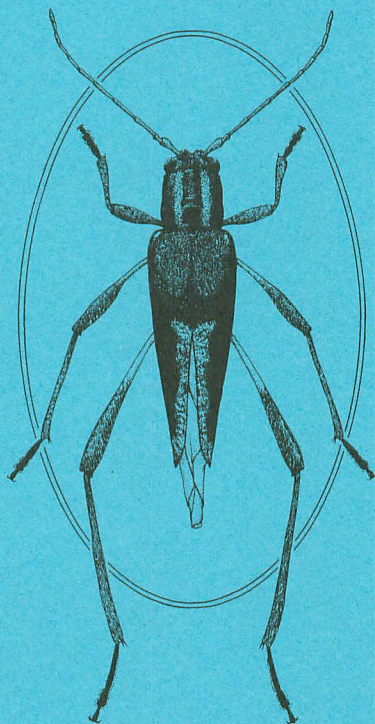


PROCEEDINGS
of the
HAWAIIAN
ENTOMOLOGICAL
SOCIETY



PROCEEDINGS of the Hawaiian Entomological Society

VOLUME 25

FOR THE YEARS 1982 & 1983

March 1, 1985

The following minutes and notes and exhibitions were recorded by the Secretary on the months indicated during the calendar year, 1982. (Editor).

JANUARY

The 913th meeting of the Hawaiian Entomological Society was called to order at 2:01 p.m., January 11, 1982 at the meeting room of the Manoa Library by President-elect JoAnn Tenorio in the absence of President M. Lee Goff.

Members Present: Hardy, Joyce, Kunishi, Look, G. Nishida, Ota, Saul, Swift, Tenorio, and Wong.

Reports of Officers and Committees:

Membership: Yvonne Ching was nominated for membership. The nomination was approved by the members present.

Program: The program was not presented because of the absence of the scheduled participants.

Notes and exhibitions: Dr. Joyce exhibited 3 recent publications as Vector Topics, which are available from the Center for Disease Control, Bureau of Tropical Diseases of the U.S. Public Health service. These are very helpful to personnel engaged in vector control activities.

FEBRUARY

The 914th meeting of the Hawaiian Entomological Society was called to order at 2:06 p.m., February 8, 1982, in the meeting room of the Manoa Library by President Goff.

Members Present: Bianchi, Gagné, Glanstein, Goff, Gressitt, Hardy, Howarth, Joyce, Lai, Look, Megens, Mitchell, Nakahara, Ota, Saul, Tanimoto, and Wong.

Visitors: Marianne Early.

Reports of Officers and Committees:

Treasurer: Tanimoto reported that the process of transferring the records was almost complete.

Executive: Goff reported that policies were being developed to clarify the different classes of membership and to deal with members arrears in dues.

Unfinished Business: The membership application of Yvonne Ching was reapproved because the original vote was made at a meeting that lacked a quorum to conduct business.

New Business: Nicanor Liquido was proposed for membership and was approved unanimously.

The Secretary read a letter from a Finnish Lepidopterist who has collected extensively in Northern Europe. He would like to exchange specimens with other interested Lepidopterists.

Dr. Hardy presented a paper for publication, *Schistopterus becker* (Schistopterae: Tephritidae: Diptera).

The Society approved \$30.00 as the prize for the best entomological exhibit at the Science Fair.

NOTES AND EXHIBITIONS

Dr. Joyce circulated a copy of the Index to Vol. 23 of the Proceedings just off the press and exhibited a copy of a new book available from the Entomological Society of America entitled "How to Write and Publish a Scientific Paper by Robert A. Day.

Larry Nakahara presented an entomological exhibit sent to the Society by Dr. F.W. Howard of the University of Florida.

Elixothrips brevisetis (Bagnall): The first collection of a single female was made from *Wedelia trilobata* at Kaneohe (Apuapu Street) on Dec. 24, 1981 by W.H. Ewart, a thysanopterist, University of California at Riverside, who determined the species and informed K. Sakimura of the collection data. This is a new panchaetothripine sp. added to the Hawaiian fauna. It has been previously reported from the Seychelles and Rodrigues in the Indian Ocean and Philippines, Taiwan, Guam, Saipan, Anatahan, Eniwetok and Gilbert in the Pacific Ocean. It is a polyphagous foliage feeder on several cultivated plants, such as *Canna* sp., *Ficus* sp., *Cestrum pallidum*, *Dioscorea* sp., *Ipomoea alba*, and *Morinda citrifolia*. No incidence is on record of its causing any significant injuries to these plants. K. Sakimura.

Leucopis obscura Holiday: Four adults of the Eurasian pine adelgid predator, *Leucopis (Neoleucopis) obscura* Holiday, were recovered from pine twigs infested with *Pineus pini* (Macquart). The pine twigs were collected by Aaron Endo from Pauoa, Oahu on January 18, 1982. This constitutes a new island record for this predator which was purposely introduced from France in 1976 and released jointly by the Hawaii Departments of Agriculture and Land and Natural Resources on Maui, Molokai and Kauai in 1976, 1977, and 1979, respectively. No release was made on Oahu, however. P.-Y. Lai.

Rat parasites from Kure: Examination of specimens of the Polynesian rat, *Rattus exulans*, taken during Nov. 1981 on Kure Atoll has revealed the following species of Acari:

Gamasida: Laelapidae: *Laelaps nuttalli* Hirst, 1915 and *Laelaps (Echinolaelaps) echidninus* Berlese, 1887.

Actinedida: Myobiidae: *Radfordia ensifera* (Poppe, 1896). This is the first record of *R. ensifera* from Kure Atoll. This species has previously been reported from *Rattus exulans* elsewhere in the Hawaiian Islands (Tenorio & Goff, 1980). M. Lee Goff & Jim Need.

Program: Wally Mitchell chaired a report on significant news from the San Diego National Meetings of the ESA. Goff and Lai also made their reports of the Meetings.

MARCH

The 915th meeting of the Hawaiian Entomological Society was called to order by President Lee Goff at 2:01 p.m., March 8, 1982, in the meeting room of the Manoa Library.

Members present: Bianchi, Brennan, Goff, Harris, Look, Mason, Mitchell, Ota, Saul, Tanimoto, Vargas, Wong.

Visitors: Davis, Kelly, & Powell (all of Waimea Arboretum), Nancy Crosby.

Reports of Officers and Committees:

Treasurer: Tanimoto reported that the transfer of books and other materials from the previous Treasurer was complete. He also presented the final report for 1981, copies of which will be sent out with the next meeting notice.

New Business: Brennan suggested that the Treasurer and Business Manager look into ways of increasing the interest yield on Society funds deposited in bank accounts. A motion to this effect was made, seconded, and approved, but in the absence of a quorum, was left to a future meeting.

Program: Dr. Don Crosby, environmental toxicologist at the University of California at Davis, presented a program on toxic plants in Hawaii. He presented a table giving the family, genus & species, and common names of the most threatening Hawaiian island plants.

NOTES AND EXHIBITIONS

A sample of a new journal, *Entomography*, was exhibited. It is an annual review for *Biosystematics* edited by Thomas D. Eichlin and Charles S. Papp of Sacramento, California. Systematists are invited to submit manuscripts to this Journal.

Parasites from the Nihoa millerbird: A specimen of the Nihoa millerbird, *Acrocephalus familiaris kingi*, was collected recently on Nihoa I. by Dr. Sheila Conant and examined for ectoparasites.

Four species of feather mites (Acari: Analgoidea) were recovered and have been identified by Dr. Warren T. Atyeo, University of Georgia as follows:

Avenzoariidae: *Pteroherpis* sp. nr. *oxyplax* (Gaud & Mouchet). This is the first record of this family and genus from the Hawaiian Islands.

Trouessartidae: *Trouessartia trouessarti* Oudemans. This is the first record of this species from the Hawaiian Islands.

Proctophyllodidae: *Pterodectes* sp.

Xolalgidae: females only, no species identification possible at this time.

This collection represents the first collection of feather mites from the Nihoa millerbird and thus constitutes new host records. It is of interest to note that the *Pteroherpis* and *Trouessartia* species have previously been recovered from the related Great Weed Warbler, *Acrocephalus arundinaceus*, from Malaysia and Pacific Islands. The *Pterodectes* species has not been recovered from *A. arundinaceus* and appears to represent an undescribed taxon. M. Lee Goff & S. Conant.

APRIL

The 916th meeting of the Hawaiian Entomological Society was called to order by President Goff at 2:02 p.m., April 12, 1982 at the meeting room of the Manoa Library.

Members Present: Bianchi, Brennan, Conant, Glanstein, Goff, Harris, Higa, Ikeda, Joyce, Komatsu, Kunishi, Look, Mau, Montgomery, Muruvanda, Nakahara, Radovsky, Reimer, Saul, Shroyer, Stein, Swift, Tanimoto, Vargas, Wong, Young.

Visitors: John Hylin (University of Hawaii, Agricultural Biochemistry), Haruo Tashiro (Cornell University).

Reports of Officers and Committees:

Executive: Goff announced that the meeting site would be changed to the Bishop Museum starting with the May meeting.

Treasurer: Tanimoto presented the final Treasurer's report for 1981 which was then approved. This repeat of the approval was required since the March meeting lacked a quorum.

Science Fair: Announcement was made of the winners of the entomological award as decided by judges V. Chang and W. Steffan.

Announcements: Radovsky reported that the meeting of the Association of Systematics Collections will be held May 23 to 26 in Honolulu.

Program: The program was presented by Dr. John Hylin of the University of Hawaii Department of Agricultural Biochemistry. He discussed some aspects of the current heptachlor problem in milk in Hawaii.

NOTES AND EXHIBITIONS

Mites feeding on scale insects: Specimens of 2 species of actinedid mites were collected in Foster Gardens feeding on the scale, *Conchaspis angracei* on *Hibiscus* sp., by W. Kobayashi during Dec. 1981 and Feb. 1982. One of these species, *Cheyletogenes ornatus* (Canestrini & Fanzago, 1876), has been previously reported from Hawaii and has been known to feed on immatures of scale insects in other parts of its range. The second species represents an undescribed species of the family Barbutidae, genus *Barbutia*. This is the first record of this family in the Hawaiian Islands. The 2 other species in the genus are reported from California (Monterey and Santa Cruz Counties). This is the first record of *C. ornatus* and *Barbutia* feeding on the scale, *C. angracei*. M. Lee Goff & Pat Conant.

MAY

The 917th meeting of the Hawaiian Entomological Society was called to order by President Goff at 2:03 p.m., May 10, 1982, in the Conference Room of the Bishop Museum.

Members Present: Bianchi, Brennan, P. Conant, W. Gagné, Goff, Heu, Higa, Howarth, Joyce, Kunishi, Lauret, Look, L. Nakahara, Ota, Pinter, Radovsky, Riotte, Samuelson, Shiroma, Swift, Tanimoto, Tenorio.

Visitors: Betsy Gagné, (Bishop Museum), Dacia Mayfield (Bishop Museum).

Reports of Officers and Committees:

Editorial: Joyce reported that the committee had decided to accept the bid of Pacific Printers for Vol. 24(1). The committee will work closely with the Printer to improve the publication. Recommended changes for future Volumes of the Proceedings include: (1) combine 1980 and 1981 numbers into one issue to catch up; (2) remove the confusing phrase following Journal title on cover that refers to the year of the meetings; (3) dedicate the next issue to Dr. J.L. Gressitt; (4) put logo on the cover; and (5) change over to a single volume per year system.

Science Fair: Letters of thanks were received from the Science Fair awards winners.

Announcement: Dr. Radovsky reported on the planned meetings and activities for the Association of Systematics Collections to be held at the Bishop Museum May 22-26. Brochures for the meetings were made available.

Program: Dr. Wayne Gagné, gave a memorial tribute for Dr. J. Linsley Gressitt and his wife Margaret (Peg). Larry Nakahara provided a short talk on a project to survey the effects of the winter rains on snails and slugs on Kauai, with special reference to the predator, *Geoplana*.

NOTES AND EXHIBITIONS

Kauaiina parva Riotte: The geometrid genus *Kauaiina* produced one more new species in East Maui. The type and paratype were collected on the 6th of October 1979 by S.L. Montgomery and N. Mitchell. The species was described by me in *Entomologische Zeitschrift* 90:173-175. The specimens are much smaller than the other members of the genus. Therefore their name, *Kauaiina parva*. They are greyish-brown with the usual wing pattern and have a wingspread of only 19 mm. Type and paratype are in the Bishop Museum. J.C.E. Riotte.

Geoplana septemlineata Hyman: While conducting a survey of giant African snail, *Achatina fulica* Bowdich, infesting sites on Kauai during March 16-17, 1982, large numbers of this land planarian were observed in about a one-acre area at Niumalu in primarily Java plum leaf letter. Surveys were conducted by Danny Melendez, Donald Sugawa, and Larry Nakahara. On April 6, 1982, 200 marked giant African snails were released in the Niumalu site as part of a study evaluating various giant African Snail control measures. After two days, 92% of 140 recovered snails were dead or dying due to predation by *G. septemlineata*. *A. fulica* mortality after two weeks was 100%. No predation by *G. septemlineata* was observed after 4 weeks at Anini where the planarian is also established but in lower numbers. Planarians from both sites were identified by Peter Galloway, Bishop Museum. L.M. Nakahara.

Gonaxis quadrilateralis (Preston): On April 7, 1982, a 23 mm long *G. quadrilateralis* was observed feeding on and killing a 74 mm long giant African snail by entering completely within the giant snail's aperture at Poipu, Kauai. On May 6, 1982, a 13 mm wide juvenile *Gonaxis* sp. was also observed at Poipu feeding on a 60 mm long giant African snail which had retracted its foot. Previous workers have stated that although *G. quadrilateralis* will sometimes attack larger snails, it shows a preference for eggs of *A. fulica* and will readily feed on juvenile specimens up to 35 mm in length. L.M. Nakahara.

Bird ectoparasites: Five specimens of the Nihoa Finch, *Psittirostra cantans ultima*, were collected as accidental new kills on Nihoa Island during 1981 by Dr. S. Conant. These specimens were examined for ectoparasites and 3 species of feather mites were recovered: *Analgas* n. sp. (Analgidae), *Ingrassiella* sp. (Xolalgidae) and *Proctophylodes* n. sp. (Proctophyllodidae). These are the first records of mites associated with this species of bird. Determinations were made by Dr. Warren T. Atyeo, University of Georgia.

A specimen of Akiapolau, *Hemignathus wilsoni*, was collected on the Keauhou Ranch on the island of Hawaii on 10 Nov. 1981. 2 specimens of the Northern fowl mite, *Ornithonyssus sylviarum* (Canestrini & Fanzago, 1877), were recovered from this specimen during the process of banding. This is the first record of any gamasid mite associated with this species. *O. sylviarum* has previously been reported from a number of birds in the Hawaiian Islands. M. Lee Goff.

JUNE

The 918th meeting of the Hawaiian Entomological Society was called to order by President Goff at 2:00 p.m., June 14, 1982, at the meeting room of the Bishop Museum.

Members Present: Beardsley, Bianchi, Gagné, Goff, Heu, Higa, Howarth, Joyce, Mason, G. Nishida, Pinter, Saul, Shroyer, Tanimoto, Tenorio.

Reports of Officers and Committees:

Treasurer: Tanimoto reported on the current financial state of the Society. 60 persons have so far paid their dues.

Membership: Tanimoto proposed Dave Preston and Thomas Watanabe of the State Department of Agriculture for membership and they were approved.

Old Business: A search revealed that 3 precedents for sending complimentary copies of the Proceedings to Journal Abstracting organizations existed. A motion was approved to send copies to Current Advances in Plant Sciences.

A motion was made and approved to have the Executive Committee decide on the best way of investing society funds (up to \$2,000) in high interest accounts.

Announcements: Gangé announced a "Heptachlor in the Environment" panel program on June 15, 1982.

Goff reported on a letter received from the Hellenic Entomological Society established in Greece. It currently has a membership of about 80 and plans to publish original research papers in a new Journal, "Entomologia Hellenica."

Program: Stephen Saul of the Entomology Department of the University of Hawaii spoke on "The Mediterranean Fruit Fly, Biological Control, and travel in Israel."

JULY

The 919th meeting of the Hawaiian Entomological society was called to order by President Goff at 2:09 p.m., July 12, 1982 at the meeting room of the Bishop Museum.

Members present: Bianchi, Conant, Evanhuis, Gagné, Goff, Heu, Higa, Joyce, Kunishi, Lai, Look, Montgomery, Nakahara, Saul, Swift.

Visitors: A. Kolen, and G. Pauley of the University of Washington.

Reports of Officers and Committees:

Liaison: Discussion was held concerning a proposal to have the Society send a copy of its statement regarding the environmental assessment report on the "Trifly" project to the local newspapers with a cover letter. A motion to this effect was made and approved.

Treasurer: A current financial report was read indicating a balance of \$9458.60. 75 members have paid their 1982 dues to date, about 40% of the membership. A motion to approve Betsy Gagné, Entomology Technician at the Bishop Museum for membership was made and approved.

Old Business: A motion to deposit up to \$2,000 of the Society's funds in a 30 month savings certificate account in Honolulu S and L was made and approved.

Announcements: Gagné announced that on July 20th the Honolulu Academy of Science meeting would consist of a debate "Creationism vs Evolution."

Program: The program was presented by Gustave Pauley of the University of Washington on "Weevils of Rapa; adaptive radiation on an isolated island of French Polynesia."

NOTES AND EXHIBITION

Steve Montgomer exhibited and discussed a number of insects he had collected from the Alakai swamp on Kauai.

AUGUST

The 920th meeting of the Hawaiian Entomological Society was called to order by President Goff in room 306, Gilmore Hall in the Entomology Department of the University of Hawaii.

Members present: Beardsley, Bess, Bianchi, Conant, Goff, Heu, Higa, Joyce, Kunishi, Mau, Mitchell, Montgomery, Nakahara, Rahman, Saul, Sherman, Takara, Tamashiro, Taniguchi, Tanimoto, Tsuda.

Visitors: Mr. and Mrs. W. Danthanarayana and Mr. and Mrs. Ian Thornton of LaTrobe University, Melbourne, and J. Stark and Rich Ebesu of the University of Hawaii.

Reports of Officers and Committees:

Treasurer: Tanimoto presented a current financial report. 17 additional members have paid dues to bring the total to 50% of the total former membership.

Old Business: Goff reported that the Society letter sent to the Honolulu Advertiser regarding the "Trifly" project had appeared in the July 29th edition.

Program: The program was given by Dr. W. Danthanarayana of the Dept. of Zoology of LaTrobe University, Melbourne, Australia, on "Population Ecology of the Light Brown Apple Moth, *Epiphyas postvittatus* Walker, and its Parasitoid Complex."

NOTES AND EXHIBITIONS

***Halticus bractatus* (Say):** Adults of this garden flea hopper were first collected from the foliage of artichokes on Nov. 2, 1981, in a backyard garden at Volcano, Hawaii, by Clifton J. Davis. Identification was made by Patrick Conant and George Y. Funasaki, Hawaii Department of Agriculture, and confirmed by T.J. Henry, U.S. National Museum. This is a new state record.

According to F.W. Mead (Florida Dept. of Agr. & Consum. Serv. Ent. Cir. No. 137, 1973), "The garden flea hopper is a widely distributed plant bug that sporadically attacks a variety of forage, vegetable, and ornamental crops. At numerous times over the past 100 years, it has caused heavy damage to crops in the United States and along the west coast of Mexico, but present day commercial growers, using modern insecticides, seldom have trouble with it. In Florida, it is now regarded only as an occasional pest of dooryard vegetable and flower gardens . . . Feeding on host plant leaves result in small pale spots that sometimes become so numerous as to coalesce into larger discolored areas, eventually resulting in leaf death."

H. bractatus adults are approximately 1 mm in length and superficially resemble black aphids or flea beetles. Long and short-winged forms exist for both sexes. Nymphs are greenish in color. This pest attacks many kinds of weeds in addition to numerous cultivated crops. Leguminous crops (i.e., alfalfa, clovers, peas, beans) are preferred. Also favored are cucurbits, solanaceous and cole crops, chrysanthemums, ferns, and other miscellaneous vegetables and ornamentals. It is distributed from Argentina to Ontario and Quebec in Canada. In the United States, it ranges from New England to Florida and west to Colorado and Utah.

In June 1982, surveys for this pest were conducted in Hilo, Hawaii by Shin Matayoshi. Symptoms of heavy chlorotic spotting were observed on foliage of peanut, soybean, and Chinese cabbage. Mustard cabbage, green bean, yard-long bean, daikon, and radish, as well as many ornamentals and weeds were also affected. It was previously found to be causing moderate damage on greenhouse tomato at the Hilo Community College. C.J. Davis, S. Matayoshi, & E.R. Yoshioka.

New Records (Pulmonata: Limacidae): During the investigation of a routine pest call regarding banana trees that were toppling over, specimens of the tawny garden slug, *Limax flavus* L. (det. C.C. Christensen), were collected May 10, 1982, by Nobuo Miyahira, Hi. Dept of Agriculture, from a backyard banana planting at a residence in Pukalani, Maui, at about 1600 feet elevation. On May 26, 1982, N. Miyahira and L.M. Nakahara conducted a survey of *L. flavus* at this locality and discovered the presence of a second species of slug, *Lehmanna poirieri* (Mabille) (det. by C.C. Christensen). This is a new state record for *L. poirieri* and a new island record for *L. flavus*. Tuthill (1949, Proc. Hawaii. Entomol. Soc. 13:331) reported this species from Oahu, but it apparently did not become established there.

L. flavus is an agricultural pest of economic significance in other parts of the world. It is of European origin and is now widely distributed in North America; it has also been reported from Australia, the Cook Islands, and the New Hebrides as well as other localities. *L. flavus* is generally nocturnal and feeds on decaying vegetable matter, fungi, lichens, and other material. It may be found in woods under logs and bark or in gardens, cellars, and outbuildings (Quick, 1960, Bul. Br. Mus. Nat. Hist., Zool. 6:184-187).

L. poirieri occurs in Spain and the Canary Islands and has become established in Britain and California. It closely resembles *Lehmanna marginata* (Müller), not found in Hawaii. There is confusion in the literature regarding the distribution of both species. *L. poirieri* is distinguished from *L. marginata* by anatomical differences in the genitalia. *L. poirieri* is reportedly always found on the ground, never climbing trees and plants, and is commonly found under potted plants and in greenhouses (Quick, *ibid.*, pp. 197-200).

Preliminary surveys conducted in Pukalani indicate that *L. flavus* may cause damage to banana plants by girdling the trunks near ground level or by boring into the fleshy corm, although the slug was more frequently found in the cavities of decaying stumps of previously harvested trees. *L. poirieri* was primarily found under potted plants. No plant damage could be attributed to *L. poirieri*. Approximately 160 acres of residential properties in Pukalani appeared to be infested with *L. flavus*. *L. poirieri* was established over an area of at least 370 acres. L.M. Nakahara & C.C. Christensen.

Anthicus ephippium LeFerte: About two years ago I submitted for identification a specimen of an anthicid beetle, taken in a light trap near Ewa, Oahu in June 1978, to Dr. Ken Hagen of the Univ. Calif. Recently I received a letter from Dr. Hagen identifying the beetle as *Anthicus ephippium*. This is a new state record. Since the original specimen was collected several additional specimens have been taken from light trap material collected in the Ewa and Hickman AFB areas, and it is presumed that the species is established on Oahu. *A. ephippium* is a North American species which is known to occur all across the United States, according to Dr. Hagen. J.W. Beardsley.

Apanteles galleriae Wilkinson: In November of last year specimens of a braconid wasp new to Hawaii were submitted to me for identification by personnel of the State Dept. of Agriculture. These had been collected from a beehive at Keomuku, Lanai on Nov. 2, 1981 by Mr. Glenn Taniguchi. The hive was found to be infested with the greater wax moth, *Galleria mellonella* (L.), a well-known pest of beehives. Based on host association and the published literature, I was able to identify the wasp as *Apanteles galleriae* Wilkinson, a parasite of *G. mellonella* which is known to be widely distributed throughout Europe, India, eastern North America, Mauritius and Argentina. This is a new record. J.W. Beardsley.

Apanteles, undetermined species: Specimens of another *Apanteles* species new to Hawaii were submitted to me on February of this year. These were collected at Kahakuloa and Waihee, Maui on February 12 by Nobu Miyahira and Larry Nakahara, while sweeping pasture grasses in surveys of grass webworm populations. This *Apanteles* is similar to, but apparently distinct from *Apanteles scutellaris* Muesebeck, a species which has been present here for many years. Several specimens of this as yet unidentified species, taken in light trap collections from Ewa and Hickam AFB, Oahu, and dating back to December 1975, were found among unidentified *Apanteles* material in the University of Hawaii collection.

There are five unidentified *Apanteles* species now known from Oahu. Species of this genus are very difficult to identify from the literature as there are more than 1100 described species worldwide, and probably at least that many more which are undescribed. J.W. Beardsley.

SEPTEMBER

The 921st meeting of the Hawaiian Entomological Society was called to order at 2:05 p.m., Monday, September 13, 1982, with Past-president Ron Mau presiding in the absence of the President, at the meeting room of the Bishop Museum.

Members Present: Beardsley, Bianchi, Gagné, Henderson, Howarth, Joyce, Mau, Mitchell, Montgomery, Radovsky, Saul, Shroyer, Steffan, Swift.

Visitors: Fred Stone, Carl Christensen, and Betsy Gagné of the Bishop Museum, and Ian Thornton.

Reports of Officers and Committees:

Annual dinner meeting: A choice of 6 sites was presented and by vote the Ranch House gained a plurality.

Program: The program was presented by Ian Thornton of LaTrobe University, Melbourne, Australia, on "Habitat Segregation in Hawaiian Psocoptera". He presented a table giving the altitudinal distribution of 34 species of psocids in the Kokee Acacia Koa Forest, Kauai.

NOTES AND EXHIBITIONS

Parthenothrips dracena (Heeger): On August 30, W.C. Gagné and S.L. Montgomery found colonies of this Panchaetothripinae seriously injuring bushes of a native *Dianella* sp. at 2,100 ft. el., north of Kanek Bog, in the Koloa Forest Reserve, on the island of Kauai. The find constitutes a new host and new island record for the thrips, which has been recorded hitherto only from Hawaii, Maui and Oahu, although its world distribution is pan-tropical in nature and cosmopolitan in green houses. F.A. Bianchi.

Haplothrips robustus Bagnall: Thirteen macropterous females of this Phlaeothripinae were collected from *Chenopodium oahuense* and a *Portulaca* sp. by Pat Conant, Hawaii State Dept. of Agriculture, during June 1982 on the Island of Necker. This is a new island record for this species known previously only from Maui and Oahu under the synonym *Haplothrips sesuvii* Priesner. (Krauss, Maui, Proc. Hawaii. Entomol. Soc. 13:321; Bianchi, Oahu, Proc. Hawaii Entomol. Soc. 13:7).

Whether the find also constitutes a new host record is a moot question. The literature indicates that in Hawaii *Sesuvium portulacastrum* is the most important host plant for both feeding and breeding; but the thrips has also been found in abundance on other beach plants, and in Australia it is recorded from "many flowers," without special reference to any of them. F.A. Bianchi.

New Island records: Coccoidea: The following scale insect collections are new island records for the species listed:

1. *Chrysomphalus dictiospermi* (Morgan) (Diaspididae). Kauai, Powerline Road, above Princeville, 550m, X/20/1981, J.W. Beardsley, on leaf of *Ilex anomala*.

2. *Abgrallaspis palmae* (Cockerell) (Diaspididae). Hawaii, Hilo, VIII/1982, A. Hara, on *Aechmea orlandiana*.

3. *Nipponorthezia guadalcanalia* Morrison (Ortheziidae). Kauai Powerline Road, above Princeville, 200m and 360m, XI/23/1981, M. Conant, ex leaf litter under ohia, Berlese extraction. J.W. Beardsley.

OCTOBER

The 922nd meeting of the Hawaiian Entomological Society was called to order at 2:06 p.m., Monday, October 18, 1982 by President Goff in the meeting room of the Bishop Museum.

Members Present: Beardsley, Bianchi, Evenhuis, B. Gagné, W. Gagné, Goff, Hara, Harris, Higa, Joyce, Muruvanda, Nishida, Radovsky, Reimer, Riotte, Samuelson, Saul, Simon, Shiroma, Swift, Tanimoto, Tenorio.

Visitors: W. Apt, Univ. of Hawaii, Plant Pathology; D. Mayfield, D.O. McInnis, USDA/ARS.

Reports of Officers & Committees:

Treasurer: Tanimoto presented the current fiscal report; also, 25 members remain in arrears in dues (15% of the membership). Three new members were proposed and approved for membership.

Nomination Committee: Higa presented the proposed slate for 1983.

President-elect — A. Samuelson (Bishop Mus.), B. Brennan (Univ. Hawaii)

Treasurer — V. Tanimoto (unopposed)

Secretary — N. Evenhuis (Univ. Hawaii), P. Conant (State Dept. Agric.)

Advisor — F. Chang (Univ. Hawaii), W. Steffan (Bishop Mus.)

A motion to accept the slate was made, seconded, and approved.

Dinner Committee: G. Nishida moved that the annual dinner meeting be held Thursday, December 9, 1982 at the Ranch House. Motion was approved.

Announcements; Radovsky announced the publication of the next Volume in the series Fauna of New Zealand.

President Goff announced that he had on hand the registration forms for the ESA National meetings in Toronto.

Program: A program was presented by Arnold Hara on "Entomogenous Nematodes, *Neoaplectana carpocaspae*: a promising biological control agent, or how to use worms to kill insects."

NOTES AND EXHIBITIONS

Albino form of *Danaus plexippus*: I think we are all familiar with this albino form of the monarch butterfly here in Honolulu. It occurs sporadically all over Oahu and may be also on other islands of our archipelago. Recently Sir C.A. Clarke, Liverpool, together with Miriam Rothschild, described in the Journal of the Lepidopterists' Society an albino form of the monarch, the eggs of which he had received from Buenos Aires, Argentina. He compared his material with ours and came to the result that one does not resemble the other closely. Now we find in the News Bulletin of the Entomological Society of Queensland (10:2, 1982) a note about an albino *Danaus plexippus* caught near Brisbane. This seems to be the first such

occurrence in Australia and judging from the black and white illustration accompanying the note this mutant now resembles our own very much. So we lost one butterfly form which we thought previously to be unique to Oahu. I will circulate one of our specimens and a xerox of the Queensland paper for your observation. J.C.E. Riotte.

An addition to the butterfly fauna of Fiji: Gaden S. Robinson, British Museum (Nat. Hist.) published in 1975 the "Macrolepidoptera of Fiji and Rotuma, a taxonomic and geographic study." From the collection of the Bishop Museum we will add today one species which is not mentioned in the above publication: *Vanessa itea* (Fab.) which was collected on 20 Oct. 1924 on Ovalau by E.H. Bryan, Jr.

The species was described from New Zealand and occurs according to D'Abrera throughout Australia, Norfolk I., and in the Loyalty Is. with a ? Holloway (1976) confirms it for Norfolk I., Lord Howe I., New Caledonia, Kermadecs, Rapa, but adds that the presence of the species needs confirmation in the New Caledonia Island group.

In 1971 J.F. Gates Clark published the Lepidoptera of Rapa Island and lists this species. He says that his record is apparently the first record of the occurrence of *itea* on Rapa. However, the Bishop Museum has a series of 7 specimens of *itea* which were collected by A.M. Stokes during June and July 1921 on Rapa, a record which was not published before. J.C.E. Riotte.

Another addition to the butterfly fauna of Fiji: The butterfly, *Artogeia rapae* (L.), is present in the collections of the Bishop Museum, not yet reported from Fiji. It was caught in 1913, July 14th at Nadi by J.F. Illingsworth, a former Honorary member of our Society. G.S. Robinson does not mention this species in his 1975 "Macrolepidoptera of Fiji and Rotuma" and it was supposed that Fiji was one of the rare places where the so called "cabbage white" does not occur. It would be very interesting to know if the species still occurs in Fiji. Note that this specimen was caught long before Nandi was a center of air traffic. J.C.E. Riotte.

Insects associated with Silverswords: The Haleakala Silversword, *argyroxiphium macrocephalum*, a plant long in danger and decline from two and four-legged deprecations, appears to be making a dramatic comeback within Haleakala Crater. The summer of 1982 produces a record number of flowering plants: over 2500 as of October 1982. Park rangers were concerned that large numbers of insects would be attracted to the plants and possibly do great damage. Observations that follow as a result of my preliminary field work, were carried out under contract to the Cooperative National Park Resource Studies Unit, Univ. of Hi. at Manoa.

Earlier work by Kobayashi in 1971 was carried out when only 206 plants flowered, preceded by zero in 1970, followed by 1 in 1972 (Kobayashi, 1974). Kobayashi pointed out that subsequent studies should be done in high-flowering years following low flowering ones; 1982 was just such a summer with practically zero in 1981.

Slides were shown of the following insects at the Oct. meeting of HES: *Rhynchephestia rhabdotis* Hampson, *Trupanea cratericola* (Grimshaw), *Plagithmysus terryi* (Perkins), and *Oodemus mauianse* Blackburn. These serve as an introduction to ongoing studies of insect activity and their effects on Silverswords, and hopefully will stimulate questions and comments.

The first insect shown was the pyralid moth, *Rhynchephestia rhabdotis*, which attacks the main flowering stem, hollowing it out. Newly initiating flowering stems have a solid pith; but by the time the plants are halfway in bloom, caterpillars have eaten their way into the main stem at the axil of individual peduncles and main stem.

They then work their way down to the base of the plant where it appears that they bore out into the sticky base of the leaves. They also appear to feed on leaf surfaces and margins.

The tephritid fly, *T. cratericola* is another abundant insect. Its larvae attack developing seed heads, primarily those of the central dish florets (ray florets are protected by very sticky bracts and are rarely attacked). Numerous pupae were found in hollowed out seeds.

Plants in the vicinity of Puuoa Maui on a 25 degree slope with some bit of exposed root were found to be prone to cerambycid attack. Larvae of c.f. *Plagithmysus terryi* were found boring through roots up into the plants' base and out into the base of old leaves. I did not find their pupation site, perhaps it was too early in the year for any to pupate.

The beetle *O. mauianse* feeds on dead Silversword flowering stalks. Both larvae and adults were also found among the tightly packed old leaves, particularly near the base, where leaves were still fairly moist. B.H. Gagné.

NOVEMBER

The 923rd meeting of the Hawaiian Entomological Society was called to order at 2:06 p.m., Monday, November 8, 1982 by President Goff in the meeting room of the Bishop Museum.

Members present: Arakaki, Beardsley, Bianchi, Brennan, Chang, Evenhuis, Goff, Hardy, Harris, Howarth, Joyce, McInnis, Pinter, Saul, Swift, Tanimoto, Tenorio, Wong.

Visitors: Stella C.L. Hsu, Research Associate, Univ. of Hawaii.

Reports of Officers and Committees:

Treasurer: Tanimoto presented the current fiscal report; 14 more members paid their dues to bring the total to 62% of the total; only 13 people have so far paid for the annual dinner. As Chairman of the membership committee, Tanimoto presented Dr. D.O. McGinnis of the USDA/ARS for membership. A motion to this effect was made, seconded and approved.

Announcements: G. Nishida asked for donations for door-prizes for the dinner meeting.

Program: The program was presented by Dr. Franklin Chang of the Univ. of Hawaii, Dept of Entomology, on "The effect of anti-juvenile hormone agents on sex attractants of the Mediterranean fruit fly, *Ceratitidis capitata*."

NOTES AND EXHIBITIONS

***Ochthera circularis* Cresson:** Specimens of *Ochthera* (Diptera: Ephydriidae) were collected last spring (1982) by students in the General Entomology class at the University. These were sent to Dr. Wayne Mathis, U.S. National Museum but were all females and the male is needed to place the species. A good series of both sexes have since been collected on Maunaluha stream, Makiki valley by W.D. Perreira and Dr. Mathis has been able to place it as *O. circularis*, a new immigrant for the state. This species is widespread over the Oriental Region from India to Indonesia, including the Moluccas. It also occurs in the eastern Palaearctic Region, Ryukyu Islands, and Japan. D. Elmo Hardy.

***Chirodiscoides caviae* Hirst, 1917 (Listrophoroidea: Atopomeliadae):** As part of a cooperative agreement with Kaneohe Veterinary Clinic to provide identification

of ectoparasites encountered in their small animal practice, JMT received several slides for identification on April 25, 1981. These were collected from "Brownie," a guinea pig experiencing symptoms of hair loss and scratching. The mites were identified by JMT as *Chirodiscoides caviae*, the guinea pig fur mite. Males, females and immature stages were represented.

This is a new record for the Hawaiian Islands. *C. caviae* has been reported only from the guinea pig and is probably found worldwide wherever guinea pigs are present. All stages are found throughout the fur attached to the hairs and the mite is common even in healthy colonies. Occasionally; there is irritation, scratching and hair loss in heavy infestations. *C. caviae* is not considered to be of any public health importance. J.M. Tenorio.

Trixacarus caviae Fain, Howell & Hyatt, 1972 (Sarcoptoidea: Sarcoptidae): Specimens of mites were recovered from skin scrapings of a guinea pig submitted to the State Department of Agriculture by the Animal Clinic Waimalu, Inc. The scrapings were from lesions on the face and ears of the guinea pig. Mites recovered from these scrapings by Pat Conant were identified by MLG as *Trixacarus caviae*. Only females and immatures were recovered in these scrapings.

This constitutes the first record of this mite from the Hawaiian Islands. The species was originally described from laboratory guinea pigs in England and was subsequently reported from guinea pigs kept as pets in both England and the Netherlands. The species is known only from the guinea pig. Symptoms of infestation by *T. caviae* are similar to those observed for *Sarcoptes scabiei*, but the mite does not burrow into the stratum corneum as in *S. scabiei*. An itching, papular urticaria has been reported from humans in contact with *T. caviae* by Dorrestein & van Bronswijk (1979). This condition appears to be incidental and terminates following treatment of the animal or termination of contact with the animal. M. Lee Goff & P. Conant.

Foliar damage to Dodonea and Acacia koa: On 29 Oct., 1982 Dr. Don Gardner, Research Scientist, and Dina Kageler, Technician, reported "something is devastating a small population of *Dodonaea* at 1524 m, Mauna Loa Strip Road, Hawaii Volcanoes National Park." Severely damaged foliar material was submitted for my identification, and although no insects were present, the damage was caused by lepidopterous caterpillars, most likely *Scotorythra trapezias* Meyrick, a native geometrid looper known from this host for many years.

This was confirmed on 4 Nov., when the site was visited. Caterpillars at all age levels were very abundant, and the damage to *Dodonaea* (a'ali'i) was the severest I have ever observed. Foliar damage ranged from 50 to 75% under a canopy of *Acacia koa* and *Sophora chrysophylla*. Caterpillars were easily collected by tapping the branches which caused them to descend on spun thread. Caterpillars are greenish in color.

Parasitic cocoons were readily observed on the damaged leaves, petioles and twigs and, in present order of importance, the braconids, *Apanteles* sp., prob. *margiventris*, *Meteorus* sp., prob. *laphygmae*, and the Ichneumonid, *Hyposoter exiguae*.

To ascertain the distribution of *S. trapezias* on the Strip road, E. Yoshioka, Entomologist, State Dept. of Agric., and I surveyed the road on 10 Nov., and determined its present altitudinal distribution to be between 1,402 m and 2,042 m with heavy foliar damage (up to 100%) at 1,951 m elevation as generally by an altimeter. It was encouraging to note that larval parasites were generally present throughout the range of infestation, while other factors, such as bird and insect predators and disease were not observed, they undoubtedly occur, and, together may

reduce geometrid populations below pest levels. The present infestation is about 3-4 weeks old, with severe damage occurring in wooded areas. At present it is more or less sporadic in open areas. Some *Dodonaea* mortality can be expected, but I believe most will recover.

At 1,707 m elevation we observed light terminal damage to three-year-old *Acacia koa* by another species of *Scotorythra* prob. *paludicola*. The caterpillars are brownish. *S. plaudicola* is a notorious defoliator of koa on this island and on Maui, causing widespread defoliation periodically. It also attacks two exotics, *Grevillea* (silky oak) and *Tristania* (brush box). It is presently very active in young koa plots on Keauhou Ranch, 1,554 m, causing 5-10% foliar damage in a five-year-old koa plot. Caterpillars were mostly half-grown, so the infestation appears to be in the early stages. No parasite cocoons were observed, likely due to the early stages of the infestation. In Sept., 1953 about 1,280 acres of koa forest were denuded in this area by *Scotorythra*. (Davis, 1955, Proc. Hawaii. Entomol. Soc. vol. XV: 401-403). W.C. Mitchell for C.J. Davis.

Anchastus swezeyi Van Zwahlenberg: This small black elaterid beetle was described from specimens collected in 1929 near Nahiku, East Maui and until now has been known only from the windward slopes of Haleakala. During Oct., 1982 specimens of this beetle, determined by J.W. Beardsley, were submitted to Dr. Arnold Hara by Jim Watt of Hale Nui Farm, Inc., Panaewa Farm Lots, near Hilo, Hawaii. The beetles were collected on *Anthurium* flowers. This is a new record.

Van Zwahlenberg suggested that *A. swezeyi* was probably an endemic species, as the type series was collected at 1500 feet elevation in a forested area, where the beetles were associated with Ohia, ti, banana, etc. However, it seems equally likely that the species could be an introduction into Hawaii of unknown origin.

Dr. Howarth added that he had seen adults of this species abundant (hundreds) active in the sun on both dry rocks and low shrubs, mostly *Scaevola* sp., along Waihoi Stream at 600 to 700 m elevation on east Maui in July, 1972 and has seen specimens from other wet forest localities on east Maui. J.W. Beardsley & A. Hara.

Iridomyrmex glaber Mayr: This immigrant ant has been reported only once previously in Hawaii when it was first discovered at Hickam A.F.B., Oahu in August 1977 (P.H.E.S. 23(2):186). On Oct. 19, Ed Yamada of the Hawaii State Dept. of Health brought in for identification specimens of *I. glaber* which had been collected in a house on North Kalehao Ave., Kailua, Oahu. An occupant of the house had reported being bitten, and these ants were suspected. The ants were reported to be abundant inside the dwelling, but were found nesting outside in a hanging plant basket. J.W. Beardsley.

Uloma sp., pos. *bonzica* Marseul: This immigrant tenebrionid beetle was recorded for the first time in Hawaii on the basis of two female specimens collected at Waimanalo, Oahu on Nov. 24, 1978 by L. Ho (P.H.E.S. 24(1):6). It was listed as doubtfully established on the basis of this record. On Mar. 10, 1982 two additional specimens of this beetle, ♂ and ♀, were taken in a light trap at the Univ. of Hawaii Experimental Farm at Waimanalo. These specimens confirm the establishment of this beetle on Oahu. J.W. Beardsley.

New Psocoptera Records: At my request, Dr. Ian Thornton of La Trobe University, Bundoora, Victoria, Australia, recently examined a collection of miscellaneous Psocoptera in the Univ. of Hawaii Collection. Among the material which Dr. Thornton determined are one new state record and three new island records, as follows:

Trichadenotecum sp. (Family Psocidae). A single specimen of this, as yet incompletely identified psocid, was taken in a light trap at Hickam A.F.B. Oahu, 28/VII/1978. This is a new state record.

Lepidopsocus marmoratus Banks (Family Lepidopsocidae). A series of specimens were collected by Dr. Sheila Conant on Nihoa Island, underside of new leaves of *Pritchardia remota*, 1/VIII/1980. This is a new island record for this species which has been reported previously from Kauai, Oahu, Maui, and Hawaii (Thornton, 1981, Pacific Insects 23:13).

Ectopsocus spilolus Thornton and Wong (Family Ectopsocidae). Two specimens from Oahu (Honolulu International Airport, 15/XII/1976, J.W. Beardsley, light trap, and Ewa, 25/II/1977, J.W. Beardsley, light trap) constitute a new island record for this species which was reported previously in the state only from Hawaii Island (Thornton 1981, p.40).

Hemipsocus cloroticus (Hagen) Family Hemipsocidae: A single specimen from Honolulu International Airport, 15/VII/1977, J.W. Beardsley, light trap, is a new record for Oahu. This species was reported previously in the state only from Hawaii Island (Thornton 1981, p.42). J.W. Beardsley.

New Island records for Kauai: The following insect species are reported for the first time from Kauai. They were collected in connection with surveys of the insect fauna of areas of Kauai where wild hosts of the important tephritid fruit fly pests occur.

Leucania striata Leech (Noctuidae). One ♂, Kahili Mt. Road, 2100 ft., 19/XI/1981, M. Conant, light trap. This species has been recorded previously from Oahu and Maui.

Prospalta dolorosa (Walker) (Noctuidae). One ♀, Haena, sea level, 22/X/1981, M. Conant, light trap. Previously recorded from Oahu.

Elasmolomus v-album Stål (Lygaeidae). One, Haena, sea level, 22/X/1981, M. Conant, light trap. Previously recorded only from Oahu.

Rhytidophorus identatus Uhler (Cydnidae). Two, Haena, sea level, 22/X/1981, M. Conant, Light trap. Previously recorded from Oahu and Hawaii.

Selenophorus striatopunctatus Putzeys (Carabidae). Two, Haena, sea level, 22/X/1981, M. Conant, light trap. Previously reported from Oahu and Hawaii. J.W. Beardsley.

DECEMBER

The annual dinner meeting, constituting the 924th meeting of the Hawaiian Entomological Society, was held at the Ranch House Restaurant on Thursday, December 9, 1982 at 6:30 p.m. Dr. Wallace Mitchell served as master of ceremonies for the occasion.

Members Present: Beardsley, F. Chang, V. Chang, Evenhuis, B. Gagné, W. Gagné, Goff, Haramoto, Harris, Howarth, Joyce, Lauret, Mason, Mitchell, Muruvanda, G. Nishida, T. Nishida, Onaga, Sakimura, Samuelson, Saul, Shiroma, Stefan, Sugerman, Swift, Takara, Tanimoto, Tenorio.

In addition to the 28 members, 19 wives and other guests were present. Following the dinner, President Lee Goff recognized the officers who had served during 1982. In place of the Nominations Chairman, Stan Higa, the Secretary announced the new slate of officers elected for 1983:

President-elect	Barry Brennan
Secretary	Neal Evenhuis
Treasurer	Victor Tanimoto
Advisor	Wally Steffan

Lee Goff gave his presidential address on the topic "The Real World: A View from a Swamp 20 km SSE of Eden." After the awarding of door prizes the meeting was adjourned at 9:30 p.m.

MINUTES, NOTES, AND EXHIBITIONS FOR THE YEAR 1983

The following minutes, notes and exhibitions were recorded by the secretary on the months indicated during the calendar year 1983. The notes as submitted by their authors may be slightly edited to help them conform with Journal standards. (Editor)

JANUARY

The 925th meeting of the Hawaiian Entomological Society was called to order at 2:08 p.m., Monday, Jan. 10, 1983 by President elect Barry Brennan in the Bishop Museum Lanai restaurant.

Members Present: Arakaki, Beardsley, Bianchi, Brennan, Ching, Evenhuis, B. Gagné, W. Gagné, Hardy, Higa, Joyce, Kohn, Kunishi, Lai, Look, McInnis, Mitchell, Montgomery, Muruvanda, Nishida, Radovsky, Riotte, Samuelson, Sherman, Swift, Williamson, Wong.

Visitors: Eugene Munroe, Canadian National Collection; John Strazanac, Univ. Hawaii Entomology Dept.

Reports of Officers and Committees:

Treasurer: Evenhuis announced for Tanimoto that as of Dec. 31, 1982 the Hawaiian Entomological Society had \$5,246.43 on hand. The Treasurer's fiscal report will be given at the Feb. meeting after the audit by the business manager.

Announcements: Dr. Mitchell announced that Dr. G. Mallory Boush, Prof. of Entomology Univ. of Wisconsin, Madison, will be visiting the Dept. of Entomology, Univ. of Hawaii.

Brennan announced an upcoming conference of the Hawaii Pest Control Association to be held Jan. 17-18 at the Ala Moana Banquet Hall.

Wayne Gagné gave notice of an upcoming Nova program dealing with Hawaiian insects which will be aired on television Jan. 18th at 7:30 p.m. and again at 2:00 p.m. on Jan. 22nd.

Program: Drs. Mitchell, Radovsky, Sherman, and Williamson reported on the highlights of the ESA National Meeting held last Nov.-Dec. in Toronto, Canada.

NOTES AND EXHIBITIONS

Dr. Samuelson reported on the occurrence of living Coleoptera in containerized Christmas tree shipments to Hawaii. As a result of ensuing discussion concerning the possible role of H.E.S. in this matter, Dr. Brennan suggested forming an *Ad Hoc* committee to investigate the problem further.

Wayne Gagné presented a selection of posters depicting insect pests of cacao and sweet potato.

Anacamptodes fragilaria (Grossbeck): This new moth pest of sweet potato (Lepidoptera: Geometridae) was first recovered from a Navy light trap at Hickam Field, Oahu in 1944 (Van Zwaluwenburg, 1946, The Hawaiian Planters' Record L(1): 12-13). A total of 38 species of plants have been recorded as hosts of this insect (Zimmerman, 1958, Insects of Hawaii 7:38). At an experimental planting of sweet

potato (*Ipomoea batatas* (L.) Lam) at Poamoho Experiment Station, Oahu, in 1981, larvae of *Anacamptodes fragilaria* were observed severely defoliating the sweet potato vines. These larvae were reared to maturity on sweet potato leaves. This constitutes a new host record for the Hawaiian Islands. The only other recorded host plant of *A. fragilaria* in the genus *Ipomoea* is *I. tuberosa* (Zimmerman, loc. cit) also in Hawaii. **D. Muruvanda & J.W. Beardsley.**

Chaetocnema confinis Crotch (Coleoptera: Chrysomelidae): Moderate to heavy adult populations of the sweet potato flea beetle, *Chaetocnema confinis*, were discovered attacking ung choi (*Ipomoea reptans* L.) at Waianae by K. Konishi on September 29, 1982. Identification was made by G.A. Samuelson, B.P. Bishop Museum. The tiny beetle which measures 1.5 to 2.0 mm in length, is shiny black with reddish brown legs and antennae. It feeds by carving out long narrow grooves on the surface of the host plant leaf, creating a russet-like appearance. Besides ung choi, its hosts include sweet potato, bindweed, morning-glory, corn, wheat, oats, rye, and other grasses, red clover, sugar beets, raspberry, and boxelder. It is a North American species generally distributed east of the Rocky Mountains. **Po-Yung Lai.**

FEBRUARY

The 926th meeting of the Hawaiian Entomological Society was called to order at 2:07 p.m., Tuesday, Feb. 22nd, 1983 by President JoAnn Tenorio in the conference room of the Bishop Museum.

Members Present: Arakaki, Beardsley, Bianchi, Brennan, Conant, Evenhuis, Hardy, Higa, Howarth, Joyce, Kunishi, Lai, Look, McInnis, Mitchell, Reimer, Samuelson, Saul, Steffan, Tanimoto, Tenorio, Vargas, Williamson, Wong.

Visitors: Paul McDonald, G. Mallory Boush.

Reports of Officers and Committees:

Treasurer: Tanimoto gave a report of the H.E.S. fiscal year (Feb.-Dec. 1982). The Society had a balance of \$5,267.02 as of Dec. 31, 1982.

Science Fair: Steffan made a motion for the Society to donate \$30 toward an award for the best entomological exhibit at the Science Fair. The motion was approved.

Ad Hoc committee on Christmas tree insects: Its membership was announced (Brennan, Chrnm., Po-Yung Lai, Shiroma, W. Gagné, & Beardsley). Brennan read charter of the committee. A preliminary statement with committee recommendations will be made at the next meeting.

Old Business: Tenorio gave results of a preliminary poll re meeting time and day change. Return ballots showed most preferred the status quo. In order to encourage more attendance by graduate students and others, an evening meeting held jointly with the Ka Mea Kolo Entomology Club was suggested. Dr. Mitchell suggested we try the availability of the Manoa Library.

Announcements: Tenorio announced that Prof. Yasumatsu died on January 25, 1983. The Secretary was asked to write a letter on behalf of the Society expressing condolences.

Steffan asked for applicants for the Pacific Branch of the ESA graduate student award.

Dr. Hardy presented a paper on a new genus of Phytalmiini from Papua New Guinea.

Program: Dr. G. Mallory Boush spoke on "Symbiosis as it relates to fruit fly biology."

NOTES AND EXHIBITIONS

Stephanoderes georgiae Hopkins: This little beetle (Coleoptera: Scolytidae) was observed tunneling in the rind of an orange at the Waimanalo Experimental Farm. The species was determined by Dr. J.K. Beardsley. He reported that the only specimens we have in the collection are from light trap material. However, Wood (Insects of Micronesia 18(1):35) says of this genus that: "In general they are polyphagous twig borers, although they are commonly found in berries, stems of herbaceous plants, or other unusual places." W.C. Mitchell.

Trichopoda pennipes var. **pilipes** (Fab.): This parasite (Diptera: Tachinidae) of the adult Southern Green Stinkbug, *Nezara viridula* (L.), was observed in the macadamia nut orchards at Honomolino, Hawaii. The 33 adult stinkbugs examined were 66.7% parasitized. Eleven of the 18 males were parasitized with an average of 5.3 *Trichopoda* eggs per male. Eleven of the 15 females captured were parasitized with an average of 4 parasite eggs per female. Six fifth instar nymphs also had one parasite egg attached to them. W.C. Mitchell.

Scotorythra trapezias Meyrick and **S. paludicola** (Butler): Larvae of these geometrid moths have been defoliating *Acacia koa* and *Dodonaea* along the Mauna Loa Strip Road, Volcano National Park, Hawaii. Detailed information on these moths can be found in Zimmerman, Insects of Hawaii, Vol. 7:122 & 140. Most of the moths on *Dodonaea* emerged before Christmas and the *koa* moths emerged between Christmas and New Years. The species of parasites from both species of moths were *Apanteles marginiventris*, *Meteorus laphygmae* (Branconidae), *Hyposoter exigua* (Ichneumonidae) and the hyperparasite *Gelis tenellus* was reared from all three parasites. An undetermined tachinid was also reared from both species of *Scotorythra*. A second generation of moths were reared from *Dodonaea* in late January and early February. These were 100% defoliated. C.J. Davis.

Bemisia tabaci (Gennadius): A whitefly (Homoptera: Aleyrodidae) new to Hawaii was first collected from sweet potato (*Ipomoea batatas*) at Pearl City on Oct. 1, 1982 by Kenneth Murai and subsequently from *Hibiscus* sp., ilima (*Sida fallax*), and kikania-lei (*Solanum aculeatissimum*), at Kailua on Nov. 18, 1982, by Bernarr Kumashiro and other Plant Pest Control personnel, Hawaii Dept. of Agriculture. Specimens were sent to R.J. Gill, California Dept. of Food and Agriculture who identified them as the sweet potato whitefly, *Bemisia tabaci*.

This whitefly is cosmopolitan in distribution and is reported from Europe, Africa, Asia, Australia, Fiji, South America and the mainland U.S. It breeds and develops on over 300 species of plants. It is also a well known vector of virus or virus-like diseases on several crops (L.A. Mount and S.H. Halsey. 1978. Whitefly of the World).

Thus far, preliminary surveys have shown that in addition to Pearl City and Kailua, the whitefly was present in Kalihi, Makiki and Pawaa. Trace to light infestations were noted on a systasia (*Asystasia gangetica*), avacodo (*Persea americana*), eggplant (*Solanum melongena*), fig *Ficus* sp.), hibiscus, ilima, kikania-lei, poinsettia (*Euphorbia pulcherrima*), and sweet potato. Surveys will continue to determine degree and extent of infestations. P.-Y. Lal.

Banana Root Borer on Maui: Two larvae and one adult of the banana root borer, *Cosmopolites sordidus* (Germar) (Coleoptera: Curculionidae), were collected in Waiehu, Maui on Feb. 18, 1983 by a farmer, Ed Emoto, from his 0.3 ha banana farm. The specimens were identified by Nobuo Miyahira and confirmed by Pat Conant. So far, only one plant was found infested and the actual extent of infestation

will be determined. *C. sordidus* was first found in Waimanalo, Oahu in July 1981. P.-Y. Lai.

Adoretus sinicus Burmeister: Six Chinese rose beetle adults were collected in the soil and debris at the base of young, bushy *Myrica faya* plants at 2100' (640 m) elevation at Ainahou pasture in Hawaii Volcanoes National Park on Aug. 4, 1982. Light feeding on guava and trace feeding on Ohia were also found in the same area. Foliar damage was also observed on *M. faya* at 2740' (835 m) elevation up to 2800' (853 m). Collection and identification were made by C. Davis and D. Taylor. The beetle collections at 2100' and foliar damage observations through 2800' are the highest recorded for the State. Ronald Heu.

Two new lizard mites from Hawaii: Two species of lizard mites (Acari: Pterygosomatidae) are reported for the first time from Hawaii. They are:

Geckobia keegani Lawrence, 1953:

This species was described from the Philippines from the House Gecko, *Hemidactylus frenatus*. Most of us who have lived in Hawaii long have seen the large red mites that reside between the toes of some of the geckos here. Upon examining a fresh series of such mites from a house gecko caught on the Bishop Museum grounds and attempting to identify them, I was surprised that these gecko mites have not been reported in the Hawaiian literature. The species from the house gecko was identified as *G. keegani*. Other older series of specimens in the Bishop collection from Oahu, most labeled "ex gecko" or "ex gecko toes" were also this species. In two of these older series from Honolulu, the following species was also found.

Geckobia nepalii Hiregauder, Joshee & Soman, 1959

This species was described from the interdigital spaces of the house gecko in the Himalayan Region of Nepal. From unspecified geckos from Honolulu taken along with *G. keegani* were 2 females and 1 nymph. Also, 12 females total were taken off the fox gecko, *Hemidactylus garnoti*, on the Bishop Museum grounds (30/X/1963) and from Moanalua (20/IX/1963). Specimens were compared with 2 paratype females sent on loan by Dr. A.K. Sanyal, Zoological Survey of India, Calcutta. They are undoubtedly conspecific. This confirms *G. nepalii* as a new record for Hawaiian Islands.

Hirst (1925) in writing of *Geckobia* from lizards remarked as follows: "Some species of lizards harbour more than one form of *Geckobia* . . . when more than one form of *Geckobia* is found on the same host, one form usually lives beneath the ventral scales and is flattened . . . and (has) scales rather than hairs on the venter. The second form . . . is usually to be discovered between the claw and pad of the toes, between the laminae of the pad, or between the toes themselves; this form is normally spherical . . . and has hairs instead of scales on the venter . . ." Lawrence, in describing *G. keegani* from the house gecko and another species, *G. philippinensis*, which has scales on the venter, remarked that the "two forms (probably) live on different parts of the body of the same host."

The two species listed here from Hawaii, which seems to be only the second time these species have been reported, are both of the spherical form with numerous setae and no scales. Both have been taken between the digits on the same gecko host. When removing the specimens of *G. keegani* from the house gecko, we observed that only the largest mites were between the digits and the smaller mites were scattered about the body surface and beneath the axillae. Microscopic examination confirmed that all the large mites were gravid females and the smaller ones were larvae and nymphs. No males were found. It would be very interesting to make further collections and observations to explain the reason for this special separation

of females and immatures and to find out if both *keegani* and *nepalii* actually occupy the same interdigital niche on a given host individual. In a recent series of *G. keegani* from house gecko all gravid females were circumungual (around the claws) on all legs. Larvae, nymphs and 1 male were on flanks and posterior surfaces of posterior femora. JoAnn Tenorio.

Hemerodromia sp. (Diptera: Empididae): Larvae of this genus have been seen on two different occasions over ca. the past 6-8 years from Manoa and Kaneohe streams. Adults are now on hand from Makiki stream, 280' (85 m), Dec. 5, 1982-Feb. 14, 1983 (W.D. Perreira). This genus is widespread over much of the world, and is now recorded for the first time from Hawaii. D. Elmo Hardy.

MARCH

The 927th meeting of the Hawaiian Entomological Society held jointly with the Ka Mea Kolo Entomology Club was called to order at 7:31 p.m., Monday, March 14, 1983 by President JoAnn Tenorio in the conference room of the Bishop Museum.

Members present: Brennan, V. Chang, Evenhuis, B. Gagné, Gettman, Goff, Hardy, Howarth, Joyce, Look, Mason, Mitchell, Montgomery, Nishida, Radovsky, Reimer, Samuelson, Shroyer, Swift, Tanimoto, Tenorio.

Visitors: Ray Greenfield, Marshall Johnson, John Strazanac.

Reports of Officers and Committees:

Treasurer: Tanimoto reported that there was \$7433.59 on hand in the H.E.S. treasury.

Ad Hoc Christmas tree: Brennan gave a brief report; recommendations will be given at the next meeting of the Society.

Announcements: Tenorio announced that a trade of Hawaiian Lepidoptera in exchange for Japanese Lepidoptera was requested by a Japanese entomologist.

Al Gettman gave a short presentation on the purpose and activities of Ka Mea Kolo and thanked H.E.S. for inviting them to the meeting.

Program: Dr. Frank Radovsky, Ms. Betsy Gagné and Mr. Steve Montgomery spoke on the highlights of the Pacific Science Congress held last February in Dunedin, New Zealand. Refreshments were served following the program.

APRIL

The 928th meeting of the Hawaiian Entomological Society was called to order by President Tenorio at 2:03 p.m., April 11, 1983 in the conference room of the Bishop Museum.

Members Present: Arakaki, Beardsley, Bianchi, Conant, Evenhuis, W. Gagné, B. Gagné, Hardy, Higa, Johnson, Joyce, Nishida, Reimer, Steffan, Takara, Tanimoto, Tenorio.

Visitors: Keith Leber & Carol Lubbers (Bishop Museum), Prof. T. Okadome (Meijo Univ., Japan), Prof. S.H. Wang (Taiwan).

Reports of Officers & Committees:

Tanimoto made a motion to approve for membership Ray Greenfield, Robert Schoepfner, and Marshall Johnson. Motion was unanimously approved.

Science Fair: Steffan thanked those who helped with the Science Fair. A cash award of \$10.00 was given to the top three exhibits along with a certificate of merit.

Editorial: Joyce announced that the Proceedings recently received ISSN number 0073-134X. Members were reminded that the page charges are \$18.00 per page for up to 10 pages for members of the Society; \$25.00 per page for non-members.

Liaison: W. Gagné announced that a legislative bill was up for decision in which tax refunds could go toward non-game wildlife fund.

New Business: Bianchi requested that the H.E.S. consider Honoring Noel Krauss in some way. Discussion ensued and a decision was made to defer the subject for more information before proceeding further.

Tenorio requested that the by-laws be made up to date. It was suggested that a committee be set up to suggest changes.

Program: Wayne and Betsy Gagné spoke on "Entomologising in New Zealand" accompanied by a number of color slides.

NOTES AND EXHIBITIONS

Limonia (Dicranomyia) sabroskyana Byers, 1982: Dr. George Beyers recently described this new subapterous crane fly (Dipter: Tipulidae) from Alakai, Kauai. It is an endemic species. **D. Elmo Hardy.**

Dacus (Bactrocera) latifrons (Hendel): This new fruit fly (Diptera: Tephritidae) was recently discovered in Hawaii. It was found infesting chili peppers in backyard plantings at Lanakila Housing, Kukui Gardens, and Kapahulu, and in chili peppers and eggplants in the Univ. of Hawaii Pearl City Agricultural Instructional Facility during March, 1983. Surveys are being conducted to determine degree and extent of the fruit fly infestation on Oahu and its possible presence on the neighbor islands. Studies are also being carried out by personnel of the Plant Pest Control Branch (DOA) and the USDA Tropical Fruit and Vegetable Research Laboratory to determine the effect of chemical lures and baits on this species of fruit fly.

Dacus latifrons has been recorded as a pest of chili peppers, eggplant, tomato, and other solanaceous plants in Taiwan, Thailand, Malay Peninsula, Laos, India and Pakistan. **Po-Yung Lai.**

Neophyllaphis podocarpi Takahashi: In February I recieved a copy of a paper titled *The Genus Neophyllaphis* and its Species (Hemiptera: Homoptera: Aphididae), by Louise M. Russell; Florida Entomologist 65:538-573, 1982. In this paper the *N. podocarpi* is reported for the first time from Hawaii. On p. 563 the statement is made that "it was found in a yard in Honolulu, Hawaii in December 1978, its first known appearance in that state." There is no other record of this species here.

In attempting to determine the origin of this record of *N. podocarpi* from Honolulu, I contacted Mr. Pat Conant of the State Dept. of Agriculture. He informed me that a collection of aphids from *Podocarpus* had been collected in Honolulu by Mr. Ken Teramoto on December 3, 1978. The specimens were submitted to the USDA Insect Identification and Beneficial Insect Introduction Institute in Beltsville, MD., but, apparently no determination was returned to the DOA. Mr. Conant wrote to Beltsville concerning the matter on March 21, and received confirmation of the identification of the aphids form *Podocarpus* as *N. podocarpi*, on March 30. The original determination was made on December 13, 1978 by Dr. M.B. Stoetzel.

N. podocarpi is a widely distributed pest of ornamental *Podocarpus* spp. It has been reported from Japan, China, Taiwan, and Malaysia, and in the U.S. from California, Florida, Texas, Louisiana and Mississippi. Heavy infestations, causing leaf deformations and unsightly growth of sooty mold, have been reported from several areas. I found what appears to be this species lightly infesting ornamental *Podocarpus* on the University of Manoa campus on March 8, 1983. **J.W. Beardsley.**

Living Coleoptera in containerized Christmans tree shipments to Hawaii: In early December 1982, 17 lots of beetles comprising 29 specimens were given to me for identification by the Hawaii State Department of Agriculture through Pat Conant. The beetles were collected by quarantine officials from containers filled with Christmas trees, which were recently landed in Honolulu following a sea passage of 4 to 5 days from the west coast U.S.. The main species of tree involved was Douglas fir, *Pseudotsuga menziesii* (Mirb.) Franco. Also imported was a relatively small proportion of fir, *Abies* sp. All the trees were grown in Oregon or Washington.

Quarantine inspectors examined all 244 containers with Christmas trees, but only a few trees per container were sampled. Beetles were apparently collected from Douglas fir only. These trees were individually shaken over a sheet to recover the insects. Each of the 17 lots producing beetles represented a different container. The majority of these (15 of 17 lots) contained 1 or 2 beetles; one contained 4 and another contained 5 beetles.

Five families of Coleoptera were represented in this material, of which the Curculionidae far-exceeded all others. All specimens were in fresh condition; probably all were alive when collected and some were still alive when delivered to the museum. Number of specimens per family were: 22 of Curculionidae, 3 of Chrysomelidae, 2 of Scolytidae, 1 of Elateridae, and 1 of Melandryidae. The genus in greatest numbers was *Sitona*, with 13 specimens representing at least 2 species, of which one is possibly *S. hispidual* (Fab.), the clover root curculio (2 specimens). Two genera of broadnosed weevils, Otiiorhynchinae, were each represented by a single species: *Sciopithes* sp., possibly *obscurus* Horn (3 specimens) and *Brachyrhinus* sp., possibly *rugosostriatus* (Goeze), the rough strawberry weevil (1 specimen). One species of a zygotine twig weevil, *Cylindrocopturus*, was present (2 specimens). Members of this genus are associated with young conifers and are capable of killing terminal and lateral branches, as well as entire saplings. One species of Cryptorhynchinae: Ithypori (2 specimens) is unidentified. One additional weevil, unplaced at present, was also collected. The scolytids appear to represent 2 different species of *Pseudohylesianus* (1 specimen each). Members of this genus are difficult to separate and are mainly associated with the conifers *Abies*, *Pseudotsuga*, and *Tsuga*. Most of the species of *Pseudohylesianus* are found in the Pacific NW, with single localities possibly harboring numerous species. Some species are considered as primary pests, apparently killing healthy trees; most species are thought to be secondary, being associated with weakened or damaged trees. The chrysomelids were *Altica ambiens* LeConte, the alder flea beetle (3 specimens). This species is found over North America and feeds mainly on the foliage of alder, both as larvae and adults. Adults hibernate and it is possible that the specimens recovered here had attempted to overwinter on conifers which were to be exported. The single elaterid was *Anchastus* sp., probably *cinereipennis* (Eschscholtz) and the single melandryid was *Prothalia holmbergi* (Mannerheim). All determinations were made by me.

Christmas trees appear to provide adequate shelter as overwintering sites for beetles, as demonstrated by the diversity of genera (10) taken from samples. We do not know whether these trees were normal selection sites for the insects or whether this was a result of the uniformity of age-classes in plantation, or from harvesting practices, such as possibly staging trees after cutting. As expected, some of the beetles are associated with conifers, e.g. *Cylindrocopturus*, and some particularly to firs, e.g. *Pseudohylesianus*. Of the phytophagous beetles not particularly associated with conifer hosts, most are associated with many hosts, sometimes including crops, e.g.

Brachyrhinus, *Sciopithes*, and *Sitona*. The *Altica* on alder, however, is essentially restricted to its host, which grows in association with conifers.

The fact that all the beetles discussed above were probably alive upon reaching Honolulu demonstrates the relative ease of transporting insects safely over long distances to Hawaii. Since only a small percentage of trees was sampled, these beetles must represent but a small fraction of the ones that were actually brought over in the shipment. A critical survey of every tree from one representative container, along with the routine inspections, would produce interesting data, and perhaps this could be tried next season.

Of the genera thus far indentified, only *Anchastus* and *Brachyrhinus* have been reported from Hawaii. The endemic elaterid, *Anchastus swezeyi* Van Zwaluwenburg is longer and slenderer than *A. cinereipennis*; the latter species, known from California, was once found on a plane at Guam (Van Zwaluwenburg 1957, *Insects of Micronesia* 16:61). Zimmerman reported *Otiorrhynchus cribricollis* Gyllenhal for Hawaii (Proc. Hawaii. Entomol. Soc., 18:189), a widespread European species, now placed in *Brachyrhinus*. The Christmas tree *Brachyrhinus* differs from *cribricollis* by having the pronotum pustulate instead of conspicuously punctate; there is possibly a third species from Hawaii in Bishop Museum. G.A. Samuelson.

MAY

The 929th meeting of the Hawaiian Entomological Society was called to order by President Tenorio at 2:07 p.m., May 9, 1983 in the conference room of the Bishop Museum.

Members present: Bianchi, B. Gagné, W. Gagné, Harris, Howarth, Montgomery, Nishida, Tanimoto, Tenorio.

Visitors: Medeiros.

Reports of Officers and Committees:

Liaison: W. Gagné announced that the Nature Conservancy has an option to purchase conservation easement to 5,230 acres in Waikamoi, Maui, at \$60 per acre. This is an area on the Northern side of Haleakala, between 5000' and 6000' in elevation, ranging from Ohia rain forest to grassland. Gagné proposed that interested members either consider purchasing acres individually, or that the Society consider a lot purchase.

Gagné also announced that the bill in which tax refunds could go toward a non-game wildlife fund appeared stranded in committee. A bill to establish an Institute of Evolutionary Biology passed the legislature.

Program: Mr. Art Medeiros gave a talk on "Overview of insect pollination of Hawaiian plants."

NOTES AND EXHIBITIONS

Acrolepiopsis sapporensis (Matsumura) in Hawaii: An onion leaf miner was first noticed in Hawaii on Oahu in 1939 and recorded as the European onion leaf miner, *Acrolepia assectella* (Zeller) (Holdaway, 1944, Proc. Hawaii. Entomol. Soc. 12:19; Swezey, 1944 *Ibidem* 12:22. Zimmerman (1978, *Insects of Hawaii* 9:774) gave illustrations and a detailed description of the biology of *assectella*, but his account was based (with the exception of fig. 523) entirely on European material.

Specimens collected by my wife and me on the island of Hawaii in 1973 were recently identified by Dr. R. Gaedike, Instit. Für Pflanzenschutzforschung, Eberswalde, East Germany, as the Asiatic onion leaf miner, *Acrolepiopsis sapporensis* (Matsumura) (equals *A. alliella* Semenov & Kuznetsov). *A. assectella* and *sappo-*

rensis are very similar externally but clearly distinguishable in the genitalia. Our specimens were bred from larvae feeding in the stems of green-onion in a suburban garden in Hilo (larvae collected in June, moths emerged 27/VI — 13/VII.): in addition a single moth was attracted to light at Volcano (3800') on 12/V/1973. The presence of the European onion leaf miner in Hawaii must be considered doubtful and the original material from Oahu should be re-examined if it still exists.

The larva of *sapporensis* is recorded from *Allium* species (*A. cepa* L., *A. fistulosum* L., *A. nipponicum* Franchet et Savatier, *A. odorum* L., *A. porrum* L., *A. sativum* L., *A. schoenoprasum* L.) and its biology is probably similar to that of *assectella* as recorded by Zimmerman. Outside Hawaii *sapporensis* is known from the USSR; Siberia (Krasnoyarski and Ussuriysk districts) and Japan. This constitutes the first confirmed record of this species (Lepidoptera Yponomeutidae) in Hawaii. K. Sattler (presented by F. Howarth).

JUNE

The 930th meeting of the Hawaiian Entomological society was called to order by President JoAnn Tenorio at 2:01 p.m., June 13, 1983 in the conference room of the Bishop Museum.

Members Present: Arakaki, Bianchi, Brennan, Conant, Evenhuis, Gagné, Getman, Higa, Howarth, Joyce, Kunishi, Look, Montgomery, Nagamine, Nakahara, Preston, Radovsky, Reimer, Samuelson, Steffan, Sugerman, Swift, Tenorio, Teramoto.

Visitors: Alan Holt, Nature Conservancy; Alvin Matsumura, Dept. of Agriculture.

Report of Officers and Committees;

Editorial: Joyce announced that Vol. 24, 1 & 2 will go to press soon and be dedicated to Dr. Gressitt. Sierra Pacific Press will be the printer and a 200 copy overrun will take care of reprints.

Annual dinner committee: Sugerman announced that the annual dinner will take place at Tripler in the Crystal room on December 7.

Announcements: Frank Radovsky announced that the Assoc. of Systematics Collections meeting's "Pacific Tropical Biogeography Symposium" is in press and will be out in September.

Tenorio announced that Betsy Gagné resigned as program chairperson and that another one is needed.

Program: Alan Holt presented the story of efforts to obtain the Waikamoi Nature Preserve on Maui.

New Business: Radovsky moved that H.E.S. contribute toward the purchase of easement rights to the Waikamoi Preserve. It was seconded and unanimously approved. Bianchi then moved that \$500.00 be contributed to the Nature Conservancy now. Radovsky seconded. It was unanimously approved.

Wayne Gagné moved that a letter regarding banana poka biological control be sent to the Governor. It was seconded and approved.

Tenorio presented a plea from E.S.A. to get Congress to pass a resolution to recognize "National Entomology Week" to be held concurrently with the annual meetings in Detroit. Radovsky moved that a personal letter be drafted and sent to Hawaii's representatives in Congress explaining Hawaii's importance to biological control and other entomological disciplines. It was unanimously approved, to be carried out by the Liaison Committee.

JULY

The 931st meeting of the Hawaiian Entomological Society was called to order by President Tenorio at 10:00 a.m., July 11, 1983 in room 11 of St. John Hall on the University of Hawaii, Manoa campus.

Members Present: Bianchi, Brennan, Conant, Evenhuis, Gettman, Goff, Heu, Joyce, Muruvanda, Nakahara, Nishida, Oi, Preston, Reimer, Samuelson, Steffan, Swift, Tenorio.

Visitors: William Perriera.

Report of Officers & Committees:

Treasurer: Evenhuis (for Tanimoto) announced \$9,535.92 in treasury (including \$500.00 given to Nature Conservancy). \$1,785.00 was sent to the Publishers as first installment on the Proceedings.

Membership Committee: Evenhuis (for Tanimoto) moved that Sheila Conant be elected to membership. Approved unanimously.

Constitution: Bianchi discussed progress of the committee. Change of membership classification (re Honorary Membership) was discussed. The committee will draft an amendment for consideration at the Sept. meeting.

Old business: A thank you letter from the Nature Conservancy was read by Tenorio for our donation of \$500.00. A letter from Sen. Inouye was also read concerning E.S.A. National Entomology week.

Program: Mr. Al Gettman gave a presentation on avian malaria studies conducted on Midway Island.

NOTES AND EXHIBITIONS

Scudderia paronae Griffini: Specimens of what appears to be this tettigoniid were collected by Mr. Ronald Walker of the Hawaii D.L.N.R. Div. of Forestry and Wildlife on Green Island, Kure Atoll July 27, 1982. These grasshoppers were found on the grass *Eragrostis variabilis* (Gaud.) Hbd. The two specimens collected were sent to G.M. Nishida, B.P. Bishop Museum who forwarded them to D.A. Nickle of the U.S.D.A., S.E.L. in Washington. In his letter of April 8, 1983 to G.M. Nishida, Dr. Nickle noted that his identification is not absolutely certain due to the dessicated condition of the male specimen. Regardless of the species, this constitutes a new record of this genus in the Hawaiian Islands. *S. paranoë* is found in Central America from Panama, north to Central Mexico. **P. Conant.**

Uloma sp. (Coleoptera: Tenebrionidae): Specimens of this beetle were collected by Alan Gettman of the Univ. of Hawaii, Entomology Department, from Laie, Oahu on April 29, 1983. These beetles were found in rotting banana stumps. One of the two specimens collected was given to me and forwarded to Dr. J.W. Beardsley, Univ. of Hawaii, Entomology Dept. In his letter of June 16, 1983 to me, Dr. Beardsley noted that there are now two species of this genus on Oahu. The first being a *Uloma* sp., possibly *bonzica* Marsuel which was collected from Waimanalo, Oahu (Proc. Hawaii. Entomol. Soc. 24:6). Dr. Beardsley also noted that he had a specimen identical to the one collected by Mr. Gettman. The data on that one are: Wahiawa, Oahu 11-1-82, N. Acasaki. This constitutes a new record of this species in the Hawaiian Islands. **D.J. Preston.**

AUGUST

The 932nd meeting of the Hawaiian Entomological Society was called to order by President Elect Barry M. Brennan at 2:05 p.m., August 1, 1983 in room 306, Campus Center, Univ. of Hawaii, Hilo.

Members Present: Jack Fujii, Arnold Hara, Cliff Davis, Roy Cunningham, Bill Mull, Marlene Hapai, Ernie Yoshioka, Lloyd K. Shimoda, Barry Brennan.

Visitors: Roy Kobayashi, Michael Tanabe, Lily Wong, May Mall, Alan Sakai, Melvin Nishina, Dwight Sato, Laura Horigan, Damien Horigan, Thomas Horigan, Ruth Iwada, Tom Stasz, Lance Sokugawa. B.B. Akita, Harold Mastuura, Stan Shappell, Kiki Shapel, Glen Miura.

Report of Officers & Committees: No reports.

Announcements: The annual meeting will be held December 9 at Tripler Officers Club. This is the first meeting of the Society held outside of Honolulu. President-elect Brennan gave a brief description of the make-up and objectives of the Hawaiian Entomological Society.

Program: Dr. Arnold Hara discussed ornamental insect research.

SEPTEMBER

The 933rd meeting of the Hawaiian Entomological Society was called to order by President JoAnn Tenorio at 2:03 p.m., September 19, 1983 in the conference room of the Bishop Museum.

Members Present: Beardsley, Bianchi, Bryan, Arakaki, Conant, Evenhuis, W. Gagné, Hardy, Heu, Howarth, Kumashiro, Look, Montgomery, Nakahara, Nishida, Steffan, Swift, Tanimoto, Tenorio.

Visitors: Chao Chiu, Marianne Early, Al Gettman, Amy Ogasawara, Wilmur Snell, John Strazanac (all of the Univ. of Hawaii Entomology Dept.)

Reports of Officers and Committees:

Treasurer: Tanimoto announced there was \$5,894.60 in the treasury. Two installments have been paid on the Proceedings printing, one more installment is left. 121 members have paid dues, 66 have not as yet paid.

Membership: Tanimoto moved that William Perreira be elected to membership. Unanimously approved.

By-laws: Bianchi discussed progress of committee: two items were discussed 1) the change of title of the H.E.S. as stated in Art. I of the constitution and 2) the restructuring of classes of membership with the addition of a new class "retired" members. Final version of the proposed amendments will be mailed to members for voting at the next regular meeting.

Announcements: Annual dinner date was changed from Dec. 9 to Monday Dec. 12. It will be a Mongolian BBQ. Tentative prices are \$10.00 for members and guests, \$7.00 for students.

Old Business: Nature Conservancy of Hawaii announced that they had met their goal to obtain the Waikamoi Preserve on Maui and thanked the Society for their help.

New Business: Pat Conant will serve as ad hoc chairman of the Nominating Committee for new officers.

Program: Dr. John W. Beardsley gave a presentation on the Cassava mealybug and spider mite problems in Central America.

OCTOBER

The 934th meeting of the Hawaiian Entomological Society was called to order by President JoAnn Tenorio at 2:02 p.m., October 17, 1983 in the conference room of the Bishop Museum.

Members Present: Bianchi, Brennan, Conant, Evenhuis, Goff, Hardy, Howarth, Joyce, Krauss, Montgomery, Muruvanda, Mitchell, G. Nishida, Reimer, Samuelson, Simon, Steffan, Tanimoto, Tenorio.

Visitors: M. Early (U. of H.), N.K. Hanner (Kokee Museum), K.K. Leber (Bishop Museum), T. New (La Trobe Univ., Australia), S. Ikudome (Kago Univ.), A. Ogasawara, J. Strazanac, B. Tabashnik (of U. of H.).

Reports of Officers and Committees:

Membership: Tanimoto moved that Wilmer Snell be elected to membership. Unanimously approved.

Nominating Committee: Conant announced the following as nominees for H.E.S. officers for 1984. Ballots will be sent out to members.

President-elect	Stan Higa & S. Saul
Secretary	Chris Simon
Treasurer	W. Snell & Neil Reimer
Advisor	K. Kaneshiro & F. Chang

Old Business: Amendments to the constitution and by-laws were discussed with five major changes approved by vote of membership. The document with changes was approved by 17 members, no disapprovals, no abstentions.

Letters from our Congressmen, Inouye, Matsunaga, Heftel, and Akaka concerning support for National Entomology Week were presented by Pres. Tenorio.

Program: Dr. Christine M. Simon gave a slide presentation on the "Natural History of Costa Rica."

NOTES AND EXHIBITIONS

***Maconelliococcus hirsutus* (Green):** The Egyptian hibiscus mealybug, *Maconelliococcus hirsutus* (Green), was discovered for the first time in Hawaii on Sept. 22, 1983 near the Star of the Sea School on Kalaniana'ole highway in the Kahala District of Honolulu, by J.W. Beardsley. This mealybug (Homoptera: Pseudococcidae), a well-known pest of cotton, hibiscus, and many other plants, was found heavily infesting a hedge of common hibiscus growing along the sidewalk at this location. The mealybugs were determined by Dr. Beardsley. *M. hirsutus* was originally described from specimens from India (Green, 1908; Mem. Dept. Agr. India, Ent. Ser. 2, p. 25) as *Phenacoccus hirsutus*, under which name it appears frequently in literature prior to 1958. Hall (1921, Egypt Min. Agr. Tech. Ser. (Ent. ser.), Bul. 17) provided a full redescription and life history of this species. Later Ezzat (1958, Bul. Soc. Ent. Egypt 42:377-383) proposed the genus *Maconelliococcus* to accommodate this morphologically distinctive mealybug, which he placed in the Tribe Planococcini, the group which contains the citrus mealybug, *Planococcus citri* (Risso) and its relatives. The recorded distribution of *M. hirsutus* includes Egypt, Sudan, Pakistan, India and Southeast Asia, east to New Guinea and the Philippines. Following its discovery in Egypt in 1912, *M. hirsutus* became a serious pest to ornamental trees and shrubs in Cairo and surrounding areas of Egypt. However, Moursi (1948, Bul. Soc. Ent. Egypt 32:9-16) stated that populations eventually declined, a fact which he attributed largely to the appearance of an encyrtid parasite, *Anagyrus kamali* Moursi. This parasite and another, as yet undetermined, *Anagyrus* sp. have been reared from *M. hirsutus* collected here. These parasites, which probably arrived in Hawaii with their host, may be providing a fortuitous, natural biological control of *M. hirsutus* here (see following note).

On hibiscus, *M. hirsutus* was found infesting young twigs. The mealybugs caused gall-like deformations of the terminal growth characterized by internode shortening, deformed leaves and thickened twigs. J.W. Beardsley.

***Anagyrus kamali* Moursi and *Anagyrus* sp.:** Two species of *Anagyrus* (Encyrtidae), previously unreported in Hawaii, were reared from specimens of a newly

discovered immigrant mealybug, *Maconellicoccus hirsutus* (Green), collected on Oahu, on September 22, 1983. One of these, *Anagyrus kamali* Moursi, is a well-known parasite of this mealybug which Moursi (1948, Bul. Soc. Ent. Egypt 32:9-16) credited with being largely responsible for the decline and control of *M. hirsutus* in Egypt. *A. kamali* was described from Egyptian specimens (Moursi, 1948, Bul. Soc. Ent. Egypt 32:1-7) but very probably was accidentally introduced there. The second *Anagyrus* species, as yet undetermined, appears to be less plentiful than *A. kamali*. Several dozen specimens of the former were reared from parasitized mealybugs held in the laboratory; the same material yielded only two of the latter. Determinations were made by me. J.W. Beardsley.

Some new mite records for Hawaii:

Acari: Fam. Trombiculidae.

Examination of nest material of the Black-footed Albatross, *Diomedea nigripes*, collected on Sand I., Midway Is., has revealed an undescribed species of the genus *Neoschoengastia*.

Examination of 3 specimens of the Nihoa Finch, *Telespyza ultima*, collected on Nihoa I. by S. Conant, has revealed 4 species of chiggers associated with these birds: *Guntheria domrowi* Brennan, 1965; *Neoschoengastia ewingi* Wharton and Hardcastle, 1946; *Eutrombicula* sp.; and *Toritrombicula* sp. Presence of these larvae attached to an endemic land bird indicates that these species are established on Nihoa I. rather than being incidental records. Of the 4 genera involved, *Eutrombicula* and *Neoschoengastia* are known to be involved in cases of chigger-caused dermatitis in humans.

Acari: Fam. Erynetidae.

Recent examinations of the nasal cavities of 3 specimens of the Nihoa Finch, *T. ultima*, resulted in the discovery of specimens of the speleognathine mite, *Boydaia agelaii* Fain & Aitken, 1968, in 1 individual. This is the first record of this mite from the Hawaiian Islands and the first record of an erynetid mite from an endemic Hawaiian bird.

Acari: Fam. Tydeidae.

Soil and litter samples from Sand I., Midway Is., contained specimens of a tydeid mite of the genus *Tydeus*. This is the first record of this genus and family from Midway.

The tydeid mite, *Pronematus ubiquitous* (McGregor), was recovered from tomato leaves collected on Oahu and Molokai (Kaunakakai) submitted to the Cooperative Extension Services, Univ. of Hawaii, on 12 Feb. 1983. This is the first record of this mite in Hawaii. This species appears to feed on honey dew, fungus and other dead mites, although frequently incorrectly recorded as damaging to plants, according to Jepson et al (1975).

Acari: Fam. Paratydeidae.

Specimens of the family Paratydeidae were recovered from soil and litter samples from Midway Is. This is the first record of this family from Midway Is.

Acari: Fam. Eriophyidae.

A sample of petunia, *Petunia hybrida*, was submitted to the Coop. Extension Service, Univ. of Hawaii, which was heavily infested by the Tomato Russet Mite, *Aculops lycopersici* (Masse). The sample was from Lahina, Maui, on 8 Mar. 1983. This appears to be the first record of this mite attacking this host in Hawaii.

Acari: Fam. Cheyletidae.

Examination of specimens in the collection of the Acarology Lab of the Univ. of

Hawaii revealed specimens of *Eucheyla panamensis* Baker, 1949, collected from soil and litter samples on the U.H. Campus by Dr. F. H. Haramoto in 1966. This is the first record of this genus and species in the Hawaiian Islands. The species was originally described from Panama from a single specimen associated with the termite eggs. M. Lee Goff.

Forensic Entomology Notes:

As part of a continuing cooperative study with the office of the Medical Examiner, City and County of Honolulu, insects are collected from bodies discovered in an advanced state of decomposition in order to determine the approximate time of death. To date, 5 species of insects have been consistently recovered from remains: *Chrysomya megacephala* (Fab.) (Diptera); *Chrysomya rufifacies* (Macquart) (Diptera); *Dermestes ater* DeGeer (Coleoptera); *Dermestes maculatus* DeGeer (Coleoptera); and *Necrobia rufipes* DeGeer (Coleoptera). The *Chrysomya* species are the first insects to invade the body and are of significance in dating the remains until day 13, while the *Dermestes* species are of greater significance in the later (5th-6th) stages of decomposition. The role of the clerid, *N. rufipes* has not yet been established. M. Lee Goff.

Stenotarsonemus furcatus DeLeon: Specimens of a tarsonemid mite damaging taro in Waimanalo, Oahu, were submitted to Dr. W.C. Mitchell in July, 1983. This mite has been identified as *Stenotarsonemus furcatus* DeLeon, 1955. This is the first record of this distinctive species in the Hawaiian Islands. Jeppson et al (1975) list ornamental grasses and greenhouse grown maranta as hosts for this species. The damage is expressed as severely distorted leaves and stunted plants. M. Lee Goff & W.C. Mitchell.

NOVEMBER

The 935th meeting of the Hawaiian Entomological Society was called to order by President JoAnn Tenorio at 2:03 p.m., November 14, 1983 in the conference room of the Bishop Museum.

Members Present: Arakaki, Evenhuis, W. Gagné, Hardy, Heu, Howarth, Gettman, Joyce, Krauss, Medler, Mitchell, G. Nishida, Reimer, Samuelson, Simon, Sugerman, Swift, Tanimoto, Tenorio.

Visitors: S. Ikudome, T. Okadome.

Reports of Officers and Committees:

Treasurer: Tanimoto announced that there was \$3,850.44 in the H.E.S. treasury as of Nov. 14, 1983.

Membership: Tanimoto moved that John Strazanac and Amy Ogasawara (graduate students in entomology at U. of H.) be elected to membership in the society. Seconded and unanimously approved.

Liaison: W. Gagné presented a letter from the Manchester Museum in England asking for support to maintain their entomological collections. It was decided that a letter be drafted to the Director of the Manchester Museum by the Liaison committee on behalf of the Society.

Old Business: The notice of the annual dinner of the H.E.S. was presented to the Society by Pres. Tenorio.

New Business: Dr. Samuelson requested the Society give the Gressitt family 6 copies of the latest Proceedings, which was dedicated to Dr. Gressitt. This was moved, seconded and unanimously approved.

Tanimoto requested approval for up to \$200.00 to be spent on various items for the annual dinner. Seconded and approved.

Announcements: Mitchell announced that A.A. LaPlante had recently passed away.

Krauss presented a letter from E.C. Zimmerman who has just received the Jordan Medal by the Lepidopterist's Society of America. A letter of congratulations on his receiving this distinguished honor will be sent to him on behalf of the Society.

Program: Dr. John Medler gave a slide presentation on a "Kenya Safari."

DECEMBER

The annual dinner meeting (936th) of the Hawaiian Entomological Society took place at the Tripler Officers Club. A Mongolian BBQ with some members in full Oriental costume ensued. 57 members, spouses and guests attended.

A special award for Distinguished Service (the Society's first such award) was presented to Mr. E.H. Bryan, Jr., who has been a member of the Society since 1919.

Pat Conant, for the nominating committee, announced the new officers for the year 1984:

President-elect	Stephen Saul
Secretary	Chris Simon
Treasurer	Wilmur Snell
Advisor	Ken Kaneshiro

Incoming President Barry Brennan then presided and reintroduced the out-going President JoAnn Tenorio who gave her presidential address entitled "Through the Looking Glass," a short history of the Hawaiian Entomological Society, noting recent problems and making some recommendations for the future. After grab bag gifts and costume prizes were handed out the dinner meeting adjourned at 10:30 p.m.

NOTES AND EXHIBITIONS

Some new thrips records for Hawaii: Among the thrips specimens caught by a series of sticky traps at Kula, Maui in Nov. and Dec. 1981, and determined by K. Sakimura, the following three spp. were found to be the first collection in the Hawaiian Islands for two and on the island of Maui for the other.

Sericothrips gracilipes Hood: This is the first species of the Tribe Sericothripini of the Family Thripidae collected in the Hawaiian Islands. The collection data suggest that the species had been well established at one of the trappings stations in Kula. This species has been known from northeastern Mexico, southern Texas, and Jamaica, and it was once known as a minor pest of cotton in Mexico. In Jamaica it was observed common everywhere on various common weeds, such as wild pea-beans, false mallow, of cotton in Mexico. In Jamaica, and sida. This group of thrips is mostly attractively colored on body and wings, and covered with numerous minute silky hairs on abdomen, making them rather distinctive from other thrips. K. Sakimura.

Baileiothrips limbatus (Hood): This species belongs to the Subtribe Aptinothripina of the Family Thripidae, and is closely related but differs from *B. arizonensis* (Morgan) that was collected at Barbers Point, Oahu in 1980 (Proc. 24:181). Two specimens of *limbatus* were caught separately at two different trapping stations in Kula, suggesting its rather incidental species status. This species has been known from Panama and Jamaica, and many of them were once collected from *Euphorbia* sp. in Panama, but only a single specimen, from *Desmodium* sp. in Jamaica. *Euphorbia* spp. seems to be preferred hosts for this species as well as other *Baileiothrips* sp., and *Desmodium* sp. could be a transient host. Any weedy *Euphorbia* sp. in Kula can be suspected as host plants of this species there. K. Sakimura.

Rhamphothrips pandens Sakimura: This newly described but definitely adventive species to the Hawaiian fauna has been previously collected from Oahu and Kauai in 1966. Now, three specimens were separately collected at three different trappings stations in Kula, Maui. This species has apparently spread further since 1966. It seems to be a general flower feeder, but was often found among various leguminous flowers. K. Sakimura.

NEW IMMIGRANT RECORDS FOR THE YEAR 1982

The following species were reported for the first time in the Hawaiian Islands during 1982, 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.

Chance Immigrants

	Page
* <i>Elixothrips brevisetis</i> (Bagnall) (Thysanoptera: Panchaethripidae)	2
<i>Trouessartia trouessarti</i> Oudemans (Acari: Trouessartidae)	3
<i>Barbutia</i> sp. (Acari: Barbutidae)	4
<i>Halticus bractatus</i> (Say) (Heteroptera: Miridae)	7
<i>Lehmannia poirieri</i> (Mabille) (Pulmonata: Limacidae), a slug	8
<i>Anthicus ephippium</i> Le Ferte (Coleoptera: Anthicidae)	8
<i>Apanteles galleriae</i> Wilkinson (Hymenoptera: Braconidae)	8
<i>Apanteles</i> sp. (Hymenoptera: Braconidae)	9
<i>Ochthera circularis</i> Cresson (Diptera: Ephydriidae)	12
<i>Chirodiscoides caviae</i> Hirst (Listrophoroidea: Atopomelidae)	12
<i>Trixacarus caviae</i> Fain (Sarcoptoidea: Sarcoptidae)	13
<i>Trichadenotecum</i> sp. (Psocoptera: Psocidae)	15

NEW IMMIGRANT RECORDS FOR THE YEAR 1983

The following species were reported in the Hawaiian Islands for the first time during 1983, or earlier, on the dates reported in the text.

Chance Immigrants

	Page
<i>Chaetocnema confinis</i> Crotch (Coleoptera: Chrysomelidae)	17
<i>Bemisia tabaci</i> (Gennadius) (Homoptera: Aleyrodidae)	18
<i>Geckobia keegani</i> Lawrence, 1953 (Acari: Pterygosomatidae)	19
<i>Geckobia nepalii</i> Hiregauder, Joshee & Soman, 1959 (Acari: Pterygosomatidae)	19
<i>Hemerodromia</i> sp. (Diptera: Empididae)	20
<i>Neophyllaphis podocarpi</i> Takahashi (Homoptera: Aphididae)	21
<i>Dacus</i> (<i>Bactrocera</i>) <i>latifrons</i> (Hendel) (Diptera: Tephritidae)	21
<i>Acrolepiopsis sapporensis</i> (Matsumura) (Lepidoptera: Yponomeutidae)	23
<i>Scudderia paronae</i> Griffini (Orthoptera: Tettigoniidae)	25
<i>Uloma</i> sp. (Coleoptera: Tenebrionidae)	25
<i>Maconellicoccus hirsutus</i> (Green) (Homoptera: Pseudococcidae)	27
<i>Anagyrus kamali</i> Moursi (Hymenoptera: Encyrtidae)	27
<i>Anagyrus</i> sp. (Hymenoptera: Encyrtidae)	27

Boydala agelaii Fain & Aitken, 1968 (Acari: Ereyetidae)	28
Pronematus ubiquitus (McGregor) (Acari: Tydeidae)	28
Eucheyla panamensis Baker (Acari: Cheyletidae)	29
Stenotarsonemus furcatus DeLeon (Acari: Tarsonemidae)	29
Sericothrips gracillipes Hood (Thysanoptera: Thripidae)	30
Baileyothis limbatus Hood (Thysanoptera: Thripidae)	30

**BENEFICIAL INSECTS PURPOSELY INTRODUCED
AND FOUND ESTABLISHED, AS NOTED IN 1983**

	Page
<i>Nephaspis bicolor</i> Gordon	83
<i>Amitis ?spiniferus</i> (Brethes)	83
<i>Cales noacki</i> De Santis	83
<i>Zeteticontus utilis</i> Noyes	83
<i>Apanteles plutellae</i> Kurdjumov	86

NAME CHANGES & CORRECTIONS NOTED IN 1983

Previous name	Changed to	Reason*	Page
<i>Nephaspis</i> sp.	<i>Nephaspis bicolor</i> Gordon	ND	83
<i>Zeteticontus</i> sp.	<i>Zeteticontus utilis</i> Noyes	ND	83
<i>Gillettea taraxaci</i> , Beardsley 1970	<i>Phanacis hypochaeridis</i> (Kieffer)	MI	49
<i>Charips brassicae</i> , Beardsley 1966	<i>Phaenoglyphis ambrosiae</i> (Ashmead)	MI	52

OFFICERS AND COMMITTEES FOR 1982 AND 1983

1982	Elected Officers	1983
M. Lee Goff	<i>President</i>	JoAnn M. Tenorio
JoAnn M. Tenorio	<i>President-elect</i>	Barry M. Brennan
Stephen Saul	<i>Secretary</i>	Neal L. Evenhuis
Victor Tanimoto	<i>Treasurer</i>	Victor Tanimoto
Ronald Mau	<i>Advisor (Past-Pres.)</i>	M. Lee Goff
Asher Ota	<i>Advisor</i>	Wallace A. Steffan

Standing Committees

Editorial

C. Ray Joyce	<i>Editor</i>	C. Ray Joyce
E.J. Harris		Jack Beardsley
Asher Ota		E.J. Harris
G.A. Samuelson		G.A. Samuelson
Minoru Tamashiro		JoAnn M. Tenorio
JoAnn M. Tenorio		

*ND = newly described

MI = misidentified

Finance

Po-Yung Lai	.....	<i>Chairman & Business Manager</i>	.....	Po-Yung Lai
Victor Tanimoto	.....	<i>Treasurer</i>	.....	Victor Tanimoto
C. Ray Joyce	.....	<i>Editor</i>	.....	C. Ray Joyce
Kenneth Murai				Kenneth Kaneshiro
Kenneth Teramoto				

Program

Barry Brennan	.....	<i>Chairman</i>	.....	Betsy Gagné
Wallace Mitchell				Franklin Chang

Membership

Victor Tanimoto	.....	<i>Chairman (Treas.)</i>	.....	Victor Tanimoto
Neal Evenhuis				Neal Evenhuis
George Kitaguchi				Franklin Chang
Kenneth Murai				James Ikeda
Roger Vargas				Kenneth Murai

Science Fair

Wallace Steffan	.....	<i>Chairman</i>	.....	Wallace Steffan
Vincent Chang				Vincent Chang

Liaison

Wayne Gagné	.....	<i>Chairman</i>	.....	Wayne Gagné
Larry Nakahara				Stephan Saul
Dick Tsuda				Victor Tanimoto

Common Names

Dick Tsuda	.....	<i>Chairman</i>	.....	Dick Tsuda
Stanley Higa				Stanley Higa
Robert Kunishi				Robert Kunishi
Bernarr Kumashiro				Pat Conant
Pat Conant				Frank Howarth
Gary Toyama				

Annual Dinner Arrangements

Gordon Nishida	.....	<i>Chairman</i>	.....	Bernard Sugerman
				Gordon Nishida

MEMBERSHIP 1982 & 1983

Honorary Members

Au, S.
 Balock, J.W.
 Bess, H.A.
 Bianchi, F.A.
 Bryan, E.H., Jr.
 Callan, E. McC.

Chock, Q.C.
 Chong, M.
 Clagg, C.F.
 Davis, C.J.
 Haramoto, F.H.
 Hardy, D.E.

Joyce, C.R.
 Krauss, N.L.H.
 Look, W.C.
 Maehler, K.L.
 Morrill, A.W., Jr.
 Sakimura, K.

Members¹

- Andrews, W.B., Jr.
 Arakaki, K.K.
 Arita, L.H.
 Beardsley, J.W., Jr.
 Bellinger, P.F.
 Brennan, B.M.
 Burkhart, R.
 Chang, F.
 Chang, V.
 Chilson, L.M.
 Ching, Y. (82 only)²
 Chun, M.
 Conant, P.
 Conant, S. (83 only)²
 Culliney, T.W.
 Cunningham, R.T.
 Eschle, J.L.
 Evenhuis, N.L.
 Fujii, J.K.
 Fujii, W.K.
 Fujimoto, M.S.
 Funasaki, G.Y.
 Furumizo, R.T.
 Gagné, B.H.
 Gagné, W.C.
 Gatmaitan, F.M.
 Gettman, A.D.
 Gon, S.M., III
 Goff, M.L.
 Grady, D.D.
 Greenfield, R.H. (83 only)²
 Hadi, T.R.
 Hagen, K.S.
 Hamasaki, R.T.
 Hapai, M.M.
 Hara, A.H.
 Harris, E.J.
 Henderson, D.S.
 Heu, R.
 Higa, S.
 Hinckley, A.D.
 Hirashima, Y.
 Howarth, F.G.
 Ikeda, J.K.
 Inoue, S.
 Ito, R.
 Ito, M.
 Jang, E.B.
 Johnson, M.W.
 Kaichi, L.T.
 Kajiwara, J.T.
 Kanegawa, K.M.
 Kaneshiro, K.Y.
 Kawazoe, A.
 Kaya, H.
 Kitaguchi, G.
 Kobayashi, R.M.
 Koga, R.E.
 Kohn, M.A.
 Komatsu, G.H.
 Kumashiro, B.R.
 Kunishi, R.K.
 Lai, P.-Y.
 Lauret, T.H.
 Lee, C.Y.L., Sr.
 Leeper, J.R.
 Lind, N.K.
 Litsinger, J.A.
 Loschiavo, S.R.
 Maddison, P.A.
 Madinger, F.L.
 Makino, H.
 Mason, G.A.
 Matayoshi, S.
 Mau, R.F.L.
 McInnis, D.O.
 McMahan, E.
 Medler, J.T.
 Mitchell, W.C.
 Miyahara, N.
 Miyake, S.S.
 Miyamoto, R.I.
 Miyashita, D.H.
 Montgomery, S.L.
 Morifuji, J.Y.
 Morihara, D.K.
 Mull, W.P.
 Muniappan, R.
 Murai, K.T.
 Muruvanda, D.A.
 Myles, T.G.
 Nagamine, W.T.
 Nakagawa, P.Y.
 Nakagawa, S.
 Nakahara, L.M.
 Nakahara, S.
 Nakamura, G.
 Namba, R.
 Napompeth, B.
 Nishida, G.M.
 Nishida, T.
 Nowell, W.R.
 Oatman, E.R.
 Ogasawara, A.A. (83 only)
 Oi, D.H.
 Olson, F.J.
 Onaga, K.
 Ota, A.K.
 Ozaki, E.T.
 Pang, E.L.
 Perkins, B.D., Jr.
 Perreira, W.D. (83 only)
 Pinter, L.
 Preston, D.J.
 Pribble, D.L.
 Radovsky, F.J.
 Rashid, A.R.
 Reimer, N.J.
 Rice, E.A.
 Rice, R.C.A.
 Riotte, J.C.E.
 Robin, M.R.
 Rutschky, C.W., III
 Samuelson, G.A.
 Sanders, D.A.
 Saul, S.H.
 Schaefer, P.W.
 Schneider, E.L.
 Schnitzler, W.H.
 Schoeppner, R.F. (83 only)
 Sengbusch, C.H.
 Sengbusch, H.G.
 Seo, S.T.
 Sherman, M.
 Shimoda, L.K.
 Shiroma, E.
 Shroyer, D.A.
 Simon, C.M.
 Snell, W.E. (83 only)
 Spandoni, R.D.
 Steffan, W.A.
 Stein, J.D., Jr.
 Strazanac, J.S. (83 only)
 Su, N.-Y.
 Su, T.-H.
 Sugawa, D.T.
 Sugerman, B.B.
 Swift, S.F.
 Tabashnik, B.E.
 Takara, J.M.
 Takei, G.H.
 Tamashiro, M.
 Tanabe, A.
 Tanada, Y.
 Tanaka, N.
 Tanaguchi, G.Y.
 Tanimoto, V.M.
 Tenorio, J.A.
 Tenorio, J.M.
 Teramoto, K.K.
 Toyama, G.M.
 Tsuda, D.M.
 Uchida, G.K.
 Vargas, R.I.
 Watanabe, T.M.
 Williamson, D.L.
 Wirth, W.W.
 Wong, T.
 Woolliams, K.R.
 Yano, K.
 Yates, J.R., III
 Yoshida, H.A.
 Yoshimoto, C.M.
 Yoshioka, D.S.
 Yoshioka, E.R.
 Young, G.R.
 Yudin, L.S.
 Zimmerman, E.C.

¹Members for both 1982 & 1983 unless otherwise indicated.²Members for the year indicated.

IN MEMORIAM



KEIZO YASUMATSU, 1908-1983

Keizo Yasumatsu, an honorary member of the Hawaiian Entomological Society, died in Fukuoka, Japan, January 25, 1983, after being hospitalized since October 1980. It is with great sorrow that I write this obituary of my friend with whom I have collaborated in international crop protection projects in Japan and Southeast Asia intermittently for over 15 years.

Professor Yasumatsu was born in Tokyo, Japan, February 29, 1908. He was educated in the schools in Fukuoka and did graduate work at the Kyushu University, then known as the Kyushu Imperial University. He received his doctorate in entomology in 1933 under Professor Teiso Esaki, the distinguished Austria-educated entomologist of that era.

His first employment was at the Hikosan Biological Laboratory which is one of the satellite research laboratories of the Kyushu University. After spending six years at this laboratory located high on the slopes of Mount Hikosan, he was appointed Assistant Entomologist at the Kyushu University in 1939 and promoted to Associate Entomologist in 1942. After the death of Professor Esaki, Dr. Yasumatsu succeeded him as Professor in 1958. He retired in 1971 after thirty-eight years of active research and teaching. Although he retired from University work, he never retired from research work. He was engaged in international crop protection research in Southeast Asia up to the time of his illness and hospitalization.

Professor Yasumatsu was not only a precocious, but a prolific researcher. He began publishing papers when only 20 years old and by the time he had completed requirements for the M.A. degree he had published 36 papers. At the time of his death he had published more than 600 papers and four books.

Although he researched on many aspects of entomology, Professor Yasumatsu received awards mainly for his work on the taxonomy of Hymenoptera and biological control in Japan. The Japanese government awarded him the Medal with Purple Ribbon, Third Class Order of the Rising Sun, and Resident Scholar award. He was also awarded the Asahi Press Prize from the Asahi Press and the Horticultural Society of Japan awarded him the Nihon Nogaku Sho. The University of California, Berkeley, California, awarded him the Harry S. Smith Memorial Award in 1971, and the Kasetsart University Bangkok, Thailand, the Honorary Doctor of Science degree in 1976 for his biological control work.

In addition to his research work, Professor Yasumatsu took great interest in the affairs of educational and scientific organizations. At the Kyushu University, he established the Institute of Biological Control, the first and only institute of its kind in Japan. He founded two entomological journals, *Mushi* and *Esakia*. For many years he was the editor of *Kontyu* and *Pacific Insects*. His membership in various committees included: Council of Education, Science, and Culture of Japan; Ministry of Agriculture, Forestry, and Fisheries; Pacific Science Congress; International Organization for Biological Control; and International Congress of Entomology. He was the organizer and participant of many workshops and symposia on crop protection that were held in many parts of the world.

Prior to his retirement and up to his hospitalization, Professor Yasumatsu was active in international research on crop protection. His involvement in international work began in 1940 when he joined the Micronesia Expedition which was headed by Professor Esaki. Subsequently, he collaborated with the late Dr. J.L. (Lin) Gressitt, Bishop Museum, Honolulu, Hawaii, on the Insects of Micronesia project. In 1942 he was a member of the Scientific Expedition to Chansi, China, sponsored by the Association of Natural Resources of Japan. During 1963-1966 he collaborated with H.A. Bess and T. Nishida on the Japan-United States Bi-National Science Program. In 1970 the International Biological Program (IBP) was launched in Japan. Professor Yasumatsu was the Japanese project leader to study the biological control of rice stem borers, aphids, scales, and mites. After his retirement in 1971, he lived in Thailand for six years carrying out research on pest management of rice pests. During this period, I had the opportunity of doing collaborative research with him on projects sponsored by the Department of Agriculture of Thailand, Food and Agriculture Organization of the United Nations (FAO), and the Japan International Co-operation Agency (JICA). After retirement from Kyushu University, Professor Yasumatsu also served as entomological consultant for FAO in Iran, Korea, and Malaysia.

Besides being an entomologist Professor Yasumatsu was a self-appointed Ambassador of Good Will of Japan. Having mastered the English language and traveled widely, he had excellent credentials for this job. Many foreigners came to visit him in Japan and in doing so they became familiar with the Japanese science and culture. He literally opened the doors of the Japanese entomological world to foreign entomologists.

Today he is gone, however, Professor Yasumatsu will be remembered not only in Japan, but throughout the world. We have lost not only a scholar, but a friend who devoted himself to the welfare of entomology and fellow workers. He is survived by his wife, Yoshie, and daughter, Eiko, Mrs. T. Sengoku of Tokyo. On behalf of all his friends, I wish to convey our deepest condolences to both of them.

— Toshiyuki Nishida.

PUBLICATION POLICIES

Guide for Contributors

The Proceedings of the Hawaiian Entomological Society (P.H.E.S.) has been the official Journal of the Society for 79 years since its establishment in 1905. It has ably served to carry out the purpose of the Society: to promote and advance the science of entomology and the professional status of entomologists. A Number has been published each year. Over the years 3 to 5 Numbers have been grouped into Volumes. These 25 Volumes contain a large and valuable series of papers on all aspects of entomology in the Hawaiian Islands. It provides a history and chronological record of the discovery or arrival of most important immigrant species found in Hawaii. As you will note P.H.E.S. is changing to one Volume per year without separate numbers. The next issue will contain an index with the issue rather than as a separate as in the past.

The P.H.E.S. normally contains the minutes in abbreviated form of monthly meetings of the Society, notes and exhibitions submitted by members at the meeting, as well as research papers submitted by or through members. Papers on all aspects of entomology related to the Hawaiian Islands are encouraged. Papers on subjects of a general nature pertaining to the Pacific Oceania area which would impact on or benefit Hawaii entomology are acceptable. Each Volume is carefully indexed as to authors, insects or other organisms, and plants mentioned in the publications.

Types of articles published in P.H.E.S. include: scientific manuscripts, shorter research and operational notes, notes and exhibitions, obituaries, presidential address, and other information of general interest to the Society.

Authors wishing to submit papers for publication in P.H.E.S. should refer to the information for contributors inside the front cover of a recent issue of the Proceedings. Also observe the format and style of a paper in a recent issue. We follow guidelines as set up in the latest issue of the CBE Style Manual, Council of Biology Editors (Fifth Edition, 1983). Your attention is also called to the "Publication Policies and Guide for Authors" appearing in the Bul. of the Entomological Society of America Vol. 30(1):37-40, 1984, a Society to which we are affiliated.

Some specific guidelines for scientific papers and for notes and exhibitions are as follows:

Guidelines for Notes and Exhibitions

The "Notes and Exhibitions" portion of the monthly meetings of H.E.S. has been an important part of the program. It serves to stimulate the exchange of ideas, promote discussion, and publicize new discoveries of benefit to other entomologists. Notes need not be confined to new state records or island records. Many new things worthy of note are being discovered every day of interest to entomology, be it in the field of systematics, biology, physiology, toxicology, control, or environmental concerns. You are encouraged to submit more varied and exciting notes worthy of being put into print.

In an effort to provide uniformity and accuracy the following guidelines are suggested:

1. A member of H.E.S. may submit notes at a monthly meeting of the Society, in written form if he/she wishes it to appear in print.
2. Absent or outer island members may submit notes through a member present at the meeting.
3. Submit 2 typed double-spaced copies of each note, one for the Secretary and one for the Editor.

4. Observe the style of notes appearing in a recent issue of the Proceedings.
5. Make the note brief and to the point with only essential information. Limit note to not more than one double spaced typewritten page ($\frac{1}{2}$ printed page).
6. Check all items for accuracy and for inclusion of insect scientific name, author, and family name.
7. Research the note and/or consult a specialist. Is it acutally a new discovery, record, host, etc.
8. Limit references to a few brief ones.
9. As a general rule tables, graphs or photographs will not be allowed in a note.
10. Page charges will not be assessed nor will reprints be ordered for notes.
11. If longer than a typewritten page submit the item as a research and operational note subject to usual page charge.

Guidelines for Contributors of Scientific Manuscripts

Although not a complete listing, this will serve to emphasize certain items where changes have been made or problems have been encountered with previous submitted manuscripts.

1. Submit 3 copies of the manuscript, preferably at a regular monthly meeting of the Society.
2. A least one of the authors should be a H.E.S. Member, or its publication be endorsed or communicated by a H.E.S. member.
3. Place name, address, and telephone number of the person to whom galley proofs are to be sent, in the upper right hand corner of title page.
4. Approval of manuscript may be facilitated if author has previously secured two peer reviews (experts in the field) and so indicate with their names, to the Editor.
5. If not previously reviewed, the suggestion of names of qualified authorities in the subject to which the manuscript may be referred will be appreciated.
6. All submitted manuscripts must be *accompanied by an abstract*.
7. The use of tables should be kept to a minimum. Some information can be better presented as part of the text.
8. Use the *metric system* exclusively. U.S. equivalents may follow in parenthesis if practical applications dictate. Exceptions may be made when citing label data or utilizing direct quotations.
9. Normally the Editor will send the paper to 2 members of the editorial committee and/or outside reviewers who will indicate acceptance, revision, or rejection.
10. A manuscript copy is returned to author with anonymous reviewers comments and/or corrections.
11. Author revises and returns manuscript to Editor *as soon as possible*.
12. Editor gives final approval, records approval date, and edits copy for the printer.
13. Proofs are sent to the author who is expected to *read proof carefully, make corrections, and return promptly*.
14. Article should *not be altered once it is in galley*. Corrections other than printers errors or editors errors will be billed to author.
15. Manuscripts will appear in an issue of the Proceedings in the order of acceptance for publication.

The Editor