

LIST OF THE NAME-BEARING NEUROPTERIDA TYPES IN  
THE COLLECTION OF THE NATIONAL MUSEUM OF  
NATURAL HISTORY, SMITHSONIAN INSTITUTION, USA

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The collection of Neuropterida at the National Museum of Natural History, Smithsonian Institution, is housed in 221 insect drawers and 311 bottles of vials. It is estimated to contain 132 species of Megaloptera, 1192 species of Neuroptera and 33 species of Raphidioptera. The 163 name-bearing types are divided among the Megaloptera (26), Neuroptera (134), and Raphidioptera (3). A list of all the name-bearing types including author, year of publication, country of origin, and current placement is given; it is also noted if it is a lectotype or neotype.

Key words: Neuroptera, Megaloptera, Raphidioptera, name-bearing types, Smithsonian Institution

#### HISTORICAL REVIEW

A National Museum was established by the U.S. Government in 1842, four years before the founding in 1846 of the Smithsonian Institution, which soon absorbed the National Museum. Entomological work in agriculture for the government was carried on in the Patent Office prior to the establishment in 1862 of the Department of Agriculture wherein a position of Entomologist was specified (WARD 1976). C. V. RILEY and J. H. COMSTOCK served as early heads of Entomology in Agriculture and developed the first insect collections. The National Insect Collection was initiated in 1881 when RILEY, chief entomologist of the Department of Agriculture, was appointed honorary (i.e. unpaid) Curator of Insects at the Smithsonian Institution. He took this position very seriously and worked to establish a salaried position of Assistant Curator. As soon as he was successful he turned over his personal collection of some 150 000 insects (20 000 species) to the Institution and arranged the transfer of the Agriculture collection to the Museum. In 1894 the first Museum Aid appointed in the Museum was ROLLA P. CURRIE, a “Neuropterist” in the classical sense. He, with his sister BERTHA P. CURRIE, began to form a collection of international scope.

CURRIE published ten papers on Neuroptera and another five on Odonata between 1898 and 1918. In them he described one genus and 17 species and varieties of antlions (Myrmeleontidae) and 7 species of brown lacewings (Hemerobiidae).

The types of these species provided the nucleus of the Neuroptera collection in the National Museum. In addition, he spent 10 weeks in the summer of 1903 collecting insects in the company of H. G. DYAR and A. N. CAUDELL in the Kootenay District of British Columbia, and wrote a most interesting account of this trip (CURRIE 1904). In 1904 CURRIE transferred to the Department of Agriculture where he soon was placed in charge of their editorial office. He retired in 1945 at the age of 70, but started a new career, studying for, and being ordained as, a priest in the Episcopal Church. He died in 1960 in his 86th year (EDMUNDS & MUESEBECK 1961).

Between 1904 and 1916 NATHAN BANKS served as research taxonomist on insects and arachnids for the Department of Agriculture. Although his personal collection all went to Harvard University, there are some types and many determined specimens in the National Collection bearing BANK's labels (CARPENTER & DARLINGTON 1954).

After BANKS departure there was no specialist on the Neuropteroid orders in the Museum, what work was done was accomplished by the resident Orthopteroid specialists. Both A. N. CAUDELL and A. B. GURNEY took an interest in the order and published papers on various families. In 1944 SOPHY I. PARFIN was hired by the Smithsonian to care for the various smaller insect orders. She published a number of papers, the most noted being the revision of the spongilla flies (Sisyridae) coauthored with GURNEY (GURNEY & WALKLEY 1967). After she retired in late 1960, I was hired to fill the same position and to curate and do research on the smaller insect orders, especially the "Neuropteroids". Although my research has been primarily on the caddisflies (Trichoptera) I have done a bit with the aquatic neuropteroids, and have been responsible for their curation.

## THE COLLECTION

The collection of Neuropterida is mostly pinned and stored in unit trays in large, glass-topped insect drawers. Some material is in alcohol, mostly the immature stages, but some adults also are kept this way. The entire collection occupies 221 drawers (42 Megaloptera, 175 Neuroptera, 4 Raphidioptera), and 311 bottles (100 Megaloptera, 206 Neuroptera, 5 Raphidioptera) each with up to 20 internal vials of specimens. In terms of number of species, a quick count (not including unidentified material) gave 132 species of Megaloptera, 1192 of Neuroptera, and 33 of Raphidioptera.

We have material from all over the world, but our holdings are most complete for North America. There have been no major private collections donated to us, but we have received some valuable material from outside donors. A synoptic collec-

tion was donated by the Kenya Museum, W. R. B. HYND has given synoptic collections of European species, and WARO NAKAHARA donated a synoptic collection of Japanese Neuroptera. Much material was collected for the Museum by the missionary D. C. GRAHAM in Sechuan, China and adjacent regions. Most of the material has slowly aggregated from countless small lots from many sources. In recent years extensive field work by staff members of the Museum has added much material, especially from the Neotropical Realm.

### NAME-BEARING TYPES

The name-bearing types are segregated from the main collection, each one being its own unit tray in glass-topped museum drawers, or in bottles for the alcoholic examples. After the preliminary list was prepared all the names were checked against the original descriptions for authenticity, and then the specimens were located in the type collection to ensure accuracy. In the process some 6 more types were located, but another 4 that were syntypes were demoted, because lectotypes had been designated from other collections. I am now able to verify 163 name-bearing types – 26 Megaloptera, 134 Neuroptera, and 3 Raphidioptera

The species are listed alphabetically by family, in their original combinations and spelling. The author, date of publication, and country (and state in the USA) of origin are given. The current generic placement or specific synonymy is given when there has been a change from the original status. It is noted if the specimen is a neotype or lectotype.

### MEGALOPTERA

#### Family Corydalidae

*Archichauliodes pinares* FLINT , 1973; Chile.

*Chauliodes angusticollis* HAGEN 1861; USA, Georgia; neotype; now in *Neohermes*.

*Chloronia absona* FLINT , 1992; Costa Rica.

*Chloronia antilliensis* FLINT , 1970; Dominica.

*Chloronia gloriosoi* PENNY et FLINT , 1982; Panama.

*Chloronia mirifica* NAVÁS, 1925; Costa Rica; neotype.

*Corydalus arpi* NAVÁS, 1936; Venezuela; neotype.

*Corydalus australis* CONTRERAS-RAMOS, 1998; Argentina.

- Corydalus flinti* CONTRERAS-RAMOS, 1998; Venezuela.  
*Corydalus imperiosus* CONTRERAS-RAMOS, 1998; Argentina.  
*Corydalus longicornis* CONTRERAS-RAMOS, 1998; Bolivia.  
*Corydalus neblinensis* CONTRERAS-RAMOS, 1998; Venezuela.  
*Neohermes infuscatus* CAUDELL, 1933; USA, California; jr. syn. of *Protochauliodes minimus* (DAVIS).  
*Neohermes matheri* FLINT, 1965; USA, Mississippi.  
*Neuromus pallidus* DAVIS, 1903; Mexico; now in *Chloronia*.  
*Nothochauliodes penai* FLINT, 1983; Chile.  
*Platyneuromus soror* var. *honduranus* NAVÁS, 1928; Honduras; neotype; now *Platyneuromus honduranus* NAVÁS.  
*Platyneuromus reflexus* GLORIOSO et FLINT, 1984; Mexico.  
*Protochauliodes bullocki* FLINT, 1973; Chile.  
*Protochauliodes cinerascens fumipennis* FLINT, 1973; Chile.

#### Family Sialidae

- Sialis contigua* FLINT, 1964; USA, Virginia.  
*Sialis dreisbachi* FLINT, 1964; USA, Michigan.  
*Sialis nevadensis* DAVIS, 1903; USA, Nevada.  
*Sialis nina* TOWNSEND, 1939; USA, Kentucky.  
*Sialis sinensis* BANKS, 1940; China.  
*Sialis spangleri* FLINT, 1964; USA, Maryland.

#### NEUROPTERA

#### Family Ascalaphidae

- Stephanolasca alferii* NAVÁS, 1925; Egypt; lectotype; jr. syn. of *Bubopsis hamata* (KLUG), det. TJEDER.  
*Tytomyia flinti* TJEDER et HANSSON, 1992; Senegal.

#### Family Berothidae

- Nodalla aegyptiaca* NAVÁS, 1926; Egypt; jr. syn. of *Nodalla (Nodalla) saharica* (ESBEN-PETERSEN), det. ASPÖCK.

*Podallea tjederi* U. ASPÖCK et H. ASPÖCK, 1981; Nigeria.  
*Spiroberotha sanctarosae* ADAMS, 1990; Costa Rica.

#### Family Chrysopidae

*Allochrysa titan* BANKS, 1915; Costa Rica; now in *Nacarina*.  
*Chrysopa adoina* BANKS, 1946; Mexico; jr. syn. of *Ceraeochrysa claveri* NAVÁS.  
*Chrysopa alethes* BANKS, 1940; China.  
*Chrysopa alfierii* NAVÁS, 1926; Egypt; lectotype; now in *Brinckochrysa*.  
*Chrysopa californica* COQUILLET, 1890; USA, California; jr. syn. of *Chrysoperla plorabunda* (FITCH).  
*Chrysopa chione* BANKS, 1940; China; now in *Retipenna*.  
*Chrysopa fratercula* BANKS, 1940; China.  
*Chrysopa grahami* BANKS, 1940; China; now in *Retipenna*.  
*Chrysopa schwarzi* BANKS, 1903; USA, New Mexico; now in *Meleoma*.  
*Chrysopa signatalis* BANKS, 1911; USA, Texas; jr. syn. of *Chrysopodes (Neosuaris) collaris* (SCHNEIDER).  
*Dichochrysa setosa* HÖLZEL et OHM, 1995; Madagascar.  
*Hypochrysa viridula* ADAMS, 1978; Argentina.  
*Italochrysa madagassa* HÖLZEL et OHM, 1995; Madagascar.  
*Leucochrysa cincipipes* BANKS, 1915; Panama; now in *Berchmansus*.  
*Mallada (Triadochrysa) triangularis* ADAMS, 1978; Mexico.  
*Meleoma macleodi* TAUBER, 1969; Mexico.  
*Meleoma pipai* TAUBER, 1969; Mexico.  
*Nodita panamana* BANKS, 1944; Panama; now in *Leucochrysa (Nodita)*.

#### Family Coniopterygidae

*Aleuropteryx arceuthobii* MEINANDER, 1975; USA, Colorado.  
*Aleuropteryx vulgaris* MEINANDER, 1972; USA, Texas.  
*Bidesmida morrisoni* JOHNSON, 1977; USA, New Mexico.  
*Coniopteryx angusta* BANKS, 1906; USA, Arizona; now in *Semidalis*.  
*Coniopteryx (Scotoconiopteryx) biapicata* MEINANDER, 1983; Uruguay.  
*Coniopteryx (Coniopteryx) ceylonica* MEINANDER, 1982; Sri Lanka.  
*Coniopteryx (Xeroconiopteryx) diversicornis* MEINANDER, 1972; USA, Texas.  
*Coniopteryx (Coniopteryx) dominicana* MEINANDER, 1974; Dominica.  
*Coniopteryx (Scotoconiopteryx) flinti* MEINANDER, 1975; Mexico.

- Coniopteryx (Coniopteryx) freytagorum* JOHNSON, 1978; Honduras.  
*Coniopteryx (Scotoconiopteryx) fumicolor* MEINANDER, 1972; Costa Rica.  
*Coniopteryx (Scotoconiopteryx) isthmicola* MEINANDER, 1972; Panama.  
*Coniopteryx (Xeroconiopteryx) laticornis* MEINANDER, 1972; Australia.  
*Coniopteryx (Xeroconiopteryx) latilobus* MEINANDER, 1975; South Africa.  
*Coniopteryx (Xeroconiopteryx) latistylus* MEINANDER, 1982; Sri Lanka.  
*Coniopteryx (Coniopteryx) macroscapes* MEINANDER, 1990; Malaysia, Sabah.  
*Coniopteryx (Coniopteryx) morobensis* MEINANDER, 1990; Papua New Guinea.  
*Coniopteryx (Coniopteryx) palpalis* MEINANDER, 1972; Mexico.  
*Coniopteryx (Coniopteryx) papuensis* MEINANDER, 1990; Papua New Guinea.  
*Coniopteryx (Coniopteryx) simplicior* MEINANDER, 1972; USA, Texas.  
*Coniopteryx (Xeroconiopteryx) squamata* MEINANDER, 1983; South Africa.  
*Coniopteryx (Xeroconiopteryx) texana* MEINANDER, 1972; USA, Texas.  
*Coniopteryx (Xeroconiopteryx) virgina* MEINANDER, 1990; U.S. Virgin Islands, St. John.  
*Heteroconis papuaensis* MEINANDER, 1990; Papua New Guinea.  
*Incasemidalis chilensis* MEINANDER, 1990; Chile.  
*Neoconis bispina* MEINANDER, 1972; U.S. Virgin Islands, St. Thomas.  
*Neoconis dentata* MEINANDER, 1972; Guatemala.  
*Neoconis inexpectata* MEINANDER, 1972; USA, Arizona.  
*Neoconis marginata* MEINANDER, 1972; USA, Texas.  
*Neoconis unicornis* MEINANDER, 1990; Colombia.  
*Neosemidalis (Neosemidalis) brevipennis* MEINANDER, 1990; Papua New Guinea.  
*Neosemidalis (Leucosemidalis) furcifera* MEINANDER, 1972; Australia.  
*Pampoconis insulana* MEINANDER, 1974; Jamaica; now in *Neoconis*.  
*Pseudoconis maculipennis* MEINANDER, 1972; South Africa.  
*Semidalis brasiliensis* MEINANDER, 1974; Brazil.  
*Semidalis ecuadoriana* MEINANDER, 1983; Ecuador.  
*Semidalis flinti* MEINANDER, 1972; USA, Texas.  
*Semidalis hidalgoana* MEINANDER, 1975; Mexico.  
*Semidalis inconspicua* MEINANDER, 1972; USA, Virginia.

#### Family Hemerobiidae

- Adelphohemerobius enigmaramus* OSWALD, 1994; Chile.  
*Allemerobius flaveolus* BANKS, 1940; China; now in *Hemerobius*.  
*Annandalia irregularis* CARPENTER, 1961; Caroline Islands, Truk; now in *Psectra*.  
*Annandalia maculosa* CARPENTER, 1961; Palau Islands, Babelthaup, now in *Psectra*.

- Austromegalomus insulanus* OSWALD, 1988; French Polynesia, Austral Islands, Rapa.
- Hemerobius barberi* BANKS, 1903; USA, Arizona; now in *Symphorobius*.
- Hemerobius bispinus* BANKS, 1940; China.
- Hemerobius bistrigatus* CURRIE, 1904; USA, California.
- Hemerobius caudelli* CURRIE, 1904; Canada; jr. syn. of *Hemerobius conjunctus* FITCH.
- Hemerobius chiangi* BANKS, 1940; China.
- Hemerobius chilensis* NAKAHARA 1965; Chile.
- Hemerobius dyari* CURRIE, 1904; Canada; jr. syn. of *Hemerobius stigma* STEPHENS.
- Hemerobius exceptatus* NAKAHARA, 1965; Colombia.
- Hemerobius glacialis* CURRIE, 1904; Canada; jr. syn. of *Hemerobius conjunctus* FITCH.
- Hemerobius grahami* BANKS, 1940; China.
- Hemerobius kokaneeanus* CURRIE, 1904; Canada.
- Hemerobius kootenayensis* CURRIE, 1904; Canada; jr. syn. of *Hemerobius pini-dumum* FITCH.
- Hemerobius neadelphus* GURNEY, 1948; Canada.
- Hemerobius nekoi* MONSERRAT 1996; Chile.
- Hemerobius pallescens* CURRIE, 1904; USA, California; jr. syn. of *Hemerobius pacificus* BANKS.
- Hemerobius schwarzi* BANKS, 1903; USA, Arizona; now in *Wesmaelius*.
- Hemerobius solidarius* MONSERRAT 1996; Colombia.
- Hemerobius umbratus* BANKS, 1903; USA, Arizona; now in *Symphorobius*.
- Kimminsia alexanderi* NAKAHARA, 1965; USA, Alaska; jr. syn. of *Wesmaelius nervosus* (FABRICIUS).
- Kimminsia constricta* PARFIN, 1956; USA, Alaska; now in *Wesmaelius*.
- Kimminsia melaleuca* NAKAHARA, 1965; Canada; jr. syn. of *Wesmaelius nervosus* (FABRICIUS).
- Kimminsia olympica* NAKAHARA, 1965; USA, Washington; jr. syn. of *Wesmaelius constrictus* (PARFIN).
- Megalomus latus* BANKS, 1903; USA, Arizona; jr. syn. of *Megalomus moestus* BANKS.
- Neuronema similis* BANKS, 1940; China.
- Nomerobius cuspidatus* OSWALD, 1988; Argentina.
- Spinomegalomus flinti* NAKAHARA, 1965; Chile; now in *Megalomus*.
- Symphorobius texanus* NAKAHARA, 1965; USA, Texas; jr. syn. of *Symphorobius arizonicus* BANKS.

## Family Myrmeleontidae

- Araucoleon inca* BANKS, 1938; Bolivia.  
*Brachynemurus barberi* CURRIE, 1903; USA, Arizona; now in *Gnopholeon*.  
*Brachynemurus brunneus* CURRIE, 1898; USA, Wyoming; jr. syn. of *Brachynemurus ferox* (WALKER).  
*Brachynemurus coquilletti* CURRIE, 1898; USA, Arizona; now in *Clathroneuria*.  
*Brachynemurus curriei* MCCLENDON, 1906; USA, Texas; jr. syn. of *Abatoleon dorsalis* (BANKS).  
*Brachynemurus delicatulus* CURRIE, 1903; USA, Arizona; now in *Gnopholeon*.  
*Brachynemurus hubbardii* CURRIE, 1898; USA, Arizona; lectotype.  
*Brachynemurus hubbardii* var. *nubeculipennis* CURRIE, 1903; USA, Arizona; lectotype; syn. of *Brachynemurus hubbardii*.  
*Brachynemurus intermedius* CURRIE, 1903; USA, Arizona; now in *Scotoleon*.  
*Brachynemurus irregularis* CURRIE, 1906; USA, Texas.  
*Brachynemurus niger* CURRIE, 1898; USA, Arizona; now in *Scotoleon*.  
*Brachynemurus papago* CURRIE, 1899; USA, Arizona; now in *Mexoleon*.  
*Brachynemurus pusillus* CURRIE, 1899; USA, New Mexico; lectotype; now in *Chaetoleon*.  
*Brachynemurus quadripunctatus* CURRIE, 1898; USA, California; now in *Scotoleon*.  
*Brachynemurus schwarzi* CURRIE, 1903; USA, Arizona; now in *Clathroneuria*.  
*Brachynemurus singularis* CURRIE, 1903; USA, Arizona; now in *Scotoleon*.  
*Brachynemurus yavapai* CURRIE, 1903; USA, Arizona; now in *Scotoleon*.  
*Capophanes conspersa* BANKS, 1938; S.W. Africa (now Namibia).  
*Dendroleon insolita* BANKS, 1940; China; now in *Bullanga*.  
*Distoleon boninensis* ADAMS, 1959; Chichi Jima, Bonin Islands, Japan.  
*Epacanthaclisis banksi* KRIVOKHATSKY, 1998; China.  
*Indophanes sinensis* BANKS, 1940; China.  
*Mossega waidoraensis* NEW, 1990; Papua New Guinea.  
*Myrmeleon immaculatus* var. *occidentalis* CURRIE, 1903; USA, Arizona; jr. syn. of *Myrmeleon exitialis* WALKER.  
*Myrmenemurus clavatus* NAVÁS, 1926; Egypt; lectotype; jr. syn. of *Mesonemurus harterti* NAVÁS.  
*Psammoleon sinuatus* CURRIE, 1903; USA, Arizona.

## Family Nymphidae

- Osmylops nesos* OSWALD, 1998; Papua New Guinea.



## Family Osmylidae

*Kempynus digonistigma* OSWALD, 1994; Chile.

*Kempynus tjederi* OSWALD, 1994; Chile.

*Osmylus taiwanensis* NEW, 1991; Taiwan.

## Family Sisyridae

*Climacia chapini* PARFIN et GURNEY, 1956; USA, Texas.

*Climacia chilena* PARFIN et GURNEY, 1956; Chile.

*Climacia doradensis* FLINT, 1998; Venezuela.

*Climacia insolita* FLINT, 1998; Argentina.

*Climacia lemniscata* FLINT, 1998; Argentina.

*Climacia striata* PARFIN et GURNEY, 1956; Panama.

*Climacia triplehorni* FLINT, 1998; Argentina.

*Climacia versicolor* FLINT, 1998; Argentina.

*Sisyra panama* PARFIN et GURNEY, 1956; Panama.

*Sisyra trilobata* Flint 1966; Israel.

## RAPHIDOPTERA

## Family Raphidiidae

*Agulla (Agulla) modesta* CARPENTER, 1936; USA, Utah; now *Agulla (Glavia) modesta modesta* CARPENTER.

*Agulla (Agulla) neglecta* CARPENTER, 1936; USA, California; jr. syn. of *Agulla (Agulla) bractea* CARPENTER.

*Raphidia minuta* BANKS, 1903; USA, Arizona; now in *Alena (Aztecoraphidia)*.

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