

PROCEEDINGS
OF THE
CALIFORNIA ACADEMY OF SCIENCES

Vol. 49, No. 4, pp. 127-149.

April 9, 1996

TYPES OF MECOPTERA, MEGALOPTERA, RAPHIIDOPTERA,
AND NEUROPTERA (INSECTA) IN THE COLLECTION OF
THE CALIFORNIA ACADEMY OF SCIENCES

By

Norman D. Penny and Vincent F. Lee

*Department of Entomology, California Academy of Sciences,
Golden Gate Park, San Francisco, California 94118*

*Marine Biological Laboratory/
Woods Hole Oceanographic Institution
Library*

APR 22 1996

ABSTRACT: Complete label information is presented for all primary type specimens, allotypes, and neallotypes of Mecoptera, Megaloptera, Neuroptera, and Raphidioptera housed in the California Academy of Sciences. Numbers of non-allotypic paratypes are given with the names of states or provinces of the North American species, or countries of other nations.

Received March 28, 1995. Accepted August 23, 1995.

INTRODUCTION

The California Academy of Sciences contains one of the major entomological type collections in the world. Although a rather young collection, it has been growing very actively since its 1915 reopening in Golden Gate Park after San Francisco's great earthquake and fire of 1906. Since that time it has become the largest collection of type specimens in the western continental North America, at present including more than 14,000 primary type specimens. In order to inform the scientific community as to what types exist in this collection, a series of catalogs has been published. Previous parts of this series include type catalogs of the Orthoptera (Rentz, 1965), Thysanoptera (Arnaud and Lee, 1973), and Diptera (Arnaud, 1979).

There are no primary types of Mecoptera and Neuropterida in this collection predating the 1906 earthquake. In fact, the first neuropteroid type in the collection was described in 1936. However, through the efforts of several contemporary neuropterists (*sensu lato*), the

California Academy of Sciences now contains one of the ten largest collections of neuropteroid types in the world. Currently there are 9 holotypes, 4 allotypes, and 64 paratypes of Megaloptera; 7 holotypes, 3 allotypes, and 89 paratypes of Raphidioptera; 77 holotypes, 2 lectotypes, 10 allotypes, 1 neallotype, and 190 paratypes of Neuroptera; and 12 holotypes, 3 allotypes, and 33 paratypes of Mecoptera in the collection. Among those researchers actively contributing to the neuropteroid and Mecoptera type collection during the past 30 years are: Phillip A. Adams (California), Horst and Ulrike Aspöck (Austria), George W. Byers (Kansas), Elvin D. Evans (Michigan), Jason G. H. Londt (South Africa), Martin Meinander (Finland), Victor J. Monserrat (Spain), Waro Nakahara (Japan), John D. Oswald (Washington, D. C.), Norman D. Penny (California), Lionel A. Stange (Florida), and Catherine A. Tauber (New York).

Primary types (holotypes, lectotypes, neotypes, and syntypes) are defined as those type specimens which are the name-bearing speci-

mens of the species and are used to definitely relate the name of the species to an individual with certain recognizable traits. Secondary types (allotypes, neallotypes, paratypes, etc.) are those type specimens used to delimit the phenotypic variation within a species. Although of marginal value in determining the true identity of a species, these secondary types are useful to some researchers and because we wish to maintain consistency in content within the series, these secondary types have been included. We have listed the number of paratypes, as well as country of origin, and in North America the state or province of origin. Where a paratype locality is found in a country deemed to have complex faunal relationships, such as Ecuador (Galapagos Islands) and Indonesia, we have provided more precise information. There is some confusion about the definition of neallotypes, as opposed to neoallotypes. Neallotype is herein defined as an allotype which was not part of the original type series, but subsequently designated as allotype. Until adoption of the 1985 edition of the International Code of Zoological Nomenclature (Recommendation 72A), there had been no formally accepted definition of allotype, and some workers preferred to designate allotypes from specimens other than the original paratype series, so the term neallotype was coined to separate these specimens from allotypes designated from the original type series.

Primary type specimens in the CAS collection are deposited through several different arrangements. Types from the University of California, Riverside, and Oregon State University, Corvallis, are entrusted to The Academy through a permanent deposit arrangement. The University of California, Berkeley, currently has an indefinite loan arrangement with the Academy. If not otherwise indicated, the included types are the permanent property of the California Academy of Sciences. All pinned specimens and any associated parts separated from the body have a label reading "California Academy / of Sciences / Type / No. / . . ." Also, all slides have a similar CAS type slide label attached. Where quoted label information contains a male or female symbol, we have indicated this with [MA] and [FE] letter and symbol combination. Further, where quoted label information contains ditto marks, these are in-

dicated by " rather than the quote marks " used to enclose label information.

We have tried to maintain the style of previous type catalogs. The information contained on labels is transcribed as closely as possible to the original print, although not all labels contain neat, linear lines of information, and occasional placement interpretation was needed. Each line is delimited by slash marks, and each label by quotation marks and a semicolon. The journal abbreviations in the text generally conform to those used by BIOSIS, although we prefer a more abbreviated listing for *Psyche* (Camb.). In the Literature Cited section, journal titles have been spelled out fully. The number of paratypes indicated is exclusive of any specimen designated as allotype or neallotype.

MECOPTERA

Bittacidae

Bittacus rossi Londt.

1977, J. Entomol. Soc. South. Afr., vol. 40, no. 1, p. 94.

Holotype (male), CAS Type No. 16648; "B. CONGO: / 5 mi. S. of / Fizi, 1320 m / I-10-1958"; "E. S. Ross & / R. E. Leech / collectors"; "HOLOTYPE / Bittacus / rossi [MA] / LONDT. J. G. H."

Bittacus smithersi Londt.

1972, J. Entomol. Soc. South. Afr., vol. 35, no. 2, pp. 328-329, figs. 31, 32, 49, 62.

Paratypes, 2 (South Africa).

Boreidae

Boreus brevicaudus Byers.

1961, J. Kans. Entomol. Soc., vol. 34, no. 2, p. 74.

Holotype (male), CAS Type No. 9440; "Ore., Lane Co., / 2 mi. S. Eugene, / Spencer Butte area, / east side, Nov. 27, / 1959, David R. Smith"; "moss from / old tree"; "HOLOTYPE / Boreus / brevicaudus / George W. Byers".

Allotype (female); "Ore., Lane Co., / 3 mi. S. Eugene, / Spencer Butte, / Nov. 23, 1959 / J. D. Lattin"; "moss and / leaf litter / 1400"; "ALLOTYPE / Boreus / brevicaudus / George W. Byers".

Remarks: Both specimens are on permanent deposit from Oregon State University. This species is currently placed in the genus *Hesperoboreus* (see Penny, 1977:184).

Boreus elegans Carpenter.

1935, *Psyche*, vol. 42, no. 2, p. 119.

Holotype (male), CAS Type No. 4529; "Vancouver, B. C. / XII-1930"; "H. E. Hinton / Collector"; "Type"; "Boreus elegans / Carp."

Boreus nix Carpenter.

1935, *Psyche*, vol. 42, no. 2, p. 114, fig. 7.

Paratype, 1 (Montana).

Boreus notoperates Cooper.

1972, *Psyche*, vol. 79, no. 4, pp. 270–281, figs. 1–11.

Paratypes, 2 (California).

Remarks: This species is currently placed in the genus *Hesperoboreus* (see Penny, 1977:185).

Boreus pilosus Carpenter.

1935, *Psyche*, vol. 42, no. 2, pp. 114–115, fig. 10.

Paratype, 1 (British Columbia).

Panorpidae

Neopanorpa globulifera Byers.

1983, *Pan-Pac. Entomol.* (1982), vol. 58, no. 2, pp. 92–95, figs. 1–9.

Holotype (male), CAS Type No. 15901; "LAOS Sam Thong / Xieng Khouang Prov / 90 mi NE Vientiane / 12 May 1968 / Gary L. Peters"; "HOLOTYPE / Neopanorpa / globulifera / [MA] / George W. Byers".

Allotype (female)(in alcohol); same data as holotype, except dated "28 July 1968"; with additional label reading "specimen dissected; / watch for loose parts!".

Paratype, 1 (Laos).

Neopanorpa lichuanensis Cheng.

1957, *Mem. Coll. Agric., Natl. Taiwan Univ.*, vol. 5, no. 1, p. 32, figs. 12, 13.

Holotype (female), CAS Type No. 7211; "Suisapa, 1000 M. / Lichuan Distr. / W. Hupeh, China / VIII-21-48"; "Neopanorpa lichuanensis n.sp. / By F.Y. Cheng"; "HOLOTYPE [FE]".

Neopanorpa lungtausana Cheng.

1957, *Mem. Coll. Agric., Natl. Taiwan Univ.*, vol. 5, no. 1, pp. 32–33, figs. 14, 15.

Holotype (female), CAS Type No. 7212; "Kwangtung Prov., S. China / Lung-tau Shan. Alt. 600 M. / near Yiu Vill. above Tso- / kok-wan. VI-6-47 Gressitt"; "Neopanorpa lungtausana n.sp. / By F. Y. Cheng"; "HOLOTYPE [FE]".

Neopanorpa mokansana Cheng.

1957, *Mem. Coll. Agric., Natl. Taiwan Univ.*, vol. 5, no. 1, pp. 30–32, figs. 9–11.

Holotype (male), CAS Type No. 7213; "Mokansan China / Che Kiang Pr. / IX-19-27"; "Mrs. Dora / E. Wright / Collector"; "Neopanorpa mokansana n.sp. / By F. Y. Cheng"; "HOLOTYPE [MA]".

Neopanorpa tuberosa Byers.

1965, *Pac. Insects*, vol. 7, no. 4, p. 737.

Holotype (male), CAS Type No. 8903; "THAILAND: / Khao-Yai Nat. Pk. / 750 m: VII-26-62"; "E. S. Ross / D. Cavagnaro / Collectors"; "HOLOTYPE / Neopanorpa / tuberosa / [MA] / George W. Byers".

Allotype (female); same data as holotype.

Paratypes, 24 (Thailand).

Panorpa kellogi Cheng.

1957, *Mem. Coll. Agric., Natl. Taiwan Univ.*, vol. 5, no. 1, pp. 29–30, figs. 5, 6.

Holotype (male), CAS Type No. 7214; "Foochow / China"; "C. R. Kellog [sic] / Collector"; "Panorpa kellogi [sic] n.sp. / By F. Y. Cheng"; "HOLOTYPE [MA]".

Remarks: The original description indicated that this species was named for the collector "C. R. Kellog," a misspelling of Claude R. Kellogg. Since there was no internal evidence of the correct spelling within the article, the incorrect original spelling must be retained.

Panorpa mokansana Cheng.

1957, *Mem. Coll. Agric., Natl. Taiwan Univ.*, vol. 5, no. 1, p. 27, figs. 1, 2.

Holotype (male), CAS Type No. 7215; "Mokansan China / Che Kiang Pr. / IX-19-27"; "Mrs. Dora / E. Wright / Collector"; "Panorpa mokansana n.sp. / By F. Y. Cheng"; "HOLOTYPE [MA]".

Remarks: The original description indicated

that the holotype was a female, but it is in fact a male.

Panorpa thompsoni Cheng.

1957, Mem. Coll. Agric., Natl. Taiwan Univ., vol. 5, no. 1, p. 29, figs. 7, 8.

Holotype (female), CAS Type No. 7216; "Tsu Shima / Lu Chu Ids. / X-5-1910"; "JC Thompson / Collector"; "Panorpa thompsoni n.sp. / By F. Y. Cheng"; "HOLOTYPE [FE]".

Panorpa wrightae Cheng.

1957, Mem. Coll. Agric., Natl. Taiwan Univ., vol. 5, no. 1, pp. 28–29, figs. 3, 4.

Holotype (female), CAS Type No. 7217; "Mokansan China / Che Kiang Pr. / Sep. 28 1927"; "Mrs. Dora / E. Wright / Collector"; "Panorpa wrighti [sic], n.sp. / By F. Y. Cheng"; "HOLOTYPE [FE]".

Remarks: Although the original description of this species bore a masculine ending (*wrighti*), the author clearly stated that the species was named for Mrs. Dora E. Wright, the collector. Thus, the name should have a feminine ending, which is given here.

Panorpodidae

Brachypanorpa sacajawea Byers.

1990, J. Kans. Entomol. Soc., vol. 63, no. 2, pp. 211–217, figs. 1–12.

Paratypes, 2 (Idaho).

MEGALOPTERA

Corydalidae

Dysmicohermes crepusculus Chandler.

1954, Pan-Pac. Entomol., vol. 30, no. 2, pp. 107–108, figs. 1, 2, 6.

Holotype (male), CAS Type No. 7197; "Pyramid R. S. / Eldorado Co. / Calif VII-20-52"; "J. W. MacSwain / Collector"; "HOLOTYPE / Dysmicohermes / crepusculus".

Allotype (female); "2 mi s.w. / Miami Ranger Sta. / Mariposa Co. / 7/25/1946"; "H. P. Chandler / No. 54 Expo. / / 4 NE / Elv 5,000"; "ALLOTYPE / Dysmicohermes / crepusculus".

Paratypes, 2 (California).

Remarks: This species is currently placed in *Orohermes*.

Dysmicohermes ingens Chandler.

1954, Pan-Pac. Entomol., vol. 30, no. 2, pp. 105–107, figs. 3–5.

Holotype (male), CAS Type No. 7198; "Miami Ranger Sta. / Mariposa Co. Cal. / 7/27/46"; "H. P. Chandler / No. 67 Expo. / / 4 NE / Elv 5,000 SW"; "HOLOTYPE / Dysmicohermes / ingens".

Allotype (female); same data as holotype, except 2nd line of 2nd label reads "No. 61 Expo.", and holotype label is replaced by allotype label.

Paratypes, 4 (California).

Neohermes nigrinus Van Dyke.

1944, Pan-Pac. Entomol., vol. 20, no. 3, p. 110.

Holotype (male), CAS Type No. 5430; "Richardson's / Spr., Butte / Co, Calif. / V-12-44"; "Presented by / EC Van Dyke / Collector"; "Holotype Neohermes / nigrinus / Van Dyke".

Remarks: This species is currently considered a junior synonym of *Protochauliodes minimus* (Davis).

Protochauliodes aridus Maddux.

1954, Pan-Pac. Entomol., vol. 30, no. 1, pp. 70–71.

Holotype (male), CAS Type No. 7201; "Chico / R 5-10-51 / D. Maddux"; "HOLOTYPE / PROTOCHAULIODES / ARIDUS / MADDUX"; "N.sp. / HOLOTYPE / [MA] #20 / CSC #1".

Protochauliodes cascadius Evans.

1984, Pan-Pac. Entomol., vol. 60, no. 1, pp. 1–3, figs. 1–3.

Holotype (male), CAS Type No. 11404; "Ca. 8 mi W. Mill City / along Little Santiam R., / Marion Co., Ore. / VII-26-63"; "[MA] [FE] *Protochauliodes montivagus* / Sept. 1963 Chandler ?"; "HOLOTYPE [MA] / PROTOCHAULIODES / CASCADIA 1970 / Elwin D. Evans".

Allotype (female); same data as holotype, except allotype label.

Paratypes, 7 (Oregon).

Protochauliodes montivagus Chandler.

1954, Pan-Pac. Entomol., vol. 30, no. 2, p. 111, figs. 9, 10.

Holotype (male), CAS Type No. 7199; "St. Charles Hill / Sierra Co Cal. / July 7, 1923"; "Pres. by / E. H. Nast / Collector"; "HOLOTYPE / Protochauliodes / montivagus".

Paratypes, 2 (California).

Protochauliodes simplus Chandler.

1954, Pan-Pac. Entomol., vol. 30, no. 2, pp. 110–111, figs. 7, 8.

Holotype (male), CAS Type No. 7200; "Tanbark Flat / Los Angeles Co. / Calif. VII-13-50 / JD Paschke / Collector"; "HOLOTYPE / Protochauliodes / simplus".

Paratypes, 3 (California).

Sialidae*Sialis arvalis* Ross.

1937, Ill. Nat. Hist. Surv. Bull., vol. 21, no. 3, p. 68.

Holotype (male), CAS Type No. 4647; "MOSEL HILL, / CAL."; "coll. by F. E. / Blaisdell"; "Apr."; "HOLOTYPE / Sialis [MA] / arvalis / Ross".

Paratypes, 2 (California).

Sialis mohri Ross.

1937, Ill. Nat. Hist. Surv. Bull., vol. 21, no. 3, p. 74.

Paratypes, 11 (Illinois).

Sialis occidentis Ross.

1937, Ill. Nat. Hist. Surv. Bull., vol. 21, no. 3, p. 69.

Holotype (male), CAS Type No. 4648; "Sequoia Natl. / Park, Calif. / Alt. 7000–9000 ft."; "Wolverton / VI-25-29"; "Pres. by / EC Van Dyke / Collector"; "HOLOTYPE / Sialis [MA] / occidentis / Ross".

Allotype (female); same data as holotype, except allotype label substituted for holotype label and additional label reading "From Coll. / Calif. Acad. Sci."

Paratypes, 6 (5 California, 1 Nevada).

Sialis velata Ross.

1937, Ill. Nat. Hist. Surv. Bull., vol. 21, no. 3, p. 71.

Paratypes, 27 (Michigan).

RAPHIDIOPTERA**Inocellidae***Negha meridionalis* Aspöck.

1988, Z. Arbeitsgem. Österr. Entomol., vol. 39, nos. 3/4, pp. 107–111, figs. 1–11.

Paratype, 1 (Baja California).

Raphidiidae*Agulla banksi* Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no. 2, p. 120, pl. 2 (figs. 11, 12).

Paratypes, 2 (California).

Remarks: This species is currently considered a junior synonym of *Agulla modesta* Carpenter.

Agulla bractea Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no. 2, pp. 130–131, pl. 2 (fig. 16).

Paratypes, 2 (California).

Agulla directa Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no. 2, pp. 124–125, pl. 1 (fig. 3).

Holotype (male), CAS Type No. 4475; "Orville Cal. / IV-17-1928"; "H H Keifer / Collector"; "TYPE"; "Agulla directa Carpenter / det. F. M. Carpenter"; "H. & U. Aspöck vid. 1967". Separate pin with genitalia vial, label reads "Agulla directa / Carp."

Paratype, 1 (California).

Agulla nigrinotum Woglum and McGregor.

1964, Bull. South. Calif. Acad. Sci., vol. 63, pt. 4, pp. 201–203.

Holotype (male), CAS Type No. 9548; "Mill Potrero / Kern 7-1-63 / r. s. woglum col"; "Agulla / nigrinotum [sic] / Type on HOLOTYPE"; "Agulla nigrinotum / Woglum et McGregor / Holotypus [MA] / U. Aspöck vid. 1972."

Allotype (female); "Mill Potrero / Kern 7-1-63 / r. s. woglum col"; "ALLOTYPE"; "ALLOTYPE / Agulla / nigrinotum / Wog. & McGreg."

Paratypes, 7 (California).

Agulla occidentis Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no.

2, pp. 129–130, pl. 2 (fig. 21).

Holotype (male), CAS Type No. 4476; "Pine Crest [sic], Calif. / July Johnson"; "Type"; "Agulla occidentis Carpenter / det. F. M. Carpenter"; "Agulla herbsti / Esb.-Pet. / U. Aspöck det. 1967". Separate pin with genitalia vial, labels read "Agulla herbsti: Esb.-Pet."; "part of Holotype / Agulla / occidentis / Carpenter".

Allotype (female); "Pine Crest [sic], Calif. / Aug. 15 Johnson"; "ALLOTYPE"; "Agulla occidentis Carpenter / det. F. M. Carpenter"; "O. S. C. TYPE".

Paratypes, 3 (1 California, 2 Oregon).

Remarks: The holotype and allotype are on permanent deposit from Oregon State University.

Agulla singularis Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no. 2, p. 132, pl. 2 (fig. 23).

Holotype (male), CAS Type No. 4477; "Banning Cal / V-29-28"; "Pres by / EC Van Dyke / Collector"; "From Coll. / Calif. Acad. Sci."; "TYPE"; "Agulla singularis Carp. / det. F. M. Carpenter"; "H. & U. Aspöck vid. 1970". Separate pin with genitalia capsule, labels read "Banning, CAL. / V-29-28 / E. C. Van Dyke / collector"; "Dissection of / TYPE, Agulla / singularis / Carpenter".

Agulla unicolor Carpenter.

1936, Proc. Am. Acad. Arts Sci., vol. 71, no. 2, pp. 121–123, pl. 1 (fig. 1).

Paratypes, 60 (39 California, 8 Nevada, 10 Oregon, 3 Utah).

Raphidia arizonica Banks.

1911, Trans. Am. Entomol. Soc., vol. 37, no. 4, p. 338, pl. 11 (fig. 8).

Neallotype (female), CAS Type No. 4501; "Mono Lk / Cal. / VI-17-'17"; "Donor / C. L. Fox / Collector"; "ALLOTYPE"; "Agulla arizonica (Banks) / det. F. M. Carpenter".

Remarks: Carpenter (1936:118–119) designated the neallotype.

Raphidia (Agulla) arnaudi Aspöck.

1973, Pol. Pismo Entomol., vol. 43, no. 2, p. 234.

Holotype (male), CAS Type No. 12458; "MEX: B. Calif., Sierra / San Pedro Martir / P. H. Arnaud, Jr."; "Trail, La / Joya to La Zanja

/ VI-10-1953"; "medium with genitalia / water-soluble"; "Holotypus / Raphidia / (Agulla) / arnaudi / U. Aspöck 1973".

Allotype (female); same data as holotype, except that allotype label reads: "PARATYPUS / (ALLOTYPUS) [FE] / R. (Agulla) / arnaudi"; "U. Aspöck 1973".

Remarks: Abdomens of the holotype and allotype are mounted on cards attached to the respective pins.

Raphidia (Agulla) barri Aspöck.

1973, Pol. Pismo Entomol., vol. 43, no. 2, p. 238.

Holotype (male), CAS Type No. 12698; "Westgard Pass / Inyo Co. / CALIF. VI-11-69"; "beating / Pinyon Pine"; "W. F. Barr / Collector"; "Holotypus [MA] / R. (Agulla) barri / U. Aspöck 1973". Separate pin with genitalia vial; label reads "genital segments of / R (Agulla) barri / Holotypus [MA]".

Paratypes, 6 (5 California, 1 Nevada).

Raphidia (Aliaberaphidia) tenochtitlana Aspöck and Aspöck.

1978, Z. Arbeitsgem. Österr. Entomol., vol. 30, nos. 1/2, p. 21.

Holotype (male), CAS Type No. 13336; "MEXICO: BAJA CALI- / FORNIA SUR: Sierra La / Laguna, 1770–1850 m / 30-VIII-77 / E. Fisher, R. Westcott / Calif. Acad. Sci. Coll."; "HOLOTYPUS [MA] / Raphidia (Aliaberaphidia) / tenochtitlana / Aspöck et Aspöck 1978"; "2". Separate pin with genital capsule label reads "2"; "HOLOTYPUS"; "Raphidia / tenochtitlana / [MA] / H. et U. Aspöck det 19".

Paratypes, 7 (Baja California Sur).

NEUROPTERA

Berothidae

Hemerobius hamatus Walker.

1853, List of Specimens of Neuropterous Insects in the Collection of the British Museum. Part II. (Sialidae — Nemopterides), p. 278.

Neallotype (female), CAS Type No. 5592; "Tampa Fla / May 2, '08 / Vau [sic] Duzee"; "Pres. by / E. P. Van Duzee / Collector"; "allotype"; "Lomamyia / hamata Walker / det. F. M. Carpenter".

Remarks: Carpenter (1940:265–266) designated the neallotype.

Lomamyia latipennis Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, pp. 262–263, fig. 64A–D.

Holotype (male), CAS Type No. 5590; “Phoenix Lk. / Marin Co Cal. / VII-4-1927”; “H. H. Keifer / Collector / Type”; “*Lomamyia latipennis* Carp. / det. F. M. Carpenter”.

Allotype (female); “Mt. Tamalpais / Marin Co. Cal. / V-23-09”; “Coll. by / E. C. Van Dyke”; “From Coll. / Calif. Acad. Sci.”; “allotype”; “*Lomamyia latipennis* Carp. / det. F. M. Carpenter”.

Manselliberothera neuropterologorum Aspöck and Aspöck.

1988, Z. Arbeitsgem. Österr. Entomol., vol. 40, nos. 1/2, pp. 4–7, figs. 1–21.

Paratype, 1 (Namibia).

Chrysopidae

Leptochrysa prisca Adams and Penny.

1992, Pan-Pac. Entomol., vol. 68, no. 3, pp. 219–221, figs. 10–14.

Holotype (female), CAS Type No. 16743; “PERU: Dept. Amazonas / 18 km N. of Puente / Ingenio, KM 320 Alt. / 1750 m. 9-X-1964 / P.C. Hutchison & / J. K. Wright”; “Collected on / *Baccharis latifolia* / #6830”; “HOLOTYPE / *Leptochrysa prisca* / Adams & Penny”. Gut contents in vial of glycerin on pin; label reads “*Leptochrysa prisca* / Adams - Penny / gut contents”. Genitalia in vial of glycerin on pin; label reads “*Leptochrysa prisca* / A & P / [MA] genitalia”.

Leucochrysa serrula Adams.

1979, Folia Entomol. Mex., no. 41, pp. 97–101, figs. 1–7.

Holotype (male), CAS Type No. 15126; “3 mi. east / Carapan / Mich MEX. / VII 10 1963”; “F. D. Parker / L. A. Stange / Collectors”; “HOLOTYPE / *Leucochrysa serrula* / [MA] Adams / det. P. Adams ’77”.

Meleoma antennensis Tauber.

1969, Univ. Calif. Publ. Entomol., vol. 58, p. 20, figs. 4, 18, pl. 2b.

Holotype (male), CAS Type No. 10005; “San

Christobal, / 9 mi. E., Chiapas / MEX., VII-30-57”; “AT / light”; “J. A. Chemsak / B. J. Donnelly / Collectors”; “*Meleoma antennensis* Tauber / det. C. Tauber ’68 / HOLOTYPE”.

Remarks: The holotype is on indefinite loan from the University of California, Berkeley.

Meleoma powelli Tauber.

1969, Univ. Calif. Publ. Entomol., vol. 58, pp. 19–20, figs. 4, 17, pl. 2a.

Holotype (male), CAS Type No. 10006; “MEX: Dgo., El / Salto, 3 mi. W. / 9000’ VII-23-64”; “*Quercus* / ommissa”; “J. Powell / Collector”; “*Meleoma powelli* Tauber / det. C. Tauber ’68 / HOLOTYPE”.

Allotype (female); “MEX: Dgo., El / Salto, 3 mi. W. / 9000’ VII-23-64”; “J. A. Chemsak & / J. Powell Black / & White lights”; “*Meleoma powelli* Tauber / det. C. Tauber ’68 / ALLOTYPE”.

Remarks: These types are on indefinite loan from the University of California, Berkeley.

Nodita oenops Adams.

1987, Neuropt. Int., vol. 4, no. 4, pp. 290–291, figs. 2, 19–24.

Holotype (male), CAS Type No. 16027; “May 2, 1976 3 / Leon, Nica / W. Barclay”; “HOLOTYPE / *Nodita* [MA] / *oenops* / P. Adams”.

Allotype (female); “4/20/86 / Leon, Nica / W. Barclay”; “ALLOTYPE / *Nodita* / *oenops* [FE] / P. Adams”.

Pimachrysa albicostales Adams.

1967, Bull. Mus. Comp. Zool., Harvard Univ., vol. 135, no. 4, pp. 226–227, figs. 27, 28.

Holotype (male), CAS Type No. 9988; “MEX: B. Calif. / 22 mi. N. of / Punta Prieta / 9-XII-1958”; “H. B. Leech / Collector”; [blank label with yellow stripe]; “PIMACHRYSA / ALBICOSTALES / ADAMS / [MA] TYPE / Det. P. Adams”; “13”. Genitalia on separate pin with label “13”.

Pimachrysa fusca Adams.

1967, Bull. Mus. Comp. Zool., Harvard Univ., vol. 135, no. 4, p. 227, figs. 1, 7, 11–13, 21, 24.

Holotype (male), CAS Type No. 9989; “CALIF., #1 / Joshua Tree N. M., / L. Coving-

ton Flat"; "E. L. Sleeper / Collr."; "PIMACHRYSA / FUSCA / ADAMS / HOLOTYPE / Det. P. Adams"; "14". Genitalia on separate pin with label "14".

Pimachrysa nigra Adams.

1967, Bull. Mus. Comp. Zool., Harvard Univ., vol. 135, no. 4, pp. 228–229, figs. 6, 14–16, 26, 34.

Holotype (male), CAS Type No. 9990; "Gavilan / Cal. Mr. 19. 36"; "on Ceanothus / crassifolius"; "Timberlake / Coll."; "Nothochrysa / californica / Inif. det. Banks"; "PIMACHRYSA / NIGRA / ADAMS / HOLOTYPE / Det. P. Adams"; "10". Genitalia on separate pin with label "10".

Coniopterygidae

Aleuropteryx cupressi Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, p. 218, fig. 1A–H.

Holotype (male), CAS Type No. 12352 (in alcohol); "USA. Cal. Marin Co. / 1961-05-02 emgd from / Cupressus goveniana / J. Powell"; "HOLOTYPUS / Aleuropteryx / cupressi; sp.n. [MA] / det. Meinander 1973"; "Wings slide UCA A3". Slide UCA A3 left label "USA Cal. / Marin Co / emgd 1961-05-02 / ex Cupressus goveniana / J. Powell"; right label "Aleuropteryx / cupressi [MA] / Meinander / HOLOTYPUS / det. 1973 / M Meinander".

Remarks: The holotype is on indefinite loan from the University of California, Berkeley.

Aleuropteryx longipennis Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, pp. 218–219, fig. 2A–D.

Holotype (male), CAS Type No. 12353; "Mex: Baja Calif. / Norte, 1 mi. N. / Meling Ranch, 2100' / III-17-1972, J. Doyen / & J. Powell, at light"; "Wings slide UCA A4"; "HOLOTYPUS / Aleuropteryx [MA] / longipennis sp.n. / det. Meinander 1973". Slide UCA A4 left label "Mexico Baja Calif / Norte 1 mi N / Meling Ranch / 2100' 1972-03-17 / J. Doyen & J. Powell"; right label "Aleuropteryx / longipennis [MA] / sp.n. / det. 1973 / M Meinander".

Remarks: The holotype is on indefinite loan from the University of California, Berkeley. The body is stored in glycerin in a genitalia

capsule on pin.

Aleuropteryx maculipennis Meinander.

1972, Acta Zool. Fenn., no. 136, p. 45, fig. 13A–D.

Holotype (male), CAS Type No. 11915; "CAL.: Kern Co / 19 mi. NNE. Mojave / IV-14-1962"; "C. MacNeill, D. / Rentz & R. Brown / Collectors"; "Genitalia CAS slide 13 / Wings —" — 38"; "Aleuropteryx / maculipennis n.sp. [MA] / det. Meinander 1969". Slide 38 left label "Cal. Kern Co. / 19 mi NNE Mojave / IV-14-1962 / C. MacNeill, D. Rentz / & R. Brown coll. / Body pinned / genitalia slide 13 / CAS slide 38"; right label "Aleuropteryx / maculipennis / n.sp. [MA] / HOLOTYPUS / det. 1969 / Martin Meinander". Slide 13 left label "CAS 13 / Cal. Kern Co / 19 mi NNE Mojave / IV-14-62 / MacNeill, Rentz / Brown / body pinned"; right label "Aleuropteryx / maculipennis / n.sp. / HOLOTYPUS [MA] / det. 1966–1969 / M Meinander".

Aleuropteryx punctata Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, p. 220, fig. 3A–H.

Holotype (male), CAS Type No. 12193 (in alcohol); "20 mi. W. Rosario, / Sin., Mex. I-30-64 / at night; E. Schlinger / black light"; "[MA] wings slide 5"; "HOLOTYPUS / Aleuropteryx / punctata Mein [MA] 2 [MA][MA] / det. Meinander 1973". Slide UCR5 left label "Mexico Sin. / 20 mi W Rosario / 1964-01-30 / E. Schlinger / Slide UCR5"; right label "Aleuropteryx / punctata / Meinander [MA] / HOLOTYPUS / det. 1973 / M Meinander".

Remarks: The holotype is on permanent deposit from the University of California, Riverside.

Aleuropteryx simillima Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 46–47, fig. 14A–E.

Holotype (male), CAS Type No. 11916; "MEX.: Baja Calif. / Norte, San Felipe / 7-III-1963 / P. H. Arnaud, Jr."; "Genit. slide CAS 20 / wings —" — 39"; "Aleuropteryx / simillissimus n.sp. [MA] / det. Meinander 1969 / HOLOTYPUS". Slide 20 left label "CAS 20 / Mex: Baja Calif / Norte San Felipe / 7-III-1963 / P. H. Arnaud Jr / Body pinned / Wings

slide 39"; right label "Aleuropteryx / simillissima / n.sp. / HOLOTYPUS [MA] / det. 1966-1969 / M Meinander". Slide 39 left label "Mexico / Baja Calif. / Norte San Felipe / 7.III.1963 / P. H. Arnaud Jr. / Body pinned / genit. slide 20 / CAS Slide 39"; right label "Aleuropteryx / simillissima / n.sp. / HOLOTYPUS / det. 1969 / Martin Meinander".

Remarks: The slide labels read "simillissima" or "simillissimus" rather than the published spelling.

Aleuropteryx unicolor Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 48-49, fig. 16A-F.

Holotype (male), CAS Type No. 11917; "Boyd Desert Res. Center / 4 mi s. Palm Desert, Riv. / Co., Calif. IV-11-63"; "W. A. Steffan / Collector"; "Aleuropteryx / unicolor n.sp. [MA] / det. Meinander 1969 / wings slide 19 Body sl. 20". Slide 20 left label "Calif Boyd Desert / Res. Center / 4 mi s Palm Desert / Riv. Co. IV-11-63 / W. A. Steffan / wings slide 19 / UCal Slide 20"; right label "Aleuropteryx / unicolor n.sp. / [MA] / HOLOTYPUS / det. 1969 / M Meinander". Slide 19 with same data as slide 20, except for slide number.

Remarks: The holotype is on indefinite loan from the University of California, Berkeley.

Coniocompsa smithersi Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 99-101, fig. 51A-G.

Holotype (male), CAS Type No. 11918 (in alcohol); "KENYA: 28 mi. NW. / Nairobi 6450 ft / 17-XII-1969 / M. E. Irwin & / E. S. Ross"; "genitalia / & wings / mounted on / slide"; "wings CAS slide 59, genit. 58"; "Coniocompsa / smithersi n.sp. [MA] / det. Meinander 1971 / HOLOTYPUS". Slide 58 left label "Kenya / 28 mi W [sic] Nairobi / 6450 ft. / 17-XII-1969 / M. E. Irwin & / E. S. Ross / CAS slide 58"; right label "Coniocompsa / smithersi n.sp. / [MA] / HOLOTYPUS / det. 1971 / M Meinander". Slide 59 with same data as slide 58, except for slide number.

Coniopteryx (Coniopteryx) californica Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, pp. 225-226, fig. 9A-G.

Holotype (male), CAS Type No. 12194 (in

alcohol); "Oso Flaco Lake / San Luis Obispo Co. / Cal. VIII-5-62 / E. Schlinger"; "HOLOTYPUS / Coniopteryx [MA] / californica Meinander / det. Meinander 1973".

Coniopteryx (Scotoconiopteryx) chilensis Meinander.

1990, Acta Zool. Fenn., no. 189, pp. 47-48, fig. 16A-D.

Holotype (male), CAS Type No. 16102 (in alcohol); "Chile: Chillan / Las Trancas / 1200 / 17-20-XII-83 / Luis Peña"; "Coniopteryx / chilensis Meinander [MA] / det. Meinander 1987 / HOLOTYPUS".

Coniopteryx (Coniopteryx) goniocera Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 264-265, fig. 169A-F.

Holotype (male), CAS Type No. 11919 (in alcohol); "S. INDIA / 10 mi. SW. / Gudiyattam / 350 m IV-3-62"; "Collectors: / E. S. Ross / D. Q. Cavagnaro"; "genitalia / mounted on / slide"; "genit. slide CAS 29"; "[MA] placed in / general / collection"; "HOLOTYPUS [MA] / Coniopteryx / goniocera n.sp. / det. Meinander 1971". Slide 29 left label "Coniopteryx / goniocera n.sp. / HOLOTYPUS [MA] / det. 1971 / M Meinander"; right label "S. India / 10 mi SW / Gudiyattam / 350 m IV.3.62 / Ross & Cavagnaro / CAS 29".

Coniopteryx (Coniopteryx) mexicana Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, pp. 226-227, fig. 10A-E.

Holotype (male), CAS Type No. 12195 (in alcohol); "20 mi. E. Villa Union / Sin. Mexico / I-31-64 / Schlinger & Irwin / at black light"; "HOLOTYPUS / Coniopteryx / mexicana sp.n. [MA] / det. Meinander 1973".

Coniopteryx (Coniopteryx) minuta Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 259-260, fig. 165A-F.

Holotype (male), CAS Type No. 11920; "Morro Bay, 8 mi E / S. L. O. Co., / Calif. V-2-62"; "Adenostoma / sp. fasciculatum"; "C. A. Toschi / Collector"; "genitalia UCal Slide 10"; "HOLOTYPUS / Coniopteryx / minuta n.sp. [MA] / det. Meinander 1971". Slide 10 left label "USA. Calif. / S. L. O. Co. / Morro Bay

/ 2.V.1962 / C. A. Toschi / UCal slide 10"; right label "Coniopteryx / minuta n.sp. [MA] / HOLOTYPE / det. 1971 / M Meinander".

Remarks: The label data "8 mi E" were not transcribed to the slide label. The holotype is on indefinite loan from the University of California, Berkeley.

Coniopteryx (Coniopteryx) simplex
Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, p. 228, fig. 11A-F.

Holotype (male), CAS Type No. 12354; "Pino Grande, SW / of Lake Edson, / El Dorado Co. / Calif. VII-8-67"; "W. J. Turner / Collector"; "HOLOTYPUS / Coniopteryx / simplex sp.n. [MA] / det. Meinander 1974".

Remarks: The holotype is on indefinite loan from the University of California, Berkeley. Body is stored in glycerin in a genitalia capsule on pin.

Conwentzia californica Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 297-298, fig. 192A-E.

Holotype (male), CAS Type No. 11921; "CAL. Lee Vining / Campgd. Mono Co. / W. of Mono Lk. / 1-VII-61 / D. C. RENTZ / COLLECTOR"; "CAS slide 56"; "HOLOTYPUS / Conwentzia / californica n.sp. [MA] / det. Meinander 1970". Slide 56 left label "USA Calif / Mono Co / Lee Vining Campgd / W of Mono Lk. / 1.VII.1961 / D. C. Rentz / CAS Slide 56"; right label "Conwentzia / californica n.sp. / HOLOTYPUS [MA] / det. 1970 / M Meinander".

Helicoconis (Helicoconis) californica
Meinander.

1972, Acta Zool. Fenn., no. 136, p. 119, fig. 61A-E.

Holotype (male), CAS Type No. 11922 (in alcohol); "Calif: Mono Co. / Tom's Place, 1 mi. / SW. VIII-10-1963"; "M. J. Tauber / C. A. Toschi / Collectors"; "Genit. UCal Slide 18"; "Helicoconis / californica n.sp. [MA] / det. Meinander 1969 / HOLOTYPE". Slide 18 left label "USA. Calif. Mono Co. / Tom's Place - 1 mi SW / VIII-10-1963 / M. J. Tauber / C. A. Toschi / UCal slide 18"; right label "Helicoconis / californica / n.sp. / HOLOTYPE [MA] / det. 1969 / M Meinander".

Remarks: The holotype is on indefinite loan from the University of California, Berkeley.

Helicoconis (Helicoconis) similis Meinander.

1972, Acta Zool. Fenn., no. 136, p. 124, fig. 65A-C.

Holotype (male), CAS Type No. 11923; "CANADA: B. COL. / Top of Moyie Mtn. / elev. 6868 ft. / East Kootenays / 16-VII-1959"; "H. B. Leech / Collector"; "slides CAS 16-17"; "Helicoconis / similis n.sp. / det. Meinander 1969 / HOLOTYPUS". Slide 16 left label "CAS 16 / Canada B. Col. / Top of Moyle [sic] Mtn / elev 6868 ft. / East Kootenaya [sic] / Genit. sl. 17 / Body pinned"; right label "Helicoconis / similis n.sp. [MA] / HOLOTYPUS / DET. 1969 / M Meinander". Slide 17 has same label data as slide 16, except for slide number.

Remarks: Right slide labels overlie identification labels for *Helicoconis eglini* Ohm.

Heteroconis bifurcata Meinander.

1990, Acta Zool. Fenn., no. 189, pp. 11-12, fig. 1A-E.

Holotype (male), CAS Type No. 16602 (in alcohol); "PAPUA NEW GUINEA: / Madang Province / Sapi Forest Reserve / (30 km W Madang) / 5°12'S, 145°30'E / 19 February 1987 / Norman D. Penny clr"; "Heteroconis / bifurcata Mein [MA] / det. Meinander 1987 / HOLOTYPUS"; "One pair of / wings on slide". Slide left label "Papua New Guinea / Madang Prov. / Sapi Forest Reserve / 30 km W Madang / 5°12'S 145°30'E / 19 Febr 1987 / Norman D. Penny clr"; right label "Heteroconis / bifurcata / Meinander sp.n. [MA] / HOLOTYPUS".

Heteroconis curvata Meinander.

1990, Acta Zool. Fenn., no. 189, pp. 12-14, fig. 2A-I.

Holotype (male), CAS Type No. 16603 (in alcohol); "PAPUA NEW GUINEA: / Madang Province, / Nagada Harbor / 8 km N Madang / 5°09'S 145°48'E / 8 February 1987 / Norman D. Penny"; "Heteroconis / curvata Meinander [MA] / det. Meinander 1987 / HOLOTYPUS"; "One pair of / wings on slide"; "genit. in micro- / vial". Slide left label "Papua New Guinea / Madang Province / Nagada Harbor / 8 km N Madang / 5°09'S 145°48'E / 8 Febr 1987 / N D Penny"; right label "Heteroconis / curvata

/ Meinander [MA] / HOLOTYPUS".

Heteroconis madangensis Meinander.

1990, Acta Zool. Fenn., no. 189, pp. 14–16, fig. 3A–D.

Holotype (male), CAS Type No. 16604 (in alcohol); "PAPUA NEW GUINEA: / Madang Province / Gogol River (12 km / southwest Madang) / 5°20'S 145°42'E / 25 February 1987 / Norman D. Penny"; "Heteroconis / madangensis / sp.n. [MA] / det. Meinander 1987 / HOLOTYPUS". Wing slide left label "Papua New Guinea / Madang Prov. / Gogol River / 25.II.1987 / N D Penny"; right label "Heteroconis / madangensis / sp.n. [MA] / HOLOTYPUS".

Heteroconis pennyi Meinander.

1990, Acta Zool. Fenn., no. 189, p. 18, fig. 6A–C.

Holotype (female), CAS Type No. 16605 (in alcohol); "PAPUA NEW GUINEA: / Madang Province / Sapi Forest Reserve / (30 km W Madang) / 5°12'S 145°30'E / 14 February 1987 / Norman D. Penny clr"; "Heteroconis / pennyi Meinander - [MA] / det. Meinander 1987 / HOLOTYPUS"; "One pair of / wings on slide". Slide left label "Papua New Guinea / Madang Province / Nagada Harbor / 8 km N Madang / 5°09'S 145°48'E / 8 Febr 1987 N D Penny"; right label "Heteroconis / pennyi / Meinander [MA] / HOLOTYPUS".

Remarks: Erroneous locality data were transcribed to the slide label, perhaps from the holotype of *Heteroconis curvata*.

Heteroconis planifrontalis Meinander.

1969, Not. Entomol., vol. 49, no. 2, pp. 66–68, figs. 46–50.

Holotype (male), CAS Type No. 11924 (in alcohol); "Australia, N. T. / 5 mi SW. / Katherine / 75 m X-22-62"; "Collectors / E. S. Ross / D. Q. Cavagnaro"; "genitalia & / wings / mounted on / slide"; "Wings CAS slide 41 / Genitalia —" — 42"; "HOLOTYPUS / Heteroconis / planifrontalis n.sp. [MA] / det Meinander 1969". Slide 42 left label "Australia N. T. / 5 mi SW / Katherine / 75 m / X-22-1962"; "body in alcohol / CAS slide 42"; right label "Heteroconis / planifrontalis / n.sp. [MA] / HOLOTYPUS / det. 1969 Meinander". Slide 41 has

same label data as slide 42, except for slide number.

Incasemidalis meinanderi Adams.

1973, Pan-Pac. Entomol., vol. 49, no. 3, pp. 253–254, fig. 3a–g.

Holotype (male), CAS Type No. 12011 (in alcohol); "EL CALABOZO, ILLAPEL / COQUIMBO, CHILE"; "1700 m 21/23-XI-59 / L. E. PEÑA, COL."; "Incasemidalis / meinanderi / [MA] Adams / HOLOTYPUS".

Remarks: Stopper has fallen out of genitalia vial, and genitalia are probably loose in vial.

Neoconis bifurcata Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, p. 223, fig. 7a–d.

Holotype (male), CAS Type No. 12355; "Ariz: Cochise Co. / Stewart Camp / 1 Mi. S. Portal / VIII-12/15-1971"; "J. Doyen Coll. / Ex. Malaise trap"; "HOLOTYPUS / Neoconis [MA] / bifurcata sp.n. / det. Meinander 1973".

Remarks: The holotype is on indefinite loan from the University of California, Berkeley. Body is stored in glycerin in a genitalia capsule on a pin.

Neosemidalis (Neosemidalis) monstrosa Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 180–181, fig. 104A–F.

Holotype (male), CAS Type No. 11925 (in alcohol); "QUEENSLAND: Canoo- / na, 75 m. 20-XI-62 / E. S. Ross & / D. Q. Cavagnaro"; "Genit CAS Slide 46 / Wings —" — 47"; "genitalia / & wings / mounted on / slide"; "HOLOTYPUS / Neosemidalis / monstrosa n.sp. / det. Meinander 1970". Slide 46 left label "Queensland / Canoona 75 m / 20-XI-62 / E. S. Ross / D. Q. Cavagnaro / wings slide 47 / Body in alcohol / CAS slide 46"; right label "Neosemidalis / monstrosa / n.sp. / HOLOTYPUS / det. Meinander / 1969". Slide 47 has same label data as slide 46, except for slide number.

Neosemidalis (Neosemidalis) nervalis Meinander.

1972, Acta Zool. Fenn., no. 136, p. 181, figs. 8B, 105A–G.

Holotype (male), CAS Type No. 11926 (in alcohol); "QUEENSLAND: 17 mi. / W. Monto

500 m / 21-XI-1962 / E. S. Ross & / D. Q. Cavagnaro"; "Genit. CAS slide 48 / wings —" — 49"; "Neosemidalis / detrita McL 2 [males] / det. Meinander 1970"; "HOLOTYPE / Neosemidalis / nervalis n.sp. [MA] / det. Meinander 1970". Slide 48 left label "Queensland / 17 mi W Monto / 500 m. 21-XI-1962 / E. S. Ross / D. Q. Cavagnaro / wings slide 49 / Body in alcohol / CAS slide 48"; right label "Neosemidalis / nervalis n.sp. / HOLOTYPE [MA] / det. 1970 / M Meinander". Slide 49 has same label data as slide 48, except for slide number.

Neosemidalis (Neosemidalis) serricornis
Meinander.

1972, Acta Zool. Fenn., no. 136, pp. 183–184, fig. 107A–F.

Holotype (male), CAS Type No. 11927 (in alcohol); "Australia, N. T. / Edith Falls / nr. Katherine / 110 m X-25-62 / Collectors / E. S. Ross / D. Q. Cavagnaro"; "Genitalia CAS slide 50 / Wings —" — 51"; "genitalia & / wing / mounted on / slide"; "HOLOTYPE / Neosemidalis / serricornis n.sp. [MA] / det. Meinander 1970". Slide 50 left label "Australia N. T. / Edith Falls / nr. Katherine / 110 m X-25-62 / Ross & Cavagnaro / wings slide 11 / Body in alcohol / CAS slide 50"; right label "Neosemidalis / serricornis n.sp. / HOLOTYPE [MA] / det. 1969 / M Meinander". Slide 51 has same label data as slide 50, except for slide number and cross reference genitalia slide 10.

Remarks: Slide number was changed by Meinander from 10 to 50 and 11 to 51 with body and on slides, but note as to cross reference numbers on same slides were not changed.

Pampoconis angustipennis Meinander.

1990, Acta Zool. Fenn., no. 189, pp. 30–31, fig. 10A–E.

Holotype (male), CAS Type No. 16103 (in alcohol); "Chile: Chillán / Las Trancas 1200 m / 17–20-XII-1983 / Luis Peña"; "Pampoconis / angustipennis sp.n. [MA] / det. Meinander 1987 / HOLOTYPUS"; "one pair of / wings on slide". Slide left label "Chile Chillán / Las Trancas 1200 m / 17–20-XII-1983 / Luis Peña"; right label "Pampoconis / angustipennis / Meinander [MA] / sp.n. / HOLOTYPUS".

Pampoconis punctipennis Meinander.

1973, Not. Entomol., vol. 53, no. 1, p. 25.

Lectotype (male), CAS Type No. 12012 (in alcohol); "CHILE - Santiago / Rio Colorado / X-1958 / L. E. Peña, leg."; "Rio Colorado, Santiago / CHILE X-1958"; "L. E. Peña, leg."; "Pampoconis / punctipennis / Adams / 72 / HOLOTYPE [MA]"; "Pampoconis / punctipennis / Meinander 1973 / LECTOTYPE".

Remarks: This species was originally to be described by Adams. Meinander was given an advance copy of the manuscript and used the name to compare it with a new species he was describing. Unfortunately, the original description had not yet been published (Adams, 1973), making Meinander the inadvertent author of this species. Adams (1974:324) pointed out this error and designated the lectotype.

Pampoconis uncinata Meinander.

1973, Not. Entomol., vol. 53, no. 1, p. 25.

Lectotype (male), CAS Type No. 12013 (in alcohol); "El Radal, Talca / Chile - 900 m. / 28/30-XI-57 / L. E. Peña / *Pampoconis*"; "Pampoconis / uncinatus / Adams / Holotype [MA] / and allotype / [FE]"; "Pampoconis / uncinatus [MA] / Meinander 1973 / LECTOTYPE".

Remarks: This species was originally to be described by Adams. Meinander was given an advance copy of the manuscript and used the name to compare it with a new species he was describing. Unfortunately, the original description had not yet been published (Adams, 1973), making Meinander the inadvertent author of this species. Adams (1974:324) pointed out this error and designated the lectotype.

Semidalis arnaudi Meinander.

1972, Acta Zool. Fenn., no. 136, p. 328, fig. 210A–D.

Holotype (male), CAS Type No. 11928; "MEX.: Sonora / Alamos / 27-II-1963 / P. H. Arnaud, Jr."; "slide CAS 23"; "HOLOTYPE / Semidalis / arnaudi [MA] / det. Meinander 1970". Slide 23 left label "CAS 23 / Mexico Sonora / Alamos / 27.2.1963 / P. H. Arnaud, Jr. / body pinned"; right label "Semidalis / arnaudi n.sp. / HOLOTYPE [MA] / det. 1966 / M Meinander".

Semidalis deserta Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, pp. 230–231, fig. 12A–D.

Holotype (male), CAS Type No. 12196; “P. L. Boyd Des. Res. Center / 3.5 mi. S. Palm Desert Riv / Co. Calif. VI-24–26-1969 / Malaise; Marker #57 / Saul Frommer & B. Worley”; “UCR. ENT. MUS. / Specimen # / 19356”; “Genitalia Slide UCR 14”; “*Semidalis* / *deserta* sp.n. [MA] / det. Meinander 1973”; “Holotypus / *Semidalis* / *deserta* / Meinander”. Slide UCR 14 left label “U. S. A. Cal. Riv. Co / P.L. Boyd Des. Res. C. / 1969-06-24–26 / 19356 / S. Frommer. B. Worley / Malais [sic] / Marker #57”; right label “*Semidalis* / *deserta* sp.n. / Meinand. [MA] / HOLOTYPUS / det. 1974 / M Meinander”.

Remarks: The holotype is on permanent deposit from the University of California, Riverside.

Semidalis frommeri Meinander.

1974, Entomol. Scand., vol. 5, nos. 3/4, pp. 231–232, fig. 13A–E.

Holotype (male), CAS Type No. 12197; “Deep Cyn., Riv. Co. / Cal.; VII-24-64 / M. Irwin; at light”; “UCR. ENT. MUS. / Specimen # / 9418”; “wings slide UCR 30”; “HOLOTYPUS / *Semidalis* / *frommeri* sp.n. [MA] / det. Meinander 1973”. Slide UCR 30 left label “USA Cal / Riverside Co. / Deep Cyn. / 1964-07-22 / M. Irwin / Spec. # 9418”; right label “*Semidalis* [MA] / *frommeri* sp.n. / HOLOTYPUS / det. 1973: / M Meinander”.

Remarks: The holotype is on permanent deposit from the University of California, Riverside.

Semidalis mexicana Meinander.

1972, Acta Zool. Fenn., no. 136, p. 334, fig. 216A–D.

Holotype (male), CAS Type No. 11929; “MEX.: Sonora / Alamos / 25-II-63 / P. H. Arnaud, Jr.”; “slide CAS 19”; “HOLOTYPUS / *Semidalis* / *mexicana* [MA] / det. Meinander 1970”. Slide 19 left label “CAS 19 / Mexico Sonora / Alamos / 25.2.1963 / P. H. Arnaud, Jr. / body pinned”; right label “*Semidalis* / *mexicana* n.sp. / HOLOTYPUS [MA] / det. 1966 / M Meinander”.

Semidalis peruviansis Meinander.

1974, Not. Entomol., vol. 54, no. 4, p. 105, fig. 4J–M.

Holotype (male), CAS Type No. 12174 (in alcohol); “PERU: / Huanuco / IX-16-1954”; “E. I. Schlinger / & E. S. Ross / collectors”; “*Semidalis* / *peruviansis* sp.n. [MA] / det. Meinander 1974 / HOLOTYPUS”.

Semidalis sonorana Meinander.

1975, Not. Entomol., vol. 55, no. 1, p. 32, fig. 3B, E, G.

Holotype (male), CAS Type No. 12298; “Alamos / Sonora”; “Erythroxylin / mexicanum”; “Timberlake / Coll May 13, 51”; “HOLOTYPUS / *Semidalis* / *sonorana* sp.n. [MA] / det. Meinander 1974”.

Remarks: The holotype is on permanent deposit from the University of California, Riverside.

Spiloconis fijiensis Meinander.

1990, Acta Zool. Fenn., no. 189, p. 26, fig. 8A–F.

Holotype (male), CAS Type No. 16104 (in alcohol); “Fiji: 10 km east / Sigatoka, mangrove / & adjacent forest / 1 February 1987 / Norman D. Penny”; “*Spiloconis* / *fijiensis* Meinander [MA] / det. Meinander 1987 / HOLOTYPUS”; “One pair of / wings on slide”. Slide left label “FIJI 10 km E / Sigatoka, mangrove / & adjacent forest / 1 Febr. 1987 / Norman D. Penny”; right label “*Spiloconis* / *fijiensis* / Meinander [MA] / HOLOTYPUS”.

Dilaridae*Nallachius parkeri* Penny.

1994, Pan-Pac. Entomol., vol. 70, no. 4, pp. 309–312, figs. 1–4.

Paratype, 1 (Costa Rica).

Hemerobiidae*Hemerobius elongatus* Monserrat.

1990, Advances in Neuropterology, pp. 85, 87, figs. 50–55.

Paratype, 1 (Mexico).

Hemerobius nigrans Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, p. 207, fig. 7A–C.

Paratype, 1 (Wyoming).

Hemerobius ovalis Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, pp. 205–206, fig. 5A, B, pl. 1 (fig. 5).

Paratypes, 4 (1 British Columbia, 2 California, 1 Washington).

Kimminsia fumata Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, p. 225, fig. 24A–D.

Holotype (male), CAS Type No. 5588; “Longs Pk. Inn / Col. 9000 ft. / VII-13-1926”; “Pres. by / EC Van Dyke / Collector”; “Type”; “Kimminsia / fumata Carp. / det. F. M. Carpenter”; “genitalia / on slide”. Slide with label “Kimminsia / fumata / CARP. / TYPE / [MA] GENITALIA / C. A. S. # 5588”.

Allotype (female), CAS Type No. 5589; “Longs Pk. Inn / Col. 9000 ft. / VII-12-1926”; “Presented by / E. C. Van Dyke / Collector”; “allotype”; “Kimminsia / fumata Carp. / det. F. M. Carpenter”.

Paratype, 1 (Colorado).

Kimminsia involuta Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, pp. 219–221, fig. 19A–E.

Paratypes, 2 (Colorado).

Micromus remiformis Oswald.

1987, J. N.Y. Entomol. Soc., vol. 95, no. 1, pp. 1–4, figs. 6–11.

Holotype (male), CAS Type No. 15298; “CALIF. Madera Co., / Big Creek at Boggy / Meadow 4.75 air mi / ESE. of Fish Camp, / Alt. 6400 ft. Aug. / 9, 1971 H. B. Leech”; “HOLOTYPE / Micromus / remiformis Oswald / J. D. Oswald 1985”.

Notiobiella dentata Monserrat.

1990, Advances in Neuropterology, pp. 68–72, figs. 1–14.

Paratype, 1 (Indonesia, Bali).

Nusalala kruegeri Nakahara.

1965, Proc. U. S. Nat. Mus., vol. 117, no. 3509, pp. 113–115, fig. 2A–D, pl. 1 (fig. 3).

Holotype (male), CAS Type No. 9060; “Cordoba, Mex. / I-1941 / G. E. Bohart”; “Holo / Type No. / 66867 / U. S. N. M.”; “Nusalala / kruegeri / [HOLOTYPE] / W. Nakahara”. Wing

slide “Nusalala / kruegeri n.sp. / [Holotype] / W. Nakahara / Cordoba, Mexico / 1-1-1941 / G. E. Bohart”. Genitalia slide “Nusalala / kruegeri n.sp. / [Holotype] / W. Nakahara”; same type number label data.

Remarks: There is a USNM type label associated with this CAS holotype because the USNM gives a type number to all specimens in a type series, even if part of the material, including holotype, belongs to another institution.

Pseudomicromus fuscatus Nakahara.

1965, Proc. U. S. Nat. Mus., vol. 117, no. 3509, p. 112, pl. 1 (fig. 2).

Holotype (female), CAS Type No. 9061; “Real de Arriba / Temescaltepec / Mex. V-23-33”; “H. E. Hinton, / R. L. Usinger / Collectors”; “Holo / Type No. / 66866 / U. S. N. M.”; “Pseudomicromus / fuscatus / [HOLOTYPE] / W. Nakahara”. Right wing label “Pseudomicromus / fuscatus n.sp. / [Holotype] / W. Nakahara”.

Remarks: There is a USNM type label associated with this CAS holotype because the USNM gives a type number to all specimens in a type series, even if part of the material, including holotype, belongs to another institution.

Symphorobius brunneus Nakahara.

1965, Proc. U. S. Nat. Mus., vol. 116, no. 3503, pp. 207–209, fig. 1a–e, pl. 1 (fig. 1).

Holotype (male), CAS Type No. 9062; “Miami Ranger Sta / Mariposa Co. Cal.”; “H. P. Chandler / No. 21 Expo. / 7/5/46 NE / Elv. 5,000 SW”; “H. CHANDLER / COLLECTION”; “Symphorobius / brunneus / [Holotype] / W. Nakahara”; “Holotype”. Left forewing slide “Symphorobius / brunneus n.sp. / [Holotype] / W. Nakahara”. Genitalia slide with same data.

Symphorobius constrictus Oswald.

1988, J. N. Y. Entomol. Soc., vol. 96, no. 4, pp. 425–427, figs. 81–85, 90.

Holotype (male), CAS Type No. 15299; “Lobos Creek / San Francisco, / Calif. II-16-61 / J. Powell Collr.”; “ex foliage / Cupressus / macrocarpa”; “HOLOTYPE / Symphorobius / constrictus Oswald”.

Paratypes, 11 (California).

Remarks: The holotype is on indefinite loan from the University of California, Berkeley.

Symphorobius killingtoni Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, pp. 238–239, fig. 40A–C, pl. 2 (fig. 11).

Paratypes, 5 (1 Arizona, 2 California, 2 Texas).

Mantispidae

Nolima dine Rehn.

1939, Trans. Am. Entomol. Soc., vol. 65, no. 3, pp. 261–262, fig. 13.

Holotype (male), CAS Type No. 4927; “Pepersauce / Cn. Arizona / Aug. 16, 1924”; “J. O. Martin / Collector”; “Santa / Catalina / Mts.”; “*Nolima / dine / TYPE* Rehn”.

Allotype (female), CAS Type No. 4928; same data as holotype, except fourth label reads “Allotype / *Nolima / dine* Rehn / PARATYPE”.

Paratype, 1 (Arizona).

Remarks: Apparently the allotype specimen was originally labeled with both allotype and paratype labels to indicate that the allotype came from the paratypic series.

Nolima kantsi Rehn.

1939, Trans. Am. Entomol. Soc., vol. 65, no. 3, pp. 260–261, figs. 11, 12, 16.

Holotype (male), CAS Type No. 4926; “Chisos Mts Tex. / Brewster Co. / July 16 1921”; “C. D. Duncan / Collector”; “*Nolima / kantsi / TYPE* Rehn”.

Plega banksi Rehn.

1939, Trans. Am. Entomol. Soc., vol. 65, no. 3, p. 248, figs. 1, 6, 15.

Paratypes, 4 (Arizona).

Plega dactylota Rehn.

1939, Trans. Am. Entomol. Soc., vol. 65, no. 3, pp. 250–254, figs. 3, 5, 9, 17, 18, 21, 22.

Paratypes, 7 (Arizona).

Plega dactylota lipanica Rehn.

1939, Trans. Am. Entomol. Soc., vol. 65, no. 3, pp. 254–256, figs. 10, 19, 20.

Paratype, 1 (Texas).

Plega fumosa Linsley and MacSwain.

1955, Pan-Pac. Entomol., vol. 31, no. 1, pp.

16, 18–19, figs. 6–8, 10, 14.

Holotype (male), CAS Type No. 7202; “11 mi. E. Apatzingan / Michoacan, Mexico / VIII-20-1954”; “E. G. Linsley / J. W. MacSwain / R. F. Smith / Collectors”; “HOLOTYPE [MA] / *Plega fumosa* / Linsley & MacSwain”.

Allotype (female); same data as holotype, except third label reads “ALLOTYPE [FE] / *Plega fumosa* / Linsley & MacSwain”.

Paratype, 1 (Michoacán).

Plega melitomae Linsley and MacSwain.

1955, Pan-Pac. Entomol., vol. 31, no. 1, pp. 15–16, figs. 1–5, 9, 13.

Holotype (male), CAS Type No. 7203; “Francia, 8 m. [sic] N.E. / Cintalapa Chiapas / Mexico IV-3–53”; “R.C. Bechtel / E. I. Schlinger / Collectors”; “HOLOTYPE [MA] / *Plega melitomae* / Linsley & MacSwain”.

Allotype (female); same data as holotype, except third label reads “ALLOTYPE [FE] / *Plega melitomae* / Linsley & MacSwain”.

Paratype, 1 (Chiapas).

Plega yucatanae Parker and Stange.

1965, Can. Entomol., vol. 97, no. 6, pp. 606–611, figs. 2–4, 6–14.

Holotype (male), CAS Type No. 9471; “Chichen / Itza MEX. / Yucatan / IV 18 1962”; “F. D. Parker / L. A. Stange / Collectors”; “xtoloc cave”; “HOLOTYPE / *Plega / [MA] yucatanae* / F. Parker & / L. Stange”.

Paratypes, 2 (Yucatán).

Myrmeleontidae

Brachynemurus darwini Stange.

1969, Acta Zool. Lilloana, vol. 25, no. 17, pp. 190, 192, 194–195, figs. 1–8, 15.

Holotype (male), CAS Type No. 11122; “Darwin Res. Sta. / Santa Cruz Is. / Galapagos Is. / ECU II-1-1964”; “R. Schuster / Collector”; “HOLOTYPE / *Brachynemurus / darwini* [MA] / L. Stange”.

Paratypes, 7 (2 Abingdon Is., 1 Charles Is., 1 Duncan Is., 1 Hood Is., 1 Santa Cruz Is., 1 Santa Fe Is.).

Remarks: This species is currently placed in the genus *Galapagoleon* (see Stange, 1994:97).

Brachynemurus mimicus Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55,

pp. 59–60, figs. 33, 40, 43, 47, 51, 56a, 63, 189, pl. 1, map 2.

Paratypes, 3 (Veracruz).

Remarks: This species is currently placed in the genus *Dejuna* (see Stange, 1994:85).

Brachynemurus mixtecus Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 96–97, figs. 100, 101, 104, 108, 207, map 13.

Paratype, 1 (Puebla).

Remarks: This species is currently placed in the genus *Mexoleon* (see Stange, 1994:86).

Brachynemurus nigrescens Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 135–136, figs. 138, 170, 224, map. 18.

Paratype, 1 (Arizona).

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Brachynemurus parkeri Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 69–70, figs. 53, 55, 56c, 58, 62, 192, map 4.

Paratype, 1 (Puebla).

Remarks: This species is currently placed in the genus *Atricholeon* (see Stange, 1994:82).

Brachynemurus persimilis Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 60–61, figs. 30, 42, 44, 48, 59, 60, 188, map 1.

Paratypes, 2 (Oaxaca).

Remarks: This species is currently placed in the genus *Dejuna* (see Stange, 1994:85).

Brachynemurus setosus Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 61, 63, figs. 46, 50, map 2.

Holotype (male), CAS Type No. 9019; "Tuxtla Gutierrez / 3 mi E, Chis. / Mexico. III-13-53"; "R. C. Bechtel / E. I. Schlenger / Collectors"; "HOLOTYPE / *Brachynemurus* / *setosus* / L. Stange [MA]"; "abdominal tip / in microvial / on sep. pin". (Separate pin) "Part of TYPE, / *Brachynemurus* / *setosus* / Stange".

Remarks: This species is currently placed in the genus *Dejuna* (see Stange, 1994:85).

Brachynemurus stramineus Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55,

pp. 63–64, figs. 45, 49, 190, map 2.

Paratype, 1 (Sinaloa).

Remarks: This species is currently placed in the genus *Dejuna* (see Stange, 1994:85).

Brachynemurus westcotti Stange.

1970, Univ. Calif. Publ. Entomol., vol. 55, pp. 109–110, figs. 122, 211, map 16.

Paratype, 1 (Arizona).

Remarks: This species is currently placed in the genus *Clathroneuria* (see Stange, 1994:85).

Chaetoleon variabilis Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, pp. 141–142, pl. 8 (figs. 4, 5).

Holotype (female), CAS Type No. 4914; "Triunfo / L. Cal. VII-13-38"; "Michelbacher & / Ross Collectors"; "Chaetoleon / *variabilis* / Type Bks".

Paratypes, 31 (Baja California Sur).

Dimarella menkei Stange.

1963, Ann. Entomol. Soc. Am., vol. 56, no. 6, p. 814, figs. 3, 6, 9, 12, 13.

Holotype (male), CAS Type No. 8558; "10 mi. S.E. / Alamos / Son. MEX. / May 22 1962"; "Jack lighting / Rio Cuchujachi"; "L. A. Stange / Collector"; "HOLOTYPE / *Dimarella* / [MA] *menkei* / L. Stange".

Dimarella psammophila Stange.

1963, Ann. Entomol. Soc. Am., vol. 56, no. 6, pp. 814–815, figs. 4, 8, 11.

Holotype (female), CAS Type No. 8559; "Veracruz / MEXICO / IV 29 1962"; "F. D. Parker / L. A. Stange / Collectors"; "at u.v. light / sand dunes"; "HOLOTYPE / *Dimarella* / [MA] *psammophila* / L. Stange".

Eremoleon affine Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, p. 144.

Holotype (female), CAS Type No. 4915; "Miraflores, / L. Cal. VII-8-38"; "Michelbacher & / Ross Collectors"; "Eremoleon / *affine* / type Bks".

Remarks: This species is currently considered a junior synonym of *Eremoleon nigribasis* Banks (see Stange, 1970b:21).

Eremoleon gracile Adams.

1957, Psyche, vol. 63, no. 3, pp. 90–91,

figs. 3, 17, 29.

Holotype (female), CAS Type No. 7205; "Riverside / Cal. Ag 31.39"; "Paul DeBach / Coll."; "Eremoleon / Gracile / ADAMS / HOLOTYPE".

Eremoleon sectoralis Adams.

1957, *Psyche*, vol. 64, no. 1, pp. 7–8, fig. 1d, e.

Holotype (female), CAS Type No. 7206; "5 mi. s. / San Miguel, / L. Cal. VII-20-38"; "Michelbacher & / Ross Collectors"; "affine"; "Pres by / E S Ross and / A E Michelbacher"; "EREMOLEON / SECTORALIS / ADAMS / HOLOTYPE".

Gnopholeon zapotecas Stange.

1970, *Univ. Calif. Publ. Entomol.*, vol. 55, pp. 150–151, figs. 172, 176, 182, 186, 227, map 30.

Paratype, 1 (Oaxaca).

Hesperoleon deflexus Adams.

1957, *Psyche*, vol. 63, no. 3, pp. 98–100, figs. 2, 31, 32, 41.

Holotype (male), CAS Type No. 7207; "Baker / S. B. Co. Cal. / VIII-23-52"; "HESPEROLEON / DEFLEXUS / ADAMS / TYPE".

Allotype (female); same data as holotype, except second label reads "HESPEROLEON / DEFLEXUS / ADAMS / ALLOTYPE".

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Hesperoleon fidelitas Adams.

1957, *Psyche*, vol. 63, no. 3, pp. 94, 96–98, figs. 5, 5a, 33, 34.

Paratypes, 8 (Arizona).

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Hesperoleon infuscatus Adams.

1957, *Psyche*, vol. 63, no. 3, pp. 104–106, figs. 4, 39, 40, 44, 45.

Holotype (male), CAS Type No. 7209; "Antioch / C. Costa Co., / Calif V.24.49"; "J. W. MacSwain / Collector"; "HESPEROLEON / INFUSCATUS / [MA] ADAMS / HOLOTYPE".

Allotype (female); same data as holotype, except third label reads "HESPEROLEON / IN-

FUSCATUS / [MA] ADAMS / ALLOTYPE".

Paratypes, 8 (California).

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Hesperoleon minutus Adams.

1957, *Psyche*, vol. 63, no. 3, pp. 100–102, 104, figs. 6, 13–16.

Holotype (male), CAS Type No. 7208; "Cathedral City / Riverside Co / Cal VII-24 1950"; "L. W. Isaak / Collector"; "UCD"; "1"; "HESPEROLEON / MINUTUS / [MA] ADAMS / HOLOTYPE".

Paratype, 1 (Baja California).

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Hesperoleon peninsulanus Banks.

1942, *Proc. Calif. Acad. Sci.*, ser. 4, vol. 24, no. 4, p. 136, pl. 8 (fig. 15).

Holotype (female), CAS Type No. 4911; "Coyote Cove / Conception Bay, / L. Cal. VII-24-38"; "Michelbacher & / Ross Collectors"; "Hesperoleon peninsulanus / type Bks".

Remarks: This species is currently placed in the genus *Scotoleon* (see Stange, 1994:87).

Maracandula minima Banks.

1942, *Proc. Calif. Acad. Sci.*, ser. 4, vol. 24, no. 4, pp. 140–141, pl. 8 (figs. 7, 9, 14).

Holotype (female), CAS Type No. 4919; "San Miguel, / L. Cal. VII-3-38"; "Maracandula / minima / type Bks".

Paratypes, 12 (3 Baja California, 9 Baja California Sur).

Remarks: This name is considered a junior synonym of *Menkeleon bellula* (Banks) by Stange (1970a:155). One paratype has been determined as *Gnopholeon barberi* (Currie) by L. A. Stange.

Netroneurus pulchellus var. *pallescent* Banks.

1942, *Proc. Calif. Acad. Sci.*, ser. 4, vol. 24, no. 4, p. 140, pl. 8 (fig. 12).

Holotype (male), CAS Type No. 4913; "San Domingo, / L. Cal. VII-19-38"; "Netroneurus / pulchellus / pallescens / Type Bks".

Paratypes, 31 (Baja California Sur).

Remarks: This pale variety is presently considered a junior synonym of *Brachynemurus pulchellus* Banks (see Stange, 1970a:102, 104).

Pamexis karoo Mansell.

1992, Syst. Entomol., vol. 17, no. 1, pp. 67, 69, 71, figs. 1, 6–15, 45.

Paratype, 1 (South Africa).

Psammoleon femoralis Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, p. 146, pl. 8 (figs. 13, 17).

Holotype (female), CAS Type No. 4917; "20 mi. N.W. / La Paz, L. Cal. / VII-16-38"; "Michelbacher & / Ross Collectors"; "Psammoleon / femoralis / type Bks".

Remarks: This species is currently placed in the genus *Eremoleon*. (see Stange, 1970b:21).

Psammoleon normalis Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, p. 145, pl. 8 (figs. 10, 16).

Holotype (male), CAS Type No. 4916; "Venancio, / L. Cal. VII-17-38"; "Michelbacher & / Ross Collectors"; "Psammoleon / normalis / type Bks".

Puren albovaria Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, pp. 146–147, pl. 8 (figs. 3, 6).

Holotype (female), CAS Type No. 4918; "Venancio, / L. Cal. VII-17-38"; "Michelbacher & / Ross Collectors"; "Psammoleon / albovaria / type Bks".

Scotoleon congener Banks.

1942, Proc. Calif. Acad. Sci., ser. 4, vol. 24, no. 4, pp. 138–139, pl. 8 (fig. 1).

Holotype (male), CAS Type No. 4912; "Chapala Dry Lk. / L. Cal. VI-21-38"; "Michelbacher & / Ross Collectors"; "Scotoleon / congener / Type Bks".

Paratypes, 22 (11 Baja California, 11 Baja California Sur).

Remarks: This species is currently considered a junior synonym of *Scotoleon longipalpis* Hagen (see Stange, 1970a:129).

Tyttholeon puerilis Adams.

1957, Psyche, vol. 63, no. 3, pp. 107–108, figs. 7, 8, 11, 12.

Holotype (male), CAS Type No. 7210; "Palm Springs / Riverside Co., Cal / V-29-1939"; "E. G. Linsley / Collector"; "UC"; "5"; "TYTTHOLEON / PUERILIS / [MA] ADAMS / HOLOTYPE".

Allotype (female); same data as holotype, except fourth label reads "15" and fifth label reads "TYTTHOLEON / PUERILIS / [FE] ADAMS / ALLOTYPE".

Paratypes, 2 (California).

Nemopteridae*Lertha sofiae* Monserrat.

1989, Ann. Mus. Civ. Stor. Nat. "Giacomo Doria" (1988–1989), vol. 87, pp. 108–110, figs. 11, 12, 17, 20A–E.

Holotype (male), CAS Type No. 15953; "SPAIN: Almeria Prov. / Bulanegra 41 km W. of / Almeria, 16.VII.1966 / Edward S. Ross / (Dusk after shower)"; "LERTHA / SOFIAE [MA] / TYPUS".

Paratypes, 5 (Spain).

Polystoechotidae*Platystoechotes lineatus* Carpenter.

1940, Proc. Am. Acad. Arts Sci., vol. 74, no. 7, pp. 271–272, figs. 71, 72A–E, pl. 3 (fig. 28).

Holotype (male), CAS Type No. 5593; "Sequoia Natl. / Park, Calif. / Alt. 7000–9000 ft."; "Wolverton / VI-19-29"; "Pres. by / E. C. Van Dyke / Collector"; "Type"; "Platystoechotes / lineatus Carp.".

Allotype (female); CAS Type No. 5594; "Sequoia Natl. / Park, Calif. / Alt. 7000–9000 ft."; "Wolverton / VI-23-29"; "Pres. by / E. C. Van Dyke / Collector"; "allotype"; "Platystoechotes / lineatus Carp.".

Paratypes, 4 (California).

Sisyridae*Climacia californica* Chandler.

1953, J. Wash. Acad. Sci., vol. 43, no. 6, pp. 183–184, fig. 1.

Holotype (male), CAS Type No. 7196; "Clear Lake / Lake Co / Calif. sw side"; "d16-9 m5 y1949 / Elev. 1,318 / H. P. Chandler"; "Holotype / Climacia / californica".

Allotype (female), same data as holotype.

Paratype, 1 (California).

Sisyra pallida Meinander.

1978, Entomol. Scand., vol. 9, no. 3, pp. 234–235, fig. 1A, B.

Holotype (male), CAS Type No. 13114 (in alcohol); "ZAMBIA: Mpulungu / Lake Tanganyika, / 2600' 31-I-1970 / M. E. Irwin & / E. S. Ross"; "*Sisyra pallida* sp.n. [MA] / det. Meinander 1977 / HOLOTYPUS".

LITERATURE CITED

- ADAMS, P. A. 1957. New ant-lions from the southwestern United States (Neuroptera: Myrmeleontidae). *Psyche* (1956) 63(3):82–108.
- . 1958. Further notes on the genus *Eremoleon* Banks, with a new species (Neuroptera: Myrmeleontidae). *Psyche* (1957) 64(1):6–8.
- . 1967. A review of the Mesochrysinæ and Nothochrysinæ (Neuroptera: Chrysopidae). *Bulletin of the Museum of Comparative Zoology, Harvard University* 135(4):215–238.
- . 1973. Coniopterygidae from Chile, with three new species (Neuroptera). *The Pan-Pacific Entomologist* 49(3):250–254.
- . 1974. Synonymy in *Pamphoconis* (Neuroptera, Coniopterygidae). *The Pan-Pacific Entomologist* (1973) 49(4):324.
- . 1979. A new species of *Leucochrysa* from Mexico (Neuroptera, Chrysopidae). *Folia Entomologica Mexicana* 41:95–101.
- . 1987. Studies in Neotropical Chrysopidae (Neuroptera) III. Notes on *Nodita amazonica* Navás and *N. oenops*, n.sp. *Neuroptera International* 4(4):287–294.
- ADAMS, P. A. AND N. D. PENNY. 1992. New genera of Nothochrysinæ from South America (Neuroptera: Chrysopidae). *The Pan-Pacific Entomologist* 68(3):216–221.
- ARNAUD, P. H., JR. 1979. A catalog of the types of Diptera in the collection of the California Academy of Sciences. *Myia* 1:1–505.
- ARNAUD, P. H., JR. AND V. F. LEE. 1973. Types of Thysanoptera in the collection of the California Academy of Sciences. *Occasional Papers of the California Academy of Sciences* 105:1–138.
- ASPÖCK, U. 1973. Zwei neue Raphidiiden-Spezies aus Nordamerika (Neuroptera, Raphidioptera). *Polskie Pismo Entomologiczne* 43(2):233–240.
- . 1988. *Negha meridionalis* n.sp. - eine neue Inocelliden-Spezies aus Süd-Kalifornien (U. S. A.) und Baja California (Mexiko) (Neuropteroidea: Raphidioptera: Inocellidae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 39(3/4):107–112.
- ASPÖCK, U. AND H. ASPÖCK. 1978. *Raphidia (Alieberaphidia) tenochtitlana* n.sp. - eine neue Raphidiiden-Spezies aus Baja California (Mexiko) (Neuropteroidea, Raphidioptera). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 30(1/2):21–24.
- . 1988. Die Subfamilie Cyrenoberothinae - ein Gondwana-Element? *Manselliberothera neuropterologorum* n.g. et n.sp. aus S. W. A./Namibia (Neuropteroidea: Planipennia: Berothidae). *Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen* 40(1/2):1–13.
- BANKS, N. 1911. Descriptions of new species of North American neuropteroid insects. *Transactions of the American Entomological Society* 37(4):335–360.
- . 1942. Contributions toward a knowledge of the insect fauna of Lower California. No. 4. Neuroptera: Myrmeleontidae. *Proceedings of the California Academy of Sciences* (4)24(4):133–151.
- BYERS, G. W. 1961. An unusual new species of *Boreus* (Mecoptera: Boreidae) from Oregon. *Journal of the Kansas Entomological Society* 34(2):73–78.
- . 1965. The Mecoptera of Indo-China. *Pacific Insects* 7(4):705–748.
- . 1983. A new *Neopanorpa* (Mecoptera: Panorpididae) from Laos. *The Pan-Pacific Entomologist* (1982) 58(2):92–95.
- . 1990. *Brachypanorpa sacajawea* n.sp. (Mecoptera: Panorpididae) from the Rocky Mountains. *Journal of the Kansas Entomological Society* 63(2):211–217.
- CARPENTER, F. M. 1935. New Nearctic Mecoptera, with notes on other species. *Psyche* 42(2):105–122.
- . 1936. Revision of the Nearctic Raphidioidea

- (Recent and fossil). Proceedings of the American Academy of Arts and Sciences 71(2):89-157.
- . 1940. A revision of the Nearctic Hemerobiidae, Berothidae, Sisyridae, Polystoechotidae and Dilaridae (Neuroptera). Proceedings of the American Academy of Arts and Sciences 74(7):193-280.
- CHANDLER, H. P. 1953. A new species of *Climacia* from California (Sisyridae, Neuroptera). Journal of the Washington Academy of Sciences 43(6):182-184.
- . 1954. Four new species of dobsonflies from California (Megaloptera: Corydalidae). The Pan-Pacific Entomologist 30(2):105-111.
- CHENG, F.-Y. 1957. Descriptions of new Panorpidae (Mecoptera) in the collection of the California Academy of Sciences. Memoirs of College of Agriculture, National Taiwan University 5(1):27-33.
- COOPER, K. W. 1972. A Southern California *Boreus*, *B. notoperates* n.sp. I. Comparative morphology and systematics (Mecoptera: Boreidae). Psyche 79(4):269-283.
- EVANS, E. D. 1984. A new genus and a new species of dobsonfly from the far western United States (Megaloptera: Corydalidae). The Pan-Pacific Entomologist 60(1):1-3.
- LINSLEY, E. G. AND J. W. MACSWAIN. 1955. Two new species of *Plega* from Mexico (Neuroptera, Mantispidae). The Pan-Pacific Entomologist 31(1):15-19.
- LONDT, J.G.H. 1972. The Mecoptera of southern Africa. Journal of the Entomological Society of Southern Africa 35(2):313-343.
- . 1977. Redescriptions of *Bittacus montanus* Weele, 1909, and *Bittacus schoutedeni* Esben-Petersen, 1913, with new synonymy and the description of a new central African species (Mecoptera: Bittacidae). Journal of the Entomological Society of Southern Africa 40(1):87-98.
- MADDUX, D. E. 1954. A new species of dobsonfly from California (Megaloptera: Corydalidae). The Pan-Pacific Entomologist 30(1):70-71.
- MANSELL, M. W. 1992. The ant-lions of southern Africa: genus *Pamexis* Hagen (Neuroptera: Myrmeleontidae: Palparinae: Palparini). Systematic Entomology 17(1):65-78.
- MEINANDER, M. 1969. The genus *Heteroconis* Enderlein, 1905 (Neuroptera, Coniopterygidae). Notulae Entomologicae 49(2):49-72.
- . 1972. A revision of the family Coniopterygidae (Planipennia). Acta Zoologica Fennica 136:1-357.
- . 1973. Notes on some types of Enderlein's species of Coniopterygidae, with description of a new species of *Pampoconis* (Neuroptera). Notulae Entomologicae 53(1):23-25.
- . 1974a. Coniopterygidae from western North America (Neuroptera). Entomologica Scandinavica 5(3/4):217-232.
- . 1974b. Coniopterygidae from South and Central America (Neuroptera). Notulae Entomologicae 54(4):97-106.
- . 1975. Coniopterygidae from North America (Neuroptera). Notulae Entomologicae 55(1):28-32.
- . 1978. *Sisyr pallida* n.sp. from Zambia (Neuroptera: Sisyridae). Entomologica Scandinavica 9(3):234-235.
- . 1990. The Coniopterygidae (Neuroptera, Planipennia). A check-list of the species of the world, descriptions of new species and other new data. Acta Zoologica Fennica 189:1-95.
- MONSERRAT, V. J. 1989. Revision de las especies de *Lertha* del Mediterraneo occidental (Neuropteroidea, Planipennia: Nemopteridae). Annali del Museo Civico di Storia Naturale "Giacomo Doria" (1988-1989) 87:85-113.
- . 1990. Systematic studies on Hemerobiidae (Insecta: Neuroptera). Pp. 67-88, In M.W. Mansell and H. Aspöck (editors), Advances in neuropterology. Proceedings of the Third International Symposium on Neuropterology. Berg en Dal, Kruger National Park, Republic of South Africa, 3-4 February 1988. Pretoria, R. S. A.
- NAKAHARA, W. 1965a. Contributions to the knowledge of the Hemerobiidae of western North America (Neuroptera). Proceedings of the United States National Museum 116(3503):205-222.
- . 1965b. Neotropical Hemerobiidae in the United States National Museum. Proceedings of the United States National Museum 117(3509):107-122.

- OSWALD, J. D. 1987. A new species of *Micromus* from the western United States (Neuroptera: Hemerobiidae). *Journal of the New York Entomological Society* 95(1):1-4.
- . 1988. A revision of the genus *Symphorobius* Banks (Neuroptera: Hemerobiidae) of America north of Mexico with a synonymical list of the world species. *Journal of the New York Entomological Society* 96(4):390-451.
- PARKER, F. D. AND L. A. STANGE. 1965. Systematic and biological notes on the tribe Platymantispini (Neuroptera: Mantispidae) and the description of a new species of *Plega* from Mexico. *The Canadian Entomologist* 97(6):604-612.
- PENNY, N. D. 1977. A systematic study of the family Boreidae (Mecoptera). The University of Kansas Science Bulletin, 51(5):141-217.
- . 1994. A new species of *Nallachius* (Neuroptera: Dilaridae) from Costa Rica. *The Pan-Pacific Entomologist* 70(4):309-312.
- REHN, J. W. H. 1939. Studies in North American Mantispidae (Neuroptera). *Transactions of the American Entomological Society* 65(3):237-263.
- RENTZ, D. C. 1965. Type specimens of Orthoptera in the collection of the California Academy of Sciences to 1965. *Proceedings of the California Academy of Sciences* (4)33(4):59-64.
- ROSS, H. H. 1937. Nearctic alder flies of the genus *Sialis* (Megaloptera, Sialidae). *Illinois Natural History Survey Bulletin* 21(3):57-78.
- STANGE, L. A. 1963. The Dimarellini of Mexico (Neuroptera: Myrmeleontidae) with the descriptions of two new species of *Dimarella*. *Annals of the Entomological Society of America* 56(6):810-816.
- . 1969. Myrmeleontidae of the Galapagos Islands (Insecta: Neuroptera). *Acta Zoológica Lilloana* 25(17):187-197.
- . 1970a. Revision of the ant-lion tribe Brachynemurini of North America (Neuroptera: Myrmeleontidae). *University of California Publications in Entomology* 55:1-192.
- . 1970b. A generic revision and catalog of the Western Hemisphere Glenurini with the description of a new genus and species from Brazil (Neuroptera: Myrmeleontidae). *Los Angeles County Museum Contributions in Science* 186:1-28.
- . 1994. Reclassification of the New World antlion genera formerly included in the tribe Brachynemurini (Myrmeleontidae). *Insecta Mundi* 8(1/2):67-119.
- TAUBER, C. A. 1969. Taxonomy and biology of the lacewing genus *Meleoma* (Neuroptera: Chrysopidae). *University of California Publications in Entomology* 58:1-94.
- VAN DYKE, E. C. 1944. A new dobsonfly (Megaloptera) from California. *The Pan-Pacific Entomologist* 20(3):110.
- WALKER, F. 1853. List of the specimens of neuropterous insects in the collection of the British Museum. Part II. — (Sialidae - Nemopterides). *British Museum, London*. Pp. 193-476.
- WOGLUM, R. S. AND E. A. MCGREGOR. 1964. A new snakefly from Southern California (Neuroptera: Raphidiidae). *Bulletin of the Southern California Academy of Sciences* 63(4):201-203.

INDEX OF SPECIES NAMES

affine, <i>Eremoleon</i>	142	infuscatus, <i>Hesperoleon</i>	143
albicostales, <i>Pimachrysa</i>	133	ingens, <i>Dysmicohermes</i>	130
albovaria, <i>Puren</i>	144	involuta, <i>Kimminsia</i>	140
angustipennis, <i>Pampoconis</i>	138	kantsi, <i>Nolima</i>	141
antennensis, <i>Meleoma</i>	133	karoo, <i>Pamexis</i>	144
aridus, <i>Protochauliodes</i>	130	kellogi, <i>Panorpa</i>	129
arizonica, <i>Raphidia</i>	132	killingtoni, <i>Symphorobius</i>	141
arnaudi, <i>Raphidia</i> (<i>Agulla</i>)	132	kruegeri, <i>Nusalala</i>	140
arnaudi, <i>Semidalis</i>	138	latipennis, <i>Lomamyia</i>	133
arvalis, <i>Sialis</i>	131	lichuanensis, <i>Neopanorpa</i>	129
banksi, <i>Agulla</i>	131	lineatus, <i>Platystoechotes</i>	144
banksi, <i>Plega</i>	141	lipanica, <i>Plega dactylota</i>	141
barri, <i>Raphidia</i> (<i>Agulla</i>)	132	longipennis, <i>Aleuropteryx</i>	134
bifurcata, <i>Heteroconis</i>	136	lungtausana, <i>Neopanorpa</i>	129
bifurcata, <i>Neoconis</i>	137	maculipennis, <i>Aleuropteryx</i>	134
bractea, <i>Agulla</i>	131	madangensis, <i>Heteroconis</i>	137
brevicaudus, <i>Boreus</i>	128	meinanderi, <i>Incasemidalis</i>	137
brunneus, <i>Symphorobius</i>	140	melitomae, <i>Plega</i>	141
californica, <i>Climacia</i>	144	menkei, <i>Dimarella</i>	142
californica, <i>Coniopteryx</i> (<i>Coniopteryx</i>)	135	meridionalis, <i>Negha</i>	131
californica, <i>Conwentzia</i>	136	mexicana, <i>Coniopteryx</i> (<i>Coniopteryx</i>)	135
californica, <i>Helicoconis</i> (<i>Helicoconis</i>)	136	mexicana, <i>Semidalis</i>	139
cascadius, <i>Protochauliodes</i>	130	mimicus, <i>Brachynemurus</i>	141
chilensis, <i>Coniopteryx</i> (<i>Scotoconiopteryx</i>)	135	minima, <i>Maracandula</i>	143
congener, <i>Scotoleon</i>	144	minuta, <i>Coniopteryx</i> (<i>Coniopteryx</i>)	135
constrictus, <i>Symphorobius</i>	140	minutus, <i>Hesperoleon</i>	143
crepusculus, <i>Dysmicohermes</i>	130	mixtecus, <i>Brachynemurus</i>	142
cupressi, <i>Aleuropteryx</i>	134	mohri, <i>Sialis</i>	131
curvata, <i>Heteroconis</i>	136	mokansana, <i>Neopanorpa</i>	129
dactylota, <i>Plega</i>	141	mokansana, <i>Panorpa</i>	129
darwini, <i>Brachynemurus</i>	141	monstruosa, <i>Neosemidalis</i> (<i>Neosemidalis</i>)	137
deflexus, <i>Hesperoleon</i>	143	montivagus, <i>Protochauliodes</i>	131
dentata, <i>Notiobiella</i>	140	nervalis, <i>Neosemidalis</i> (<i>Neosemidalis</i>)	137
deserta, <i>Semidalis</i>	139	neuropterologorum, <i>Manselliberothera</i>	133
dine, <i>Nolima</i>	141	nigra, <i>Pimachrysa</i>	134
directa, <i>Agulla</i>	131	nigrans, <i>Hemerobius</i>	139
elegans, <i>Boreus</i>	129	nigrescens, <i>Brachynemurus</i>	142
elongatus, <i>Hemerobius</i>	139	nigrinotum, <i>Agulla</i>	131
femoralis, <i>Psammoleon</i>	144	nigrinus, <i>Neohermes</i>	130
fidelitas, <i>Hesperoleon</i>	143	nix, <i>Boreus</i>	129
fijiensis, <i>Spiloconis</i>	139	normalis, <i>Psammoleon</i>	144
frommeri, <i>Semidalis</i>	139	notoperates, <i>Boreus</i>	129
fumata, <i>Kimminsia</i>	140	occidens, <i>Sialis</i>	131
fumosa, <i>Plega</i>	141	occidentis, <i>Agulla</i>	131
fusca, <i>Pimachrysa</i>	133	oenops, <i>Nodita</i>	133
fuscatus, <i>Pseudomicromus</i>	140	ovalis, <i>Hemerobius</i>	140
globulifera, <i>Neopanorpa</i>	129	pallida, <i>Sisyra</i>	145
goniocera, <i>Coniopteryx</i> (<i>Coniopteryx</i>)	135	parkeri, <i>Brachynemurus</i>	142
gracile, <i>Eremoleon</i>	142	parkeri, <i>Nallachius</i>	139
		peninsulanus, <i>Hesperoleon</i>	143
		pennyi, <i>Heteroconis</i>	137

<i>persimilis</i> , <i>Brachynemurus</i>	142	<i>simplex</i> , <i>Coniopteryx</i> (<i>Coniopteryx</i>) ...	136
<i>peruviansis</i> , <i>Semidalis</i>	139	<i>simplus</i> , <i>Protochauliodes</i>	131
<i>pilosus</i> , <i>Boreus</i>	129	<i>singularis</i> , <i>Agulla</i>	132
<i>planifrontalis</i> , <i>Heteroconis</i>	137	<i>smithersi</i> , <i>Bittacus</i>	128
<i>powelli</i> , <i>Meleoma</i>	133	<i>smithersi</i> , <i>Coniocompsa</i>	135
<i>prisca</i> , <i>Leptochrysa</i>	133	<i>sofae</i> , <i>Lertha</i>	144
<i>psammophila</i> , <i>Dimarella</i>	142	<i>sonorana</i> , <i>Semidalis</i>	139
<i>puerilis</i> , <i>Tyttholeon</i>	144	<i>stramineus</i> , <i>Brachynemurus</i>	142
<i>pulchellus</i> var. <i>pallens</i> , <i>Netroneurus</i> .	143	<i>tenochtitlana</i> , <i>Raphidia</i> (<i>Aliaberaphidia</i>)	132
<i>punctata</i> , <i>Aleuropteryx</i>	134	<i>thompsoni</i> , <i>Panorpa</i>	130
<i>punctipennis</i> , <i>Pampoconis</i>	138	<i>tuberosa</i> , <i>Neopanorpa</i>	129
<i>remiformis</i> , <i>Micromus</i>	140	<i>uncinata</i> , <i>Pampoconis</i>	138
<i>rossi</i> , <i>Bittacus</i>	128	<i>unicolor</i> , <i>Agulla</i>	132
<i>sacajawea</i> , <i>Brachypanorpa</i>	130	<i>unicolor</i> , <i>Aleuropteryx</i>	135
<i>sectoralis</i> , <i>Eremoleon</i>	143	<i>variabilis</i> , <i>Chaetoleon</i>	142
<i>serricornis</i> , <i>Neosemidalis</i> (<i>Neosemidalis</i>)	138	<i>velata</i> , <i>Sialis</i>	131
<i>serrula</i> , <i>Leucochrysa</i>	133	<i>westcotti</i> , <i>Brachynemurus</i>	142
<i>setosus</i> , <i>Brachynemurus</i>	142	<i>wrightae</i> , <i>Panorpa</i>	130
<i>similis</i> , <i>Helicoconis</i> (<i>Helicoconis</i>)	136	<i>yucatanae</i> , <i>Plega</i>	141
<i>simillima</i> , <i>Aleuropteryx</i>	134	<i>zapotecas</i> , <i>Gnopholeon</i>	143



Penny, Norman D and Lee, Vincent F. 1996. "Types of Mecoptera, Megaloptera, Raphidioptera, and Neuroptera (Insecta) in the collection of the California Academy of Sciences." *Proceedings of the California Academy of Sciences, 4th series* 49, 127–149.

View This Item Online: <https://www.biodiversitylibrary.org/item/53710>

Permalink: <https://www.biodiversitylibrary.org/partpdf/52967>

Holding Institution

MBLWHOI Library

Sponsored by

MBLWHOI Library

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: California Academy of Sciences

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.