by numerous wind storms, managed by thoroughly working every canyon and small gullies to take thirty-seven different species of butterflies, twenty of which were new to his collection. Amongst them were some interesting Mexican and Arizonian forms such as: *Sytasea pulverulenta*, a rare Hesperid which has seldom been taken in California, its usual range being Arizona, Mexico and Guatemala. *Hesperia montivaga*, a small light grey skipper, a near relative to the well-known *H. tessellata*.

*Lemonias mormo* is, I understand, rarely taken in California, whilst abundant in Arizona and Mexico.

*Calephelis australis*, whilst not common it is occasionally taken all over Southern California.

*Terias nicippe* is only seen in Southern California in limited numbers, but is very common in the Southern States and Mexico.

*Synchlœ californica*, I found abundant in one canyon. It has also been taken by Mr. J. R. Haskin in Mojave County, Arizona. Among the Coleoptera taken were *Cantharis magister*, *Cysteodemus armatus*, *Argoporis bicolor*, *Cryptoglossa verrucosa* and *Gymnopyge hopliæformis*.

Dr. Blaisdell stated that in the early seventies that *Terias nicippe* was plentiful in San Diego, especially about Horton's Gardens (A flower garden of a block in extent).

Mr. Cottle visited San Diego and Pasadena. From the latter place made excursions into all the neighboring canyons. Went to Palm Springs in Riverside County. Took a number of good butterflies. Found *Cantharis magister* by the hundreds in some localities. At San Diego everything was very dry. Advised collectors not to go there later than March for collecting.

Mr. Sanford said that if a person knew how to collect in



San Diego County that good things could be taken every month in the year.

Dr. Blaisdell supported Mr. Sanford's remarks and said that every day in the year would yield good things to one acquainted with the habits of insects in Southern California.

Announcement of adjournment was made so that the members could examine and discuss the exhibits, which were particularly fine.

Mr. Huguenin presented a box of *Melitæa* taken in the vicinity of San Francisco Bay. A box of Coleoptera collected between Truckee and Lake Tahoe at an elevation of 6000 to 8000 feet.

Mr. Fox a series of transparent mounts of his catch at Palm Springs; also, a box of Coleoptera from the same locality.

Mr. Breeze a series of *Melitæa* from north of Hetch-Hetchy, about Mt. Tilton, and a box of Coleoptera from about Palo Alto, California.

Dr. Blaisdell exhibited Coleoptera taken in Humboldt County. Of special interest was a new *Omus* (*cupreonitens*), and a species between *oregoneusis* and *humeroplanatus*; *Cychrus longipes*, *cristatus*, *incipensis* and *obliquus* variety; *Pterostichus herculaneus* and *humboldti*.

Mr. Nunenmacher stated that the *Omus* that Reynolds and Blaisdell took was *vandykei*, and a form of *humeroplanatus* W. Horn.

Dr. Van Dyke said that *cupreonitens* was different from *vandykei* and like a unique taken some years ago by Barber on the borders of Humboldt Bay, and which he came very near naming, but deferred doing so on account of it being a unique.

Mr. Nunenmacher stated that in building a reservoir for a pool, the interior was painted a greenish color and that water beetles were attracted by it. They came with such force that they killed themselves in striking the wood.

Mr. Percy Baumberger, in commenting on Mr. Nunenmacher's remarks, said that he had not done any collecting for six years, but that he was very much interested in the reactions of insects to their environment and the many tropisms that they manifested. He was familiar with the hydrotropisms of water-beetles.

Mr. Graves took a vacation in the San Joaquin Valley. Found nothing as it was too early.

Mr. Van Duzee with Mr. Wm. Gifford went to Lake County, about Clear Lake. Several new species of Hemiptera was taken. Mr. Van Duzee also attended the meeting of the A. A. A. S. at San Diego. F. E. BLAISDELL, Secretary.

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The sixty-second regular meeting of the Society was held on Saturday evening, December 9, 1916, in the Board Room of the Mechanic's Institute, 57 Post street, San Francisco.

President Van Dyke in the chair.

Minutes of the preceding meeting were read and approved.

Thirteen members were present: President Van Dyke, L. R. Reynolds, F. W. Nunenmacher, O. N. Sanford, Ralph Hopping, Chas. L. Fox, E. P. Van Duzee, Master Winthrop Sargeant, Chas. A. Hill, Master Wolfgang Mautz, E. R. Leach, Mrs. E. C. Van Dyke, and Dr. F. E. Blaisdell.

There were six guests present: Richard G. Garnett, Dorothy Hopping, Mrs. Ralph Hopping, Mrs. Albert Mautz, Mrs. L. R. Reynolds and Mrs. F. E. Blaisdell.

The Treasurer's report was read.

Communications were read from Mr. E. A. Dodge of Santa Cruz, and Victor G. Duran of Los Angeles. Both acknowledged an invitation to attend a meeting of the Society.

Mr. Fordyce Grinnell of Pasadena, in a communication presented his best wishes to the Society, with a copy of the second number of "Lorquinia."

Mr. Ralph Hopping exhibited a box of *Pleocomæ*, including numerous females of the following species: *P. fimbriata*, *P. behrensi*, and *hoppingi*. In the course of his remarks Mr. Hopping stated that it is only the males that fly, the females never leave the ground. The males fly at dark and there must be a drizzling rain, not too lightly nor too heavily. If either extreme occurs they immediately disappear. They fly by the thousands. *P. hoppingi* occurs only in Tulare County in the lower pine belt at about 5000 feet elevation. *P. fimbriata* occurs in the oak belt. They can be taken throughout the winter months and only after the first real soaking rain. Females of *fimbriata* can be found wherever there is red soil in the chaparral belt. Their burrows are plugged with red soil, over which is a hollow. A burrow may be two feet deep and only one female is found at the bottom of each; they open their burrows when there is a drizzling rain. The burrows of *P. hoppingi* can be located under Mountain Misery (*Chamæbatia foliolosa*); four females were obtained while building a trail.

Mr. Fox exhibited and made remarks regarding a box of Hymenoptera and Diptera that he collected at Palm Springs, California.

Mr. Hill showed a large number of species of Coleoptera



in capsules. All were collected in Arizona. *Plusiotis gloriosa* and *Lecontei* were recognized among them.

Dr. Blaisdell stated that a common garden flowering plant (*Cosmos*) was one of the best plants he knew of to collect Hymenoptera and Diptera from. In Southern California the branches of this plant split off from the trunks and rest on the ground; the wound so produced permits the sap to escape and ferment, which attracts insects continuously during the day in Summer and Fall.

Mr. Nunenmacher explained how he used rolls of sacking about trees when training them and that these rolls attracted many insects which hid in them.

Dr. Blaisdell stated that that reminded him of some of his earlier tricks at Poway, San Diego County, when he used to hang sacks and old clothes in oak and sycamore trees, and stuffed knot holes and hollow stumps full of same material, which made excellent traps for insects. Sacks hung in fruit trees at Vine Hill, Contra Costa County, proved excellent hiding places during the winter months for numerous Lathridids, Anthicids, small Tenebrionids, Throscids, Stapylinids and Rhynchophorids.

Dr. Van Dyke gave a very interesting talk on the systematic character, habits and distribution of the species of *Anthophilax*, *Pachyta* and *Torotus*, with an exhibition of the species.

Mr. Hopping stated that he had found *Pachyta spurca* breeding in six species of pine and some six species of shrubs at an altitude of from 3000 to 4000 feet. His series showed much variation in maculation.

Mr. Van Duzee spoke of a trap for moths used by Dr. Lutz of the American Museum. A room made of cheese cloth with a light in one end. Insects entered easily but could not get out.

Mr. Leach spoke about using bottles bated with dead animals and sunk into the earth, and the number of insects caught in twenty-four hours. He asked if it was not late for *Cicindela* at the end of November, stating that he had found them that late on the Eel River in Trinity County.

Dr. Van Dyke thought that they were the last of the Fall brood.

Mr. Nunenmacher remarked that he used to take *Cicindela senilis* and *oregona* at Lake Merritt, Oakland, as late as the fifteenth of September, these being in all probability the last of the summer brood and after that time stragglers only were found.

Dr. Blaisdell exhibited a box of Coleoptera, among which were *Neoclytus balteatus* from Lake and Placer Counties; *Chrysobothris pubescens* Fall from Tuolumne County; *Acmaeodera angelica* from Mt. Diablo; *Athous pallidipennis* from the Yosemite Valley; *Corymbites mirabilis*, also from Yosemite, and a specimen of *Cremastochilus schaumii* taken in Alameda County, California. All these having been collected by Mr. W. M. Gifford to whose collection they belonged.

Master Mautz showed a series of insects beautifully preserved in transparent mounts.

Adjournment followed by social discourse.

F. E. BLAISDELL, Secretary.

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The sixty-third meeting of the Society was held on March 17, 1917, in the Board Room of the Mechanic's Institute, 57 Post street, San Francisco.

President Van Dyke in the chair.

The minutes of the preceding meeting were read and approved.

Twelve members answered to roll call: Dr. E. C. Van Dyke, F. W. Nunenmacher, J. O. Graves, Prof. C. W. Woodworth, Chas. L. Fox, L. R. Reynolds, Wm. F. Breeze, E. R. Leach, E. P. Van Duzee, Mrs. E. C. Van Dyke, Chas. A. Hill, and Dr. F. E. Blaisdell.

Four guests were entertained: Mrs. L. R. Reynolds, Mrs. F. E. Blaisdell, Clifford Dodds, and Wm. D. Coffey.

The report of the Treasurer was then read.

The following very interesting letter from Mr. Francis X. Williams, who is located at the College of Agriculture, Los Baños, Luzon, Philippine Islands.

"My present address is the above, my headquarters address is in care of the Experiment Station, Hawaiian Sugar Planters' Association. I have been at Los Baños over six months. It is forty odd miles south of Manila or about two hours by train.

"The College of Agriculture is outside the town and at the foot of Mt. Makiling, 3400 feet high and near Mt. Banahao, 6400 feet altitude. I am staying at one of the forestry professor's house. Practically all the houses here are made of bamboo and thatched with Nipa palm. They are decidedly airy and full of doors and windows.

"Mt. Makiling is still a dense forest containing a great number of species of trees, among them oaks (at higher eleva-



tions) and many valuable timber trees, innumerable vines, the disagreeable spiny rattan, tree ferns, moss, etc. Banahao nearby has pines and a broad leaf conifer (*Podocarpus*) of ancient type.

"What I have seen of the fauna is very interesting. Among the mammals are deer which may be heard barking at night, wild hogs, civet-cats, wild cats and monkeys. In birds are pigeons and doves, honey-birds, very large orioles, ground cuckoos allied to our 'road-runner,' horn-bills, iridescent kingfishers, parrots, etc.

"In reptiles, there are good-sized pythons and numerous smaller snakes—some not so small. A few days ago a student with more luck than sense perhaps, caught an 'eight-foot' king cobra by the neck (the snake was put in a cage, but later escaped); crocodiles and very large lizards, flying lizards, etc., occur.

"The insects in the lower and more civilized portions are largely common Malayan species; those further back in the mountains are more peculiar and endemic forms.

"Among the Hymenoptera, the ants are most conspicuous and annoying. The *Poneridæ*, so poor in the States, are very well represented here and constitute the largest forms, some with decidedly potent stings, some living in holes in trees, others in the ground. The *Formicidæ* have numerous small ants; *Phidolegeton* in immense colonies, very annoying biters, making it imperative for you to wear leggings or puttees. The worker-major is immense compared to the usual form—perhaps one hundred or more times the bulk. The *Camponotids* have the interesting tree ants, *Orcophylla*, who use their larvæ to spin their leaf-nests; *Polyrachis*, spiny ants of many species—also nest builders in trees.

"The fossorial wasps are numerous and there are some Vespids of formidable size and some very interesting *Eumenids* of large size. Some of these insects will build their nests in your room where they may be watched at close quarters. The numerous wild figs harbor many small Hymenoptera.

"The Diptera contain many strange forms, those with the wings concealed under the immense scutellum, those with the eyes and antennae on a stalk, others that greatly resemble large ants and Pompilids, etc.

"The beetles include many injurious forms, coconut weevils, rhinoceros-beetles, cocoa borer, etc. The arboreal *Cicindelids* are numerous enough in places; their larvæ live in holes in the twigs of shrubs and trees. The *Lampyrids* are evidently present all the year around and in the late months

may scintillate from 6 p. m. to early morning; *Phengodes* is not rare here—that is, in the larval form. I have a number in captivity and as in the States, they devour millipeds.

“In Lepidoptera are numerous fine big skippers (*Hesperideæ*, *Ornithoptera*, Death-head moths (*Ocherontia*), *Attacus atlas* and a fine assortment of sphinges.

“There are a large number of elongate spiders that greatly resemble various ants.

“The field in economic entomology is very wide. The numerous and varied crops of the Agricultural College here support an unenviable assortment of pests, many of them analogous to those in the States.

“The temperature at present (January 4th)—winter—is slightly over 70° F., quite cold for the Filipino; in summer it goes over 90° F. The precipitation here is quite heavy and at times torrential. My work consists in rearing and shipping parasites of the scarabæid *Anomala orientale*, a pest in the canefields of Hawaii. We are breeding two *Dexiid* flies which deposit their larvæ on the ground in which the grubs live, and several Scoliids which dig down after the *Anomala* grubs, paralyze (permanently or temporarily according to the species) them and oviposit on them. They are shipped in soil and in the earliest stages possible as it is twenty-three days by steamer to Honolulu.

“Prof. Baker (formerly of Pomona College) is head of the Agronomy Department here. He has a West Indian collector whom he regularly employs to catch insects. Many of the latter are soon shipped to specialists and so Mr. Baker has a very large and fairly well identified insect collection. He has also a specialist on fungi, of which he has a fine collection.

“Mr. Banks, head of the Entomology and Zoology Department, has just returned from the States. The climate here is good enough but one has to take more precautions here than in the States. All water is boiled and fruit scalded. Malaria is not rare here as I can attest, and one not infrequently sees an *Anopheles* stuck head first into some portion of your anatomy. We always have a mosquito net over our beds. Give my regards to all my old friends.”

Mr. Fordyce Grinnell, Jr., presented the following “Notes for the Lepidopterists”:

“Only a few days ago I received the long expected new check list of the Lepidoptera of North America by Barnes and McDunnough, consisting of over 400 pages of names. Also their contributions to the Natural History of the Lepidoptera of North America; Vol. III; No. 2, Notes on North American



Diurnal Lepidoptera. This last paper of about a hundred pages and seven beautiful photographic plates is a very valuable and critical discussion of many of our Californian Butterflies. It is needless to say that there are many changes and some very startling ones. But one thing, they show us how little we know as yet and the amount of work in *any* locality that should be done. For instance, take that supposed butterfly nuisance to the collector, *Euphydryas chalcedona* Dbldy., or *Melitea chalcedon* as most collectors know it. The typical form is found only around San Francisco bay; the Shasta County form will probably be known as *dwinellei* Hy. Edwards; while *Mcglashani* Rivers is the form in the middle Sierras at Truckee, and the Southern California race is near to *Mcglashani*. We have no true *chalcedon* race here although specimens like *chalcedona* are occasionally taken. The same in Shasta and the Sierras. There are numerous races of this butterfly to be studied and made known. But the work must be done from large series and from certain definite localities. As McDunnough points out, the larvæ are very important in separating the races of *chalcedona*.

"*Eurymus (Colias) eurytheme* Boisduval is equal to what we have been calling *ariadne* Edwards, the winter form; while *amphidusa* Boisduval is to be used for our previous idea of *eurytheme*. *Keewaydin* seems to be a constant intermediate seasonal form, at least down here (Pasadena, Calif.), and Clemence and myself do not agree with McDunnough as to his disposition of *Keewaydin*.

"The milkweed butterfly is to be known as *Danaus archippus*. Until the next check-list!

"The argynids (some of them) are turned upside down! *Plebeius (Lycæna) icarioides* Boisduval, synonym *fulla*, is another butterfly with numerous named and unnamed forms needing much study. On the whole, the recent work of Barnes and McDunnough is inspiring, and should make us all try to understand the common things around us—as they suggest to us in several places.

"Signor Enrico Piazza, a recent arrival from London, has joined the Lorquin Club and the ranks of the Lepidopterists down here. He has collected a few specimens so far and remarked on their resemblance to their English relatives. He is well acquainted with Sir George Hampson and Walter Rothschild; and together with his knowledge and enthusiasm is a welcome addition to our ranks.

"Mr. H. H. Newcomb in collecting thousands of *Brephidium (Lycæna) exilis* near Venice is finding that there are two very distinct forms among them, besides what we call

*isophthalma*. He is planning to work up a paper by next fall, with photographs of series of each. He has made an interesting discovery.

"I might say that I have prepared a catalogue of California butterflies, corrected to Barnes and McDunnough's nomenclature which will be published this spring, and I hope will be of use and put before collectors the present state of our knowledge. It is the first of its kind—so treat it with respect!

"With best regards for a fine meeting and wishing I were with you."

Mr. Richard T. Garnett was proposed for membership by Dr. E. C. Van Dyke and seconded by Dr. F. E. Blaisdell. The proposition being placed before the Society in due form, resulted in a unanimous vote. Mr. Garnett's name was duly recorded on the roll.

The subject for the evening's discussion being the Buprestidæ (Coleoptera), Dr. Van Dyke opened the subject by giving a talk on the peculiarities of the Buprestidæ, particularly with reference to those found in California. During the talk many interesting notes were given. He mentioned 21 genera and 125 species as Californian. Practically falling into two great faunal areas—the coniferous forests of the mountains and northward; the chaparral and semi-desert regions of the southern part of the State. In the first, *Buprestis*, *Dicerca*, *Melanophila* and *Chrysobothris* are dominant; in the second *Acmaeodera*, *Polycesta*, *Schizopini*, etc., are dominant.

Dr. Blaisdell mentioned the Buprestid collecting habit of a wasp of the genus *Cerceris*. This wasp stocked the cells of its nest with *Agrili*, *Hippomelas californicus* and *Chrysobothris*; also, that he had never taken a single living specimen of *Hippomelas californicus*, which according to the collecting of the wasp, must have been fairly abundant at Poway, San Diego, Calif., where these observations were made.

Mr. Garnett told of collecting Buprestidæ at Donner and Independence Lakes.

Mr. Nunenmacher mentioned collecting Buprestidæ in Arizona. He found *Psiloptera (Spinthoptera) arizonica* Casey rather common, stating that he collected them during rain storms.

Dr. Van Dyke stated that once when he was collecting at Banning, he came across a section of the valley which had been burnt off by the Indians and in the burnt mesquite bushes, Buprestids were very abundant, especially *Chrysobothris merkelii* Horn.

Mr. Van Duzee stated that the new catalogue of Lepi-



doptera by Barnes and McDunnough had been issued. He also described the Hill box for Lepidoptera, stating that this is sometimes called the Auburn box and also discussed handy mounts for butterflies and plants.

Mr. Graves exhibited a series of Lycaenids in transparent mounts.

Mr. Garnett showed some exotic Buprestids, and Mr. Van Duzee passed around a box of Hemiptera.

The subject of a suitable place for the next meeting or Field Day of the Society was brought up for discussion. It was decided to appoint a committee of three to select a place and report to the Secretary. This committee was composed of Mr. William F. Breeze, chairman, and Mr. Fox and Mr. Hill.

Mr. Fox exhibited a box of Coleoptera and Orthoptera collected at Palm Springs.

Discussion of exhibits and adjournment.

F. E. BLAISDELL, Secretary.

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The sixty-fourth regular meeting or Field Day of the Society was held on April 29, 1917, in Pine Canyon, at the western base of Mt. Diablo, Contra Costa County, Calif.

The following members were in attendance—ten in all: Dr. and Mrs. E. C. Van Dyke, L. R. Reynolds, Lem Munier, E. P. Van Duzee, J. E. Cottle, Charles Hill, William F. Breeze, Charles L. Fox and R. F. Sternitzky.

Ten guests present: Mr. W. W. Henderson of the Utah Agricultural Experiment Station, E. J. O'Connor, Wm. M. Wholey, Saxton T. Pope, Jr., F. E. Blaisdell, Jr., Mrs. F. E. Blaisdell, Mrs. L. R. Reynolds, Clara K. Kraus, William Kraus and William Krieger.

The weather was warm, but too dry for good collecting. Several interesting specimens were captured however.

F. E. BLAISDELL, Secretary.

