HOSTS OF INSECT EGG-PARASITES IN NORTH AND SOUTH AMERICA.

BY A. ARSÈNE GIRAULT, WASHINGTON, D. C.

THE following compilation of the hosts of the insect egg-parasites is made for several reasons, the most important of which is the labor which it saves by bringing together the much scattered rearing records of these insects. Other reasons are the importance of egg-parasites as a class, the aid given in identifying the parasites of any one host, and the interest which a compilation of this kind is likely to stimulate in the minds of economic entomologists for whom this list is primarily intended

The list considers the parasites from the standpoint of the host only, and it is not meant to bring out any important biologic facts concerning them, which should be considered rather in a list of the parasites and their hosts or host relations. Mainly, it answers but one question, "What parasites attack the egg of *Carpocapsa pomonella*, or other insect?" It is complete up to the end of the year 1906, and includes none but true, internal parasites of the egg, insects that pass their entire life-cycle within the egg of another insect excepting as adults. Insects that prey on the eggs, such as *Pimpla*, *Anthomyia*, *Sarcophaga*, *Eunotus*, often called egg-parasites, are not considered as such, and are therefore ignored; and parasites that oviposit on or into the egg, becoming fatal during some phase of postembryonic development of the host, through polyembryonic development, are also excluded, being considered parasites of the larva or pupa as the case may be. I consider *Platygaster herrickii* Packard a case in point.

The hosts are arranged alphabetically according to order, genus, and species, merely for the sake of convenience. A query preceding the parasite listed under any host, questions the record in one way or another; insects of doubtful generic position are enclosed within quotation marks. New records are preceded by an asterisk. References to the literature are given in the most convenient way possible, and the nomenclature and synonymy are according to the latest authorities. Incomplete records are entirely omitted in the list, excepting in the case of a few important or suggestive ones. The record of the rearing of *Ablerus clisiocampae* Ashmead from the eggs of *Malacosoma americana* Fabricius has been proven to be undoubtedly incorrect, but in order to point out this mistake in as forcible a manner as possible, I have thought it wise to include it in the list of parasites of that host, there calling attention to the error. In this way, I doubly insure attention being drawn to the mistake. *Anopedioides error* Fitch, erroneously recorded from the eggs of *Nabis*

ferus Linnaeus, is treated in a like manner; it is a larval parasite of certain Diptera. And attention is also directed to the record of *Elasmus albicoxa* Howard from eggs of *Basilarchia archippus* Cramer, more or less discredited by both Howard and Ashmead (the latter, *in litt.*); and to the erroneous record of *Hadronotus leptocorisæ* Howard on *Leptocorisæ tipuloides* DeGeer (Ashmead, 1887 b, p. 119; *id.*, 1893 a, p. 231). *Polyneura* (Webster, 1903, p. 33) should be *Polynema*, so Mr. Webster informs me. The list requires no further explanation.

Our knowledge of egg-parasites does not compare favorably with that of the parasites of the larva. But for the writings of Howard, Ashmead, and Riley and Howard, the recorded rearings would be very meagre indeed. It is mainly through the efforts of the two former, that so much is now known of this most important class of insect parasites, and we are at the present day much more advanced in this respect than are our European neighbors.

Egg-parasites are not difficult to rear, and being, perhaps, the most potent enemies of many of our injurious insects, it is desirable that greater care and more thoroughness be taken in rearing work; so that on account of their minute size, they are not overlooked.

In connection with this list, I mention some of the insects which are known to be hosts of egg-parasites, the latter still unknown. In the Lepidoptera, *Anisota rubicunda* Fabr., *Euproctis chrysorrhoea* Linn. (Europe), *Junonia coenia* Hübner, *Malacosoma disstria* Hübner, *Megathymus yuccæ* Boisd. et Leconte, *Paonius excaecatus* Smith et Abbot, *Thorybes pylades* Scudder, and *Vanessa cardui* Linn. have been recorded as being attacked by egg-parasites. Among the Hemiptera is *Serinetha trivittata* Say; the hymenopterus genus *Hylatoma* is probably attacked by the eulophid *Hyperteles hylatoma* Ashm. (Ashmead, 1888, Canadian Ent., XX, p. 105); while certain Odonata (Howard, 1901, Insect Book, p. 366) are also recorded to be hosts of egg-parasites. A species of "*Trichogramma*" probably attacks *Hemerobius* (Howard, Hymenoptera, in Stand. Nat. Hist., Boston, p. 511).

The insect egg-parasites of the Americas are all hymenopterous, as far as we know definitely at the present time. The majority of them belong to the superfamilies Chalcidoidea (mostly the families Trichogrammatidae and Mymaridae, and the following:— the family Torymidae < *Podagrion* only >; Eurytomidae < Rileyini, — *Macrorileya* and *Neorileya* >; and the Encyrtidae < Eupelminae, — *Eupelmus*, *Anastatus*; Encyrtinae, — *Oöencyrtus*, *Dinocarsis* > and Proctotrypoidea (mostly the Scelioninae, comprising *Phanurus*, *Telenomus*, *Trissolcus*, *Aradophagus*, *Prosacantha*, *Caloteleia*, *Baryconus*, *Macroteleia*, *Cacus*, *Hadronotus*, *Idris*, and *Scelio* in the tribes Telenomini, Teleasini, and Scelionini respectively, and the sub-

family Ceraphroninae <*Aphanogmus* only>. Outside of these two superfamilies, certain of the Evaniidae (namely *Evania*) of the superfamily Ichneumonoidea are also egg-parasites of the true insects, the cockroaches.

The most prominent and common of the genera of egg-parasites are undoubtedly *Trichogramma* and *Telenomus*, and of the species, *Trichogramma pretiosa* Riley is foremost, attacking no less than eleven or more hosts. *Telenomus graptae* Howard follows as the second most common species, attacking six hosts.

Other genera and doubtless families in the Chalcidoidea and Proctotrypoidea will be found to be parasitic on the eggs of American insects when we become more advanced in our knowledge of them. In Hawaii, for example, such has been found to be the case (Perkins, 1905, p. 200 *et al*; 1906), and also in Europe in a few cases. The foregoing enumeration of parasitic families and genera, therefore, cannot be said to be restrictive.

The known hosts of egg-parasites in continental North and South America comprise the following orders as listed: Coleoptera, Diptera, Hemiptera, Hymenoptera, Lepidoptera, Neuroptera, and Orthoptera, and in addition the Odonata. The families attacked in each order, where numerous, are widely separated, and in this respect the parasites seem to have very little choice. In order of being most attacked, in number of species, the Lepidoptera are first, then the Orthoptera, Hemiptera, Coleoptera and Hymenoptera.

Hosts and their parasites.

Coleoptera.

Host	Parasite.	Authority.
<i>Attelabus bipustulatus</i> Fabricius	<i>Poropoea</i> species	Hopkins, 1905, p. 132.
<i>Chlaenius impunctifrons</i> Say	<i>Prosacantha caraborum</i> Riley	Ashmead, 1893a, pp. 180, 191, 451.
<i>Conotrachelus nenuphar</i> Herbst	<i>Anaphes conotracheli</i> Girault	Girault, 1905, Ent. News, XVI, p. 220.
<i>Fidia viticida</i> Walsh	<i>Brachista fideae</i> Ashmead	Webster, 1896, p. 69.
	<i>Fidiobia flavipes</i> Ashmead	Slingerland, 1906, p. 93.
<i>Odontota dorsalis</i> Thunberg	<i>Trichogramma odontotae</i> Howard	Chittenden, 1902, p. 82.
<i>Pityophthorus consimilis</i> Leconte	? <i>Aradophagus fasciatus</i> Ashmead	Ashmead, 1893a, p. 166.
<i>querciperda</i> Schwarz	? <i>Aradophagus fasciatus</i> Ashmead	Dalla Torre, 1898, p. 512. Cf. Ashmead 1893a, p. 166.
<i>Scarites subterraneus</i> Fabricius	<i>Prosacantha caraborum</i> Riley	Riley & Howard, 1891, p. 124.
<i>Tachypterus (Anthonomus) quad-rigibbus</i> Say	? <i>Gonatocerus anthonomi</i> Girault	Girault, 1905, Ent. News, XVI, p. 289.

Diptera.

<i>Tabanus atratus</i> Fabricius	<i>Phanurus tabanivorus</i> Ashmead	Ashmead, 1895, pp. 274-275.
<i>Hemiptera.</i>		
<i>Anasa tristis</i> DeGeer	<i>Eupelmus reduvii</i> Howard	Ashmead, 1887a, p. 190.
	<i>Hadronotus carinatifrons</i> Ashmead	Girault, 1904, Ent. News, p. 336.
	<i>Hadronotus rugosus</i> Howard	Riley & Howard, 1891, p. 124.
	<i>Hadronotus anasae</i> Ashmead	Howard, 1888, p. 129.
	<i>Oöencyrtus anasae</i> Ashmead	Chittenden, 1899, p. 26.
<i>Apiomerus spissipes</i> Say	<i>Hadronotus species</i> novem.	Morgan, 1907, p. 54.
<i>Arilus cristatus</i> Linnaeus	* <i>Anastatus giraulti</i> Ashmead MS.	Girault, MS. notes, 1903.
	<i>Eupelmus reduvii</i> Howard	Howard, 1880, Can. Ent., XII, p. 208.
	* <i>Oöencyrtus johnsoni</i> Howard	Girault, MS. notes, 1905.
<i>Brachyrhynchus granulatus</i> Say	<i>Aradophagus fasciatus</i> Ashmead	Dalla Torre, 1898, p. 512. Cf. Ashmead, 1893a, p. 166.
<i>Brochymena arborea</i> Say	<i>Trissolcus brochymenae</i> Ashmead	Dalla Torre, 1898, p. 512.
<i>species</i> (on currant)	<i>Telenomus perplexus</i> Girault	Girault, 1906, Psyche, XIII, p. 66.
<i>Ceresa bubalus</i> Fabricius	<i>Trichogramma ceresara</i> Ashmead	Ashmead, 1888, Can. Ent. XX, p. 107.
	<i>Polynema (Cosmocoma)</i> species novem.	Riley, 1894, p. 215.
<i>Coccus hesperidum</i> (Linnaeus)	? <i>Trichogramma flava</i> Ashmead	Howard, 1888, p. 131.
<i>Dysdercus suturellus</i> Herrick-Sch.	? <i>Hadronotus rugosus</i> Howard	Riley & Howard, 1891, p. 124. Discredited by Ashmead, 1893a, pp. 232, 451.
<i>Euschistus fissilis</i> Uhler.	* <i>Trissolcus euschisti</i> Ashmead	Girault, MS. notes, 1905.
<i>servus</i> Say	<i>Trissolcus euschisti</i> Ashmead	Ashmead, 1893a, pp. 162, 451.
<i>tristigmus</i> Say	* <i>Trissoleus euschisti</i> Ashmead	Girault, MS. notes, 1905.
<i>Euthoctha galeator</i> Fabricius	? <i>Hadronotus rugosus</i> Howard	Ashmead, 1893a, pp. 232, 451.

<i>Homalodisca triquetra</i> Fabricius	<i>Ooconus homalodiscæ</i> Ashmead	Sanderson, 1906, p. 51.
<i>Icerya purchasi</i> Maskell	? <i>Phanurus opacus</i> Howard	Ashmead, 1893a, p. 142.
	? <i>Alaptus iceryæ</i> Riley	Riley, 1888, Ins. Life, I, p. 130.
<i>Largus succinctus</i> Linnaeus	<i>Hadronotus largi</i> Ashmead	Dalla Torre, 1898, p. 498.
<i>Lepidosaphes ulmi</i> (Linnaeus)	? <i>Anaphes gracilis</i> Howard	Howard, 1888, p. 130.
<i>Liburnia</i> species	<i>Anagrus columbi</i> Perkins	Perkins, 1905, p. 198.
<i>Metapodius femoratus</i> Fabricius	<i>Hadronotus floridanus</i> Ashmead	Riley & Howard, 1891, p. 124.
<i>Murgantia histrionica</i> Hahn.	<i>Oöencyrtus johnsoni</i> Howard	Johnson, 1900, p. 21.
	<i>Trissolcus murgantiae</i> Ashmead	Morgan, 1897, pp. 140, 141, 159.
	<i>podisi</i> Ashmead	
<i>Nabis jesus</i> Linnaeus	? <i>Anopedius error</i> Fitch	Riley, 1880, pp. 196-197. Cf. Ashmead, 1893a, p. 291.
<i>Pentatoma ligata</i> Say	<i>Telenomus ashmeadi</i> Morrill.	Morrill, 1907, p. 10.
<i>sayi</i> Stål		
<i>Podisus modestus</i> Dallas	<i>Telenomus podisi</i> Ashmead	Ashmead, 1893a, p. 451. Cf. <i>ib.</i> , p. 159.
<i>Podisus maculiventris</i> Say	<i>Hadronotus</i> species nov.	E. Potts, 1891, Ent. News, II, pp. 53-54.
	? <i>Telenomus dimmocki</i> Ashmead	Dimmock, 1897, p. 148.
	<i>Telenomus podisi</i> Ashmead	Ashmead, 1893a, p. 159.
	<i>Trissolcus podisi</i> Ashmead	Riley & Howard, 1891, p. 124.
	? <i>Trissolcus thyantæ</i> Ashmead	Dalla Torre, 1898, p. 512. Cf. Ashmead, 1893a, p. 163.
<i>Thyantha custator</i> Fabricius	<i>Trissolcus thyantæ</i> Ashmead	Ashmead, 1893a, p. 163.
<i>Tibicen septendecim</i> Linnaeus	<i>Aphanogmus floridanus</i> Ashmead	Riley & Howard, 1891, p. 123. Queried by Ashmead, 1893a, p. 451.
	<i>Lathromeris cicadae</i> Howard	Howard, 1898, Can. Ent., XXX, pp. 102-103.
<i>Zelus bilobus</i> Say	<i>Hadronotus leptocorisæ</i> Howard	Riley & Howard, 1891, p. 124. Cf. Ashmead, 1893a, p. 231, & 1887 b. p. 119.
<i>longipes</i> Linnaeus	<i>Hadronotus leptocorisæ</i> Howard	Ashmead, 1887b, p. 119.

Hymenoptera.

<i>Anthophorabia</i> species	<i>Packardiella putnamii</i> Packard	Packard, 1880, p. 202.
<i>Caliroa (Selandria) obsoleta</i> Norton	<i>Trichogramma minuta</i> Riley	Morgan, 1897, pp. 144, 159.
<i>Eriocampoides limacina</i> Retzius (= <i>Selandria cerasi</i> Peck)	" <i>Encyrtus</i> " species	Marlatt, 1897, p. 6.
<i>Isosoma captivum</i> Howard	? <i>Oligosita americana</i> Ashmead	Webster, 1903, p. 35.
<i>grande</i> Riley	? <i>Oligosita americana</i> Ashmead	Webster, 1903, p. 22.
<i>hordei</i> Harris	<i>Oligosita americana</i> Ashmead	Webster, 1903, p. 33.
	<i>Polynema</i> (?) <i>Polynema</i> <i>citripes</i> Ashmead	
<i>tritici</i> Fitch	? <i>Oligosita americana</i> Ashmead	Webster, 1903, p. 22.
<i>Pachynematus palliventris</i> Cresson	? <i>Trichogramma pretiosa</i> Riley	Fletcher, 1893, p. 159. Cf. Riley & Howard, 1893, p. 289.
<i>Pteronus ribesii</i> Scopoli	<i>Trichogramma pretiosa</i> Riley	Howard, 1888, p. 124.

Lepidoptera.

<i>Aglais milberti</i> Godart	<i>Trichogramma interme-</i> <i>dia</i> Howard	Scudder, 1889, I, p. 429.
<i>Alabama argillacea</i> Hübner	<i>Trichogramma pretiosa</i> Riley	Riley, 1879, Can. Ent., XI, pp. 161-162.
<i>Alsophila pometaria</i> Harris	" <i>Platygaster</i> " species	Riley, Packard & Thomas, 1883, p. 176.
	* <i>Telenomus gnophaelae</i> Ashmead	Girault, MS. notes, 1905.
<i>Anosia plexippus</i> Linnaeus	<i>Trichogramma interme-</i> <i>dia</i> Howard	Howard, 1889, p. 1895.
<i>Automeris io</i> Fabricius	<i>Eupelmus</i> species	Howard, 1891, p. 568.
<i>Autographa brassicae</i> Riley	<i>Trichogramma pretiosa</i> Riley	Howard, 1888, p. 124.
<i>Basilarchia archippus</i> Cramer	<i>Trichogramma minuta</i> Riley	Fletcher, 1893, p. 160.
	<i>Trichogramma minutis-</i> <i>sima</i> Packard	Scudder, 1889, I, p. 279.
	? <i>Elasmus albicoxa</i> Howard	Howard, 1885, p. 30. Cf. <i>id.</i> , Ins. Life, IV, p. 253.
<i>Bellura gortynides</i> Walker (= <i>densa</i> Walker)	<i>Telenomus arзамae</i> Riley	Ashmead, 1893a, pp. 158, 450.

<i>Calpodus ethilius</i> Cramer	" <i>Trichogramma</i> " species. A chalcid	Cockerell, 1892, Ent. News, III, p. 79.
<i>Carpocapsa pomonella</i> (Linnaeus)	<i>Trichogramma pretiosa</i> Riley	Slingerland, 1896, p. 70.
<i>Chlorippe clyton</i> Boisduval & Leconte	<i>Telenomus rileyi</i> Howard	Riley & Howard, 1891, p. 123.
<i>Datana interregima</i> Grote & Robinson	<i>Telenomus gossypicicola</i> Ashmead	Morgan, 1897, pp. 149, 159.
<i>ministra</i> Drury	<i>Eupelmus</i> species	Howard, 1891, p. 568. vide Dimmock, 1885, p. 279.
<i>Diacrisia virginica</i> Fabricius	<i>Telenomus spilosomatis</i> Ashmead	Riley & Howard, 1891, p. 123.
<i>Eu Vanessa antiopa</i> Linnaeus	<i>Telenomus graptæ</i> Howard	Bruner, 1890, p. 103.
<i>Gnophaela latipennis</i> Boisduval	<i>Telenomus gnophælae</i> Ashmead	Riley & Howard, 1891, p. 123.
<i>Heliothis obsoleta</i> Fabricius	<i>Telenomus heliothidis</i> Ashmead	Riley & Howard, 1891, p. 123, cf. Mally, 1893, p. 25.
	<i>Trichogramma pretiosa</i> Riley	Howard, 1888, p. 124.
	<i>Trichogramma pretiosa</i> <i>nigra</i> Girault	Girault, 1906.
<i>Hemerocampa leucostigma</i> Smith & Abbot	<i>Telenomus orgyiae</i> Fitch	Riley, 1887a, p. 32. Cf. How- ard, 1897, pp. 7, 30-31, 52, & Hulst. 1889, p. 205. vide Packard, 1890, p. 265.
	<i>Trichogramma fraterna</i> Fitch ¹	Dalla Torre, 1898, p. 3.
	<i>Trichogramma orgyiae</i> Fitch ¹	
<i>Heodes hypophleas</i> Boisduval	<i>Telenomus graptæ</i> Howard	Scudder, 1889, II, p. 1008.
<i>Heterocampa bilineata</i> Packard	<i>Telenomus graptæ</i> Howard	Howard, 1894, p. 280.
<i>Hyphantria cunea</i> Drury	<i>Telenomus bifidus</i> Riley	Riley, 1887b, p. 531.
	<i>Trichogramma</i> species	Bruner, 1890, p. 43.
<i>textor</i> Harris	<i>Telenomus bifidus</i> Riley	Riley & Howard, 1891, p. 124.
<i>Ianassa lignicolor</i> Walker	<i>Trichogramma pretiosa</i> Riley	Dyar, 1893, p. 256.
<i>Laphygma frugiperda</i> Smith & Abbot	<i>Trichogramma pretiosa</i> Riley	Riley, 1885a, p. 104.
<i>Malacosoma americana</i> Fabricius	? <i>Alerus clisiocampæ</i> Ashmead ²	Ashmead, 1893b, p. 10.

¹For the validity and synonymy of these two species, cf. Riley, 1887, p. 32, Packard, 1890, p. 265, and Howard, 1897, p. 7.

²Undoubtedly incorrect; a parasite of various species of Coccidæ, cf. Howard, 1894, p. 6, and others.

	" <i>Pteromalus</i> " species	Packard, 1880, p. 207, fig. 139.
	" <i>Platygaster</i> " species	Glover, 1877, p. 102.
	<i>Telenomus clisiocampae</i>	Ashmead, 1893a, pp. 160, 450.
	Riley	
<i>Malacosoma (Clisiocampa)</i>	<i>Telenomus clisiocampae</i>	Ashmead, 1893a, p. 160.
species	Riley	
<i>Mamestra picta</i> Harris	<i>Telenomus heliothidis</i>	Davis, 1893, p. 26.
	Ashmead	
	<i>Telenomus</i> species novem	Fletcher, 1893, p. 161.
	<i>Trichogramma pretiosa</i>	Fletcher, 1893, p. 161.
	Riley	
<i>Melalopha inclusa</i> Hübner	<i>Telenomus ichthyurae</i>	Riley & Howard, 1891, p. 123.
	Ashmead	
<i>Mompha (Laverna) luciferella</i>	<i>Telenomus lavernae</i>	Riley & Howard, 1891, p. 123.
Clemens	Ashmead	
<i>Notolophus antiqua</i> Linnaeus	<i>Telenomus orgyiae</i> Fitch	Howard, 1897, p. 30.
<i>Notolophus (Orgyia)</i> species	<i>Telenomus californicus</i>	Ashmead, 1893a, pp. 150, 450.
	Ashmead	
	<i>Telenomus orgyiae</i> Fitch	Ibid., p. 153.
<i>Oeneis macounii</i> Edwards	<i>Trichogramma intermedia</i> Howard	Howard, 1889, p. 1895.
	" <i>Platygaster</i> " species	Riley, 1870b, p. 103.
<i>Paleacrita vernata</i> Peck	? <i>Eupelmus</i> species	Howard, 1891, p. 568.
<i>Paonius myops</i> Smith & Abbot		
<i>Papilio glaucus</i> Linnaeus	<i>Trichogramma minutissima</i> Packard	Scudder, 1889, II, p. 1304.
<i>Papilio glaucus turnus</i> Linnaeus	<i>Trichogramma intermedia</i> Howard	Fletcher, 1893, p. 160.
	<i>Trichogramma minutissima</i> Packard	Fletcher, 1893, p. 160.
<i>Phlegethontias sexta</i> Johanssen	<i>Telenomus sphingis</i> Ashmead	Ashmead, 1893a, pp. 156, 450.
	<i>Trichogramma pretiosa</i>	Ashmead, 1887c, p. 17.
	Riley	
<i>Platynota rostrana</i> Walker	<i>Trichogramma pretiosa</i>	Hubbard, 1885, p. 153.
	Riley	
<i>Polychrosis vileana</i> Clemens ¹	* <i>Trichogramma pretiosa</i>	Johnson, Fred, MS. notes, 1906.
	Riley	
<i>Polygonia interragationis</i>	<i>Telenomus graptae</i>	Riley & Howard, 1891, p. 123.
Fabricius	Howard	
	<i>Trichogramma intermedia</i> Howard	Howard, 1889, III, p. 1895.
<i>progne</i> Cramer	<i>Telenomus graptae</i>	Howard, 1889, III, p. 1891.
	Howard	

¹ North East, Penn.

<i>Sanninoidea exitiosa</i> (Say)	<i>Telenomus quaintancei</i> Girault	Girault, 1906, <i>Psyche</i> , XIII, p. 64.
<i>Schizura leptinoides</i> Grote	<i>Telenomus caelodasidis</i> Ashmead	Ashmead, 1893a, p. 159.
<i>Sphida</i> (Arzama) <i>obliqua</i> Walker	<i>Telenomus arzamae</i> Riley	Riley & Howard, 1891, p. 123.
<i>Telea polyphemus</i> Cramer	<i>Telenomus sphingis</i> Ashmead	Dimmock, 1897, p. 148.
	<i>Eupelmus</i> species	Howard, 1891, p. 568.
<i>Thanaos lucilius</i> Lintner	<i>Trichogramma intermedia</i> Howard	Scudder, 1889, II, p. 1467.
<i>Therina fervidaria</i> Hübner, <i>somniaria</i> Hulst	<i>Telenomus</i> species novem	Fletcher, 1893, p. 160.
<i>Thymelicus cernes</i> Boisduval & Leconte	<i>Telenomus graptae</i> Howard	Scudder, 1889, II, p. 1731.
<i>Thyridopteryx ephemeræformis</i> Haworth	<i>Dinocarsis thyridopterygis</i> Ashmead	Ashmead, 1886, p. 98.
<i>Vanessa atalanta</i> Linnaeus	<i>Trichogramma minutissima</i> Packard	Howard, 1889, p. 1895.

Neuroptera.

<i>Chrysopa perla</i> (Linnaeus) species	<i>Telenomus</i> species <i>Telenomus chrysopæ</i> Ashmead	Howard, 1888, p. 123. Ashmead, 1893a, pp. 159, 451.
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Orthoptera.

<i>Amblycorypha oblongifolia</i> DeGeer	<i>Anastatus mirabilis</i> Walsh.	Riley, 1870a, pp. 296–297, 369–370.
<i>Blatta orientalis</i> Linnaeus	<i>Evania appendigaster</i> (Linnaeus)	Marlatt, 1902, p. 11.
	<i>Evania</i> species novem	Cockerell, 1894, p. 209.
<i>Blattella germanica</i> (Linnaeus)	<i>Evania appendigaster</i> (Linnaeus)	Marlatt, 1902, p. 11.
<i>Chortophaga viridifasciata</i> DeGeer	? <i>Scelio oedipodæ</i> Ashmead	Morgan, 1901, p. 24.
	? <i>Scelio hyalinipennis</i> Ashmead	Morgan, 1901, p. 24.
<i>Dichromorpha viridis</i> Scudder	<i>Scelio</i> species	Warner, 1903, pp. 308–309.
<i>Dictyopterus reticulatus</i> Thunberg	? <i>Scelio fuscipennis</i> Ashmead	Ashmead, 1893a, p. 243. cf. Dalla Torre, 1898, p. 495.
<i>Dissosteira carolina</i> Linnaeus	<i>Scelio ovivorus</i> Riley	Riley & Howard, 1891, p. 124.
<i>Ischnoptera pennsylvanica</i> DeGeer	<i>Evania dorsalis</i> (Westwood)	Ashmead, 1900, p. 7.

<i>Mantis brasiliiana</i> Linnaeus	<i>Podagrion melleum</i> West-wood	Dalla Torre, 1898, p. 369.
<i>Melanoplus atlantis</i> Riley	<i>Scelio calopteni</i> Riley	Ashmead, 1893a, pp. 246, 451.
<i>differentialis</i> Thomas	<i>Scelio hyalinipennis</i> Ashmead	Morgan, 1901, p. 23.
species	<i>Scelio oedipodae</i> Ashmead	Morgan, 1901, p. 23.
<i>spretus</i> Thomas	<i>Scelio luggeri</i> Riley	Riley & Howard, 1891, p. 124.
	? <i>Scelio ovivorus</i> Riley	Riley, Packard & Thomas, 1878, pp. 305-306. Cf. Psyche, IV, 1883, p. 78.
<i>Microcentrum retinerve</i> Burmeister	<i>Anastatus mirabilis</i> Walsh	Hubbard, 1885, pp. 134-135.
<i>Oecanthus fasciatus</i> Fitch	<i>Anastatus mirabilis</i> Walsh	Ashmead, 1894, p. 245.
<i>latipennis</i> Riley	<i>Cacus oecanthi</i> Riley	Riley & Howard, 1891, p. 124.
	<i>Caloteleia</i> species	Bruner, 1890, p. 126, footnote.
	"Riley" species	Bruner, 1890, p. 126, footnote.
<i>nigricornis</i> Walker,	<i>Anastatus mirabilis</i> Walsh,	Felt, 1906, p. 699.
<i>niveus</i> DeGeer	<i>Baryconus oecanthi</i> Riley	Dalla Torre, 1898, p. 501.
	<i>Cacus oecanthi</i> Riley	Dalla Torre, 1898, p. 500.
	<i>Caloteleia</i> species	Bruner, 1890, p. 126, footnote.
	<i>Idris</i> species	Webster, 1891, pp. 345-346.
	"Riley" species	Bruner, 1890, p. 126, footnote.
species	<i>Macrorileya oecanthi</i> Ashmead	Ashmead, 1904, p. 264.
"Oedipoda" species	<i>Scelio oedipodae</i> Ashmead	Dalla Torre, 1898, p. 495.
<i>Orchelimum agile</i> DeGeer	<i>Eupelmus xiphidii</i> Ashmead	Morgan, 1901, p. 31.
	<i>Macroteleia</i> sp., near <i>floridana</i> Ashmead	Morgan, 1901, p. 31.
<i>glaberrimum</i> Burmeister	<i>Macroteleia floridana</i> Ashmead	Ashmead, 1893a, p. 451. Cf. pp. 217-218.
	<i>Macroteleia virginensis</i> Ashmead	Ashmead, 1893a, p. 218.
<i>Periplaneta americana</i> Linnaeus	"Eulophus" species	Westwood, 1839, p. 423.
	<i>Evania appendigaster</i> (Linnaeus)	Ashmead, 1900, p. 7.
	"Pteromalus" species	Westwood, 1839, p. 423.
<i>australasiae</i> Fabricius	<i>Evania appendigaster</i> (Linnaeus)	Ashmead, 1900, p. 7.
<i>Schistocerca americana</i> Drury	? <i>Scelio hyalinipennis</i> Ashmead	Morgan, 1901, p. 24.
	? <i>Scelio oedipodae</i> Ashmead	Morgan, 1901, p. 24.
<i>melanocera</i> Stål	<i>Scelio ernsti</i> Riley	Riley & Howard, 1891, p. 124.
<i>obscura</i> Fabricius	<i>Scelio hyalinipennis</i> Ashmead	Morgan, 1901, p. 28.

	<i>Scelio oedipodae</i> Ashmead	Morgan, 1901, p. 28.
<i>peregrina</i> Olivier	<i>Scelio ernstii</i> Riley	Riley, 1885b, p. 22.
<i>Stagmomantis carolina</i> Linnaeus	<i>Podagrion mantis</i> Ashmead	Morgan, 1897, p. 159.
<i>limbata</i> Saussure	? * <i>Podagrion mantis</i> Ashmead	H. S. Barber, 1906, <i>In litt.</i>

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