

PROCEEDINGS
of the **HAWAIIAN**
ENTOMOLOGICAL
SOCIETY for **1974**

VOL. XXII NO. 2
December 1976

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c/o Department of Entomology
University of Hawaii
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PROCEEDINGS
of the
Hawaiian Entomological Society

VOL. XXII, NO. 2 FOR THE YEAR 1974 SEPT. 1976

JANUARY

The 817th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., January 14, 1974 at the Bishop Museum Conference Room, Honolulu, Hawaii.

Members Present: Beardsley, Devenport, Haramoto, Hardy, Ikeda, Joyce, Look, Mau, Ota, Radvovsky, Sakimura, Samuelson, Shiroma, Steffan, Tenorio and Tsuda.

Visitors: Mr. R. Barrel, Mr. A. Hart, and Dr. JoAnn Tenorio.

Finance Committee Report: Mr. Mau distributed a proposal for increasing the Society's income in order to alleviate projected deficits due to increased publication costs. It was proposed that: (1) a page charge be initiated beginning with vol. 22, no. 1; (2) subscription price to dealers and institutions be increased to \$7.00; and (3) the 50 gratis reprints to authors to be eliminated. Following a period of active discussion, the matter was tabled pending further clarification of the Society's financial status.

Membership Committee: Mr. Tsuda proposed the names of the following applicants who were duly elected to membership in the Society: Dr. JoAnn Tenorio, Mr. L. Shimoda and Mr. G. Toyama.

Amy Suehiro Memorial Committee: Dr. Beardsley reported that the checklist of Hawaiian insects has been partly completed, but that he is awaiting the publication of monographs dealing with certain large groups (eg: the Microlepidoptera) so that names can be brought up to date.

Science Fair Committee: Mr. Tsuda moved that the Society continue its \$25.00 award for the best entomological exhibit at the annual Hawaii Science Fair. The motion carried unanimously.

Executive Committee: President Steffan announced the names of newly appointed officers and committee members for 1974 (see p. 387). President Steffan also notified the membership that the H.S.P.A. will no longer be able to serve as the meeting site, permanent address or library depository of the Society. He therefore appointed an *ad hoc* committee to investigate the matter of housing the Society's periodical exchanges presently in the H.S.P.A. library, and obtaining financial support for the publication of the "Proceedings." This Committee, to be called the **Library Committee**, will have the following members: Mr. E. Harris, Dr. W.C. Mitchell, Mr. H. Nakao, Dr. A.K. Ota, Dr. F. Radvovsky, Dr. W. Steffan, and Dr. J.W. Beardsley (chairman).

Program: Mr. Robert Barrel, State Director, National Park Service, Hawaii discussed the master plan and the wilderness proposal for Hawaii Volcanoes National Park.

FEBRUARY

The 818th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., February 11, 1974, at the Bishop Museum Conference Room.

Members Present: Beardsley, Bryan, F. Chang, Hardy, Harris, Ikeda, Joyce, Look, Mau, Mitchell, Morrill, Radovsky, Samuelson, Schroeder, Shiroma, Sprenger, Steffan, JoAnn Tenorio and Joaquin Tenorio.

Visitors: Dr. and Mrs. James Kanz.

Library Committee: Dr. Beardsley reported that the University of Hawaii Library is willing to become the permanent depository for the Society's periodical exchanges and backfiles. In exchange, the U.H. Library would provide \$1500 per year in financial support to the Society. The committee agreed that all members should have ready access to the Society's periodicals wherever they are deposited. Dr. Beardsley pointed out that the University will allow all adults access to the library. Detailed recommendations for the deposition of all the Society's exchanges and backfiles will be presented at a later meeting (see p. 163).

Xerox Proposal Committee: Dr. Joyce reported that Xerox Corporation has offered the Society a contract which would allow them to produce and sell microfilm of current volumes and backfiles, as well as enlarged copies, of the "Proceedings." The Society would receive a royalty on sales. The members present voted to accept the contract with Xerox Corporation.

New Business: Mr. Robert Barrel, State Director of the National Park Service, has requested input from the Society for the proposed master plan for Hawaii Volcanoes National Park. President Steffan stated that the Liaison Committee will provide this input, subject to approval by the Executive Committee.

NOTES AND EXHIBITIONS

***Scaeva pyrastris* (L.):** A single specimen of this syrphid fly was collected at Pearl City, Oahu on May 15, 1973 by R. Onzuka. The specimen was determined by Dr. F.C. Thomson of the American Museum of Natural History who stated that this species is reported to be an excellent aphid predator. *S. pyrastris* is distributed as follows: Europe; Alaska to Alberta, Canada; south to California, New Mexico and Arkansas. It also occurs in Eurasia and in north and west Africa. **D.E. Hardy.**

***Pollenia rudis* (Fabricius):** For Mr. Davis, Dr. Mitchell reported on recent sightings of the cluster fly, *Pollenia rudis*, at Volcano and Kamuela (Hawaii Preparatory Academy) on the island of Hawaii. Numerous flies were observed mainly in areas which had been cleared prior to construction projects, and it is thought that the clearing activities caused the host earthworms to surface and thus to be exposed to parasitization by *P. rudis*. **C.J. Davis.**

***Cligenes marianensis* Usinger:** Several specimens of a very small lygaeid bug, determined as *Cligenes marianensis* Usinger by Dr. Beardsley, were

found in light trap catches from the Honolulu International Airport area during January. This species was described from Guam (1946, Insects of Guam II, B.P. Bishop Mus. Bul. 189:32), and is known also from other islands in the Marianas. No information on its habits is available. This is a new state record. **J.W. Beardsley.**

Program: Dr. Mitchell introduced the speaker, Dr. James Kanz, who recently received his Ph.D. degree from Tufts University and is presently doing postdoctoral work at the University of Hawaii Sensory Laboratory. Dr. Kanz spoke on the topic "Orientation of Migrant and Non-Migrant Monarch Butterflies."

MARCH

The 819th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., March 11, 1974 in the Bishop Museum Conference Room.

Members Present: Beardsley, Bess, Burkhart, Devenport, Hardy, Harris, Howarth, Ikeda, Joyce, Look, Mitchell, Montgomery, Ozaki, Radovsky, Samuelson, Schroeder, Shiroma, Steffan, Sugerman, J.A. Tenorio, and Tsuda.

Visitors: Mr. Stan Miyake and Mr. Robert Shallenberger.

Library Committee: Dr. Beardsley reported that the Committee had considered the problem of the Society's archives which are presently located, in parts, at the H.S.P.A. and Bishop Museum. A motion to donate the Society's archives to the Bishop Museum was approved unanimously.

New Business: Mr. Montgomery introduced Mr. Robert Shallenberger of Ahuimanu Productions, a company which is planning films on Hawaiian natural history to be used in the Hawaii Bicentennial Celebration. They have three such films planned which will treat Hawaiian birds, Hawaiian ecosystems and evolution in Hawaii. A motion that the Society provide a letter of support to Ahuimanu Production; and that the Society will encourage its members to assist the group whenever possible, was approved unanimously.

NOTES AND EXHIBITIONS

Thyanta accerra (McAtee): Numerous adults and nymphs of this immigrant pentatomid were found on flower and seed heads of Fountain grass, *Pennisetum setaceum* (Forsk.), near the Kailua-Kona Airport, on March 5. This is a new island record and new host record for the red-shouldered stink bug which was known previously in the state only from Oahu. **J.W. Beardsley.**

Melormenis antillarum Kirkaldy: Numerous adults and nymphs of this immigrant flatid bug were observed on an ornamental planting of *Wikstroemia uva-ursi* Gray at the Kailua-Kona Airport. This is a new host record. **J.W. Beardsley.**

Selenophorus sp.: Specimens of an immigrant carabid beetle, which appears to have been accidentally introduced and established within the past two years, were exhibited. The species has been determined as *Selenophorus*

sp. by Dr. T. L. Erwin of the USDA Plant Pest Survey and Detection Service in Beltsville, Maryland. *Selenophorus* is a large genus with species throughout North, South, and Central America. This is a new state record. The oldest local specimen was taken at Ewa Beach by Albert Lane (an entomology student at U.H.) in November, 1972. Additional specimens from Manoa, Kuliouou, Pearl City, and the Honolulu International Airport, indicate that it is fairly widespread on Oahu. Most of the specimens were collected in light traps or at light. **J.W. Beardsley and G. Funasaki.**

Zygina penapacha (Beamer): Specimens also were exhibited of this recently discovered immigrant cicadellid leafhopper. To date about a dozen specimens have been found in light trap catches from the Honolulu International Airport, Halawa, Waipahu and Nanakuli, beginning in January of this year. The determination was made by Dr. J.P. Kramer of the U.S. National Museum who stated that the species was known previously only from Brownsville, Texas (Jour. Kansas Entomol. Soc. 14:18, 1941). Its host plants are unknown. **J.W. Beardsley and G. Funasaki.**

Harmonia conformis (Boisduval): On January 15, 1974, we visited the *Acacia koaia* sanctuary at Kawaihae-uka, Kohala Mts., Hawaii, and observed evidence of explosive population growth of *H. conformis*. At the time of our previous visit, in November 1973, both *H. conformis* and its prey, the Acacia psyllid (*Psylla uncatoides* Ferris and Klyver), were found to be at very low population levels. However, during the interval, winter rainfall had resulted in new flush growth on *Acacia koaia* trees and psyllid populations were able to increase sufficiently to provide plentiful prey for *Harmonia*. At the time of our January visit both adults and larvae of *H. conformis* were extremely abundant and psyllid populations appeared to be definitely under control. We removed about 2,000 adult *H. conformis* for liberation along the Mauna Loa Strip Road where *P. uncatoides* populations were beginning to build up on *Acacia koa* and where *Harmonia conformis* could not be found. A subsequent visit to the *Acacia koaia* sanctuary by Mr. Leeper during February revealed that psyllid populations had been reduced to low levels and *H. conformis* populations had also declined greatly. For the first time since *P. uncatoides* became established on Hawaii in 1970, new flush growth on koaia trees had not been killed back by the feeding of massive psyllid populations. We are hopeful that biological control of *P. uncatoides* on *Acacia koaia* has been achieved. **J.W. Beardsley and J.R. Leeper.**

Caconemobius sp.: This endemic genus of apterous nemobiine crickets was, until recently, known from only a single female specimen collected on Molokai in 1896 by Schauinsland, and described as *Paranemobius schauinslandi* by Alfken. In 1971 I collected two new species from caves on Maui and Hawaii Islands ("Proceedings" 21:223, 1972). During February 11-17, 1974, I captured 20 adults and approximately 130 immatures of a new species in bait traps set on the 1969 lava flow at Ainahou and the 1973 flow, both near Mauna Ulu, Hawaii Volcanoes National Park. None were captured in identical traps set in similar situations in the vegetation at the edge of the flows. The new cricket scavenges on plant and animal debris trapped or blown on new lava substrate and may be restricted to this habitat. This suggests a possible route for the colonization of lava tubes by these crickets. Other arthropods observed on new flows were two species of small black

argiopid spiders, a common large lycosid spider, and many accidentals or transients. A faunal survey and ecological study of new lava flows may yield additional new species. **F.G. Howarth.**

Larva of *Apterocyclus honoluluensis*: The aberrant endemic flightless stag beetle, *Apterocyclus honoluluensis* Waterhouse, is the only native representative of the lamellicorn beetles and has been collected only rarely in recent years ("Proceedings" 21:24, 1971). As far as I am aware, the larva has never been reported. On December 11, 1973, Mr. Robin C. A. Rice of Kipu Ranch, Kauai, collected a single large scarabaeoid larva under an old unidentified rotting log on Nualolo Trail, Kokee, Kauai at 1160 m. It keys without difficulty to Lucanidae in Peterson (1960, *Larvae of Insects*, Vol. 2) and to Lucanidae: Dorcinae in Boving and Craighead (1953, *Entomologica Americana* 11). It is presumed to be *A. honoluluensis*. **F. G. Howarth.**

APRIL

The 820th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., April 8, 1974, in the Seminar Room, National Marine Fisheries Service Building, University of Hawaii.

Members Present: Beardsley, Burkhart, J. K. Fujii, Haramoto, Howarth, Ikeda, Joyce, Khoo, Look, Mitchell, Ota, Radovsky, Sherman, Steffan, Sugerman, Tsuda, Yates, Yoshioka.

Visitor: Mr. Simon Sanidad.

Library Committee: Dr. Beardsley gave a comprehensive report on the committee's recommendations for the disposition of publications currently received by the Society and housed at the Experiment Station, HSPA. The committee used the following criteria to arrive at the recommendations: 1) financial support for publication of the Proceedings; 2) accessibility of publications to the membership; 3) upkeep and security of publications; and 4) special research needs of workers at specific institutions. The recommendations by the committee are as follows:

1. The HSPA Library will continue to receive certain H.E.S. exchanges and retain title to the backfiles of these, in exchange for compensation to the Society in an amount to be agreed upon later.

2. The University of Hawaii Manoa Campus Library will be designated as the official permanent depository for the remaining H.E.S. exchanges and backfiles, except for certain backfiles to be placed at the Bishop Museum or otherwise disposed of. These exchange publications and backfiles will become the property of the University of Hawaii Library. In exchange the U.H. Library has agreed to pay to the Society the sum of \$1500 per year. The U.H. Library will assume management of the Society's Exchanges.

3. Backfiles of the H.E.S. exchanges which are not needed by the University of Hawaii Library or HSPA Library will be donated to the Bishop Museum. Those not needed by the Bishop Museum will be disposed of according to the wishes of the membership of the Society. (Possible means of disposition of excess backfiles would be by sales or by gift to other local institutions or to members.)

4. Backfiles of certain H.E.S. exchanges which are not present or are incomplete at both the University of Hawaii and the Bishop Museum have been specifically requested by the Bishop Museum. Since it is recognized that personnel at both institutions may need to use these publications, it is recommended that the disposition of these backfiles be worked out by the librarians of the two institutions. The Society will recommend to the U.H. librarian that if feasible, these publications should be placed at the Bishop Museum.

Membership Committee: Mr. Tsuda proposed the names of the following applicants, who were duly elected to membership in the Society: Mr. Dallas Grady and Mr. James Mowry.

Program: Dr. Mitchell introduced the speaker, Dr. Martin Sherman of the University of Hawaii, Department of Entomology, who gave an excellent presentation on the topic: "Toxicity and Metabolism of Chlorpyrifos in the Fiddler Crab, *Uca pugnax*." The work discussed was part of an environmental impact study dealing with the effects of insecticides on non-target organisms, which was conducted at Rutgers University, New Jersey.

NOTES AND EXHIBITIONS

Atrocephalus sp.: Specimens were exhibited of an immigrant chalcid wasp which appears to be new to Hawaii. Eleven specimens, collected at several localities in the vicinity of Honolulu, were found in collections made by students in General Entomology at the University of Hawaii. The specimens, all of which were collected during April and May 1974, were determined by Dr. Beardsley as a species of *Atrocephalus*. This species is quite distinct from *A. pertorum* Girault, a species which has been present in Hawaii for many years. *Atrocephalus* is a large genus with many species distributed in the Ethiopian, Oriental, Australasian and southern Palearctic areas. Those for which hosts are known have been reared mostly from pupae of Lepidoptera. J. W. Beardsley.

MAY

The 821th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., May 13, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Beardsley, V. Chang, Conant, Gagne, Gressitt, Haramoto, Hardy, Howarth, Ikeda, Joyce, Kaneshiro, Krauss, Kunishi, Look, Mau, Montgomery, Namba, Ota, Radovsky, Sakimura, Shiroma, Steffan, Sugerman, J. Tenorio, J.A. Tenorio and Tsuda.

Visitors: Dr. Jayne N. Ahearn, Dr. Visut Baimai (Thailand), Mr. Pat Conant, Dr. Hampton L. Carson, Mr. Wayne Ibara, Dr. Herman T. Spieth, Miss Linden T. Teramoto and Dr. Francisca C. do Val.

Unfinished Business: It was moved that the recommendations presented by the Library Committee at the April meeting, concerning the disposition of the Society's periodical exchanges and backfiles be approved. The motion carried unanimously.

New book on Agromyzidae: Dr. Hardy exhibited the new book by K. A. Spencer, entitled *Agromyzidae of Economic Importance*, published in 1973 by Dr. W. Junk, B.V., the Hague, 418 pp., and costing \$48.00.

***Scaeva pyrastris* (L.):** Dr. Hardy displayed specimens of *Scaeva pyrastris*, an immigrant syrphid which may be established here. He obtained these specimens from the American Museum of Natural History since the original specimen from Oahu was damaged in shipment. To date, no additional specimens have been found in Hawaii. **D. E. Hardy.**

***Atherigona reversura* Villeneuve:** *Atherigona reversura* Villeneuve, (1936, Ark. Zool., 27A (36): 11) is a newly established immigrant muscid fly on Oahu. Large numbers of specimens of this species have been turning up in light trap collections from Waipahu, Halawa, and Castle Junction, Oahu. It was first brought to my attention by Dr. J. W. Beardsley several months ago, and has now been identified by Dr. Adrian Pont, British Museum (Nat. Hist.). This species belongs to a group of *Atherigona* known as "shoot flies" which breed in the stems of all kinds of grasses. Some species do extensive damage to sorghum, rice, corn and sugarcane. The only recorded host plant for *A. reversura* is *Cynodon dactylon* (L.) (Bermuda grass). The young maggot bores through the stem of the grass into the central shoot and then feeds on the decaying core of the shoot. The species is widespread over the Oriental region. Dr. Pont has seen it from India, Ceylon, Burma, China, Japan, Formosa, Malaya, Java, Sabah, Philippines, Celebes, Sumbawa and Lombok. **D. E. Hardy.**

Name changes for Hawaiian Diptera: Dr. Hardy called attention to corrections for names of Hawaiian Sarcophagidae made by Lopes, Kano, et al. (in Delfinado and Hardy, *Catalog of the Diptera of the Oriental Region*) (vol. 3, 1976) as follows:

Amobia alienus (Dodge) (1953) is a synonym of *A. pelopei* (Rondani) 1859.

Seniorwhitea orientaloides (Senior-White) (1924) is a synonym of *S. krameri* (Boettcher) (1912).

Parasarcophaga ruficornis (Fabricius) is now placed in the subgenus *Liopygia*.

The following changes of names for Hawaiian Agromyzidae were published in Spencer, K. A., 1973, *Agromyzidae of Economic Importance*, Dr. W. Junk, B.V., The Hague.

Liriomyza canomarginis Frick, *L. minutiseta* Frick, and *L. pullata* Frick (all described from Hawaii) are synonyms of *L. sativae* Blanchard.

Liriomyza langei Frick is a synonym of *L. huidobrensis* (Blanchard).

Melanagromyza phaseoli (Tryon) is now placed in the genus *Ophiomyia*.

Dr. Hardy also reported that the tachinid parasite of *Nezara viridula* should be known as *Trichopoda pilipes* (Fabricius), not *T. pennipes* var. *pilipes*. **D. E. Hardy.**

***Euoniticellus intermedius* Reiche and *E. africanus* Harold:** Five hundred adults each of these two dung beetles were released on Parker Ranch at Kuomolo and Puu Pupapa, Hawaii on April 5, 1974. The beetles were received through the courtesy of Dr. D. F. Waterhouse of CSIRO, Canberra, Australia, and were released on Hawaii as part of the horn fly control program. **R. Mau.**

Procecidochares sp.¹ An initial release of 100 flies was made at Hualalai Ranch, Kaupulehu, Hawaii on April 9, 1974. This gall-producing tephritid fly was introduced from La Barranca del Tigre, Veracruz State, Mexico for control of Hamakua pamakani, *Ageratina riparia*. R. Mau.

Sarcoptes scabiei DeGeer: Numerous human infestations of scabies were reported to the State Department of Health, Communicable Disease Division and Vector Control Branch in April, 1974. Sixteen confirmed cases were reported through the windward area public health clinics, and 26 confirmed cases were also reported from Maluhia Hospital. As scabies infections do not require a mandatory report of communicable infection, we suspect that the reported cases represent only a small proportion of the total cases in the state. J. Ikeda.

Program: Dr. Hardy introduced Dr. Herman T. Spieth, former chancellor of University of California at Davis. Dr. Spieth gave an excellent talk entitled "The Evolution of Mating Behavior in the *Drosophila planitibia* subgroup."

JUNE

The 822nd meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., June 10, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Andrews, Beardsley, Bess, Brennan, Burkhart, Gagne, Haramoto, Hardy, Harris, Howarth, Ikeda, Joyce, Lind, Look, Mitchell, Morrill, Naponpeth, Ota, Schroeder, Steffan, Sugerman, and Yoshioka.

Visitor: Mr. S. F. Araman.

Science Fair Committee: Dr. W. J. Schroeder reported that the H.E.S. science fair award was given to Mr. Sam Dacanay of Aiea High School.

NOTES AND EXHIBITIONS

Amorbia emigratella Busck: The Mexican leafroller was reared from larvae on *Cannabis sativa* sent in by a "native collector" from the Volcano area of the Island of Hawaii in late November, 1973. This appears to be a new host record. This tortricid has a wide range of hosts in Hawaii and abroad. This record suggests that an alternate common name for this pest could be the "pot moth." W. Gagne.

Beetles attracted to ohia smoke: Two species in different families, a lathridiid (*Corticaria* sp.) and a clambid (*Clambus* sp.) (det. Samuelson), were attracted to a smokey ohia (*Metrosideros collina*) fire at Ainahou Ranch in Hawaii Volcanoes National Park on the late afternoon of 27 April 1974 at 3000 ft elevation on the Island of Hawaii (Gagne, col.). The wind was very slight, almost calm. Coleoptera are known to be attracted to smoke in other areas, but there seems to be no report of this in Hawaii. These may be native species. Since this area has been subject to lava induced forest fires with con-

¹Subsequently described as *Procecidochares alani* by Steyskal (1974, USDA Coop. Econ. Insect Rept. 24(32):639-41 (ed.).

siderable frequency over many thousands of years, it is postulated that these beetles may have adapted to find and breed on fire-killed ohia. The same apparent species were taken infrequently in pyrethrum samples of ohia canopies on a nearby transect over a 3 year period. No *Corticaria* species have previously been reported from the Island of Hawaii. **W. Gagne.**

Cligenes marianensis Usinger: Dr. Beardsley recently reported this species in the State (see February Notes and Exhibitions) on the basis of specimens from a light trap at Honolulu International Airport collected during January, 1974. Two specimens bearing the following data: W. Maui, Honokohau, 900 m, 19.III.1972, Malaise Trap, J.L. Gressitt are in the Bishop Museum. These specimens, which predate Dr. Beardsley's discovery by almost two years, constitute a new island record. The determination was by me on comparison with the type in the collection of the Bishop Museum. **W. Gagne.**

Program: Dr. W. Mitchell introduced Dr. Asher Ota of the HSPA Experimental Station. Dr. Ota spoke on the topic "Theoretical Considerations in the Use of Resistant and Partly Resistant Varieties in Pest Management Systems."

JULY

The 823rd meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., July 8, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Andrews, Bess, Brennan, Gagne, Haramoto, Hardy, Harris, Ikeda, Joyce, Lauret, Look, Mitchell, Morrill, Steffan, Sugerman, Tsuda and Yoshioka.

Visitors: Dr. Karen Lipps and Mr. Simon Sanidad.

Membership Committee: Mr. Tsuda proposed Mr. Stan Miyake, who was unanimously elected to membership.

NOTES AND EXHIBITIONS

Achaea janata (L.): The croton caterpillar, *A. janata*, was reared by Mr. John Obata from larvae which were attacking leaves of native hame trees, *Antidesma pulvinatum*, (Euphorbiaceae) which he is growing as ornamentals at his home in Moanalua Valley, Oahu, ca. 300 ft elevation. Several adults emerged on April 15, 1974. This appears to be a new host record. **W. Gagne.**

Ceratocombus (Xylonannus) sp.: A third species of this subgenus (det. Gagne) of minute dipsocorid bugs was found in the Hawaii Department of Agriculture collection. It is represented by two females, collected in a light trap at Waipio, Oahu, in October and November, 1956, by J. W. Beardsley. Here, it is closest to *C. (X.) hawaiiensis* Usinger. This is a new State record. **W. Gagne.**

Conocephalothrips tricolor Bianchi: The apparently endemic thrips, *C. tricolor*, is presently known only from Mt. Kaala, Oahu on kanawao, *Broussaisia arguta*, (Hydrangeaceae) leaves. A single apterous female (det. Sakimura) was recovered from samples from koa, *Acacia koa*, (Leguminosae)

obtained by means of a pyrethrum spray application on 31 December, 1972 in the Kilauea Forest Reserve, Hawaii Island, 5400 ft elevation by W.C. Gagne. Sakimura (in corr.) considers the species to be "a fungus feeder on decaying twigs". This is a new island record. **W. Gagne.**

Coniocompsa zimmermani Kimmins: A pair of the coniopterygid lacewing, *C. zimmermani*, were taken by sweeping ohia (*Metrosideros collina*) at 1000 ft elevation on the Hilina Pali in Hawaii Volcanoes National Park, Hawaii Island, 29.IX.1973 (Gagne col. & det.). This represents a new island record for this apparently immigrant species, previously known from Maui and Oahu Islands. Ohia also appears to be a new host record. The specimens were associated with chrysopids, hemerobiids and coccinellids on trees with abundant mealybugs and psocids. This species was never taken in hundreds of samples below (at 50 ft) and above (2500-8000 ft) this elevation; so, a puzzling, narrow altitudinal distribution is suggested. **W. Gagne.**

Cyrtopeltis (Engytatus) hawaiiensis Kirkaldy: Adults and nymphs of the endemic "suckfly" plant bug, *C. (E.) hawaiiensis*, were swept from na'ena'e, *Dubautia menziesii*, (Compositae) at 9000 ft elevation in Pohakuloa Gulch, Mauna Kea, Hawaii island, 25.II.1973, (Gagne, col. & det.). This is a new island record. The species was previously known from Maui and Molokai Islands. It has been erroneously recorded from Oahu and should be removed from that island's lists. **W. Gagne.**

Cyrtopeltis (Engytatus) modestus (Distant): Adults and nymphs of the tomato bug, *C. (E.) modestus*, were observed preying on insects trapped in the viscous hairs of an ornamental *Rhododendron* (Ericaceae) at Volcano, Hawaii Island in November, 1973. The bugs seemed to walk on the sticky leaves and petioles of the plants with impunity, and also were observed to frequent the flowers where they may be taking nectar. They were not found on an adjacent, non-viscid-leafed *Rhododendron* species. This appears to parallel the predatory habits of two sundew (*Drosera* sp.) associated *Cyrtopeltis* species in Western Australia, as described by China in 1953 (Western Austr. Nat. 4:1-2), but I am unaware of this having been observed with *C. modestus*. **W. Gagne.**

Phytometra giffardi (Swezey)¹: The endemic noctuid, *P. giffardi* (det. Dr. K. Sattler, British Museum (Nat. Hist.)), was reared on the leaves of the endemic ma'ohi'ohi (*Stenogyne* sp.: Labiatae). The damage to the terminals of this creeper was heavy in the Kilauea Forest Reserve, Hawaii Island, 5400 ft elevation from where larvae were collected and emerged in June, 1971 (Gagne col.). The host plants of many of our endemic noctuids are still unknown, and this appears to be a new record, the first for this genus in Hawaii. **W. Gagne.**

Platydemia subfascia Walker: There is no record in our literature as to the ecological association of the immigrant tenebrionid, *P. subfascia*, although it is widespread in Hawaii. A specimen (det. Samuelson) was collected in the fleshy shelf-fungus called pepeiao-akua (*Auricularia polytricha*) growing on a fallen kukui log (*Aleurites moluccana*) at 1700 ft elevation on 6.I.1974 in Pahole Gulch, Mokuleia Forest Reserve, Waianae Mts., Oahu by W.C. Gagne (specimen exhibited). **W. Gagne.**

¹Zimmerman (1958, Ins. Hawaii 7:363) lists this species as *Plusia (Lophoplusia) giffardi* (Swezey) (ed.).

Stenotus sp.: Dr. J.C.M. Carvalho, mirid specialist at the Museu Nacional, Rio de Janeiro, Brasil recently determined specimens of a mirid bug collected by Dr. J.W. Beardsley on fountain grass, *Pennisetum setaceum*, near Keahole, Hawaii Island, March 5, 1974, to be *Stenotus* sp. Nymphs and adults were observed on this serious pasture weed. The bug is not conspecific with *S. binotatus* (F.), a doubtfully established Nearctic species which I reported in 1971 ("Proceedings" 21:18). This large genus is also well represented in the Pacific and Africa, and Dr. Carvalho considers the Keahole specimens to be closest to an undescribed species from Australia. The host is North African in origin, however. Dr. Beardsley failed to recover the species in an extensive search in late May, 1974, so it may be seasonally present during the winter months. This is a new State record. **W. Gagne.**

A heavy infestation of this bug was discovered on Bermuda grass at a golf course at Keahou, Hawaii by S. Matayoshi on July 24, 1974 (ed.).

Xylosandrus compactus Eichhoff: The black coffee twig borer, *X. compactus*, was found attacking the twigs of the endangered endemic holio tree, *Cryptocaria oahuensis* (Lauraceae), at 2300 ft elevation on 4.IX.1973, east side of Makaha Valley, Waianae Mts., Oahu by W.C. Gagne (Gagne det.). About one dozen trees of this avocado relative are known in the wild. This is a new host record for this pestiferous immigrant bark beetle. **W. Gagne.**

Pipunculidae: Dr. Hardy exhibited some large specimens of Pipunculidae from Japan.

Dilophus occipitalis Coquillett: One female specimen of this bionid fly was collected in light trap at Honolulu International Airport on July, 1974 by Dr. J.W. Beardsley. This is a California species and is not known to be established in Hawaii. **D.E. Hardy.**

Program: Dr. Mitchell, Dr. Haramoto and Mr. Harris discussed some of the highlights of the Pacific Branch Meetings of the Entomological Society of America, held at Sparks, Nevada, June 18-20, 1974.

AUGUST

The 824th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., August 11, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Beardsley, Devenport, Gagne, Haramoto, Hardy, Howarth, Ikeda, Joyce, Look, Mäü, Mitchell, Montgomery, Namba, Steffan, Sugerman, and Yoshioka.

Visitors: Dr. Seizi Azuma, Dr. Karen Lipps, Mr. Reynold Ito.

Membership Committee: Mr. Lester Kaichi was proposed for membership and duly elected.

New Business: Dr. Radovsky read a letter, drafted by Dr. Gressitt for the Society, and addressed to the National Science Foundation and the University of Hawaii Press, regarding the status of "Insects of Hawaii" volume 9, Microlepidoptera, by Dr. E.C. Zimmerman. The Society approved the sending of this letter in the hope that it may aid the U.H. Press in their attempt to obtain funds for the publication of this much needed reference work.

NOTES AND EXHIBITIONS

Aleurocanthus spiniferus (Quaintance): A heavy infestation of the orange spiny whitefly was found at the Queen Kapiolani Rose Garden at Waikiki, Oahu on July 13, 1974. The infestation was discovered by the rose garden superintendent who brought specimens to the University of Hawaii. The initial identification was made by Dr. Beardsley, and later confirmed by Miss Louise M. Russell, USDA Systematic Entomology Laboratory, Beltsville, Maryland. Dr. Beardsley and Dr. Mitchell visited the rose garden on July 13 and found the whitefly present throughout most of the rose plantings there. Delimiting surveys conducted by entomologists from the U.S. Department of Agriculture, State Department of Agriculture and the University of Hawaii revealed the presence of heavy infestations throughout an area of approximately one square mile mauka of the discovery site. The whitefly was found in the Palolo, Kaimuki, St. Louis Heights, Waikiki, Kapahulu and McCully Districts of Honolulu. Infestations of various intensities, consisting of all stages of the insect, were present on roses, citrus (navel orange, lime, tangerine, pomelo), grape and Bartlett pear. This whitefly is an important pest of citrus in Japan and is distributed throughout most of the Oriental Region. It occurs also in East Africa and the West Indies. Descriptive information on the life history and biology of *A. spiniferus* can be found in the publication by Kuwana (1928) "Aleyrodidae or White Flies Attacking Citrus Plants in Japan" (Japan Min. Agric. and Forest. Sci. Bul. 1:44-52). **R. Mau.**

Anua indiscriminata (Hampson): Six specimens of this noctuid moth were collected on Oahu during June and July, 1974. The specimens all were attracted to lights and were collected at Hickam Air Force Base, Manoa, Nuuanu, and Kaneohe. A female taken at Manoa deposited a number of fertile eggs. Determination of the moth was made by Dr. E.L. Todd, U.S.D.A. Systematic Entomology Laboratory. This is a new state record. *A. indiscriminata* was described from India, Ceylon and the Philippines. *Eucalyptus*, *Carea* and other genera of the Myrtaceae are listed as hosts. See Hampson (1913) "Catalogue of Lepidoptera Phalaenae in the British Museum" vol. 12:435 for further information. **R. Mau.**

Brumoides suturalis (Fabricius): Seven adults of this coccinellid beetle were collected from grassy areas at Hickam Air Force Base, Oahu during an insect detection survey, on June 21, 1974. Specimens were identified by Dr. R.D. Gordon, U.S.D.A. Systematic Entomology Laboratory. This is a new state record. *B. suturalis* is native to southeast Asia and the Philippines. **R. Mau.**

Brunneria borealis Scudder: Eight nymphal and adult specimens of this brachypterous mantid, previously unreported in Hawaii, have been collected in the Manoa area of Honolulu. The first specimen was taken on September 14, 1973, at the University of Hawaii quarry, by L. Kaichi. Subsequently, additional specimens were collected at the base of Waahila Ridge and at the U.H. quarry, during June and July, 1974, by Dick Tsuda. Specimens were determined by Dr. A.B. Gurney, U.S.D.A. Systematic Entomology Laboratory. This mantid occurs in the southern continental U.S. from North Carolina to Texas. Only females of the species are known and reproduction apparently is parthenogenetic. For additional information see Gurney (1950)

"Preying Mantids of the United States: Native and Introduced," Smithsonian Institution Report for 1950, pp 339-62. **R. Mau.**

Semanotus amethystinus (LeConte): Two adult specimens of this metallic blue cerambycid beetle were found on June 6, 1974 by B. Blackwell in a home built with cedar wood in Wailua, Kauai. On June 24, 1974, two additional specimens were found in the same house by D. Sugawa. This insect occurs along the Pacific Coast of North America, and its hosts are various species of cedar. There is no evidence that this species is established in Hawaii. Determination was made by Dr. T.J. Spilman, U.S.D.A. Systematic Entomology Laboratory. **R. Mau.**

Cerocephala dinoderi Gahan: Adults of this pteromalid wasp, a new state record, were collected from beetle-infested cattle feed at Kipapa, Oahu in March, 1974. This species was described from Luzon, Philippines, and is a parasite of *Dinoderus minutus* (F.) (Coleoptera: Bostrichidae). It was also recorded as having been reared from the rice weevil, *Sitophilus oryzae* (L.), in Java. We have no definite host records for this wasp in Hawaii; however, both *D. minutus* and *S. oryzae* are known to occur here. Identification was made by Dr. B.D. Burks, U.S. National Museum. For taxonomic information relating to *C. dinoderi* see Gahan (1946) Proc. U.S. National Mus. 96:349-376. **R. Mau.**

Erionota thrax L.: The banana skipper was found at Wailua, Kauai (June 14, 1974) and at Kahakuloa, Maui (July 1, 1974). These discoveries constitute new island records for this pest of banana. **R. Mau.**

Papilio xuthus L.: The citrus swallowtail was found at Wailuku, Maui and Kailua-Kona, Hawaii during June, 1974. Its presence on Molokai was confirmed by Dr. A. LaPlante during July, 1974. These discoveries constitute new island records. The citrus swallowtail has not yet been reported from Lanai. **R. Mau.**

Xylosandrus compactus Eichhoff and **Stephanoderes birmanus** (Eichhoff): Both of these scolytid beetles were found causing twig dieback on kiawe on Molokai. This constitutes a new island record for *X. compactus*. *S. birmanus* has not been known to cause twig dieback; however, the beetles were definitely doing so on Molokai. Subsequent collections of dying kiawe twigs from Pearl City, Oahu showed that *S. birmanus* was causing dieback here too. **R. Mau.**

Vespa vulgaris (L.): Two ground nests of this yellow jacket wasp were discovered and destroyed at Olinda, Maui on June 13, 1974 and on July 26, 1974 by Maui Dept. of Agriculture entomologist, Nobuo Miyahira. The nests were found in the same area as previous yellow jacket sightings. At least 900 workers were recovered with the first nest, and 2,400 workers and 600 males were recovered with the second nest. Many eggs, larvae, and pupae were found in each nest. A queen was recovered from the first nest but not from the second. *V. vulgaris* appears to be firmly established at Olinda, Maui. **R. Mau.**

Acyrtosiphon pelargonii (Kaltenbach): This aphid has not been reported previously from Hawaii in these "Proceedings," although Eastop (1971, Bul. British Mus. (Nat. Hist.) Entomol. 26:53) recorded it from Pohakuloa, Hawaii on the basis of a single specimen, an alate, collected sweeping grass during May, 1948 by F.A. Bianchi. On May 21, 1974 I found an unknown aphid abundant on an herbaceous weed, *Erodium cicutarium*,

at Halepohaku, Mauna Kea, Hawaii (elevation 9200 ft). Specimens were subsequently determined by Miss Louise M. Russell, U.S.D.A. Systematic Entomology Laboratory, Beltsville, Maryland as *Acyrtosiphon pelargonii zerozalphum* (Knowlton). Miss Russell stated that *A. pelargonii*, *sens. lat.* is a confusing species which at present contains eight named subspecies. It is of interest that Eastop placed the single specimen collected by Mr. Bianchi in the nominate subspecies, *A. pelargonii*, and therefore the record of the subspecies *zerozalphum* is a new one for Hawaii. Additional collections will be needed to determine if there are in fact two subspecies of *A. pelargonii* present in Hawaii, which seems unlikely. *A. pelargonii* was described in the genus *Macrosiphum* and is widely distributed in Europe, North and South America. It has been recorded from a number of hosts in the genera *Geranium*, *Pelargonium*, *Pyrus*, *Malva*, *Viola*, *Justacia*, *Calceolaria*, *Bellis*, *Chrysanthemum* and *Cineraria*. J.W. Beardsley.

Program: Dr. Hardy introduced Dr. Karen Lipps, Entomologist from San Francisco State University, who spoke on "Cleaning Behaviour of *Drosophila*."

SEPTEMBER

The 825th meeting of the Hawaii Entomological Society was called to order by President Steffan at 2:00 p.m., September 9, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Beardsley, Bess, Bianchi, V. Chang, Hardy, Harris, Howarth, Ikeda, Joyce, Mau, Mitchell, Montgomery, Namba, Ota, Steffan, Sugerman, Tanimoto and Tsuda.

Visitor: Mr. Lee Goff.

New Business: Mr. Montgomery, Chairman of the Liaison Committee, read a draft of a letter to the Director, U.S. Fish and Wildlife Service, concerning new federal regulations to control the importation of exotic wildlife into the United States. The letter points out the hazards presented by exotic animals to the native wildlife of insular areas such as Hawaii, as well as the potential danger that exotic animals, such as seed-eating birds, may become pests of agriculture, etc. The letter commends the Department of Interior for their efforts to control traffic in foreign wildlife, while allowing adequate exceptions to fill the needs of scientific research. The members present voted their approval of the letter and its transmittal.

A proposal that any future letters of this nature, in which the Society takes a position on a potentially controversial issue, shall become part of the official minutes of the Society's meetings, and that publication of such letters, in their entirety or in summary form, in the Society's "Proceedings" shall be left to the discretion of the Editorial Committee, was approved unanimously.

NOTES AND EXHIBITIONS

Thereatra nesus (Drury): A single specimen of this large oriental sphingid moth was collected at Campbell Industrial Park, Oahu, on August 14, 1974, by Mr. Allan Akana of Honolulu, who brought the moth alive to the Bishop Museum for identification. Subsequently he collected another

specimen at the same locality and has noted additional battered wings under the large ventilation fans at the shop there. Bell & Scott (1937, *Fauna of British India*. Vol. 5:430) record the range of *T. nessus* as from the Himalayas, India, Burma, and Ceylon to Japan, New Guinea and Australia. They describe the larva and list the hosts as *Pongamia glabra* Vent. (*Leguminosae*), *Barringtonia* (*Myrtaceae*), *Convolvulus* (*Convolvulaceae*), *Dioscorea* (*Dioscoreaceae*), and *Amorphophallus* (*Aroideae*). In India the species prefers hills and forested areas with heavy rainfall; however, it is also found in the dry lowlands. The moth was identified by F.G. Howarth by comparison with named material in the Museum. **F.G. Howarth.**

Caconemobius sp.: In March of this year I displayed the fourth known species of this endemic Hawaiian genus of apterous nemobiine crickets. On August 29, 1974, Mr. Steve. L. Montgomery of this Society collected a single female of a distinctive new species while night collecting on Mt. Haupu, Kauai. The genus is now known from Hawaii, Maui, Molokai, and Kauai Islands, and seems to have a predilection for extreme environments. Two species are restricted to caves, one to very young lava flows and this new one possibly to vertical cliff faces. **F.G. Howarth.**

Entomological Society of Queensland, Jubilee: Mr. Bryan reported that, in September 1973, the Entomological Society of Queensland, Australia, celebrated its 50th Anniversary. At that time the Society held a Jubilee symposium in Brisbane, and has published its results in a booklet of 76 pages, entitled "Changing patterns of Entomology." The opening address was given by Sir Alan Summerville, D.Sc., L.L.D., Chairman of the Queensland Sugar Board. The papers presented at the Jubilee Symposium were as follows:

"In retrospect: the insects and the entomologists," by I.M. Mackerras and Elizabeth N. Marks, traced the origin of the insect fauna of Queensland, and the persons who have explored it, with portraits of several of them.

"In retrospect: entomology and plants," by T. Passlow, outlined achievements in entomology associated with plants, also with a few portraits, and references.

"In retrospect: entomology and animals," by R.H. Wharton, noted nuisance and disease bearing arthropods affecting man and animals, with a map showing endemic areas of malaria and filariasis in Australia, portraits and references.

G.H.S. Hooper spoke of "The entomologist: his formal training," with graphs.

G.H. Saunders continued with "The entomologist, what is expected of him?"

I.M. Cook answered the question, "Does training meet expectations?"

M. Bengston covered "Current developments: pest control in agriculture and its effects," speaking of the current status of pesticides, quarantine entomology, commodity standards, resistant varieties, physical and biological control, and eradication programmes, with numerous references.

H.A. Standfast dealt with "Current developments: research on arthropod pests of man and livestock"; covering various aspects of medical and veterinary entomology.

D.S. Kettle forecast a bright future in "Looking forward: what of the next fifty years?"

Four group pictures showed members attending the symposium.

"Insects and man: the exhibition," by J.E. O'Hagan, and "Insects and man in Australia," by D.F. Waterhouse, were addresses given at an "Insects and Man" exhibition at Brisbane, March 1973.

A paper by Elizabeth N. Marks, described the Entomological Society of Queensland's first fifty years, and listed the Society's Presidents, Secretaries and Treasurers, 1923 to 1973.

Copies of this informative booklet can be obtained for \$2.50 (Australian) from the Society, c/o Department of Entomology, University of Queensland, St. Lucia, Brisbane, Queensland 4667. **E. Bryan.**

Anua indiscriminata (Hampson): During the week of August 4, 1974, three larvae of this recently discovered noctuid moth were submitted for identification by Mr. Masaharu Shimoda of Honolulu, who found them feeding on young leaves of strawberry guava (*Psidium cattleianum*). Two larvae were also found feeding on young leaves of a guava tree (*Psidium guajava*) at Manoa, Oahu, by Mr. Mau. Similar damage was observed on other guava trees in the Manoa area. **R. Mau and E. Shiroma.**

Program: Dr. Mitchell introduced the speaker, Dr. Henry Bess, Sr. Professor of Entomology, Emeritus, University of Hawaii, who spoke on entomological problems of sugarcane in Taiwan.

OCTOBER

The 826th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., October 15, 1974, in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Bianchi, Burkhart, V. Chang, Gagne, Haramoto, Hardy, Howarth, Ikeda, Kaneshiro, Komatsu, Leeper, Lind, Mitchell, Montgomery, Ota, Radovsky, Sherman, Shiroma, Steffan, Tanimoto, Tsuda, and Yoshioka.

Visitors: Mr. Lee Goff and Mr. Fasio de Melo Seue.

Membership Committee: Mr. Lee Goff, Mr. Dennis Pribble and Mr. Charles Yasuda were nominated and duly elected to membership in the Society.

Library Committee: Dr. Ota reported on the present status of the plans for transfer of the Society's library holdings which are presently housed in the H.S.P.A. Experiment Station library. A motion that the Library Committee be given authority to act on behalf of the Society in this matter, until a contract between the Society and the University of Hawaii has been signed, was approved unanimously.

NOTES AND EXHIBITIONS

Mites associated with horn fly cultures: In July, 1974, Dr. James Eschle of the U.S.D.A. Hawaii Horn Fly Project brought to us adult horn flies infested with two species of mites. These were adult females of a *Machrocheles* species (Mesostigmata: Macrochelidae) and of a *Pygmephorus* species (Prostigmata: Pyemotidae). The species identification of the *Pygmephorus* is not yet confirmed, but it is not a species previously reported in Hawaii.

The macrochelid was identified by Dr. G.W. Krantz, Oregon State University, as *Macrocheles subbadius* (Berlese). This constitutes a new state record and represents only the third species in the family to be reported here. *M. subbadius* is one of several species of *Macrocheles* which are commonly found in domestic-animal manure. One of the most frequently encountered and most closely studied as a possible biological control agent for the house fly is *M. muscaedomesticae*, first reported from the state by Kim (1962, Proc. Hawaii. Entomol. Soc. 18(1): 7). *M. subbadius* has a biology similar to that of *M. muscaedomesticae* and has been treated in publications of Filippini and Pegazzano (1963, Redia 48:69-91) and Axtell (1963, Ann. Ent. Soc. Amer. 56:628-33; 1963, J. Econ. Ent. 56(3):317-21; 1964, Ann. Ent. Soc. Amer. 57:584-87; and others). All stages are predacious on fly eggs and first instar larvae of flies, in addition to nematodes and other prey. The adult females are phoretic on adult flies. *M. subbadius*, like many macrochilid species, is facultatively parthenogenetic: fertilized eggs produce only females and unfertilized eggs produce only males. Phoretic females are usually not fertilized. This type of behaviour and reproduction allow a single unfertilized female to found a new colony. The geographical distribution of *M. subbadius* is somewhat uncertain, since the identification of the species has been confused in the literature. It definitely occurs in Europe and the U.S., and most probably is more widely distributed. F. Radvosky and J.A. Tenorio.

Human myiasis involving *Oestus ovis* L.: A woman from Honolulu was on a fishing trip to Opaepa Pond, Makalawena Tract, North Kona, Hawaii early in September. While on the beach she reported a "bee-like" insect flew in and touched one of her eyes; this caused an irritation and she began wiping her eye with a handkerchief and wiped out two small "worms." Several hours later she began sneezing and developing irritation and catarrhal symptoms in her nostrils. This became increasingly worse and several days later after returning to Honolulu she sought medical attention. The physician found severe inflammation of the nasal cavities and acute catarrh, but did not associate these symptoms with the "bee" which had flown into his patient's eye. The symptoms persisted for about three weeks and then cleared up.

It seems evident that this was a case of ocular-nasal myiasis involving the sheep bot fly, *Oestrus ovis*. The first instar larvae apparently got into the nasal sinuses through the lachrymal duct. There are many such cases reported in the literature but only two previously in Hawaii. Usually, the fly larvae cause ocular myiasis, but sometimes the nasal sinuses are also involved.

There are no sheep in the area where the incident occurred but there is a herd of goats owned by a man who acts as caretaker of the property. It is possible that the goats are infested with the bot flies. D.E. Hardy.

***Deilephila nerii* (L.):** An adult sphingid moth collected at Hickam Air Force Base, Oahu, on Sept. 18, 1974, was tentatively identified as the oleander hawk moth, *Deilephila nerii*, by R. Kunishi and R. Onzuka. The identification later was confirmed by Dr. E.L. Todd, U.S.D.A. Systematic Entomology Laboratory. A general survey of the Hickam Base area was conducted and many larvae were recovered from oleander bushes, confirming establishment. Delimiting surveys, conducted in cooperation with Mr. R. Mau, State Survey Entomologist, revealed that larvae were widespread

throughout the Pearl Harbor area on oleander. The pupal period of specimens held in the laboratory was about two weeks.

The oleander hawk moth is widespread throughout Africa, southern Europe, and southern Asia as far east as Malaysia. Recorded hosts, in addition to oleander, include jasmine, gardenia, mango, *Acokanthera*, *Adenium multiflora*, *Carissa*, *Rauwolfia*, *Taberna*, *Vinca* and *Voacanga*. This is a new state record. **R. Kunishi.**

Theretra nessus (Drury): Two adults of this sphingid moth were submitted for identification by personnel of the Air Force Public Health Dept. who found them at Mt. Kaala during the first week of October. A third specimen was picked up at the Pan American Building at the Honolulu International Airport. Although larvae of this moth has not been recovered, it seems to be widespread. **R. Kunishi.**

Program: Dr. W. Mitchell introduced the speaker, Fred Bianchi, retired entomologist, formerly with the H.S.P.A., who presented a very interesting talk on the insect problems of sugarcane in Brazil.

NOVEMBER

The 827th meeting of the Hawaiian Entomological Society was called to order by President Steffan at 2:00 p.m., November 11, 1974 in the Seminar Room, National Marine Fisheries Service Building.

Members Present: Beardsley, Devenport, Eschle, Haramoto, Hardy, Ikeda, Joyce, LaPlante, Lauret, Look, Mitchell, Namba, Schroeder, Seabrook, Sherman, Steffan, Sugerman, Tsuda, Yates.

Visitors: Mr. Caresta (U.S. Army, Okinawa), Dr. Webster Sill, Messrs. Chualit Sumgkhotsal, Vichai Sumrit, and Vunnarong Laudradith (East West Center Trainees from Thailand).

Membership Committee: Mr. William P. Mull of Volcano, Hawaii was nominated and duly elected to membership in the Society.

Editorial Committee: Dr. Beardsley reported that specifications for the "Proceedings" for 1973 have been completed and sent out for bids. New instructions for preparation of manuscripts will be placed on the inside of the front cover of this issue. The committee also recommended the initiation of page charges of \$12.00 per page for contributed papers, commencing with the "Proceedings" for 1973 (vol. 22, no. 1). This move was deemed necessary because of rising printing costs. It was further recommended that retired or non-institutionally supported members may request a grant from the Society to cover page charges. The discontinuance of the Society's policy of providing 50 gratis copies of each contributed paper was also recommended. A motion that the Society accept these recommendations was approved by the members present.

NOTES AND EXHIBITIONS

Phalonia sp.¹: Specimens of a previously unidentified microlepidopteran which has become plentiful in light trap catches from Oahu during the past several months, were submitted to the Plant Pest Survey and Detection Division, U.S.D.A. Beltsville, Maryland. These were determined as *Phalonia* sp. by Dr. D.R. Davis. This moth belongs to the Family Phaloniidae, a group previously unrepresented in the Hawaiian fauna, which is sometimes considered to be a subfamily of the Tortricidae. It first appeared here, at Honolulu International Airport, during February, 1974. Dr. Davis noted that the species is probably introduced from North America. Nothing is known of its habits, although species of this group are stated to be mostly web-spinners and borers in their larval stages, mostly attacking heraceous plants. This is a new State record. **J.W. Beardsley.**

Nipaeococcus vastator (Maskell): Specimens of this immigrant mealybug were collected by Mr. Jack Fujii at the State Division of Forestry Nursery, Kahului, Maui on Aug. 28, 1974 from a heavy infestation on *Dodonea viscosa* seedlings. This is a new island record and a new host record. This mealybug appears to have been reported in Hawaii only from Oahu and Hawaii, although it probably occurs on all islands. Determination by J.W. Beardsley. **J.W. Beardsley.**

Carnecephala sagittifera (Uhler): Several specimens of this immigrant cicadellid leafhopper were found in light trap catches from Waipahu, Oahu during October, 1974. This is a new island record. This species was first collected in Hawaii in June, 1972, at Kona, Hawaii, and until now was known to occur in the State only on the Big Island. **J.W. Beardsley.**

Chrysolina hyperici (Forster): For Mr. Davis, Dr. Beardsley exhibited a specimen of a purposely introduced chrysomelid beetle, *C. hyperici*, which Mr. Davis found on the top of his water tank at Volcano, Hawaii, on October 4, 1974. This beetle, together with *C. quadrigemina* (Suffrian), was released originally near Poikahi, Mt. Hualalai, in June 1965, for the control of Klamath weed, *Hypericum perforatum*. *C. hyperici* has since spread to the Volcano area where it has been found breeding on *H. degeneri*, a widespread weed between 4,000 and 6,000 feet elevation. A previous note on this chrysomelid was reported under the name *C. quadrigemina* (a misidentification) ("Proceedings" 21:28). Dr. Mitchell also reported that he had collected a specimen of *C. hyperici* on the Mauna Loa Trail at 6,900 ft elevation in October 17. Mr. Davis suggested that the recent long dry spell in the Volcano area may have favored the reproduction of this beetle. **C.J. Davis.**

Amitis hesperidum Silvestri: Five releases totaling approximately 1,600 individuals of this platygasterid parasite of the orange spiny whitefly, *Aleurocanthus spiniferus* (Quaintance), have been made since August 1974. The parasites were received from Mexico and were released in the Kapahulu area. To date, no recoveries of this parasite have been made. Releases will continue as parasites are received from Mexico. **R. Mau.**

¹This species was later determined as *Lorita abornana* Busck by Dr. Klaus Sattler at the British Museum (Nat. Hist.), London (ed.).

Prospaltella smithi Silvestri and **Encarsia** spp.: A single release of 20 adults of *Prospaltella smithi*, an aphelinid parasite of *Aleurocanthus spiniferus*, was made at Kapahulu, Oahu on September 19, 1974. The parasites were received from Japan. In October recoveries of *P. smithi* were made from orange spiny whitefly-infested rose foliage. In addition, three unidentified species of *Encarsia* were recovered. At least two (and possibly all three) of the species have not been recorded previously in Hawaii.¹ **R. Mau.**

Serangium maculigerum Blackburn: Larvae and adults of this coccinellid were collected from orange spiny whitefly infested citrus and rose plants. Both larvae and adults were observed feeding on immature stages (excluding eggs) of the whitefly. The coccinellid was scarce on rose plants in the Kapahulu area, but was found on many citrus trees. *S. maculigerum* is generally known as a predator of diaspine scales. **R. Mau.**

Pediculus humanus humanus Linnaeus: Many specimens of body lice were collected from a shirt that was taken from an alcoholic at the Kekaulike Municipal parking lot, in downtown Honolulu, on October 17, 1974 by George Komatsu. All stages were recovered including many eggs that were glued to the fabric and especially along the seams. Lice were also observed around the subject's waistline and it was highly probable that the trousers were similarly infested. The head and body lice are difficult to separate and probably the most important characteristic which differs between these subspecies is the tendency of head lice to remain on the host (eggs attached directly to the hairs of the host) while body lice tend to remain on the body of the host only during the actual process of feeding. When not feeding, the body louse conceals itself in the clothing. Associated with this behaviour is the fact that body lice eggs are laid on the fibers of clothing. **G. Komatsu.**

Priophorus morio (Lepeletier): On October 25, 1974, Mr. Davis recovered three larvae of this tenthredinid sawfly on wild blackberry growing in the forest on his lot at Volcano, Hawaii. The California strain of this purposely introduced sawfly species was initially released by the Entomology Division of the Hawaii Department of Agriculture, off Wright Road, Volcano, Hawaii on July 23, 1968, and this is the first recovery of the species in the state. Blackberry is scarce on the premises and no further infestations were found. *P. morio* from Oregon, Washington and California were also released at Waikamoi and Olinda, Maui and Mt. Kaala, Oahu, in 1966. To date no recoveries have been made on these islands (Proc. Haw. Ent. Soc. 19(3):376). **C.J. Davis.**

Onthophagus incensus Say: This scarabid dung beetle was observed actively working in dog dung in the Volcano district. It does a good job of leveling the piles of dung and appears to be climatically suited to the Volcano district. **C.J. Davis.**

Procecidochares alani Steyskal: The recently introduced species of *Procecidochares* from Mexico which attacks the Hamakua pamakani, *Ageratina reparia*, is now active in and around Volcano, Hawaii. On June 28, 1974, the State Entomologist and Department of Agriculture personnel

¹Subsequently, one species was identified as *Encarsia variegata* Howard by Dr. G. Gordh, U.S. National Museum, Washington, D.C. (ed.).

released 100 or more of this gall fly. The release was made at the intersection of Kilauea and Kalanikoa Avenues. Forty-one days later young galls were observed on numerous plants at the liberation site. Between September 16 and 21 initial emergence of adults had taken place. On the basis of these observations the life cycle in the Volcano area during the period described was approximately 80 days. **C.J. Davis.**

Program: Dr. Mitchell introduced the speaker, Dr. James Eschle, who spoke on the progress of the horn fly eradication project in Hawaii.

DECEMBER

The 828th meeting of the Hawaiian Entomological Society (Sixth Annual Dinner Meeting) was held at Tripler Officer's Club commencing at 7:30 p.m. on December 18, 1974. Dr. C.R. Joyce served as the Master of Ceremonies.

Members Present: Beardsley, Bess, Goff, Gubler, Hanaoka, Haramoto, Hardy, Harris, Howarth, Ikeda, Joyce, Kajiwara, Kaya, LaPlante, Lauret, Look, Mau, Mitchell, Namba, Ota, Radovsky, Sherman, Steffan, Sugerman, Tamashiro, Joaquin Tenorio, JoAnn Tenorio, Tsuda, Yoshioka, and Ohinata.

Visitors Present: Mesdames Marilyn Beardsley, Ozeal Bess, Dianne Goff, Bobbie Gubler, May Haramoto, Agnes Hardy, Betty Harris, Nancy Howarth, Pauline Ikeda, Dorothy Joyce, Edna Kajiwara, Joanne Kaya, Janet LaPlante, Leta Lauret, Helen Look, Penny Mau, Sue Mitchell, Winifred Namba, Ruth Ota, Irma Radovsky, Ruth Sherman, Sylvia Steffan, Joslyn Sugerman, Polly Tamashiro, Cassy Tsuda, Karen Yoshioka, Dr. and Mrs. William (Stevie) Ferguson, Dr. Haruo and Mrs. Hatsue Tashiro, and Dr. Mohammad Ashraf.

The regular order of business was suspended for this meeting.

Nominations Committee: Dr. Ota announced that the elected officers for 1975 are:

President Mr. Ernest Harris
 President-Elect Dr. John Beardsley
 Secretary Dr. JoAnn Tenorio
 Treasurer Mr. Dick Tsuda
 Advisor Dr. Henry Bess
 Advisor (past President) Dr. Wallace Steffan

Presidential Address: Dr. C.R. Joyce introduced President Steffan who gave as his presidential address titled "Systematic Resources Centers in Hawaii." Dr. Steffan's talk comprised a comprehensive survey of the various entomological collections available in the State of Hawaii.

Installation of Officers: Following his address, Dr. Steffan introduced the incoming officers of the Society for 1975, and passed the gavel in formal ceremony to the new President, Mr. Harris. Following his acceptance of the office, President Harris relinquished the chair to Dr. Joyce for the rest of the evening's program.

Dr. Joyce showed some excellent color slides prepared by Society members who were competing for prizes in the Society's first photo salon.

Door prizes were given out to guests and members in attendance.

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NAME CHANGES AND CORRECTIONS IN NOTES AND EXHIBITIONS SECTION

Previous name	Changed to	Reason*	Page
<i>Amobia alienus</i> (Dodge)	A. pelopei (Rondani)	S	165
<i>Seniorwhitea orientaloides</i> (Senior-White)	S. krameri (Boettcher)	S	165
<i>Liriomyza canomarginis</i> Frick	L. sativae Blanchard	S	165
<i>Liriomyza minutiseta</i> Frick	L. sativae Blanchard	S	165
<i>Liriomyza pullata</i> Frick	L. sativae Blanchard	S	165
<i>Liriomyza langei</i> Frick	L. huidobrensis (Blanchard)	S	165
<i>Melanagromyza phaseoli</i> (Tryon)	Ophiomyia phaseoli (Tryon)	NC	165
<i>Trichopoda pennipes</i> variety <i>philipes</i> (Fabricius)	Trichopoda pilipes (F.)	NS	165

*S = synonym; N C = new combination; N S = new status

NEW IMMIGRANT RECORDS FOR THE YEAR 1974

The following species were reported in the Hawaiian Islands for the first time during 1974 on the dates recorded in the text. Those marked with a dagger are considered to be doubtfully established as these records are based on single collections. (ed.).

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OFFICERS AND COMMITTEES FOR 1974

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<i>Treasurer</i>	Dick M. Tsuda
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