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OCCASIONAL PAPERS

OF THE

California Academy of Sciences

No. 80, 33 pages, Frontispiece, 4 figures.

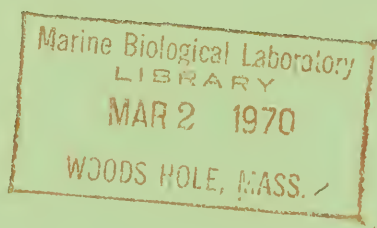
February 18, 1970

Lists of the Scientific Publications and Insect Taxa Described by Francis Xavier Williams (1882-1967)

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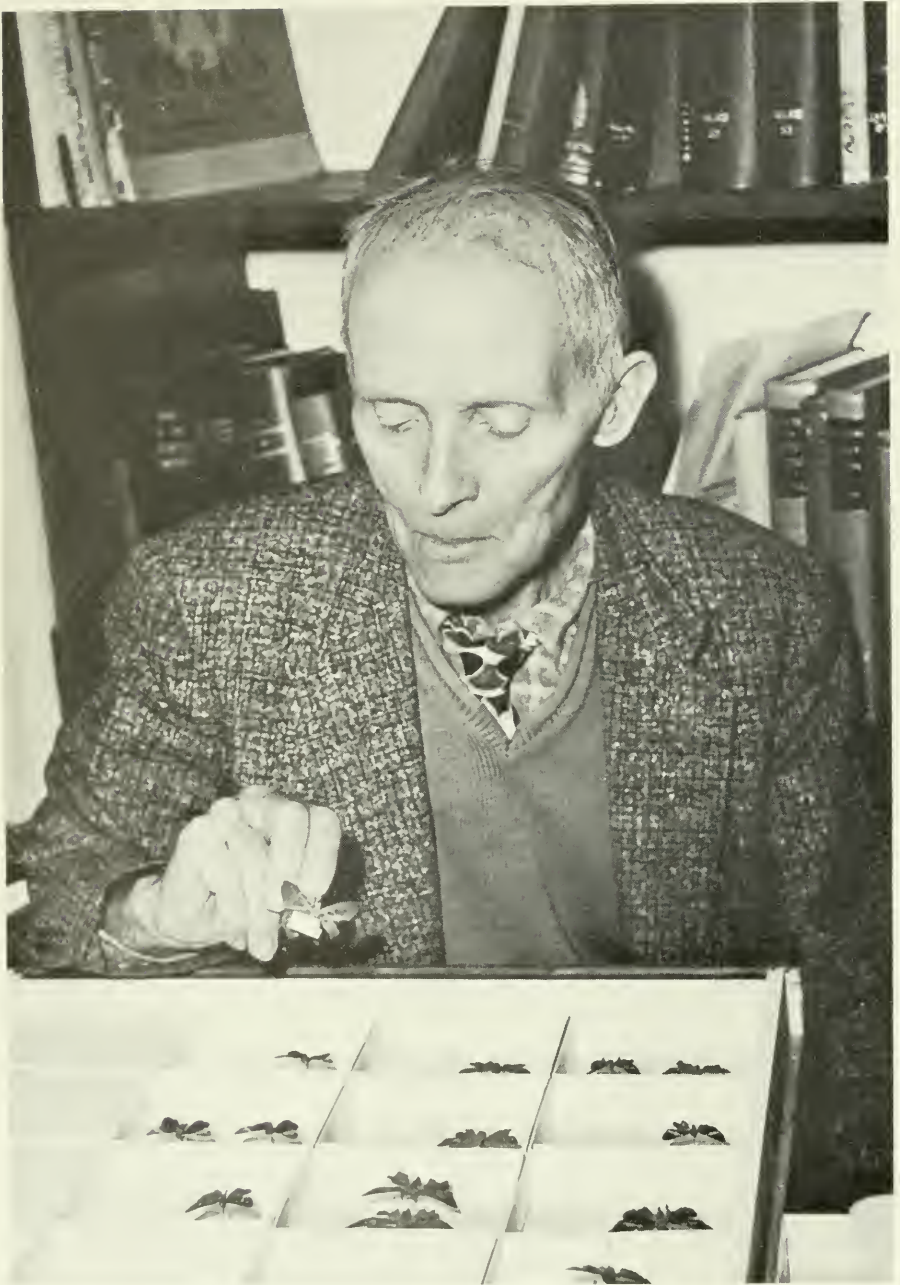
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Dr. Francis X. Williams at the San Diego Society of Natural History, about 1960, photograph taken by Bucky Reeves.



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INTRODUCTION

Doctor Francis Xavier Williams, distinguished student of insect behavior and ecology, entomological taxonomist and embryologist, expert illustrator, entomological explorer and world traveler, author, associate entomologist of the Hawaiian Planters' Association from 1916 to 1948, was born in Martinez, California on 6 August 1882, and died at Chula Vista, California, on 16 December 1967, during his 85th year. He was the gentlest of persons, living moderately and modestly, and among his riches were his entomological pursuits. Dr. Williams traveled extensively and his field laboratories were successively portions of California, the Galápagos Archipelago, Kansas, Massachusetts, the Hawaiian Islands, the Philippine Islands, Panama, Ecuador, British Guiana, Brazil, Missouri, Guatemala, New Caledonia, and East Africa.

A biography of the life of Dr. F. X. Williams, written by Dr. Elwood C. Zimmerman, has been published in the *Pan-Pacific Entomologist* (vol. 45, pp. 135-146). Therefore, only a brief account of Dr. Williams' association with and great interest in the California Academy of Sciences, for a period of over 60 years, will be elucidated here.

PERSONAL INFORMATION

Dr. Williams became a member of the California Academy of Sciences in 1918, a Life Member in 1943, a Fellow on 11 March 1952, and an Honorary Member on 6 October 1954. He was appointed a Research Associate in the Department of Entomology on 11 October 1949.



Dr. Williams attended and received an A.B. degree from St. Ignatius College (now the University of San Francisco) in 1903, a B.A. degree from Leland Stanford Junior University in 1908, an A.M. degree from University of Kansas in 1912, and a Sc.D. degree (in Entomology) from Harvard University in 1915. During his college years he served as Field Entomologist, one of the eight scientists (figs. 1-3) on the 17-month Academy Expedition to the Galápagos Archipelago in 1905-1906. The expedition left San Francisco 28 June 1905, and returned 29 November 1906. During this expedition he collected over 4000 insects from which scores of new species have been described. These have served as the basis to the study of the Zoogeography of the Insecta of these islands, and comprise one of the most important insect collections assembled from the Galápagos. In addition to his own published papers on the Galápagos fauna, in one insect order alone, the Coleoptera, 71 new species and subspecies were described by the late Dr. Edwin C. Van Dyke¹ from the Williams' Galápagos collections. In 1917, following his move to Honolulu and employment for 32 years (beginning 8 May 1916) by the Hawaiian Sugar Planters' Association, Dr. Williams donated his insect collection of 7662 specimens (primarily western Lepidoptera) and his library of 649 "books, periodicals, and pamphlets" to the Academy. During the period of his employment by the Hawaiian Sugar Planters' Association, his extensive collections were deposited with that organization in Honolulu. The presently available accession records of the Academy's Department of Entomology show donations of 212 Hawaiian insects (in 1939), about 500 Larridae (in 1942), and 17 wasps (in 1947). Following his retirement and establishment of residency in California in 1949, Dr. Williams donated a total of 13,414 specimens, including types, in 60 separate transactions, from his collecting in California, the Mexican Mainland, and Baja California. In résumé, Dr. Williams added at least 25,805 specimens to the Academy's collection of insects.

Over a period of 63 years, 1904-1966, Dr. Francis X. Williams published a total of 286 scientific papers. Included in these titles is a 400-page reference book, "Handbook of the Insects and Other Invertebrates of Hawaiian Sugar Cane Fields" published in 1931, a popular book, "Mike the Minah," published in 1946 in coauthorship with his wife Louisa Clark Williams, as well as major papers covering such diverse topics as "The Larridae of Kansas" in 1914,

¹The Coleoptera of the Galapagos Islands. Occasional Papers of the California Academy of Sciences, no. 22, pp. 1-181, fig. 1, pls. 1-7.

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FIGURE 1. Members of 1905-06 Galápagos Expedition aboard schooner *Academy*. Standing left to right: F. T. Nelson, mate; Alban Stewart, botanist; E. S. King, assistant herpetologist; R. H. Beck, in charge of expedition; J. S. Hunter, ornithologist; J. R. Slevin, herpetologist; E. W. Gifford, ornithologist; W. H. Ochsner, geologist and conchologist; F. X. Williams, entomologist. Sitting: J. J. Parker, navigator.

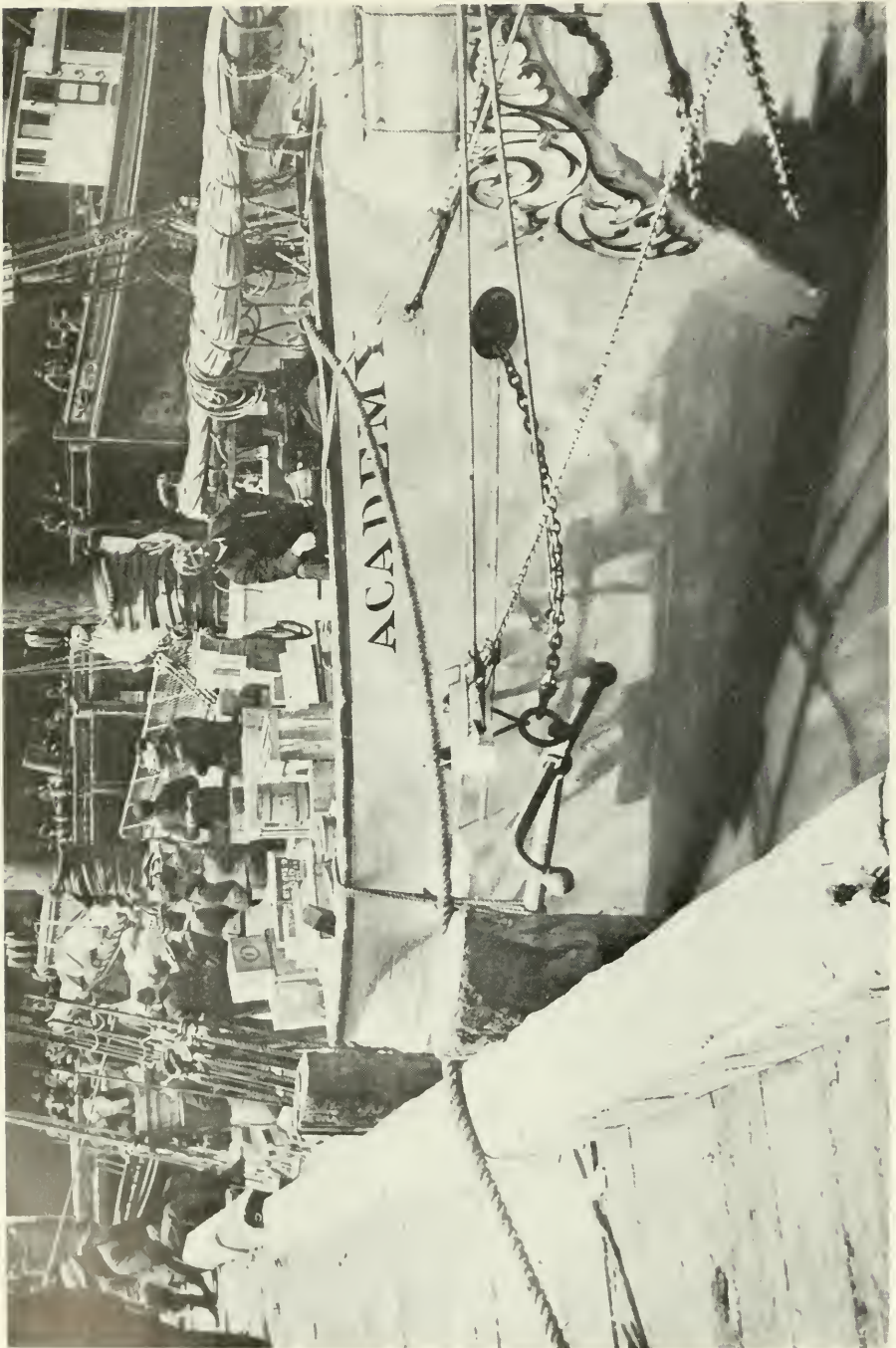




FIGURE 3. Mrs. Cyril Williams and her four sons in cabin of schooner *Academy*, June 26, 1905. Left to right, Richard, Francis Xavier, Cyril, and Philip.

"Photogenic organs and embryology of lampyrids" in 1916, "Philippine wasp studies" in 1919, "Studies in tropical wasps—their hosts and associates" and "The natural history of a Philippine nipa house with descriptions of new wasps" in 1928, a series on "Biological studies in Hawaiian water-loving insects" Parts I-V, from 1936 to 1944, "Wasps of the genus *Solierella* in California" in 1950, "Life history studies of *Pepsis* and *Hemipepsis* wasps in California" in 1956, and "The wasps of the genus *Plenoculus* (Hymenoptera: Sphecidae, Larrinae)" in 1960. His published papers occupy all or part of over 2526 printed pages and include hundreds of his original line drawings; they are listed in Section I, chronologically by year, and are consecutively numbered in the left column, beginning on page 8. Dr. Williams is to be regarded as the sole author unless coauthorship of the paper is indicated by the names of the coauthors quoted

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FIGURE 2. Dr. Francis X. Williams at bow of schooner *Academy*, June 26, 1905.



FIGURE 4. Dr. Francis X. Williams, at the San Diego Society of Natural History, about 1960, photograph taken by Dr. George E. Lindsay.

within parentheses following the journal citation. Seventeen papers were published with nine different coauthors (T. D. Fullaway, once; F. Grinnell, Jr., once; H. B. Hungerford, twice; F. Muir, once; C. E. Pemberton, once; O. H. Swezey, seven times; W. M. Wheeler, once; Louisa Clark Williams, once; and R. H. van Zwaluwenburg, twice). Since some articles published in the proceedings of several journals are untitled, brackets are used around the titles that I

have composed for them. Untitled notes from the minutes of the meetings of the Pacific Coast Entomological Society (items 272 to 286) were first published (except item no. 286) in *Entomological News* and later published in the *Proceedings of the Pacific Coast Entomological Society*. The dates of publication of the notes published in the *Proceedings of the Pacific Coast Entomological Society* are mostly unknown. The years indicated within the brackets are merely the years in which the meetings were held and are not necessarily the years of publication of the *Proceedings*. The minutes of the meetings of the Pacific Coast Entomological Society published in *Entomological News* always differ in length and at times in content from those published in the *Proceedings*.

Dr. Williams proposed a total of 146 taxa in three orders of Insecta, including five new genera, one new subgenus, 132 new species, six new subspecies, and two replacement names. The publication of some of these names, in such diverse insect groups, was to facilitate the recording of important observations on the newly described species. These include four names in the order Diptera in the four families Psychodidae, Cecidomyiidae, Ephydriidae, and Muscidae; three names in the order Lepidoptera, in the three families Hesperidae, Noctuidae, and Eriocraniidae; and 139 names in the Hymenoptera in the eight families Proctotrupidae (one new species), Tiphidae (nine new species), Mutillidae (one new species), Formicidae (one new species), Vespidae (six new species), Pompilidae (eight new species, one new name, two new genera), Ampulicidae (two new species, one new subgenus), and Sphecidae (127 new species, six new subspecies, one new name, and three new genera). These taxa are listed in Section II, beginning on page 22. Each entry consists of (1) the name; (2) the original reference; (3) the type locality; and (4) the type depository. As this list shows, types which were earlier stated to be in the Hawaiian Sugar Planters' Association Collection have been transferred to and are now located in the Department of Entomology, Bernice P. Bishop Museum. Of the 29 holotypes stated to be deposited in the collections of the California Academy of Sciences, all are present except the type of *Solicrella weberi* Williams, 1955 (family Sphecidae), which appears not to have been deposited in this collection, and its present location is unknown.

ACKNOWLEDGMENTS

It is with pleasure that I acknowledge the aid of the following persons for supplying information concerning Dr. Williams' publications, for pictures, or information on types of his species that are deposited in collections under their care: Dr. George W. Byers, University of Kansas; Mrs. Margaret Campbell, California Academy of Sciences; Dr. Howard E. Evans, Museum of Comparative Zoology; Dr. Raymond J. Gagné, United States Department of Agriculture; Dr. M. Ivanochko, Canada Department of Agriculture; Mr. Hugh B. Leech, California Academy of Sciences; Dr. George E. Lindsay, California Academy of

Sciences; Dr. Karl V. Krombein, United States National Museum; Miss Setsuko Nakata, Bernice P. Bishop Museum; Dr. Jerry A. Powell, University of California, Berkeley; Dr. C. E. Pemberton, Honolulu; and Dr. L. L. Pechuman, Cornell University.

Section I. LIST OF SCIENTIFIC PAPERS

1905

1. The larva of *Hepialus sequoiolus* Behrens. Entomological News, vol. 16, no. 1, pp. 19–20.
2. Notes on the larvae of certain Lepidoptera. Entomological News, vol. 16, no. 5, p. 153.
3. A trip to Mt. Diablo in search of Lepidoptera. With a description of a new species. Entomological News, vol. 16, no. 7, pp. 235–238. (By F. X. Williams and Fordyce Grinnell, Jr.)
4. Notes on the synonymy and preparatory stages of *Illice faustinula* Bdv. Entomological News, vol. 16, no. 8, pp. 257–259, text figs. 1 & 2.
5. Notes on the life history of *Hepialus sequoiolus* Behrens. Entomological News, vol. 16, no. 9, pp. 283–287, text figs. 1–4.

1908

6. A new *Eriocrania* (Lepidoptera) from the Pacific Coast. Entomological News, vol. 19, no. 1, pp. 14–15, pl. 2 (with 10 figs.).
7. The life-history of *Lycaena antiacis* Bdv., with other notes on other species. Entomological News, vol. 19, no. 10, pp. 476–483, text figs. 1 & 2.

1909

8. The Monterey (sic!) pine resin midge—*Cecidomyia resinicoloides* n. sp. Entomological News, vol. 20, no. 1, pp. 1–8, pl. 1 (with 3 figs.).
9. Notes on the life-histories of certain wood-boring Lepidoptera. Entomological News, vol. 20, no. 2, pp. 58–62, pl. 5 (with 12 figs.).
10. The butterflies and some of the moths of the Mt. Shasta region. Entomological News, vol. 20, no. 2, pp. 62–75.

1910

11. The anatomy of the larva of *Cecidomyia resinicoloides* Williams. Annals of the Entomological Society of America, vol. 3, no. 1, pp. 45–60, pls. 6–8.
12. The butterflies of San Francisco, California. Entomological News, vol. 21, no. 1, pp. 30–41.
13. (Notes and News). [Notes on Lepidoptera.] Entomological News, vol. 21, no. 6, p. 279.

1911

14. Expedition of the California Academy of Sciences to the Galápagos Islands, 1905–1906. III. The butterflies and hawk-moths of the Galápagos Islands. Proceedings of the California Academy of Sciences, 4th ser., vol. 1, pp. 289–322, pls. 20 & 21.

1912

15. Biological notes on some Kansas Hymenoptera. Entomological News, vol. 23, no. 6, pp. 241–260, pls. 14–16. (By H. B. Hungerford and F. X. Williams.)

1914

16. Notes on Coleoptera from western Kansas. Entomological News, vol. 25, no. 1, pp. 1–9, pls. 1 & 2 (with 16 figs.). (By F. X. Williams and H. B. Hungerford.)

17. The Larridae of Kansas. [On page 117 and table of contents title given as "Monograph of the Larridae of Kansas."] The Kansas University Science Bulletin (1913), vol. 8, no. 4, pp. 117-213, pls. 22-30 (with 120 figs.).
18. Notes on three Sesidae (sic!) (Lepidoptera) affecting the "Missouri Gourd" (*Cucurbita foetidissima* H. B. K.) in Kansas. The Kansas University Science Bulletin (1913), vol. 8, no. 5, pp. 215-220, pls. 31 & 32.
19. Notes on the habits of some solitary wasps that occur in Kansas, with the description of a new species. The Kansas University Science Bulletin (1913), vol. 8, no. 6, pp. 221-230, pl. 33.
20. Prothetely in the larva of *Photuris pennsylvanica* DeGeer. Psyche, vol. 21, no. 4, pp. 126-129, text figs. 1 & 2.

1915

21. The luminous organ of the New Zealand glow-worm. Psyche, vol. 22, no. 2, pp. 36-43, pl. 3 (By W. M. Wheeler and F. X. Williams.)

1916

22. Photogenic organs and embryology of lampyrids. The Journal of Morphology, vol. 28, no. 1, pp. 145-207, pls. 1-10 (with 55 figs.).
23. The pupa of *Boreus brumalis* Fitch. Psyche, vol. 23, no. 2, pp. 36-39, text fig. 1.
24. Notes on the life-history of *Methoca stygia* Say. Psyche, vol. 23, no. 4, pp. 121-125, pl. 12.

1917

25. Notes on the life-history of some North American Lampyridae. Journal of the New York Entomological Society, vol. 25, no. 1, pp. 11-33.

1918

26. Some observations on the leaf-hopper wasp, *Nesomimesa hawaiiensis* Perkins, at Pahala, Hawaii, February 11-April 25, 1918. The Hawaiian Planters' Record, vol. 19, no. 3, pp. 175-179, text figs. 1-3.
27. Some observations of *Pipunculus*, a fly which parasitizes the cane leafhopper, at Pahala, Hawaii, February 11-April 25, 1918. The Hawaiian Planters' Record, vol. 19, no. 3, pp. 189-192, text fig. 1.
28. *Epyris extraneus* Bridwell, a wasp that preys on the larva of the trash-inhabiting beetle, *Gonocephalum seriatum* Bdv. The Hawaiian Planters' Record, vol. 19, no. 6, pp. 418-421, text figs. 1-8.

1919

29. (Notes and Exhibitions.) Nests of Philippine wasps. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, pp. 4-5.
30. (Notes and Exhibitions.) *Thecla echion*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, p. 46.
31. *Epyris extraneus* Bridwell (Bethyridae), a fossorial wasp that preys on the larva of the tenebrionid beetle, *Gonocephalum seriatum* (Boisduval). Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, pp. 55-63, pls. 1 & 2 (with 8 figs.).
32. Some observations on the leaf-hopper wasp, *Nesomimesa hawaiiensis* Perkins, at Pahala, Hawaii, Feb. 11-April 25, 1918. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, pp. 63-68, text figs. 1-3.
33. Some observations on *Pipunculus* flies which parasitize the cane leafhopper, at Pahala, Hawaii, Feb. 11-April 25, 1918. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, pp. 68-71, text fig. 1.

34. (Notes and Exhibitions.) *Dolichurus stantoni*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, p. 180.
35. (Notes and Exhibitions.) *Crabro tumidoventris*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 1, p. 180.
36. Philippine wasp studies. Part II. Descriptions of new species and life history studies. Report of Work of the Experiment Station of the Hawaiian Sugar Planters' Association, Entomological series, Bul. 14, pp. 19-186, text figs. 1-106.

1920

37. *Pseudagenia capella* nom. nov. (Hym., Psammocharidae). Entomological News, vol. 31, no. 3, p. 84.
38. (Notes and Exhibitions.) Newly imported insects from Australia. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 2, pp. 332-333.
39. (Notes and Exhibitions.) *Plusia pterygota*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 2, pp. 337-338.
40. A note on the habits of *Epactiothynnus opaciventris* Turner, an Australian thynnid wasp. Psyche (1919), vol. 26, no. 6, pp. 160-163, text figs. 1 & 2.

1921

41. Wireworm injury and its control. The Hawaiian Planters' Record, vol. 25, no. 3, p. 108.
42. Some observations of figs in south-central Luzon, Philippine Islands. The Hawaiian Planters' Record, vol. 25, no. 5, pp. 202-225, text figs. 1-24.
43. (Notes and Exhibitions.) *Strumigenys lewisi*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 453.
44. (Notes and Exhibitions.) *Celerio calida*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 453.
45. (Notes and Exhibitions.) *Vanessa tammeamea*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 453.
46. (Notes and Exhibitions.) *Melanocrabro curtipes*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 453.
47. (Notes and Exhibitions.) *Vespa occidentalis*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 455.
48. (Notes and Exhibitions.) *Trypoxylon* sp. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 458.
49. (Notes and Exhibitions.) *Rhyncogonus blackburni*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 488.
50. (Notes and Exhibitions.) *Silaon rohweri*. Proceedings of the Hawaiian Entomological Society, vol. 4, no. 3, p. 458.

1922

51. Notes on some enemies of the nut grass in the Philippines. The Hawaiian Planters' Record, vol. 26, no. 2, pp. 95-97.
52. Entomological work in the Philippines. September 1920-April 1922. The Hawaiian Planters' Record, vol. 26, no. 3, pp. 173-177.
53. Some biological notes on Philippine Zoölogy. The Kansas University Science Bulletin, vol. 14, no. 11, pp. 327-336.

1923

54. Cane fields at high altitude. The Hawaiian Planters' Record, vol. 27, no. 2, p. 122, 1 text fig. (unnumbered).
55. (Notes and Exhibitions.) Nut grass borers. Proceedings of the Hawaiian Entomological Society, vol. 5, no. 2, p. 189.

1925

56. Entomological work in South America, September 1922-July 1924. The Hawaiian Planters' Record, vol. 29, no. 2, pp. 201-229, 20 text figs. (unnumbered).
57. (Notes and Exhibitions.) Wasps from tropical countries. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 1, pp. 16-17.
58. (Notes and Exhibitions.) *Silaon rohweri* Bridl. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 1, p. 22.
59. A prothetelous larva of *Monocrepidius exsul* (Elateridae, Coleoptera). Proceedings of the Hawaiian Entomological Society, vol. 6, no. 1, pp. 211-212, 1 text fig. (unnumbered).

1926

60. (Notes and Exhibitions.) *Odynerus oahuensis* D. T. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 2, p. 221.
61. (Notes and Exhibitions.) Pulsation of dorsal vessel of wasp larvae. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 2, pp. 224-225.
62. (Notes and Exhibitions.) *Xylocopa varipuncta* Patton. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 2, p. 228.
63. XVIII. Expedition of the California Academy of Sciences to the Galápagos Islands, 1905-1906. The bees and aculeate wasps of the Galápagos Islands. Proceedings of the California Academy of Sciences, 4th ser., vol. 2, part 2, no. 18, pp. 347-357.

1927

64. The Philippine mole-cricket wasp (*Larra luzonensis*) in Hawaii. The Hawaiian Planters' Record, vol. 31, no. 1, pp. 4-6.
65. A South American ground beetle as a wireworm enemy. The Hawaiian Planters' Record, vol. 31, no. 1, pp. 7-9, text figs. 1-3.
66. The brown Australian lacewing (*Micromus vinaceus*). The Hawaiian Planters' Record, vol. 31, no. 3, pp. 246-249, 1 text fig. (unnumbered).
67. (Notes and Exhibitions.) Thysanura taken in laboratory. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 3, p. 348.
68. (Notes and Exhibitions.) *Oxya velox* (Fab.) Proceedings of the Hawaiian Entomological Society, vol. 6, no. 3, p. 357.
69. (Notes and Exhibitions.) Mole cricket parasite. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 3, p. 373.
70. Notes on the habits of the bees and wasps of the Hawaiian Islands. Proceedings of the Hawaiian Entomological Society, vol. 6, no. 3, pp. 425-464, pl. 17, text figs. 1-23.

1928

71. Studies in tropical wasps—their hosts and associates (with descriptions of new species). Bulletin of the Experiment Station of the Hawaiian Sugar Planters' Association, Entomological series, Bul. 19, pp. 1-179, frontispiece, pls. 1-33 (with 237 figs.), text figs. A & B, 1-14.
72. *Coptotermes formosanus* Shiraki in bags of sugar. The Hawaiian Planters' Record, vol. 32, no. 4, pp. 390-391, text figs. 1 & 2. (By F. X. Williams and R. H. van Zwaluwenberg.)
73. Larridae. Insects of Samoa and other Samoan terrestrial Arthropoda. Part V. Hymenoptera. Fasc. 1, pp. 33-39, text figs. 1-12.
74. The natural history of a Philippine nipa house with descriptions of new wasps. The Philippine Journal of Science, vol. 35, no. 1, 53-118, pls. 1-8.

75. (Notes and Exhibitions.) *Archytas cirphis* Curran. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 1, p. 10.
76. (Notes and Exhibitions.) New moth. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 1, p. 20.
77. (Notes and Exhibitions.) *Trimicra lateralis* Grims. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 1, p. 28.
78. The sphecid wasp, *Podalonia violaceipennis* (Lep.). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 1, p. 163.
79. The Kamehameha butterfly, *Vanessa tammeamea* Esch. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 1, pp. 164-169, text figs. 1-3.

1929

80. The introduction of *Anaphoidea calendrae* Gahan into Hawaii as a possible egg-parasite of our sugar cane beetle borer, *Rhabdoctemis obscura* (Boisd.). The Hawaiian Planters' Record, vol. 33, no. 1, pp. 29-33.
81. (Notes and Exhibitions.) *Amblyteles rufiventris* (Brulle). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, pp. 202-203.
82. (Notes and Exhibitions.) *Copris incertus* var. *prociduus* (Say). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, p. 210.
83. (Notes and Exhibitions.) *Athesapeuta cyperi* Marshall. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, p. 227.
84. (Notes and Exhibitions.) *Scolopendra subspinipes* Leach. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, pp. 232-233.
85. (Notes and Exhibitions.) Hymenoptera from China. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, pp. 236-237.
86. (Notes and Exhibitions.) *Copris incertus* var. *prociduus* Say. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, p. 237.
87. Notes on the habits of the cockroach-hunting wasps of the genus *Ampulex* sens. lat., with particular reference to *Ampulex (Rhinoopsis) caniculatus* Say. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, pp. 315-329, text figs. 1-10.
88. Ants, bees and wasps in the Hawaiian Islands. Journal of the Pan-Pacific Research Institution, vol. 4, no. 3, pp. 3-5.

1930

89. *Beebea guglielmi* Schaus, a pyralid moth borer of the opuntia cactus in the Galapagos Islands. The Pan-Pacific Entomologist, vol. 7, no. 1, pp. 1-4, text figs. 1-5.

1931

90. Handbook of The Insects and Other Invertebrates of Hawaiian Sugar Cane Fields. With an Introduction by F. Muir, a Chapter each on Soil Fauna of Sugar Cane Fields and on the Nematodes Attacking Sugar Cane Roots by R. H. Van Zwaluwenburg, and Records of Introduction of Beneficial Insects into the Hawaiian Islands, by O. H. Swezey. Hawaiian Sugar Planters' Association Experiment Station, Honolulu, Hawaii, pp. 1-400, pls. 1-41, text figs. 1-190.
91. Frederick A. G. Muir. The work of Dr. Frederick A. G. Muir in the biological control of sugar cane insects in Hawaii. The Hawaiian Planters' Record, vol. 35, no. 3, pp. 205-215. (By O. H. Swezey and F. X. Williams.)
92. (Notes and Exhibitions.) *Cyrtorhinus mundulus* (Bredl.). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 334.
93. (Notes and Exhibitions.) *Erebus odora* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 336.

94. (Notes and Exhibitions.) Notes on insects on Molokai. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, pp. 344-345.
95. (Notes and Exhibitions.) *Erebus odora* (L.). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 352.
96. (Notes and Exhibitions.) [*Idechthis* sp.] Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 358.
97. (Notes and Exhibitions.) *Strumigenys lewisi* Cam. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 2, p. 365.
98. (Notes and Exhibitions.) Hawaiian Psocidae. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, pp. 371-372.
99. (Notes and Exhibitions.) *Phaenobremia meridionalis* (Felt). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 372.
100. (Notes and Exhibitions.) *Protoparce quinque maculata blackburni* (Butl.). Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 373.
101. (Notes and Exhibitions.) ["The Witchery of Wasps" by E. G. Rinchard.] Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, p. 385.
102. A spider eating ant larvae or pupae. Proceedings of the Hawaiian Entomological Society, vol. 7, no. 3, pp. 425-426.

1932

103. The sphegoid wasps of the Marquesas Islands. [In: Marquesan Insects—I.] Bernice P. Bishop Museum Bulletin, no. 98, pp. 149-153, text fig. 43.
104. (Notes and Exhibitions.) Two immigrant Psocidae. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 8.
105. (Notes and Exhibitions.) *Pantala flavescens* (Fab.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 8.
106. (Notes and Exhibitions.) *Anagyrus* sp. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 13.
107. (Notes and Exhibitions.) *Enochrus nebulosus* (Say). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 16.
108. (Notes and Exhibitions.) *Tachysphex fusus* Fox. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 17.
109. (Notes and Exhibitions.) *Chalybion caeruleum* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 17.
110. (Notes and Exhibitions.) *Telmatoscopus albipunctatus* (Will.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 18.
111. (Notes and Exhibitions.) Philippine weevils in the fruits of wild figs. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 18.
112. (Notes and Exhibitions.) *Agrion*. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 18.
113. (Notes and Exhibitions.) *Holochlora japonica* Brunn. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 25.
114. (Notes and Exhibitions.) [Insects taken at Nauhi, Hawaii.] Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 29.
115. (Notes and Exhibition of Material.) Philippine *Anagyrus*. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 32.
116. (Notes and Exhibition of Material.) *Aeschrithmysus* n. sp. (?). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, p. 32.
117. Frederick A. G. Muir. Biographical sketch. The work of Dr. Frederick A. G. Muir in the biological control of sugar cane insects in Hawaii. Proceedings of the Ha-

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118. Some observations on forest insects at the Nauhi Nursery and vicinity on Hawaii. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, pp. 179-190. (By O. H. Swezey and F. X. Williams.)
119. Insects from the summit of Mauna Kea. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, pp. 191-192. (By O. H. Swezey and F. X. Williams.)
120. Notes on a small collection of Philippine weevils that feed in the fleshy receptacles or "fruits" of wild figs. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, pp. 193-195.
121. *Exallonyx philonthiphagus*, a new proctotrypid wasp in Hawaii, and its host. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 1, pp. 205-209, pl. 14.

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124. (Notes and Exhibition of Local Material.) *Cosmophila vulpicolor* Meyr. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 222.
125. (Notes and Exhibition of Local Material.) *Epitritus wheeleri* Donisthorpe. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 222.
126. (Notes and Exhibition of Local Material.) *Anagyrus saccharicola* Timb. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 223.
127. (Notes and Exhibition of Local Material.) *Melanoxanthus melanocephalus* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 223.
128. (Notes and Exhibition of Local Material.) *Stenomicroa*, apparently *angustata* Coq. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 223.
129. (Notes and Exhibitions.) *Strumigenys* sp. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, pp. 230-231.
130. (Notes and Exhibitions.) *Anagyrus saccharicola* Timb. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 231.
131. (Local Notes and Exhibits.) *Hermetia illucens* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 232.
132. (Local Notes and Exhibits.) *Phygadeuon* sp. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 233.
133. (Notes and Exhibitions.) *Trigoniulus lumbricinus* (Gerst.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 235.
134. (Notes and Exhibitions.) *Chloridea obsoleta* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 237.
135. (Local Exhibits of Material.) *Chalybion caeruleum* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, p. 239.
136. Preface [to: New Dolichopodidae from the Hawaiian Islands (Diptera).] Proceedings of the Hawaiian Entomological Society, vol. 8, no. 2, pp. 307-309.

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137. (Notes and Exhibitions.) *Tenodera angustipennis* Sauss. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 368.
138. (Notes and Exhibitions.) [Handbook "What Butterfly is That."] Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 368.

139. (Notes and Exhibitions.) *Promylaea pyropa* Meyrick. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, pp. 370-371.
140. (Notes and Exhibitions.) *Hydrovatus confertus* Sharp. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 373.
141. (Notes and Exhibitions.) The enemies of *Tanytarsus* (Diptera-Chironomidae). Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, pp. 376-377.
142. (Notes and Exhibition of Local Material.) *Mesovelvia mulsanti* White. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, pp. 378-379.
143. (Notes and Exhibition of Local Material.) *Anagrus* sp., damselfly egg-parasite. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 379.
144. (Notes and Exhibitions.) *Coleotichus blackburniae* White. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, pp. 387-388.
145. (Notes and Exhibitions.) *Hister bimaculatus* L. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 390.
146. (Notes and Exhibitions.) Molokai insect notes. Proceedings of the Hawaiian Entomological Society, vol. 8, no. 3, p. 393.

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148. (Exhibitions and Discussion of Local Material.) [Nuptial flight of *Phedole megacephala* (Fabr.)] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 1, p. 3.
149. (Exhibitions and Discussion of Local Material.) *Omiodes musicola* Swezey. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 1, p. 4.
150. (Exhibitions and Discussion of Local Material.) *Isodontia* wasp (Sphecidae). Proceedings of the Hawaiian Entomological Society, vol. 9, no. 1, p. 4.
151. (Notes and Exhibitions.) Mimicry. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 1, p. 38.

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152. Notes on some larrid wasps from the British Solomon Islands Protectorate, with the description of one new species. Annals and Magazine of Natural History, ser. 10, vol. 18, no. 103, pp. 124-130, text figs. 1-6.
153. Notes on two oxybelid wasps in San Francisco, California. The Pan-Pacific Entomologist, vol. 12, no. 1, pp. 1-6, text figs. 1 & 2.
154. Two water beetles that lay their eggs in the frothy egg masses of a frog or tree toad. The Pan-Pacific Entomologist, vol. 12, no. 1, pp. 6-7.
155. (Notes and Exhibitions.) New fly records. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 111-112.
156. (Notes and Exhibitions.) Notes on Guatemala. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 113-114.
157. (Notes and Exhibitions.) *Rhyacognus* (sic!) *koebeli* Perkins. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, p. 127.
158. (Notes and Exhibitions.) Odonata. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 131-132.
159. (Notes and Exhibitions.) Insect observations on Lanihuli. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 135-136.
160. (Notes and Exhibitions.) Koa seed tortricid in Macadamia nuts. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 142-143.

161. (Notes and Exhibitions.) *Megalagrion oahuense* (Blackburn). Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, p. 145.
162. (Notes and Exhibitions.) Marine midge. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 148-149.
163. Biological studies in Hawaiian water-loving insects, Part I, Coleoptera or beetles; Part II, Odonata or dragonflies. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 2, pp. 235-349, pls. 2-19 (with 128 figs.), text figs. 1-10.

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164. Notes on the biology of *Gynacantha nervosa* Rambur (Aeschninae), a crepuscular dragonfly in Guatemala. The Pan-Pacific Entomologist, vol. 13, nos. 1 & 2, pp. 1-8, text figs. 1-6.
165. A note on gyrinid beetles from Escuintla, Guatemala. The Pan-Pacific Entomologist, vol. 13, no. 3, pp. 129-130.
166. (Exhibition and Discussion of Local Material.) *Mesovelvia mulsanti* White. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 354.
167. (Exhibition and Discussion of Local Material.) *Clerio*, probably *calida* (Butler). Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 354.
168. (Exhibition and Discussion of Local Material.) *Culex quinquefasciatus* Say. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 354.
169. (Exhibition and Discussion of Local Material.) *Charadromyia torrenticola* Terry. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 354.
170. (Exhibition and Discussion of Local Material.) *Clunio pacificus* Edwards. Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, pp. 354-355.
171. (Exhibitions and Discussions of Local Material.) [*Hydrellia williamsi* Cresson.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 359.
172. (Exhibition and Discussion of Local Material.) [Unrecorded species of sarcophagid fly in Honolulu.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 362.
173. (Exhibitions and Discussions of Local Material.) [Insect notes.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 366.
174. (Exhibitions and Discussions of Local Material.) [Insect notes.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 368.
175. (Exhibitions and Discussions of Local Material.) [Picture-winged drosophilid flies.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 373.
176. (Exhibitions and Discussions of Local Material.) [*Helicobia helcis* Towns.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 375.
177. (Exhibitions and Discussions of Local Material.) [Insect notes.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 375.
178. (Exhibition and Discussion of Local Material.) [Insect notes from Palikea, Waianae Mountains.] Proceedings of the Hawaiian Entomological Society, vol. 9, no. 3, p. 377.

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179. Some insects and other animal pests in Hawaii not under satisfactory biological control. The Hawaiian Planters' Record, vol. 42, no. 3, pp. 211-230. (By C. E. Pemberton and F. X. Williams.)
180. (Notes and Exhibitions.) *Enallagma civile* (Hagen). Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 2.
181. (Notes and Exhibitions.) [*Neoclytarlus*, new species.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 4.

182. (Notes and Exhibitions.) [Ephydridae.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 6.
183. (Notes and Exhibitions.) [Insect notes.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 9.
184. (Notes and Exhibitions.) [Solitary wasps from California and their prey.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 17.
185. (Notes and Exhibitions.) [Nests of leaf cutter bee from Mapulehu, Molokai.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 21.
186. (Notes and Exhibitions.) [*Heccamede persimilis* Hend.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, p. 24.
187. Biological studies in Hawaiian water-loving insects, Part III, Diptera or flies, A, Ephydridae and Anthomyiidae. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, pp. 85-119, pls. 1-9 (with 69 figs.), text fig. 1.
188. *Campsicnemus fumipennis* Parent (Diptera, Dolichopodidae). Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, pp. 120-126, pl. 10 (with 6 figs.).
189. *Asyndetus carcinophilus* Parent (Diptera, Dolichopodidae). Proceedings of the Hawaiian Entomological Society, vol. 10, no. 1, pp. 126-129, pl. 11 (with 9 figs.).

1939

190. (Notes and Exhibitions.) *Polistes* wasps. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 2, p. 177.
191. (Notes and Exhibitions.) *Chersodromia hawaiiensis*. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 2, p. 182.
192. (Notes and Exhibitions.) Odonata at Kawaihapai. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 2, pp. 189-190.
193. (Notes and Exhibitions.) *Eupristina verticillata* Watertst. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 2, p. 195.
194. Biological studies in Hawaiian water-loving insects, Part III, Diptera or flies. B. Asteiidae, Syrphidae and Dolichopodidae. Proceedings of the Hawaiian Entomological Society, vol. 10, no. 2, pp. 281-315, pls. 14-21 (with 57 figs.), text figs. 1-5.

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195. (Notes and Exhibitions.) [*Culex* found near summit of Mt. Olympus.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 3, p. 355.
196. (Notes and Exhibitions.) *Astata bella* Cresson (1882) (Hymenoptera, Sphegoidea, Astatinae). Proceedings of the Hawaiian Entomological Society, vol. 10, no. 3, p. 364.
197. (Notes and Exhibitions.) [*Tachysphex fusus* Fox.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 3, p. 367.
198. (Notes and Exhibitions.) [*Lithurgus scabrosus* Sm.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 3, p. 370.
199. (Notes and Exhibitions.) [*Leiolepisma hawaiiensis* Loverage.] Proceedings of the Hawaiian Entomological Society, vol. 10, no. 3, p. 370.

1941

200. (Notes and Exhibitions.) [*Mystrocnemis embiadarum* Kieffer.] Proceedings of the Hawaiian Entomological Society, vol. 11, no. 1, p. 6.
201. (Notes and Exhibitions.) [*Chrysotus pallidipalpus* V. D.] Proceedings of the Hawaiian Entomological Society, vol. 11, no. 1, p. 9.
202. An apparently undescribed *Tachysphex* (Hymenoptera, Larridae) from Trinidad, B. W. I. Proceedings of the Royal Entomological Society of London, ser. B, Taxonomy, vol. 10, no. 10, pp. 197-199, text figs. 1-10.

1942

203. Odonata. Dragonflies of Guam. [IV: Insects of Guam—I.] Bernice P. Bishop Museum Bulletin, no. 172, pp. 3-6. (By O. H. Swezey and F. X. Williams.)
204. The New Caledonian cockroach wasp (*Ampulex compressa*) in Hawaii. The Hawaiian Planters' Record, vol. 46, no. 2, pp. 43-48, text figs. 1-6.
205. (Notes and Exhibitions.) *Ampulex compressa* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 11, no. 2, p. 134.
206. Biographical sketch. Edward Macfarlane Ehrhorn (1862-1941). Proceedings of the Hawaiian Entomological Society, vol. 11, no. 2, pp. 135-137, 1 text fig. (portrait). (By O. H. Swezey, F. X. Williams, and D. T. Fullaway.)
207. (Notes and Exhibitions.) *Ampulex compressa* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 11, no. 2, pp. 145-146.
208. (Notes and Exhibitions.) *Tiphia segregata* Crawford. Proceedings of the Hawaiian Entomological Society, vol. 11, no. 2, p. 146.
209. *Ampulex compressa* (Fabr.), a cockroach-hunting wasp introduced from New Caledonia into Hawaii. Proceedings of the Hawaiian Entomological Society, vol. 11, no. 2, pp. 221-233, pls. 5-7 (with 20 figs.).

1943

210. Mosquitoes and some other noxious flies that occur in New Caledonia. The Hawaiian Planters' Record, vol. 47, no. 4, pp. 205-222, text figs. 1-15.
211. (Notes and Exhibitions.) *Listroderes obliquus* Klug. Proceedings of the Hawaiian Entomological Society, vol. 11, no. 3, p. 261.
212. Biological studies in Hawaiian water-loving insects—Part III Diptera or flies—C, Tipulidae and Psychodidae. Proceedings of the Hawaiian Entomological Society, vol. 11, no. 3, pp. 313-338, pls. 8-13 (with 42 figs.), text figs. 1-8.

1944

213. A survey of insect pests of New Caledonia. The Hawaiian Planters' Record, vol. 48, no. 2, pp. 93-124, text figs. 1-37.
214. (Notes and Exhibitions.) Mongoose capturing a monarch butterfly. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 1, p. 3.
215. (Notes and Exhibitions.) *Graptostethus nigriceps* Stål. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 1, pp. 10-11.
216. (Notes and Exhibitions.) *Bufo marinus* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 1, p. 16.
217. Biological studies in Hawaiian water-loving insects, Part III, Diptera or flies, D. Culicidae, Chironomidae and Ceratopogonidae. (Part IV, Lepidoptera or moths and butterflies; Part V, Hemiptera or bugs; and Addenda.) Proceedings of the Hawaiian Entomological Society, vol. 12, no. 1, pp. 149-197, pls. 3-11 (with 73 figs.), text figs. 1-16.

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218. (Notes and Exhibitions.) *Herse cingulata* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, p. 214.
219. (Notes and Exhibitions.) *Ichnura posita* (Hagen). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, pp. 221-222.
220. (Notes and Exhibitions.) *Chelonus blackburni* Cam. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, p. 222.
221. (Notes and Exhibitions.) *Micromyzus formosanus* (Takahashi). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, p. 231.

222. (Notes and Exhibitions.) *Achaea janata* (Linn.). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, p. 233.
223. The aculate wasps of New Caledonia, with natural history notes. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 2, pp. 407-452, pls. 18-27, text figs. 1-18.

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224. Mike the Mynah. Nature Notes on the Common Mynah Bird in Honolulu, pages i-v, 1-139, illustrated. Honolulu Star-Bulletin, Ltd., Honolulu, Hawaii. (By Louisa Clark Williams and F. X. Williams.)
225. (Notes and Exhibitions.) *Solierella rokwei* (Bridwell). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 468.
226. (Notes and Exhibitions.) *Polydesma umbricola* Boisduval. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 479.
227. (Notes and Exhibitions.) *Cryptorhynchus mangiferae* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 479.
228. (Notes and Exhibitions.) *Metioche* sp. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 480.
229. (Notes and Exhibitions.) *Polemistus luzonensis* Rohwer. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 480.
230. (Notes and Exhibitions.) *Rhipidius* sp. in Hawaii. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 485.
231. (Notes and Exhibitions.) *Strumigenys* (*Cephaloxys*) *membranifera* Emery var. *williamsi* Wheeler. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 490.
232. (Notes and Exhibitions.) A new geometrid moth. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 490.
233. Lehr Artiman Whitney 1890-1945. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, pp. 492a-492b. (By D. T. Fullaway and F. X. Williams.)
234. *Psychoda pseudalternata* n. sp. (Diptera: Psychodidae). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, p. 637.
235. *Stigmatomma* (*Fulakora*) *zwaluwenburgi*, a new species of ponerine ant from Hawaii. Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, pp. 639-640, text fig. 1.
236. Two new species of Astatinae, with notes on the habits of the group (Hymenoptera: Sphecidae). Proceedings of the Hawaiian Entomological Society, vol. 12, no. 3, pp. 641-650, pls. 31-33 (with 16 figs.), text fig. 1.

1947

237. Aculeate wasps of Fiji. Bernice P. Bishop Museum Occasional Papers, vol. 18, no. 21, pp. 317-336, text figs. 1-8.
238. (Notes and Exhibitions.) *Anacamptodes fragilaria* (Grossbeck). Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 2.
239. (Notes and Exhibitions.) *Volucella* sp. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 4.
240. (Notes and Exhibitions.) Mexican beetles intercepted. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 5.
241. (Notes and Exhibitions.) *Volucella* sp. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 6.
242. (Notes and Exhibitions.) *Enallagma* sp. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 10.

243. (Notes and Exhibitions.) *Protoparce quinquemaculata blackburni* (Butler). Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 10.
244. (Notes and Exhibitions.) *Polydesma umbricola* Boisduval. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 14.
245. (Notes and Exhibitions.) *Graptostethus servus* (Fabr.). Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, pp. 28-29.
246. (Notes and Exhibitions.) *Draaculacephala* sp. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 29.
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248. (Notes and Exhibitions.) *Metioche* and *Trigonidomorpha*. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 1, p. 29.

1948

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250. (Notes and Exhibitions.) *Hippodamia 5-signata punctulata* LeConte. Proceedings of the Hawaiian Entomological Society, vol. 13, no. 2, p. 203.

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1954

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1955

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1956

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265. A new species of *Solierella* from southern California (Hymenoptera, Sphecidae). *Proceedings of the Entomological Society of Washington*, vol. 61, no. 2, pp. 74-76, text figs. 1-5.

1960

266. The wasps of the genus *Plenoculus* (Hymenoptera: Sphecidae, Larrinae). *Proceedings of the California Academy of Sciences*, 4th ser., vol. 31, no. 1, pp. 1-49, text figs. 1-90.
267. Three apparently rare sphecoid wasps from southern California, including a new subgenus and species of *Dolichurus*. *The Wasmann Journal of Biology* (1959), vol. 17, no. 2, pp. 299-306, text figs. 1-5.

1962

268. A new species of wasp of the genus *Dolichurus* from southern Mexico (Hymenoptera: Ampulicidae). *Proceedings of the Entomological Society of Washington* (1961), vol. 63, no. 4, pp. 290-293, text figs. 1-3.
269. The female of *Solierella mirifica* Pate (Hymenoptera: Sphecidae). *Proceedings of the Entomological Society of Washington*, vol. 64, no. 3, pp. 185-186.

1963

270. The male of *Dolichurus* (*Paradolichurus*) *californicus* Williams (Hymenoptera: Ampulicidae). *The Wasmann Journal of Biology* (1962), vol. 20, no. 2, pp. 297-298, text fig. 1.

1966

271. A spider-hunting wasp found nesting in hollow plant stems (Hymenoptera: Pompilidae, Pepsinae). *The Wasmann Journal of Biology*, vol. 24, no. 1, pp. 33-47.

UNTITLED NOTES FROM THE MINUTES OF THE MEETINGS OF
THE PACIFIC COAST ENTOMOLOGICAL SOCIETY

272. 1904 [Trip to Echo Lake, Shasta County, California.] *Entomological News*, vol. 15, no. 6, p. 224. Minutes of the eleventh meeting held on February 20, 1904.

273. [1904] [Remarks on a trip to Echo Lake, Shasta County, California.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 15. Minutes of the eleventh meeting held on February 20, 1904.
274. 1904 [Collecting trip to Santa Cruz County.] Entomological News, vol. 15, no. 10, p. 348. Minutes of the thirteenth meeting held on August 20, 1904.
275. [1904] [Collecting trip to Santa Cruz County.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 21. Minutes of the thirteenth meeting held on August 20, 1904.
276. [1904] [Lepidoptera rearings.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 27. Minutes of the fourteenth meeting held on November 26, 1904.
277. 1905 [Lepidoptera notes.] Entomological News, vol. 16, no. 3, p. 96. Minutes of the fourteenth meeting held on November 26, 1904.
278. [1905] [Variations in Lepidoptera.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 29. Minutes of the fifteenth meeting held on February 25, 1905.
279. 1906 [Variations in Lepidoptera.] Entomological News, vol. 17, no. 3, p. 105. Minutes of the fifteenth meeting held on February 25, 1905.
280. 1907 [Account of work on the Galápagos Islands.] Entomological News, vol. 18, no. 6, pp. 260-261. Minutes of the twenty-third meeting held on February 23, 1907.
281. [1907] [Entomological experiences in the Galápagos Islands.] Proceedings of the Pacific Coast Entomological Society, vol. 1, pp. 53-54. Minutes of the twenty-third meeting held on February 23, 1907.
282. [1908] [Lepidoptera notes.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 63. Minutes of the twenty-ninth meeting held on August 22, 1908.
283. 1909 [Lepidoptera notes.] Entomological News, vol. 20, no. 7, p. 331. Minutes of the twenty-ninth meeting held on August 22, 1908.
284. 1910 [Meloid larva in carpenter bee's nest.] Entomological News, vol. 21, no. 9, p. 433. Minutes of the thirty-fifth meeting held on February 19, 1910.
285. [1910] [Meloid larva in carpenter bees' nest.] Proceedings of the Pacific Coast Entomological Society, vol. 1, p. 74. Minutes of the thirty-fifth meeting held on February 19, 1910.
286. [1917] [Letter from the College of Agriculture, Los Baños, Luzon, Philippine Islands.] Proceedings of the Pacific Coast Entomological Society, vol. 1, 3 unnumbered pages. Minutes of the sixty-third meeting held on March 17, 1917.

Section II. LIST OF NEW TAXA

Order LEPIDOPTERA

Family Hesperiidæ

Eudamus galapagensis Williams, 1911, Proc. Calif. Acad. Sci., 4th ser., vol. 1, pp. 303-305, fig. 6 on pl. 20; Holotype male. *Type locality*: Galápagos Islands: Chatham Island, 700 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 3209.

Family Noctuidæ

Melicleptria fimbria Williams, 1905, Ent. News, vol. 16, no. 7, pp. 237-238; Five syntypes, no type designated. *Type locality*: U.S.A.: California, Contra Costa County, Mt. Diablo, 3849 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 4371.

Family **Eriocraniidae**

Eriocrania cyanosparsella Williams, 1908, Ent. News, vol. 19, no. 1, pp. 14-15, pl. 2; Holotype male. *Type locality*: U.S.A.: California, Marin County, base of Mt. Tamalpais. *Type depository*: California Academy of Sciences, San Francisco, type no. 3219.

Order DIPTERA

Family **Psychodidae**

Psychoda pseudalternata Williams, 1946, Hawaii. Ent. Soc. Proc., vol. 12, no. 3, p. 637; "Lectotype" male. *Type locality*: Australia: Australian Capital Territory, Canberra. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 1740.

Family **Cecidomyiidae**

Cecidomyia resinicoloides Williams, 1909, Ent. News, vol. 20, no. 1, pp. 2-3, pl. 1; Holotype not designated. *Type locality*: U.S.A.: California, Santa Clara County, Stanford University. *Type depository*: Two specimens, a male and female, in the Felt Collection, on indefinite loan to the United States Department of Agriculture, c/o United States National Museum, Washington, D. C., are labeled "*Cecidomyia resinicoloides*, Stanford, R. W. Doane, April 1908" and may be part of the type series.

Family **Ephydriidae**

Scatella oahuense Williams, 1938, Hawaii. Ent. Soc. Proc., vol. 10, no. 1, p. 107, figs. 24 on pl. 4; 33 on pl. 5; 36 and 41B on pl. 6; Holotype female. *Type locality*: U.S.A.: Hawaiian Islands, Oahu, Honolulu, Tantalus, Hering Valley. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 4245.

Family **Muscidae**

Lispocephala kaalae Williams, 1938, Hawaii. Ent. Soc. Proc., vol. 10, no. 1, pp. 118-119, text fig. 1; Holotype female. *Type locality*: U.S.A.: Hawaiian Islands, Oahu, Waianae Mountains, Mount Kaala, 3600 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 4243.

Order HYMENOPTERA

Family **Proctotrupidae**

Exallonyx philonthiphagus Williams, 1932, Hawaii. Ent. Soc. Proc., vol. 8, no. 1, p. 205, pl. 14; Holotype female. *Type locality*: U.S.A.: Hawaiian Islands, Hawaii, Nauhi, 5250 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5722.

Family **Tiphidae**

Eirone neocaledonica Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, p. 418, pl. 19; Holotype male. *Type locality*: New Caledonia: Thi River valley, near St. Louis. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5862.

Methoca debilis Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 41-42, text figs. 5 & 11; Holotype male. *Type locality*: Philippine Islands: Luzon, Los Baños, College of Agriculture. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5855.

Methoca fimbricornis Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 38-41, text figs. 9 & 10; Holotype male. *Type locality*: Philippine Islands: Luzon, Los Baños, College of Agriculture. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5856.

- Methoca formosana* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 37-38, text fig. 8; Holotype female. *Type locality*: Formosa: Taihoku. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5858.
- Methoca fuscipennis* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, p. 45; Holotype male. *Type locality*: Philippine Islands: Luzon, Los Baños, Makiling forest. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5857.
- Methoca monticola* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 43-45, text figs. 2 & 13; Holotype female. *Type locality*: Philippine Islands: Luzon, Baguio, 5000 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5859A.
- Methoca punctata* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 42-43, text figs. 3 & 12; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5860.
- Methoca striatella* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 34-37, text figs. 4, 6 & 7; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5861.
- Pterombus* [sic!] [*Pterombrus*] *cicindelucidus* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 150-151, figs. 205, 207 & 210 on pl. 25; Holotype female. *Type locality*: Brazil: Estado do Rio de Janeiro, Rezende. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5854.

Family Mutillidae

- Photopsis galapagensis* Williams, 1926, Proc. Calif. Acad. Sci., 4th ser., vol. 2, part 2, no. 18, pp. 350-351; Holotype male. *Type locality*: Galápagos Islands: South Seymour Island. *Type depository*: California Academy of Sciences, San Francisco, type no. 1870.

Family Formicidae

- Stigmatomma (Fulakora) zwaluwenburgi* Williams, 1946, Hawaii. Ent. Soc. Proc., vol. 12, no. 3, pp. 639-640, text fig. 1; Holotype worker. *Type locality*: U.S.A.: Hawaiian Islands, Oahu, Honolulu, Experiment Station, Hawaiian Sugar Planters' Association. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5865.

Family Vespidae

- Ancistrocerus domesticus* Williams, 1928, Philippine Jour. Sci., vol. 35, no. 1, pp. 99-100, fig. 6 on pl. 6; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5866.
- Eumenes makilingi* Williams, 1928, Philippine Jour. Sci., vol. 35, no. 1, pp. 97-98, figs. 2 & 3 on pl. 2; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5867.
- Odynerus (Pachodynerus) galapagensis* Williams, 1926, Proc. Calif. Acad. Sci., 4th ser. vol. 2, part 2, no. 18, pp. 353-354; Holotype female. *Type locality*: Galápagos Islands: Chatham Island, Wreck Bay. *Type depository*: California Academy of Sciences, San Francisco, type no. 1871.
- Odynerus longitegulae* Williams, 1928, Philippine Jour. Sci., vol. 35, no. 1, pp. 98-99, figs. 2 & 4 on pl. 6; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5871.
- Odynerus vespoidea* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 51-53, text fig. 81; Holotype female. *Type locality*: Philippine Islands:

Luzon, Los Baños, lower portion of the Makiling forest. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5875.

Stenogaster timidus Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 170-171, fig. 228 on pl. 33; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, Mount Makiling, Molawin Falls. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5876.

Family Pompilidae

Dendropompilus Williams, 1947, Bernice P. Bishop Mus. Occas. Papers, vol. 18, no. 21, pp. 328-329. Type of genus: *Dendropompilus vitiensis* Williams. Type by monotypy.

Dendropompilus vitiensis Williams, 1947, Bernice P. Bishop Mus. Occas. Papers, vol. 18, no. 21, pp. 329-330, text figs. 3 a-g & 4; Holotype female. *Type locality*: Fiji: Viti Levu, Nandarivatu. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 1763.

Nesopompilus Williams, 1947, Bernice P. Bishop Mus. Occas. Papers, vol. 18, no. 21, p. 327. Type of genus: *Nesopompilus vitiensis* Williams. Type by monotypy.

Nesopompilus vitiensis Williams, 1947, Bernice P. Bishop Mus. Occas. Papers, vol. 18, no. 21, p. 327, text figs. 3 h-l; Holotype female. *Type locality*: Fiji: Viti Levu, Nandarivatu. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 1762.

Priocnemis araucariae Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, pp. 430-431, figs. F & G on pl. 21; D & D₁ on pl. 22; Holotype female. *Type locality*: New Caledonia: islet adjoining Yate near the southern extremity of the island. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5877.

Priocnemis montrouzieri Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, p. 431, figs. C & C₁ on pl. 21; B & H on pl. 22; text figs. 9 b & d; Holotype female. *Type locality*: New Caledonia: Thi River valley. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5878.

Priocnemis umbrosicola Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, pp. 431-432, figs. B & H on pl. 21; F & G on pl. 22; text fig. 9c; Holotype female. *Type locality*: New Caledonia: Thi River valley. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5879.

Pseudagenia caerulescens Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 45-47, text fig. 14; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5880.

Pseudagenia capella Williams, 1920, Ent. News, vol. 31, no. 3, p. 84. New name for *Pseudagenia caerulescens* Williams, 1919, preoccupied, not *Pseudagenia caerulescens* Dahlbom, 1843.

Pseudagenia macromeroides Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 47-48, text fig. 16; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5881.

Pseudagenia makilingi Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 48-49, text fig. 18; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, lower Makiling forest. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5882.

Family Ampulicidae

Dolichurus (Paradolichurus) californicus Williams, 1960 (1959), Wasmann Jour. Biol., vol. 17, no. 2, pp. 300-303; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Laguna Mountains, Pine Hills Lodge, near Julian, at an altitude of nearly 4000 feet. *Type depository*: California Academy of Sciences, San Francisco, type no. 6832.

- Dolichurus (Paradolichurus) morelensis* Williams, 1962 (1961), Ent. Soc. Wash. Proc., vol. 63, no. 4, pp. 290–293, text figs. 1–3; Holotype female. *Type locality*: Mexico: Morelos, Huajintlan. *Type depository*: United States National Museum, Washington, D.C., type no. 65080.
- Paradolichurus* Williams, 1960 (1959), Wasmann Jour. Biol., vol. 17, no. 2, p. 299. Type of subgenus: *Dolichurus (Paradolichurus) californicus* Williams. By original designation.

Family Sphecidae

- Anacrabro cimiciraptor* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 168–169, fig. 227 on pl. 33; Holotype female. *Type locality*: Brazil: São Paulo, Campinas. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5883.
- Astata immigrans* Williams, 1946, Hawaii. Ent. Soc. Proc., vol. 12, no. 3, pp. 641–642, figs. 1–13 on pls. 31–33; Holotype female. *Type locality*: U.S.A.: Hawaiian Islands, Oahu, Honolulu, Experiment Station, Hawaiian Sugar Planters' Association. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5884.
- Cerceris eustylicida* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 169, fig. 229 on pl. 33; Holotype female. *Type locality*: British Guiana: Berbice County, Blairmont. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5885.
- Crabro makilingi* Williams, 1928, Philippine Jour. Sci., vol. 35, no. 1, pp. 100–101, fig. 8 on pl. 6; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5886.
- Crabro novocaledonicus* Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, pp. 448–449, figs. A & B on pl. 27; Holotype female. *Type locality*: New Caledonia: Hills behind Noumea. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5887.
- Dicranorhina palawanensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 87, figs. 47 on pl. 8; 76 & 82 on pl. 11; 173 on pl. 17; Holotype male. *Type locality*: Philippine Islands: Palawan, Puerta Princesa. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5888.
- Diploplectron diablensis* Williams, 1951 (1950), Wasmann Jour. Biol., vol. 8, no. 3, pp. 363–365, text fig. 1; Holotype male. *Type locality*: U.S.A.: California, Contra Costa County, Mount Diablo, 2000 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 6833.
- Diploplectron reticulatus* Williams, 1946, Hawaii. Ent. Soc. Proc., vol. 12, no. 3, pp. 648–650, figs. 14–16 on pl. 33; Holotype male. *Type locality*: U.S.A.: Arizona, Tucson. *Type depository*: California Academy of Sciences, San Francisco, type no. 6834.
- Harpactus gyponae* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 6, pp. 223–224, fig. 4 on pl. 33; text fig. 1; Holotype female. *Type locality*: U.S.A.: Kansas, Grant County. *Type depository*: University of Kansas, Lawrence, type no. 1004.
- Hyloliris* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 49–59. Type of genus: *Hyloliris mandibularis* Williams. By original designation.
- Hyloliris mandibularis* Williams, 1919, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 14, pp. 50–51, text figs. 19 & 20; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, lower portion of Makiling forest, near College of Agriculture. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5902.
- Larra altamazonica* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 57–58, figs. 32 on pl. 6; 230 on pl. 33; text fig. 5; Holotype female. *Type locality*: Ecuador: eastern Ecuador, Tena, 1850 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5889.
- Larra pacifica* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19,

- p. 55, fig. 29 on pl. 6; Holotype female. *Type locality*: Ecuador: eastern Ecuador, Bucay, 1000 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5890.
- Larra sanguinea* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 67, figs. 41 on pl. 8; 96 on pl. 12; 117 on pl. 14; 128 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños College. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5891.
- Larra scapteriscica* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 58-59, figs. 30 on pl. 6; 237 on pl. 33; text fig. 6; Holotype female. *Type locality*: Brazil: Pará, Belém. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5892.
- Larra transandina* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 56-57, fig. 34 on pl. 6; Holotype female. *Type locality*: Ecuador: eastern Ecuador, Tena. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5893.
- Larropsis ater* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 146-147, text fig. 100; Holotype male. *Type locality*: U.S.A.: Kansas, Wichita County, 3300 feet. *Type depository*: University of Kansas, Lawrence, type no. 945.
- Larropsis minor* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, p. 146; Holotype male. *Type locality*: U.S.A.: Kansas, Seward County. *Type depository*: University of Kansas, Lawrence, type no. 2113.
- Liris corniger* Williams, 1936, Ann. Mag. Nat. Hist., ser. 10, vol. 18, no. 103, pp. 126-128, text figs. 2 & 3; Holotype female. *Type locality*: British Solomon Islands: Supaina, S. Mala. *Type depository*: British Museum (Natural History), London.
- Liris intermedia* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 83, figs. 43 on pl. 8; 177 on pl. 17; Holotype male. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5894.
- Liris mindanaoensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 83-84, figs. 42 on pl. 8; 95 on pl. 11; 166 & 178 on pl. 17; Holotype male. *Type locality*: Philippine Islands: Mindanao, Zamboanga. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5895.
- Liris samoensis* Williams, 1928, Insects of Samoa and other Samoan Terrestrial Arthropoda. Part V. Hymenoptera. Fasc. 1, pp. 36-38, text figs. 10-12; Holotype female. *Type locality*: Samoa: Upolu, Malololelei. *Type depository*: British Museum (Natural History), London.
- Motes larroides* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 69-70, figs. 55 on pl. 9; 88 on pl. 11; 126 on pl. 14; 135 & 136 on pl. 15; 168 & 176 on pl. 17; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5897.
- Nitela austrocaledonica* Williams, 1945, Hawaii. Ent. Soc. Proc., vol. 12, no. 2, pp. 447-448, fig. H on pl. 26; text fig. 13; Holotype female. *Type locality*: New Caledonia: Noumea. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5898.
- Nitela bicornis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 96, figs. 101, 104 & 106 on pl. 12; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5899.
- Nitela luzonensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 97, figs. 103 & 109 on pl. 12; text fig. 12; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5900.

- Nitela rugosa* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 95-96, figs. 102 & 108 on pl. 12; 162 on pl. 16; text fig. 11; Holotype male. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5901.
- Niteliopsis kansensis* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, p. 178; Holotype female. *Type locality*: U.S.A.: Kansas, Norton County. *Type depository*: University of Kansas, Lawrence, type no. 962.
- Notogonidea bakeri* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 74-75, figs. 87 on pl. 11; 143 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Samar. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5903.
- Notogonidea (Cratolarra) flavipennis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 81, figs. 124 on pl. 14; 152 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5904.
- Notogonidea larriformis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 73-74, figs. 149 on pl. 15; 167 on pl. 17; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5905.
- Notogonidea ligulata* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 75, figs. 59 on pl. 9; 86 on pl. 11; 142 on pl. 15; Holotype male. *Type locality*: Philippine Islands: Mindanao, Kolambugan. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5906.
- Notogonidea liriformis* Williams, 1947, Bernice P. Bishop Mus. Occas. Papers, vol. 18, no. 21, pp. 332-333, text figs. 5g & h, 6; Holotype female. *Type locality*: Fiji: Viti Levu, Nandarivatu. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 1764.
- Notogonidea liroides* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 72-73, figs. 67 on pl. 9; 137 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5907.
- Notogonidea lutusator* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 166, figs. 232-234, 236 on pl. 33; Holotype female. *Type locality*: Ecuador: Oriente Provience, Tena, 1850 feet altitude. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5908.
- Notogonidea mindanoensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 79, figs. 66 on pl. 9; 91 on pl. 11; 153 on pl. 15; Holotype male. *Type locality*: Philippine Islands: Mindanao, Lake Lanao. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5909.
- Notogonidea negrosensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 74, figs. 60 on pl. 9; 77 on pl. 11; 140 on pl. 15; Holotype male. *Type locality*: Philippine Islands: Negros, Cuernos Mountains. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5910.
- Notogonidea robusta* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 79-80, figs. 61 on pl. 9; 89 on pl. 11; 127 on pl. 14; 148 on pl. 15; 170 on pl. 17; Holotype female. *Type locality*: Philippine Islands: Luzon, Mount Makiling. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5911.
- Notogonidea robustoides* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 77-78, figs. 90 on pl. 11; 123 on pl. 14; 146 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5912.

- Notogonidea rohweri* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 78-79, figs. 64 on pl. 9; 147 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, Mount Makiling. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5913.
- Notogonidea samocsis* Williams, 1928, Insects of Samoa and other Samoan Terrestrial Arthropoda. Part V. Hymenoptera. Fasc. 1, pp. 34-36, text figs. 2-6, 8 & 9; Holotype female. *Type locality*: Samoa: Tutuila, Afono Trail. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 512.
- Notogonidea silvicola* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 76, figs. 62 on pl. 9; 78 & 84 on pl. 11; 120 on pl. 14; 144 on pl. 15; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5914.
- Pisonopsis clypeata occidentalis* Williams, 1954, Pan-Pacific Ent., vol. 30, no. 4, pp. 242-244, text figs. 1-5, 8, 10, 15, 20, 22, 23, 26 & 29; Holotype female. *Type locality*: U.S.A.: California, Marin County, San Rafael. *Type depository*: California Academy of Sciences, San Francisco, type no. 6835.
- Pisonopsis triangularis californica* Williams, 1954, Pan-Pacific Ent., vol. 30, no. 4, pp. 245-246, text figs. 6, 9, 11, 13, 16-18, 24 & 31; Holotype female. *Type locality*: U.S.A.: California, Lassen County, Summit Lake, 6700 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 6836.
- Plenoculus apicalis* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 175-176, text figs. 20, 43-45, 76, 77, 102 & 103; Holotype female. *Type locality*: U.S.A.: Kansas, Phillips County. *Type depository*: University of Kansas, Lawrence, type no. 959.
- Plenoculus boharti* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 28, 30-31, text figs. 40, 61, 83 & 84; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Campo. *Type depository*: United States National Museum, Washington, D. C., type no. 58464.
- Plenoculus boregensis* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 20-21, text figs. 26-29; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Borego. *Type depository*: California Academy of Sciences, San Francisco, type no. 6838.
- Plenoculus boregensis perniger* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 21-22; Holotype male. *Type locality*: U.S.A.: California, Riverside County, Thousand Palms. *Type depository*: Canadian National Collection, Ottawa, type no. 7347.
- Plenoculus cuneatus* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 12-15, text figs. 10, 17, 18, 24 & 25; Holotype female. *Type locality*: U.S.A.: California, Imperial County, Pinto Wash. *Type depository*: California Academy of Sciences, San Francisco, type no. 6839.
- Plenoculus davisii gracilis* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 42-43, text fig. 54; Holotype female. *Type locality*: U.S.A.: California, Riverside County, 6 miles west of Indio. *Type depository*: California Academy of Sciences, San Francisco, type no. 6841.
- Plenoculus davisii mojaviensis* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 39-40, text figs. 86 & 88; Holotype female. *Type locality*: U.S.A.: California, San Bernardino County, Apple Valley. *Type depository*: Canadian National Collection, Ottawa, type no. 7346.
- Plenoculus davisii transversus* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, p. 40, 42, text figs. 8, 57 & 59; Holotype female. *Type locality*: U.S.A.: California, Tulare County, 3 miles west of Three Rivers. *Type depository*: Citrus Experiment Station, Riverside.

- Plenoculus deserti* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 26-27, text figs. 85 & 87; Holotype male. *Type locality*: U.S.A.: California, San Diego County, Borego. *Type depository*: California Academy of Sciences, San Francisco, type no. 6842.
- Plenoculus hurdi* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 10-11, text fig. 34; Holotype female. *Type locality*: Mexico: Teotihuacan Pyramid. *Type depository*: California Academy of Sciences, San Francisco, type no. 6843.
- Plenoculus mexicanus* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 17-18, text figs. 13 & 23; Holotype female. *Type locality*: Mexico: State of Guerrero, Acapulco. *Type depository*: Cornell University, Ithaca, type no. 4385.
- Plenoculus palmarum* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 22, 24-25, text figs. 9, 36, 37, 71, 73, & 78; Holotype male. *Type locality*: U.S.A.: California, Riverside County, Palm Springs. *Type depository*: Citrus Experiment Station, Riverside.
- Plenoculus sinuatus* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 7-8, text figs. 30, 32 & 35; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Borego. *Type depository*: California Academy of Sciences, San Francisco, type no. 6845.
- Plenoculus stygius* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 31-32, text figs. 5, 62, & 90; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Palm Springs. *Type depository*: Citrus Experiment Station, Riverside.
- Plenoculus timberlakei* Williams, 1960, Proc. Calif. Acad. Sci., 4th ser., vol. 31, no. 1, pp. 11-12, text figs. 2, 11, 19-22, 31, 38, 47, 49, 52 & 77; Holotype female. *Type locality*: U.S.A.: California, Riverside County, 5 miles south of Palm Springs. *Type depository*: Citrus Experiment Station, Riverside.
- Rhinonitela* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 97-98. Type of genus: *Rhinonitela domestica* Williams, new species, by original designation.
- Rhinonitela domestica* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 98, figs. 99 & 100 on pl. 12; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, Mount Makiling, Forestry Station Building. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5926.
- Rhinonitela guiana* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 168, fig. 220 on pl. 29; Holotype female. *Type locality*: British Guiana: Blairmont. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5927.
- Rhopalum domesticum* Williams, 1928, Philippine Jour. Sci., vol. 35, no. 1, pp. 101-102, figs. 5 & 7 on pl. 6; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5916.
- Silaon lagunensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 94-95, figs. 105 & 107 on pl. 12; text fig. 10; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños, College of Agriculture. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5918.
- Solierella abdominalis* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 381-382; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Palm Springs. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella arcuata* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 378-379, figs. 115 & 116 on pl. 18; 138, 140 & 147 on pl. 19; 182 on pl. 21; Holotype female. *Type locality*: U.S.A.: California, San Mateo County, Menlo Park. *Type depository*: California Academy of Sciences, San Francisco, type no. 6168.

- Solierella australis* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 379-380, figs. 101 & 103 on pl. 17; 130 on pl. 18; 137, 139, 149 & 150 on pl. 19; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Riverside. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella bicolor* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 382-383, fig. 132 on pl. 19; text fig. 2; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Riverside. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella boharti* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, p. 366, figs. 19-22 on pl. 12; 38 on pl. 13; Holotype female. *Type locality*: U.S.A.: California, Mono County, Mammoth Lake. *Type depository*: California Academy of Sciences, San Francisco, type no. 6161.
- Solierella boregensis* Williams, 1958, Pan-Pacific Ent., vol. 34, no. 4, pp. 208-210, text fig. 2; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Borego. *Type depository*: California Academy of Sciences, San Francisco, type no. 6847.
- Solierella bridwelli* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 384-385, figs. 122 & 123, on pl. 18; 135, 136, 145 & 153 on pl. 19; Holotype female. *Type locality*: U.S.A.: California, San Bernardino County, Mojave Desert, 10 miles south of Adelanta [sic!] [Adelanto]. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella californica* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 387-388, figs. 167 & 170-172 on pl. 20; 181 on pl. 21; Holotype female. *Type locality*: U.S.A.: California, Los Angeles County, Los Angeles sand dunes. *Type depository*: California Academy of Sciences, San Francisco, type no. 6171.
- Solierella clypeata* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 376-378, text fig. 1; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Riverside. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella corizi* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 372-373, figs. 75-87 on pl. 16; Holotype female. *Type locality*: U.S.A.: California, San Mateo County, Menlo Park. *Type depository*: California Academy of Sciences, San Francisco, type no. 6165.
- Solierella lassenii* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 366-367, figs. 23, 25 & 26 on pl. 13; 69-74 on pl. 15; 174 on pl. 21; Holotype female. *Type locality*: U.S.A.: California, on the slopes of Mt. Lassen, Summit Lake, at about 6700 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 6162.
- Solierella levis* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 383-384, figs. 121 on pl. 18; 142 on pl. 19; 178 on pl. 21; Holotype female. *Type locality*: U.S.A.: California, Alameda County, Emeryville. *Type depository*: California Academy of Sciences, San Francisco, type no. 6170.
- Solierella mandibularis* Williams, 1958, Pan-Pacific Ent., vol. 34, no. 4, pp. 212-213, text figs. 4 & 4A; Holotype female. *Type locality*: U.S.A.: California, San Bernardino County, Cronise Valley. *Type depository*: California Academy of Sciences, San Francisco, type no. 6848.
- Solierella masoni* Williams, 1959, Ent. Soc. Wash. Proc., vol. 61, no. 2, pp. 74-76, text figs. 1-5; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Colorado Desert, Thousand Palms. *Type depository*: Canadian National Collection, Ottawa, type no. 7349.
- Solierella nitens* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, p. 376, fig. 124 on pl. 18; Holotype female. *Type locality*: U.S.A.: California, San Mateo County, Menlo Park. *Type depository*: California Academy of Sciences, San Francisco, type no. 6167.

- Solierella prosopidis* Williams, 1959, Pan-Pacific Ent., vol. 35, no. 2, p. 116. New name for *Solierella mandibularis* Williams, 1958, preoccupied, not *Solierella mandibularis* de Beaumont, 1957.
- Solierella semirugosa* Williams, 1958, Pan-Pacific Ent., vol. 34, no. 4, pp. 210-212, text figs. 3-3D; Holotype female. *Type locality*: U.S.A.: California, San Diego County, Borego. *Type depository*: California Academy of Sciences, San Francisco, type no. 6849.
- Solierella sonorae* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, p. 368, figs. 24, 27, 28 & 39 on pl. 13; Holotype female. *Type locality*: U.S.A.: California, Riverside County, 8 miles south of Indio. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella timberlakei* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 380-381, fig. 119 on pl. 18; Holotype female. *Type locality*: U.S.A.: California, Riverside County, Colorado Desert, 6 miles south of Palm Springs. *Type depository*: Citrus Experiment Station, Riverside.
- Solierella vandykei* Williams, 1950, Proc. Calif. Acad. Sci., 4th ser., vol. 26, no. 11, pp. 371-372, figs. 67 & 68 on pl. 15; Holotype female. *Type locality*: U.S.A.: California, Placer County, Tahoe, 6500 feet altitude. *Type depository*: California Academy of Sciences, San Francisco, type no. 6164.
- Solierella weberi* Williams, 1955, Pan-Pacific Ent., vol. 31, no. 2, pp. 85-86, text fig. 1; Holotype male. *Type locality*: U.S.A.: California, Riverside County, Riverside. *Type depository*: Unknown.
- Tachysphex blatticidus* Williams, 1941, Roy. Ent. Soc. London, Proc. Ser. B: Taxonomy, vol. 10, no. 10, pp. 197-199, text figs. 1-10; Holotype female. *Type locality*: Trinidad: St. Augustine. *Type depository*: British Museum (Natural History), London.
- Tachysphex consimiloides* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 164-165; Holotype female. *Type locality*: U.S.A.: Kansas, Barton County. *Type depository*: University of Kansas, Lawrence, type no. 949.
- Tachysphex crenuloides* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 168-169, text figs. 68 & 105; Holotype female. *Type locality*: U.S.A.: Kansas, Morton County. *Type depository*: University of Kansas, Lawrence, type no. 951.
- Tachysphex dentatus* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, p. 169, text figs. 67 & 106; Holotype female. *Type locality*: U.S.A.: Kansas, Morton County. *Type depository*: University of Kansas, Lawrence, type no. 952.
- Tachysphex glubrior* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 170-171, text fig. 65; Holotype female. *Type locality*: U.S.A.: Kansas, Phillips County. *Type depository*: University of Kansas, Lawrence, type no. 953.
- Tachysphex mindorensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 92-93, figs. 51 on pl. 8; 157 on pl. 16; Holotype male. *Type locality*: Philippine Islands: Mindoro, San Jose. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5919.
- Tachysphex nigrocaudatus* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, p. 167; Holotype female. *Type locality*: U.S.A.: Kansas, Rush County. *Type depository*: University of Kansas, Lawrence, type no. 954.
- Tachysphex nitelopteroides* Williams, 1958, Pan-Pacific Ent., vol. 34, no. 4, pp. 207-208, text fig. 1; Holotype female. *Type locality*: Mexico: Baja California, La Paz. *Type depository*: California Academy of Sciences, San Francisco, type no. 6850.
- Tachysphex plenoculiformis* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 167-168; Holotype female. *Type locality*: U.S.A.: Kansas, Ness County. *Type depository*: University of Kansas, Lawrence, type no. 955.

- Tachysphex robustior* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, p. 164; Holotype male. *Type locality*: U.S.A.: Kansas, Grant County. *Type depository*: University of Kansas, Lawrence, type no. 956.
- Tachysphex sculptiloides* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 166-167; Holotype female. *Type locality*: U.S.A.: Kansas, Barton County. *Type depository*: University of Kansas, Lawrence, type no. 957.
- Tachysphex sepulcralis* Williams, 1914 (1913), Kans. Univ. Sci. Bul., vol. 8, no. 4, pp. 169-170; Holotype female. *Type locality*: U.S.A.: Kansas, Phillips County. *Type depository*: University of Kansas, Lawrence, type no. 958.
- Tachysphex vitivensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 166, 168, fig. 231 on pl. 33; Holotype female. *Type locality*: Fiji Islands: Viti Levu, Suva Bay. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 823.
- Tachytes bakeri* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 90-91, figs. 72 & 73 on pl. 10; 113 on pl. 13; 160 on pl. 16; Holotype female. *Type locality*: Philippine Islands: Mindanao, Surigao. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5920.
- Tachytes magellanica* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 91, figs. 54 on pl. 8; 69 on pl. 10; 112 on pl. 13; 156 on pl. 16; Holotype female. *Type locality*: Philippine Islands: Island of Sibuyan. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5921.
- Tachytes silvicola* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 89-90, figs. 52 on pl. 8; 116 on pl. 13; Holotype female. *Type locality*: Philippine Islands: Luzon, Los Baños. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5922.
- Tachytes silvicoloides* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 90, figs. 74 on pl. 10; 115 on pl. 13; Holotype female. *Type locality*: Philippine Islands: Island of Samar. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5923.
- Tachytes suluensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, p. 88, figs. 110 on pl. 13; 159 on pl. 16; Holotype female. *Type locality*: Philippine Islands: Mindanao, Dapitan. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5924.
- Tachytes surigensis* Williams, 1928, Hawaii. Sugar Planters' Assoc. Expt. Sta., Ent. Bul., vol. 19, pp. 88-89, figs. 70 & 71 on pl. 10; 114 on pl. 13; 154 on pl. 16; Holotype female. *Type locality*: Philippine Islands: Mindanao, Surigao. *Type depository*: Bernice P. Bishop Museum, Honolulu, type no. 5925.
- Xenosphex* Williams, 1954, Wasmann Jour. Biol., vol. 12, no. 1, pp. 97-99. Type species: *Xenosphex xerophila* Williams. Type by monotypy.
- Xenosphex timberlakei* Williams, 1956 (1955), Wasmann Jour. Biol., vol. 13, no. 2, p. 313; Holotype female. *Type locality*: U.S.A.: California, Riverside County, 18 miles north of Blythe. *Type depository*: Citrus Experiment Station, Riverside.
- Xenosphex xerophila* Williams, 1954, Wasmann Jour. Biol., vol. 12, no. 1, pp. 99-103, text figs. 1-8; Holotype male. *Type locality*: U.S.A.: California, Riverside County, near Cathedral City. *Type depository*: Citrus Experiment Station, Riverside.





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