

MILWAUKEE PUBLIC MUSEUM

Contributions

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**Type Specimens in the Insect Collections
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ISBN 0-89326-105-X

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This paper is the first list of type-material to be published for the insect collections of the Invertebrate Zoology Section of the Milwaukee Public Museum. The value of such a list is shown by recommendation 72 D of the *International Code of Zoological Nomenclature* (1964) which states that institutions with collections containing type material should publish lists of it. Systematists at universities and at other museums use such lists to locate types of species in which they are interested. Such lists also provide an accounting of type-material and establish a baseline on which a museum can measure future growth and on which subsequent acquisitions can be recorded and published.

The origins of the museum's insect collections can be traced back to private citizens who assembled collections before or approximately simultaneously with the opening of the museum a century ago. These individuals ultimately donated their holdings to the museum, and as the insect collections grew, curators were hired to care for and to augment them. During the early part of this century the collections grew rapidly, and curators such as C. T. Brues and S. Graenicher added considerable type and non-type material. The depression caused a hiatus in the development of the collections. This was followed by a period in which curators necessarily spent much of their time planning for the construction of the present building occupied by the museum and then in helping fill its public areas with new exhibits. The present building was opened in 1963, and by the 1970s it was possible for curators to again devote a substantial portion of their time to curation.

The insect collections presently total approximately 400,000 specimens, with about half of these having been added since 1975. These collections contain 60 holotypes, syntypes of 55 species, and allotypes or paratypes of 67 more species. Holotypes, syntypes and allotypes are maintained separately from the general collections. "Allotype" in this paper means a paratype of the sex opposite to that of the holotype.

The following list of type-specimens is arranged alphabetically by taxa. Taxa are listed by their original generic and specific names; no attempt is made to list any recombinations of names or synonymies which may have occurred since the original descriptions. The complete citations of original descriptions are provided in the Literature Cited section.

ORDER COLEOPTERA

FAMILY BUPRESTIDAE

Chalcophora melanotum Muttkowski, R. A. 1910a: 135-136. holotype.

FAMILY CARABIDAE

- Cicindela fulgoris albilata* Acciavatti, R. E. 1980: 238-240. 4 paratypes.
Cylindera (Plectographa) nahuelbutae Pena, L. E. 1957: 35-39. 5 paratypes.
Notiobia (Anisotarsus) aguilarorum Noonan, G. R. 1981: 11-14. holotype, allotype, and more than 500 paratypes.
Notiobia (Anisotarsus) moffetti Noonan, G. R. 1981: 37-40. holotype, allotype, and more than 500 paratypes.

FAMILY CLERIDAE

- Clerus muttkowskii* Wolcott, A. B. 1909: 98. holotype.
Cymatodera pubescens Wolcott, A. B. 1909: 94-95. holotype.
Pelonium granulosum Wolcott, A. B. 1909: 100-101. holotype and paratype.

FAMILY DYTISCIDAE

- Desmopachria aldessa* Young, F. N. 1980: 312-313. 10 paratypes.
Desmopachria aureus Young, F. N. 1980: 313-314. 10 paratypes.
Neobidessus alvarengai Young, F. N. 1981: 336-337. 10 paratypes.

ORDER DIPTERA

FAMILY ACROCERIDAE

- Ogcodes (Ogcodes) adaptatus* Schlinger, E. I. 1960: 297-304. 2 paratypes.

FAMILY BOMBYLIIDAE

- Anthrax nemakagonensis* Graenicher, S. 1910b: 26-27. 16 syntypes.

FAMILY CECIDOMYIIDAE

- Asynapta antennariae* Wheeler, W. M. 1889: 212-214. 1 syntype; also a second specimen which may be a syntype of this species or of *Cecidomyia antennariae* Wheeler.
Cecidomyia antennariae Wheeler, W. M. 1889: 209-212. See remarks for *Asynapta antennariae*

FAMILY CONOPIDAE

- Zodion lativentre* Graenicher, S. 1910b: 26. holotype.

FAMILY HELOMYZIDAE

- Anorostoma maculatum* Darlington, P. S. 1908: 76-77. 4 syntypes.

FAMILY PHORIDAE

- Aphiochaeta braunsi* Brues, C. T. 1907a: 390-392. 2 syntypes.
Aphiochaeta longifrons Brues, C. T. 1906c: 100-101. holotype.
Phora occidentalis Brues, C. T. 1908c: 200. 2 syntypes.
Phora variabilis Brues, C. T. 1908c: 199-200. holotype and 1 paratype.
Plastophora juli Brues, C. T. 1908c: 201. 2 syntypes.

FAMILY SPHAEROCERIDAE

Leptocera (Opacifrons) sciaspidis Spuler, A. 1924: 124-126. 1 paratype.

Leptocera (Scotophilella) longicosta Spuler, A. 1925: 155-156. 4 paratypes.

Leptocera (Scotophilella) ordinaria Spuler, A. 1925: 159-160. 1 paratype.

FAMILY SYRPHIDAE

Cheilosia (Cartosyrphus) wisconsinensis Fluke, C. L. and F. Hull 1947: 232-234. 1 allotype and 1 paratype.

Helophilus bruesi Graenicher, S. 1910a: 40-41. holotype.

Syrphus montivagus Snow, W. A. 1895: 236-237. 2 syntypes.

FAMILY TABANIDAE

Chrysops aberrans Philip, C. B. 1941: 122-126. 1 paratype.

Chrysops asbestos Philip, C. B. 1950: 455-457. 1 paratype.

Chrysops venus Philip, C. B. 1950: 457-458. 1 paratype.

FAMILY TIPULIDAE

Tipula dickinsoni Alexander, C. P. 1932: 240-242. holotype, allotype, and 1 paratype.

ORDER HEMIPTERA

FAMILY GERRIDAE

Halobates acherontis Polhemus, J. T. 1982: 6-7. 2 paratypes.

Rheumatobates aestuarius Polhemus, J. T. 1969: 509-511. 16 paratypes.

Trepobates polhemi Kittle, P. D. 1982: 161-164. 4 paratypes.

FAMILY VELIIDAE

Rhagovelia atrispina Polhemus, J. T. 1977: 645-646. 16 paratypes.

Rhagovelia chiapensis Polhemus, J. T. 1980: 311-313. 4 paratypes.

Stridulivelia (Aenictovelia) secerna Polhemus, J. T. 1979: 46-50. 16 paratypes.

ORDER HOMOPTERA

FAMILY APHIDIDAE

Cerosipha araliaeradicis Strom, L. G. 1938: 471-473. 5 paratypes.

ORDER HYMENOPTERA

FAMILY ANDRENIDAE

Andrena albofoveata Graenicher, S. 1903: 166. 1 syntype.

Andrena braccata Viereck, H. L. 1907a: 284, 287. 3 possible syntypes.

Andrena cockerelli Graenicher, S. 1903: 163-164. 2 syntypes.

Andrena crawfordi Viereck, H. L. 1909: 143-144. 2 paratypes.

Andrena fragariana Graenicher, S. 1904: 64-65. 2 syntypes.
Andrena milwaukeensis Graenicher, S. 1903: 164-165. 1 syntype.
Andrena nivaloides Graenicher, S. 1911: 235-236. holotype and 1 paratype.
Andrena thaspiae Graenicher, S. 1903: 162. 3 syntypes.
Andrena weedi Viereck, H. L. 1907a: 284, 288. 2 paratypes.
Andrena wheeleri Graenicher, S. 1904: 65-66. 1 syntype.
Andrena (Trachandrena) atlantica Mitchell, T. B. 1960: 178-179. 2 paratypes.
Perdita citrinella Graenicher, S. 1910c: 103-104. holotype.
Perdita cockerelli Crawford, J. C. 1906b: 282-283. 2 paratypes.
Perdita maculipennis Graenicher, S. 1910c: 102-103. holotype and 2 paratypes.
Perdita pallidipennis Graenicher, S. 1910c: 101-102. 2 syntypes.

FAMILY ANTHOPHORIDAE

Nomada cockerelli Graenicher, S. 1911: 240-241. holotype.
Nomada wisconsinensis Graenicher, S. 1911: 239-240. 2 syntypes.
Triepeolus obliterated Graenicher, S. 1911: 242-243. 2 syntypes.

FAMILY BETHYLIDAE

Cephalonomia utahensis Brues, C. T. 1908c: 154. 1 paratype.
Gonatopus capensis Brues, C. T. 1906b: 105-106. holotype.
Gonatopus pilosipes Brues, C. T. 1906b: 104-105, plate 1. holotype.
Gonatopus similis Brues, C. T. 1906b: 107. holotype.
Gonatopus varipes Brues, C. T. 1906b: 106. holotype.
Goniozus hortorum Brues, C. T. 1907e: 150-151. 1 syntype.
Gynochelys braunsi Brues, C. T. 1906b: 108-109, plate 1. holotype.
Mystrocnemis capensis Brues, C. T. 1906b: 103-104. holotype.
Pristocera hyalina Brues, C. T. 1906d: 143. holotype.

FAMILY BRACONIDAE

Asobara barthii Brues, C. T. 1907c: 57-58. lectotype (designated by Fischer 1973: 260) and 4 paralectotypes.
Calyptus collaris Brues, C. T. 1907e: 159-160. holotype.
Helcon ferrugineus Brues, C. T. 1907e: 158-159. 2 syntypes.
Helorimorpha melanderi Brues, C. T. 1908a: 363-364. holotype.
Hormiopterus caudatus Brues, C. T. 1907c: 62. holotype.
Orthostigma americana Brues, C. T. 1907c: 59-60. holotype.
Pambolus dispar Brues, C. T. 1907d: 110-111. 1 syntype.

FAMILY CERAPHRONIDAE

Ceraphron brevicornis Brues, C. T. 1906d: 146-147. holotype.
Ceraphron quissetensis Brues, C. T. 1906d: 147-148. holotype.

FAMILY COLLETIDAE

Colletes vicinalis Graenicher, S. 1911: 228-229. holotype.

FAMILY CRABONIDAE

Crabro (Protothyreopus) dilectiformis Rohwer, S. A. 1909a: 146-147. holotype.

FAMILY DIAPRIIDAE

Galesus autumnalis Brues, C. T. 1906d: 151-152. holotype.

FAMILY DRYINIDAE

Aphelopus varicornis Brues, C. T. 1906d: 143-144. holotype.

FAMILY ENCYRTIDAE

Charitopus albopalpalis Brues, C. T. 1907b: 47-48. holotype.

Metapelma mirabilis Brues, C. T. 1906b: 111-112. 2 syntypes.

Parasolindenia aptera Brues, C. T. 1907b: 49-50. holotype.

FAMILY EULOPHIDAE

Chrysocharis aeneus Brues, C. T. 1909: 161. 6 syntypes.

Nesomyia cimbicis Brues, C. T. 1909: 162. holotype and 2 paratypes.

FAMILY EUELMIDAE

Eupelminus robustus Brues, C. T. 1907b: 50-51. holotype.

Eupelmus cursor Brues, C. T. 1907b: 52-53. holotype.

Eupelmus melanderi Brues, C. T. 1907c: 54-55. 3 syntypes.

Eupelmus cursor Brues, C. T. 1907b: 52-53. holotype.

Eupelmus melanderi Brues, C. T. 1907c: 54-55. 3 syntypes.

Eupelmus nubifer Brues, C. T. 1907b: 51-52. holotype.

Eupelmus volator Brues, C. T. 1907b: 52. holotype.

FAMILY HALICTIDAE

Conohalictoides monardae Viereck, H. L. 1924: 14-15. holotype and 3 paratypes.

Halictus lineatulus Crawford, J. C. 1906a: 5-6. 1 syntype.

Halictus nevadensis Crawford, J. C. 1907a: 195-196. 1 syntype.

Halictus nigroviridis Graenicher, S. 1911: 233. holotype.

Halictus quebecensis Crawford, J. C. 1907b: 189. 1 syntype.

Halictus vierecki Crawford, J. C. Jr. 1904: 97-99. 1 syntype.

Sphcodes solonis Graenicher, S. 1911: 229-230. 2 syntypes.

FAMILY ICHNEUMONIDAE

Enizemum neomexicanum Brues, C. T. 1908b: 54-55. 1 specimen which is either a syntype or the holotype.

Metopius birkmani Brues, C. T. 1907c: 56-57. 2 syntypes.

Oxytorus paludicola Brues, C. T. 1908b: 50-51. 1 syntype.

Promethes rohweri Brues, C. T. 1908b: 51-52. Lectotype (designated by Dasch, 1964: 254) and three paralectotypes.

Syrphoctonus laevis Brues, C. T. 1908b: 53-54. holotype.
Zootrephes similis Brues, C. T. 1908b: 52-53. 1 specimen which is
either a syntype or the holotype.

FAMILY LARRIDAE

Tachytes calcaratiformis Rohwer, S. A. 1909b: 204. 3 syntypes.
Tachytes dubitatus Rohwer, S. A. 1909b: 202-204. 2 syntypes.
Tachytes propinquus Rohwer, S. A. 1909b: 198-199. 1 syntype.

FAMILY MEGACHILIDAE

Anthidium (Protanthidium) chippewaense Graenicher, S. 1910c: 157-
158. 3 syntypes.
Megachile (Litomegachile) brevis pseudobrevis Mitchell, T. B. 1935:
20-21. holotype.

FAMILY MYMARIDAE

Alaptus caecilii Girault, A. A. 1908: 189-191. 3 syntypes.
Gonatocerus americanus Brues, C. T. 1907d: 109-110. holotype.

FAMILY PEMPHREDONIDAE

Psen (Mimesa) barthi Viereck, H. L. 1907b: 251. holotype.

FAMILY PHILANTHIDAE

Cerceris echo atrata Scullen, H. A. 1965: 377-378. 1 paratype.

FAMILY PLATYGASTERIDAE

Crabroborus krombeini Muesebeck, C. F. W. 1963: 392-394. 1
paratype.

Aphanomerus americanus Brues, C. T. 1909: 156. 2 syntypes.
Polygnotus caninifrons Brues, C. T. 1910: 155-156. 2 syntypes.
Polygnotus coronatus Brues, C. T. 1910: 154-155. 2 syntypes.
Polygnotus latescens Brues, C. T. 1910: 156-157. 2 syntypes.
Polygnotus mediocris Brues, C. T. 1910: 157-158. 2 syntypes.
Rosneta tritici Brues, C. T. 1909: 157. 1 syntype.
Xestonotus meridionalis Brues, C. T. 1910: 150-151. 2 syntypes.

FAMILY PTEROMALIDAE

Asaphes rufipes Brues, C. T. 1909: 160. holotype.
Ormyrodes carinatus Brues, C. T. 1907b: 46. holotype.

FAMILY SCELIONIDAE

Hoploteleia noveboracensis Brues, C. T. 1908b: 49-50. holotype.
Macroteleia surfacei Brues, C. T. 1907e: 153-154. 2 syntypes.
Scelio monticola Brues, C. T. 1906a: 184-185. 1 syntype.
Scelio nitens Brues, C. T. 1906b: 110-111. 4 syntypes.
Scelio pulchripennis Brues, C. T. 1906b: 109-110. 3 syntypes.
Scelio striaticollis Brues, C. T. 1906a: 222. 1 syntype.
Sparaison graenicheri Brues, C. T. 1906d: 149-150. holotype.

Sparaison gregarium Brues, C. T. 1907e: 154-155. 2 specimens which are probably syntypes.

Telenomus heracleicola Brues, C. T. 1906d: 148. 3 syntypes.

FAMILY SPHECIDAE

Tachysphex krombeiniellus Pulawski, W. J. 1982: 41. 2 paratypes.

ORDER LEPIDOPTERA

FAMILY ARCTIIDAE

Automolis gagarini Travassos, L. 1955: 97-101. 2 specimens which may be paratypes.

Phragmotobia lineata Donahue, J. P. and J. H. Newman. 1966: 40-48. 2 paratypes.

Rhipha olafi Gagarin, P. 1967: 11. holotype.

Utetheisa lothrix pitcairni Moeck, A. H. 1963: 59. 8 syntypes.

FAMILY CASTNIIDAE

Castnia escalantei Miller, J. Y. 1976: 7-9. 1 paratype.

FAMILY LYCAENIDAE

Chrysozephyrus neidhoeferi Shimonoya, T. and S. Murayama 1971: 18-19, 21, plate 1. 1 paratype.

Orthomiella lucida Forster, W. 1942: 580. 1 paratype.

Orthomiella pontis fukienensis Forster, W. 1941: 624-626. 1 paratype.

FAMILY NYMPHALIDAE

Anaea rosae Fassl, A. H. 1909: 81-83. 3 specimens which may be syntypes.

Charaxes patergodarti Neidhoefer, J. R. 1972: 5, 7, 8. holotype.

Cymothoe meridionalis Overleat, F. G. 1944: 41-43. 2 specimens which may be paratypes.

Cymothoe sangaris luluana Overleat, F. G. 1945: 276-277. 2 paratypes.

Hypolimnas macarthuri Neidhoefer, J. R. 1972: 3-6. holotype and 1 allotype.

Melitaea pseudathalia lepontica Rütimeyer, E. 1943: 30-32. 2 syntypes.

Speyeria atlantis dorothea Moeck, A. H. 1947: 73-75. 50 paratypes.

Speyeria atlantis greyi Moeck, A. H. 1950: 61-64. 10 paratypes.

FAMILY PAPILIONIDAE

Ornithoptera chimaera draco Rousseau-Decelle, G. 1935: 44-45. holotype.

Papilio erostratinus Vazquez, L. 1947: 252-255. 2 paratypes.

Papilio prattorum Joicey, J. J. and G. Talbot. 1922: 360-362. 1 syntype.

FAMILY PARNASSIIDAE

Parnassius apollo calmensis Rüttimeyer, E. 1947: 347-350. 2 paratypes.

FAMILY SATURNIIDAE

Actias neidhoeferi Ong, S. K. and C. K. Yu. 1968: 10-11, plate 3. allotype and 4 paratypes.

Adelowalkeria (Rachesa) caucensis LeMaire, C. 1969: 82-84. 2 paratypes.

Antistathmoptera daltonae rectangulata Pinhey, E. 1972: 153-155. 1 paratype.

Automeris banus argentifera LeMaire, C. 1966a: 158-159. 1 paratype.

Automeris contempta contempta LeMaire, C. 1966b: 221-222. 2 paratypes.

Automeris contempta flavissima LeMaire, C. 1966b: 222-223. 1 paratype.

Automeris contempta nyctimenoides LeMaire, C. 1966b: 222. 1 paratype.

Automeris denhezorum LeMaire, C. 1966a: 160. 1 paratype.

Automeris margaritae LeMaire, C. 1966b: 217-218. 1 paratype.

Automeris (Automeris) fieldi LeMaire, C. 1969: 85-87. 2 paratypes.

Cerodirphia candida LeMaire, C. 1969: 92-94. 2 paratypes.

Dirphiopsis wanderbilti Pearson, H. R. 1958: 7-15. 1 paratype.

Eacles imperialis pini Michener, C. D. 1950: 17-21. 2 paratypes.

Gamelia neidhoeferi LeMaire, C. 1966c: 299-300. 2 paratypes.

FAMILY SATYRIDAE

Erycinidia maudei Joicey, J. J. and G. Talbot. 1916: 74-75. 2 syntypes.

Lyela amirica Wyatt, C.W. 1961: 16-17. 2 paratypes.

FAMILY SPHINGIDAE

Amplypterus gagarini Zikán, J. F. 1935: 66-68. 1 paratype.

Cautethia noctuiformis bredini Cary, C. R. 1970: 267-270. 1 paratype.

Ceratomia catalpae kanawahensis Sweadner, W., F. H. Chermock and R. L. Chermock. 1940: 137-138. 6 paratypes.

Epistor cavifer paganus Kernbach, K. 1957: 79. 1 paratype.

Erinnyis alope dispersa Kernbach, K. 1962: 9-10. 1 paratype.

Euryglottis davidianus Dognin, P. 1891: 159. 1 syntype.

Hemeroplanes elainae Neidhoefer, J. R. 1968: 5-6, plate 1. 7 paratypes.

Hyloicus gerhardi Barnes, W. and F. H. Benjamin 1924: 166. 1 paratype.

Madoryx oculus jamicensis Neidhoefer, 1968: 3-5. 7 paratypes.

Protoparce empusa Kernbach, K. 1965: 18-20. 1 paratype.

- Pseudoclanis postica evistigata* Kernbach, K. 1955b: 30-32. 1 paratype
Smerinthus jamaicensis gamma Cockerell, T. D. A. 1925: 37-38. 1 paratype.
Sphinx phalerata Kernbach, K. 1955a: 101-103. 2 paratypes.
Sphinx pitzahuac Mooser. 1948: 547-549. 1 paratype.

ORDER ODONATA

FAMILY COENAGRIONIDAE

- Enallagma lunifera* Muttkowski, R. A. 1913: 164-165. holotype.
Enallagma walkeri Muttkowski, R. A. 1911b: 33-34. holotype and 1 paratype.
Ischnura utahensis Muttkowski, R. A. 1910b: 172-173. 1 paratype.

FAMILY CORDULIIDAE

- Tetragoneuria cynosura simulans* Muttkowski, R. A. 1911c: 106, 111-117. 1 syntype.
Tetragoneuria petechialis Muttkowski, R. A. 1911c: 101-104. holotype.
Tetragoneuria williamsoni Muttkowski, R. A. 1911c: 122-124. 1 paratype.

FAMILY GOMPHIDAE

- Gomphus brimleyi* Muttkowski, 1911a: 221-223. holotype, allotype, and 2 paratypes.
Gomphus whedoni Muttkowski, 1913: 167-170. holotype.

Types Lost from the Collections

ORDER DIPTERA

FAMILY PHORIDAE

- Aphiochlaeta cavernicola* Brues, C. T. 1906c: 101-102. The type specimens were apparently sent elsewhere or lost prior to 1975.

ORDER HYMENOPTERA

FAMILY BRACONIDAE

- Acrisis americanus* Brues, C. T. 1907e: 160-161. The holotype was apparently lost from the museum collections prior to 1975.
Dinotrema soror Brues, C. T. 1907c: 59. The holotype was lost from the collections prior to 1975.

ORDER ODONATA

FAMILY CORDULIIDAE

- Tetragoneuria morio* Muttkowski, R.A. 1911c: 125-127. The holotype was apparently lost from the collections prior to 1975.

ACKNOWLEDGMENTS

Dr. Allen M. Young, Invertebrate Zoology Section Head, provided encouragement and support necessary for completion of this project. I thank the following for looking up catalog data and obtaining original descriptions for many of the included species: Susan S. Borkin; Meredith Platt; Robert R. Murray; Maria Plonczynski; Stephen Wallace; and Craig Yanek. Dr. Robert Murray provided comments on the evaluations of some species.

Literature Cited

- Acciavatti, R. E. 1980. A review of *Cicindela praetextata* from the Southwest United States (Coleoptera: Cicindelidae). *Southwestern Entomologist*, 5 (4): 231-244.
- Alexander, C. P. 1932. With a description of a new species, p. 240-242, In, W. E. Dickinson, The crane-flies of Wisconsin. Public Museum of the City of Milwaukee, Bulletin, 8 (2): 240-243.
- Barnes, W. and F. H. Benjamin. 1924. A new sphingid from Nevada (Lepid.). *Entomological Society of Washington, Proceedings*, 26: 186.
- Brues, C. T. 1906a. p. 184-185, 222. In, H. L. Viereck. 1906. Notes and descriptions of Hymenoptera from the western United States. *American Entomological Society, Transactions*, 32: 173-247.
- _____. 1906b. Descriptions of parasitic Hymenoptera from Cape Colony. *Wisconsin Natural History Society, Bulletin, new series*, 4 (3): 103-112.
- _____. 1906c. Two new species of Phoridae. *Wisconsin Natural History Society, Bulletin, new series*, 4 (3): 100-102.
- _____. 1906d. Notes and descriptions of North American parasitic Hymenoptera. II. *Wisconsin Natural History Society, Bulletin, new series*, 4 (4): 143-152.
- _____. 1907a. A remarkable new Phorid from Cape Colony. *Entomological News and Proceedings of the Entomological Section Academy of Natural Sciences, Philadelphia*, 18: 390-392.
- _____. 1907b. New chalcid-flies from Cape Colony. *Wisconsin Natural History Society, Bulletin, new series*, 5 (1): 46-53.
- _____. 1907c. Notes and descriptions of North American parasitic Hymenoptera. III. *Wisconsin Natural History Society, Bulletin, new series*, 5 (1): 54-62.
- _____. 1907d. Notes and descriptions of North American parasitic Hymenoptera. IV. *Wisconsin Natural History Society, Bulletin, new series*, 5 (2): 96-111.
- _____. 1907e. Notes and descriptions of North American parasitic Hymenoptera. V. *Wisconsin Natural History Society, Bulletin, new series*, 5 (3): 150-161.
- _____. 1908a. The occurrence of the remarkable braconid genus *Helorimorpha* in America. *Entomological News*, 19 (8): 363-364.
- _____. 1908b. Notes and descriptions of North American parasitic Hymenoptera. VI. *Wisconsin Natural History Society, Bulletin, new series*, 6 (1-2): 48-56.
- _____. 1908c. Some new North American Phoridae. *New York Entomological Society, Journal*, 16 (4): 199-201.
- _____. 1909. Notes and descriptions of North American parasitic Hymenoptera. VII. *Wisconsin Natural History Society, Bulletin, new series*, 6 (3-4): 154-163.
- _____. 1910. Some new species of Platygasteridae from Brazil (Hymenoptera). *Broteria. Revista de Ciencias Naturales. Serie Zoologica* 9: 150-158.
- Cary, C. R. 1970. A new sphinx moth from the West Indies (Sphingidae). *Lepidopterists' Society, Journal*, 24: 267-270.
- Cockerell, T. D. A. 1925. A new form of *Smerinthus* (Lep. Sphingidae). *The Entomologist*, 58: 37-38.
- Crawford, J. C., Jr. 1904. Two new *Halictus* from New Jersey. *Entomological News*, 15 (3): 97-99.

- _____. 1906a. Some new species of *Halictus*. The Canadian Entomologist, 38: 4-6.
- _____. 1906b. Three new species of bees. The Canadian Entomologist, 38: 282-284.
- _____. 1907a. New Halictinae from the western United States. Invertebrate Pacifica, 1: 190-197.
- _____. 1907b. Class I, Hexapoda. Order I, Hymenoptera. New North American Hymenoptera. New York Entomological Society, Journal, 15 (4): 177-189.
- Darlington, P. S. 1908, p. 76-77 (species description). In, J. M. Aldrich and P. S. Darlington, The dipterous family Helomyzidae. American Entomological Society, Transactions, 34: 67-100.
- Dasch, C. E. 1964. Ichneumon-flies of America north of Mexico: 5. Subfamily Dip-lazoninae. American Entomological Institute, Memoirs, 3: 1-304.
- Dognin, P. 1891. Diagnose d'un Lépidoptère nouveau. Le Naturaliste (Paris), 1891: 159.
- Donahue, J. P. and J. H. Newman. 1966. The genus *Phragmatobia* in North America with a description of a new species (Lepidoptera: Arctiidae). The Michigan Entomologist, 1: 35-74.
- Fassl A. H. 1909. *Anaea rosaea* nov. sp. und ab. sex ♀ *laticincta* m. Societas entomologica, 24(11): 81-83.
- Fischer, M. 1973. Redeskriptionen von Alysiniinen (Hymenoptera, Braconidae). Anna-len des naturhistorischen Museums in Wiens, 77: 245-261.
- Fluke, C. L. and F. Hull 1947. The *Cartosyrphus* flies of North America (Syrphidae). Wisconsin Academy of Sciences, Arts and Letters, Transactions, 37: 221-263. [Cover of volume 37 states "Madison, Wisconsin 1945 The publication date of Volume 37 (1945) is April 10, 1947."]
- Forster, W. 1941. Neue Lycaeniden-Formen aus China. II. Mitteilungen der Mün-chener Entomologische Gessellschaft. Munich, 31: 593-627.
- _____. 1942. Neue Lycaeniden-Formen aus China. III. Mitteilungen der Mün-chener Entomologische Gessellschaft. Munich, 32: 579-580.
- Gagarin, P. 1967. "*Rhipha olafi*" sp. n. (Lepidoptera). Atas Sociedade de Biologia do Rio Janeiro, 11 (1): 11.
- Girault, A. A. 1908. A monographic catalogue of the mymarid genus *Alaptus* Haliday, with descriptions of three new North American forms and of *Alaptus iceryae* Riley from type material. Entomological Society of America, Annals, 1 (3): 179-195.
- Graenicher, S. 1903. New bees of the genus *Andrena*. The Canadian Entomologist, 35 (6): 162-166.
- _____. 1904. Wisconsin Bees: Genus *Andrena*. Entomological News, 15: 64-67.
- _____. 1910a. A preliminary list of the flies of Wisconsin belonging to the families Bombyliidae, Syrphidae and Conopidae. Wisconsin Natural History Society, Bul-letin, new series, 8 (1): 32-44.
- _____. 1910b. Some new and rare Diptera from Wisconsin. The Canadian Entomologist, 42 (1): 26-29.
- _____. 1910c. Wisconsin bees—new and little known species. The Canadian Entomologist, 42 (4): 101-104, 157-160.
- _____. 1911. Bees of northwestern Wisconsin. Public Museum of the City of Mil-waukee, Bulletin, 1: 221-249.
- Joicey, J. J. and G. Talbot. 1916. New Lepidoptera from Dutch New Guinea. The Annals and Magazine of Natural History, Including Zoology, Botany, and Geology, 17: 68-89.
- _____. and _____. 1922. A new Papilio from Buru. Hill Museum, Bulletin. A magazine of lepidopterology, 1: 360-362.
- Kernbach, K. 1955a. Eine neue Sphingidenart aus Argentinien: *Sphinx phalerata* n. sp. Zeitschrift für Lepidopterologie. Krefeld, 3: 101-103.
- _____. 1955b. *Pseudoclanis postica* Walker und ihre Unterarten (Lepid. Sphingidae). Revue de zoologie et de botanique africaines, 51: 27-32.
- _____. 1957. Die Gattung *Epistor* Boisd. und die *Protoparce*-Arten *lefeburei* Guerin und *incisa* Walker (Lep. Sphingidae). Deutsche Entomologische Zeitschrift, new series, 4: 74-85.

- _____. 1962. Die Schwärmer einiger Galapagos-Inseln (Lep. Sphingidae). *Opuscula Zoologica*, 63: 1-19.
- _____. 1965. *Protoparce empusa* sp. n., eine neue Schwärmerart aus Venezuela (Lep. Sphingidae). *Mitteilungen der Deutschen Entomologischen Gesellschaft*, 24 (1): 18-20.
- Kittle, P. D. 1982. Two new species of water striders of the genus *Trepobates* Uhler (Hemiptera: Gerridae). *Entomological Society of Washington, Proceedings*, 84: 157-164.
- LeMaire, C. 1966a. Descriptions préliminaires d'Attacidae nouveaux d'Amérique du Sud [Lep.]. *Société entomologique de France, Bulletin*, 71: 152-162.
- _____. 1966b. Descriptions préliminaires d'Attacidae nouveaux d'Amérique du Sud [Lep.]. (suite). *Société entomologique de France, Bulletin*, 71: 217-226.
- _____. 1966c. Descriptions préliminaires d'Attacidae nouveaux d'Amérique du Sud [Lep.] (suite et fin). *Société entomologique de France, Bulletin*, 71: 298-304.
- _____. 1969. Description d'Attacidae nouveaux de Colombie et de Panama [Lep.]. *Annales de la Société entomologique de France, new series*, 5 (1): 64-94.
- Michener, C. D. 1950. A northern subspecies of *Eacles imperialis* (Lepidoptera, Saturniidae). *Kansas Entomological Society, Journal*, 23: 17-21.
- Miller, J. Y. 1976. Studies in the Castniidae. II. Descriptions of three new species of *Castnia*, s. l. *Allyn Museum, Bulletin*, 34: 1-13.
- Mitchell, T. B. 1935. A revision of the genus *Megachile* in the Nearctic Region. Part II. Morphology of the male sternites and genital armature and the taxonomy of the subgenera *Litomegachile*, *Neomegachile*, and *Cressoniella*. *American Entomological Society, Transactions*, 61: 1-205, pls. 8-9.
- _____. 1960. Bees of the eastern United States. Volume I. The North Carolina Agricultural Experiment Station. Technical Bulletin No. 141. 539 p.
- Moeck, A. H. 1947. A new subspecies of *Speyeria atlantis* (Edwards) from New Mexico (Lepidoptera: Nymphalidae). *Entomological News*, 58 (3): 73-75.
- _____. 1950. A new subspecies of *Speyeria atlantis* (Edwards) from Nevada (Lepidoptera: Nymphalidae). *Entomological News*, 61: 61-64.
- _____. 1963. The Pitcairn Beauty. *Lore*, 13 (2): 59 [Lore is a publication of the Friends of the Museum, Inc, Milwaukee Public Museum.].
- Mooser, O. 1948. *Sphinx pitzahuac* n. sp. (Lepidoptera: Sphingidae). *Anales del Instituto de Biología*, 18: 547-549.
- Muesebeck, C. F. W. 1963. A platygasterid parasite of certain wasp larvae (Hymenoptera: Proctotrupoidea, Platygasteridae). *Beiträge zur Entomologie* 13(3/4): 391-394.
- Muttkowski, R. A. 1910a. A new species of *Chalcophora* (Coleoptera-Buprestidae) from Wisconsin. *Wisconsin Natural History Society, Bulletin, new series*, 8 (3): 135-136.
- _____. 1910b. Miscellaneous notes and records of dragonflies (Odonata). *Wisconsin Natural History Society, Bulletin, new series*, 8 (4): 170-179.
- _____. 1911a. A new *Gomphus* (Odonata). *Entomological News*, 22: 221-223.
- _____. 1911b. New records of Wisconsin dragonflies. (Odonata.) II. *Wisconsin Natural History Society, Bulletin, new series*, 9 (1&2): 28-41.
- _____. 1911c. Studies in *Tetragoneuria* (Odonata). *Wisconsin Natural History Society, Bulletin, new series*, 9 (3): 91-134.
- _____. 1913. New species of dragon flies (Odonata). *Wisconsin Natural History Society, Bulletin, new series*, 10 (3&4): 164-170.
- Neidhoefer, J. R. 1968. Contributions to the Lepidoptera. Descriptions of: *Madoryx* (Sphingidae); *Hemeroplanes* (Sphingidae); *Charaxes* (Nymphalidae); *Anaea* (Nymphalidae). Description of: *Actias* (Saturniidae) by S. K. Ong and C. K. Yu Simpeitou, Taiwan. *Milwaukee Public Museum, Occasional Papers, Natural History*, 1: 1-11, 3 pls.
- _____. 1972. Contributions to the Lepidoptera (2). Descriptions of *Hypolimnas* (Nymphalidae) and *Charaxes* (Charaxidae). *Milwaukee Public Museum, Occasional Papers Natural History*, 3: 1-9.

- Noonan, G. R. 1981. South American species of the subgenus *Anisotarsus* Chaudoir (genus *Notiobia* Perty: Carabidae: Coleoptera). Part I: Taxonomy and natural history. Milwaukee Public Museum, Contributions in Biology and Geology, 44: 1-84.
- Ong, S. K. and C. K. Yu. 1968. Description of *Actias* (Saturniidae), p. 10-11. In Neidhoefer, J. R. 1968.
- Overleat, F. G. 1944. Formes nouvelles ou peu connues de Nymphalides africains.-II. Revue de Zoologie et de Botanique Africaines, 38 (1-2): 40-74.
- _____. 1945. Formes nouvelles ou peu connues de Nymphalides africains.-II. (suite et fin.). Revue de Zoologie et de Botanique Africaines, 38 (3- 4): 265-289.
- Pearson, H. R. 1958. Uma nova especie de "*Dirphiopsis*" Bouvier (Lepidoptera, Saturniidae, Hemileucinae). Revista Brasileira de Biologia, 18 (1): 7-15.
- Pena, L. E. 1957. *Cylindera (Plectographa) nahuelbutae*, nueva especie de Cicindelidae de Chile. Revista Chilena de Entomologia, 5: 35-39.
- Philip, C. B. 1941. Notes on Nearctic Pangoniinae (Diptera, Tabanidae). Entomological Society of Washington, Proceedings, 43 (6): 113-130.
- _____. 1950. New North American Tabanidae (Diptera). Entomological Society of America, Annals, 42: 451-460.
- Pinhey, E. 1972. Some new African Lepidoptera. Transvaal Museum, Annals, 25 (9): 153-176, 15 pls.
- Polhemus, J. T. 1969. A new *Rheumatobates* from Mexico (Hemiptera: Gerridae). Kansas Entomological Society, 42: 509-511.
- _____. 1977. Type-designations and other notes concerning Veliidae (Insecta: Hemiptera). Entomological Society of Washington, Proceedings, 79: 637-648.
- _____. 1979. A new species of *Stridulivelia* from Mexico, and a new subgenus from Middle America (Hemiptera: Veliidae). Pan-Pacific Entomologist, 55: 46-50.
- _____. 1980. Studies on Neotropical Veliidae (Hemiptera). V. New species of *Rhagovelia*. Pan-Pacific Entomologist, 56: 311-315.
- _____. 1982. Marine Hemiptera of the Northern Territory, including the first fresh-water species of *Halobates* Eschscholtz (Gerridae, Veliidae, Hermatobatidae and Corixidae). Australian Entomological Society, Journal, 21: 5-11.
- Pulawski, W. J. 1982. New species of North American *Tachysphex* wasps (Hymenoptera, Sphecidae). California Academy of Sciences, Proceedings, 43 (3): 27-42.
- Rohwer, S. A. 1909a. Notes and descriptions of Crabronidae. Entomological News, 20 (4): 145-153.
- _____. 1909b. Notes and descriptions of wasps of genus *Tachytes*. Entomological News, 20 (5): 197-206.
- Rousseau-Decelle, G. 1935. Note sur une race nouvelle et quelques formes aberrantes d'Ornithoptères. [Lep. Papilionidae]. Société entomologique de France, Bulletin, 40 (3): 44-48.
- Rütimeyer, E. 1943. Über zwei neue Makrolepidopteren-Rassen der Schweiz. Mitteilungen schweizerische entomologische Gesellschaft, Bern, 19: 26-32.
- _____. 1947. Über neue und bekannte schweizerische Makrolepidopterenrassen. Mitteilungen schweizerische entomologische Gesellschaft, Bern, 20: 347-352.
- Schlinger, E. I. 1960. A revision of the genus *Ogcodes* Latreille with particular reference to species of the Western Hemisphere. United States National Museum, Proceedings, 111 (3429): 227-336.
- Scullen, H. A. 1965. Review of the genus *Cerceris* in America north of Mexico (Hymenoptera: Sphecidae). United States National Museum, Proceedings, 116 (3506): 333-586.
- Shimonoya, T. and S. Murayama. 1971. Two new *Chrysozephyrus* (Lycaenidae) species from Formosa (Taiwan) (The ninth (SIC) study of the Formosan Rhopalocera collaborated by S. Murayama and T. Shimonoya). Lepidoptera Society of Japan, Transactions, 22 (1 & 2): 18-22, (1 plate).
- Snow, W. A. 1895. Diptera of Colorado and New Mexico. Syrphidae. Kansas University Quarterly, 3: 225-247.

- Spuler, A. 1924. North American species of the subgenera *Opacifrons* Duda and *Pteremis* Rondani of the genus *Leptocera* Olivier (Diptera, Borboridae). *Psyche*, 31 (3-4): 121-134.
- _____. 1925. North American species of the subgenus *Scotophilella* Duda (Diptera, Borboridae). *New York Entomological Society, Journal*, 33: 70-84, 147-162.
- Strom, L. G. 1938. New species of aphids with notes on described forms. *Entomological Society of America, Annals*, 31: 471-475.
- Sweadner, W., F. H. Chermock and R. L. Chermock. 1940. A new sphinx from eastern United States. *Pennsylvania Academy of Science, Proceedings*, 14: 137-138.
- Travassos, L. 1955. Contribuição ao conhecimento dos "Arctiidae". XXXV. (Lepidoptera, Heterocera). *Revista Brasileira de Biologia*, 15: 97-101.
- Vazquez, L. 1947. Papilios nuevos de Mexico. *Annales del Instituto de Biologia Mexico*, 18 (1): 249-256.
- Viereck, H. L. 1907a. *Andrenae* of the Canadian, Alleghanian and Carolinian plant zones occurring or likely to occur in Connecticut. *Entomological News*, 18: 280-288.
- _____. 1907b. A new species of *Psen*. *Wisconsin Natural History Society, Bulletin*, 5 (4): 251.
- _____. 1909. New species of *Andrena*. *Entomological Society of Washington, Proceedings*, 11: 143-144.
- _____. 1924. The identity of *Conohalictoides noveangliae* Robertson. *Entomological Society of Washington, Proceedings*, 26 (1): 14-15.
- Wheeler, W. M. 1889. On two new species of Cecidomyid flies producing galls on *Antennaria plantaginifolia*. *Natural History Society of Wisconsin, Proceedings*. April 1889: 209-216.
- Wolcott, A. B. 1909. The Cleridae of the Public Museum of the city of Milwaukee. *Wisconsin Natural History Society, Bulletin, new series*, 7 (3-4): 93-102.
- Wyatt, C. W. 1961. Additions to the *Rhopalocera* of Afghanistan with descriptions of new species and subspecies. *Journal of the Lepidopterists' Society*, 15 (1): 1-17.
- Young, F. N. 1980. Predaceous water beetles of the genus *Desmopachria* Babington: the subgenera with descriptions of new taxa (Coleoptera: Dytiscidae). *Revista de Biologia Tropical*, 28: 305-321.
- _____. 1981. Predaceous water beetles of the genus *Neobidessus* Young from South America (Coleoptera: Dytiscidae). *The Coleopterists Bulletin*, 35: 317-340.
- Zikán, J. F. 1935. Dois novos lepidopteros do Brazil (Lep. Sphingidae). *Revista de Entomologia, Rio de Janeiro, Brasil*, 5: 64-68.