Suggestions for Manuscripts

Manuscripts intended for publication should be submitted in duplicate (original and one carbon), typewritten in double or triple space, with ample margins, on white bond paper (8 1/2 by 11 inches); pages should be numbered consecutively. Fragmentary sheets and slips pinned or pasted on are not acceptable. Footnotes should be numbered consecutively and inserted in the manuscript immediately below the citation, separated from text by lines; they should be used only where necessary. Correct names and references are the responsibility of the author and should be checked for accuracy.

Illustrations should be drawn to allow for one-half or one-third reduction to page size (4 1/2 × 7 inches). Maps and sketches drawn to scale should have the scale plainly indicated. A complete list of figure legends and a duplicate print of each plate of figures are required to be submitted with the manuscript.

Tables and graphs should be used only where necessary, and omitted if essentially the same information is given in the paper. Graphs and figures should be drawn in India ink on white paper, tracing cloth, or light blue cross-hatched paper.

Proof should be corrected as soon as received and returned to the editor with an abstract on forms provided. Additional costs to the Society for author's corrections in proof may be charged to the author. An order for reprints should be placed with the editor when proofs are returned. Fifty copies of reprints will be supplied by the Society to each author under certain circumstances.

Examination of articles in this issue will help to conform to the style of presentation desired.
JANUARY

The 721st meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 PM, on Monday, January 10, 1966, in Agee Hall, HSPA Experiment Station.


Visitor: Warren Fujii, Kenneth Kaneshiro, and Jo Ann Tenorio.

Nomination of new members: Mr. Kenneth Kaneshiro, graduate student at the University of Hawaii, was nominated for membership.

Election of new members: Walter Barrett, PACAF Entomologist, and Gordon Johnson, Federal Plant Quarantine Inspector were unanimously elected to membership.

Announcements: Dr. Quate discussed a letter from the Conservation Council of Hawaii, and it was moved and passed unanimously that we continue membership.

Dr. Walter Carter presented an illustrated talk on lethal yellowing disease of coconut in Jamaica.

Meeting adjourned at 3:45 PM.

NOTES AND EXHIBITIONS

Oniticellus cinctus (F.): C.J. Davis exhibited a specimen of this caprophagus beetle, which was found in dung at Pupukea, Oahu, last November by C.J. Davis and Dr. George Bornemissza. Beetles were readily found at that time, however, they were scarce at Pupukea in January.

Specimens were identified by a specialist in the Commonwealth Institute of Entomology, London, and this appears to be the first record of O. cinctus in the State. There are no records of it being released in Hawaii. It is reported from Indonesia, India, and China.

Dr. Beardsley reported that two specimens of this scarabaeid beetle were found in a collection of insects made by a student in the general entomology class at the University of Hawaii in June, last year. The specimens were labeled Manoa Valley, Oahu, V-22-1965, W. Maeda collector.
Cheumatopsyche analis (Banks): Dr. Beardsley reported that he had received this determination for specimens of the newly discovered caddisfly from Oahu which were submitted to Dr. D.G. Denning of Moraga, California, an authority on Trichoptera. According to Trichopterorum Catalogus by C.J. Fischer (Vol. 4:107–108. 1963), C. analis was described in 1903 (Jour. New York Ent. Soc. 11:243), and its known distribution includes most of the eastern seaboard states from Florida to New Hampshire, and west to Oklahoma, Indiana, Illinois, and Minnesota. According to Sleight (Jour. N.Y. Ent. Soc. 21:6. 1913), the larvae of this species are normally found in streams with moderate to strong currents.

To date, 7 adult specimens of this caddisfly have been recovered from Oahu Public Health Department light trap catches. This suggests that the species is established here. However, in view of the scarcity of the specimens it is believed that all probably originated from one, or at most a very few, of the Public Health Department’s mosquito trap lights on Oahu. It will be interesting to determine under what conditions this temperate climate species is able to survive in Hawaii.

Coptosoma xanthogramma (White): Dr. Beardsley exhibited adults and nymphs of this recently discovered plataspid bug which was reported for the first time at the October, 1965 meeting. At that time only a single specimen had been taken in a light trap at the University of Hawaii campus in Honolulu. During the past week, infestations of this bug have been found at Halawa Heights (Aiea), Manoa Valley, and Aina Koa (Honolulu). Adults and nymphs (the latter bright green in color) have been taken in numbers on jade vine (Strongylodon lucidus) and maunaloa vine (Canavalia cathardica). These bugs appear to feed principally on the young growth, particularly stems and flower panicles, of these hosts. At Halawa Heights a heavy infestation of C. xanthogramma on a jade vine caused considerable blossom-drop and die-back of new shoots. It is expected that this bug will be found infesting other legumes here, and that it may develop into a pest of some importance.

Andaspis punicea (Laing): In December, 1965, Dr. Beardsley received word from Mr. R.F. Wilkey, Systematic Entomologist, State Department of Agriculture in Sacramento, California that specimens of this diaspidid scale insect had been intercepted in quarantine in California on Litchi chinensis twigs from Honolulu on 2 occasions during recent months. This species has not been recorded previously in our literature, but it appears likely that it is established here. A. punicea was described from specimens from Africa, and is also known from Micronesia (Guam and Palau).

Pacific Insects: Dr. Carl Yoshimoto exhibited Number 4, of Volume 7.

Kurtomathrips morrilli Moulton: Mr. Bianchi reported that on December 14 he had found widespread and abundant evidence of this thrips on the usual host plant, Pluchea odorata in the Mana area of Kauai.
The thrips themselves were relatively scarce, perhaps decimated by a recent spell of unusually cold, wet weather, and none of them were winged. This is a new island record for the species, which has been known heretofore only from Oahu and Maui.

**Milichiella circularis** Aldrich: Mr. Bianchi exhibited a series of this small fly (Family Milichinae) which he had found in large swarms over piles of mill waste at Kekaha Plantation, Kauai, on December 14 and 16. The fly was identified by Dr. Elmo Hardy, who stated that the find constitutes a new record for the island of Kauai.

**Triatoma rubrofasciata** (DeGeer): Mr. Bianchi stated that on December 14 he had had a good look at a large specimen of this reduviid bug resting on the foliage of *Sida fallax* near the Barking Sands Beach, Kauai. This makes a new island record for the species, but unfortunately the specimen fell to the ground and was lost before it could be captured as evidence.

**Graphomya maculata** (Scop.): C.R. Joyce reported that a single specimen of this muscid fly was taken in a fly trap at Kahului, Maui on December 10, 1965. This is apparently the first record of this species from the outer islands. The species was first reported by the author from the island of Oahu in March of 1948. [Proc. Haw. Ent. Soc. 13 (3): 329].

**Loewimyia, n. sp.**: Dr. Hardy exhibited two specimens of Astiidae (Diptera) which were collected by Dr. J.W. Beardsley at Barber's Point, Oahu, on December 29, 1965. These flies belong in the genus *Loewimyia*, but are distinctly different from the only previously known species, *bifurcata* Sabrosky, from Panama. A specimen was sent to C.F. Sabrosky and he confirmed that it is an undescribed species of *Loewimyia*. These are very minute flies, (about 0.5 mm) and have probably been overlooked because of their small size.

The following three notes were presented by E.S. Shiroma.

**Agraecia philippina** Karny: On October 11, 1965, Mr. Percy Ching, Aloha Airline employee, turned over a live specimen of this long-horned grasshopper, found in their hangar at the Honolulu International Airport, to inspector George Sadoyama for possible identification. No other specimen could be found on further survey of the surrounding area. Determination was made by Dr. Ragge of the British Museum. This grasshopper is known to occur in the Philippine Islands and Borneo. According to Dr. W.H. Anderson, Chief of the Insect Identification and Parasite Introduction Research Branch, there is no information on the pest potential of this species.

**Chrysobothris sp., near, if not actually ventralis** Saund.: This determination was recently received on an adult specimen of a buprestid beetle picked up on a tomato plant in the Aiea (Oahu) area by Inspector James Toba on April 20, 1964. G.B. Vogt, who made the determination, wonders if this insect is established in Hawaii. More specimens are required to
confirm this identification.

**Tegeticula sp. (Prodoxidae):** This determination was received for an interception of 6 lepidopterous larvae found boring in seed pods of *Yucca* sp. from Hawaii destined to California on May 31, 1965 by Inspectors Tony Abear and John Graffam. This constitutes a new insect record for the State and a new family and genus for the order Lepidoptera. According to Comstock, (*An Introduction to Entomology*, p. 599, 1940), there are four recognized species of this genus which are known commonly as the yucca-moth. The best known of these is *Tegeticula alba* which infests *Yucca filamentosa*, a plant not fitted for self pollination or for pollination by insects in ordinary ways; in fact, it is pollinized only by moths of the genus *Tegeticula*, the larvae of which feed on its seeds. This is one of the few cases in which a particular plant and a particular insect are so specialized that each is dependent upon the other for the perpetuation of the species. Determination was made by D.M. Wiesman of the U.S. National Museum.

**FEBRUARY**

The 722nd meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 pm, on Monday February 14, 1966, in Agee Hall, HSPA Experiment Station.


Visitors: There were 29 visitors present, most of them students from the East-West Center, guests of the State Plant Quarantine Division.

Nomination of new members: S. Azuma, S. Fluker, D.H. Girard, T.N. Lauret, and R.V. MacDonald were nominated for membership.

Election of new members: Mr. Kenneth Kaneshiro was unanimously elected to membership.

Old Business: President Quate stated that the list of Common Names of Hawaiian Insects was being checked by Amy Suehiro.

An Australian film, "Fighting the Cattle Tick", was shown and some interesting comments by Dr. C.R. Joyce on the ticks and lice of Hawaii, completed the program.

Meeting adjourned at 3:45 pm.

**Notes and Exhibitions**

**Halictus (Chloralictus) sp.:** Mr. Bianchi exhibited a series of sweat bees collected by him on January 16 and 18 on the beach of the new Mauna Kea Beach Hotel, at Kawaihae, on the island of Hawaii. It appears to be the same species first found on Oahu in 1957 and determined as a new species by P.H. Timberlake [Proc. Haw. Ent. Soc. 16 (3):337,
1958]. Complaints have been made to the hotel that the bees sting bathers sitting on the beach and around the bathing pool. Bianchi’s observations on his own person and on several bathers demonstrated that although the bees are strongly attracted to at least two widely used sun tan lotions, they will not sting even if pressed fairly tightly against the skin. From these observations, Mr. Bianchi surmises that the complaints have been caused by Stomoxys flies which, when the wind is from the right quarter, are occasionally blown to the hotel grounds and are mistaken for the more common bees.

Mr. Bianchi also presented the following three notes:

**Sphenophorus venatus vestitus** Chittenden: The hunting billbug was found doing considerable damage to manicured lawns at the Mauna Kea Beach Hotel on January 18. This constitutes the first record for the species on the western side of the Big Island, although the keeper of the hotel grounds averrs that the beetle was already there about 6 months ago.

**Otiorhynchus cribricollis** (Gyllenhal): *Listroderes costirostris obliquus* (Klug): Two specimens of the cribrate weevil and 2 specimens of the vegetable weevil were found under stones near the Koaia reserve at Kawaihae Uka on January 16. The locality is about 2800 ft above sea level and extends considerably the known range of both species, which have been found on the Big Island at Waimea and Pohakoloa. The find suggests that either or both species may feed on fennel, which is a possible and abundant host plant at Kawaihae Uka.

**Eurytoma latrodecti** Fullaway: On January 17, the Mahukona area of the Kohala District was searched for about 3 hours for black widow spiders. Only 1 nest was found, near the litoral cliff about 2 miles south of Mahukona light. This contained no spiders; only 4 egg masses, all of which had been devastated by *Eurytoma latrodecti*. Pieces of 2 or 3 wasps were found in the egg masses, providing a new island record for the parasite, which herefore has been recorded only from Oahu.

**Melanaspis bromiliae** (Leonardi): Dr. Beardsley reported that the brown pineapple scale has recently been found established here on pineapples from Oahu and Kauai. This is a new insect record for the State. The scale was first picked up at Davis, California, in late November, 1965, on Hawaiian-grown pineapples, and determined by Mr. R.F. Wilkey, Systematic Entomologist for the State of California. Subsequently, Mr. Sakimura of PRI examined a large number of pineapple fruits and plants on Oahu, Kauai, Molokai, Maui and Lanai, and found small numbers of scales present on fruits and plants on Oahu and Kauai only. Scales from Oahu were determined by Dr. Beardsley.

Mr. Sakimura has furnished the following data concerning the infestations of the scale on pineapple here: “On Oahu and Kauai, 12 different fields were checked and every field except 1 on Kauai was infested. Among the fruit checked, percentage of the infested fruit was from 5% to 20%, but mostly in the lower range.
The highest count on fruit so far made in a field was about 1 per fruit and mostly far less than this. The highest count on plants (whole plant excluding fruit) so far made in a field was about 2 per plant.

These early data clearly indicate that this scale species is definitely a minor and insignificant species on pineapple and also indicate that the species probably has been here for some years."

The following note was also presented by Dr. Beardsley: Melanaspis bromiliae is a widespread species, associated principally with pineapple, which has been reported from the Canary, Azore, and Seychelle Islands, Florida, the West Indies, Micronesia (Guam), and many other pineapple growing areas. Ferris (Atlas of Scale Insects of North America Series III, -366, p. 447, 1941) considers M. bromiliae to be a synonym of M. similaris (Comstock), which is widespread in eastern and midwestern parts of the United States. However, Beardsley (Insects of Micronesia Vol. 6, No. 7, 1966, in press) maintains that these two are morphologically distinct species.

Dr. Hardy presented the following 4 notes:

Loewimyia n.sp.: This new asteiid fly was first reported at the January, 1966 meeting. Three additional specimens have been collected, 2 by Dr. C.R. Joyce, Honolulu, November 8, 1965, and January 3, 1966, and 1 by Dr. J.W. Beardsley, Waipio Peninsula, Oahu, November 24, 1965.

Bryania bipunctata Aldrich: This asteiid fly is endemic to the leeward Hawaiian Islands and has previously been recorded only from Laysan, Nihoa and Kure Islands. Six specimens in Dr. Joyce’s collection taken in light traps in Honolulu and at the Airport, December 1, 1963, July 20, 1964, August 17–20, 1964 and December 13, 1965, are the first records of this species from Oahu.

Acinia picturata (Snow) (Diptera: Tephritidae): A correction of name for A. "furcata" (Fab.) which was introduced into Hawaii for biological control of Pluchea. This was brought to my attention by Dr. R.H. Foote, Insect Identification and Parasite Introduction Research Branch, USDA.

Oscinella formosa Becker (Diptera: Chloropidae): First reported in June, 1964 (Proc. Haw Ent. Soc. 19:19) from coconut flowers, has been identified by C.W. Sabrosky as O. formosa Becker. This species was described from Formosa and also occurs in Micronesia. Although this is the first record of this species in Hawaii, it is certainly not a recent introduction. Specimens are in the National Museum collected at the Nuuanu Pali June 28, 1917, by J.C. Bridwell.

Mr. E. Shiroma presented the following two notes:

Araecorynus cumingi Jekel: Four live specimens of this anthribid weevil were picked up in Mucuna sp. seeds in the Waikiki area on the Big Island on January 3, 1966 by Benjamin Hu and R. Kami of Hilo. This
confirms establishment of this anthribid on the Big Island and constitutes the first locality record for that island.

**Lepidosaphes machili** Maskell: Mr. Benjamin Hu of Hilo found this on cymbidium orchids in the Volcano area of the Big Island. This is the second report of this scale insect from the Big Island. Mr. Thistle first reported this scale as occurring in the Hilo area on August 13, 1956, [Proc. Haw. Ent. Soc. 16(2):190].

**Macrotermes gilvus** Hagen: Mr. C.F. Clagg exhibited 4 large queen termites which were identified as this species, and which were given to Mr. Clagg by Avelivo Bovagg, Navy Entomologist at Public Works Center, Subic Bay, Republic of the Philippines. This is the commonest mound-building species on Luzon, and these specimens were taken from a mound in Tarlec Province, Central Luzon, where the U.S. Navy has a large radio transmitter station. All 4 queens and 1 king were found in 1 large royal chamber. This is believed to be unusual, if not unique.

**Coptosoma xanthogramma** (White): Mr. Clagg stated that he observed and collected hundreds of specimens of this species on a one-hour refueling stop on Iwo Jima, Volcano Islands. The bugs were hiding from strong winds around buildings, shrubs and trees. None were collected on 4 large islands in the Bonins from 27 December, 1965 to 14 January, 1966. Identified by Jonathan T. Kajiwara and Amy Suehiro. A single specimen of this species was caught in the home of Mr. Meyer Bogost in Wai-lua Uplands, Oahu, February 14, 1966.

**MARCH**

The 723rd meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 pm, on Monday, March 14 1966, in Agee Hall, HSPA Experiment Station.

Members present: Ashlock, Beardsley, Bianchi, Carter, Davis, Fluker, Funasaki, Gaddis, Girard, Hardy, Holzapfel, Johnson, Joyce, Kajiwara, Kaneshiro, LaPlante, Look, Miyatake, Nakao, Nakata, Namba, Pemberton, Quate, Shiroma, Steffan, Steiner, Suehiro, Suman, Tenorio, Thistle, Wilson, Woolford, Yoshimoto.

Visitors: There were 16 visitors present, 10 of them students from the East-West Center, guests of the State Plant Quarantine Division.

Science Fair Committee: The committee, consisting of Harry Nakao, Harry Kaya, and William Voss, chairman, attended the 9th Hawaiian Science Fair. Of the 7 entomological entries, Janis Kawamoto and Jeffory Haines, respectively, both 8th graders, were selected 1st and 2nd place winners. The 1st place award was a copy of *Living Insects of the World*, by Klots & Klots, and the 2nd place award was a copy of 101 Simple Experiments with Insects, by Kalmus.

Nomination of new members: Mr. Sung Hin Au was nominated for membership.
Election of new members: S. Azuma, S. Fluker, D.H. Girard, T.N. Lauret, and R.V. MacDonald were unanimously elected to membership.

Announcements: President Quate stated that he had received a letter from the National Geographic, asking for 16 mm film on insects. President Quate also announced committee selections for 1966, which are:

- Editorial Committee: Steffan, Bryan, LaPlante, Tamashiro, and Davis.
- Finance Committee: Bess, Namba, Steffan, and Kajiwara.
- Program Committee: Pemberton.
- ISSEC Committee: Mitchell and Haramoto.
- Science Fair Committee: Voss, Nakao, and Kaya.

New business: Dr. Wallace Mitchell proposed that the Society have its picture taken at the next meeting. Dr. Beardsley proposed that a picture be taken every three years and be published in the last issue of each volume of the Proceedings. The motion, as amended, passed unanimously.

The speaker for the afternoon was Dr. F.A. Gunther, of the University of California at Riverside, who gave a very interesting and stimulating talk entitled “National and International Trends in Pesticide Residue Detection”.

President Quate adjourned the meeting at 3:15 PM.

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Notes and Exhibitions

Cheumatopsyche analis (Banks): Dr. Beardsley reported that this recently discovered immigrant caddisfly became more numerous in State Public Health Department light trap catches during the first part of February when around 3 dozen specimens were found. By keeping individual trap catches separated, it has been possible to determine a few specific localities where specimens originated. A few specimens were taken at each of the following localities: Punaluu, Oahu (Woodwards); Kahana, Oahu; and at Waipahu Pump No. 4. Since about the middle of February the caddisflies have become less numerous, (2-3 specimens per week) and none were found in last week’s catches.

Dr. Yoshimoto exhibited Vol. 2, Number 4 of the Journal of Medical Entomology.

Malophagus ovinus (L.): Mr. Kajiwara exhibited several specimens of the sheep tick, Malophagus ovinus (L.) which were collected on March 6, 1966 from 4 wild sheep shot on the slopes of Mauna Kea at an elevation of 9,000 feet. Although these hippoboscid flies were quite common on the sheep, there was no evidence of damage or injury to the wool or hide.

Mr. Davis gave the following 3 notes for Miss Mabel Chong:

Oniticellus militaris Lap: This dung beetle (Scarabaeidae) introduced from Southern Rhodesia (probably in 1957) was recovered for the first time on Parker Ranch, Hawaii in November 1965 by George Bor-
nemissza, investigator with CSIRO, Australia. The species determination was made by R. Madge of the British Museum of Natural History.

**Macrotrachelia thripiformis** Champion: This anthocorid bug, collected in Cuernavaca, Mexico in June, 1965 and reported released on Oahu (for the control of the Cuban-laurel thrips) at the July 1965 meeting as a species of *Montandoniola* has now been determined as *Macrotrachelia thripiformis* Champion by Dr. Jon Herring of the U.S. National Museum. To date this thrips predator has not been recovered.

**Encarsia formosa** Gahan: Numerous adults of this eulophid were reared from the greenhouse whitefly on string beans collected at Wainae, Oahu in February 1966. Dr. Carl Yoshimoto made the determination.

For Stephen Au, Mr. Davis reported the following:

**Uroplata girardi** Pic: This leaf mining beetle has spread considerably since its release in Lawai Valley, Kauai in December, 1961. Surveys conducted in December and January indicate extensive spread toward the south and west side of the Island. It was found at Kukuiula, South Lawai, Kukuihono Park, Kalaeo, Eleele and Hanapepe (east rim of valley). In 1964 and early 1965 it moved into North Kalaheo and in the direction of Wahiawa but in the last 6 months of 1965 it spread to include the new localities. The present range now includes approximately 6,600 acres. A phenomenal spread of this hispid occurred on Tantalus and Makiki Round Top Drives during 1965 and hundreds were collected for release on Hawaii. *Uroplata* was collected at Vitoria, Espirito Santo, Brazil in 1961 by Noel Krauss and the first liberation was made in Lawai Valley on December 21, 1961.

**APRIL**

The 724th meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 PM, on Monday, April 11, 1966 in Agee Hall, HSPA Experiment Station.


Nomination of new members: Y. Hirashima and J.E. Strong were nominated for membership.

Election of new members: Mr. Sung Hin Au was unanimously elected to membership.

Committee on Common Names of Hawaiian Insects: President Quate appointed the following members: W. Mitchell, N. Krauss, J. Beardsley,
A. Suehiro, G. Funasaki, L. Quate and C. Davis, Chmn.

Dr. Ken Harley presented the talk for the afternoon, entitled: "The Role of Secondary Plant Substances in Insect-host Plant Association."

President Quate adjourned the meeting at 3:25 PM.

NOTES AND EXHIBITIONS

The following note was presented by C.J. Davis for N.L.H. Krauss:

**Latrodectus mactans** (F.): Egg capsules, immature stages and adults of the black widow spider were numerous under boards, stones, etc. at Kihei, Maui on March 30, 1966. In March 1966, M.S. Hironaka found egg capsules and adults of this species in good numbers on *Atriplex semibaccata* (Australian salt bush) and under stones at Campbell Industrial Park, Barber's Point, Oahu. The eurytomid wasp, *Eurytoma latrodecti* Fullaway was reared from both the Maui and Oahu egg capsules.

**Coptosoma xanthogramma** (White): Mr. Shiroma stated that Inspector E. Tsugita intercepted an adult specimen of this plataspid bug in a piece of baggage from Honolulu destined for San Francisco on April 2, 1966. No plant material was found in or near the baggage. This is the first interception of this bug, thus far, in quarantine.

Dr. Hardy presented the following 3 notes:

**Toxorhynchites inornatus** (Walker): One male specimen collected in late February at Kailiwwai Pl., Kaneohe by Miss Lois Murata. Determined by Dr. M.D. Delfinado, Smithsonian Institution, U.S. National Museum, Washington, D.C. This species was introduced into Hawaii by Pemberton in 1929 from New Britain. It was reported to have survived for at least 6 months and then died out. The species is apparently established in Hawaii.

**Eumerus figurans** (Walker) 1860. (Walker, Proc. Linn. Soc. London 4, 121.): Correction of name for *E. marginata* Grimshaw. Dr. J.R. Vockeroth, Canada Department of Agriculture, pointed out that specimens of *E. marginata* Grimshaw from Hawaii were apparently identical with *E. figurans* (Walker) from Ceylon. This new synonymy has been confirmed by Dr. Fred Keiser, Naturhistorisches Museum, Basel, Switzerland.

**New Genus and Species of Asteiidae**: Two specimens from Nehoa collected by Dr. J.W. Beardsley belong to a most unusual new genus and species. This had been confirmed by Dr. C.W. Sabrosky, Insect Identification and Parasite Introduction Research Branch, U.S. Department of Agriculture.

**Latrodectus geometricus** Koch: Dr. Mitchell reported that a specimen of the brown widow spider was brought in by Dr. F.M. Ikezaki for identification. Mrs. J. Tsushikami, a teacher at Palolo Intermediate School, Palolo Valley, Oahu was bitten on the back 3 times. She was driving home after school (March 29) and felt the bite. Mrs. Tsushikami is
hyperesthetic to bee stings and insect bites. Prompt attention by a physician prevented any serious illness. The patient complained of headache and soreness around the puncture sites. Some swelling and discoloration occurred. Confirmation of the identification of the spider was made by T. Suman of the Bishop Museum staff.

Miss Chong presented the following 2 notes.

**Dialeurodes citrifolii** (Morgan): the cloudy-winged whitefly, a new immigrant insect pest to Hawaii, was found in moderate numbers on Kusaie lime at the Hilo Tree Nursery, Hilo, Hawaii on March 3, 1966 by Ernest Yoshioka. *D. citrifolii* is a common pest on citrus in the southern United States, Cuba and Florida. The specimens from Hilo were identified by Miss Louise Russell of the U.S. National Museum.

**Asolcus (=Telenomus) basalis** Wollaston: the scelionid wasp imported from Australia for the control of the southern green stink bug was reared from eggs of the native koa bug *Coliotechnus blackburni* (White) collected on Formosan koa in Waialae, April 7, 1966. This constitutes a new host record for this scelionid.

**Nysius caledoniae** Distant: Dr. Ashlock reported that Dr. Yoshi moto collected a single male specimen of this species on Lanaihale, Lanai, on March 25, 1966. Since this species was known only from the islands of Oahu and Hawaii in the State, this constitutes a new island record.

**Cosymbia serrulata** (Packard): Dr. Beardsley reported that several adults of this geometrid moth were taken at light at Kaunakakai, Molokai, March 18–23. This is a new island record.

**MAY**

The 725th meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 pm, on Monday, May 9, 1966, in Agee Hall, HSPA Experiment Station.


Visitors: There were no visitors at the meeting, but the Society was honored to have one of its oldest members, F.X. Williams, attend the meeting while on a visit to Hawaii from San Diego.

Nominations of new members: T. Saigusa was nominated for membership.

Election of new members: Y. Hirashima and J.E. Strong were unanimously elected to membership.

Mr. C.J. Davis gave a report of the Hawaii State Department of
Agriculture, Entomology Branch, Annual Workshop. Also a movie, "The Health Hazards of Pesticides" was shown.

The meeting adjourned at 3:30 pm, and the membership posed for pictures taken by Dr. Mitchell.

**Notes and Exhibitions**

**Masonaphis azaleae** (Mason): Dr. Beardsley reported that he had received this determination from Miss Louise M. Russell of the USDA in Washington for aphid specimens from *Vaccinium* sp. from Maui. The material submitted was collected at 10,000 ft on Haleakala in May of last year and reported at that time as a new island record for *Amphophora vaccinii* Mason which had been previously reported in the State only from the island of Hawaii. Miss Russell subsequently pointed out that in 1958, *A. vaccinii* was placed in synonymy by MacGillivray [A Study of the Genus *Masonaphis* Hille Ris Lambers, 1939 (Homoptera: Aphididae); *Temminckia* 10:1–131], in part as a synonym of *M. azaleae* and in part as a synonym of *M. pepperi* MacGillivray. Although specimens from the original collection of *A. vaccinii* from Hawaii have not been checked, it appears likely that this record should also be referred to *M. azaleae*.

According to Miss Russell, the material from Haleakala contained specimens of a second aphid which she determined as *Amphorophora* sp., possibly *nervata* (Gillette). Unfortunately, there were no alates of the second species so a precise determination was not possible. This second species appears to be a new aphid record for the State, but more material is required to obtain a complete identification.

**Aphis spiraecola** Patch: Dr. Beardsley reported that Miss Russell also confirmed his identification of the spirea aphid from citrus leaves, collected by Dr. LaPlante at Kula, Maui, on Jan. 15, 1966. This is only the second record of *A. spiraecola* in the State. It was first collected here in July, 1965 on *Osteomeles* in Haleakala Crater. This species is a known pest of citrus in Florida.

**Nesomicromus paradoxus** Perkins?: Dr. Beardsley exhibited a specimen which appears to be this endemic hemerobiid, or a very closely related form, which he collected on the summit of Mt. Kaala, Oahu, on April 14. Zimmerman (Insects of Hawaii 6:66, 1957) records *N. paradoxus* from Hawaii (the type locality) and from Molokai, and states that the species is known from only 4 specimens. This is one of the more unusual appearing of our endemic hemerobiids.

**Stephanoderes birmanus** (Eichhoff): Mr. Funasaki reported that several adults of this scolytid beetle were found in twigs of *Litchi chinensis* in Lawai, Kauai on October 27, 1965 by Steven Au. Adults were later collected from kiawe twigs by C.J. Davis in Waianae, Oahu on March 9, 1966 and in Kahului, Maui on March 23, 1966. This is a new State record. This beetle is known to occur in southeast Asia, North America, Africa and
the Caroline Islands. Determination by Dr. S. Wood, Brigham Young University, Utah.

Adults of another scolytid beetle, *Stephanoderes georgiae* Hopkins were found in twigs of *Cassia glauca* in Kukuiula, Kauai on Jan. 5, 1966 by Steve Au. This is a new island record. Previously it was reported only from Oahu in 1960. Determination by Dr. S. Wood.

**Scobicia declivis** (Le Conte): Mr. Shiroma reported that Mr. Ben Hu, Inspector in Charge, PQD, Hilo, Hawaii, picked up 6 adult specimens of this bostrichid on April 26, 1966, which he turned in for identification recently. He found these bostrichids boring in dried grape rootstock used for making artificially dwarfed trees and traced its origin to Selma, California. It is not known whether this bostrichid has become established. Mr. Hu reports that there are many similar artificially dwarfed trees being sold in Hilo and he will investigate further. According to Fisher (A Revision of the North American Species of Beetles Belonging to the Family Bostrichidae, pp. 111–112, 1950), this bostrichid causes considerable damage to the lead sheathing of aerial cables by boring round holes through the lead sheathing from the outside surface to the paper insulation of the wires within, causing the electric current to be short-circuited. In some cases these beetles may attack and kill living trees. These beetles are of importance to the grape industry because they bore into wine casks, especially those made of oak. They are attracted by alcohol. Hosts include various oaks, sweet cherry, English elm, big leaf maple, Oregon myrtle, *Eucalyptus, Acacia* sp., orange and rose stalks, and the beetle has been reared from grape canes. This beetle is found in California, Oregon, and Washington. Specimens exhibited.

**Paroxyna sororcula** (Wiedemann), [1830, Ausseureur. Sweifl. Ins. 2:509. (Tephritidae: Diptera)]: Dr. Hardy reported that specimens of this fly were collected on pigeon peas at Pearl Harbor Shipyard, Oahu, April 14–22, 1966 (C.J. Davis and J. Kajiwara) and at Waipio Pen., Oahu, May 4, 1966 (J.W. Beardsley). This is a new record for Hawaii.

This species breeds in flower heads of *Bidens, Coreopsis*, and probably other composites. It is widespread throughout the tropics and subtropics of the world although a complex of species may be involved in the present concept. It has been recorded from throughout Africa, except west Africa, India, Pakistan, Nepal, Japan, Ryukyu Islands, Formosa, Bonin Islands, S. Mariana Islands, Mauritius, Australia, Malaya, Fiji and Bolivia.

**JUNE**

The 726th meeting of the Hawaiian Entomological Society was called to order by President Quate at 2:00 PM, on Monday June 13, 1966, in Agee Hall, HSPA Experiment Station.

Members present: Ashlock, Au, Azuma, Beardsley, Bess, Bianchi,
Visitors: Austin W. Morrill, Jr., Dr. & Mrs. F.L. Campbell, John L. McDonald, Hampton L. Carson, R.W. Strandtmann, Eileen Garrett, Panita Lakshana, Noriho Meshima.

Dr. Mitchell announced that the photograph he took of the membership was a failure, and will have to be retaken at a future date.

Nomination of new members: Austin W. Morrill, Jr. and John L. McDonald were nominated for membership.

Election of new members: T. Saigusa was unanimously elected to membership.

President Quate, who is leaving Hawaii to take a position in Ethiopia, told the membership of his future plans and new position, and then turned over his gavel to President-elect Tamashiro, who adjourned the meeting at 3:25 PM.

NOTES AND EXHIBITIONS

Dr. Joyce presented the following notes:

**Spiniphora genitalis** Schmitz: Dr. W.W. Wirth of the U.S. National Museum has recently determined the new Hawaiian immigrant phorid as *Spiniphora genitalis* Schmitz. It first appeared in Hawaii in July of 1964 and was tentatively identified as a *Paraspiniphora* sp. [Proc. Haw. Ent. Soc. 19(1):25]. Since that time the author has taken the species a number of times in light trap catches at the Honolulu Airport and Harbor areas. Specimens have also been reared from the shells of dead giant African snails. The species was described in 1940 from Malaya breeding in dead *Achatina fulica*. No further records other than the Hawaiian material are presently available.

**Psylla uncatoides** (Ferris & Klyver): A new immigrant Psyllidae has made its appearance in Hawaii. Single specimens were taken in a mosquito light trap operated in the vicinity of the Honolulu International Airport in March and again in April, 1966. Another specimen was taken on June 13, 1966 at the Public Health Service Quarantine Station on Ala Moana in a light trap. Identity of the specimens have been confirmed by L.W. Russell of the U.S. National Museum who states that it was described from New Zealand and is also known from California, U.S.A. She further indidates that it is sometimes abundant and injurious in California. The species is known to have a wide range of hosts of species of trees and shrubs of the genera *Acacia* and *Albizia*.

**Anarhopus sydneyensis** (Timberlake): Dr. Beardsley reported that this encyrtid wasp, previously unrecorded in Hawaii, has been collected at several localities in the State within the past two years, and ap-
A. sydneyensis is a primary parasite of the long-tailed mealybug *Pseudococcus adonidum* L. It was introduced into California from Sydney, Australia (the type locality) in the early 1930's, and became well established there. There are no records of its being purposely introduced into Hawaii, however.

The first local specimen was collected in upper Waiulupe Valley, Oahu on April 19, 1964, and subsequently it has been taken on Kauai, Oahu, Maui and Hawaii. All collections have been from elevations of 2,000 ft or above. Maui specimens were reared from parasitized *P. adonidum*. This is the only encyrtid known in Hawaii in which the males have pectinate antennae.

**Cheumatopsyche analis** (Banks): Dr. Beardsley reported that larvae of this recently discovered introduced caddisfly had been collected at Opaeula Stream, Oahu. The first lot of larvae was brought in by Dr. John Maciolek who is studying fresh water organisms in Oahu streams. Drs. Mitchell and Beardsley along with Messrs. S. Fluker, R. Mau, and R.H. Van Zwalenburg visited the site on June 10, and recovered additional specimens. The larvae were found adhering to undersides of rock in swifter portions of the stream, where they associated with, and apparently were feeding upon, green algae growing on the rock surfaces.

**Urocercus californicus** (Norton)?: A specimen of a large siricid wasp, tentatively determined as this species by Dr. Beardsley, was exhibited to the membership. The specimen was brought in by a University of Hawaii entomology student who stated that a friend had collected it on the U. of H. Campus. *U. californicus* occurs over a wide area of western North America from British Columbia through California, Arizona, New Mexico, Colorado, Utah, Nevada and Idaho. The larvae of this species are known to infest pines, firs and Douglas fir in these states. It is believed unlikely that this species has become established in Hawaii, and the specimen captured may possibly have emerged from lumber imported from the West Coast.

**Masonaphis azaleae** (Mason): Dr. Beardsley reported that he had collected this aphid from native *Vaccinium* at 8,000 ft elevation on the north side of Mauna Loa, Hawaii, on May 16. This aphid has been reported once previously from Hawaii under the name of *Amphorophora vaccinii* Mason, now considered a synonym of *M. azaleae* (See note on this species presented at the May, 1966 meeting).

**Cosymbia serrulata** (Packard): Dr. Mitchell stated that larvae of this geometrid moth were collected by Vernon Olney on *Wedelia triloba* (L.) (Compositae), at Aiea, Oahu, May 24, 1966. This plant is a creeping herb, with yellow flowers used for ground cover for embankments and borders. This is a new host plant record. The moth was first reported by Dr. J.W. Beardsley in May, 1965. It is present on Maui, Hawaii, Oahu and Molokai.
Masonaphis azalae (Mason): Mr. Bianchi reported that during the last week of May he had collected many winged and wingless adults of this aphid on pansy flowers which had been grown in Nuuanu Valley, Honolulu. This is a new island and host record for the species, which had been recorded in the State previously only from the island of Hawaii, on Vaccinium reticulatum (Zimmerman, INSECTS OF HAWAII, 5:104. 1948.)

Danaus plexippus (Linn.): Mr. Bianchi stated that the monarch butterfly appears to be generally more abundant in and around the gardens of the Diamond Head area than in other districts of Honolulu and that during the first week of May he had observed, at a point intermediate between Diamond Head and Black Point, a very light, almost cream colored specimen. Such aberrant forms of the species are known elsewhere but have not been previously recorded in Hawaii.

R.G. Johnson presented the following note for Mr. Shiroma:

Diaspis boisduvalii (Sign.): Mr. Ben Hu of Hilo, Hawaii, intercepted this scale insect on cattleya orchid plants from Hilo destined for Baltimore, Maryland on May 12, 1966. This constitutes a new insect record for the Big Island. Zimerman (INSECTS OF HAWAII, Vol. 5, p. 412) lists this scale as occurring only on Oahu and Maui.

JULY

The 727th meeting of the Hawaiian Entomological Society was called to order by President Tamashiro at 2:00 PM, on Monday, July 11, 1966, in Agee Hall, HSPA Experiment Station.


Nomination of new members: Dr. Richard A. Hart was nominated for membership.

Election of new members: Austin W. Morrill, Jr. and John L. McDonald were unanimously elected to membership.

New business: Mr. L.F. Steiner moved that the Hawaiian Entomological Society extend an invitation to the Executive Committee of the Pacific Branch of the Entomological Society of America to hold their meeting of 1970 or 1971 in Hawaii. The motion passed unanimously, and the secretary was instructed to write a letter of invitation.

Notes and Exhibitions

No notes or exhibitions were presented.

Program: "Economic Entomology in Okinawa" - A.A. LaPlante.

President Tamashiro adjourned the meeting at 3:00 PM.
AUGUST

The 728th meeting of the Hawaiian Entomological Society was called to order by President Tamashiro at 2:00 PM, on Monday, August 8, 1966, in Agee Hall, HSPA Experiment Station.


Visitors: Dr. D.W. Hamilton.

Nomination of new members: None.

Election of new members: Dr. Richard A. Hart was unanimously elected to membership.

President Tamashiro suggested and it was agreed that the next meeting be postponed until September 19, 1966, because many members would not be back from the Pacific Science Congress in time for the regular meeting date of September 12.

No program was presented.

President Tamashiro adjourned the meeting at 3:25 PM.

NOTES AND EXHIBITIONS

Monkeypod Insects: For Stephen Au of Kauai, Mr. Davis exhibited gum exudations from monkeypod trees which were collected at Poipu, Kauai, and which were caused by the platypodid beetle, *Platypus sp.* Notes furnished by Mr. Au regarding this occurrence were as follows: "In September of 1965 light numbers of exudations were observed on 10-11 year old monkeypod trees in the grounds of the Kauai Surf Hotel at Kalapaki near Nawiliwili. The trees were planted in July 1960 and at the time of transplanting were at least 4-5 years old. In March 1966, activity of this borer was again reported on monkeypod trees in Kalapaki and for the first time at Poipu. Numerous ‘pitch’ sap exudations on trunk and branches indicated a heavy infestation and the severity of the attack. The Poipu trees are comparatively young trees. They appear to be 5-7 years old. In both areas (Poipu and Kalapaki) the trees were healthy and quite vigorous. There appears to be no setback since planting.

In May (5-10), 1966, shot hole borers were reared out from branches that were attacked. These were tentatively determined as *Xyleborus fornicatus* and then confirmed. On July 7, 1966, both Clifton Davis and Steve Au, found several of the platypodid beetle, *Platypus externedentatus* caught in the exudations. Many have been found since. It is reasonable to assume that this is the borer that has caused concern to the hotel people and is the reason for the numerous exudations reported earlier."

This appears to be the first record of monkeypod attack by this beetle in Hawaii. Swezey reported the work of this beetle under the old name

**Cryptochaetum iceryae** (Williston): Dr. Beardsley exhibited a specimen of this minute fly (Family *Cryptochaetidae*) which he had found in the catch from an ultraviolet light trap operated on the campus of the University of Hawaii in Honolulu on July 10. The specimen was determined by Dr. D.E. Hardy. This is a new insect record for the State.

*C. iceryae* is a well known natural enemy of the cottony-cushion scale, *Icerya purchasi* Maskell. The larvae of the fly develop as internal parasites of the scale, and from 1 to as many as 12 flies may develop on 1 scale. This insect has an interesting history. It was introduced into California from Australia prior to the introduction of the vedalia, and because of the striking success of the latter it was considered to be relatively unimportant in controlling the scale. Later Smith and Compere concluded that the importance of *C. iceryae* had been greatly underestimated, and that on certain plants, such as acacias, it is highly effective. Essig (*Insects of Western North America, 1926*) states that *C. iceryae* is responsible for biological control of the cottony-cushion scale in the San Francisco Bay region where the vedalia does not survive well. There are no records of *C. iceryae* ever having been purposely introduced into Hawaii, and, if it proves to be established here, it must be considered to be an accidental immigrant.

**Hyperaspis limbalis** Casey (?): Numerous adults and several larvae of this coccinellid beetle were collected on native bunchgrass at Pohakuloa, Hawaii, on June 21 and 22. The beetles were observed feeding on a mealybug, *Trionymus insularis* Ehrhorn, infesting the grass. This constitutes a new island record for *H. limbalis* (previously recorded from Maui and Oahu), and the first definite host record in Hawaii. *H. limbalis* apparently was introduced here from California by Koebele in 1906, but was not found established here until 1954.

**Nesolina lineata** Osborn: Several specimens of this cicadellid leafhopper (apparently a native species) were collected on native bunchgrass at Pohakuloa, Hawaii, June 21–22, by J.W. Beardsley. The identification was confirmed by Dr. Namba. Zimmerman (*Insects of Hawaii, Vol. 4*) lists *N. lineata* only from the type locality (Diamond Head, Oahu), but in the original description (B.P. Bishop Mus. Bul. 134, 1935) Osborn also lists specimens from Hawaii, Kau, Halfway House, alt. 1500 ft on bunchgrass, collected in August, 1919.

George Funasaki, reporting for Steven Au, stated that a specimen of the vagrant grasshopper, *Schistocerca vaga* Scudder, was captured on July 18, 1966, in Kalaheo, Kauai, by 12-year old Brian Hiranaka. The adult female was on a hibiscus plant in the yard of his home. An initial survey was made in the immediate vicinity with negative results. This
grasshopper was previously found only on Oahu.

**Platypus externedentatus** (Fairmaire): Mr. Bianchi stated that on July 26 he had collected several specimens of the platypodid beetle recently reported (COOPERATIVE ECONOMIC INSECT REPORT, week ending July 15) injuring monkeypod trees at Poipu, Kauai. Comparing them with a long series in the HSPA collection, he finds them to be **Platypus (Crossotarsus) externedentatus** (Fairmaire), as determined by Dr. S.L. Wood in 1956. All of the specimens in the series are from Oahu. The earliest was collected ex. avocado at Maunawili in 1903; the latest was collected on Mt. Kaala in 1938 by O.H. Swezey. Others are of intermediate dates and from Albizzia, avocado, Cassia, Elaeocarpus, Eugenia and Maba. Mr. Bianchi believes that the exudations which occasionally mar the trunks of Eucalyptus citriodora may also be due to this insect, but there is no record of the fact.

**Nysius terrestris** Usinger: Mr. Bianchi stated that during the first half of July he had been repeatedly annoyed in his office by numerous adults and nymphs of this lygeid crawling over his desk and person, and that he had found the source of the insects to be a patch of the weed Euphorbia thymifolia Linn. which has displaced the lawn just outside his windows. The annoyance always occurred in the early afternoon, when the strong sunlight hit the weedy area and apparently caused the insects to disperse. This instance constitutes the first record of *E. thymifolia* as a host plant of this insect. A few adults of a coreid bug, probably Liorhyssus hyalinus (Fab.), were also found on the weed but it could not be determined whether they were breeding or resting on it.

H.K. Nakao presented the following two notes: **Releases of Blackberry Insects:** **Priophorus morio** (Lepeletier), the raspberry leaf sawfly, introduced from Oregon and Washington to aid in control of blackberry, was approved for release from quarantine in June. Initial releases were made at Waiakamoi and Olinda, Maui. In a recent survey of the release area at Waiakamoi, one larva was recovered indicating that this species will readily become established.

Another introduction, **Bembecia marginata** (Harris), the raspberry crown borer, was released at Mt. Kaala, Oahu, in June. This stem borer was previously introduced and releases were made on Maui and Kauai.

**Asolcus mitsukurii** Ashmead: This egg parasite of the southern green stink bug was introduced from Japan through the courtesy of Dr. K. Kiritani, Principal Research Officer, Kochi Prefectual Institute of Agricultural and Forest Sciences. It has been noted that during the winter months there is a limited upsurge of stink bug and the introduced parasites, the Trinidad stink bug tachinid and *A. basalis* from Australia are at a low ebb. It is felt that *A. mitsukurii* will fill this gap, giving effective year long control.

**SEPTEMBER**

The 729th meeting of the Hawaiian Entomological Society was called
to order by Dr. W.C. Mitchell, substituting for President Tamashiro at 2:00 pm, September 19, 1966, in Agee Hall, HSPA Experiment Station.

Members present: Ashlock, Au, Barrett, Bryan, Carter, Chong, Clagg, Davis, Funasaki, Gaddis, Girard, Gressitt, Hardy, Hirashima, Joyce, LaPlante, Look, Madinger, Mitchell, Morrill, Nakao, Nakata, Namba, Pemberton, Saigusa, Shiroma, Steiner, Suehiro, Sugerman, Suman, Yoshimoto.


Old business: Dr. Mitchell noted the receipt of a letter from E.H. Littooy, on behalf of the Committee for Future Meeting Sites, Pacific Branch, Entomological Society of America, thanking our society for our invitation for a Pacific Branch meeting in Honolulu for 1970 or 1971, and stating that the invitation would be taken up at the Pacific Branch meeting in June, 1967, at Salt Lake City.

Nomination of new members: Peter F. Bellinger, Ellis W. Huddleston, and J.R. Vockeroth.

Election of new members: None.

Titles for the Proceedings: Dr. Hardy presented a paper by T. Borgmeier on a new phorid fly from Oahu.

The program for the afternoon was a report on the XIth Pacific Science Congress in Tokyo, and was led off by Dr. Pemberton, who received an Honorary Life Membership in the Pacific Science Association in Tokyo. Others that spoke were Davis, Yoshimoto, Namba, Suehiro, Hardy, Bryan, Gressitt, and Ashlock.

Dr. Mitchell adjourned the meeting at 3:35 pm.

NOTES AND EXHIBITIONS

Harry K. Nakao presented the following two notes: *Frankliniella occidentalis* Pergande. A thrips new to the State was discovered infesting carnation flowers at Waimea, Kauai, by Fred Fujimoto and at Kula, Maui, by George Funasaki in July, 1966. It is a common species on various plants in California. Positive identification was made by K. O’Neill of the U.S. National Museum. This thrips was reported as *Frankliniella* sp. near *occidentalis* in 1943 [Proc. Haw. Ent. Soc. 11(3): 273, 1943]. However, Zimmerman (Insects of Hawaii, Vol. 2, p. 411) indicated that this *Frankliniella* sp. near *occidentalis* was in fact *Frankliniella sulphurea* Schmutz.

*Trimerotropis pallidipennis pallidipennis* (Burmeister): On September 7, nymphs and adults of a grasshopper (Acrididae) new to Hawaii were flushed from wild growth on the banks of the irrigation ditch on Field 12, Ewa Sugar Plantation. More nymphs and adults were picked up in following surveys of the area indicating that it is well established.
Determination was made by Dr. A. B. Gurney, USDA, Beltsville, Maryland.

Dr. Mitchell presented the following note: **Dacus dorsalis** Hendel, the oriental fruit fly, is highly attracted to blossoms and green fruit of the brexia tree, *Brexia madagascariensis* Thou. The males would move over the surface of the green fruit and constantly touch the surface with their mouthparts. This tree is an ornamental and belongs to the family Saxifragaceae. Economically important plants such as currants and gooseberries (*Ribes*) belong to this family. The tree where these observations were made was located in Kaimuki at 4026 Harding Avenue at the Warner residence.

**OCTOBER**

The 730th meeting of the Hawaiian Entomological Society was called to order by Dr. W.C. Mitchell, substituting for President Tamashiro at 2:00 pm, October 10, 1966, in Agee Hall, HSPA Experiment Station.


New business: Dr. Mitchell read a letter from the Johnson Reprint Corporation, who expressed a desire to reprint all out-of-print volumes and/or issues of the Proceedings of the Hawaiian Entomological Society. A discussion followed, and Dr. Mitchell appointed a committee to look into the matter consisting of: F. Bianchi, Chairman, R. Namba, M. Tamashiro, and P.D. Ashlock. Mr. Bianchi pointed out that there was a collection of Society papers of an historical nature stored at the HSPA that would have to be thrown away, unless some other place could be found to keep them. Dr. Bryan, of the Pacific Science Information Center, volunteered to house the material at the Bishop Museum, and Dr. Mitchell appointed a Hawaiian Entomological Society Historical Committee as follows: E.H. Bryan, Jr., Chairman, W.C. Look, D.E. Hardy, and W.C. Mitchell.

Nomination of new members: Dean M. Andersen, Sundra Kanagasabai, and Sunthorn Sirivanakarn were nominated to membership.

Election of new members: Peter F. Bellinger, Ellis W. Huddleston, and J.R. Vockeroth were unanimously elected to membership.

Program: Mr. Bianchi gave an interesting talk on his recent trip to Tonga.

Dr. Mitchell adjourned the meeting at 3:45 pm.

**NOTES AND EXHIBITIONS**

Dr. LaPlante presented the following two notes:

Presented September 12, 1966: The hunting billbug, *Sphenophorus venatus vestitus* Chittenden, was reported September 2, 1966, at-
tacking kikuyugrass (*Pennisetum clandestinum* Hochst. ex Chiov.) at an elevation of 3200 ft in a pasture area in North Kohala, Hawaii Island. The damage was first discovered by Monte Richards, manager of Kahua ranch in a kikuyugrass area near the ranch residence. Mr. Clarence Garcia, county agent in the area, was called in and he submitted samples of grass and all insects found to the University of Hawaii for diagnosis.

A low to moderate infestation was subsequently found in some 3000 acres of kikuyugrass at elevations ranging between 2000 and 3500 ft. Death of grass has only occurred in a few areas trampled by cattle and near the ranch house to date. It has been determined that approximately 400,000 acres of kikuyugrass pastureland is utilized by ranchers in Hawaii. This is the first known report of the hunting billbug as a pasture pest in Hawaii.

Presented October 10, 1966: The Bermudagrass mite, *Aceria neo-cynodonis* Keifer, was found attacking Bermudagrass, *Cynodon dactylon* (L.) Pers., in Lihue, Kauai, and the University of Hawaii campus, Oahu, on September 19 and September 22, 1966, respectively. Determination was made by F. Haramoto, University of Hawaii. This is the first record of the occurrence of the mite in Hawaii.

On October 7, 1966, medium infestations of all stages were noted on Bermudagrass by Dr. Haramoto in Honolulu (Kapahulu), Pearl City, Waipahu, Nanakuli and Waianae. Damage was reported as moderate. Order Palpigradi (Arachnida). Dr. Bellinger stated that six specimens of this order, new to Hawaii, were collected from soil by Tantalus Drive, Oahu, on October 5, 1966. The specimens were unidentified, but are probably *Eukoenenia* sp.

NOVEMBER

The 731st meeting of the Hawaiian Entomological Society was called to order by Dr. W.C. Mitchell, substituting for President Tamashiro, at 2:00 pm, November 14, 1966, in Agee Hall, HSPA Experiment Station. Members present: Ashlock, Bess, Davis, Funasaki, Gressitt, Haramoto, Hardy, Hirashima, Holzapfel, Johnson, Kaneshiro, LaPlante, Madinger, Mitchell, Nakao, Nakata, Namba, Park, Pemberton, Saigusa, Shiroma, Suehiro, Suman, Van Zwaluwenburg, Vockeroth, Wilson, Woolford.


Reports: Mr. Davis, chairman of the Hawaiian Insects Common Name Committee, and Dr. LaPlante, editor of the Proceedings, gave reports on the progress of their activities. Dr. Mitchell, chairman of the Nomination Committee presented the following slate of candidates for office for the year 1967.

President-elect: Fred Bianchi

Charles F. Clagg
Secretary: Sun Hin Au
Bernard B. Sugerman

Treasurer: Frank H. Haramoto
Nixon Wilson

Advisor: Carl Yoshimoto
Henry A. Bess

Nomination of new members: Stanley Higa, Suzanne Keenan, and Harold S. Little were nominated to membership.

Election of new members: Dean M. Andersen, Sundra Kanagasabai, and Sunthorn Sirivanakarn were unanimously elected to membership.

No program was presented.

Dr. Mitchell adjourned the meeting at 2:55 PM.

Notes and Exhibitions

Pantomorus cervinus (Bob.): Mr. Shiroma stated that according to Rose Ella Warner, P. cervinus is not a new insect, but is just a new name for the Fuller rose beetle, P. godmani (Crotch). [See Chadwick, 1965, Entomological Society of Australia (N.S.W.), Vol. 2, pp. 10–20]. This has been reported in C.E.I.R., Vol. 16, No. 44, Nov. 4, 1966.

Mr. Funasaki presented the following notes: Meteorus sp. very near to ictericus Nees: Several adults of this braconid wasp were reared from Austrotorrix postvittanus on gorse from Olinda, Maui in 1964 and 1966. It is a new insect record for the State. It is a beneficial species. Determination was made by R.D. Eady, British Museum.

Doryctes parvus Muesebeck: In Feb. 1966, a single specimen of this tiny wasp was reared from kiawe twigs infested with scolytids at Hono-uliuli, Oahu. This constitutes another new insect record for Hawaii. Determination was made by C.F. Muesebeck of the U.S. National Museum.

Hypothenemus vulgaris (Schaufuss): Several specimens of this scolytid beetle were reared from Sterculia twigs collected in Lihue, Kauai in Oct. 1961 and from Gardenia jasminoides (Chinese gardenia) twigs in Honolulu, Oahu on May, 1966. This constitutes a new immigrant pest record for Hawaii. Determination by Dr. S.L. Wood of Brigham Young University.

Meteorus laphygmae Viereck: Specimens of this braconid were reared from the arctiid moth, Selca brunella at Kulani, Hawaii, in March 1966. S. brunella was introduced from Malaysia to aid in the control of melastoma, a rangeland weed. This constitutes a new host record for this braconid wasp.

Cerataphis orchidearum (Westwood): According to Miss Louise Russell of the U.S. National Museum, C. orchidearum has been misidentified as C. lataniae, the palm aphid, for many years. Miss Russell states that C. lataniae never occurs on orchids and orchidearum is found only on orchids. The earliest collections of orchidearum from Hawaii in the USNM collection
Mr. Davis presented the following note for Mr. Harley and himself:
The cerambycid beetle, *Plagiohammus spinipennis* Thomson, was introduced into Hawaii for biological control of lantana, *Lantana camara aculeata* Moldenke, in 1902 but did not become established. It was reintroduced, approved for release in 1960, and is now well established in a number of areas on the island of Hawaii. The larvae bore extensively in stems and butts and the species is expected to increase significantly the effective biological control of lantana.

During the first three months of 1966, larvae and pupae of the endemic parasite *Doryctes (=Ischiogonus) palliatus* (Cameron), subfamily Doryctinae were collected from larval galleries of *P. spinipennis* attacking lantana near Pahala, Hawaii. Comparatively few larvae appeared to be parasitized but up to 16 parasite larvae or cocoons were associated with a single *P. spinipennis* larva. In a sample taken at Kau in November 1966, 6.1% of the larvae were parasitized, however, in a sample taken at the same time at Kahauloa, Kona, no larvae were parasitized.

*D. palliatus* is endemic in the Hawaiian Islands and has been recorded parasitizing larvae of the endemic cerambycids *Plagithmysus bilineatus* Sharp, *P. varians* Sharp, *P. solitarius* Sharp, *P. munroi* Sharp, and *Neoclytarlus indecens* (Perkins). A closely related parasite, *D. syagrii* Fullaway was introduced from Australia in 1921 for biological control of the fern weevil, *Syagrius fulvitarsis* Pascoe. The identity of *D. palliatus* was confirmed by C. Yoshimoto of the Bishop Museum. This is the first record of *Plagiohammus* being parasitized in Hawaii.

Mr. Davis presented the following 4 notes:

**Introduced blackberry insects:** *Aptoforma* sp. This tortricid is very active on wild blackberry at Waiakamoi, Maui, 4000 ft elevation, causing considerable foliar damage.

**Schreckensteinia festaliella** Hübner: Temporarily at a very low population level at Waiakamoi, Maui and at Kokee, Kauai. Both insects were recently liberated in the Kona and Kau Districts, Hawaii for the first time.

Introduced Klamath weed insects: *Zeuxidiplosis giardi* Kieffer: This gall midge is building up steadily on Klamath weed growing on Mt. Hualalai, 6700 ft elevation. The reddish galls are very conspicuous on heavily infested plants. The first release of this midge was made on Mt. Hualalai on February 5, 1965. The midges were obtained from New Zealand.

*Chrysolina quadrigemina* (Suffrian): Adults were readily observed on plants and under rocks. Feeding damage was not observed, nor were any larvae noted.

**Introduced Christmas berry insects:** The Christmas berry weevil, *Bruchus atronotatus* Pic, released at Kiolakaa, Waiohinu, Kau
in April, 1960, has now spread to Hookena, Kona District, some 30 miles from the original release point. At the present time only 1% of the berry clusters at Hookena is infested but it is anticipated that this will increase considerably when the bruchid becomes widely established.

**Introduced melastoma insects:** The introduced arctiid, *Selca brunella* Hampson is currently very active on the foliage and fruit of *Melastoma* spp. in the Hilo District and *Tibouchina semidecandra* growing between Mt. View and Glenwood, Puna District.

Mr. Davis presented the following note for Stephen Au: **Schistocerca vaga:** A female vagrant grasshopper was captured by Mr. Kiyoshi Miyazaki on a bean plant in his garden at Eleele, Kauai on November 8. This is the second specimen caught on the island. The first was caught on July 18 at Kalaheo. Surveys in the above areas are continuing.

**Lagocheirus obsoletus** Thompson (Cerambycidae): Dr. Mitchell reported larvae and pupae of this insect were found on October 27, 1966 infesting roots of cassava, *Manihot esculenta* Crantz, at Poamoho Experimental Farm by Dr. Haramoto and himself. Identification of the larvae was done by Dr. J.L. Gressitt, Bishop Museum staff. Host plants and larval description of this insect are given by E.A.J. Duffy in *Proc. Haw. Ent. Soc.* Vol. 15(1): 135–158. This constitutes a new host record. Duffy lists plumeria, hibiscus, kukui, allamanda vine, *Araucaria*, *Euphorbia*, *Pseudopanax* and *Ceara* rubber as hosts.

**Brevipalpus californicus** (Banks): Dr. Mitchell found (October 27, 1966) the false spider mite infesting macadamia plants at Poamoho.

**Red-banded thrips, Selenothrips rubrocinctus** (Giard): Dr. Mitchell stated that this thrips was present in large numbers and scarifying the husk of macadamia nuts at Poamoho, Oahu (October 27, 1966).

**DECEMBER**

The 732nd meeting of the Hawaiian Entomological Society was called to order by President Tamashiro at 2:05 pm, December 12, 1966, in Agee Hall, HSPA Experiment Station.


Visitors: Nineteen visitors were present.

Nomination of new members: Julian Yates, Gerald Takei, Roy Furumizo, Warren Fujii, and Dick Jackson were nominated to membership.

Election of new members: Stanley Higa, Suzanne Keenan, and Harold S. Little were unanimously elected to membership.

Announcements: Mr. Bianchi announced that Agee Hall would be
occupied on several Mondays when the society would normally be meeting in the Hall. Therefore, it will be necessary for the society to meet on Tuesdays, the day after the normal meeting time, during the months of January, February, March, and June during 1967.


Results of the election: The contests for secretary and advisor were ties and were decided by the toss of a coin.

- President-elect: Fred Bianchi
- Secretary: Bernard B. Sugerman
- Treasurer: Frank H. Haramoto
- Advisor: Carl Yoshimoto

Program: Martin Sherman gave a very informative talk entitled “Denmark, Some Observations”.

President Tamashiro adjourned the meeting at 3:35 pm.

NOTES AND EXHIBITIONS

**Trissolcus mitsukuri** (Ashmead): Mr. Davis reported that according to Paul M. Marsh, Insect Identification and Parasite Research Branch, U.S. Department of Agriculture, the correct name for this scelionid, which was introduced from Japan, is *T. mitsukuri* vice *Asolcus*. He cites Masner (1964, *Acta Soc. Ent. Czechosl.* 61:145) in which *Asolcus* was suppressed.

**Gobertina picticornis** Bigot: J.R. Vockeroth reported collecting 2 female specimens of *Gobertina picticornis* Bigot 1879 (Stratiomyidae: Pachygastrinae) on October 16 and 22 at light in Manoa Valley, Honolulu. The species has been reported only from Africa. It was described from Sierra Leone, and Lindner (1935, *Dtsch. Ent. Ztschr.* 1934:294) recorded additional specimens from Sierra Leone and Southern Rhodesia. Some of his specimens were reared from puparia from a dead tree. Many Nearctic Pachygastrinae live as larvae under the bark of dead trees. *G. picticornis* may have the same habit.

The species is smaller than any stratiomyid previously known from the Hawaiian Islands. The two Hawaiian specimens are 3.6 and 4.2 mm in length. The species is stout, is entirely dark gray to black in the female (the male has silver areas on the abdomen), and has the wing clear, the scutellum with minute marginal denticles but without spines, and the antenna moderately slender throughout. The only species of Pachygastrinae previously known from Hawaii, *Evaza javanensis* de Meij., is 5.5–6.5 mm in length, is much more slender, has the abdomen partly orange, the wing apex darkened, the scutellum with four strong marginal spines, and the
antenna strongly swollen and somewhat compressed with a very slender apical arista.

One of the Hawaiian specimens was determined by Dr. M.T. James of Pullman, Washington, who reported that it agreed extremely well with African specimens in his collection.

**Pantala flavescens** (Fabricius): Mr. Clagg reported seeing some specimens of *P. flavescens* on Sand I., Midway Atoll, in February, a new record for Midway. On another trip to the island in October, he reported that they were very numerous on both Sand and Eastern Islands, but on his next visit in November he saw only an occasional specimen.

**Aedes albopictus** (Skuse): As *A. albopictus* has not been observed on Midway for some time, it was believed to have disappeared. However, Mr. Clagg collected specimens in the Public Works Office on Sand Island on his October trip to the island.
NEW IMMIGRANT RECORDS FOR THE YEAR 1966

Species marked with an asterisk (*) were reported from the Hawaiian Islands for the first time during 1966 on the dates recorded in the text. Species not so marked were reported previously under incorrect or incomplete determinations. Species marked with a dagger (†) are considered doubtfully established. New species considered to be endemic to the Hawaiian Islands are not included.

BENEFICIAL INSECTS PURPOSELY INTRODUCED

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<td>*Trimerotropis pallidipennis (Burmeister) (Orthoptera: Acrididae)</td>
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Change of Name Record

Acinia picturata (Snow)=Acinia furcata (Fabricius) (Diptera: Tephritidae)
Cerataphis orchidearum (Westwood) = Cerataphis lataniae (on orchids) (Homoptera: Aphididae)

Eumerus figurans (Walker) = Eumeris marginata Grimshaw (Diptera: Syrphidae)

Masonaphis azaleae (Mason) = Amphophara vaccinii Mason (Homoptera: Aphididae)

Pantomorus cervinus (Bob.) = Pantomorus godmani (Crotch) (Coleoptera: Curculionidae)

Trissolcus mitsukurii (Ashmead) = Asolcus mitsukurii ...... (Hymenoptera: Scelionidae)

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