

PROCEEDINGS
of the **HAWAIIAN**
ENTOMOLOGICAL
SOCIETY for 1972

VOL. XXI, No. 3
September 1974

Suggestions for Manuscripts

Manuscripts should be typewritten on one side of 8-1/2 × 11 white bond paper. Double space all text including tables. Margin should be a minimum of 1 inch. One original and 1 copy should be sent to the editor.

Pages should be numbered consecutively as well as footnotes, figures and tables. Place footnotes at the bottom of the manuscript page on which they appear with a dividing line. Place tables appearing in the manuscript separately at the back of the manuscript with a circled notation in the margin of the manuscript as to approximately where you wish them to appear.

Illustrations should be planned to fit the type page of 4-1/2 × 7 inches. The originals should be drawn to allow at least 1/2 reduction. It is preferred that original art work be reduced for reshooting by a line drawing velox process as supplied by a graphic arts plant to a size approximating 9 inches × 14 inches for submission to the editor. Photographs and graphs should be at least 8 × 10 inches. Original art work, however, is acceptable. Graphs and figures should be drawn in India ink on white paper, tracing cloth or light blue cross-hatched paper. Submit a 2nd copy of all art work.

Proofs should be corrected as soon as received and returned to the editor with the abstract on the forms provided. Additional costs to the Society for correction of authors' changes in proofs may be charged to the authors. An order for reprints should be placed when proofs are returned.

Fifty gratis copies of reprints will be supplied by the Society to authors under certain circumstances.

Examination of articles in this issue will help in conforming to the style of presentation desired. Many helpful hints are found in *Style Manual for Biological Journals* prepared by the Committee on Forms and Style of the Conference of Biological Editors available from the American Institute of Biological Sciences, 3900 Wisconsin Avenue N.W., Washington, D.C., 20016.

PROCEEDINGS
of the
Hawaiian Entomological Society

VOL. XXI, No. 3 FOR THE YEAR 1972 SEPT, 1974

JANUARY

The 793rd meeting of the Hawaiian Entomological Society was called to order by President Bill Look on 10 January 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Bess, Chambers, V. Chang, Davis, Funasaki, Gagné, Gressitt, Haramoto, Hardy, Howarth, Joyce, Kawamura, Kim, Lauret, Look, Madinger, Mitchell, Morrill, Napompeth, Nishida, Olney, Olson, Ota, Radovsky, Sakimura, Sherman, Shiroma, and Sugerman.

Visitor(s) Present: Dr. Nancy Lind.

Executive Committee: President Bill Look announced the appointment of officers and committee members for 1972:

Executive Committee William (Bill) C. Look (Chairman/
President)

Dr. Asher Ota (President-elect)

Franklin J. Olson (Secretary)

Dr. Frank Haramoto (Treasurer)

Harry Nakao (Advisor)

Dr. Derrell L. Chambers (Advisor—
past president)

Appointed Officers Dr. Minoru Tamashiro (Editor. Comple-
tion of one volume of the "Proceedings
of the Hawaiian Entomological Soci-
ety"—3 years 1971, 1972, and 1973)
Dr. Vincent Chang (Business Manager)
E.W. Jackson (Program Director)

Standing Committees:

Editorial Committee Dr. Minoru Tamashiro (Chairman)
(1971-1972)

Dr. Jack Beardsley

Dr. D.L. Chambers

Dr. Asher Ota

Finance Committee Dr. Vincent Chang (Chairman)

Dr. Frank Haramoto

Dr. Minoru Tamashiro

Dr. W.A. Steffan

- Membership Committee Dr. Frank Haramoto (Chairman)
 Stanley Kashiwai
 James Ikeda
 Harry Kumabe
 Kiichi Ohinata
- Program Committee E.W. Jackson (Chairman)
 Dr. Mercedes Delfinado
 Dr. Frank J. Radovsky
- Science Fair Committees Ronald Mau (Chairman)
 Richard Kobayashi
- Liaison Committee Steven Montgomery (Chairman)
 Ed Shiroma
 Dr. Franklin Chang
- Common Names
 Committee George Funasaki, Chairman
 Dr. D. Elmo Hardy
 Ed Shiroma
 Dr. C.R. Joyce
 F.J. Olson
 Francis Howarth
- Ad Hoc Committees:
 Amy Suehiro
 Memorial Committee
 (continuing)..... Francis Howarth and Wayne Gagné,
 Co-chairman, replacing Dr. Jack
 Beardsley
- Political Action
 Committee Dr. Namba replacing Dr. Jack Beards-
 ley as a committee member.

Membership Committee Report: Dr. Frank Haramoto submitted the names of Mr. Bruce Bowman of Neil Maclean Co., Inc.; Mr. Clifford Lee of the USDA Hawaii Fruit Fly Lab; and Dr. Nancy Lind, Hawaii Pacific College, for Society membership—memberships were ratified.

F.J. Olson read a letter to the Society from the Hawaii Science Fair Committee asking for support. Dr. Ota moved that sufficient funds be allotted to provide for awards to two categories of entomological exhibits at the Science Fair. Dr. Nishida moved that the motion be amended, allotting \$25 for each category—a total of \$50. The amendment was carried and the motion passed. Dr. Ota suggested that the winning students be invited to present their exhibits at a future Society meeting.

F.J. Olson read a letter from Dr. Noris of the Oceanic Institute requesting support to have the leeward Hawaiian islands included in the National Area Reserves System. Dr. Gressitt moved that the Socie-

ty endorse the preservation action—seconded by Dr. Radovsky. Dr. Sherman moved that the motion be tabled until the Liaison Committee could prepare a report to be presented at the February meeting. The motion to table was carried. Dr. Nishida suggested that President Look write a letter to Dr. Noris acknowledging receipt of the letter and advise him of the Society's pending action.

Presentation of Papers: Mr. Sakimura submitted a paper entitled, "*Frankliniella invasor*, new species, and notes on *F. gardeniae* and the *Frankliniella* spp. in Hawaii (Thysanoptera: Thripidae)."

C.J. Davis submitted a paper on "Recent Introductions for Biological Control in Hawaii—XVII."

Dr. Gressitt submitted a paper for Edwin Bryan, Jr., on the King Kamehameha butterfly (submitted directly to the editor).

NOTES AND EXHIBITIONS

Musca sorbens Wiedemann: A single adult specimen of the dog dung fly, *Musca sorbens*, was taken at large at Hanapepe, Kauai by F. Howarth during August for a new island record. This pestiferous fly has now been reported from every major island except Lanai. **K. Kawamura.**

Cheumatopsyche analis Banks: Four adult specimens of a caddis fly, *Cheumatopsyche analis*, were taken at Kokee and one at Haena Beach, Kauai by F. Howarth, during August for a new island record. *C. analis* was previously reported only from the islands of Oahu, Molokai and Hawaii. **K. Kawamura.**

Fiorinia fioriniae (Targioni—Tozzetti): Terminals and foliage of Monterey pine (*Pinus radiata*) in forest areas on Lanai were found to be moderately infested by the avocado scale, *Fiorinia fioriniae*, by N. Miyahira and constitutes a new island record. *F. fioriniae* was previously reported only from the islands of Oahu and Hawaii. **K. Kawamura.**

Contarinia sorghicola (Coquillett): Trace to light numbers of the sorghum midge, *Contarinia sorghicola*, were noted in 50 plus acres of sorghum at Kohala, Hawaii for a new island record. The sorghum midge was previously reported only from the islands of Kauai, Oahu and Maui. **K. Kawamura.**

Eucelatoria sp.: Three thousand puparia of a tachinid fly, *Eucelatoria* sp., were received during November 1971 from Dr. D.E. Bryan of the Cotton Insect Control Investigations, Tucson, Arizona. According to Dr. Bryan and his colleagues, attempts to cause this species to larviposit consistently in any host other than *Heliothis* spp. have all had negative results. This Arizona *Eucelatoria* is a species other than *Eucelatoria armigera* (Coquillett), which is already present in Hawaii. Dr. Bryan indicated that C.W. Sabrosky of the U.S. National Museum is undertaking a study of the Nearctic representatives of the genus and hopes to give the Arizona species a name. Flies which emerged from the

puparia were liberated on all major islands (Kauai, Oahu, Maui, Molokai, and Hawaii) to aid in the control of the corn earworm, *Heliothis zea* (Boddie). **G.Y. Funasaki.**

Atractomorpha crenaticeps (Blanchard): Kevan (Banerjee & Kevan 1960. *Treubia* 25: 175. Kevan 1971. *Zool. J. Linn. Soc. Lond.* 50: 158.) records a specimen of this grasshopper from above Aiea, Oahu, taken 18 March 1940. Dr. Kevan searched in this area in 1968 without results, although *A. sinensis* was present. The above must have been a chance introduction that did not establish. **J.L. Gressitt.**

Program: Dr. T. Nishida, retiring program director, introduced Drs. Haramoto and Mitchell who reported on the 55th ESA Meeting held in Los Angeles.

Drs. Gressitt and Nishida reported on the 12th Pacific Science Congress held in Canberra, Australia.

FEBRUARY

The 794th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 14 February 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Balock, Bess, Delfinado, Hardy, Howarth, Jackson, Joyce, Kajiwara, Lauret, Lind, Look, Olney, Olson, Ota, Pemberton, Radovsky, Shiroma, Sugarman, and Woolford.

Visitor(s) Present: Mrs. H.A. (Ercell) Woolford.

President Look announced that Messrs. David Olsen and Steve Montgomery would not be able to give their reports on the leeward Hawaiian islands relative to the National Wilderness System until the April meeting.

F.J. Olson read a letter received from Dr. Alan Ziegler, Vertebrate Zoologist of the Bishop Museum, which urged that Society-sponsored letters opposing the introduction of Axis Deer to the Big Island be sent to the State Animal Species Advisory Commission and to the Board of Land and Natural Resources. Dr. Ziegler also asked that petitions be signed and sent to the Board of Land and Natural Resources.

Dr. Radovsky moved that the Hawaiian Entomological Society address a letter to the Chairman of the Animal Species Advisory Commission, giving its opinion of the anticipated damage to the environment (including native arthropods) if the introduction of the Axis Deer was carried out. Because of its destructiveness the Society strongly opposes the introduction of Axis deer to the island of Hawaii. The motion was seconded by Francis Howarth. The motion carried unanimously.

Francis Howarth moved that the Liaison Committee make a report on the problem of feral goats in the Volcano National Park at

the next meeting. The motion was seconded by Dr. Radovsky. The motion was carried unanimously.

F.J. Olson announced that Dr. David Miller sent the Society a copy of a book he had written entitled, *Common Insects in New Zealand*. Dr. Miller would like the Society to review the book and publish the review in the "Proceedings". Dr. Chambers suggested that the book be turned over to the editor and that the editor decide who should review the book and write a review for inclusion in the "Proceedings". It was also suggested that the book be turned over to the HSPA library.

Presentation of Papers: F.J. Olson submitted a paper on "Insect Taxonomists in Hawaii"

NOTES AND EXHIBITIONS

Geococcus coffeae Green: I collected this hypogaecic mealybug on undetermined tree roots in caves at Koloa, Kauai on 11 August 1971 and at Hana, Maui on 14 December 1971 for two new island records for this widespread pest. **F.G. Howarth.**

Program: E.W. Jackson announced that David Olsen, who was scheduled to speak, could not appear and that a film on "Pesticides As Seen Through the Eyes of Nobel Prize Winner, Dr. Norman Borlaug" would be shown for the program.

MARCH

The 795th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 13 March 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Delfinado, Funasaki, Gagné, Gressitt, Hardy, Howarth, Jackson, Joyce, Kajiwara, Lauret, Lind, Look, Loui, Madinger, Mitchell, Montgomery, Morrill, Napompeth, Ozaki, Radovsky, Samuelson, Schroeder, Shiroma, Steffan, Sugerman, and Tenorio.

Visitors Present: Dr. Elyse Craddock (Sydney, Australia), Miss Maria Ma, and Dr. Paul Schroeder.

Steve Montgomery, Chairman of the Liaison Committee, discussed the feral goat problem at the Hawaii (Big Island) National Park. A draft of a letter he composed, addressed to Dr. George A. Hartzog, Director, National Park Service, Washington, D.C., was read to the Membership for comments. This letter, in final form, will be signed by President Look on behalf of our Society. Dr. D. Elmo Hardy moved that we accept the letter as written; seconded by Austin Morrill and carried unanimously.

NOTES AND EXHIBITIONS

Tortricid Larvae: Dr. Mitchell reported that *tortricid larvae* were found infesting new litchi blossoms. This is the first report of tortricid

larvae infesting litchi blossoms. He requested members to check their litchi blossoms and turn over specimens to him for rearing and identification. **W.C. Mitchell.**

Hypoaspis nidicorva Evans and Till: *Hypoaspis nidicorva* Evans and Till, 1966, was collected on Hawaii and is presented as new state, hemispheric, and host record. This mite (Acarina: Mesostigmata: Laelapidae) has appeared in 7 collections from the Kilauea Forest Reserve (1640 m) and 1 collection at about 910 m in Hawaii Volcanoes National Park, all on *Rattus rattus*. It was present in small numbers (1 or 2 per host) in monthly collections from August 1971 through January 1972; collections have not yet been analyzed for other months of the year. The species was originally found in the nest of a Jackdaw (Corvidae) in England (Bull. Brit. Mus. (N.H.), Zool. XIV(5): 109-370) and it has not been recorded elsewhere until now. *Hypoaspis* spp. are often associated with nests of small mammals and birds and less often with the animals themselves, but they are considered to be non-parasitic nidicoles and phoronts in these instances. **F.J. Radovsky and J.M. Tenorio.**

Program: Dr. Mercedes Delfinado introduced Dr. Elyse Craddock, who gave an interesting account of Phasmatid populations in Australia. Studies were made of the genes and Dr. Craddock came up with interesting results of speciation within the Phasmatids.

APRIL

The 796th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 10 April 1972, at 2:05 PM at Agee Hall, HSPA Experiment Station.

Members Present: Bess, Chambers, V. Chang, Davis, Funasaki, Hardy, Howarth, Jensen, Joyce, Lind, Look, Mau, Mitchell, Morrill, Namba, Napompeth, Nishida, Olson, Ota, Radovsky, Shiroma, and Sugarman.

Visitors Present: Messrs. Eugene Kridler, William P. Mull (Hawaii Audubon Soc.), and Samir F. Araman; Dr. Paul Schroeder (nematologist for Dole Co.—Castle & Cooke Foods Div.); and Mrs. Austin W. Morrill, Jr.

Reports of Officers and Committees:

Executive Committee: President Look reported that because of the possibility of a conflict of interest arising from the writing of letters signed by Society officers, the Executive Committee recommends that reports, resolutions, and other actions be submitted by Society members through the Liaison Committee. The Liaison Committee would then present the proposal at a Society meeting for acceptance, rejection, or other action. In case of acceptance, the President would merely write a letter of transmittal to accompany the report, resolution, or other action.

F.J. Olson read a letter from Professor Edward P. Mumford, Ph.D., in which Professor Mumford contributed \$100 to the Society and expressed his appreciation for making him an Honorary Member of the Society. This is the first such contribution from a Society member in the history of the Society. The money is to be used for publications or other purposes.

Science Fair Committee: Ronald Mau reported that only one award was given this year. An award of a \$25 Savings Bond went to Wendell Ching of Aiea High School for his project on "The Behavior of the Lawn Armyworm".

Liaison Committee: Francis (Frank) G. Howarth gave a report on endemic insect species inhabiting the Leeward Hawaiian Islands. This report was requested by the Society so that membership could decide whether or not to give Society support to the establishment of the "Hawaiian Islands National Wildlife Refuge." Support was recommended by the Liaison Committee.

NOTES AND EXHIBITIONS

Forcipomyia (Pterobosca) fusicornis (Coquillett): Two females of a ceratopogonid, new to Hawaii, were collected in Palolo Valley, Oahu on 5 April 1972 by S.F. Wong. The females were clinging to the base of the left forewing of an endemic damselfly (*Megalagrion* sp.). In other parts of the world, there are many species of ceratopogonids in the subfamily Forcipomyiinae that are ectoparasitic on dragonflies, damselflies, mosquitoes, butterflies, etc. This appears to be the first such species in Hawaii. G.Y. Funasaki has tentatively identified the midge as *Forcipomyia (Pterobosca) fusicornis* (Coquillett) and F.G. Howarth of the Bishop Museum agrees with this tentative identification. Specimens will be forwarded to Dr. W.W. Wirth of the USNM for confirmation. **C.J. Davis.**

Lepidopterous insects attracted to blacklight trap at Mt. Kaala: In conjunction with the cooperative survey and detection program, a blacklight trap was installed temporarily at Federal facilities on Mt. Kaala during the month of October 1971.

The following Lepidoptera of interest were attracted to the blacklight trap at the highest elevation on Oahu, 1220 meters:

Sphingidae: *Agrius cingulatus* (Fabr.), *Celerio* sp. (prob. *Calida calida* (Butler)

Noctuidae: *Ascalapha odorata* (L.), *Hypocola velans* Walker, *Agrotis ipsidon* Rottemburg, *Melipotis indomita* (Walker), *Pseudaletia unipuncta* Haworth, *Peridroma saucia*, *Elydna nonagraria* (Walker), *Halio-phyle connexa* (Warren).

Geometridae: *Semiothisa santaremaria* Walker, *Ascalapha*, *Me-*

lipotis and *Semiothisa* are normally lowland pests and no host association has been recorded at the higher elevations to date. **C.J. Davis.**

Megopis reflexa (Karsch): Mr. Davis exhibited a mature larva of *Megopis reflexa*, 75 mm in length being reared on Harley's diet. The larva was collected from an undetermined native host at Kokee, Kauai several months ago. This is the largest beetle occurring in Hawaii. **C.J. Davis.**

Plagithmysus concolor Munroi: Also exhibited was an adult Plagithmysine, *Plagithmysus concolor* Munroi, reared from *Acacia melanoxylon*, Kokee, Kauai. This is a new host record for this endemic Plagithmysine as well as the third exotic host record for the native cerambycidae. Adults and larvae of this beetle were collected by Mr. Donald Sugawa of the DOA Kauai staff in conjunction with the Forest Entomology program. **C.J. Davis.**

Amorbia emigratella Busck: The Lepidoptera larvae reported in the March 1972 minutes as geometrids attacking litchi blossoms were reared out and determined to be Tortricidae larvae, *Amorbia emigratella*. **W.C. Mitchell.**

Semiothisa santaremaria (Walker): Larva of this insect, the koa haole moth, was observed feeding on blossoms of litchi in the Hawaii Kai area (15 March 1972). Numerous geometrid larvae were feeding on the young blossoms of the litchi nut, *Litchi chinensis*. This is the first record of *S. santaremaria* doing any economic damage. In the same collection of litchi blossoms, *Anacamptodes fragilaria* (Grossbeck), the koa haole looper, were also reared. The litchi tree was within an area where there was an abundance of Kiawe and Koa Haole growing. **W. C. Mitchell.**

Melipotis indomita Walker and **Polydesma umbricola** Boisduval: Numerous larvae of the monkeypod kiawe caterpillar and the monkeypod moth were observed climbing the trunks of a monkeypod tree in Manoa Valley about 7:30 PM, the evening of 1 April. Hundreds of the monkeypod kiawe caterpillars, of different instars, were climbing up the tree to feed. The estimated ratio of *M. indomita* to *P. umbricola* was 10:1. The larvae were migrating from the surface of the ground up the trunk of the tree. Many larvae were observed hiding beneath the bark of the tree. **W.C. Mitchell.**

Bufo marinus (L): The same time the larvae were observed migrating up the trunk of a monkeypod tree, a large bufo toad was observed climbing the trunk of a tree to the height of 2 m where it rested in a crotch of the tree. Although direct observation of this did not occur, we believe the animal was feeding on the larvae as they migrated up the tree. The bufo probably would have remained in the tree if children had not climbed up to see it. The toad jumped to the ground and hopped off in a normal manner. These observations were made by Drs. D.

Elmo Hardy, Duane Gubler, and W.C. Mitchell. To our knowledge, this is a first observation of a bufo toad actually climbing a tree. On 6 April, eight bufo toads were observed around the base of a monkeypod tree feeding on *Melipotis* larvae. Three of the toads were up on the bark of the tree at 0.3, 0.6, and 0.8 m above ground. The outdoor light did not disturb the toads for they remained on the trunk picking up larvae that crawled by. **W.C. Mitchell.**

Amarygmus morio (Fairemaire): The tenebrionid beetle, *A. morio*, was found breeding in dying papaya trees in recently abandoned orchards, 2 miles north of Kapoho, Hawaii, 30 m elevation on 20 Feb. 1972. Adults and larvae were recovered. This is the second host record (Proc. Haw. Entomol. Soc. 19:297) for this immigrant beetle, which is, as yet, restricted to the Big Island. **W.C. Gagné.**

Coriscus pilosulus (Herrich-Schaeffer): The alydid bug, *C. pilosulus*, was caught in a malaise trap (1 adult) at 1586 m, June 1971, along the Mauna Loa Strip Rd. This represents the 3rd collection of this immigrant insect from the Island of Hawaii, yet only known also from the Island of Oahu, and the greatest elevation at which it has been taken here. **W.C. Gagné.**

Liris opulenta (Lepelletier): The golden cricket wasp, *L. opulenta*, was found in an insect survey of a goat enclosure at Puu Kaone, 235 m, October 1971. This represents a new island record. **W.C. Gagné.**

Polididus armatissimus Stål: An adult and a nymph of the spiny assassin bug, *P. armatissimus*, were taken in pit fall traps at 1212 m along the Mauna Loa Strip Rd. This is the second record of this immigrant insect from the Island of Hawaii. **W.C. Gagné.**

Program: President Look introduced Mr. Eugene Kridler of the Bureau of Sports Fisheries and Wildlife, Fish and Wildlife Service, U.S. Dept. of the Interior, who gave an interesting slide series on the Northwest (Leeward) Islands proposed for inclusion in the "Hawaiian Islands National Wildlife Refuge."

MAY

The 797th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 8 May 1972, at 2:05 PM at Agee Hall, HSPA Experiment Station.

Members Present: Chambers, V. Chang, Davis, Funasaki, Gagné, Gressitt, Howarth, Joyce, Kawamura, Krauss, Look, Madinger, Montgomery, Morrill, Olson, Radovsky, Sakimura, Samuelson, Schroeder, Shiroma, Sugarman, and Woolford.

Visitor(s) Present: John J. Favinger, Indianapolis, Indiana.

Dr. Radovsky announced that a special meeting would be held in the Conference Room at the Bishop Museum at 2:00 PM, 24 May 1972, to hear Dr. Michael Robinson, Smithsonian Research Institute, Panama,

who will speak on "The Behavior and Ecology of *Nephila*, the Giant Wood Spider in New Guinea."

Presentation of Papers: Frank Howarth submitted a paper for Ashley G. Gurney entitled, "Some Early Records by J.D. Alfken of Insects from Hawaii and Laysan."

NOTES AND EXHIBITIONS

Plagithmysus vitticolis Sharp: This seldom collected beetle has three native hosts on Hawaii, namely, native raspberry, *Rubus hawaiiensis*, olomea, *Perrottetia sandwicensis*, and tree ohelo, *Vaccinium calycinum*. Adults are rarely seen in the field. **C.J. Davis.**

Plagithmysus bishopi Sharp: This plagithmysine appears to be restricted to one or two species of *Pelea*. It works in the trunk and branches of live trees and, like *P. vitticolis*, the adults are rarely seen. Except for possible rearings by others during the past year, this native beetle was last reared in 1934. **C.J. Davis.**

Plagithmysus (N.) montgomeryi Gressitt and Davis: Numerous beetles were reared from dead or dying branches of the native *Euphorbia* collected 13 April 1972 near Puu Mali, 2133 m, Mauna Kea. This represents a new locality record for this recently described new species. **C.J. Davis.**

Plagithmysus vitticolis Sharp: Four adults and several larvae of *P. vitticolis* were collected on *Bobeia* sp. by S. Montgomery in the Puna Forest Reserve, Hawaii on 7 May 1972. A pupa and larvae of *Megopis reflexa* was found in a rotten log in the Puna Forest Reserve. **J.L. Gressitt.**

Graphocephala cythura Baker: This determination was recently received for several specimens of cicadellids submitted for identification in April 1972. Specimens were picked up at Moanalua on mountain apple on 15 February and were also noted on eggplant, squash, beans, and on shrubbery. Specimens also picked up on 29 March 1972 by Inspectors Francis Madinger and Steven Ochikubo by sweeping weeds at Hickam Air Force Base. This constitutes a new State record. Determination of this mainland species was made by Dr. J.P. Kramer of the U.S. National Museum. **E.S. Shiroma.**

Pentatomidae: Several adults and nymphs of an unidentified pentatomid were also caught by sweeping weeds at Hickam Air Force Base on 29 March 1972 by Inspectors Francis Madinger and Steven Ochikubo. Sweeping the same area on subsequent weeks revealed several other adults and nymphs. Determination not yet received. **E.S. Shiroma.**

Forcipomyia (Pterobosca) fusicornis (Coquillett): The ceratopogonid midge reported as a new state record at last month's meeting was sent to W.W. Wirth of the U.S.N.M. and he has confirmed its identity as *Forcipomyia (Pterobosca) fusicornis* (Coquillett). **G.Y. Funasaki.**

Program: Dr. Frank Radvosky introduced John Favinger, entomologist, Indiana Dept. of Natural Resources, who presented a talk-slide series on the cereal leaf beetle.

JUNE

The 798th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 13 June 1972 at 2:00 PM at Agee Agee Hall, HSPA Experiment Station.

Members Present: Bess, Brennan, Davis, Funasaki, Gagné, Haramoto, Howarth, Joyce, Kitaguchi, Komatsu, Lauret, Look, Madinger, Montgomery, Morrill, Olson, Ota, Radovsky, Tenorio, and Woolford.

Visitors Present: Dr. Duane Gubler, Dr. Joanne Tenorio and Ercell Woolford.

Membership Committee: Dr. Frank Haramoto submitted the names of Drs. Paul Schroeder and Duane Gubler for membership ratification—membership was ratified.

Liaison Committee: Steve Montgomery read two letters dealing with feral goat management in National Parks in Hawaii—one from Senator Inouye's staff and a cover copy of a letter sent to Senator Inouye from R.M. Linn, Director, Office of Natural Sciences.

Common Names Committee: George Funasaki reported that the Committee met 8 June 1972, to discuss common name additions, changes, and corrections. A copy of the proposed common names discussed at the meeting will be distributed at the July Society meeting. This list is to be reviewed by Society members for input. Society members who wish to have insect common name additions, changes, and corrections considered by the Committee are invited to submit their proposals and reasons for such in writing to George Funasaki within 30 days following the July Society meeting.

Ad Hoc Committee on Political Action: Dr. Asher Ota reported that the Committee suggested that people who desire the Society to take a stand on a particular issue, draft a resolution and submit it to the Society. If the resolution is accepted, the President would forward the resolution along with a letter of transmittal to the addressee. Dr. Ota suggested that a minority opinion be allowed to be included in the resolution.

F.J. Olson read a letter from Wendell Ching expressing appreciation for receiving a \$25 Savings Bond from the Society for his Science Fair project on "The Behavior of Armyworms."

F.J. Olson read a letter from Xerox University Microfilms, Ann Arbor, Michigan, requesting a business relationship to microfilm, microfiche, and make enlarged reproductions of the *Proceedings of the Hawaiian Entomological Society*. President Look said it would be discussed by the Executive Committee and possibly an Ad Hoc Committee would be formed to study the matter.

NOTES AND EXHIBITIONS

Eysacoris ventralis (Westwood): This determination was received for the unidentified pentatomid reported at the 8 May meeting. According to Dr. R.C. Froeschner, who made the determination, this insect occurs from India, east through China and Japan, and south into the Philippines and through the Malay Peninsula to Sumatra. This is a pest of graminaceous plants. This constitutes a new insect record for the State. **E.S. Shiroma.**

Parasarcophaga argyrostoma (Robineau-Desvoidy): Two adults of this sarcophagid fly were reared from larvae discovered in a blood agar culture smear in a petri dish submitted by the Naval medical dispensary at Barbers Point, Oahu. Six larvae were originally noted in the culture medium. Two were kept alive and reared to the adult stage and identified as *P. argyrostoma* on 11 May 1972. The smear was prepared from a nose, throat, and cyst culture taken from a patient at the dispensary.

It is likely that the culture medium was left exposed during the process for a time sufficient to allow the entry of the fly larvae. The culture had a putrid odor which would be attractive to the fly which deposits living larvae. The species is known as one of the most serious myiasis producing *Sarcophagidae*, however. It is possible that living first stage larvae could have been transferred to the media on the swab at the time the smear was prepared. **C.R. Joyce.**

Hypoderma sp.: This is a belated report on a case of human myiasis by the cattle grub which occurred in October 1962. Apparently no previous records of *Hypoderma* sp. (Oestridae) affecting man in Hawaii have been recorded in literature. The specimen exhibited is of portions of a first stage larva which emerged from an opening on the leg of a 5 year old boy living in Kailua, Oahu, 30 October 1962. The specimen was submitted to me by a doctor on the staff at Tripler Hospital. Another larva was reported to have emerged from an opening in the head of the boy. The determination of the species was confirmed by a Diptera specialist at the National Museum as *Hypoderma* sp. Specific determination of the early stage larvae is rather difficult. Cases of myiasis by *Hypoderma* species have been reported in man, but man is an abnormal host. The larvae usually wander about aimlessly and seldom reach maturity. **C.R. Joyce.**

Speovelia sp.: I am passing around a single living adult female of this remarkable endemic bug. It was collected on the wall in the dark zone of Kazumura Cave near Mr. View on the island of Hawaii on 27 April 1972, and kept alive in the laboratory. It demonstrated the ability to survive a long period without food. However, it was finally induced to feed on a recently killed katydid, *Conocephalis saltator*. This is believed to be the first known obligatory cave Hemiptera in the world, and demonstrates

again the remarkable adaptive shifts among early colonists of oceanic islands. **F.G. Howarth.**

Ceratocombus (Xylonannus) sp.: Two specimens of a dipsocorid bug apparently conspecific with that identified by Dr. Wygodzinsky, American Museum of Natural History, as *Ceratocombus (Xylonannus)* sp. from material collected in 1971 on Oahu and reported at the 12 Oct. 1971 meeting, were collected in rotting papaya trunks in an abandoned orchard 2 miles north of Kapoho, Hawaii in February 1972 (Gagné col. & det.). This represents a new island record for this minute predaceous insect, the second representative of the family in the State. **W.C. Gagné.**

Labia curvicauda (Motschulsky): Also found in this habitat was the earwig, *L. curvicauda*, which was abundant in this rotting substrate. Later the same day, at dusk, several females were caught in flight in the vicinity during calm conditions. This represents a new island record for this insect thus far recorded from Kauai and Oahu. **W.C. Gagné.**

Nesomartis psammophila Kirkaldy: The endemic lygaeid *N. psammophila* appears to be one of the vanishing elements of the native insect fauna. It was described some 65 years ago from material taken near sea level on Oahu and Kauai but appears to have long since disappeared from these localities. Apparently the most recent specimen was collected in 1935 near Humuula, Hawaii by R.L. Usinger (Proc. Haw. Entomol. Soc. 9:209) and the preferred host appears to be bunch grass, *Eragrostis* sp. In April 1972, F.G. Howarth recovered a specimen floating on a small pond near Kipuka Nene, Kau, Hawaii, 1820 m (Gagné, det.). The pond was bordered by the exotic rush, *Juncus effusus*. A search about the bases of this rush for more specimens was negative. **W.C. Gagné.**

Vanduzea segmentata (Fowler) and Pheidole megacephala (F.): Adults and nymphs of the Van Duzee treehopper, *V. segmentata* were found feeding on the exotic shrub, *Cassia occidentalis*, growing in a coconut grove at Whittington Beach State Park, Kau, Hawaii, February 1972 (Gagné col. & det.). They were being attended by the big-headed ant, *P. megacephala*. This appears to be a new host record for this treehopper. **W.C. Gagné.**

Pachysomoides stupidus (Cresson): Several adults of an ichneumonid wasp, *Pachysomoides stupidus* (Cresson) emerged from a nest containing larvae of *Polistes exclamans exclamans* Viereck. The nest was collected from a kiawe tree on the Punahou School campus on 30 May and this parasite along with an adult *Polistes exclamans exclamans* emerged on 12 June 1972. *P. stupidus* was first reported in the State by Dr. J.W. Beardsley in September 1970 (Proc. Haw. Entomol. Soc. 21:20). **G. Funasaki.**

Program: Dr. Frank Radovsky introduced Dr. Duane Gubler who spoke on "Filariasis in Calcutta, India."

JULY

The 799th meeting of the Hawaiian Entomological Society was called to order by President-elect Dr. Asher Ota on 10 July 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Bianchi, V. Chang, Davis, Haramoto, Hardy, Howarth, Joyce, Kawamura, Kitaguchi, Lind, Montgomery, Olson, Ota, Pemberton, Radovsky, Sakimura, Samuelson, Steffan, Sugerman, Tanimoto, Tenorio, Topham, and Watanabe.

Visitor(s) Present: Dr. Joanne Tenorio.

Membership Committee: Dr. Frank Haramoto submitted the names of Shinsuke Matayoshi and Dr. Roger N. Williams to the Society for membership ratification—membership was ratified.

Common Names Committee: F.J. Olson passed out a list of additions, corrections, and changes to be added to the 1967 Common Names List. He announced that Society members who want to make additions or corrections to the 1967 Common Names List could do so verbally to George Funasaki. To change a name on the list or one already accepted by the Common Names Committee, a member desiring the name change must state in writing the reasons for a name and also to indicate what the name should be changed to.

NOTES AND EXHIBITIONS

Taeniothrips vitticornis (Karny): This thrips was collected by S. Nakahara from mucuna bean flowers at Wailua, Kauai on 20 Dec. 1971. This collection is apparently a new island record for Kauai. It was previously only once collected on Oahu in 1952. The determination was made by S. Nakahara. **S. Nakahara.**

Dialeurodes citrifolii (Morgan) and **Bemisia giffardi** (Kotinsky): These two species were collected by S. Nakahara from citrus leaves at Nawiliwili, Kauai on 20 December 1971. Both collections are apparently new island records for Kauai. The former species was previously collected on Hawaii and Oahu since first discovered in 1966; the latter species, on Oahu, Molokai, and Maui since first described in 1907. The determinations were made by L.M. Russell. **S. Nakahara.**

Carneocephala sagittifera (Uhler): Three adult specimens of a cicadellid, *Carneocephala sagittifera* (Uhler), were collected by sweeping in various grasses at Kona, Hawaii by S. Kashiwai and S. Kobayashi on 7 June 1972. According to literature this species occurs particularly on Bermuda grass but is also found commonly on other species of grasses, and frequently in close association with sugarcane. It has not been noted commonly on sugarcane and has not been credited with the transmission of any of the diseases. Distribution includes Texas, Louisiana, Mexico, Puerto Rico, Cuba and many of the West Indies Islands. Determined by J.P. Kramer, USNM. **K. Kawamura.**

Program: Dr. Frank Radovsky gave a talk on the biology of fleas of the *genus Tunga*.

AUGUST

The 800th meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 14 August 1972, at 2:05 PM at Agee Hall, HSPA Experiment Station.

Members Present: S. Au, Bess, Bianchi, Brennan, F. Chang, V. Chang, Chong, Conant, Davis, Funasaki, Haramoto, Harris, Jackson, Jensen, Joyce, Look, Morrill, Nakao, Namba, Napompeth, Okada, Olson, Raros, Sakimura, Shiroma, W. Schroeder, Tamashiro, Tenorio, Topham, Woolford, and Yoshioka.

Visitors Present: Mrs. Ercell Woolford, Dr. Fred D. Bennett, Messrs. L.H. Hsiao (Utah State University), Bernard Kumashiro, Lawrence H.Y. Lee, A.J. Mangdzdorf, Phil Michael, John G. Stoffolano, Jr., Kato Tama, and S.F. Wong.

NOTES AND EXHIBITIONS

Ectomocoris biguttulus Stål: Two additional specimens of this reduviid bug were collected in a blacklight trap at Hickam Air Force Base on 1 August 1972. This is the third time this insect has appeared in blacklight traps at Hickam. So far only five specimens have been collected since 20 August 1971. **E.S. Shiroma.**

Trox suberosus Fabricius: A single specimen of this dung beetle was also collected in a blacklight trap at Hickam Air Force Base on 1 August 1972. This dung beetle was previously found only in the Barbers Point area. This constitutes a new locality record. **E.S. Shiroma.**

Melipotis indomita (Walker): Periodic field collections of larvae of *Melipotis indomita* (Walker) (Noctuidae) shows that *Meteorus laphygmae* Viereck, a long established braconid, is quite often found emerging from the pupal stage. It was first noticed as a parasite of *Melipotis* in September 1970 when 10 adults emerged from pupae collected from kiawe trees at Keawakapu, Maui. Adults also have been emerging from pupae collected from kiawe at Kawaihae on Hawaii and from monkeypod at Hickam AFB on Oahu. Two other parasites, tachinids, recovered from *Melipotis* are: *Eucelatoria armigera* (Coquillett); Several adults from pupae collected on monkeypod at Mana, Kauai, in April 1970 and *Chaetogaedia monticola* (Bigot): One adult from a pupa collected on kiawe at Hickam AFB, Oahu in July 1972. **G.Y. Funasaki.**

Elimaea punctifera (Walker): On the Big Island, while studying the effects of *Anastatus koebelei* Ashmead (Eupelmidae) and *Ufens elimaeae* Timberlake (Trichogrammatidae), egg parasites of the narrow-winged katydid, *Elimaea punctifera* (Walker) (Tettigonidae), another parasite was discovered. This third parasite, *Oligosita* sp. (Trichogram-

matidae), emerged in large numbers from *Elimaea* eggs collected on Anthuriums in Hilo in November and December 1971. This is believed to be the first occurrence of an *Oligosita* on eggs of a tettigoniid in Hawaii. For a more definite determination, specimens were sent to the USNM but B.D. Burks was able to confirm to genus only. **G.Y. Funasaki.**

Program: Cliff Davis introduced Dr. Fred D. Bennett (Trinidad Commonwealth Institute of Biological Control, West Indies Station), who gave a very interesting presentation on "Biological Control in the West Indies".

SEPTEMBER

The 801st meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 11 September 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Beardsley, Bess, Brennan, Davis, Funasaki, Gagné, Haramoto, Hardy, Jackson, Joyce, Kajiwara, Kawamura, La-Plante, Leeper, Lind, Look, Mau, Mitchell, Morrill, Nakao, Olson, Ota, P. Schroeder, Shiroma, Sugerman, Topham, Tsuda, and Woolford.

Vistors Present: Messrs. J.F. McAlpine (Ent. Res. Inst., Ottawa, Canada) and R.M. Prentice (Dept. of Environment, Ottawa, Canada) and Mrs. H.A. (Ercell) Woolford.

President Look announced that the Executive Committee met to select Nominating and Annual Dinner Committees:

Nominating Committee Frank Madinger (Chairman)

John Leeper

Dr. G.A. Samuelson

Dr. Vincent Chang

Dr. J.W. Beardsley

Annual Dinner

Committee Bernard Sugerman, Austin

W. Morrill, Jr. (Co-Chairman)

Dr. Wallace C. Mitchell

Kenneth F. Kawamura

Dr. Mercedes Delfinado

Membership Committee: Dr. Frank Haramoto proposed that Dr. Henry Bess be made an honorary member of the Society—honorary membership was ratified.

Common Names Committee: George Funasaki distributed a list of proposed corrections, name changes, and additions to the Common Names List to be reviewed by members. If the list is adopted by the Society, it will become part of the Common Names List.

Also, Mr. Funasaki reported that the unadopted common name for *Musca sorbens*, "dog dung fly," was controversial—that some members opposed the name because it is not descriptive of the pestiferous stage of the fly (the adult stage). Some suggested names were: little bastard fly, devil fly, sweat fly, vex fly, and pesky outdoor fly.

Dr. D. Elmo Hardy suggested that giving *M. sorbens* a permanent common name be delayed until cross-mating studies could be made of the *M. sorbens* in Hawaii with those in Africa—this work to be done in Africa. This suggestion was accepted. The common name of “dog dung fly” for *Musca sorbens* is, therefore, a temporary name. It has not been adopted by the Society, as required by the Constitution, and is not to be included on the Common Names List.

Dr. Mitchell suggested that the Secretary of the Society send a letter to Dr. C.E. Pemberton congratulating him on attaining his 86th birthday—adopted by general consent.

Dr. Haramoto moved that the next issue of the *Proceedings* be dedicated to Dr. Pemberton—seconded by Dr. LaPlante and passed unanimously.

NOTES AND EXHIBITIONS

Plagithmysus giffardi Perkins: Mr. Davis exhibited a live adult specimen of a native cerambycid, *Plagithmysus giffardi* Perkins, reared from a larva collected in a branch of Kolea, *Myrsine* sp. on 2 June 1972 at Kapua Mauka, South Kona, Hawaii, 1432 meters by Jim Jacobi. *P. giffardi* was last collected and reared 38 years ago from *Myrsine* sp. and smilax, *Smilax sandwicensis*, Kilauea region, Hawaii Volcanoes National Park, by Dr. O.H. Swezey. **C.J. Davis.**

Chilocorus nigritus (F): Dick Tsuda exhibited a specimen of the coccinellid, *Chilocorus nigritus* (F.), found feeding on scales on bamboo on the University of Hawaii Campus, June 1972. This constitutes the first recovery of this introduced species. *C. nigritus* was introduced in 1958 in Foster Gardens by Noel Krauss. It was re-introduced in Hawaii Kai (35 specimens) from Guam in 1971 by Harry Nakao. **D. Tsuda.**

Carneocephala sagittifera Uhler: Thirteen specimens of this recently discovered cicadellid were picked up in a blacklight trap operated at the Hilo Airport. Three specimens were picked up on August 21, and ten more on August 29. This is the second report of this cicadellid from the Big Island and a new distribution record as it was first reported only from Kona. **E.S. Shiroma.**

Diaperis lewisi Bates: A single specimen of this Tenebrionidae was picked up in a blacklight trap at Hilo Airport on 29 August 1972. This is a new insect record for the Big Island. This tenebrionid was previously reported only from the island of Oahu (Proc. Haw. Entomol. Soc. 13:212, 17:312).

Program: E.W. Jackson showed an interesting movie entitled, “Nature’s Half Acre.” Dr. Ota reported on some of his observations at the meeting of International Congress of Entomology, held in Canberra, Australia.

OCTOBER

The 802nd meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 10 October 1972, at 2:00 PM at Agee Hall, HSPA Experiment Station.

Members Present: Beardsley, Davis, Gagné, Gressitt, Haramoto, Howarth, Jackson, Joyce, Lauret, Leeper, Look, Mitchell, Montgomery, Olney, Olson, Ota, Radovsky, P. Schroeder, Shiroma, Sugerman, Topham, Tsuda, and Woolford.

Visitors Present: S. Araman, Dr. Howard W. Klemmer, Bill Mull, T. Satoh, Grant Tanabe, and Mrs. Ercell Woolford.

Membership Committee: Dr. Frank Haramoto proposed Dr. Loren F. Steiner for Honorary membership. Also, Mr. E.W. Jackson proposed that Mr. Kenneth L. Maehler be given Honorary membership. Both proposals seconded and ratified by the Society.

Announcements: Frank Howarth announced that he had been appointed by the Governor to the newly formed Advisory Committee on Pesticides.

President Look announced that Mr. E.W. Jackson would be transferred to Brownsville, Texas, 28 October 1972. He will serve as Assistant Regional Director in USDA Plant Protection & Quarantine's Southwestern Region office.

NOTES AND EXHIBITIONS

An endemic earwig: On 13 July 1972, Jim Jacobi and I collected a large blind earwig in Kazumura Cave, Mountain View, island of Hawaii. It is almost certainly an endemic species, and is the first known representative of the order Dermaptera in the native Hawaiian fauna. It may be related to *Anisolabis perkinsi* Burr, which is thought to be introduced but is not known elsewhere. This cave adapted earwig has elongated legs and antennae and eyes reduced to unpigmented slits. Only 2 other blind earwigs in the suborder Forficulina are known to me. Both are small species, one from Argentina and the other from the Galapagos Islands. Kazumura Cave is more than 4300 m in length and is one of the 3 longest unbroken lava tubes known in the world. **F.G. Howarth.**

Callopietria sp.: Eight larvae were found on a gold fern (*Pityrogramma calomelanos* (L.) Link.) on 29 August 1972, University of Hawaii, Manoa campus, Oahu. This was a new host record. About 50% of the fleshy part of the fern was destroyed. Two color phases of the larvae were present on the fern; one type was green with lateral-linear white markings and the other type was brown with similar white markings. One larva was reared and photographed. On Oahu, *Callopietria* was first recorded in the Diamond Head area on 28 January 1971, and

has since been reported in Waipahu, Manoa, Kaimuki, Kahala, Aina Haina, and Waimanalo. The larvae are only known to infest ferns, and have been reported on *Nephrolepis exalta* (sword fern), *Nephrolepis biserrata* var. *furcatum* (fish-tail fern) and *Platycerium bifurcata* (elk-horn fern). (Hawaii Cooperative Economic Report, 19 February 1972).

G. Tanabe.

Eupithecia sp.: The larvae of *Eupithecia* sp. are predaceous on small flies. It has been observed devouring small calliphorid and drosophilid flies. It is unusual, not only because it is a predaceous Lepidoptera, but also because the larvae capture moving prey. **W. Mull.**

Dictyophorodelphax mirabilis Swezey: *D. mirabilis* was found along the Canehoa-Hapapa Trail in the Waianae mountains on Oahu. *Eupithecia* sp. was found in the Puu Makaala Forest Reserve on the Big Island (Hawaii). **W. Mull.**

Achatina fulica Bowdich: One live giant African snail, *Achatina fulica* Bowdich, was found by a worker at the Lanai Company's nursery at Maunalei Gulch on the island of Lanai during the week of 17-23 September 1972. This is the first *A. fulica* found on Lanai since some snails were confiscated from two men in 1938.

On 25 September 1972, Nobuo Miyahira, Maui Island Entomology Branch entomologist (DOA), and I went to Lanai to check out the report. The Maunalei Gulch nursery was inspected for signs of snail activity such as: slime trails, plant damage, dung, eggs, infants, empty shells, and active and aestivating snails. There was no evidence of any snail activity at the nursery. The nursery was isolated. The area is 240 feet above sea level and receives 10 inches of rain annually.

The worker who found the snail said he had found a similar snail two months earlier. He placed the snail in a coverless can. After a period of time he returned to get the snail, but it disappeared. He thought that maybe this was the same snail. Nursery stock had been brought in six months previously from a nursery at Kamuela, Hawaii; and on 21 June 1971, 1,000 coconuts were brought in from a nursery at Hana, Maui.

The shell of the captured *A. fulica* measured 89 mm x 40 mm. I examined the reproductive organs of the snail for evidence of egg-laying. The uterus did not contain any eggs and was smaller than the albumen gland. The albumen gland was extremely large (the largest I have ever seen). This condition indicates that the snail was probably a virgin and had not laid any eggs. A large developed uterus with a reduced albumen gland would be indicative of egg-laying. I estimated the snail to be around 10 months old. **F.J. Olson.**

Drosophila virilis Sturtevant: This species was found for the first time in Hawaii, June 1971. One male and one female were taken with a bait at Kihei, Maui. This is a common species over North and South

America and has been reported from China and Japan. **M.R. Wheeler** and **K.Y. Kaneshiro**.

Leucophenga maculosa Coquillett: This species was first collected in early 1971, Pohakuloa area, Hawaii, at approximately 1820 m. It has since been collected at Kamuela, Hawaii, and several localities on Maui, Lanai, and Oahu. It is common over North and South America. **M.R. Wheeler** and **K.Y. Kaneshiro**.

Mycodrosophila spp. At least two species of this genus have now been collected on Maui and Hawaii. Both are unidentified. They are not North American and their origin is unknown. Known members of this genus are fungivores. This brings the number of known introduced species of Drosophilidae in Hawaii to 22. **M.R. Wheeler** and **K.Y. Kaneshiro**.

Drosophila polychaeta Patterson and Wheeler: This species which was previously known from a collection made on the University of Hawaii campus (March 1948) has now been collected at Pupukeya, Koolau Mts., Oahu (August 1970); Hilo, Akaka Falls, Kamuela and Honokaa, Hawaii (June 1971); and Kokee, Kauai (June 1971). The latter two are new island records. **M.R. Wheeler** and **K.Y. Kaneshiro**.

Program: Dr. Frank Radovsky introduced Dr. Howard W. Klemmer (Community Studies on Pesticides, Leahi Hospital), who gave a very interesting presentation on "Health Aspects of Pesticide Usage in Hawaii."

NOVEMBER

The 803rd meeting of the Hawaiian Entomological Society was called to order by President William C. Look on 13 November 1972, at 2:05 PM at Agee Hall, HSPA Experiment Station.

Members Present: S. Au, Bess, V. Chang, Davis, Delfinado, Funasaki, Gagné, Gressitt, Haramoto, Harris, Howarth, Kaneshiro, Look, Matayoshi, Mitchell, Montgomery, Morrill, Nakao, Olson, Ota, Radovsky, Samuelson, P. Schroeder, Shrioma, Steffan, Tenorio, and D. Yoshioka.

Visitors Present: Dr. Hampton L. Carson, Mrs. Meredith S. Carson, Dr. D.G. Denning, Mr. Koli Fa'aola, Mr. Douglas T. Fujii, Mrs. Agnes Hardy, Mrs. Nancy Howarth, Mr. Wayne Ibara, Mr. Akarise Sa'atūnaea, and Dr. Joanne M. Tenorio.

Business Manager: Dr. Vincent Chang reported that he had audited the Society's books, 18 October 1972, and found everything in order. Dr. Chang complimented Dr. Frank Haramoto for maintaining neat and orderly books. The audit report was accepted by the Society.

Liaison Committee: Steve Montgomery reported that he had received a request for comments or help from the State Office of Environmental Quality Control. Mr. Montgomery asked Society members for input for a response to the request.

NOTES AND EXHIBITIONS

Saissetia species: DeLotto, in a recent paper (1971 Bul. Entomol. Res. 61: 325-326), pointed out that the "black scale" of North and Central America is in fact a complex of three species of *Saissetia*. These are *S. miranda* (Cockerell and Parrott), designated Mexican black scale; *S. neglecta* DeLotto, designated Florida black scale; and *S. oleae* (Olivier), designated Mediterranean black scale. All three of these species possess the characteristic raised dorsal "H" mark which we formerly thought to be diagnostic of *S. oleae*.

A re-examination of the few slide-mounted specimens of Hawaiian black scale material which I have, using DeLotto's paper, reveals that both *S. miranda* and *S. neglecta* are present here. I do not have Hawaiian specimens of true *S. oleae*.

Additional material from various hosts from all the islands of the state is needed to determine the ranges and hosts of the species of the black scale complex which are present in Hawaii **J.W. Beardsley**.

Plagithmysus sharpianus Perkins: A live specimen of an endemic Plagithmysine, *Plagithmysus sharpianus* Perkins, which emerged from a Harley plus diastase diet on 2 November 1972 was exhibited. The larva of this cerambycid was obtained from its native host, *Pipturus* sp. collected by Donald Sugawa on the Nualolo Trail, Kokee, Kauai on 29 August 1972. *P. sharpianus* was last collected 44 years ago at Kumuwela in the general locality. **C.J. Davis**.

Plagithmysus sp.: Also exhibited was an endemic *Pipturus* cerambycid which emerged from material collected off the Wright Road, Volcano, Hawaii by James Jacobi on 30 September 1972. The beetle, *Plagithmysus* sp. is close to *darwinianus* and is pending specific determination. **C.J. Davis**.

Algarobius bottimeri Kingsolver: The bruchid beetle commonly found infesting kiawe beans here in Hawaii was recently named *Algarobius bottimeri* by Dr. J.M. Kingsolver, ARS, USDA. (Coleop. Bull, 26(3):116-120). Although this was a previously undescribed bruchid, we in Hawaii have been referring to this species as *Bruchus prosopis* LeConte or *Algarobius prosopis* LeConte. **G. Funasaki**.

Listrophorus sp.: Numerous specimens of an apparently undescribed species of *Listrophorus* were collected on fur of a domestic cat on 28 September 1972 by R. Pierson at Kaneohe, Oahu. This genus is often found on fur of rodents. Determined by Dr. Frank Haramoto, University of Hawaii. **K.F. Kawamura**.

Cardiophorus stolatus Erichson: Six specimens of an elaterid, *Cardiophorus stolatus* Erichson, were collected under loose bark or at bases of kiawe trees at Hickam Air Force Base, Oahu on 21 June (2), 20 July (1), and 31 August (3) by B. Kumashiro. The biology of *C. stolatus* is apparently unknown. Larvae of *Cardiophorus* spp. are mostly

predatory and non-economic, but larvae of a *Cardiophorus* sp. have been reported as being destructive to corn in Illinois. Distribution includes India, Ceylon, and Burma. Determined by E.C. Becker, Canada Dept. of Agriculture. **K.F. Kawamura.**

Pseudoscymnus anomalus Chapin: Moderate numbers of larvae and adults of a lady beetle, *Pseudoscymnus anomalus*, were found preying on the coconut scale, found infesting coconut trees at Hawaii Kai, Oahu during mid-September. *P. anomalus* was introduced from Guam in February 1970 to aid in the control of *Aspidiotus destructor*. Subsequently, releases were made in several areas on Oahu including Hawaii Kai; last release at this locale was made in August 1971. This is the first recovery of this insect in Hawaii. **K.F. Kawamura.**

Program: Dr. Mercedes Delfinado introduced Dr. Hampton L. Carson (Genetic specialist of *Drosophila*, island of Hawaii), who gave an interesting presentation on "Drosophila Associates of Land Crabs—Christmas Island Research."

DECEMBER

The 804th meeting—the Annual Dinner Meeting—of the Hawaiian Entomological Society commenced at 7:10 PM on 13 December 1972, at Tripler Officers' Club.

Dr. Wallace C. Mitchell, the Master of Ceremonies called for the introduction of members and their guests.

Members Present: Beardsley, Bess, F. Chang, Davis, Funasaki, Gubler, Haramoto, Harris, Higa, Jensen, Joyce, Kawamura, Lai, LaPlante, Lauret, Look, Madinger, Mau, Mitchell, Morrill, Nakahara, Nishida, Olney, Olson, Ota, Peterson, Radovsky, Sakimura, W. Schroeder, Shiroma, Steffan, Sugerman, Takei, Tamashiro, and Tsuda.

Visitors Present: Lynn Beardsley, Sandra Beasley, Ozeal Bess, Cheryl Chang, Bruce Davis, Mally Davis, Doris Funasaki, Bobbie Gubler, May Haramoto, Agnes Hardy, Betty Harris, Christine Higa, Dorothy Joyce, Florence Kawamura, Tsui-Hung Lai, Janet LaPlante, Leta Lauret, Helen Look, Beth Madinger, Penny Lou Mau, Sue Mitchell, Stanley Miyake, Josephine Morrill, Ann Nakahara, Ellen Nishida, Mal Olney, Zenaides Olson, Ruth Ota, Irma Radovsky, Bertha Sakimura, Jonnie Schroeder, Jane Shiroma, Sylvia B. Steffan, Joslyn Sugerman, Polly Tamashiro, and Cassie Tsuda.

The normal order of business was suspended for the meeting.

Dr. Mitchell announced that the elected officers for 1973 are:

President	Dr. Asher K. Ota
President-elect	Dr. Wallace A. Steffan
Secretary	Francis L. Madinger
Treasurer	Dick M. Tsuda
Advisor (elected)	Clifton J. Davis
Advisor (outgoing President)	William C. Look

Also, Dr. Mitchell announced that the deadline for papers for the 1972 Proceedings of the Hawaiian Entomological Society would be February 1, 1973.

Dr. Frank H. Haramoto moved that the treasurer's financial statement, as circulated, be accepted—motion seconded and carried.

Dr. Mitchell introduced incoming President, Dr. Asher K. Ota, who introduced outgoing President, Bill Look. President Look gave his Presidential Address entitled, "Efficacy of Hawaii's Plant Quarantine Programs."

President Look returned the chairmanship of the meeting to Dr. Mitchell, who announced the showing of the movie, "Nature's Half Acre." Following the movie, door prizes were given out to guests and honorary Society members in attendance. Dr. Mitchell asked the new Secretary (Frank Madinger) to write "Thank You" letters to the donors of the door prizes—Kenneth Kawamura, Verne Olney, Mrs. Joslyn Sugerman, and Aiea Florist.

Decorations were by Mrs. Austin Morrill and staff: Madames Lauret, Harris, Sugerman, Hardy, Mitchell, Davis, and Olson.

New Immigrant Records for the Year 1972

The following species were recorded from the Hawaiian Islands for the first time during 1972 on the dates recorded in the texts. Those marked with a dagger are considered doubtfully established as the records are based on single collections.

CHANCE IMMIGRANTS

	Page
Hypoaspis nidicorva Evans and Till (Acarina: Laelapidae)	306
Forcipomyia (Pterobosca) fusicornis (Coquillett)	
(Ceratopoginidae)	307
Graphocephala cythura Baker (Cicadellidae)	310
Eysacoris ventralis (Westwood) (Pentatomidae)	312
Carneocephala saggittifera (Uhler) (Cicadellidae)	314
Oligosita sp. (Trichogrammatidae)	315
Drosophila virilis Sturtevant (Drosophilidae)	319
Mycodrosophila spp. (Drosophilidae)	320
Cardiophorus stolatus Erichson (Elateridae)	321

OFFICERS FOR 1972

<i>President</i>	W. C. Look
<i>President-elect</i>	A. K. Ota
<i>Secretary</i>	F. J. Olson
<i>Treasurer</i>	F. H. Haramoto
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