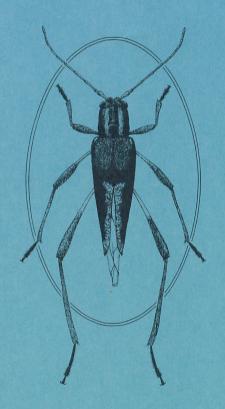
# **PROCEEDINGS**

of the

# HAWAIIAN ENTOMOLOGICAL SOCIETY



This Issue Dedicated to Edwin H. Bryan, Jr.

# PROCEEDINGS of the Hawaiian Entomological Society

**VOLUME 26** 

FOR THE YEAR 1984

MARCH 1, 1986

The following minutes, notes and exhibitions were recorded by the Secretary on the months indicated during the calandar year 1984. The minutes as they appear here contain only the highlights in abbreviated form with attendance totals only. Complete minutes can be obtained from the Secretary's files. The Editor.

#### **JANUARY**

The 937th meeting of the Hawaiian Entomological Society was called to order by Pres. Barry Brennan at 2:05 p.m., January 9, 1984 in the Conference room of the Bishop Museum. Fourteen members were present.

Old Business: Brennan read a letter from Elwood Zimmerman as a reply to a congratulatory letter from the HES, on the occasion of Zimmerman's receiving of the Jordan Medal. In the letter he noted that the Insects of Hawaii Volumes that he had been working on could not be completed. A lively discussion followed.

New Business: JoAnn Tenorio brought some old photos of Entomological Society members as a supplement to her presidential address in December.

No notes or exhibitions were submitted.

Announcements: Pres. Brennan announced that rather than voting on amendments suggested by the previous constitution committee, a new committee will be appointed and the recommendations of both committees will be considered simultaneously in the future.

Wallace Mitchell announced a public meeting to be held Jan. 17th and 18th to discuss the tri-fly eradication program. The meeting will be held in the Plumeria Room of the Ala Moana Americana Hotel. Anyone is invited to testify orally and/or in writing. This information will be used to prepare the EIS statement.

Brennan announced the Annual Pest Control metting to be held at the Hawaii

Regent Hotel January 23rd and 24th.

Program: Wallace Mitchell and Bruce Tabashnik discussed the Annual Meetings of the Entomological Society of America which was held in Detroit last November.

#### **FEBRUARY**

The 938th meeting of the Hawaiian Entomological Society was held at 2:02 p.m. in room 100 of the Marine Science Building on the U.H. Campus, February 13th with Pres. Brennan presiding. Thirty three members and 12 guests were present.

Report of Officers and Committees:

Treasurer: W. Snell reported a balance of \$4,694.62 in the treasury. He read a letter to Pacific Printers requesting the refund of a tax payment. Dr. Donald D. Hilton (Bishops Univ., Lenoxville, Quebec), a damselfly taxonomist who will be visiting Bishop Museum next year, was nominated and elected to membership.

Old Business: Steve Saul commented on the Tri-Fly public meeting and noted that the Task I Report was circulated in order to gather concerns and issues. A motion was made and passed that the Society through the Executive Committee draft a statement of concern regarding the Tri-Fly eradication project Task I Report and incorporate the comments of individual members.

New Business: Wallace Mitchell announced that the Sheraton Waikiki inquired about the possibility of HES hosting another National Entomological Society of America meeting and asked what the rest of the membership thought of the idea. The meeting of the Pacific Branch will be held in Honolulu in June of 1985. The following chairmen have been designated: Ron Mau — Program Chairman; Franklin Chang — Local Arrangements; Asher Ota — Registration. Anyone wishing to help should contact one of the above.

Frank Radovsky read a letter of inquiry from the International Congress of Acarology asking the willingness of Hawaii to host the ICA Meeting in Hawaii in August of 1986. A motion was made and passed that the HES support an invitation to ICA Executive Committee to have Hawaii as the location of the VIIth International Congress of Acarology.

Legislative Matters: Pres. Brennan announced the receipt of a copy of the final draft of the joint House-Senate committee's report on pesticides in ground water. This report concerns the establishment of a State Environmental Protection Agency.

House Bill 1936 to establish an Institute of Hawaiian Evolutionary Biology at the University of Hawaii was noted and supported by HES. A motion was made and passed that a committee be appointed to draft a statement relative to the establishment of an Evolutionary Biology Institute. B. Brennan, J. Beardsley, Po-Yung Lai, and K. Kaneshiro were appointed to the committee.

Announcements: Ken Kaneshiro announced that the Hawaiian Evolutionary Biology Program will sponsor an International Symposium in June of 1985.

The ninth annual U.H. Zoology Dept. Tester Memorial Symposium will be held April 12-13, 1984. Graduate student papers were solicited.

The HEBP announced a Visiting Distinguished Scientist series of seminars during the months of February and March.

ESA announces two new books: Entomology: A Catalog of Instructional Materials and Coloring Fun with Insects.

Brennan read a letter which included a list of available New Zealand publications of interest. Four copies were circulated.

#### NOTES AND EXHIBITIONS

Comptosia fasciata (Fab.) (Diptera: Bombyliidae): A single specimen of this species was collected by the late Dr. J. L. Gressitt from Franz Joseph Glacier on the South Island of New Zealand. There have been previous records (all in the 1800's) of this common Australian species from New Zealand; however, they have all been dismissed as labelling errors. No specimens of this genus exist in any of the entomological collections in New Zealand (B.A. Holloway, in litt.).

The weather conditions on the west coast of the South Island are still not ideal for the survival of this xerophilic bombyliid fly, although this specimen was collected in the summer (Feb. 18, 1961). It is normally very windy and cold. The fact that it was collected on the glacier itself tends to support the theory that it had been blown there from another locality. The question as to whether or not it could have been blown to New Zealand from Australia remains a possibility since strong winds from Australia to South Island are common. Some New Zealanders have said they could smell the

smoke from fires in Victoria, Australia via the winds that carried the ashes from Australia to New Zealand. N.L. Evenhuis.

Diplonevra peregrina (Wiedemann): This ubiquitous phorid fly is found on all the major islands in the Hawaiian chain. Wayne Gagné collected numerous individuals of this species from various localities on Nihoa I. The largest number were collected in cheese bait traps. This is the first Nihoa I. record for this species of Phoridae. N. L. Evenhuis.

Orfelia (Tylparua) sp.: Two undescribed females and two associated larvae of this endemic fly were collected by W. Gagné in a moist shelter cave on the island of Nihoa in April 1983. This marks the first record of Orfelia from Nihoa I. (Family Keroplatidae-formerly Mycetophilidae). N.L. Evenhuis.

Leia sp.: Two undescribed males of this genus of Mycetophilidae were collected by Frank Howarth from Pigeon Cave in the North Kona District of the big island. This marks the first record of this widespread genus from Hawaii. N.L. Evenhuis.

Scobicia declivis (LeConte): Six adult specimens of a bostricid beetle were collected for the first time at Makiki, Oahu, by M. Simmons on Jan. 4, 1984. Specimens were sent to USDA, Beltsville, Maryland and identified as Scobicia declivis (LeConte) by T.J. Spilman, Systematic Ent. Lab.. S. declivis commonly called the leadcable borer, is known to occur in California, Oregon, and Washington where it causes considerable damage to lead sheathing of aerial cables. This beetle is also reported to attack dry lumber and living trees. P.-Y. Lai.

Toxonotus cornutus (Say): Five adults of a new anthribid beetle, *Toxonotus cornutus* (Say) were found by D. Preston in light traps at Barbers Point, Oahu on October 24, 1980; Hickam Air Force Base, Oahu, on November 7, 1980; and Ewa, Oahu, on August 17, 1982. Identification was made by R.E. White, USDA, Sytematic Entomology Lab., Beltsville, Maryland. This species is known to occur in northeastern U.S. and Florida, Missouri and Texas. The biology of this beetle is unknown. P.-Y. Lai.

Leptobrysa decora Drake: A light infestation of Leptobyrsa decora Drake (Hemiptera: Heteroptera: Tingidae) was observed on the ornamental shrub Duranta repens L. (Verbenaceae) at 2,600' elevation near Palehua, Oahu. Egg, nymphal, and adult stages were each found on the plant. This insect was introduced into Hawaii in 1970 for the biological control of lantana. This constitutes a new host record for this insect in the state. N. Reimer.

Drosophila cardini Sturtevant: A few specimens of a previously unrecorded Drosophila species for Hawaii was collected by Dr. Robert Hereforth in July, 1983 on the grounds of Leahi Hospital. Although it was determined that the specimens clearly belonged to the cardini group, it was not immediately distinguished from among the 16 or so sibling or near-sibling species in the group. A subsequent collection was made in August, 1983 and a laboratory culture was obtained. Dr. H.L. Carson and his student Linda Chang of the Genetics Department at U.H. were able to analyze the karyotype of the metaphase chromosomes by preparing smears of larval brain tissue and determined that this had a karotype of 2n=12, with 5 pairs of acrocentrics and one pair of microchromosomes. It was thus determined that this species is Drosophila cardini Sturdevant which has a wide Neotropical distribution. It has been recorded from Mexico, Costa Rica, Panama, Columbia, Venezuela, Trinidad, Brazil, Guyana, Bolivia, Chile, Peru, Cuba, Jamaica, Haiti, Puerto Rico, Florida and Grand Cayman.

This species has not been previously recorded from the Hawaiian Islands, and becomes the 25th non-endemic drosophilid in Hawaii. K. Kaneshiro.

Coccidencyrtus ochraceipes Gahan: In my 1976 paper on Hawaiian Encyrtidae (PHES 22:207) I listed the diaspidid scale parasite Coccidencyrtus ochraceipes Gahan as doubtfully established in Hawaii. It had been reported only once, on the basis of specimens reared in 1926 from Diaspis boisduvalii Signoret, by D. T. Fullaway (Timberlake, 1927, PHES 6:517). During December, 1983, Mr. Dick Tsuda provided me with leaves of Cattleya orchids heavily infested with D. boisduvalii, which had been submitted for determination of the scale to the Plant Disease Clinic of the Hawaii Institute of Tropical Agriculture and Human Resources. This material was held in the laboratory for several weeks during which approximately 50 adult females of C. ochraceipes emerged. This constitutes only the second reported collection of C. ochraceipes in Hawaii.

During 1983, specimens of *C ochraceipes*, reared from *Diaspis bromeliae* (Kerner) in South Africa, were submitted to me for identification by Mr. Graham Petty of the South Africa Dept. of Agriculture. It is of interest that this parasite has never been reported from the pineapple scale in Hawaii. J.W. Beardsley.

The globe skimmer, Pantala flavenscens (F.): On 29 September 1983 P. Pyle observed thousands of globe skimmers on Green Island, Kure Atoll after they were absent during the previous week. A subsequent decrease in numbers occurred during the next 2-5 days which was then followed by the maintenance of a low to medium density until at least 14 Oct. 1983. As there is no permanent fresh or brackish water available for breeding on Kure Atoll, the insects had assumedly immigrated from Midway, or the main Hawaiian Islands, or possibly even from eastern Asia.

P. Pyle was present at Kure from 21 September to 14 October for ornithological research purposes. Though not an entomologist, he kept a casual eye on the more conspicuous insect species as they may have related to Kure's avian ecology. No dragonflies of any speices were observed before 29 September.

At 0900 hours on 29 September five or six of the skimmers were noticed for the first time near the antenna house in the north section of the island. This alerted the observer to their presence, and they were subsequently seen in increasing numbers during the day. They seemed to prefer foraging along the edges of openings in the vegetation. By 1830 hours more than 50 were counted in front of of the main barracks prompting several of the Coast Guard personnel stationed at Kure to comment that they had never seen any dragonflies on the island before. Three specimens were collected for the B.P. Bishop Museum, Honolulu, where W. Gagné and F. Howarth later identified them.

On the morning of 30 September counts were conducted for an islandwide population estimate. Over 200 were noted around the barracks, 350 along the edges of the runway and another 100 around the antenna house. Considering the approximate percentage of the island covered and the patchiness of the skimmers distribution among the various habitats, a rough estimation of 7,500 were calculated. The density remained at about the same level through the 30th, but by 2 October had declined noticeably. On 4 October counts of 25 around the barracks, 50 around the runway, and 20 around the antenna house, resulting in a decreased total estimation of about 1,000. This density remained fairly constant through 14 October when the observer left the Atoll.

Weather records show that southwest winds had prevailed on Kure for two days prior to the globe skimmer "invasion," the results of two very strong low pressure systems moving rapidly eastward, to the north of Kure. These systems created strong northwesterly winds over much of the N.W. Pacific, suggesting that the skimmers may possibly have arrived wind-assisted from eastern Asia. The arrival on the same day of

an unprecedented 12 to 15 Olive Tree-Pipits (Anthus hodgsoni) a Siberian passerine species, adds credence to this supposition. Regardless of the origin, however, the skimmer "invasion" of Kure represents an incident of the kind which could have been responsible for the initial colonization of this and other highly volant species to the Hawaiian Archipelago. Perhaps this is a migratory species akin to the monarch butterfly in North America.

The globe skimmer is considered an immigrant species by Zimmerman (Ins. Haw. 2:339). However, its wide distribution on and capture between (Pemberton, PHES 4:1) the main Hawaiian Islands, throughout Polynesia, and several hundred miles at sea, its possible collection (Zimmerman, loc. cit.) during Captain Beechey's 1826 and 1827 voyage (Beechey, 1831, Narrative of a Voyage to the Pacific. 1825-8, 2 Vols. London), coupled with our observations, leads us to believe it is more likely that this species is in fact indigenous to Hawaii. P. Pyle and W.C. Gagné.

Program: The program was presented by M. Lee Goff of the Entomology Dept. U.H. and was entitled "Dr. Maggot and Mr. Worm: Forensic Entomology in Hawaii."

#### MARCH

The 939th meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 2:00 p.m. 12 March, 1984 in room 100 of the Marine Sciences Building on the U.H. Campus. Twenty-nine members and 7 guests were in attendance.

#### Reports of Officers and Committees:

Treasurer: W. Snell reported that total assets for the Society were \$8,443.89. No new names were reported for membership.

Editorial: Ray Joyce reported that the index for Vol. 24 was in the hands of the printer. The deadline for submission of manuscripts for Volume 25 is May 14th. He also indicated that updated guidelines for the preparation of manuscripts for the Proceedings was being prepared.

Old Business: Wallace Mitchell reported that he passed on the Tri-fly comments to E.J. Stubbs in Washington.

Word has been received that the International Congress of Acarology has decided to accept the offer of India to host the VIIth Congress in 1986. Perhaps Hawaii can host a future I.C.A. conference.

House bill 1936 has been tabled for this year. A resolution was passed requesting the U. H. to look into the possibilities of finding a permanent home for the Hawaiian Evolutionary Biology Program.

New Business: Dean Fujii endorsed the idea of having the annual Hilo meeting of the Hawaii. Entomol. Soc. in June in coordination with the Fifth Conference in Natural Sciences (Hawaii Volcanoes National Park, June 5-7).

Announcements: Dr. Douglas J. Futuyma, Prof. of Ecology and Evolution, SUNY s Stony Brook, will be the fourth speaker in the Hawaii Evolutionary Biology Program's Visiting Distinguished Scientist Series in early April.

There is a strong possibility that the next International Congress of Entomology will be held in Vancouver, B.C., Canada in 1988.

Science fair judges are needed. Contact Franklin Chang for information. The fair will be held April 10th & 11th.

Program: Dr. Robert L. Metcalf, Univ. of Illinois, Urbana, presented a seminar entitled "Kairomones and Insect Control."

#### NOTES AND EXHIBITIONS

Physiphora demandata (Fab.): (Diptera: Otitidae) this is a new record for the state of this fly. It was collected over carrion at Waimanalo, Oahu, Aug. 1983 by Marianne Early. The species is widespread over the Palaearctic, Nearctic and Neotropical regions, also India and Pakistan. D. Elmo Hardy.

Scaptomyza (Parascaptomyza) elmoi: This fly, Diptera: Drosophilidae, was reported to be damaging Chinese cabbage at Kamuela, Hawaii. The larvae were observed feeding along the edges of healthy leaves. The feeding causes black spots to appear on the leaves and the cabbage is not marketable.

This species has previously been known in Hawaii as Scaptomyza pallida (Zetterstedt) (Proc. Hawaii. Entomol. Soc. XVII:7 & 157) (Catalog of Diptera of the Oriental Region Part III, 1977, p 385, Univ. Press of HI). It is widespread over the islands and has been collected from near sealevel to 7,000' elevation. It is common in the highlands associated with endemic biota. It has been reared from leaves of Pisonia, Heimerliodendron and Cheirodendron leaves (probably all picked up off the ground and the larvae feeding as saprophytes); flowers of Senecio and a "yellow flowered composite:" Sapindus slime flux and from gill fungus.

Distribution: Japan, Taiwan and Hawaiian Islands. Reported by **D. E. Hardy for** W.C. Mitchell.

Vanessa atalanta (L.), a new island record; On October 9, 1983, a red admiral butterfly, Vanessa atalanta (L.) (Lepidoptera: Nymphalidae), in excellent condition was collected by W.D. Perreira on the ridge trail leading to Konahuanui from Tantalus, Oahu, at an elevation of 676 meters. Examination of collections uncovered one heavily worn specimen of this species collected in Palolo Valley, Oahu, by D. Cho during 1974. J.W. Beardsley found this specimen in a student collection, but suspected it to be a waif rather than established on Oahu nettles (Urticacae). These two specimens represent a new island record for this nymphalid. In previous years, V. atalanta has been taken occasionally from Hawaii and is also known from a single Kauai specimen. W.D. Perreira & S.L. Montgomery.

Tinostoma smaragditis (Meyerick): Of the fifteen adults of the green sphinx moth (Lepidoptera: Sphingidae) known to date, the majority were collected within the barren fenced area of the radar station which is located three or four hundred meters from the Kalalau Valley overlook, on the island of Kauai. Neither the eggs, the late instar larvae, nor the pupae of the species are known, but the teneral condition of some of the adults when found indicates that they originated a short distance from the radar station, in the rain forest which extends away from the station in all directions. During the second week of January. I searched several hours in this forest, hoping to find one or more of the immature forms of the sphinx. I found none; but I did find evidence that Claoxylon sandwicense, a small tree of the Euphorbiaceae, known to Hawaiians as Po'ola, is probably the food-plant of the green sphinx and the source of the specimens which have been collected in the radar station. These trees are abundant on the periphery of the station, and the foliage of many I examined had been fed upon by obviously large caterpillars. These caterpillars might be of the green noctuid, Aumakua omaomao, but this species has not been found in the Radar Station, and its food-plant in the area of Kalalau is known to be a Lobelia. F.A. Bianchi.

Taylorilygus pallidulus (Blanchard): This mirid bug is new to Hawaii. Specimens are at hand from Oahu, Hawaii and probably Maui Islands. The first specimens were taken in a light trap at Hickam Air Force Base, Oahu in June 1979 by J.W. Beardsley, and subsequently from Nuuanu Pali, Moanalua Valley (both on Oahu) and "Kauala" (a probable misspelling for Kauaula, Maui). The Big Island specimens were

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collected on Chrysanthemum at Glenwood. T. pallidulus most closely resembles Lygus elisus Van Duzee of our resident fauna, from which it can be distinguished by the conspicuous left clasper bearing a median setose area and an inconspicuous right clasper, shallowly rather than deeply punctate pronotum with immaculate callosities, brown, rather than white dorsal pubescence, and a two-lined scutellum and infumate membrane, especially in mature males (both immaculate in L. elisus). In Carvalho's 1959 world Catalogue of the Miridae, Part IV:265-6, it is listed as having an almost cosmopolitan distribution. Taylor 1947 (Bull. Entomol. Res. 38: 239ff; as Lygus apicalis Fieber, a synonym) stated that it was associated with a number of composite species in Africa. W.C. Gagné.

Nysius wekiuicola Ashlock and Gagné: This recently described lygaeid bug (Intl. J. Entomol. 25(1):47-55) is presently known to be a resident predator-scavenger in the aeolian zone of Mauna Kea. Ashlock and Gagné (loc. cit) summarized previous literature and personal communications regarding its possible existence at similar altitudes on Mauna Loa. Until present, the only specimen collected there which appeared referable to this species was an immature found associated with a piece of shrimp (or bacon) chip from hikers' litter at 3505m altitude on the north slope of Mauna Loa in January 1982 by me. With that apparently fortuituous association in mind, on 4 Jan. 1984 I set out 6 bottle traps baited with pieces of cheese and sardines at the 3810m elevation along the jeep track to the summit of Moana Loa. Each trap was set in pahoehoe "bubbles" adjacent to the cinder cones there. When I rechecked these traps on 11 Jan., five (the sixth had disappeared, apparently removed by vandals) had N. wekiuicola specimens with adult males, females and immatures totalling over a dozen specimens. I believe that these collections indicate the possibility that these remarkable micropterous bugs have considerable ability in food-finding in this outwardly inhospitable appearing environment. In addition, it raised the possibility that the Mauna Kea and Mauna Loa populations have been separated since the last glacial period, and possibly vindicates Guppy's 1897 observation (Nature 57: 20-1) of "... parasitic... bugs collected while they fed upon the bodies of dead butterflies ... " on the summit of Mauna Loa, as having been the first observation of this species. W.C. Gagné.

#### APRIL

The 940th meeting of the Hawaiian Entomological Society was held in the Marine Sciences building, U.H. and called to order by Pres. Brennan on April 3rd at 2:40 p.m. Twenty-nine members and 20 guests were in attendance. Dr. Paul McDonald was introduced as a new member. He comes to us via Yale, Notre Dame, and Berkeley and has worked on mosquito cytogenetics and medfly oviposition.

### **Reports of Officers and Committeess:**

President: Brennan passed out the list of officers and committees for the year 1984. He proposed two new committees as follows:

- Ad hoc Constitution and By-Laws Committee which should look at the possibility of separating the HES Constitution from the HES Bylaws.
- 2. Ad hoc Publication Committee to develop publication policy as opposed to the Editorial Committee which oversees the publication of the Proceedings. Treasurer: Snell reported a total balance of \$8,864.60.

Old Business: Frank Radovsky will make an award presentation for HES at the Science Fair, April 12-14.

The June meeting will be held in Hilo in conjunction with the National Parks Conference.

Radovsky read a letter from the Acarology Congress stating that Hawaii will be considered as a back-up for India as a meeting site for the International Acarology Congress, August 1986.

New Business: President Brennan suggested that a Society Historian be appointed. The duties would include taking custody of the older files now held by the secretary. Fred Bianchi agreed to assume these duties, as he already had some of the older society papers. Wally Steffan pointed out that the Bishop Museum has been designated as the archival receptor for the Society.

Dr. Joyce suggested that we might do more to encourage young people to get into Entomology. Brennan suggested that one aspect of encouragement could be to invite the Science Fair award recipients to the Annual dinner Meeting.

#### **Announcements:**

- The Caribbean Food Crops Society's Annual meeting will be held Oct. 21-26, 1984 in Saint Croix, U. S. Virgin Islands.
- 2. Jimmy Ikeda has been promoted to the position of Chief, Vector Control Branch of the Hawaii State Dept. of Health.
- 3. Dr. Leroy Williamson was transferred to Texas. He will be studying alternatives to the use of EDB as a quarantine treatment for the Mexican fruit fly.
- 4. The Pacific Branch Meetings will be held in Salt Lake City, June 19-21, 1984. Notes and Exhibitions: None were presented.

**Program:** Dr. Douglas Futuyma spoke on the Ecological Genetics of Phytophagous Insects.

#### MAY

The 941st meeting of the Hawaiian Entomological Society was called to order by Pres.-elect Stephen Saul at 2:13 p.m. on May 14, 1984 in the Marine Sciences building at the University. Twenty-three members and 1 guest were in attendance. Paul McDonald was voted into membership.

# Report of Officers and Committees:

Treasurer: Snell reported a balance of \$9,410.15 in the Treasury.

Liaison Committee: Pres. Brennan asked Steve Montgomery to prepare a summary of 1984 Hawaii State legislation pertinent to Entomology.

Science Fair Committee: Wally Steffan announced that Silvia Chang of Roosevelt High School was the winner of the HES award. She received four other awards. Her topic was "Birds, Bees, and *Drosophila*."

Old Business: The June meeting will be scheduled by Jack Fujii for the afternoon of June 4th at the College of Tropical Agriculture at U.H. Hilo.

New Business: Asher Ota announced that the Pacific Branch meeting will be held next June 1985 in Honolulu. Dr. Wally Mitchell is now President Elect and will Chair the Meeting. Ron Mau is the Program Chairman. Any suggestions for Symposia should be directed to Ron as soon as possible.

#### **Announcements:**

- Science '84 has an article on Ernst Mayr entitled "The Importance of Being Ernst" which uses Hawaiian insects as examples for evolutionary phenomena. Frank Howarth and Frank Radovsky were advisors for this article.
- 2. Dr. Stan Higa was promoted to Chief of the Plant Quarantine Branch of the Hawaii Department of Agriculture.
- The International Chemical Congress of Pacific Basin societies will be held in Honolulu, December 16-21, 1984. There will be a symposium on pesticides and island ecosystems.

**Program:** Dr. Wally Steffan of the Bishop Museum presented a talk entitled "Predator Mosquitos, Joss Sticks, and Viruses."

#### NOTES AND EXHIBITIONS

New insect records for Guam: Dr. Beardsley reported that he visited the Island of Guam for three days at the end of March to participate in a review of the entomology program in the College of Agriculture and Life Sciences of the University of Guam. While there he collected specimens of a mealybug (Pseudococcidae) and soft scale (Coccidae) not previously reported from Guam. These are: 1. Maconellicoccus hirsutus (Green), the Egyptian Hibiscus mealybug, collected on Hibiscus on the University of Guam campus at Mangilao, and at Inarajan on Erythrina. This species, which is widespread from North Africa throughout much of tropical Asia, was discovered to be established in Honolulu during September 1983.

2. Ceroplastes ceriferus (Fabricius), The Indian Wax scale, collected on a banyan tree, Ficus sp., on the University of Guam campus. This scale is widely distributed in the tropics and subtropics of Asia, including India, Indonesia, and Japan. It occurs also in Panama, the Caribbean Islands and in the southeastern United States, where it is reported to be an economic pest of many ornamentals. In the Pacific it has been reported from Australia, Fiji, and the Palau Islands. Mature females of this species range up to about 8mm in length and are enclosed in a test of soft white wax. For taxonomic and biological information concerning this species, see "A Systematic Revision of the Wax Scales, Genus Ceroplastes, in the United States (Homoptera; Coccoidea; Coccidae) by W. F. Gimpel, D.R. Miller and J.A. Davidson, Univ. of Maryland, Agric. Expt. Station Misc. Pub. 841, June 1974. J.W. Beardsley.

Thrips palmi Karny on Guam: Dr. Beardsley reported that at the time of his visit to Guam, farmers there were experiencing an outbreak of thrips attacking melons, cucumbers, eggplants and tomatoes. Subsequently, he was informed by Dr. R. Munniapian, Assoc. Dir. of the Guam Experiment Station, that the thrips has been identified as *Thrips palmi* karny, a new record for Guam, by Mr. Steve Nakahara, USDA, APHIS, Beitsville, Maryland. This thrips recently was identified as causing similar damage in Hawaii. J.W. Beardsley.

Stenomicra fascipennis Malloch: Dr Hardy reported this fly (Diptera: Aulacigastridae) for the first time from the state of Hawaii; 1 specimen, Makiki Valley stream, Oahu, 24.IX. 1983, W.D. Perreira and 1 Kahili Mt., Kauai, 4,000', 22.IX. 1982, in Malaise Trap, no collector given. A series was also noted from the Ryukyu Islands, also a new record.

This species is widespread over the Oriental region and has been recorded from Fiji, Micronesia, Japan and the Bonin Islands. D. Elmo Hardy.

Wyeomyia mitchellii (Theobald): This mosquito (Diptera: Culicidae) was first discovered by D.A. Shroyer in Makiki Valley, Oahu, on July 4, 1981 (Proc. Hawaii. Entomol. Soc. Vol. 24:192). Subsequent collections on Oahu by the Vector Control Branch, DOH, have been made from Nuuanu, Pauoa, Manoa, Kalihi, Kaneohe, Kahaluu, and Wahiawa. The latest recovery was from a residence in Hilo, Hawaii, on April 4, 1984, which constitutes a new island record for the species. G.H. Komatsu.

Thrips palmi Karny (Thysanoptera: Thripidae): Some of the Hawaiian specimens of *Thrips nigropilosus* Uzel determinded by the writer in recent years are now discovered to have been misidentified. The species is *Thrips palmi* from the Oriental region, a new addition to the local fauna. The earliest specimens so far determined were collected from watermelon and cantaloupe at Kahuku on July 19, 1982 by Sniffen Joseph of the State Dept. of Agriculture. Within a short time thereafter, Larry

Nakahara of the State Dept. of Agriculture also found that the species was widely established on the Island of Oahu. This leaf-feeding thrips has long been known to be quite injurious on various vegetable crops in India, Thailand, Philippines, Japan, and Guam. T. palmi is easily confusable with T. nigropilosus, a long naturalized species in Hawaii, but they are critically separable by two minute differences. The median area of metascutum is longitudinally striated in palmi, while reticulated in nigropilosus. The lateral setae on tergite II are 4 in the former, while 3 in the latter. K. Sakimura.

Thrips palmi Karny: During the early part of 1982, unusually heavy thrips infestations were observed on various vegetable crops on Oahu. Surveys conducted during July to September 1982 revealed heavy infestations and damage by *T. palmi* in Kahuku, Waianae Valley, Lualualei Valley, and Kahaluu on Oahu. Crops that were seriously affected by all stages of *T. palmi* were watermelon (*Citrullus vulgaris*), cucumber (*Cucumis sativus*), cantaloupe (*Cucumis melo* var. *cantalupensis*), eggplant (*Solanum melongena*), and bell pepper (*Capsicum annuum* var. grossum). Subsequently, in 1983, heavy infestations of all stages of *T. palmi* were also recovered from Chinese spinach (an edible form of *Amaranthus tricolor*) in Waimanalo, Oahu. These plants represent new host records of *T. palmi* in Hawaii. Specimens were collected by S. Joseph and L. Nakahara and identified by K. Sakimura and L. Nakahara.

Trace to light infestations of *T. palmi* adults have also been observed on long beans, bush beans, Manoa lettuce, and cheese weed. However, these plants are not recorded as hosts at this time, since other thrips species were also present on these plants. *T. palmi* was not recovered from green onion, Kiawe, and koa haole during these surveys.

No damage by a *Thrips* species was ever encountered on the previously mentioned hosts during surveys conducted between 1976 and 1981, indicating that *T. palmi* is a recent introduction into Hawaii. *T. palmi* has been periodically intercepted in 1983 from cut orchid flowers from the Orient. L.M. Nakahara, K. Sakimura, R.A. Heu.

A riparian Hawaiian Nabis sp.: The damselbug genus Nabis (Heteroptera: Nabidae) is richly represented in Hawaii by an assemblage of 26 endemic species which appear to have radiated from one successful colonization, as well as by a number of additional undescribed species (Zimmerman, E.C., Insects of Hawaii Vol. 3, 1948). These comprise a morphologically diverse group of volant and flightless species. Although a few species such as N. truculentus (Kirkaldy) are also remarkable in that they appear behaviorally specific as to perch plant association, most known species here and elsewhere forage for arthropod prey on woody and herbaceous vegetation (Miller, N.C.E. 1971. The Biology of the Heteroptera [2nd edition] 206pp.) It came as a surprise then, to find an undescribed species which appears strictly riparian, an ecological feature apparently unique to the family (Miller loc. cit.). Adults and nymphs were foraging upon streamside boulders in Ae Stream (Black Gorge) in Iao Valley, West Maui at 350m elevation on 21 April, 1984 by W.C. Gagné. One adult male and a 5th instar nymph of 7 specimens collected were observed preying on adults of the stream midge Telmatogeton sp. (Diptera: Chironomidae). The black body, legs and wings of this nabid rendered them quite cryptic on the rocky substrates. They appear flightless when pursued by the collector. They would "freeze" when closely approached or would seek cracks and tight spaces in, and between, the boulders. Further evidence for their riparian association are: 1) found only on boulders in the immediate vicinity of the active stream; 2) none found in the dry stream bed at slightly lower elevations towards the junction with Iao Stream; and 3) none found on streamside vegetation nor on the adjacent wet cliff faces.

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This species keys out to N. kahavalu (Kirkaldy) in Zimmerman (loc. cit.) pg. 145 but appears not closely related to any known or undescribed species in Hawaii, based on morphology. The evolution of this riparian predator is of interest in that Ae Stream has a rich guild of arthropod predators such as dolichopodids, odonates, saldids, carabids and spiders (tetragnathids and salticids). Conventional wisdom dictates that the riparian predator niche should already have such a "full" complement of other arthropod predators that the evolution of yet another form, a non-riparian-associated group, such as the Nabidae, appears outwardly unlikely. This species again calls attention to the need for a reevaluation of our prevailing concepts of what constitute "vacant niches" with respect to the adaptive radiation and adaptive shifts in the endemic biota (Howard, pers. comm.; Mueller-Dombois et al 1981. Island Ecosystems: Biological Organization in Selected Hawaiian Communities. Hutchinson Ross Publishing Company. US/IBP Synthesis Series. Vol. 15, 583 pp. W.C. Gagné.

A psyllid, Heteropsylla sp. nr. fusca Crawford: Specimens were recently collected from monkeypod (Samanea saman) leaves by K. Teramoto at Kakaako, Oahu on April 17, 1984. Identification was made by D. R. Miller, Systematic Entomology Laboratory, USDA. According to Miller this species is similar to another species collected in Hawaii by Jack Beardsley on Demanthus.

Recently, heavy infestations of another *Heteropsylla* sp. have been observed in various localities on Oahu on koa-haole (*Leucaena leucocephala*), causing stunting and die-back of the terminals. Further studies will be conducted to clarify its taxonomic status. L.M. Nakahara.

Anthrax sp. (Dipter: Bombyliidae): Seven specimens (6 Q 1 8) of an unidentified Anthrax species belonging to the Anthrax distigma group of species were sent to me by Dr. Evert I. Schlinger for identification. They were collected by him on the island of Moorea, Society Islands in March of 1984. The Bishop Museum collection had an additional conspecific male specimen collected by Noel Krauss on Tahiti in 1978. These 8 specimens mark the first record of this genus in French Polynesia. No Bombyliidae are known in the Pacific east of Vanuatu except for two species of Geron from the Society Islands, hence this record is of great interest from a zoogeographical standpoint. The possiblity of the Anthrax being endemic is slight, but it does exist based primarily on the fact that the Society Islands are poorly collected and the Anthrax specimens might easily have been overlooked by previous collectors. The more plausible possibility of the Anthrax being introduced has its disadvantages. Comparisons with other Anthrax species from the Pacific and areas in the Oriental Region have not turned up any conspecific specimens. The closest apparent species so far is Anthrax semiscitus Walker, a fairly widespread species in the Malesian Archipelago that extends as far east as the Solomon Islands. There are subtle differences though in Tahiti and Solomon Island specimens compared. These specimens from the Society Islands are left here as Anthrax sp. until a more thorough revision of the Anthrax of the Pacific Basin is undertaken, which would hopefully show the range of variation in the many species of Anthrax that occur in this vast region. N.L. Evenhuis.

#### **JUNE**

The 942nd meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 1:33 p.m., June 4, 1984 in room 201 of the Univ. Hawaii at Hilo College of Agriculture. Fourteen members and 3 guests were in attendance. Dr. George Markins, Forest Entomologist presently employed at the Hawaii Volcanoes National Park, was introduced by Cliff Davis, and was then nominated and elected to

membership in the HES. Pres. Brennan then passed out and discussed a summary of HES Officers and Committees for 1984, emphasizing each committee's functions.

New Business: A committee for establishing a chapter of the HES on the island of Hawaii was appointed by Pres. Brennan. Members thus far are Drs. Jack Fujii and Marlene Hapai of U.H. Hilo.

Announcements: A letter was read from the National Society of Zoological Nomenclature which is establishing itself as a vehicle to promote interest in nonmenclature.

Dr. Bruce Tabashnik needs information leading to high density populations of *Vanessa tameamea*. A monastery, at Wood Valley on the island of Hawaii was suggested as a good source of *V. tameame* larvae.

Dr. Steven Montgomery spoke on behalf of Dr. Alan Ohta, President of the Society for Pacific Evolutionary Biology who is seeking new members.

Program: Dr. John Armstrong, Research Entomologist for the USDA, spoke on "Innovative Quarantine Systems for Hawaiian Grown Fruit."

#### NOTES AND EXHIBITIONS

Scotorythra trapezias Meyrick (Lepidoptera: Geometridae): An outbreak of this endemic looper on *Dodonaea* sp. (a'ali'i) in Hawaii Volcanoes National Park was reported at the November 1982 meeting of the Society. (Proc. Hawaii. Entomol. Soc. 25:13-14).

In follow-up surveys conducted in 1983 and 1984 only sporadic looper activity in its altitudinal range of 1402-2042m elevation was observed.

It was noted, however, that several trees at the 1524-1951m elevation that sustained 100 percent defoliation in the 1982 outbreak, succumbed. Since drouth conditions prevailed in the Mauna Loa strip road area during 1983, the tree mortality may have been due to a combination of the severe defoliation followed by drought conditions. C.J. Davis.

#### New Insect Record for Kauai:

Dr. Beardsley reported that he had recently examined specimens collected by M. Conant in a light trap operated at Haena, Kauai near sea level, on the nights of October 22 and 23, 1981. This material contained specimens of the following immigrant insect species not previously reported from Kauai:

Elasmolomus v-album (Stal) (Heteroptera: Lygaeidae)

Rhytidoporus indentatus (Uhler) (Heteroptera: Cydnidae) Sardia pluto (Kirkaldy) (Homoptera: Delphacidae)

Selenophorus stiatopunctatus (Putzeys) (Coleoptera: Carabidae)

Prospalta dolorosa (Walker) (Lepidoptera: Noctuidae)

J.W. Beardsley.

## Scelephron madraspatanum (Fabricius):

The sphecid wasp Scelephron madraspatanum was reported for the first time in Hawaii on November 1978, on the basis of a single female collected near Waipahu, Oahu, by J.W. Beardsley (Proc. Hawaii. Entomol. Soc. 23:335). No additional specimens have been reported. A second female specimen of this species recently was found in the collection of a student in general entomology of the Univ. of Hi. in Manoa. The specimen was collected by M. Takemoto, on the U.H. Manoa Campus, Feb. 16, 1984. J.W. Beardsley.

Caulophilus oryzae (Gyllenhal): Coleoptera: Curculionidae:

This broad-nosed grain weevil was collected on May 17, 1984 by Dr. Richard A. Hamilton, feeding in avocado seeds. The avocado seeds were from Kealakekua,

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Hawaii. The variety was a Mexican cultivar being evaluated for fruit quality. This weevil was first reported from light trap collections in August, 1959 from Waipio, Oahu by Dr. John W. Beardsley. This is the first host plant record for the state and the island of Hawaii. The insect is known for infesting avocado seeds and stored food products. It is known from California, Mexico, Central America, Puerto Rico, Venezuela, Maderia and the southeastern U.S. Identification was made by Dr. J.W. Beardsley.

C. oryzae was previously reported in Hawaiian literature as C. latinasus Say, which is a synonym (Proc. Hawaii. Entomol. Soc. XVII:176 & 309). W.C. Mitchell.

#### JULY

The 943rd meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 2:11 p.m. July 9, 1984 in room 100 of the Marine Science Building Univ. of Hawaii Manoa. Twenty-one members and 4 guests were in attendance.

#### Reports of Officers and Committees:

Treasurer: W. Snell reported a balance of \$8,277.00 in the treasury. Index to Vol. 24 was handed out to members present.

Constitution & By-Laws: Brennan for Tsuda reported that a working copy of the constitution and by-laws has been made including all amendments.

Old Business: Marlene Hapai has been selected as the chairman of the ad hoc committee formed to discuss the possibility of having a Big Island chapter of the H.E.S.

Brennan repeated the announcement of the American Society of Zoological Nomenclature's appeal for support from H.E.S. and read a letter explaining the purpose of the (ASZN) Society.

New Business: Brennan presented the Scoping Process Summary for the Tri-Fly Eradication EIS and solicited comments from interested parties.

Announcements: Brennan announced that Dr. W.C. Mitchell has been elected President of the Pacific Branch of the E.S.A.

**Program:** Dr. Po-Yung Lai gave a slide accompanied talk on the coconut beetle, *Brontispa longissima*, in Taiwan and American Samoa.

#### NOTES AND EXHIBITIONS

# New Island Collection Records of Thysanoptera:

W.H. Ewart of UC Riverside informed me that among a long series of sweepnet thrips samples collected by D.M. LaSalle at the following localities of the 3 different Hawaiian Islands during Oct. 1983, Kawela and Kawainui Swamp of Oahu, Wailua Falls and Opaekaa Falls of Kauai, and Kaupulehu (near Keahole Airport) and Kolekole Beach Park (near Honohina) of Hawaii, Ewart recognized 27 different species including 2 representing 2 genera previously unknown in Hawaii (Exothrips and Holothrips). Further works on these 2 species are pending for fuller identity. The new collection records of species in the respective islands are:

Franklinothrips vespiformis (Crawford): Hawaii (Kaupulehu and Honohina). Aeolothripidae.

Elixothrips brevisetis (Bagnall): Hawaii (Honohina). Panchaetothripidae. Bolacidothrips oryzae Moulton: New for the Hawaiian Islands (Wailua Falls, Kauai). Thripidae.

Bregmatothrips sonorensis Stannard: Hawaii (Kaupulehu). Thripidae.

?Exothrips sp.: Kauai (Wailua Falls), Oahu (Kawela), and Hawaii (Honohina). Thripidae.

Frankliniella invasor Sakimura: Kauai (Wailua Falls and Opaekaa Falls) and Hawaii (Honohina), Thripidae.

Rhamphothrips pandens Sakimura: Hawaii (Honohina). Thripidae.

?Holothrips sp.: Kauai (Opaekaa Falls), and Hawaii (Honohina). Phlaeothripidae.

Nesothrips brevicollis (Bagnall): Kauai (Opaekaa Falls). Phlaeothripidae.

K. Sakimura.

#### **AUGUST**

The 944th meeting of the Hawaiian Entomological Society was called to order at 2:05 p.m. August 13, 1984 in room 114 of the Marine Science Bldg. Univ. of Hi. Manoa Campus by Barry Brennan, President. Nineteen members and 5 guests were in attendance.

#### Reports of Officers and Committees:

Treasurer: W. Snell reported a balance of \$10,563.00 in the treasury. Marianne Early, a graduate in the Dept. of Entomology at UH was nominated and elected to membership in the Society.

Snell also announced the plan to produce and distribute a brochure describing the Society with its purpose and benefits in hopes of recruiting new members. A sum of \$100.00 was requested from the Society to produce a mail this brochure. The request was approved unanimously by the members present.

Constitution and By-Laws: Dr. Nishida announced that the ad hoc committee had finished its work and was awaiting final typing. Several changes have been made affecting all sections except for Article 1.

Announcements: Dr. Joyce exhibited the new edition (1983) of the CBE style manual by the Council of Biological Editors. It contains several changes so authors should become familiar with it. Also other books on scientific writing for graduate students were exhibited.

Dr. Lai announced that Pat Conant has been selected to take the Entomologist's position on Maui. Larry Nakahara is to become the Chief of the Chemical Control Section of the State DOA.

Brennan announced that Chris Simon has been appointed Ass't. Prof. in the Dept. of General Science at the UH. A vacancy was announced for Entomolgist GS-11 at Wheeler AFB. He also announced the appearance of a Federal list of endangered plants and animals.

Program: Dr. Lyle Wong, Chief of the Pesticides Branch of the State DOA gave a talk on "Some thoughts on managing pesticides in Hawaii."

#### NOTES AND EXHIBITIONS

Gampsocera n. sp. (Diptera: Chloropidae): This Gampsocera fly taken on a rotting banana stem is a new record for the state of Hawaii: 13 Makiki Stream, Oahu, 320' 15.IV.1984, W.D. Perreira.

The genus is widespread over the Oriental region and contains about two dozen known species. The specimen from Hawaii was determined by Dr. C.W. Sabrosky who said it is "clearly an undescribed species and probably from somewhere in the Orient. D.E. Hardy.

Scirtothrips inermis Priesner: In a previous note (Proc. H.E.S. 25:30) a report was made on three thrips species that were caught in a series of sticky traps at Kula Maui in Nov. and Dec. 1981. Another species of Thripidae has now been identified in this trap material by entomologists of the British Museum of Natural History as

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Scirtothrips inermis Priesner. This constitutes the first collection of this genus in the Hawaiian Islands. S. inermis was long considered as a European species reported from the Canary Islands, Spain, and the Balearic Islands. The recent references (after 1981) reported its presence in South Australia (since 1967) New Zealand (since 1951), and Southern California (since 1972). Heavy or wide infestations were found on sorrel (Rumex), castor bean, citrus, begonia, peach, and sweet gum (Liquidamber, a street shade tree) in various areas. The last plant mentioned had been attacked in Southern California. This species has been considered as potential pest in some countries. The probable origin of this recent invasion into Hawaii must be from either New Zealand or Southern California. Scirtothrips sp. known from Fiji is closely related, but not conspecific with S. inermis. K. Sakimura.

Heteropsylla in Hawaii (Homoptera: Psyllidae): In early May, D.R. Miller of the Systematic Entomology Laboratory, USDA identified psyllid specimens collected from monkeypod as *Heteropsylla* sp. near *fusca* Crawford. This was reported during the May 14, 1984 Haw. Ent. Soc. meeting. He indicated that this species was similar to that identified earlier as *Heteropsylla* sp. prob. *mimosae* from slender mimosa (P.H.E.S. 23:164 & 168). It appears that the *Heteropsylla* genus needs revision and that specimens are not identifiable to species level. Entomologists of the Syst. Entomol. Lab, USDA, offered to review the complex in Hawaii. Additional specimens of the adult and juvenile stages of *Heteropsylla* sp. from koa haole, monkeypod, and slender mimosa were fowarded to that laboratory for further identification. Identifications were made in July 1984 by D.R. Miller and L.M. Russell (pers. comm.) both with the S.E.L., USDA and are listed as follows in what appears to be three species:

- 1. Heteropsylla sp. possibly *incisa* (Sulc): This species was collected from koa haole and had been previously referred to as *Heteropsylla* sp. near *fusca* (Crawford) in recent Hawaiian literature. Miller and Russell stated that this species probably occurs throughout much of South America and identical specimens were recently collected from Miami on *Leucaena*.
- 2. Heteropsylla sp. no. 2: This species was collected from monkeypod and had also been previously referred to as nr. fusca in recent Hawaiian literature. Miller and Russell stated that it is not the same as Heteropsylla sp. poss. incisa.
- 3. Heteropsylla sp. no. 3: This species was collected from slender mimosa and had been previously referred to as Heteropsylla sp. prob. mimosae in Hawaiian literature. Miller states that this species is not H. mimosae (P.H.E.S. 22:405, 541). Based on the above findings, Heteropsylla sp. poss. incisa (Sulc) and Heteropsylla sp. no. 2 may be considered new state records. Heteropsylla sp. no. 3 has been established in Hawaii since 1975. Miller again stated and Russell concurred that the Heteropsylla group still needs revision and that the members in this group are not identifiable to the species level. They further stated that it is possible that H. incisa may even be a synonym of one of the Caribbean Islands species. L.M. Nakahara.

#### SEPTEMBER

The 945th meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 2:05 p.m. in the Marine Sciences bldg. at the U. of H., on September 10th. Twenty two members and 2 guests attended.

#### Report of Officers and Committees:

Finance Committee: Bids were sent out for publication of Vol. 25 of the proceedings Sierra Pacific Press provided the lowest bid. A motion to accept the bid was

passed, although it was pointed out that a vote of the membership was not necessary. Dr. Joyce announced that Vol. 25 will be sent to the printer this week.

Annual Dinner Committee: T. Lauret and B. Sugerman announced the options available and the membership voted to accept the Hale Koa Hotel as the site of the dinner meeting on Monday, December 17th.

Liaison Committee: Steve Montgomery reported that they have reviewed the guidelines for involvement in government actions and legislation. The committee is awaiting the O.E.C. revision for reviewing pesticides. It was pointed out that the Committee has restrictions in order to meet the Internal Revenue code guidelines for non-profit organizations. We are not allowed to endorse any political candidates.

Constitution Committee: T. Nishida and Pres. Brennan discussed the changes in the constitution and the final form was approved unanimously.

Announcements: Ka Ele, the Bishop Museum newsletter has an article about Noel Krauss.

Science '84 (Sept. issue) mentions Bill Mull, and Ken Kaneshiro, in an article about Hawaiian *Drosophila*.

Program: Lorraine Ewing, who runs an amber gem and fossil business called Ambar del Sol (Lanai City), gave a talk with exhibits entitled "Amber, Nature's Treasure Chest of Fossil Insects."

#### NOTES AND EXHIBITIONS

Some new immigrant weevils (Coleoptera: Curculionidae): Several months ago I submitted specimens of three immigrant weevil species, which appear to have become established here within the past few years, to Dr. E.C. Zimmerman, who is now situated at CSIRO in Canberra, Australia. Dr. Zimmerman recently sent me his determinations for these specimens as follows:

- 1. Derelomus sp., possibly a new species. This is a small yellowish weevil of which I have seen only five specimens. The earliest collection was at Kahuku, Oahu IV.3. 1976, N. Iha collector. Three others were taken by me from light trap collections from Hickam Air Force Base, during 1978 and 1979, and one specimen is from the University of Hawaii, Manoa Campus collected IV.16.1979 by D.H. Gushi. Dr. Zimmerman states that there are many species of Derelomus in the Western Pacific area, and that they breed in the flowers of palms. This is a new state record.
- 2. Myocalandra exarata Boheman: A long series of specimens of this weevil was collected on surgarcane at Kunia, Oahu on III.18.1982 by Asher Ota. Dr. Zimmerman states that this is a widely distributed species which occurs from Madagascar across southeast Asia to the Pacific. He reported it from Saipan in 1948 where it was then causing damage to bamboo (Proc. Hawaii. Entomol. Soc. 13:315, Fig. 2). Box (1953) list this species as occurring on sugarcane in Natal. It is not clear whether this species is able to attack sound cane or is merely a secondary invader in dead or dying stalks. This is a new state record.
- 3. Nothoperissops sp. determined by D.R. Whitehead (Proc. Hawaii. Entomol. record an Acalles sp., determined by D.R. Whitehead (Proc. Hawaii. Entomol. Soc. 24:9, 1982). Dr. Zimmerman kindly examined specimens of this strikingly marked weevil and has determined it to be "Nothoperissops frenatus Marshall or a closely allied form." He states that he will check further on the identification of this weevil as he presently has no authentic material for comparison. He further states that N. frenatus is known only from Rennell Island in the Solomons, and that the larvae probably are subcortical feeders which attack sick trees or newly cut wood. I have seen about a dozen specimens of this weevil, all from Honolulu area

of Oahu. Several specimens have been collected in association with dead trees or on logs. J.W. Beardsley

#### **OCTOBER**

The 946th meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 2:10 p.m. on October 15, 1984 in the Marine Science building, U.H. Twelve members and 2 guests were attendance.

Program: The program was presented before the business meeting as specified in the new constitution and by-laws. Anita Manning presented an entertaining and informative lecture on R.C.L. Perkins, the Sandwich Island Committee, and the Bishop Museum. A discussion followed with comments from HES members who had talked with Perkins' son or attempted to talk with Perkins himself in England. Anita asks anyone who may be visiting the British Museum or England to see her about the possibility of contacting Perkins' son for more information on Perkins' private papers. Anita's lecture was abstracted from a paper to be published by the Bishop Museum Press.

# Reports of Officers and Committees:

Treasurer: W. Snell reported total assets of \$11,639.01. For the Membership committee he nominated Julia A. Lynch, a graduate student in entomology who was then voted into membership.

New Business: Pres. Brennan for the Nominations Committee announced the slate of officers for 1985 as follows: President Elect - Neal Evenhuis, Wayne Gagné, and Po-Yung Lai; Secretary - Gail Mason; Treasurer - Wilmer Snell; Advisor - Ron Mau, Frank Howarth.

Old Business: Pres. Brennan announced that volunteers are needed to help organize the annual dinner meeting to be held on Dec. 17th.

#### NOTES AND EXHIBITIONS

Omnivorous planarian found on strawberries: On June 12, 1984 dozens of *Geoplana* sp. possibly *septemlineata* were found in strawberries damaged by *Agriolimax reticulatus* (Müller) and an undetermined millipede at a residence on Iiwi Road, Volcano, Hawaii 1186m elevation.

Specimens of the planarian and millipede were sent to the State Dept. of Agriculture, Honolulu and *Geoplana* was confirmed by R. Titgen, Bishop Museum but the millipede determination is still pending.

O.H. Swezey (1907) in Bul. (5):54, HSPA records a planarian feeding on leaf-rollers on the mountains of Oahu but does not give a specific identity.

In my opinion based on frequent observations on Oahu between 1957 and 1970 in which *Geoplana* was observed feeding on *Achatina fulica* Bowdich, *Euglandina rosea* (Ferussac), *Gonaxis quadrilateralis* (Preston) and *G. kibweziensis* (Smith), Swezey's planarian was most likely *G. septemlineata*.

Volcano, Hawaii Island, appears to be a new altitudinal record for *Geoplana*. C.J. Davis.

#### NOVEMBER

The 947th meeting of the Hawaiian Entomological Society was called to order by Pres. Brennan at 2:05 p.m. on Tuesday Nov. 13, 1984 in the Marine Sciences bldg. Eighteen members were in attendance.

**Program:** The scheduled program by Dr. Max Whitten on the genetics of the sheep blow-fly and its control in Australia did not materialize, due to the fact that he was delayed in Australia and could not make plane connections.

# Reports of Officers and Committees:

Executive Committee: Brennan proposed extending invitations to the annual dinner meeting to all members in the Society, as well as to visiting scientists and guests.

Viewpoints from society members were solicited regarding the selection of awardees for the HES special award, to be given at the annual dinner meeting.

Ad hoc Publications Committee: Ron Mau reported on five committee recommendations concerning publication. The recommendation was made to increase page charges to \$24.00/page for members and \$35.00/page beyond 10 pages and for nonmembers. The committee recommended that a newsletter was not necessary at present; That an Honorarium of \$1,000 be provided to the Editor of the Proceedings after page charges are increased; That separate expense ledgers be kept for day to day business and publication costs; and that an ad hoc Publication Committee be named when it is desired by the Executive Committee.

Dinner Committee: Tom Lauret stated that the cost for the annual dinner to be held on Dec. 17th at the Hale Koa will be about \$15 and notices will be sent with the next mailing. A motion was made and passed to allocate \$50 for decorations if none are obtained gratis.

Old Business: A motion was made and carried to accept the report of the nominating committee listing the slate of officers for the next year as presented in the Oct. meeting.

Announcements: John H. Perkins, a Sigma Xi National Lecturer, will give a seminar on Nov. 19th, 3:30 p.m. at Kuykendal Auditorium entitled "Politics and Philosophy in Pest Control Science."

The Cooperative Extension Service will hold a one day program open to the public on Dec. 5th, 8:00 a.m. at the State Capital. The objective of the program is to provide the legislators with information about chemicals and their use in Hawaii.

#### NOTES AND EXHIBITIONS

Canaceoides angulatus Wirth (Diptera: Canacidae): One male specimen of *C. angulatus* Wirth was collected at or near Hakioawa Point on Kahoolawe Island by Dr. Wallace A. Steffan, Bishop Museum, in November, 1979. Hardy (1980, Insects of Hawaii, Diptera, Vol. 13, p. 384) records this immigrant species from 8 islands in the Hawaiian Island chain. This marks the first record of this species and family from Kahoolawe Island. N.L. Evenhuis.

Clasiopella uncinata Hendel (Diptera: Ephydridae): Four specimens of this species were collected at Beck's Cove in Feb. 1980 at U.V. light by W.A. Steffan, Bishop Museum. Hardy (1980, Insects of Hawaii, Diptera, Vol. 13, p. 285) records this widespread immigrant species from Hawaii, Molokai and Oahu Islands. It has also been recorded from Formosa, Australasian Region and Florida. This marks the first record of this species from Kahoolawe Island. N.L. Evenhuis.

A new bagworm, Lepidoptera: Psychidae: Dr. Beardsley reported on a new bagworm family for the state of Hawaii. The first record is as follows: Collector - Stuart Hayashi at Kaneohe, Oahu, Hi., Nov. 7, 1984, in the Haiku area. Adults were found on a house, hanging from the eaves. Immatures were on the grass nearby. Specimens were kept on display in the Entomology Office in the Univ. of Hawaii. The State of Hawaii will follow up on surveys to determine extent of infestation and a definitive determination will be pursued. J.W. Beardsley.

#### **DECEMBER**

The Annual Dinner Meeting of the Hawaiian Entomological Society was held at the Hale Koa Hotel, DeRussy at 6:30 p.m. on Dec. 17, 1984 with 25 members and 13 guests in attendance. Dr. Barry Brennan, Assoc. Spec. Pesticides, Dept. of Agricultural Biochemistry, University of Hawaii, Manoa, presented as his presidential address "Entomologists and Public Policy." The new slate of officers for the year 1985 were then introduced as follows:

President	Stephan H. Saul
President-elect	Po-Yung Lai
Secretary	Gail Mason
Treasurer	Wilmer Snell
Advisor (Past President)	Barry Brennan
Advisor	Ronald F.I. Man

#### **NEW IMMIGRANT RECORDS FOR THE YEAR 1984**

The following species were reported for the first time in the Hawaiian Islands during 1984, or earlier, on the dates reported in the text. Species marked with an asterisk may be considered as doubtfully established as these records are based on a single collection, or a single specimen.

#### Chance Immigrants

<b>* ***</b> * * * * * * * * * * * * * * * *	Page
Scobicia declivis (Le Conte) (Coleoptera: Bostricidae)	3
Toxonotus cornutus (Say) (Coleoptera: Anthribidae)	3
Drosophila cardini Sturtevant (Diptera: Drosophilidae)	3
Taylorilygus pallidulus (Blanchard) (Hemiptera: Heteroptera:	_
Miridae)	6
Physiphora demandata Fabricius (Diptera: Otitidae)	6
*Stenomicra fascipennis Malloch (Diptera: Aulacigastridae)	9
Thrips palmi Karny (Thysanoptera: Thripidae)	9
Bolacidothrips oryzae Moulton (Thysanoptera: Thripidae)	13
*Gampsocera n. sp. (Diptera: Chloropidae)	14
Scirtothrips inermis Priesner (Thysanoptera: Thripidae)	14
Heteropsylla sp. pos. incisa (Sulc) (Homoptera: Psyllidae)	15
Heteropsylla sp. No. 2 (Homoptera: Psyllidae)	15
Deretomus sp. (Coleoptera: Curculionidae)	16
Myocalandra exarata Boheman (Coleoptera; Curculionidae)	16
Psychidae (Lepidoptera) bagworm	18
Pseudococcus elisae Borchsenius (Homoptera: Pseudococcidae)	31

# NAME CHANGES & CORRECTIONS NOTED IN 1984

Previous name Scaptomyza pallida (Zetterstedt)	Changed to S. elmoi Takada	Reason* CD	Page 6
Caulophilus latinasus (Say)	C. oryzae Gyllenhall Nothoperissops sp. prob. frenatus Marshall	CD	13
Acalles sp.		CD	16

20	Proceedings, Hawaiia	n Entomological 30	cciety
Cothonaspis n. sp.	Ganaspidium hunteri Crawford	CD	37
Apanteles plutellae (Kurdjumov)	Cotesia plutellae (K.)	NC	91
Pseudococcus obscurus Essig	P. affinis (Maskell)	S	31
	ECTS NOTED AND FOU BLISHED DURING 1984	ND WELL	
Coccidencyrtus ochraceipes G	ahan (Hymenoptera: Encyrt	dae)	Page 6
Encarsia sp. (Hymenoptera: A	phelinidae)		89
OFFICERS A	AND COMMITTEES FOI	R 1984	
	Elected Officers		
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Science Fair	Franklin Ch	ang, Kenneth Kar	neshiro
	•	Funasaki, Stephe	en Saul
	W. Beardsley, Jr., Frank H	owarth, Lawrence	Pinter
Annual Dinner Arrangements	Bernard St	igerman, Thomas	Lauret
Publications			
Constitution and By-Laws			

<sup>\*</sup>CD - corrected determination, NC - new combination, S - synonym.

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<sup>\*</sup>Deceased, July 24, 1985

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#### HAWAIIAN ENTOMOLOGICAL SOCIETY

# Treasurer's Report for Fiscal 1984

(January 1 through December 31, 1984)

Assets, January 1, 1984		
Savings Certificate		\$2,383.82
Passbook Savings		2,151.36
Checking Account		156.21
Petty Cash		3.23
Tony Cash	Total	4,694.62
4004 P	Iotai	4,054.02
1984 Receipts:		1,908.76
Sale of Proceedings		3.00
Sale of other Publications		3,317.46
Page Charges and Reprints		1,559.00
Membership Dues		110.00
Donations		1,500.00
Library Exchange Funding		532.00
Annual Dinner Meeting		225.00
Sales Tax Reimbursement		331.85
Savings Certificate Interest		121.97
Passbook Savings Interest		
	Total Receipts	9,609.04
1984 Expenditures:		
Postage and Supplies (Proceed	edings)	73.29
Postage and Supplies (General	al)	103.30
Xerox		82.11
Index for Proceedings Vol. 2	4	982.38
Annual Filing Fee		1.00
1983 Dinner Meeting (Leis)		30.00
1984 Dinner Meeting		652.00
_	Total Expenditures	1,924.08
Assets, January 1, 1985	•	
Savings Certificate		2,715.67
Passbook Savings		2,273.33
Checking Account		7,841.17
Petty Cash		3.23
Tony Cush	Total Assets	12,833.40
		12,000.10
Submitted by:	Audited and Approved by:	

Wilmer E. Snell

Treasurer, 1984

Po-Yung Lai

Business Manager, 1984

# Guidelines for Short Scientific or Operational Notes

There has been a tendency for members to submit rather lengthy papers for the Notes and Exhibitions section of recent issues of the Proceedings. With increasing publication costs it is essential to keep free pages to a minimum. It is thus recommended that the meeting notes and exhibitions be restricted to one typed page according to the guidelines. More lengthy papers may be submitted as a scientific or operational note with usual page charges. Some guidelines are suggested as follows:

- Significant unpublished observations based on original research but briefer than regular research paper.
- 2. Submit original and 2 copies, on one side of paper, double spaced, same as regular paper.
- 3. Include a short abstract (3 to 6 lines).
- 4. Two to 5 typewritten pages (= 1 to 3 printed pages).
- 5. No headings in body of article, but text should be organized logically with introduction, materials and methods, results, and discussion.
- 6. References in abbreviated form in body of article in parenthesis (author, date, Journal, & pages).
- 7. No tables, graphs, or figures included, unless they will contribute more efficiently to purpose of the note. (Editors descretion)
- 8. Authors name, affiliation and address at end of article.

The Editor

#### IN MEMORIAM

#### Edwin H. Bryan, Jr. (1898-1985)

Edwin H. Bryan, Jr. worked in so many different fields and had such a multifaceted career that his considerable entomological contributions have been somewhat overshadowed by other interests. He was born in Philadelphia but grew up in the western U.S., particularly in California. Shortly after graduating from high school in Redlands, he moved to Honolulu and enrolled in the College of Hawaii (1916), where he received his B.S. degree in general science in 1920. He earned the Bachelor of Philosophy at Yale in 1921 and the M.S. in entomology from the University of Hawaii in 1924. He taught entomology at the University of Hawaii during the period 1925-29.

Mr. Bryan began his career at the Bishop Museum in 1919, with the assignment of caring for the insect collection. Over the succeeding years, he held almost every conceivable position in the museum, including that of acting director at various times amounting to a number of years in the aggregate. From 1927 to 1941 (when he took leave of absence to go on active duty in the U.S. Army — he served in both world wars) and from 1950 to 1968, he was the Curator of Collections. In 1968, he was named the first Brigham Fellow, a title that he held for the remainder of this life.

Mr. Bryan cared for the museum's entomological collections for several decades. He received instruction in the preparation and care of specimens from Otto H. Swezey of the Hawaiian Sugar Planter's Association, who had been Honorary Curator of insects at the Museum since 1906. Mr. Bryan was thus an important link between the early development of entomology in Hawaii and its later flourishing.

Mr. Bryan's publications were extraordinarily numerous and diverse, and they include a number of signficant entomological works: "Insects of Hawaii, Johnston and Wake Islands" (1926), "A review of Hawaiian Ditpera with descriptions of new species" (1934, based on his M.S. thesis), "Key to Hawaiian Drosophilidae and descriptions of new species" (1938), "Insects We See in Hawaii" (1940, a book directed at young people), and others.

After World War II, Mr. Bryan realized a personal goal of many years when he founded and managed the Pacific Scientific Information Center (PSIC) as an affiliated organization of the Bishop Museum. For many years, this endeavor was concurrent with his curatorial post at the Museum. The PSIC continued as a primary cartographic repository and data resource for many geographic and other subjects concerning Hawai'i and the Pacific; in 1984 Bishop Museum incorporated PSIC as the Geography and Map Division under administration of the Library. Among Mr. Bryan's publications during this period as Manager of PSIC are a "Bibliography of Micronesian Entomology" (1948, revised 1949, incorporated in *Insects of Micronesia*, vol. 2, 1955) and the directory "Pacific Entomologists" (1966).

One of Mr. Bryan's outstanding talents was the compilation and organization of information. His interests encompassed such disciplines as astronomy, botany, ornithology, and ethnology, as well as entomology and geography, and he has given us a legacy of Pacific Region information that will continued to be utilized over future decades. Until shortly before this death he continued to be importuned for information by people from all over the world interested in the Pacific.



Observing a plant in Hawaiian courtyard of the Bernice P. Bishop Museum

Mr. Bryan became a member of the Hawaiian Entomological Society in 1919, was President in 1928, and was voted an Honorary Member in 1968. In December 1983, he was the first recipient of the Society's Distinguished Service Award. Mr. Bryan was a retiring man and was often embarassed by fuss and fanfare, but the final honor given to him in entomology was one that he appeared truly to appreciate and to enjoy — an indication of his continued identification with his initial field of scholarly research. — Frank J. Radovsky.

#### **Editor's Note:**

The Hawaiian Entomological Society at the September 1985 meeting voted unanimously to dedicate this issue of the Proceedings to the memory of Edwin H. Bryan, Jr. He holds the record for the most years of service of any member of the Society, continuous membership for 66 years (1919 to 1985). He contributed generously to the Proceedings over the years. Perusal of the issues to date reveals that he contributed 136 "Notes and Exhibitions" at monthly meetings (mostly between 1920 and 1938), 22 scientific papers, and 15 reviews of books. He prepared the Index for Volumes 5 through 9 and served as Editor of the Proceedings in 1938. He chaired a committee on publication policy which reported in 1937 some guidelines for our Proceedings. Our thanks go to Mr. Bryan for his dedication to, and pioneer work for, the Society. Any who wish, may make a contribution in his memory to the Bishop Museum, Edwin H. Bryan, Jr. Memorial Fund. — C. Ray Joyce