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Synopsis of the Diptera of the Eastern Archipelago discovered by Mr. WALLACE, and noticed in the 'Journal of the Linnean Society.' By F. WALKER, Esq., F.L.S.

[Read June 1, 1865.]

THE synopsis which follows these notes is arranged like Mr. Smith's tabular geographical view of the Hymenoptera of the Eastern Archipelago in the Seventh Volume of the 'Journal of the Linnean Society.' The synopsis only contains the species discovered by Mr. Wallace; and the districts may be mentioned in the following order:—

Malacca, with Mount Ophir, affords 51 species, and Singapore 67 species. Borneo comes next in succession, passing by Sumatra and Java, where the fauna is generally very distinct from that of the rest of the archipelago. Only 129 species are recorded from Borneo, and this extensive region is very inadequately represented. In Celebes the species collected amount to 236. Amboyna comes next; and several species of this island have been recorded by Dr. Doleschall, in addition to the 50 species collected by Mr. Wallace. Aru supplies 166 species; Batchian contributes 75 species; and New Guinea, the most eastern district, enumerates above 70. The other isles have been so little investigated that they may be passed over without notice.

About 300 species of Philippine Diptera have been lent to me by Professor Bellardi, and a very large proportion of them are undescribed.

The following families are not referred to in these notes; for their occurrence in the archipelago is as yet nearly or entirely

unknown:—Mycetophilidæ, Cecidomyzidæ, Bibiomidæ, Simulidæ, Chironomidæ, Phlebotomidæ, Heteroclitæ, Rhyphidæ, Empidæ, Cæstridæ.

The gnats or mosquitoes (or *Culicidæ*) are represented in these isles by 12 species of *Culex*, 2 of *Megarhina*, and 1 of *Anopheles*. The genus *Culex* is found throughout the world, and has probably continued from very early ages as compared with many other genera of insects. The species of different countries have much mutual resemblance, with the exception of a few that are peculiar to warm regions; and it is remarked by Humboldt that in some parts of South America each stream has its peculiar species. The genus *Megarhina* is especially South American, and does not appear in Africa, nor on the continent of Asia, nor in Australia.

Tipulidæ.—Of the seven genera in the following list, two (*Limnobia* and *Tipula*) are distributed throughout the world; and the *Limnobiæ* here recorded are very few, and it is probable that there are numerous undiscovered species in the eastern isles. *Limnobia* is a remarkable group, on account of the variation of the structure of the wing-veins being nearly equal to the number of species, which is very great. It will be divided into very numerous genera; and Baron Osten-Sacken has taken the lead in this part of systematic entomology with regard to the North American species. He has discovered in North America several species which in England are represented by *Geranomyia*; and he regards these as the remains of an earlier creation, which has mostly passed away in Europe, its former existence being indicated by fossils. *Geranomyia* is a native of the sea-coast, and is found, with *Orphnephila*, in the Channel Isles and in the western parts of Great Britain; and these two genera, like the little *Chironomus* that hovers over sea-weed, may have lived on the shores of the former Atlantic continent. The species of *Tipula* and of *Pachyrhina* here recorded are few in number, and are not peculiar in structure. *Megistocera* is an Australian genus, and is remarkable for the very great length of the antennæ of the male. The species in this list has been long known as a native of Java; and Mr. Wallace has discovered it in Aru. *Ctenophora* is generally distributed; but *Pterocosmus* is a new genus, founded on five species from Borneo; and *Gymnoplastia*, which was before only known in Australia, is represented by three species.

Stratiomidæ.—This family is very diversified in the isles, and is represented by 26 genera, of which 16 are new. The species of these new genera are of comparatively small size, and in them the

characteristics of the family are not much developed. *Ptilocera* appears to be peculiar to these isles and to South Africa; and *P. quadridentata* is the only Dipterous insect that has been found in almost all the islands here mentioned. *Clitellaria*, *Cyclogaster*, *Stratiomys*, *Oxycera*, *Chrysomyia*, and *Sargus* are widely distributed. Of *Eudmeta* only one species is known; and it occurs in Hindostan, Singapore, Sumatra, and Java. *Phyllophora* was founded on a West African species, and Singapore is its only other locality. *Hermetia*, to which *Massicyta* may be united, is especially a South American genus, and has not been discovered in Africa, nor on the continent of Asia.

Xylophagidæ.—It is doubtful whether this family has been discovered on the archipelago; for perhaps *Rhyppomorpha* may not belong to it. This is very different from all other genera, though it has some resemblance to the North American genus *Rachicerus*.

Tabanidæ.—One species of *Pangonia*, a genus that abounds in Australia, has been discovered in the archipelago. *Tabanus* is especially characteristic of continents, and the species appear to have been multiplied since the continents were established by the joining together of islands. About 600 species of this genus have been recorded. *Chrysops* and *Hæmatopota* are nearly as widespread as *Tabanus*; and *C. dispar* is among the few of these insular species that appear also on the continent of Asia.

Asilidæ.—The *Dasyopogonites* are of rare occurrence; they are represented only by 13 species and by 4 genera (*Mydas*, *Discocephala*, *Dasyopogon*, and *Dioctria*), all of which are found in several other regions. In the *Laphrites*, the numerous species of *Laphria* here recorded are the most remarkable features in the Dipterous fauna of these islands. By far the greater part of them are of the metallic-coloured group, which has very few representatives in other parts of the world. Most of the species are very closely allied to each other, and some of them will probably be considered mere varieties. Perhaps the connecting links will disappear by degrees, and the remainder will then be recognized as isolated or clearly defined species; or, in botanic phrase, the segregate species which compose the aggregate species will partially cease, and the true species will continue or will be more evident. It is well known that some regions of the earth represent now the earlier state of other regions; and in like manner the preparatory establishment of species may be observed in some districts, while there are no traces of such a process in other districts. Among the *Asilites*, the genera *Trupanea* and *Ommatius* are nearly limited to

the warmer parts of the earth; and several species of them inhabit these isles. *Asilus* and *Leptogaster* are generally distributed, and the former contains a vast number of species: of the few here mentioned, all are new, excepting *A. longistylus* and *A. Barium*; and the geographical range of the latter extends to Ceylon. In Aru there is one species of the Asiatic genus *Damalis*.

The *Bombylidae*, so various in form, are very scarce in these isles, and appear only in four genera—*Therma*, *Anthrax*, *Geron*, and *Systropus*; the last is a widely spread genus, but contains very few species. In this family the archipelago especially differs from Australia, and has no representatives of the peculiar forms and of the large number of species that inhabit the latter region.

The *Leptidae* comprise a few species belonging to *Leptis*, *Chrysopila*, and *Suragina*, of which genera the last one is new, and contains two species from Gilolo.

In the *Dolichopidæ* there are many species belonging to *Psilopus*, *Dolichopus*, *Diaphorus*, and *Chrysotus*; and as all the species of this family are of small size, it is probable that they are much more numerous.

Lonchopteridæ.—It is doubtful whether the new genus *Cadrena* belongs to this family.

The *Platypezidæ* and the *Pipunculidæ* are each limited to one species. *Pipunculus* has been found in Amboyna; it also occurs in Australia.

Syrphidæ.—Some genera of this family are selected for notice. *Ceratophya* was discovered by Dr. Doleschall; it was before only known in North America. The species of *Ceria* are very few; yet five of them are contained in this list, and four of these are new. The species described as *C. lateralis* is *C. indica*. The genus *Eristalis* contains four of the few Dipterous species whose geographical range extends beyond the archipelago. *E. Amphicrates* inhabits Hindostan and China; *E. Andræmon* and *E. æneus* inhabit Hindostan; and *E. arvorum* inhabits China. *Baccha Amphithoë* and *Ascia brachystoma* are also natives of Hindostan; so also are *Syrphus ægrotus* and *S. alternans*; and *S. ericetorum* inhabits Africa.

Conopidæ.—One species of *Conops* was discovered by Dr. Doleschall; it has little affinity to the Australian representatives of the genus.

Muscidæ.—Several of the subfamilies of this most extensive group are very slightly represented in the list; but it is probable that a large number of new species will be discovered.

The *Tachinides* amount to less than 60 species. This number appears very small when it is considered that the European species of these parasitic Muscidæ are excessively numerous. They are in exact contrast to the *Muscides*—where the species are comparatively few, but occur in immense swarms; whereas in the *Tachinides* the species appear to be interminable, but none of them are in any abundance. In this the *Tachinides* resemble some tribes of parasitic Hymenoptera, and, like them, may have been diversified in character by the numerous kinds of insects on which they are parasitic. *Hamaxia* and *Zambesa* are the only two new genera. *Megistogaster Imbrassus* inhabits China as well as Borneo.

Dexides.—*Rutilia* may be mentioned as indicating in some of the isles an approach to the Australian fauna, this genus being restricted to the archipelago and to Australia. It is the largest in size, and the most brilliant in colour, of all the Muscidæ. Felder has named a genus of *Rhopalocera* after Dr. Doleschall; and as my genus *Doleschallia* is very closely allied to *Torocca*, I have united these two genera, and have annulled the former name.

Sarcophagides.—*Sarcophaga*, the type of this tribe, is very widely distributed, and the species have much mutual resemblance. *S. ruficornis* inhabits Hindostan and Malacca; and all the other species in this list are merely insular.

Muscides.—*Idia* is limited to the warmer regions of the Old World, and of the species here mentioned some have a wider range than the generality of these Diptera: thus, *Idia australis* is found in Australia, *I. xanthogaster* in Hindostan, and *I. testacea* in the Mauritius. Two of the species of *Musca* have been already described, and inhabit also Hindostan; the rest are new, and some of them are indicated as new subgenera. *Musca domestica* is omitted from the list.

Anthomyides.—These may be passed over without notice, as it is probable that only a very small part of them are yet discovered, and that they have been neglected on account of their small size and dull colour; and the same remark will apply to the *Helomyzides*, the *Borborides*, the *Lauzanides*, the *Ascinides*, the *Geomyzides*, the *Phytomyzides*, and the *Hydromyzides*. In the *Helomyzides*, the occurrence of *Cælopa* may be mentioned as that of a genus which seems to be nearly peculiar to other regions. It swarms on the northern shores of Europe; but in the Channel Isles it is scarce, and another genus replaces it on the sea-weed.

The *Celyphides* are closely allied to the *Lauzanides*, and are

very remarkable on account of the development of the scutellum, whereby these flies have the semblance of beetles. Their range extends from Hindostan through the archipelago to the Philippine Isles.

Ortalides.—This subfamily is remarkable on account of the great variety of its forms, the beauty of its colours, and the elegant markings on the wings of many species. Thirteen new genera have been established on the insular species—*Xangelina*, *Xiria*, *Poticara*, *Mystia*, *Callantra*, *Aragara*, *Sophira*, *Rioxa*, *Valonia*, *Brea*, *Adrama*, *Polyura*, and *Strumeta*. A few of the other genera require some notice. A species of *Oxycephala* inhabits Ceram; but elsewhere the genus is only known to occur in North America. *Lamprogaster* is abundant in Australia; and the species of it in Malacca, Singapore, and some of the isles exhibit a resemblance to the Australian fauna. A few of the insular species are very remarkable on account of the great breadth of the head; and they form the genus *Zygenula* of Doleschall, or *Pterogenia* of Bigot. The genus *Dacus* abounds in the isles; and several of the species, like the *Laphriæ*, are very closely allied to each other, and have much resemblance to the species of Hindostan and of Ceylon. The very extraordinary genus *Achias* attains its greatest development in Aru: some future investigation may lead to the discovery of the use of the long petioles on which its eyes are seated.

Diopsides.—The singularity of the eyes of *Diopsis* has been too often described to require any notice here. The genus extends from Africa to the Philippine Isles.

Sepsides.—The genus *Colobata* is very generally distributed, and is rather numerous in these isles; and the species, though natives of widely separated regions, have much mutual resemblance. Some of the species of *Sepsis* have a great likeness to the British species, which occur now and then in immense swarms. The genus *Angitula* was established on the female of *Elaphomyia*, Saunders (*Phytalmia*, Gerstäcker). The female was transmitted to England long before the horned male of this most peculiar genus was known. The typical *Elaphomyiæ* are not mentioned in the list, as I have not described them; but the one species here recorded differs widely from the others, and I have transferred to it the generic name *Phytalmia*.

Psilides.—The species are few in number, but contain four new genera—*Cœnurgia*, *Texara*, *Seraca*, and *Gobrya*.

The known species of the *Phoridae*, like those of the preceding group, are almost wholly European, and only two have been found in the archipelago. The *Hippoboscidae* require no notice.

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigrou.	Bachian.	New Guinea.	Salwestly.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Sciara</i>																												
<i>laticollis</i>					*																							
<i>solita</i>					*																							
<i>selecta</i>																												
<i>longipes</i>																						*						
<i>ponderosa</i>																												
<i>varipes</i>																												
<i>filipes</i>													*															
<i>Mycetophila</i>																												
<i>obscurata</i>													*															
<i>Leia</i>												*																
<i>indivisa</i>											*		*															
<i>Cecidomyia</i>																												
<i>deferenda</i>					*																							
<i>Plecia</i>																												
<i>dorsalis</i>				*	*	*											*					*		*				
<i>subvarians</i>				*	*																	*		*				
<i>Megarhina</i>																												
<i>immisericors</i>			*									*	*	*	*	*								*				
<i>inornata</i>												*	*	*	*	*								*				
<i>Culex</i>																												
<i>splendens</i>						*				*	*																	
<i>annulipes</i>						*																						
<i>fuscus</i>		*		*	*																							
<i>scutellaris</i>																						*						
<i>obturans</i>												*	*	*	*	*								*				
<i>impatibilis</i>												*	*	*	*	*								*				
<i>impellens</i>					*							*	*	*	*	*								*				
<i>imprimens</i>												*	*	*	*	*								*				
<i>ventralis</i>												*	*	*	*	*	*							*				
<i>zonatipes</i>												*	*	*	*	*	*							*				
<i>filipes</i>												*	*	*	*	*	*							*				
<i>Anopheles</i>																												
<i>vanus</i>													*	*	*	*	*											
<i>Chironomus</i>																												
<i>instabilis</i>												*	*	*	*	*	*											
<i>Limnobia</i>																												
<i>leucotelus</i>					*																							
<i>plecioides</i>					*																							
<i>dichroa</i>				*																								
<i>imprensa</i>				*																								
<i>rubescens</i>				*	*																							
<i>pyrrhocroma</i>				*	*																							
<i>argento-cincta</i>				*	*																							
<i>imponens</i>															*	*	*											
<i>vittifrons</i>																*	*											
<i>strigivena</i>												*	*	*	*	*	*											
<i>quadrifurca</i>											*	*	*	*	*	*	*											
<i>perdecora</i>											*	*	*	*	*	*	*											
<i>terminalis</i>											*	*	*	*	*	*	*											
<i>euchroma</i>						*							*	*	*	*	*											
<i>latifascia</i>												*	*	*	*	*	*											
<i>auroatra</i>																							*					
<i>plenipennis</i>											*	*	*	*	*	*	*							*				

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigou.	Bachian.	New Guinea.	Sulwatty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Cyclogaster detracta</i>					*																							
<i>infera</i>					*																							
<i>Aulana confirmata</i>																							*					
<i>Phyllophora angusta</i>						*																						
<i>Eudmeta marginata</i>	*					*			*	*																		
<i>Ampsalis geniata</i>														*														
<i>Massicyta bicolor</i>						*									*													
<i>inflata</i>																												
<i>cerioides</i>							*					*												*				
<i>Hermetia remittens</i>															*													
<i>rufiventris</i>															*													
<i>Culcua simulans</i>					*												*											
<i>Evaza bipars</i>					*																							
<i>Nerua scenopinoides</i> ..											*	*				*						*						
<i>impendens</i>												*	*															
<i>Solva inamœna</i>															*													
<i>hybotoides</i>							*																					
<i>Adraga univitta</i>																						*		*				
<i>Salduba diphysoides</i>																												
<i>hilaris</i>												*	*											*				
<i>lugubris</i>											*	*	*											*				
<i>melanaria</i>											*	*	*											*				
<i>scapularis</i>											*	*	*											*				
<i>singularis</i>											*	*	*											*				
<i>gradiens</i>																								*				
<i>areolaris</i>																							*	*				
<i>Gabaza argentea</i>																						*		*				
<i>Oxycera manens</i>														*										*				
<i>Musama paupera</i>																*												
<i>Tracana iterabilis</i>														*										*				
<i>Obrapa perilampoides</i> ..											*	*	*									*	*	*				
<i>celyphoides</i>											*	*	*								*	*	*	*				
<i>Rosapha habilis</i>			*											*														
<i>Ruba inflata</i>														*														

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigou.	Bachian.	New Guinea.	Salwatty.	Celbes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Tabanus																												
succurvus															*													
doreicus																												
recusans																												
obscuratus																												
serus																												
factiosus																												
reducens															*	*	*	*	*	*	*	*	*	*	*	*	*	*
exagens															*	*	*	*	*	*	*	*	*	*	*	*	*	*
spoliatus															*	*	*	*	*	*	*	*	*	*	*	*	*	*
facilis																												
immixtus																												
extricans																												
flexilis				*											*													
insurgens															*													
coharens															*	*	*	*	*	*	*	*	*	*	*	*	*	*
papouinus															*	*	*	*	*	*	*	*	*	*	*	*	*	*
breviventris															*	*	*	*	*	*	*	*	*	*	*	*	*	*
sylvioides															*	*	*	*	*	*	*	*	*	*	*	*	*	*
humillimus															*	*	*	*	*	*	*	*	*	*	*	*	*	*
simplicissimus					*										*	*	*	*	*	*	*	*	*	*	*	*	*	*
Chrysops																												
dispar		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
fasciatus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
fixissimus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
signifer				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
parallelus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hæmatopota																												
roralis				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
atomaria				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mydas																												
basifascia															*	*	*	*	*	*	*	*	*	*	*	*	*	*
Discocephala																												
dorsalis				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
pandens				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
concolor				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dasypogon																												
vica		*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
incomptus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
inopinus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
honestus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
glabratus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
congressus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
solutus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
semiflatus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
indecorus				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dioctria																												
claviventris				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Laphria																												
paradisiaca				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
gloriosa				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
liturifera				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
congrua				*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigiu.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kassa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Laphria																												
consurgens																												
socia								*																				
Taphius			*																									
tristis							*																					
scapularis																												
obliquistriga										*																		
consobrina																												
comes							*																					
complens											*				*													
replens													*															
placens															*													
flagellata							*														*							
consors																												
divulsa												*																
germana																						*						
setipes							*															*						
requisita															*							*						
compta															*		*											
sodalis															*													
tibialis												*			*							*						
partita													*		*							*						
conveniens							*						*		*							*		*				
ostensa													*		*							*		*				
auribasis											*		*		*							*		*				
argentifera												*			*							*		*				
Reinwardtii				*	*				*	*		*			*							*		*				
ampla				*	*				*	*		*			*							*		*				
vulcanus				*	*				*	*		*			*		*					*		*				
flagrantissima				*	*				*	*		*			*		*					*		*				
flammipennis				*	*				*	*		*			*		*					*		*				
ardescens				*	*				*	*		*			*		*					*		*				
concludens				*	*				*	*		*			*		*					*		*				
justa				*	*				*	*		*			*		*					*		*				
disciplena				*	*				*	*		*			*		*					*		*				
tripars				*	*				*	*		*			*		*					*		*				
basifera				*	*				*	*		*			*		*					*		*				
manifesta				*	*				*	*		*			*		*					*		*				
declarata				*	*				*	*		*			*		*					*		*				
aperta				*	*				*	*		*			*		*					*		*				
bipars				*	*				*	*		*			*		*					*		*				
puer				*	*				*	*		*			*		*					*		*				
diotrioides				*	*				*	*		*			*		*					*		*				
pipunculoides				*	*				*	*		*			*		*					*		*				
amena				*	*				*	*		*			*		*					*		*				
alternans				*	*				*	*		*			*		*					*		*				
aurifacies				*	*				*	*		*			*		*					*		*				
basifera				*	*				*	*		*			*		*					*		*				
inaurea				*	*				*	*		*			*		*					*		*				
basigutta				*	*				*	*		*			*		*					*		*				
fusifera				*	*				*	*		*			*		*					*		*				
sobria				*	*				*	*		*			*		*					*		*				
plana				*	*				*	*		*			*		*					*		*				

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Terbate.	Sumatra.	Java.	Waigiu.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Myso.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Laphria																												
<i>imbellis</i>						*																						
<i>notabilis</i>																												
<i>orcus</i>				*	*	*																						
<i>elegans</i>		*		*	*	*																						
<i>radicalis</i>				*	*	*																						
<i>triangularis</i>					*	*		*	*																			
<i>constricta</i>					*	*		*	*																			
<i>unifascia</i>					*	*		*	*																			
<i>comptissima</i>					*	*		*	*																			
<i>rudis</i>					*	*		*	*																			
<i>producta</i>					*	*		*	*																			
<i>lepida</i>					*	*		*	*																			
<i>completa</i>					*	*		*	*										*									
<i>incivilis</i>					*	*		*	*																			
<i>partita</i>					*	*		*	*																			
<i>interrupta</i>					*	*		*	*																			
<i>cingulifera</i>					*	*		*	*																			
<i>detecta</i>					*	*		*	*																			
Trupanea																												
<i>Amorges</i>					*	*																						
<i>inserens</i>					*	*		*																				
<i>Plutonica</i>							*																					
<i>strenua</i>							*									*	*											
<i>contradicens</i>																												
<i>complens</i>													*									*						
<i>interponens</i>												*	*															
<i>addens</i>												*	*															
<i>transacta</i>												*	*											*				
<i>Gilolana</i>							*					*	*															
<i>calorifica</i>												*	*															
<i>concolor</i>												*	*															
Asilus																												
<i>lineosus</i>					*	*																						
<i>latifascia</i>					*	*																						
<i>fusiformis</i>				*	*	*																						
<i>debilis</i>				*	*	*																						
<i>Barium</i>				*	*	*			*																		*	
<i>flagrans</i>				*	*	*			*																			
<i>contortus</i>				*	*	*			*																			
<i>areolatus</i>				*	*	*			*																			
<i>areolaris</i>				*	*	*			*																			
<i>mendax</i>				*	*	*			*				*															
<i>strenuus</i>				*	*	*			*			*																
<i>depulsus</i>				*	*	*			*			*											*					
<i>superveniens</i>				*	*	*			*			*									*			*				
<i>biligatus</i>				*	*	*			*			*									*			*				
<i>tenuicornis</i>				*	*	*			*		*				*						*			*				
<i>laevis</i>				*	*	*			*		*				*						*			*				
<i>didymoides</i>				*	*	*			*		*				*						*			*				
<i>normalis</i>				*	*	*		*			*				*						*			*				
<i>longistylus</i>				*	*	*			*		*				*						*			*				
<i>introducens</i>				*	*	*			*		*				*						*			*				
<i>determinatus</i>				*	*	*			*		*				*	*					*			*				

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigon.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Amboyra.	Sula.	Gorrite.	Key.	Aru.	Kaisa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Eristalis																												
splendens																												
resolutus											*	*	*			*	*											
inscripta													*				*	*										
obliterans													*							*	*							
bomboides													*				*											
obscurata													*							*	*							
tortuosa													*								*	*						
lucilioides												*			*													
muscoides												*										*	*					
erythrogyga																						*	*					
postscripta																						*	*	*	*	*	*	*
conductus																						*	*	*	*	*	*	*
aquipars													*									*	*	*	*	*	*	*
placens																						*	*	*	*	*	*	*
Agno																						*	*	*	*	*	*	*
Æsopus	*																*									*		
suavissimus															*	*						*	*	*	*	*	*	*
inficitus															*	*						*	*	*	*	*	*	*
helophiloides												*			*	*						*	*	*	*	*	*	*
merodontoides														*	*	*						*	*	*	*	*	*	*
crassus		*												*	*	*						*	*	*	*	*	*	*
Helophilus																												
insignis				*	*	*																						
quadrivittatus		*		*	*	*																						
mesoleucus																						*	*	*	*	*	*	*
consors																						*	*	*	*	*	*	*
conclusus															*	*						*	*	*	*	*	*	*
Xylota																												
conformis																												
ventralis					*	*																						
Eumerus																						*	*	*	*	*	*	*
figurans																												
argentipes											*				*	*												
Merodon																												
varicolor				*																								
interveniens															*	*												
Orthoneura																						*	*	*	*	*	*	*
basalis																												
Paragus																												
substitutus												*																
latiusculus												*																
venosus												*			*	*												
luciferus												*	*	*	*	*												
incisuralis												*	*	*	*	*												
Baccha																												
Amphithoë		*		*											*	*												
dispar															*	*												
basalis												*	*	*	*	*												
incisa											*	*	*	*	*	*												
tripartita											*	*	*	*	*	*												
purpuricola											*	*	*	*	*	*					*	*	*	*	*	*	*	*
Ascia																					*	*	*	*	*	*	*	*
brachystoma		*		*																								

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigiu.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Ambogna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Syritta</i>																												
<i>illucida</i>															*													
<i>Volucella</i>																												
<i>trifasciata</i>					*					*																		
<i>decorata</i>															*													
<i>Axona</i>																												
<i>volucelloides</i>																							*					
<i>Baryterocera</i>																												
<i>inclusa</i>					*											*												
<i>gibbula</i>																*												
<i>Ctibæna</i>																												
<i>aurata</i>					*																							
<i>Syrphus</i>																												
<i>ericetorum</i>		*						*		*		*	*									*		*		*		
<i>ægotus</i>	*	*	*	*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>consequens</i>			*	*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>duplex</i>					*			*	*	*	*	*	*			*						*	*	*		*		
<i>triligatus</i>				*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>alternans</i>		*		*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>divertens</i>				*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>cyathifer</i>				*	*			*	*	*	*	*	*			*						*	*	*		*		
<i>Azpeytia</i>													*															
<i>scutellaris</i>													*															
<i>Conops</i>																		*										
<i>rufifrons</i>																	*											
<i>metaxantha</i>										*																		
<i>Echinomyia</i>																												
<i>brevipennis</i>					*																							
<i>sarcophagoides</i>															*													
<i>Tachina</i>																												
<i>Ophirica</i>				*																								
<i>analis</i>																												
<i>discifera</i>																		*	*									
<i>Nemoraa</i>																*	*											
<i>amplificans</i>															*	*												
<i>tenebrosa</i>															*	*												
<i>postulans</i>													*															
<i>Saralba</i>													*															
<i>ocypteroides</i>													*															
<i>Hamaxia</i>																												
<i>incongrua</i>																		*	*									
<i>Masicera</i>																												
<i>vicaria</i>						*																						
<i>tomentosa</i>				*																								
<i>Morio</i>							*																					
<i>horrens</i>																*	*											
<i>sarcophagata</i>															*	*	*											
<i>detata</i>															*	*	*											
<i>immersa</i>															*	*	*											
<i>Myzolana</i>															*	*	*							*				
<i>manifesta</i>															*	*	*											
<i>notabilis</i>															*	*	*					*	*					
<i>prominens</i>															*	*	*					*	*					
<i>tentata</i>															*	*	*					*	*		*			

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigou.	Bachian.	New Guinea.	Salwaty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Masicera																												
solennis																												
simplex																												
guttata																												
ficta												*																
prognosticans															*													
Eurygaster																												
muscoides					*																							
subferrifera					*																							
limitaris												*																
mutans												*																
remittens								*					*		*													
ridibunda							*						*		*													
tentans													*		*							*						
fingens													*		*													
conglomerata													*		*													
prominens													*		*													
interdicta													*		*									*				
apta													*		*													
deducens												*		*	*													
contracta												*		*	*													
progressa												*		*	*													
phasioides												*		*	*							*						
decipiens												*		*	*							*						
Trichoprosopa ?																												
divisa																								*				
marginalis																	*											
Megistogaster																												
Imbrasus	*				*																							
Metopia																												
inspectans															*													
instruens															*													
Phorocera																												
expellens																	*	*	*									
decedens																	*	*	*									
basitincta																	*	*	*									
convertens													*	*														
Zambesa																												
ocypteroides						*																						
Dexia																												
divergens				*																								
munda				*																								
extendens				*																								
fusiformis															*													
basifera															*													
nivifera												*			*													
inclusens															*													
parallela								*							*													
præcedens															*													
alulifera												*			*													
cylindrica												*			*								*					
pectoralis												*			*							*						
Rutilia																												
saturatissima						*						*										*						

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigiu.	Bachian.	New Guinea.	Sarwatty.	Celabes.	Ceram.	Amboyna.	Sula.	Gorrie.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Rutilia</i>																												
<i>plumicornis</i>													*															
<i>fervens</i>								*																				
<i>pectoralis</i>												*	*															
<i>glorificans</i>												*	*															
<i>Moneta</i>												*	*															
<i>lucigena</i>												*	*															
<i>atribasis</i>									*			*	*															
<i>complicata</i>												*	*															
<i>angustipennis</i>												*	*			*												
<i>sapphirina</i>								*																				
<i>excelsa</i>									*																			
<i>volucelloides</i>												*	*															
<i>trioxoides</i>								*				*	*															
<i>ignobilis</i>												*	*						*									
<i>Gymnostylia</i>																												
<i>invita</i>													*															
<i>luteicornis</i>								*																				
<i>Prosenia</i>																												
<i>pectoralis</i>											*		*															
<i>argentata</i>												*	*															
<i>lurida</i>												*	*															
<i>coacta</i>													*															
<i>secedens</i>													*			*												
<i>fasciata</i>												*	*															
<i>Torocca</i>																												
<i>abdominalis</i>													*															
<i>gonypedoides</i>											*	*	*															
<i>cylindrica</i>												*	*															
<i>consors</i>											*	*	*															
<i>Cynomyia</i>																												
<i>fortis</i>					*																							
<i>Sarcophaga</i>																												
<i>ruficornis</i>		*																										
<i>reciproca</i>			*	*	*	*																						
<i>aliena</i>			*	*	*	*									*													
<i>indicata</i>			*	*	*	*																						
<i>sericeo-nitens</i>			*	*	*	*																						
<i>aurata</i>			*	*	*	*									*	*	*	*										
<i>compta</i>															*	*	*	*										
<i>invaria</i>															*	*	*	*										
<i>mendax</i>								*							*	*	*	*				*	*					
<i>brevis</i>												*	*		*	*	*	*				*	*					
<i>innotata</i>												*	*		*	*	*	*				*	*					
<i>basalis</i>												*	*		*	*	*	*		*		*	*					
<i>perpusilla</i>												*	*		*	*	*	*		*		*	*					
<i>inextricata</i>												*	*		*	*	*	*		*		*	*					
<i>Idia</i>																												
<i>bicolor</i>				*																								
<i>tenebrosa</i>				*																								
<i>discolor</i>				*	*					*																		
<i>bivittata</i>				*																								
<i>australis</i>				*										*							*	*				*		
<i>xanthogaster</i>	*									*											*	*						

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sunatra.	Java.	Waigou.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Ambogna.	Sula.	Gorrito.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
Valonia																												
complicata				*																								
Brea																												
discalis													*															
contraria													*															
Adrama																												
selecta											*	*																
consors												*										*	*	*				
Diopsis																												
quadriguttata				*	*																							
quinqueguttata				*	*																							
discrepanis				*	*																							
subnotata			*												*	*												
detrahens															*	*												
Noeeta																												
latiuseula				*												*	*											
Urophora																												
fasciata				*																								
Trypeta																												
rudis				*																								
multistriga											*																	
retorta							*																					
transiens																												
dorsigutta																	*											
approximans															*	*												
basalis															*	*												
amplipennis			*												*	*							*	*	*			
lativentris															*	*							*	*	*			
stellipennis															*	*							*	*	*			
impleta															*	*							*	*	*			
subocellifera															*	*							*	*	*			
roripennis															*	*					*	*	*	*	*			
basifascia															*	*						*	*	*	*			
nigrifascia															*	*						*	*	*	*			
signifacies															*	*		*				*	*	*	*			
melaleuca															*	*		*				*	*	*	*			
diversata															*	*		*				*	*	*	*			
brevivitta												*	*		*	*		*				*	*	*	*			
Ortalis																												
prompta												*	*		*	*		*				*	*	*	*			
obliqua											*	*		*	*		*					*	*	*	*			
tarsalis											*	*		*	*		*					*	*	*	*			
aquifera							*																					
concisivitta							*																					
complens																												
punctifascia							*															*	*	*	*			
leucomera																												
vacillans															*	*		*					*	*	*	*		
decatomoides															*	*		*					*	*	*	*		
contigua												*	*		*	*		*				*	*	*	*			
semivitta												*	*		*	*		*				*	*	*	*			
Strumeta																												
conformis					*																							
repleta											*	*										*	*	*	*			

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigou.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Lissa</i>																												
<i> cylindrica</i>													*															
<i>Nerius</i>																												
<i> fuscipennis</i>			*	*	*	*							*		*													
<i> duplicatus</i>							*				*		*		*							*						
<i> tibialis</i>													*		*		*											
<i> mantoides</i>													*		*		*					*						
<i>Cœnurgia</i>																												
<i> remipes</i>															*													
<i>Texara</i>																												
<i> compressa</i>					*	*																						
<i> diotrioides</i>															*		*											
<i>Stymbara</i>																												
<i> vagaria</i>													*		*		*											
<i>Seraca</i>																												
<i> signifera</i>															*		*											
<i> signata</i>															*		*											
<i> abbreviata</i>													*		*		*											
<i>Gobrya</i>																												
<i> bacchoides</i>														*	*		*											
<i>Psila</i>																												
<i> bipunctifera</i>														*	*	*	*											
<i> munda</i>													*	*	*	*	*											
<i> calobatoides</i>													*	*	*	*	*											
<i> cruciata</i>													*	*	*	*	*											
<i> basalis</i>													*	*	*	*	*											
<i> vittifera</i>													*	*	*	*	*											
<i>Piophila</i>																*	*											
<i> contacta</i>															*	*												
<i> disjuncta</i>													*	*	*	*	*											
<i>Opomyza</i>																*	*											
<i> nigrifinis</i>													*	*	*	*	*											
<i>Milichia</i>																												
<i> minuta</i>													*	*	*	*	*											
<i>Gymnopa</i>																												
<i> gutticosta</i>					*	*																						
<i> infusa</i>					*	*																						
<i>Oscinis</i>																												
<i> lineiplena</i>																							*	*				
<i> noctilux</i>																							*	*				
<i> femorata</i>															*	*	*							*	*			
<i>Chlorops</i>																												
<i> conclusata</i>													*	*	*	*	*											
<i>Cephaloconus</i>																												
<i> tenebrosus</i>											*	*	*	*	*	*	*											
<i>Drosophila</i>																												
<i> finigutta</i>																						*	*	*	*	*	*	*
<i> melanospi'a</i>																						*	*	*	*	*	*	*
<i> imparata</i>																						*	*	*	*	*	*	*
<i> solennis</i>																						*	*	*	*	*	*	*
<i> rudis</i>																						*	*	*	*	*	*	*
<i> illata</i>																						*	*	*	*	*	*	*
<i> lurida</i>																						*	*	*	*	*	*	*
<i> lateralis</i>																						*	*	*	*	*	*	*

	China.	India.	Philippines.	Malacca.	Borneo.	Singapore.	Gilolo.	Ternate.	Sumatra.	Java.	Waigou.	Bachian.	New Guinea.	Salwatty.	Celebes.	Ceram.	Amboyna.	Sula.	Gorrite.	Key.	Aru.	Kaisaa.	Mysol.	Solomon's Isles.	Australia.	Africa.	Ceylon.	Corea.
<i>Drosophila</i>																												
<i>pinguis</i>															*													
<i>dorsalis</i>															*													
<i>Ephydra</i>																												
<i>taciturna</i>																												
<i>borboroides</i>																												
<i>maculicornis</i>															*						*							
<i>Discomyza</i>																												
<i>obscurata</i>			*												*													
<i>tenebrosa</i>													*		*													
<i>Nomba</i>																												
<i>tecta</i>													*		*													
<i>Ochthera</i>																												
<i>innotata</i>															*													
<i>Notiphila</i>																												
<i>lineosa</i>															*													
<i>quadrifascia</i>															*													
<i>flavilinea</i>															*													
<i>ortalioides</i>													*		*													
<i>unicolor</i>													*		*								*					
<i>unilineata</i>													*		*								*					
<i>carbonaria</i>												*	*	*	*								*					
<i>Phora</i>																												
<i>bifasciata</i>															*													
<i>Pallura</i>																												
<i>invaria</i>															*							*						
<i>Ornithomyia</i>																												
<i>parva</i>																						*						
<i>Doreica</i>													*		*							*						
<i>exilis</i>													*		*							*						
<i>plana</i>													*		*							*						
<i>Batchianica</i>			*			*						*			*							*						
<i>simplex</i>			*			*						*			*							*						
<i>obscurata</i>			*			*						*			*							*						
<i>Nycteribia</i>																												
<i>parilis</i>			*			*						*			*							*						
<i>dubia</i>			*			*						*			*							*						