

Classification of the Superfamily Sesioidea (Lepidoptera: Ditrysia)

JOHN B. HEPPNER
and
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ABSTRACT

Heppner, John B., and W. Donald Duckworth. Classification of the Superfamily Sesioidea (Lepidoptera: Ditrysia). *Smithsonian Contributions to Zoology*, number 314, 144 pages, 107 figures, 1 table, 1981.—The classification, morphology, and phylogeny are reviewed for the three families of the superfamily Sesioidea: Brachodidae, Sesiidae, and Choreutidae, of which Brachodidae is newly added to Sesioidea. World genera and species are listed for each family, including new combinations and new synonymies. New replacement names are provided for 7 junior homonyms in Sesiidae (*Synanthesdon*). One new subfamily (Brenthiinae) is described in Choreutidae and one new subfamily (Phycodinae) is described in Brachodidae. Keys are provided for families and subfamilies. Representative species and character features are illustrated for each family for adults, larvae, and pupae. Sesiidae (except Tinthiinae) are shown to possess chaetosemata. Biological information and zoogeography are reviewed for each family to the extent known. Thirteen genera and seven species are newly excluded from Sesioidea families and transferred to other families. Brachodidae are shown to be the most closely related family to Sesiidae. *Prochoreutis* Heppner, new name, is proposed for use in the Choreutidae section, replacing *Choreutis* of authors (not *Choreutis* Hübner, which replaces *Eutromula* Frölich).

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*John B. Heppner
and W. Donald Duckworth*

Introduction

In recent years, increased systematic research in the less specialized family groups of the suborder Ditrysia, historically termed the tineoid complex, has served to emphasize the inadequacy of much of the traditional higher category classification for expressing evolutionary affinities as they are presently perceived. This, in turn, has stimulated a heightened interest in the discovery and testing of character systems that seem to offer greater insight into family and superfamily relationships on a world basis in these groups.

The results of some of these studies have suggested various revisions in lower ditrysian higher category classification (Common, 1974, 1975; Brock, 1971; Heppner, 1977a), including the establishment of the superfamily Sesioidea (= Aegerioidea). In the present paper a revised classification for the Sesioidea, resulting from studies currently being conducted on the Sesiidae and various taxa formerly assigned to the conglomerate family Glyphipterigidae (auctorum), is presented. Extensive examination of the world genera previously assigned to these two families, while still incomplete, has provided, in our opinion, sufficient new data regarding relationships to establish a preliminary phylogenetic hypothesis

and to discriminate one additional family in Sesioidea in addition to Sesiidae and Choreutidae.

Another new family, Immidae, was recently formed (Heppner, 1977a) from species formerly in Glyphipterigidae. It was initially considered that this group be also placed in Sesioidea. More recent study of basic morphological characters of Immidae, together with an assessment of the biological information presented by Common (1974) for one species of *Imma* and recent information on other species (Common, 1979; Dugdale, pers. comm.), has provided sufficient evidence to exclude Immidae from Sesioidea. The unspined and non-protruded pupa and other characters cannot be reconciled within Sesioidea. In assessing the characters known for Immidae, the family appears to demonstrate ancestral relationships to Yponomeutoidea and shows an evolutionary trend toward Zygaenoidea and Pyraloidea (Hyblaeidae). Immidae requires a separate superfamily to adequately integrate the group among other ditrysian families and, thus, we agree with Common (1979) in his naming of Immoidea. A forthcoming review of Immidae, as a prelude to a revision of the family, will pursue these questions further (Heppner, in prep. b).

As presently established, the superfamily Sesioidea consists of three families, 150 genera, and 1515 species in the world fauna. The Sesiidae have been recognized as a distinct family group

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for more than a century and have in recent years been extensively redefined (Niculescu, 1964; Naumann, 1971; Duckworth and Eichlin, 1974, 1977c; Fibiger and Kristensen, 1974). The division of Glyphipterigidae (auctorum) into Glyphipterigidae (sensu stricto) and Choreutidae, with their respective transfers from the Yponomeutoidea to Copromorphoidea and Sesioidae, was discussed in an earlier paper (Heppner, 1977a). In the present paper, a number of genera formerly assigned to the glyphipterigids are grouped together as the family Brachodidae, recently used to replace Atychiidae (Heppner, 1979a). This family, based on the genus *Brachodes* (= *Atychia* Latreille), is extensively distributed in the tropical regions of the world, and study of the included genera has provided the first indication of the probable origin of the Sesiidae, a relationship that has eluded lepidopterists for many years. In terms of the present scope of Brachodidae, it essentially becomes a new family, since the former Atychiidae was restricted to only one genus in most treatments and Agenjo (1966) considered the group only as a subfamily of Glyphipterigidae.

The families comprising the Sesioidae are herein defined and discussed, along with a definition of the superfamily. Phylogenetic considerations are discussed following a historical review of the higher categories. The author and date of the earliest family-group name is noted under the appropriate family heading, along with the present family name noted for the first authorship and a list of all synonyms.

The authors are jointly responsible for the text except for the individually written family sections: Brachodidae and Choreutidae by Heppner and Sesiidae by Heppner and Duckworth. All new taxa and new combinations are to be credited to the author of the particular family section.

Checklists of all taxa transferred to the new family name Brachodidae and for Sesiidae and Choreutidae are provided as completely as currently known. All sesiid genera that do not appear in these lists and that were formerly associated with the Glyphipterigidae (auctorum),

now belonging to various families, will be included in a catalog of these genera currently in preparation (Heppner, in prep. a). Genera excluded from Sesiidae were noted by Naumann (1971) but some of these are newly transferred to other families herein. Only genera known to be properly associated with each family, as we perceive them, are included in the checklists. Genera are listed phylogenetically, species alphabetically, and synonyms chronologically. Original generic assignments are noted after the valid species name. The letters to the left of each species name represent the faunal region where each is known to occur (A=Australian; C=Cosmopolitan; E=Ethiopian; H=Holarctic; N=Nearctic; NL=Neotropical; O=Oriental; P=Palearctic). Type-species are noted in brackets after the generic name.

ACKNOWLEDGMENTS.—We are indebted to a large number of colleagues and institutions for their cooperation and assistance during the course of our studies. The nature of the present paper is such that acknowledgment of all those who have materially aided its completion through loan of types and other specimens in their charge would require more space than is appropriate here. We will, therefore, defer these specifics to future papers dealing with detailed studies of genera and species.

We would at this point, however, like to acknowledge those persons who have contributed significantly to the present study through their willingness to share with us through discussion, correspondence, and review of this manuscript, their considerable knowledge of Lepidoptera systematics: T. D. Eichlin, California Department of Food and Agriculture, Sacramento; I.F.B. Common, C.S.I.R.O., Canberra, Australia; J. S. Dugdale, D.S.I.R., Nelson, New Zealand; K. Satler and G. S. Robinson, British Museum (Natural History), London; A. Diakonoff, Rijksmuseum van Natuurlijke Historie, Leiden, Netherlands; J.F.G. Clarke and D. R. Davis, Smithsonian Institution, Washington; R. W. Hodges, Systematic Entomology Laboratory, U.S. Department of Agriculture, Washington; J. A. Powell,

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Taxonomic History

The genera here included in Sesioidea were mostly included among various families of the Yponomeutoidea in more recent classifications of Lepidoptera. The early segregations of the sesiids, beginning with the early nineteenth-century partition of the large units of the Linnean classification placed them among the diurnal moths. The groups herein included in Choreutidae were placed among the nocturnal moths, while those forming the Atychiidae (auctorum) (now Brachodidae) were placed among the crepuscular moths. The next century brought many refinements to this classification and for the sesiids a number of varying associations, whereas the other two families were sorted into various other families. Niculescu (1964) has summarized the past associations of the Sesiidae in relation to phylogenetic aspects.

The earliest distinction of a superfamily (Aegerioidea) for the sesiids was by Mosher (1916). Meyrick (1928c) placed Sesiidae in Glyphipterygoidea but also included Heliodinidae and Heliolzelidae, in addition to Glyphipterigidae. Generally neither superfamily was recognized by

other authors, and in recent decades the sesiids most often have been included in Yponomeutoidea. An exception to this was Forster (1954) who also used Glyphipterygoidea and included only Glyphipterigidae (auctorum) and Sesiidae. With the morphological studies of Brock (1971) the sesiids were again segregated and have now generally become recognized as belonging to a distinct superfamily, especially as Brock's work has become more fully integrated into modern systematic studies on Lepidoptera. In retreating from the emphasis on general facies and using other characters such as larval morphology, pupal behavior, and basic adult morphology, the new concept of Sesioidea is firmly based.

Among the families of Sesioidea, the genera herein segregated into the new concept of Brachodidae were, as noted above, included among the Glyphipterigidae sensu Meyrick (1914c). This is likewise true for Choreutidae and is discussed in more detail after each family description. Brachodidae (as Atychiidae) has often been considered as a distinct family, sometimes in Tineoidea, or as a subfamily of Tineidae (Rebel, 1901b), or even as a family of Tortricoidea (Obenberger, 1964). Edwards (1888) even placed the genus *Atychia* in Heterogynidae. Agenjo (1966) adopted the name Brachodinae as a subfamily in Glyphipterigidae. In all these cases the predominant cause of such varied placement involved the uncertain affinity of the groups, inasmuch as fundamental morphological characters were not as much relied upon as superficial resemblance. The same reason was also responsible for the varied associations of the sesiids in the past, since their highly specialized features could superficially be regarded as similar to several families, depending on the judgment of the researcher.

Phylogeny of Sesioidea

The taxonomic history of the genera here segregated into three families, in relation to previous views on their phylogenetic positions in the Ditrysia, and the distinction of Sesioidea as a separate superfamily, is discussed in the sections under

TABLE I.—Family characters in Sesiioidea

| Character | BRACHODIDAE | SESIIDAE | CHOREUTIDAE |
|------------------|-----------------------------------|-------------------------------|-------------------------------|
| Antenna | various | various | filiform |
| Ocellus | large (rarely absent) | moderate | moderate |
| Chaetosema | absent | present (usually) | absent |
| Haustellum | naked | naked | scaled |
| Maxillary palpus | 1–3 segments | 1–2 segments | 1–2 segments |
| Pilifers | large | large | large |
| Thorax | normal | bag-like protrusion | normal |
| Wing coupling | normal | locking | normal |
| Pterostigma | absent | absent | present |
| Abdomen | normal | sometimes basally constricted | normal |
| Socius | absent | present | absent |
| Socius-like area | present | present | present |
| Larval prolegs | reduced or normal | reduced | long |
| Larval crochets | transverse | transverse | circles or lateral penellipse |
| Larval stemmata | 6 | 6 | 5 + 1 (reduced) |
| Pupal spines | 2 rows | 2 rows | 1 row |
| Larval behavior | borers/external | borers | external |
| Adult behavior | diurnal? | diurnal | diurnal |
| Cocoon | subterranean or on leaves; simple | subterranean; simple | 2–4 layered on leaves |

each family below. With Sesiidae in particular, while placement has now stabilized in the superfamily Sesiioidea, the origin of the family has still remained obscure until now, primarily due to the highly modified structures of the adults and because the relationship to Choreutidae did not provide any further evidence in itself to determine the origin of the sesiids.

Characters, in part synapomorphic, that indicate phylogenetic relationships among the three families include (1) the tortricoid abdominal articulation; (2) the trisetose prespiracular setal group of the larval prothorax (2 in *Sagalassa*); (3) wing venational patterns, although modified in Sesiidae due to elongated wings; (4) large ocelli in general (with only one genus known lacking them but with positional marks remaining); (5) the diurnal adult activity regime; (6) the mobile and protruded pupa; and (7) basic similarities of certain genitalic characters. In addition to cohesive characters, there are unique developments in each family: (1) a presumed ancestral wing ven-

ation and diurnal adult activity among known biologies of Brachodidae; (2) a unique wing coupling mechanism, elongated wings, mimicry (mostly of Hymenoptera), and diffuse chaetosema in Sesiidae; and (3) external larval feeding, a scaled haustellum, and a tendency toward tortricoid wing venation in Choreutidae. The cohesiveness of the superfamily, in relation to various characters available for comparison, appears sound (see Table 1). The relationships to Sesiidae are particularly important inasmuch as the origins and closest relatives of this group are finally known with some degree of certainty, as noted further below.

Wing venation, genitalic characteristics, and larval habits distinguish Brachodidae as the least advanced sesioid family. Noteworthy also are the relatively very large ocelli of some genera, which has been found to be generally a plesiomorphic character among the Lepidoptera whenever encountered. These and other morphological characters provide, we believe, significant evidence

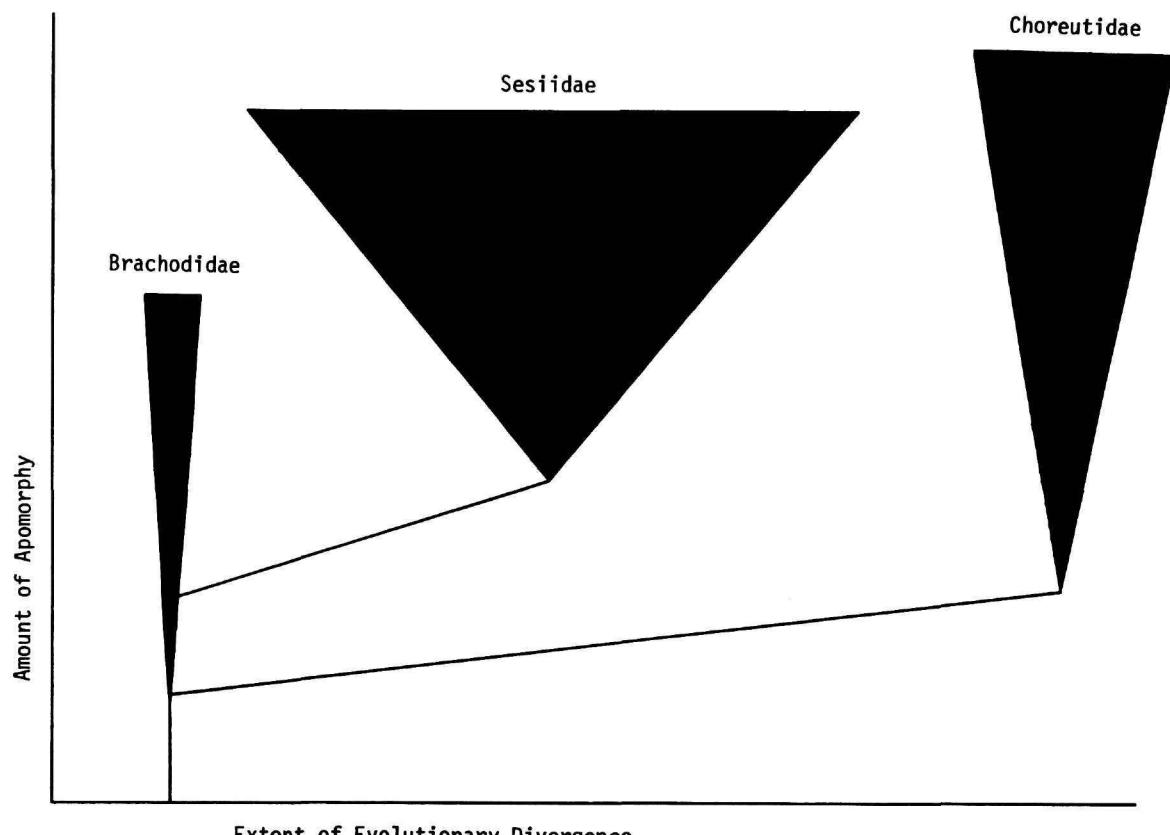


FIGURE 1.—Phylogeny of Sesioidea (width of species cone for each family represents the number of species known in each family).

for the phylogenetic relationship to Sesiidae that reflects the probable ancestral forms from which Sesiidae developed, especially from species probably not greatly differing from present-day *Brachodes* species. Brachodidae form the "unknown" sister group of Sesiidae left blank by Naumann (1971). The relict character states retained in the least advanced sesiids, *Pennisetia* and *Zenodoxus*, are noteworthy in relation to *Brachodes*: antennae (in *Pennisetia*) bipectinate, no chaetosemata, no setal tuft at the antennal tip, very simplified genitalia in the male with loss of the gnathos, the lack of stalked veins in the forewing (in *Zenodoxus*), and the simple tubular pupal chamber. All these characters differ from typical advanced sesiids,

yet all are distinctly mirrored in *Brachodes*. Additionally, the larvae of the less advanced genera of each family are similar: this is true for all sesiid larvae in relation to *Brachodes* and *Sagalassa* larvae. Larvae of *Phycodes* have an external feeding behavior not found in sesiids or most known Brachodidae. Specimens of *Sagalassa* larvae have been available for study and prove to be extremely close to typical sesiid larvae overall but have some features distinct in the superfamily. *Brachodes* larvae supposedly are also similar to sesiid larvae as noted by early lepidopterists in Europe (Heinemann, 1870; Spuler, 1910). *Phycodes* appears to be a divergent and specialized group within Brachodidae.

The Choreutidae, although closely related to Brachodidae and Sesiidae, have evolved in a different yet typical direction of higher Ditrysia, namely to exophagous larvae. Apparently, the most advanced genera of Brachodidae also have developed external feeding larvae, if the two known species of larvae of *Phycodes* are any indication of the biologies common to two other genera that appear to be closely related to *Phycodes*. The additional divergence of Choreutidae noted above, the tendency to tortricoid wing venation, is found in several genera thought to be the most advanced within the Choreutidae.

Figure 1 illustrates the probable phylogeny of Sesioidae in relation to character trends noted above for each family. Each family has developed specializations separate from the other families in the superfamily. Sesiidae are so highly specialized, especially in terms of hymenopterous mimicry, that it initially would appear that this family ought to be the most advanced of the superfamily. It seems best, however, to place the Choreutidae as the overall most advanced family of Sesioidae. This action provides a better expression of more fundamental morphological relationships among the three families, while at the same time considers unique specializations of each family as being the product of differential rates of evolution. The Sesiidae retain many basic morphological features, both of the adult and of the larva, that demonstrate a fundamentally less advanced development from Brachodidae than the Choreutidae. The Choreutidae have virtually entirely developed external feeding larvae and a number of morphological characters similarly found in higher Ditrysia, thus indicating that they have evolved further from Brachodidae ancestors than have Sesiidae.

Currently our knowledge of all the trends of this area of the Ditrysia—Yponomeutoidea to Tortricoidea—is incomplete but it is clear that there is a reticulate aspect to the evolutionary trends of several families that otherwise demonstrate affinities to relatives within each superfamily. Thus, Sesiidae show some relationships, as often noted in the past, to Yponomeutoidea, while

Choreutidae show some relationship both to Tortricidae and perhaps to Gelechioidea due to their scaled haustellum, although these relationships appear more superficial than significant. It appears, however, that the ancestors developing to Sesioidae may also have included branches that had developmental trends to various higher Ditrysia.

Superfamily SESIOIDEA

AECERIOIDEA Mosher, 1916:48.

GLYPHIPTERYGOIDEA Meyrick, 1928c:599 [part].

SESIODEA Common, 1974:104.

DIAGNOSTIC CHARACTERS.—Ditrysian moths of small to large size (2–30 mm base to apex forewing length).

Head: Frons smooth scaled or with loosely appressed scales; vertex scales loosely appressed, rarely rough scaled with hair-like scales; haustellum usually developed, rarely reduced; haustellum naked, sometimes basally scaled; maxillary palpus minute, rarely longer, usually 1- to 2-segmented but sometimes 3-segmented; pilifer large, with large spine-like setae; mandible reduced, half size of pilifer; labial palpus upcurved, of varying length but segment 2 long and segment 3 very short, more or less smooth scaled but often with large porrect scale tuft on venter of segment 2 or otherwise roughened; ocellus present, usually very large (if absent then positional marks remain); chaetosemata usually absent, sometimes present along posterior margin of head; eye large, naked; antenna inserted on front of head, usually filiform, occasionally pectinate, bipectinate or tightly clavate, sometimes tapering to small setal tuft at tip; male antenna usually with ventral setae of varying length.

Thorax: Usually normal, sometimes with dorso-anterior bag-like protrusion, rarely with a protrusion partially over a retracted head; legs usually smooth scaled with scale tufts at tibial spurs, sometimes with long hair-like scales over most of leg.

Forewing: Rectangular to elongate; when very elongate then basal half distinctly narrowed; usu-

ally opaque, sometimes partially hyaline; pterostigma present or absent; venation complete, with infrequent stalking of veins in radial and mediocubital sectors; chorda often present, or absent; median vein sometimes present in cell, vestigial or absent; CuP usually present at tornal margin, extended as fold; anal veins reduced or absent.

Hindwing: Usually shorter and broader than forewing, sometimes nearly subequal; wing coupling normal or uniquely modified with marginal fold, dorsally recurved, composed of Sc+Rs; sometimes with hyaline areas; venation complete, most veins usually not stalked; CuP sometimes absent, usually present at tornal margin, extended as fold; anal field sometimes expanded beyond half wing width; 4 anal veins, with only 3 clearly distinct, fourth at anal margin, with A1 and A2 fused beyond basal fork.

Abdomen: Stout to slender and tapering, sometimes constricted at base, sometimes with long appendages from posterior end (*Alcathoe*); articulation with thorax of tortricoid apodemal type; posterior coremata sometimes present.

Male Genitalia: Variously modified, with tegumen and vinculum present; valva simple to complex; uncus, gnathos, and distinct socius present or absent; socius-like setaceous area sometimes present; tuba analis sometimes prominent; saccus often reduced but sometimes very large; aedeagus often with phallobase; cornutus usually present.

Female Genitalia: Ovipositor usually unspecialized, rarely floricomous; ostium bursae on intersegmental membrane between sternites 7 and 8, or on sternal plate of segment 7; ductus bursae sclerotized or membranous, long or short; bulla seminalis usually small; bursa copulatrix usually ovate, occasionally modified; signum often present, sometimes large, or absent.

Larva: Cylindrical; head hypognathous, sometimes somewhat prognathous; head with frontoclypeus from $\frac{1}{2}$ to nearly touching epicranial notch; stemmata in trapezoid with 3 pairs as separate groups or more semi-circular and all close together with stemmata VI often somewhat reduced; 2 adfrontal setae; spinneret slender; pro-

leg usually long, sometimes very long and slender, or short and reduced; crochets well developed, in uniordinal transverse bands, circle, or lateral penellipse; primary setae only; prothorax with L-group trisetose (2 in *Sagalassa*) on separate pinaculum; prothoracic shield sclerotized or less distinct; prothorax with SD2 close to SD1 or distant; meso- and metathorax with L1 close to L3 and distant from L2 or L1 close to L2 and distant from L3; abdominal segments 1–6 with SD2 usually closer to spiracle than SD1, sometimes SD1 closer than SD2, or subequal; L2 approximate and antero-dorsad to L1 on pinaculum, anterior to L1, or antero-ventrad to L1; prothoracic SV setae distant or approximate; abdominal SV setae of segment 2 more or less in vertical line, oblique line, or in triangle; abdominal segment 8 with D2 nearly as far apart as D1 or twice as far apart.

Pupa: Abdominal segments (3–7 in male; 3–6 in female) movable; dorsum of abdominal segments 2–7 in male (2–6 in female) with spines in two rows or with a single row (always one row on segment 7 in both sexes); head with sclerotized ridges or smooth; maxillary palpi large; appendages often extending beyond wing tips, if so then free; no distinct cremaster but often with spines on posterior segment or hook-like spines; pupation in larval gallery or on leaf surface in silken cocoon; pupa protruded at ecdysis. Development from egg to adult from a few weeks to 2–3 years.

DISTRIBUTION.—All faunal regions, with most species from Pantropical areas centered in the Oriental and Australian faunal regions.

CURRENT TAXA.—Three families, 150 genera, 1515 species.

DISCUSSION.—The main distinctions of Sesioidea involve basic characters of larval and adult morphology and behavior that have been found to be of use in assessing relationships among higher categories of Ditrysia (Heppner, 1977a). While the outward structural characters of wing venation and head morphology place the superfamily among the less advanced microlepidoptera, the tortricoid abdominal articulation clearly indicates a placement after the less advanced Ditrysia—Tineoidea, Gelechioidea, Copromor-

phoidea, and Yponomeutoidea—which all have a tineoid abdominal articulation. Larval and pupal morphology and wing venation distinguish the Sesioidea from Immoidea, Tortricoidea and

the remaining Ditrysia, whereby the relationships to higher Ditrysia clearly place the superfamily at a beginning position in the evolutionary progression to the macro-moths and butterflies.

Key to Families of Sesioidea

ADULTS

1. Wings with forewing anal margin–hindwing costal margin wing coupling; greatly elongated forewings with basal half narrowed; most species with wings partially hyaline **SESIIDAE**
 Wings without specialized marginal coupling; wings, if elongated, without distinctly narrowed basal half; hyaline areas, if present, only on hindwings 2
2. Haustellum naked; hindwings rarely with hyaline areas **BRACHODIDAE**
 Haustellum scaled at base; hindwings never with hyaline areas **CHOREUTIDAE**

LARVAE

1. Seta L2 directly anterior to L1 on abdominal segments 1–6 (prothorax L-group bisetose in *Sagalassa*) **BRACHODIDAE**
 Seta L2 anterodorsad or anteroventrad or posterior to L1 on abdominal segments 1–6 (prothoracic L-group always trisetose) 2
2. Crochets in transverse bands **SESIIDAE**
 Crochets in circle or lateral penellipse **CHOREUTIDAE**

PUPAE

1. Dorsum of abdominal segments 2–6 always with two rows of spines (also segment 7 in males) 2
 Dorsum of abdominal segments 2–7 with one row of spines **CHOREUTIDAE**
2. Antennae enlarged at distal ends **SESIIDAE**
 Antennae tapering at distal ends, not distinctly enlarged **BRACHODIDAE**

Family BRACHODIDAE, new status

ATYCHIDES Duponchel, 1835:169 [unavailable by homonymy of type-genus; type-genus: *Atychia* Latreille, 1809:214, preoccupied].

CHIMERITES Blanchard, 1840:474 [unavailable by homonymy of type-genus; type-genus: *Chimaera* Ochsenheimer, 1808:2, preoccupied].

ATYCHIDAE Duponchel, 1843:329 [unavailable by homonymy of type genus; incorrect family stem].

ATYCHIOIDAE Lederer, 1853:67 [unavailable by homonymy of type-genus; incorrect family stem].

ATYCHIIDAE Speyer, [1856]:88 [unavailable by homonymy of type-genus].

BRACHODINAE Agenjo, 1966:[148] [type-genus: *Brachodes* Guenée, 1845:311 (= *Atychia* Latreille, 1809)].

BRACHODIDAE.—Heppner, 1979a:127 [replacement name for Atychiidae; type-genus: *Brachodes* Guenée, 1845:311 (= *Atychia* Latreille, 1809)].

BRADYPTESIDAE Kasy, 1979:5 [replacement name for Atychiidae; type-genus: *Bradyptesis* sensu Kasy, 1979:5 (not *Bradyptesis* Sodoffsky, 1837:83 [= *Atychia* Ochsenheimer, 1808 (Zygaenidae), not *Atychia* Latreille, 1809])].

DIAGNOSTIC CHARACTERS (Figures 20–27, 40–49, 75–83, 102–103).—Small to moderate sized moths (5–14 mm base to apex forewing length).

Head: Frons usually smooth scaled, rarely with loosely appressed scales; vertex with loosely appressed scales, rarely with long hair-like scales; haustellum developed, naked; maxillary palpus minute, rarely enlarged, 1- to 3-segmented; labial palpus upcurved, often short, moderately roughened, segment 3 short, with long segment 2; ocellus very large, rarely absent (*Hoplophractis*); chaetosema absent; eye large, naked; antenna filiform, pectinate or bipectinate; male antenna setaceous ventrally.

Thorax: Normal, rarely with dorso-anterior protrusion extended over partially retracted head; legs usually smooth scaled, with scale tufts by tibial spurs, rarely with long hair-like scales.

Forewing: Moderately elongate but not narrowed along basal half, rarely narrowed at most to $\frac{1}{3}$ from base; opaque, often with metallic iridescent scaling in bands or spots; radius 5-branched, without stalking; chorda present or absent; pterostigma absent; vestigial median vein sometimes in cell; median and cubital veins evenly spaced, not stalked; CuP sometimes at tornal margin, extended as fold; anal veins reduced to fused A1+A2, basally long-forked.

Hindwing: Shorter and broader than forewing; usually opaque, rarely with hyaline areas or spots; simple frenulum-retinaculum wing coupling; Sc+R1 fused, terminating on costal margin near apex; Rs free basally, to apex; median veins generally evenly spaced; M3 sometimes stalked with CuA1; M2 often vestigial in cell; anal field sometimes enlarged; CuP present at tornal margin, extended as fold; 4 anal veins usually present; A1+A2 fused, basally long-forked; A3 distinct; A4 reduced.

Abdomen: Robust elongate, not distinctly slender; abdominal coremata absent.

Male Genitalia: Uncus sometimes present, often absent or fused with tegumen; tegumen developed; gnathos present or absent; socius absent, sometimes socius-like setaceous area present; tuba analis sometimes prominent; valva simple or com-

plex, sometimes bifurcate; vinculum developed; saccus usually absent, rarely partially developed; aedeagus short or long, often stout; cornutus present or absent.

Female Genitalia: Ovipositor usually unspecialized; ostium usually on intersegmental membrane between segments 7 and 8 ventrally, rarely on edge of sternal plate of segment 7; ductus bursae usually membranous, not greatly elongate; bulla seminalis sometimes large; bursa copulatrix elongate or ovate; signum present or absent.

Larva: Head hypognathous; frontoclypeus to $\frac{1}{2}$ distance from labrum to epicranial notch; stemmata in trapezoid with 3 pairs of separate groups; proleg relatively short or long; crochets well developed, in two transverse bands; prothorax with L-group bisetose (*Sagalassa*) [possibly trisetose in other genera]; SD2 distant to SD1; unsclerotized prothoracic shield, with oblique sclerotized ridge each side nearly convergent posteriorly; meso- and metathorax with L1 close to L3 and distant from L2; abdominal segments 1–6 with SD2 subequal to spiracle and SD1; L2 anterior to L1; prothoracic SV setae distant; abdominal SV setae more or less in vertical line on segment 2; abdominal segment 8 with D2 twice as far apart as D1.

Pupa: Dorsal spines present in two rows on abdominal segments 2–7 in male (2–6 in females); segments 3–7 in male (3–6 in female) movable; head with sclerotized process or ridge; maxillary palpus large; appendages slightly beyond wing tips; no distinct cremaster; pupation in larval gallery or on leaf under stout cocoon of silk; pupa protruded at ecdysis.

DISTRIBUTION.—All faunal regions except the Nearctic, with most species in Pantropical areas; greatest number of species known from the Oriental and Australian regions, but with many from the Neotropical and Palearctic regions.

CURRENT TAXA.—11 genera, 96 species.

HOSTS.—Bromeliaceae (*Miscera* from Chile); Gramineae (*Brachodes*); Leguminosae (*Nigilgia*); Melastomaceae (*Hoplophractis*); Moraceae (*Phycomes*); Palmae (*Miscera* from Australia and *Sagalassa*).

DISCUSSION.—The family name Atychiidae has

been used by many European authors in the past for the Palearctic genus *Atychia*, but the name involves nomenclatural problems that require termination of its use. The type-genus of Atychiidae, *Atychia* Latreille, 1809, is a junior homonym of *Atychia* Ochsenheimer, 1808, the latter name belonging to Zygaenidae and now considered to be a synonym of *Adscita* Retzius, 1783. Consequently, by Article 39 of the *International Code of Zoological Nomenclature*, whereby a family name based on a genus that is a junior homonym is not available for use, "Atychiidae" must be replaced. Since the next available name for *Atychia* Latreille is *Brachodes* Guénée, 1845, the family name must be changed to Brachodidae. Further details of the above were noted by Heppner (1979a); however, the name had already been adopted as a subfamily name by Agenjo (1966). Kasy (1979) used the family name Bradyptesidae as a replacement name for Atychiidae but this was erroneous because the nominal type-genus, *Bradyptesis* Sodoffsky, 1837, is a replacement name proposed for *Atychia* Ochsenheimer (Zygaenidae), not *Atychia* Latreille. Thus, *Bradyptesis* Sodoffsky is a zygaenid name, not a brachodid name.

The present, enlarged concept of Brachodidae is formed by genera not previously thought to be related to *Brachodes*. *Phycodes* was placed in Atychiinae (Tineidae) by Rebel (1901b) and *Miscera* was initially noted by Meyrick (1907b) to be related to *Brachodes*, but since then Atychiidae has been applied only to "*Atychia*." The genera here included in Brachodidae are clearly distinguished from the other two sesioid families, as can be most easily noted in the keys to families, and may be sorted into three groups of closely related genera. In the first group *Brachodes* is the most plesiomorphic genus. The male genitalia are extremely simplified, with simple valvae and loss of a distinct uncus and gnathos. The genitalia are very similar to those of the most ancestral sesiid genera *Pennisetia* (= *Bembecia* [auctorum]) and *Zenodoxus*. In relation to wing venation, genitalic characters, and the bipectinate antennae found in many males of *Brachodes*, it appears that the proto-sesiid line, as represented by descendant *Pennisetia*, di-

verged from *Brachodes* progenitors. It is not unlikely that *Brachodes* is in fact a relict genus and that the sesiids diverged from species much like the *Brachodes* of today.

The other genera of the first group include the Australian *Miscera*, *Euthorybeta*, and *Synechodes*. The first two genera were synonymized with *Sagalassa* by Meyrick (1913a) but are distinct, notably in genital features, and this distinction in effect restricts *Sagalassa* to the Neotropics. The few specimens of *Miscera*, *Euthorybeta*, and *Synechodes* that I have been able to examine demonstrate a clear affinity to *Brachodes*: the genitalia are very similar, differing only in having developed a gnathos. Presently, there is one described species from Chile, formerly in *Sagalassa* (originally *Atychia triphaenoides* Butler), that appears to be congeneric with the Australian species of *Miscera*; this is the only known species of the genus in the New World. Tentatively, I have also placed the African genus *Atractoceros* in this group of genera, though more study is needed to determine if it is validly distinct and if this generic group contains its nearest relatives.

The second generic group of Brachodidae involves *Callatolmis*, *Sagalassa*, and *Polyphlebia*. These genera are restricted to the Neotropical region as far as is known. *Polyphlebia* was formerly listed as a synonym of *Sagalassa* but the genitalic characters are divergent and the genus is here considered distinct. It is the only brachodid genus with a species having hyaline areas in the hindwings. Two other species formerly in *Sagalassa* are transferred to *Callatolmis* following genitalic examination of the species involved; there are also at least two undescribed species that appear to belong to this genus. The complex genitalia of these genera seem to isolate them somewhat from *Brachodes*, *Atractoceros*, *Miscera*, *Euthorybeta*, and *Synechodes*.

Phycodes, *Nigilgia*, and *Hoplophractis* belong to the third group of closely related genera, although *Hoplophractis* has diverged considerably. These genera form a separate subfamily, Phycodinae, and are distinguished by their more smooth scaled head, composed of large plate-like scales, the wedge-shaped upcurved labial palpi, and exten-

sive metallic iridescent scaling of the forewings in most species. *Hoplophractis* is very curious in having a small head somewhat retracted into the thorax, which is slightly protruded over the head. This odd form of head-thorax configuration reminds one of acrocerid flies (Diptera: Acroceridae). The ocelli of *Hoplophractis* are secondarily absent (positional marks remain where the ocelli should be), possibly associated with the head reduction. The genitalia of this group of genera are also somewhat complex and in some species they begin to resemble genitalia found in a few species of Choreutidae, although all have a naked haustellum and are otherwise morphologically related to the other genera of Brachodidae.

Extremely little is known of the bionomics of Brachodidae and the larval and pupal descriptions are based on very few species. Most of the genera are unknown in terms of their biologies or characters of their immature stages. Fletcher (1914; 1933) provided biological notes on the immature stages and bionomics of two species of *Phycodes*. Heinemann (1870), Hartmann (1880), and Spuler (1910) noted larval hosts and the adult diurnal activity of *Brachodes* (actually only *Brachodes appendiculatus* Esper). The adults of *Brachodes cassandrella* (Staudinger) have been observed to be attracted to lights (Sattler, pers. comm.) in Spain, indicating that one species at least may be nocturnal.

Larval characters of *Sagalassa valida* Walker (herein noted for the first time) show relationships to sesiid larvae in having well-developed crochets in two transverse rows, stemmata in a trapezoidal arrangement with them clustered in three separate pairs, SD2 on abdominal segments 1–6 nearly equidistant from the spiracle and SD1, SV setae distant on the prothorax, L1 close to L3 and distant from L2 on the meso- and metathorax, and the SV setae of abdominal segment 2 nearly in a vertical line. Also, larvae of both families are borers (except *Phycodes*) and almost without sclerotized areas on the body (*Phycodes* larvae were unavailable for study). *Sagalassa* larvae differ in several respects from sesiids: the one species studied (*S. valida*) has the frontoclypeus only $\frac{1}{2}$ the

distance to the epicranial notch, SD2 distant from SD1 on the prothorax, and L2 directly anterior to L1 on abdominal segments. Thus far, the above information on *Sagalassa* is all that is known of the detailed larval morphology and chaetotaxy of Brachodidae. The bisetose L-group of the prothorax is especially different from the remainder of the superfamily but other features demonstrate relationships, as do adult characters, and the genus may be unusual within Brachodidae. The tineid genus *Scardia* and possibly most Scardiinae, for example, have bisetose larvae. *Phycodes* larvae have been illustrated by Fletcher (1914; 1933) but no chaetotaxic details can be discerned from these illustrations.

The pupae of Brachodidae and Sesiidae are very close morphologically, with both showing two rows of spines on the dorsum of the abdominal segments 2–7 (only one row on segment 7 in females) and large maxillary palpi. The heads also have protuberances or carinae, presumably for emergence from the cocoon. These pupal characteristics are derived from the study of two genera of Brachodidae, *Phycodes* and *Miscera* (*M. triphaenoides* Butler), and numerous genera of Sesiidae.

From the information available there are some interesting trends to be noted. If we can presume that the grouping of genera into the two subfamilies, based upon adult morphology, is supported by similar larval and adult behavior within each subfamily, then the Brachodinae contain species that are borers in roots and form tubular larval chambers underground that also serve as pupal chambers. *Brachodes* adults have been noted to be mostly diurnal fliers, perhaps primarily crepuscular. The adult activities of *Sagalassa* are less well known but in Peru *Sagalassa valida* Walker is diurnal. The Phycodinae, including *Phycodes* and relatives, appear to be mostly leaf feeders, forming stout silk cocoons on host leaf surfaces. From the iridescent forewings of the species of this subfamily, it would appear that they are diurnal fliers as adults. *Phycodes* are indeed reported as diurnal fliers. *Hoplophractis* is diurnally active in Peru (Heppner, pers. comm.). Thus, it appears that

there is a trend within the family from root feeders to external feeding larvae and a similar change in location for the pupation site. *Brachodes* adults have been recorded feeding at flowers (Boisduval, [1875]).

The members of this family are relatively rare and this undoubtedly has hindered research on their bionomics. It is especially surprising, however, that the biology of *Brachodes appendiculatus* (Esper), the only relatively common species found in much of Europe, has not been studied more or its biology published in detail. Apparently this species has been reared because of the published records that are available (Heinemann, 1870; Hartmann, 1880), although inadequate, and it is noted that the larvae require two years to complete their development, with pupation in the spring and adult emergence in June. It is not known whether any other genera or species of the

family have two year larvae, but the leaf feeders, in contrast, undoubtedly complete larval development in one season. The two year larvae are of interest in relation to Sesiidae inasmuch as some sesiids require 2-3 years for larval development. The less specialized sesiids (Tinthiinae), in addition, are root feeders for the most part and form tubular cocoons similar to those recorded for *Brachodes appendiculatus*.

Whereas most Brachodidae are from tropical regions in general, it is not known what particular habitats they prefer. Only the north-temperate-inhabiting *Brachodes* are known from grassland areas of southern Europe, as well as grass habitats in mountainous localities, to more arid steppe regions of southcentral Asia.

Some typical Brachodidae adults are illustrated in Figures 2-7 and some are also illustrated by Clarke (1969).

Key to Subfamilies of Brachodidae

- | | |
|--|--------------------|
| Labial palpus and thorax with normal sized scales; larva a borer, with reduced prolegs | BRACHODINAE |
| Labial palpus and thorax with large, plate-like scales; larva an external feeder, with relatively long prolegs | PHYCODINAE |

Subfamily BRACHODINAE

BRACHODINAE Agenjo, 1966:[148] [type-genus: *Brachodes* Guenée, 1845:311 (= *Atychia* Latreille, 1809)].

DIAGNOSTIC CHARACTERS.—As for the family, with the following distinctions: ocellus large, not reduced; head, labial palpus and thorax with normal scaling, smooth or sometimes as roughened hair-like scales, but not with metallic plate-like enlarged scales; head normal, not reduced and retracted into prothorax; forewing usually rounded distally, not distinctly truncated; larva a borer, with reduced prolegs, pupa with reduced setae.

DISTRIBUTION.—Palaearctic and Pantropical, with most species in the Palaearctic and Australian regions.

CURRENT TAXA.—Eight genera, 73 species.

PHYCODINAE Heppner, new subfamily

TYPE-GENUS.—*Phycodes* Guenée, 1852:389.

DIAGNOSTIC CHARACTERS.—As for the family, with the following distinctions: ocellus usually prominent but rarely secondarily absent; head, labial palpus, and thorax very smooth-scaled with large plate-like scales of metallic iridescence; head somewhat smaller than in Brachodinae, rarely very reduced and appearing retracted into thorax; forewing usually somewhat truncated distally; larva leaf-feeding externally, with prolegs longer than in Brachodinae; pupa with longer setae than in Brachodinae.

DISTRIBUTION.—Pantropical, with most species in the Old World tropics.

CURRENT TAXA.—Three genera, 23 species.

Generic Synopsis of Brachodidae

| | Species | |
|------------------------------------|---------|--|
| BRACHODINAE | | |
| <i>Brachodes</i> Guenée, 1845 | 32 | <i>cassandrella</i> (Staudinger, 1859:224), <i>Myelois</i> [new combination] |
| <i>Miscera</i> Walker, 1863 | 25 | <i>diacona</i> (Lederer, 1858:151), <i>Atychia</i> [new combination] |
| <i>Euthorybeta</i> Turner, 1913 | 2 | <i>dispar</i> (Herrich-Schäffer, 1854:83), <i>Atychia</i> [new combination] |
| <i>Synechodes</i> Turner, 1913 | 1 | <i>compar</i> (Staudinger, 1879:265), <i>Atychia</i> |
| <i>Atractoceros</i> Meyrick, 1936 | 2 | <i>fallax</i> (Staudinger, [1900]:350), <i>Atychia</i> [new combination] |
| <i>Callatolmis</i> Butler, 1877 | 3 | <i>fasciatus</i> (Staudinger, [1900]:349), <i>Atychia</i> [new combination] |
| <i>Sagalassa</i> Walker, 1856 | 7 | <i>flavescens</i> (Turati, 1919:187), <i>Atychia</i> [new combination] |
| <i>Polyphlebia</i> Felder, 1874 | 1 | <i>formosus</i> (Amsel, 1953:315), <i>Atychia</i> [new combination] |
| PHYCODINAE | | |
| <i>Phycodes</i> Guenée, 1852 | 18 | <i>fulgorita</i> (Fischer de Waldheim, 1832:360), <i>Chimaera</i> [new combination] |
| <i>Nigilgia</i> Walker, 1863 | 4 | <i>pusilla</i> (Eversmann, 1841:91), <i>Chimaera</i> |
| <i>Hoplophractis</i> Meyrick, 1920 | 1 | <i>orbonota</i> (Freyer, 1842:107), <i>Chimaera</i> |
| | | <i>exilis</i> (Herrich-Schäffer, [1856]:2), <i>Atychia</i> |
| | | <i>confinis</i> (Boisduval, [1875]:484), <i>Atychia</i> |
| | | <i>junebris</i> (Feisthamel, 1833:259), <i>Chimera</i> [sic] |
| | | <i>vernella</i> Guenée, 1845:311 |
| | | <i>nana</i> (Rambur, [1866]:159), <i>Atychia</i> [not <i>Chimaera</i>] |
| | | <i>nana</i> Treitschke, 1834] |
| | | <i>gaditana</i> (Rambur, [1866]:160), <i>Atychia</i> [new synonymy] |
| | | <i>pusilla</i> (Boisduval, [1875]:487), <i>Atychia</i> [not <i>Chimaera pusilla</i> Eversmann, 1841] |
| | | <i>mediterranea</i> (Walsingham, 1904:7), <i>Atychia</i> [nomen nudum] |
| | | <i>infandus</i> (Meyrick, 1920b:294), <i>Atychia</i> [new combination] |
| | | <i>keredjella</i> (Amsel, 1953:316), <i>Atychia</i> [new combination] |
| | | <i>laetus</i> (Staudinger, 1863:269), <i>Atychia</i> [new combination] |
| | | <i>mesopotamicus</i> (Amsel, 1949:313), <i>Atychia</i> [new combination] |
| | | <i>metaspilus</i> (Meyrick, 1926b:302), <i>Atychia</i> [new combination] |
| | | <i>minutulus</i> (Erschoff, 1874:96), <i>Atychia</i> [new combination] |
| | | <i>monotonus</i> (Amsel, 1953:317), <i>Atychia</i> [new combination] |
| | | <i>nana</i> (Treitschke, 1834:97), <i>Chimaera</i> [new combination] |
| | | <i>nanetta</i> (Oberthür, 1922:137), <i>Atychia</i> [new combination] |
| | | <i>nycteropis</i> (Meyrick, 1920b:294), <i>Atychia</i> [new combination] |
| | | <i>orientalis</i> (Rebel, 1905:217), <i>Atychia</i> [new combination] |
| | | <i>pumila</i> (Ochsenheimer, 1808:3), <i>Chimaera</i> [new combination] |

Checklist of Brachodidae

Subfamily BRACHODINAE

| | |
|--|--|
| <i>Brachodes</i> Guenée, 1845:311 [<i>B. vernetella</i> Guenée, 1845 (= <i>Chimera</i> [sic] <i>funebris</i> Feisthamel, 1833)]) | |
| <i>Chimera</i> Ochsenheimer, 1808:2 [<i>Sphinx chimaera</i> Hübner, 1796 (= <i>Sphinx appendiculata</i> Esper, 1783); preoccupied, Linnaeus, 1766 (Pisces)] | |
| <i>Atychia</i> Latreille, 1809:214 [<i>Sphinx chimaera</i> Hübner, 1796 (= <i>Sphinx appendiculata</i> Esper, 1783); preoccupied, Ochsenheimer, 1808 (Zygaenidae)] | |
| <i>Procerata</i> Berthold, 1827:484 [<i>Pyralis saldonana</i> Fabricius, 1787 (= <i>Sphinx appendiculata</i> Esper, 1783); nomen oblitum] | |
| <i>Chimera</i> [sic] Feisthamel, 1833:259 [misspelling] | |
| <i>Palamernis</i> Meyrick, 1906:205 [<i>P. canonitis</i> Meyrick, 1906] | |
| <i>Bradyptesis</i> sensu Kasy, 1979:5 [not <i>Bradyptesis Sodoffsky</i> , 1837 (Zygaenidae)] | |
| P <i>appendiculatus</i> (Esper, 1783:227), <i>Sphinx vahliana</i> (Fabricius, 1787:225), <i>Pyralis saldonana</i> (Fabricius, 1787:232), <i>Pyralis chimaera</i> (Hübner, 1796: p1. 1: fig. 1), <i>Sphinx soldana</i> [sic] (Berthold, 1827:484), <i>Procerata</i> [misspelling] | |
| P <i>lucida</i> (Lederer, 1853:68), <i>Atychia powelli</i> (Oberthür, 1922:137), <i>Atychia</i> [new synonymy] | |
| P <i>beryti</i> (Stainton, 1867:53), <i>Atychia</i> [new combination] | |
| P <i>nana</i> (Lederer, 1855:226), <i>Atychia</i> [not <i>Chimaera nana</i> Treitschke, 1834] | |
| P <i>candefactus</i> (Lederer, 1858:151), <i>Atychia</i> [new combination] | |
| P <i>canonitis</i> (Meyrick, 1906:206), <i>Palamernis</i> [new combination] | |
| P <i>caradjae</i> (Rebel, 1902:122), <i>Atychia</i> [new combination] | |

- chimaera* (Hübner, [1803–08]: pl. 86: fig. 405),
Noctua [not *Sphinx chimaera* Hübner, 1796]
- E *quiris* (Felder and Rogenhofer, 1875:3), *Atychia* [new combination]
- P *radiatus* (Christoph, 1873:49), *Atychia* [new combination]
rasa (Christoph, 1877:226), *Atychia*
rasata (Staudinger, [1900]:350), *Atychia*
- P *radiolatus* (Staudinger, [1900]:351), *Atychia* [new combination]
- P *rhagenis* (Lederer, 1869:91), *Atychia* [new combination]
- P *straminella* (Rebel, 1916a:194), *Atychia* [new combination]
- P *tristis* (Staudinger, 1879:266), *Atychia* [new combination]
- Miscera* Walker, 1863b:457 [*M. resumptana* Walker, 1863]
- A *ambigua* (Turner, 1942:91), *Sagalassa* [new combination]
- A *ampla* (Turner, 1942:91), *Sagalassa* [new combination]
- A *androgyna* Turner, 1913:203
- A *basicrysa* (Lower, 1916:541), *Sagalassa* [new combination]
- A *centropus* Meyrick, 1907b:104
- A *conspersa* (Turner, 1942:90), *Sagalassa* [new combination]
- A *desmotoma* (Lower, 1896:162), *Atychia*
desmotona [sic] Turner, 1913:202 [misspelling]
- O *diabolus* (Felder and Rogenhofer, 1875:3), *Atychia* [new combination]
- A *episcota* (Lower, 1903:68), *Atychia*
- O *eubrachycera* (Diakonoff, [1968]:189), *Sagalassa* [new combination]
- A *heterozyga* Turner, 1913:202
- A *holodisca* Meyrick, 1907b:105
- A *homotona* (Swinhoe, 1892:36), *Balataea*
- A *isomacha* (Meyrick, 1925a:132), *Sagalassa* [new combination]
- A *leucopis* Meyrick, 1907b:102
- A *lygropis* Turner, 1913:204
- A *mesochrysa* (Lower, 1903:68), *Atychia*
- A *micrastra* Meyrick, 1907b:105
- A *omichleutis* Meyrick, 1907b:105
- A *orthaula* Meyrick, 1907b:102
- A *pammelas* Turner, 1913:204
- O *platysema* (Meyrick, 1921b:180), *Sagalassa* [new combination]
- A *poecilota* (Turner, 1923:166), *Sagalassa* [new combination]
- A *resumptana* Walker, 1863b:458
anthomera (Lower, 1896:162), *Atychia*
- NL *triphaenoides* (Butler, 1883:73), *Atychia* [new combination]
- Euthorybeta* Turner, 1913:201 [*E. xanthoplaca* Turner, 1913]
- A *ochroplaca* Turner, 1913:201
- A *xanthoplaca* Turner, 1913:201
- Synechoches* Turner, 1913:200 [*S. coniophora* Turner, 1913]
- A *coniophora* Turner, 1913:200
- Atractoceros* Meyrick, 1936b:40 [*Phycodes xanthoprocta* Meyrick, 1914]
- E *albiciiliatus* (Walsingham, 1891:78), *Atychia* [new combination]
- E *xanthoprocta* (Meyrick, 1914a:283), *Phycodes*
- Callatolmis* Butler, 1877:348 [*Lycomorpha coleoptrata* Walker, 1854]
- Sisyroctenis* Meyrick, 1936c:106 [*S. hemicamina* Meyrick, 1936; new synonymy]
- NL *chrysauge* (Felder and Rogenhofer, 1875:10), *Eustixis* [new combination]
- NL *coleoptrata* (Walker, 1854:288), *Lycomorpha*
- NL *hemicamina* (Meyrick, 1936c:106), *Sisyroctenis* [new combination]
- Sagalassa* Walker, 1856:5 [*S. robusta* Walker, 1856]
- Gora* Walker, 1862a:89 [*G. aequalis* Walker, 1862]
- Jonaca* Walker, 1863b:457 [*J. compulsana* Walker, 1863 (= *Sagalassa valida* Walker, 1856)]
- NL *aequalis* (Walker, 1862a:90), *Gora*
- NL *cryptopyrrhella* (Walker, 1866:1808), *Jonaca*
- NL *metallica* Walker, 1856:6
- NL *nephelospila* (Meyrick, 1912a:38), *Jonaca*
- NL *orthochorda* Meyrick, 1922:484
- NL *robusta* Walker, 1856:5
cryptoleucella (Walker, 1866:1709), *Acrobasis*
- NL *valida* Walker, 1856:6
compulsana (Walker, 1863b:457), *Jonaca*
crassalis (Walker, 1866:1289), *Ennychia*
querula (Felder and Rogenhofer, 1875: p1. 138: fig. 44), *Atychia*
quaerula [sic] (Felder and Rogenhofer, 1875:3), *Atychia* [misspelling]
olivacea (Busck, 1914b:57), *Jonaca*
- Polyphlebia* Felder, 1874:8 [*P. atychoides* Felder, 1874 (= *Acytia buprestoides* Walker, 1865)]
- NL *buprestoides* (Walker, [1865]:101), *Acytia* [new combination]
- atychoides* Felder, 1874:8

Subfamily PHYCODINAE

- Phycodes* Guenée, 1852:389 [*P. hirudinicornis* Guenée, 1852 (= *Chimaera radiata* Ochsenheimer, 1808)]
- Tegna* Walker, 1866:1809 [*T. hyblaella* Walker, 1866 (= *Chimaera radiata* Ochsenheimer, 1808)])
- E *abitogata* Walsingham, 1891:80
- O,P *chalcocrossa* Meyrick, 1909b:424
- O *chionardis* Meyrick, 1909b:424

- E** *eucallynta* Meyrick, 1937:124
O *maculata* Moore, 1881:378
O *minor* Moore, 1881:378
E *lucasseni* (Snellen, 1901:74), *Choregia*
E *cymineuta* Meyrick, 1909b:424
E *mochlophanes* Meyrick, 1921c:110
O *morosa* Diakonoff, 1948:202
P *omnimicans* Diakonoff, 1978a:43
O *penitis* Diakonoff, 1978a:41
E *pseliota* Meyrick, 1920b:294
E *punctata* Walsingham, 1891:78
O,P *radiata* (Ochsenheimer, 1808:5), *Chimaera*
E *hirudinicornis* Guenée, 1852:389
E *hyblaella* (Walker, 1866:1810), *Tegna*
E *mesopotamica* Rebel, 1910b:11
E *superbella* Rebel, 1910b:11 [nomen nudum]
E *substriata* Walsingham, 1891:79
O *taonopa* Meyrick, 1909b:423
P *tertiana* Diakonoff, 1978a:42
O *tortricina* Moore, 1881:378
O *venerea* Meyrick, 1921b:181

Nigilgia Walker, 1863b:511 [*N. adjectella* Walker, 1863]
Nigilica [sic] Turner, 1929:306 [misspelling]
E,O *adjectella* Walker, 1863b:512
O,P *limata* Diakonoff and Arita, 1979b:90
E *seyrigella* Viette, [1955]:85
E *toulgoetella* Viette, [1955]:86
E *toulgoëtella* Viette, [1955]:86 [incorrect spelling]

Hoplophractis Meyrick, 1920a:326 [*H. heptachalca* Meyrick,
NL 1920]
NL *heptachalca* Meyrick, 1920a:326

Taxa Excluded from Brachodidae

Genera hereby transferred to Zygaenidae:

- Burlacena* Walker, [1865]:80 [*B. aegerioides* Walker, 1865]
Sesiomorpha Snellen, 1885b:111 [*S. abnormis* Snellen, 1885 (= *Syntomis vacua* Walker, 1865)]
O *aegerioides* Walker, [1865]:80
 abnormis (Pagenstecher, 1886:180), *Sesiomorpha*
 [not *Sesiomorpha abnormis* Snellen, 1885]
O *similata* Walker, [1865]:81
O *vacua* (Walker, [1865]:75), *Syntomis*
 abnormis (Snellen, 1885b:112), *Sesiomorpha*
Cibdeloses Durrant, 1919:121 [*C. dolopis* Durrant, 1919]
O *dolopis* Durrant, 1919:122

Family SESIIDAE

SESIARIAE Boisduval, 1828:29 [type-genus: *Sesia* Fabricius, 1775:547].

- AEGERIDAE** Stephens, 1828:136 [type-genus: *Aegeria* Fabricius, 1807a:288 (= *Sesia* Fabricius, 1775)].

TROCHILIIDAE Westwood, 1843:32 [type-genus: *Trochilium* Scopoli, 1777: 414 (= *Sesia* Fabricius, 1775)].

SESIIDAE Herrich-Schäffer, 1852:9 [type-genus: *Sesia* Fabricius, 1775:547, not *Sesiidae* Stephens, 1828 (= *Sphingidae*)].

DIAGNOSTIC CHARACTERS (Figures 28–31, 50–62, 84–92, 104–105).—Small to large moths (5–30 mm base to apex forewing length).

Head: Smooth-scaled; haustellum naked, sometimes reduced; maxillary palpus minute, 1- to 3-segmented; labial palpus upcurved, with relatively long segment 2 and short segment 3, roughened or smooth; ocellus large; linear chaetosema present on posterior head margin or absent; eye large, naked; antenna often tightly clavate, tapering to setal tufted tip, or bipectinate or pectinate, ventrally setaceous in male.

Thorax: Usually with dorso-anterior bag-like protuberance on pre-epimeron; legs slender, smooth-scaled with tufts at tibial spurs, sometimes with long hair-like scales over leg.

Forewing: Very elongate, with basal half narrowed; usually partially hyaline, sometimes opaque; radius 5-branched; R4 and R5 usually long-stalked; chorda absent, rarely vestigial; pterostigma absent; no vein in cell; median and cubital veins free; CuP absent; anal veins absent, vestigial basal spur sometimes present.

Hindwing: Shorter and broader than forewing; usually partially hyaline, sometimes opaque; frenulum single in both sexes; unique costal marginal fold of $Rs+M_1$ for wing coupling; median veins widely separated; M_3 stalked with CuA_1 , usually before crossvein; no vein in cell; anal field enlarged; A_1 usually degenerate, only scale line remaining; A_2 present, distinct; A_3 short, sometimes forked to A_2 basally; A_4 usually present, rarely vestigial.

Abdomen: Elongate, slender, tapering to posterior; sometimes narrowed at base; anal tuft often large in males; abdomen often with colored bands on alternate sclerites.

Male Genitalia: Uncus present, usually modified but may be fused with tegumen, sometimes with lateral setaceous pads; tegumen present,

rarely reduced; socius sometimes present; gnathos usually present; valva generally simple, but often with specialized setae and saccular ridge (crista sacculi); valva not bifurcate; vinculum developed; saccus usually well developed; aedeagus elongate, slender, usually with bulbous base; cornutus usually present.

Female Genitalia: Ovipositor with small papilla analis; ostium bursae ventrally between sclerites of abdominal segment 8 or on intersegmental membrane between sternites 7 and 8, or on posterior margin of sternite 7; ductus bursae moderately elongate, sometimes short; usually membranous; bursa copulatrix usually elongate-ovate or small and ovate; signum usually absent, sometimes present or reduced as folds or bands.

Larva: Head hypognathous; frontoclypeus from $\frac{2}{3}$ to nearly at epicranial notch; stemmata in trapezoid with 3 pairs as separate groups, with V and VI remote; proleg short; crochets well developed (somewhat reduced in *Pennisetia*), in two transverse bands; prothorax with L-group trisetose; distinct shield but unsclerotized, with oblique sclerotized ridge on each side, nearly convergent posteriorly; SD2 close to SD1; SV setae distant; meso- and metathorax with L1 close to L3 and distant from L2; abdominal segments 1–6 with SD2 subequal to spiracle and SD1; L2 approximate and antero-dorsad to L1 on same pinaculum; abdominal segment 2 with SV setae more or less in vertical line; abdominal segment 8 with D2 about as far apart as D1.

Pupa: Dorsal spines present in two rows on abdominal segments 2–7 in male (2–6 in female), single row on 8–10; segments 3–7 in male (3–6 in female) movable; head with sclerotized process or ridge; maxillary palpus large; appendages free when beyond wing tips; no distinct cremaster but row of spines on segment 10, each with a fine seta at tip; protruded at ecdysis; pupation in larval gallery.

DISTRIBUTION.—In all faunal regions; in terms of known species major speciation has occurred in Pantropical regions but there has also been a substantial species radiation in the Holarctic region.

CURRENT TAXA.—123 genera, 1063 species (includes 43 genera and 83 species unassigned to subfamily).

HOSTS.—Aceraceae (*Synanthedon*); Betulaceae (*Aegeria*, *Paranthrene*, *Synanthedon*); Boraginaceae (*Carmenta*, *Idiopogon*, *Synanthedon*, *Trilochana*, *Zenodoxus*); Caprifoliaceae (*Aegeria*, *Synanthedon*); Compositae (*Carmenta*, *Hymenoclea*); Cucurbitaceae (*Melittia*); Cupressaceae (*Aegeria*); Ebenaceae (*Sannina*); Elaeocarpaceae (*Pennisetia*); Ericaceae (*Synanthedon*); Euphorbiaceae (*Chamaesphecia*); Fagaceae (*Aegeria*, *Carmenta*, *Paranthrene*, *Sesia*, *Synanthedon*); Lauraceae (*Synanthedon*); Leguminosae (*Bembecia*, *Carmenta*, *Chamaesphecia*); Loranthaceae (*Carmenta*); Malvaceae (*Zenodoxus*); Moraceae (*Carmenta*); Myricaceae (*Synanthedon*); Nyssaceae (*Synanthedon*); Oenotheraceae (*Albuna*); Oleaceae (*Podosesia*); Onagraceae (*Albuna*, *Euhagena*); Pinaceae (*Synanthedon*); Platanaceae (*Synanthedon*); Plumbaginaceae (*Bembecia*); Polemoniaceae (*Synanthedon*); Polygonaceae (*Bembecia*, *Synanthedon*); Ranunculaceae (*Alcathoe*); Rhamnaceae (*Synanthedon*); Rosaceae (*Aegeria*, *Pennisetia*, *Podosesia*, *Synanthedon*); Salicaceae (*Aegeria*, *Paranthrene*, *Sesia*, *Synanthedon*); Santalaceae (*Carmenta*); Saxifragaceae (*Aegeria*, *Synanthedon*); Scrophulariaceae (*Pestemonia*); Solanaceae (*Synanthedon*); Vitaceae (*Albuna*, *Cissuvora*, *Vitacea*).

DISCUSSION.—The Sesiidae form a compact family of generally clear-winged moths that are diurnal and highly mimetic in both appearance and behavior. The larvae are primarily borers in the trunks, bark, stems, or roots of trees, shrubs, and vines or in the stems and roots of herbaceous plants. Some species are inquiline borers in galls on woody and herbaceous plants. Two species are known to be predaceous on scale insects (Duckworth, 1969). Although generally recognized as a distinct group since the early 1800's, the relationships of the family to other groups of Lepidoptera have been unclear. The highly modified structures and behavior of the adults have led various researchers to consider a host of superficial resemblances for establishing relationships with other, often very divergent, families in the Ditrysia. While in recent years the position of the Sesiidae

stabilized in the superfamily Yponomeutoidea, the origin of the group and relationships to other taxa remained obscure. The higher category arrangement defined in the present paper provides, in the opinion of the authors, the first phylogenetically sound classification for the sesiids and is predicated on an apparently close ancestral relationship with the family Brachodidae.

The subfamily classification provided for the Sesiidae in the present paper has been developed and discussed to varying degrees in previous publications (Duckworth and Eichlin, 1974, 1977c) and, like the present paper, is an outgrowth of revisionary studies being conducted by W. D. Duckworth and Thomas D. Eichlin on the Western Hemisphere sesiids. In the course of these studies a broad range of characters have been utilized for the development of higher categories within the family, and these characters have been analyzed over a broad sample of the world sesiid fauna. As revisionary studies progress, a tribal classification within each of the three subfamilies is being developed. Tribes recognized to date include *Pennisetiini* and *Tinthiini* in *Tinthiinae*; *Cissuvorini* and *Paranthrenini* in *Paranthreninae*; and *Melittiini*, *Sesiini*, *Osminiini*, and *Synanthedonini* in *Sesiinae*. In the following generic synopsis and checklist, however, tribal assignments are omitted pending a more complete study of Asian and African genera. In like manner, the genera yet to be definitely assigned to a subfamily are listed separately at the end of the sesiid checklist.

Even though a great deal of work remains to be done at the generic and specific levels, especially in the tropical areas of the world (Duckworth and Eichlin, 1978a), evidence to date suggests that many genera are more widely distributed than has been previously recognized. Thus, as our knowledge of the world sesiid fauna increases it seems reasonable to expect that the number of generic names will be substantially reduced. Conversely, the scarcity of specimens and difficulties of field sampling, due primarily to the diurnal flight habit and fugitive behavior of the adults and to the endophagous boring

habit of the larvae, suggest that many more species of sesiids remain to be discovered, especially in tropical regions. Additionally, recent biological studies in North America associated with sesiid sex pheromone research and field testing (Nielsen and Purrington, 1974, 1978; Duckworth and Eichlin, 1977a; Purrington and Nielsen, 1977) suggest that species only marginally distinguishable morphologically may be reproductively isolated in nature. Therefore, one may reasonably conclude that the identified world sesiid fauna will increase significantly as more research and field sampling is accomplished. Indicative of these expected additions to the known sesiid fauna are preliminary results of a revision of Neotropical Sesiidae (by Duckworth and Eichlin) wherein approximately 200 new species have already been discerned from material at hand.

Biological information is fairly extensive for Sesiidae, especially in North America and the Palearctic region. This fact, however, should in no way be construed to mean that there is not an enormous need for extensive biological studies on the family. Even in relatively well-studied areas such as North America, many species are known only from one or a few specimens of one sex, with no available information concerning life-history, distribution, or population dynamics.

Biological information for North American sesiids is summarized in Beutenmüller (1901), Forbes (1923), Engelhardt (1946), and Duckworth and Eichlin (1977c, 1978b). Summaries for areas of the Palearctic include Gaede (1933b), Popescu-Gorj et al. (1958), Yano (1960, 1965), and Fibiger and Kristensen (1974). The little information available for Oriental species was reviewed by Gaede (1933a). A summary for Australia and New Zealand is provided in Duckworth and Eichlin (1974) along with comments on some general biological patterns observed in the family. Many North American sesiid larvae were covered by MacKay (1968).

The extraordinary morphological and behavioral modifications found in sesiids, primarily to affect mimicry relationships, has been largely unstudied until quite recently. Many of the studies

previously referred to include extensive sections on sesiid morphology and behavior. In addition, Kristensen (1974) has investigated the evolution of wing transparency in sesiids and Sellier (1977) the ultramorphology of sesiid antennal sensory structures. An early paper by Staudinger (1854) also includes details of adult morphology. Studies on chemical communication in sesiids, primarily in North America, has generated considerable new information concerning behavior patterns and is partially summarized in Duckworth and Eichlin (1977a).

The presence of diffuse, linear chaetosemata (Figure 31) along the posterior margin of the head near the ocelli in all higher Sesiidae (Sesiinae and Paranthreninae), and the lack of this feature in Tinthiinae, is noted herein for the first

time for the family. Scanning electron microscope studies confirmed the identity of the "setae" that had been suspected as being chaetosemata in conventional examination of numerous sesiid heads. Chaetosemata were first thoroughly discussed by Jordan (1923) but sesiids were not then known to possess any chaetosemata. The sesiid chaetosemata are very reduced compared to the large, conspicuous chaetosemata found in Zyginae and other families but are very similar to the chaetosemata of Tortricidae, being only linear instead of more compact. In being absent in Tinthiinae, this feature clearly is an apomorphic development of the more evolved sesiid subfamilies.

Some typical sesiid adults are illustrated in Figures 8-13.

Key to Subfamilies of Sesiidae

1. Scale tuft at tip of antenna absent; forewing with veins R4 and R5 separate, or if stalked then M3 absent; hindwing with A1 partially or fully developed, A3 and A4 absent **TINTHIINAE**
- Scale tuft at tip of antenna present; forewing with veins R4 and R5 stalked, M3 present; hindwing with A1 degenerate, A3 present and free or partially joined to A2, A4 present 2
2. Hindwing with vein A3 free; Cu1 arising distad of crossvein, or if arising at or basad of crossvein, the forewing with stalk of R4 plus R5 not more than one-half length of R4 or R5, or R4 and R5 coincident .. **SESIINAE**
Hindwing with vein A2 and A3 coincident except near base; Cu1 arising basad of crossvein, or if arising at or distad of crossvein, then forewing with stalk of R4 plus R5 greater than one-half length of R4 or R5, or stalk of R4 plus R5 stalked with R3 **PARANTRENINAE**

Subfamily TINTHIINAE

TINTHIINAE Le Cerf, 1917:148 [type-genus: *Tinthia* Walker, [1865]:23].

BEMBECHINAE Niculescu, 1964:42 [type-genus: *Bembecia* of authors; not *Bembecia* Hübner, 1819 (= *Pennisetia* Dehne, 1850)].

ZENODOXINAE MacKay, 1968:5 [type-genus: *Zenodoxus* Grote and Robinson, 1868:184].

DIAGNOSTIC CHARACTERS.—Head and eyes comparatively small; antenna filiform, never clavate, ciliate ventrally on males, without terminal scale tuft; maxillary palpus 1-segmented; cha-

tosema absent. Thorax lacking bag-like protuberance on pre-epimeron. Forewing with veins R4 and R5 stalked or unstalked; CuA2 absent or more often very short. Hindwing with vein A1 nearly or entirely developed, A2 present, A3 and A4 absent. Male genitalia with valva somewhat rectangular to quadrangular, only simple setae on concave inner surface, crista sacculi absent; anellus fully developed, sleeve-like; base of saccus and vinculum broad, thick, without processes; tegumen unmodified; uncus simple or reduced to pair of setose knobs; gnathos and socius absent. Female genitalia with ductus bursae short, membranous, except for sclerotized ring near ostium

bursae in some species; ductus seminalis arises just anterior to ring; bursa copulatrix small, ovate or elongate-ovate, without modifications. Larva with head setae A2 posterior to A1; prothorax with L3 posterior to L1, sometimes on same pinnaculum; abdominal segment 7 with 3 SV setae; abdominal segment 8 with L2 dorsad of L1. Pupa similar to family description.

DISTRIBUTION.—World-wide but depauperate in species numbers, with most species in the eastern Oriental region.

CURRENT TAXA.—13 genera, 62 species (a few of the unplaced genera may belong here).

Subfamily PARANTHRENINAE

PARANTHRENINAE Niculescu, 1964:38 [type-genus: *Paranthrene* Hübner, [1819]:128].

SESIINAE Boisduval.—Naumann, 1971:58 [in part].

DIAGNOSTIC CHARACTERS.—Head with maxillary palpus normally 2-segmented (3 in some genera), second segment large and usually indented in middle; labial palpus generally up-curved, extending above frons, thickened and roughened in appearance; antenna clavate with terminal scale tuft, ciliate ventrally in male, usually bipectinate; head and eyes proportionately larger than for species of Tinthiinae; linear chaetosema on posterior margin of head. Thorax with baglike protuberance on pre-epimeron. Abdomen of male with anal tuft arising from well-formed, oblong to strap-like sclerites on segment 8. Forewing most often with veins R4 and R5 long-stalked, stalk generally longer than $\frac{1}{2}$ total length of R4 or R5; CuA2 present, nearly as long as CuA1. Hindwing with vein CuA1 arising just basad of crossvein (usually obscured by scale covering); no accessory cell; A1 degenerate (only line of scales remains as fold); A2 and A3 coincident except near base; A4 present. Male genitalia with valva having scales multifurcate dorsally, setaceous ventrally and apically, with median area unscaled or with thick, dark scales in saccular region; tegumen reduced, short; gnathos small, rounded or bifurcate, often with tooth-like processes on ventral margin; uncus wide, elongate,

about 3–5 times longer than tegumen, clothed latero-apically with long setaceous scales, mostly bilobed apically; vinculum narrow, with processes; saccus relatively short. Female genitalia with ductus bursae elongate, narrow, membranous, except for sclerotized ring near ostium bursae; ductus seminalis arises just anterior to ring; bursa copulatrix generally elongate-ovate, often thickened with many transverse folds and various longitudinal pigmented bands. Larva with head setae A2 posterior to A1; prothorax with L2 anterodorsad to L1, L3 posterodorsad or posteroventrad of L1 and more distant; abdominal segment 7 with 3 SV setae; abdominal segment 8 sometimes with L2 posterior to L1. Pupa similar to family description.

DISTRIBUTION.—World-wide, with the greatest number of species in the Old World.

CURRENT TAXA.—Nine genera, 136 species (some of the unplaced genera may belong here).

Subfamily SESIINAE

SESIINAE Boisduval, 1828:29 [type-genus: *Sesia* Fabricius, 1775:547].

AEGERIINAE sensu Le Cerf, 1917:148 [type-genus: *Aegeria* Fabricius, 1807a:288 (= *Sesia* Fabricius, 1775)].

DIAGNOSTIC CHARACTERS.—Head with maxillary palpus 2-segmented, second segment much reduced in most species; eyes average proportionately larger than species of Paranthreninae and Tinthiinae; antenna variously clavate with terminal scale tuft, ventrally ciliate in male, pectinate only in some species of Melittiini and Sesiini; linear chaetosema on posterior head margin. Thorax with bag-like protuberance on pre-epimeron. Anal tuft issuing from well-formed sclerites. Forewing generally with stalk of veins R4 + R5 $\frac{1}{2}$ or less than $\frac{1}{2}$ total length of R4 or R5; CuA2 nearly as long as CuA1. Hindwing without accessory cell; M3 and CuA1 short-stalked distad of crossvein except in Melittiini; A1 degenerate, its position indicated by scale line on fold; A2, A3, and A4 present. Male genitalia generally with tegumen and uncus fused, exact limits of each obscure; gnathos usually well-developed; var-

iously shaped socius present in most species, varying in structure, many species with scopula androconalis; subscaphium usually thin, strap-like; vinculum narrow, with processes, saccus of varying length; valva variously modified, most frequently with specialized scales. Female genitalia with ductus bursae long, narrow, usually membranous, sometimes partially sclerotized; ductus seminalis arises midway on ductus bursae or near ostium bursae; bursa copulatrix moderate, elongate-ovate, unmodified. Larva with head setae A2 posterolateral to A1 or between A1 and A3; prothorax with L3 posterodorsad to L1; abdominal segment 7 with 2 SV setae; abdominal segment 8 with L2 anterior to spiracle. Pupa similar to family description.

DISTRIBUTION.—World-wide and the largest subfamily, with numerous Holarctic and Pan-tropical species.

CURRENT TAXA.—58 genera, 782 species (some of the unplaced genera may belong here).

DISCUSSION.—As indicated by Naumann (1971), the type-species designation for *Aegeria* is *Sphinx apiformis* Clerck, 1759, and not *Sphinx culiciformis* Linnaeus, 1758 (now in *Synanthedon*), thus making *Aegeria* a junior synonym of *Sesia*. This situation was clarified by T. D. Eichlin and noted by Bradley and Fletcher (1974).

Generic Synopsis of Sesiidae

| | Species |
|---|---------|
| TINTHIINAE | |
| <i>Pennisetia</i> Dehne, 1850 | 8 |
| <i>Rectala</i> Bryk, 1947 | 1 |
| <i>Tinthia</i> Walker, 1865 | 7 |
| <i>Paradoxecia</i> Hampson, 1919 | 3 |
| <i>Paranthrenopsis</i> Le Cerf, 1911 | 2 |
| <i>Microsphicia</i> Bartel, 1912 | 2 |
| <i>Neotinthia</i> Hampson, 1919 | 1 |
| <i>Bombosceles</i> Meyrick, 1930 | 1 |
| <i>Zenodoxus</i> Grote and Robinson, 1868 | 18 |
| <i>Trichocerota</i> Hampson, 1893 | 16 |
| <i>Sophona</i> Walker, 1856 | 1 |
| <i>Ficiwora</i> Clarke, 1962 | 1 |
| <i>Myrmecosphicia</i> Le Cerf, 1917 | 1 |
| PARANTHRENINAE | |
| <i>Cisswora</i> Engelhardt, 1946 | 1 |
| <i>Paranthrene</i> Hübner, 1819 | 88 |
| <i>Paranthrenina</i> Bryk, 1947 | 1 |
| <i>Vitacea</i> Engelhardt, 1946 | 4 |
| <i>Albuna</i> H. Edwards, 1881 | 6 |
| <i>Euhagena</i> H. Edwards, 1881 | 8 |
| <i>Sinara</i> Walker, 1856 | 10 |
| <i>Tirista</i> Walker, 1865 | 2 |
| <i>Sura</i> Walker, 1856 | 16 |
| SESIINAE | |
| <i>Melittia</i> Hübner, 1819 | 103 |
| <i>Desmopoda</i> Felder, 1874 | 1 |
| <i>Sesia</i> Fabricius, 1775 | 28 |
| <i>Toleria</i> Walker, 1865 | 2 |
| <i>Calasesia</i> Beutenmüller, 1899 | 1 |
| <i>Callithia</i> Le Cerf, 1916 | 1 |
| <i>Osminia</i> Le Cerf, 1917 | 2 |
| <i>Kemneriella</i> Bryk, 1947 | 1 |
| <i>Synanthedon</i> Hübner, 1819 | 298 |
| <i>Chamaesphecia</i> Spuler, 1910 | 109 |
| <i>Ceritypetes</i> Bradley, 1956 | 1 |
| <i>Weismanniola</i> Naumann, 1971 | 1 |
| <i>Palmia</i> Beutenmüller, 1896 | 1 |
| <i>Podoslesia</i> Möschler, 1879 | 3 |
| <i>Sannina</i> Walker, 1856 | 1 |
| <i>Scalariognathia</i> Capuse, 1973 | 1 |
| <i>Diakonoffia</i> Niculescu, 1969 | 1 |
| <i>Carmenta</i> H. Edwards, 1881 | 31 |
| <i>Penstemonia</i> Engelhardt, 1946 | 4 |
| <i>Alcathoe</i> H. Edwards, 1882 | 8 |
| <i>Hymenoclea</i> Engelhardt, 1946 | 1 |
| <i>Bembecia</i> Hübner, 1819 | 58 |
| <i>Euryphrissa</i> Butler, 1874 | 2 |
| <i>Aegerina</i> Le Cerf, 1916 | 5 |
| <i>Lepidopoda</i> Hampson, 1900 | 10 |
| <i>Leptaegeria</i> Le Cerf, 1916 | 5 |
| <i>Chamanthedon</i> Le Cerf, 1916 | 26 |
| <i>Chimaerosphecia</i> Strand, 1916 | 2 |
| <i>Conopsia</i> Strand, 1913 | 1 |
| <i>Crinipus</i> Hampson, 1896 | 1 |
| <i>Mimocrypta</i> Naumann, 1971 | 1 |
| <i>Parasesia</i> Le Cerf, 1916 | 1 |
| <i>Rhipidurina</i> Naumann, 1971 | 1 |
| <i>Stenosphaecia</i> Le Cerf, 1917 | 1 |
| <i>Pseudalcathoe</i> Le Cerf, 1916 | 2 |
| <i>Tarsopoda</i> Butler, 1874 | 1 |
| <i>Teleosphaecia</i> Le Cerf, 1916 | 2 |
| <i>Callisphaecia</i> Le Cerf, 1916 | 3 |
| <i>Tipulamima</i> Holland, 1893 | 17 |
| <i>Episannina</i> Aurivillius, 1905 | 6 |
| <i>Camaegeria</i> Strand, 1914 | 1 |
| <i>Aegerosphecia</i> Le Cerf, 1916 | 5 |
| <i>Aenigmmina</i> Le Cerf, 1912 | 1 |
| <i>Lophocepis</i> Hampson, 1919 | 5 |
| <i>Pseudomelittia</i> Le Cerf, 1917 | 3 |
| <i>Dasysphaecia</i> Hampson, 1919 | 1 |

Tradescanticola Hampson, 1919
Hypanthedon Hampson, 1919
Hypomelittia Hampson, 1919
Epitarsipus Le Cerf, 1922
Amphithales Meyrick, 1926
Malgassessia Le Cerf, 1922
Oligophlebia Hampson, 1893
Metasphecia Le Cerf, 1917
Micrecia Hampson, 1919
Microsynanthonedon Viette, 1955
Monopetalotaxis Wallengren, 1858
Vespanthonedon Le Cerf, 1917
Genera Unassigned to Subfamily
Adixoa Hampson, 1893
Adixoana Strand, 1913
Agriomelissa Meyrick, 1931
Alonina Walker, 1856
Anaudia Wallengren, 1863
Aschistophleps Hampson, 1893
Augangela Meyrick, 1932
Caudicornia Bryk, 1947
Conopyga Felder, 1861
Echidgnathia Hampson, 1919
Erectica Walker, 1865
Erismatica Meyrick, 1933
Grypopalpia Hampson, 1919
Gymnosophistis Meyrick, 1934
Heterosphecia Le Cerf, 1916
Homogyna Le Cerf, 1911
Hovaesia Le Cerf, 1957
Hymenosphecia Le Cerf, 1917
Idiopogon Meyrick, 1934
Isocylindra Meyrick, 1930
Isothamnis Meyrick, 1935
Lenya Walker, 1856
Lenyrhova Le Cerf, 1957
Leuthneria Dalla Torre, 1925
Macrocelesia Hampson, 1919
Macrotarsipus Hampson, 1893
Megalosphecia Le Cerf, 1916
Melanosphecia Le Cerf, 1916
Melisophista Meyrick, 1927
Nyctaegeria Le Cerf, 1914
Oligophlebiella Strand, 1916
Pedalonina Gaede, 1929
Proaegeeria Le Cerf, 1916
Rodolphia Le Cerf, 1911
Similipepsis Le Cerf, 1911
Sphecosesia Hampson, 1910
Thamnoscelis Meyrick, 1928
Thranthrene Hampson, 1919
Trichobaptes Holland, 1893
Trilochana Moore, 1879
Tyriictaca Walker, 1862

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|---|----------------------------------|---|
| 1 | <i>Uranothyris</i> Meyrick, 1933 | 1 |
| 1 | <i>Xenoses</i> Durrant, 1924 | 1 |

Checklist of Sesiidae

Subfamily TINTHIINAE

| | | |
|----|--|---|
| 1 | <i>Pennisetia</i> Dehne, 1850:28 [<i>P. anomala</i> Dehne, 1850 (= <i>Sesia hylaiformis</i> Laspeyres, 1801)]) | 1 |
| 1 | <i>Bembecia</i> of authors [not <i>Bembecia</i> Hübner, 1819] | 1 |
| 5 | <i>Anthrenoptera</i> Swinhoe, 1892:35 [<i>Sphicia contracta</i> Walker, 1856] | 1 |
| 1 | <i>Lophocnema</i> Turner, 1917:78 [<i>L. euphyra</i> Turner, 1917] | 1 |
| 1 | <i>Diapryra</i> Turner, 1917:79 [<i>Sesia igniflua</i> Lucas, 1894] | 1 |
| 3 | <i>Glossicia</i> Hampson, 1919:113 [<i>Sesia igniflua</i> Lucas, 1894] | 1 |
| P | <i>bohemica</i> Králiček and Povolný, 1974:164 | 1 |
| P | <i>contracta</i> (Walker, 1856:11), <i>Sphicia fixseni</i> (Leech, 1889a:591), <i>Sphicia eucheripennis</i> Boisduval, [1875]:384 | 1 |
| NL | <i>eucheripennis</i> Boisduval, [1875]:384 | 1 |
| A | <i>euphyra</i> (Turner, 1917:79), <i>Lophocnema</i> | 1 |
| P | <i>hylaiformis</i> (Laspeyres, 1801:14), <i>Sesia hyleiformis</i> [sic] (Duponchel, 1835:129), <i>Sesia</i> [misspelling] | 1 |
| 1 | <i>anomala</i> Dehne, 1850:28 | 1 |
| 9 | <i>igniflua</i> (Lucas, 1894:133), <i>Sesia marginata</i> (Harris, 1839:303), <i>Trochilium plectiaeformis</i> (Walker, 1856:40), <i>Aegeria odyneripennis</i> (Walker, 1856:42), <i>Aegeria rubi</i> (Riley, 1874:111), <i>Aegeria flavipes</i> (Hulst, 1881:76), <i>Sesia variety albicoma</i> (Hulst, 1883:9), <i>Bembecia pectinata</i> (Staudinger, 1887c:167), <i>Sesia Rectala</i> Bryk, 1947:103 [<i>R. asyliformis</i> Bryk, 1947] | 1 |
| P | <i>asyliformis</i> Bryk, 1947:104 | 1 |
| 4 | <i>Tinthia</i> Walker, [1865]:23 [<i>T. varipes</i> Walker, 1865] | 1 |
| 2 | <i>Soronia</i> Moore, 1877:83 [<i>S. cuprealis</i> Moore, 1877; preoccupied, Erichson, 1843 (Coleoptera)] | 1 |
| 4 | <i>Ceratocrema</i> Hampson, [1893a]:200 [<i>C. postcristatum</i> Hampson, 1893] | 1 |
| O | <i>cuprealis</i> (Moore, 1877:84), <i>Soronia cymbalistis</i> Meyrick, 1926a:268 | 1 |
| O | <i>mesatma</i> Meyrick, 1926a:269 | 1 |
| O | <i>postcristata</i> (Hampson, [1893a]:200), <i>Ceratocrema ruficollaris</i> (Pagenstecher, 1900:21), <i>Paranthrene variipes</i> Walker, [1865]:24 | 1 |
| 4 | <i>xanthopila</i> Hampson, 1919:115 | 3 |
| 4 | <i>xanthopila</i> [sic] Dalla Torre and Strand, 1925:183 [misspelling] | 1 |
| 7 | <i>Paradoxecia</i> Hampson, 1919:114 [<i>Aegeria gravis</i> Walker, 1865] | 2 |

- O *croconeura* (Meyrick, 1926a:267), *Paranthrene*
O *gravis* (Walker, [1865]:12), *Aegeria*
O *pieli* Lieu, 1935:190
- Paranthrenopsis* Le Cerf, 1911c:302 [*P. harmandi* Le Cerf, 1911
(= *Tinthia editha* Butler, 1878)]
Entrichella Bryk, 1947:102 [*E. pogonias* Bryk,
1947]
- P *editha* (Butler, 1878:61), *Tinthia*
harmandi Le Cerf, 1911c:302
- P *pogonias* (Bryk, 1947:103), *Entrichella*
- Microsphicia* Bartel, 1912:414 [*Sphinx tineiformis* Esper, 1789;
new status]
- P *tineiformis* (Esper, [1789]:9), *Sphinx*
aselliformis (Rossi, 1794:16), *Sesia*
brosiformis (Hübner, [1808-13]: pl. 25: fig. 116),
Sphinx
- O *suisharyonis* Strand, [1917a]:152
- Neotinthia* Hampson, 1919:115 [*N. semihyalina* Hampson,
1919]
- O *semihyalina* Hampson, 1919:115
- Bombosceles* Meyrick, 1930a:260 [*B. cyanomyia* Meyrick, 1930]
- NL *cyanomyia* Meyrick, 1930a:260
- Zenodoxus* Grote and Robinson, 1868:184 [*Z. maculipes* Grote
and Robinson, 1868]
- O *aurantia* Hampson, 1919:118
- N *canescens* H. Edwards, 1881:205
race *sidae* Engelhardt, 1946:199
- P *constricta* (Butler, 1878:61), *Tinthia*
pernis (Matsumura, 1931a:1016), *Paranthrene*
shakojianus Matsumura, 1931a:1018
- P *dorsalis* Le Cerf, 1914b:272
form *obscura* Le Cerf, 1914b:274
- P *esakii* Yano, 1960:235
- O *flavincita* Hampson, 1919:119
- N *heucherae* H. Edwards, 1881:205
potentillae H. Edwards, 1881:205
- P *hopliformis* (Mann, 1864:176), *Paranthrene*
issikii Yano, 1960:236
- N *maculipes* Grote and Robinson, 1868:184
- N *mexicanus* Beutenmüller, 1897:216
- P *myrmosaeformis* (Herrich-Schäffer, 1846:59), *Paran-*
threna [sic]
variety *lucida* (Lederer, 1853:68), *Paranthrena* [sic]
[nomen nudum]
myrmosiformis (Staudinger, 1856:336), *Sesia*
[emendation]
myrmosiformis [sic] variety *cingulata* (Staudinger,
1870:100), *Paranthrene*
- N,NL *palmii* (Neumoegen, 1891:108), *Larunda*
palmiana (Dalla Torre, 1925:160), *Paranthrene* [re-
placement name]
wissadular Engelhardt, 1946:195
race *sphaeralcea* Engelhardt, 1946:198
race *incanae* Engelhardt, 1946:198
- O *proxima* (Le Cerf, 1916b:11), *Trichocerota*
N,NL *rubens* Engelhardt, 1946:200
canescens race *bexari* Engelhardt, 1946:200
- N *sidalceae* Engelhardt, 1946:196
- O *taiwanellus* Matsumura, 1931a:1018
- P *trifasciatus* Yano, 1960:237
- Trichocerota* Hampson, [1893a]:199 [*T. ruficincta* Hampson,
1893]
Trichocerata [sic] Dalla Torre and Strand, 1925:
183 [misspelling]
- O *antigama* Meyrick, 1926a:270
- E *bicolor* (Le Cerf, 1917:372), *Zenodoxus*
- O *brachythra* Hampson, 1919:118
- O *cupreipennis* (Walker, [1865]:11), *Aegeria*
- O *diplotoma* Meyrick, 1926a:269
- O *dizona* Hampson, 1919:117
- O *erythranches* Meyrick, 1926a:269
- O *fulistriga* Hampson, 1919:117
- O *intervenata* Hampson, 1919:117
- E *lambornella* (Durrant, [1914]:513), *Tinthia*
- O *leiaeformis* (Walker, 1856:58), *Aegeria*
- O *linozona* Meyrick, 1926a:269
- O *radians* Hampson, 1919:116
- O *ruficincta* Hampson, [1893a]:199
- O *spilogaster* (Le Cerf, 1916b:11), *Tinthia*
- O *univitta* Hampson, 1900:44
- Sophona* Walker, 1856:60 [*S. halictipennis* Walker, 1856]
- NL *halictipennis* Walker, 1856:60
- NL *h. flavizonata* Zukowsky, 1937:1259
- Ficivora* Clarke, 1962:383 [*F. leucoteles* Clarke, 1962]
- NL *leucoteles* Clarke, 1962:387
- Myrmecosphicia* Le Cerf, 1917:374 [*M. lemoulti* Le Cerf, 1917]
- NL *lemoulti* Le Cerf, 1917:375
le moulti Le Cerf, 1917:375 [incorrect spacing]
- Subfamily PARANTHRENINAE**
- Cissuvora* Engelhardt, 1946:134 [*C. ampelopsis* Engelhardt,
1946]
- N *ampelopsis* Engelhardt, 1946:134
- Paranthrene* Hübner, [1819]:128 [*Sphinx tabaniformis* Rottem-
burg, 1775]
Memythrus Newman, 1832b:53 [*Sphinx vespiformis*
Newman, 1832; (= *Sphinx tabaniformis* Rottem-
burg, 1775)]
- Paranthrena* Herrich-Schäffer, 1846:58 [emenda-
tion]

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|------|---|------|--|
| | <i>Scapteron</i> Staudinger, 1854:43 [<i>Sphinx asiliformis</i> Denis and Schiffermüller, 1775 (= <i>Sphinx tabaniformis</i> Rottemburg, 1775)] | O | <i>charlesi</i> Le Cerf, 1916b:10 |
| | <i>Tarsa</i> Walker, 1856:61 [<i>T. bombyciformis</i> Walker, 1856 (= <i>Sesia asilipennis</i> Boisduval, 1829–38)] | O | <i>chinensis</i> (Leech, 1889b:121), <i>Scapteron regale</i> (Leech, 1889a:591), <i>Scapteron</i> [not <i>Scapteron regale</i> Butler, 1878] |
| | <i>Pseudosesa</i> Felder, 1861:28 [<i>P. insularis</i> Felder, 1861] | O | <i>chrysocloris</i> (Hampson, 1897:283), <i>Trichochana metallica</i> (van Eecke, 1915:276), <i>Scapteron</i> [not <i>Scapteron metallica</i> Hampson, 1893] |
| | <i>Pseudoseta</i> [sic] Boisduval, [1875]:461 [misspelling] | O | <i>chrysoidea</i> Zukowsky, 1932:317 |
| | <i>Pramila</i> Moore, 1879b:9 [<i>P. atkinsoni</i> Moore, 1879] | O | <i>cupreivitta</i> (Hampson, [1893a]:193), <i>Scapteron cuprescens</i> Hampson, 1919:106 |
| | <i>Fatua</i> H. Edwards, 1882b:97 [<i>Trochilium denudatum</i> Harris, 1839 (= <i>Sesia asilipennis</i> Boisduval, 1829–38); preoccupied, Dejean, 1833 (Coleoptera)] | O | <i>cyanogama</i> Meyrick, 1930b:584 |
| | <i>Phlogothauma</i> Butler, 1882:237 [<i>P. scintillans</i> Butler, 1882; new synonymy] | O | <i>cyanopsis</i> Durrant, 1915:166 |
| | <i>Scapterum</i> Bartel, 1912:376 [emendation] | P | <i>davidi</i> Le Cerf, 1917:259 |
| | <i>Paranthrenella</i> Strand, [1916]:47 [<i>Paranthrene (Paranthrenella) formosicola</i> Strand, 1916] | O | <i>dohertyi</i> (Rothschild, 1911:47), <i>Ichneumonopiera</i> |
| | <i>Scipterum</i> [sic] Dalla Torre and Strand, 1925:154 [misspelling] | N | <i>dollii</i> (Neumoegeen, 1894:330), <i>Scapteron variety castaneum</i> Beutenmüller, 1897:213), <i>Scapteron</i> |
| O | <i>Pseudosecia</i> [sic] Dalla Torre and Strand, 1925: 187 [misspelling] | E | <i>form fasciventris</i> Engelhardt, 1946:142 |
| | <i>Nokono</i> Matsumura, 1931b:11 [<i>Paranthrene (Nokono) yezonica</i> Matsumura, 1931 (= <i>Scapteron regale</i> Butler, 1878)] | E | <i>dybowskii</i> (Le Cerf, 1917:324), <i>Albuna</i> |
| | <i>Leptocimbicina</i> Bryk, 1947:100 [<i>L. aurivena</i> Bryk, 1947] | N,NL | <i>fenerata</i> Barnes and Lindsey, 1922:122 |
| H,NL | <i>affinis</i> Rothschild, 1911:46 | P | <i>feralis</i> (Leech, 1889a:591), <i>Scapteron daisensis</i> Matsumura, 1931a:1016 |
| E | <i>africana</i> (Le Cerf, 1917:325), <i>Albuna</i> | P | <i>fervida</i> (Lederer, 1855:182), <i>Sesia</i> |
| O | <i>albifrons</i> Hampson, 1919:103 | | <i>variety ponticum</i> (Staudinger, 1891:241), <i>Scapteron</i> |
| E | <i>anthrax</i> Le Cerf, 1916b:11 | | <i>variety subfervidum</i> (Staudinger, 1891:241), <i>Scapteron</i> |
| | <i>asilipennis</i> (Boisduval, 1829–38: pl. 84: fig. 3), <i>Sesia denudatum</i> (Harris, 1839:310), <i>Trochilium asilipennis</i> (Boisduval, [1844]:496), <i>Sesia</i> [text] | | <i>variety transcaucasicum</i> (Staudinger, 1891:242), <i>Scapteron</i> |
| | <i>vespiperne</i> (Herrich-Schäffer, 1854:57), <i>Trochilium bombyciformis</i> (Walker, 1856:61), <i>Tarsa vespiperne</i> (Boisduval, [1875]:393), <i>Sesia</i> [new synonymy] | O | <i>flannans</i> (Hampson, [1893a]:191), <i>Scapteron</i> |
| O | <i>championi</i> (Druce, 1883:29), <i>Sphecia atkinsoni</i> (Moore, 1879b:9), <i>Pramila atkinsoni</i> Hampson, 1919:102 [emendation] | O | <i>flavifrons</i> Hampson, 1919:103 |
| P | <i>aurantiaca</i> (Rebel, 1917:274), <i>Scapteron aurantiarum</i> [sic] Dalla Torre and Strand, 1925: 189 [index; misspelling] | O | <i>formosicola</i> Strand, [1916]:47 |
| O | <i>auricollis</i> (Hampson, [1893a]:198), <i>Adixoa</i> | O | <i>gracilis</i> (Swinhoe, 1890:168), <i>Scapteron</i> |
| O | <i>aurifera</i> Hampson, 1919:105 | O | <i>grotei</i> (Moore, 1879a:414), <i>Pseudosesa</i> |
| P | <i>aurivena</i> (Bryk, 1947:100), <i>Leptocimbicina bicincta</i> (Walker, [1865]:12), <i>Aegeria caeruleimicans</i> (Hampson, [1893a]:192), <i>Scapteron cambodialis</i> (Walker, [1865]:15), <i>Sannina canarensis</i> Hampson, 1919:103 | O | <i>henrici</i> Le Cerf, 1916b:10 |
| O,P | <i>chalcochlora</i> Hampson, 1919:101 | O | <i>heterodesma</i> Diakonoff, [1968]:230 |
| | | O | <i>hyalochrysa</i> Diakonoff, 1954:190 |
| | | P | <i>insolitus</i> Le Cerf, 1914d:422 |
| | | O | <i>insularis</i> (Felder, 1861:28), <i>Pseudosesa productalis</i> (Walker, [1865]:19), <i>Melittia</i> |
| | | O | <i>iridina</i> Bryk, 1947:107 |
| | | O | <i>javana</i> Le Cerf, 1916b:10 |
| | | O | <i>lecerfi</i> Hampson, 1919:109 |
| | | O | <i>leucocera</i> Hampson, 1919:107 |
| | | O | <i>limpida</i> Le Cerf, 1916b:10 |
| | | E | <i>lodimana</i> (Strand, 1918:46), <i>Scapteron</i> [new combination] |
| | | O | <i>meeki</i> (Druce, 1898:207), <i>Scapteron</i> |
| | | E | <i>meeci</i> Hampson, 1919:108 [emendation] |
| | | E | <i>mesothyris</i> Hampson, 1919:107 |
| | | | <i>merothyris</i> [sic] Dalla Torre and Strand, 1925:160, [misspelling] |
| | | O | <i>metallica</i> (Hampson, [1893a]:193), <i>Scapteron</i> |
| | | O | <i>metaxantha</i> Hampson, 1919:109 |

- O *microthyris* Hampson, 1919:108
 O *minuta* (Swinhoe, 1890:171), *Pramila*
 P "nana" Lederer, 1853:68, *Paranthrene* [sic] [nomen
 nudum; unknown species]
 O *nobilei* (Swinhoe, 1890:166), *Sciapteron*
 jucunda (Swinhoe, 1890:167), *Sciapteron*
 O *oberthueri* Le Cerf, 1916b:10
 oberthüri Le Cerf, 1916b:10 [incorrect spelling]
 O *opalescens* Hampson, 1919:104
 O *panorpaeformis* (Boisduval, [1875]:393), *Sesia*
 N *pellucida* Greenfield and Karandinos, 1979:499
 O *pentazonata* Hampson, 1919:102
 O,P *pernix* (Leech, 1889a:592), *Bembecia*
 hirayamai Matsumura, 1931a:1016
 O *pilamicola* Strand, [1916]:47
 O *poecilcephala* Diakonoff, [1968]:232
 P *polonica* Schnaider, [1939]:143
 O *pompilus* Bryk, 1947:101
 O *powondrae* Dalla Torre, 1925:161 [replacement
 name for *Paranthrene tricincta* Wileman and
 South, 1918]
 tricincta Wileman and South, 1918:169 [not *Ae-
 geria tricincta* Harris, 1839]
 E *propria* Hampson, 1919:101
 O *pulchripennis* (Walker, 1862b:82), *Sannina*
 ambigua (Snellen, 1900:36), *Melittia*
 andamana Le Cerf, 1916b:10
 P *purpurea* Yano, 1965:6
 E *pythes* (Druce, 1899:204), *Aegeria*
 O *rangoonensis* (Swinhoe, 1890:165), *Aegeria*
 O,P *regalis* (Butler, 1878:60), *Sciapteron*
 yezonica Matsumura, 1931a:1017
 N,NL *robiniae* (H. Edwards, 1880:72), *Sciapteron*
 perlucida (Busck, 1915:80), *Memythrus*
 form *palescens* Engelhardt, 1946:144
 O *rufifinis* (Walker, 1862b:82), *Sannina*
 celebica Le Cerf, 1916b:10
 E *sanguipennis* Meyrick, 1926a:267
 O *scintillans* (Butler, 1882:238), *Phlogothauma* [new
 combination]
 O *semidiaphana* Zukowsky, 1929b:36
 O *sesiiformis* Moore, 1858:385
 O *sikkima* (Moore, 1879b:9), *Sciapteron*
 siccima Hampson, 1919:109 [emendation]
 NL *silvai* Köhler, 1953:21
 N *simulans* (Grote, 1881a:78), *Trochilium*
 palmii (H. Edwards, 1887:145), *Fatua*
 luggeri (H. Edwards, 1891:108), *Trochilium*
 H *tabaniformis* (Rottemburg, 1775:110), *Sphinx*
 asiliformis ([Denis and Schiffermüller], 1775:305),
 Sphinx [not *Sphinx asiliformis* Rottemburg,
 1775]
- rhingiaeformis (Hübner, 1790:89), *Sphinx*
 crabroniformis (Laspeyres, 1801:11), *Sesia* [not
 Sphinx crabroniformis Denis and Schiffermüller,
 1775]
 vespiiformis (Newman, 1832a:1), *Sphinx* [not *Sphinx*
 vespiformis Linnaeus, 1761]
 tricincta (Harris, 1839:310), *Aegeria*
 serratiformis (Freyer, 1842:130), *Sesia*
 synagriformis (Rambur, [1866]:148), *Sesia*
 tabaniforme variety *kungessana* (Alpheraky, 1882:
 20), *Sciapteron*
 denotata (H. Edwards, 1882a:55), *Albuna*
 rhingiaeformis variety *intermedia* Le Cerf, 1916a:16
 form *annulifera* Closs, 1920:13
 aberration *diaphana* Schawerda, 1921:165
 tricinctas [sic] Dalla Torre and Strand, 1925:168
 [misspelling]
 tricincta form *ostlari* Engelhardt, 1946:140
 E *thalassina* Hampson, 1919:101
 O *tristis* Le Cerf, 1917:261
 O *trizonata* (Hampson, 1900:43), *Sciapteron*
 E *xanthopyga* Hampson, 1919:101
 E *xanthosoma* (Hampson, 1910a:154), *Sciapteron*
 O *zoneiventris* Le Cerf, 1916b:10
 zonaventris [sic] Le Cerf, 1917:260 [misspelling]
 O *zygophora* Hampson, 1919:109
 Paranthrenina Bryk, 1947:106 [*P. myrmekomorpha* Bryk, 1947]
 O *myrmekomorpha* Bryk, 1947:106
 Vitacea Engelhardt, 1946:151 [*Aegeria polistiformis* Harris,
 1854]
 N,NL *admiranda* (H. Edwards, 1882a:54), *Sciapteron*
 admirantus [sic] (Le Cerf, 1917:311), *Paranthrene*
 [misspelling]
 N *cupressi* (H. Edwards, 1881:183), *Sciapteron*
 N *polistiformis* (Harris, 1854:216), *Aegeria*
 seminole (Neumoegen, 1894:330), *Sciapteron*
 form *kuron* Engelhardt, 1946:154
 N *scepsiformis* (H. Edwards, 1881:183), *Sciapteron*
 Albuna H. Edwards, 1881:186 [*Aegeria hylotomiformis* Walker,
 1856 (= *Aegeria pyramidalis* Walker, 1856)]
 Harmonia H. Edwards, 1882a:54 [*H. morrisoni* H.
 Edwards, 1882 (= *Carmenta fraxini* H. Edwards,
 1881); preoccupied, Mulsant, 1846 (Coleop-
 tera); Haswell, 1879, (Crustacea); and Hart-
 mann, 1881 (Mollusca)]
 Parharmonia Beutenmüller, 1894a:89 [*Harmonia*
 morrisoni H. Edwards, 1882; replacement name
 for *Harmonia* H. Edwards, 1882]
 A *carulifera* (Hampson, 1919:108), *Paranthrene*
 coracodes (Turner, 1922:61), *Trochilium*
 caeruleifera (Turner, 1922:62), *Trochilium* [emen-
 dation]

- N *fraxini* (H. Edwards, 1881:185), *Carmenta morrisonii* (H. Edwards, 1882a:55), *Harmonia morrisonii* [sic] Dalla Torre and Strand, 1925:158 [misspelling]
form *vitriosa* Engelhardt, 1946:169
- A *isozona* (Meyrick, 1886b:689), *Sesia oberthueri* (Le Cerf, 1916b:10), *Phlogothauma oberthüri* (Le Cerf, 1916b:10), *Phlogothauma* [incorrect spelling] *Sciapteron*
terrible (Turner, 1917:81), *Sciapteron terrible* [sic] (Duckworth and Eichlin, 1974:19), *Sciapteron* [misspelling]
- N *pyramidalis* (Walker, 1856:40), *Aegeria hylotomiformis* (Walker, 1856:43), *Aegeria nomadaepennis* (Boisduval, 1869:63), *Sesia rubescens* (Hulst, 1881:76), *Sesia montana* H. Edwards, 1881:188 *tanaceti* H. Edwards, 1881:188 *vancouverensis* H. Edwards, 1881:188 *coloradensis* H. Edwards, 1881:189 *torva* H. Edwards, 1881:189 *beutenmuelleri* Skinner, 1903:126 *beutenmülleri* Skinner, 1903:126 [incorrect spelling]
- A *zonota* (Turner, 1922:62), *Paranthrene zonionota* [sic] Dalla Torre and Strand, 1925:169 [misspelling]
- Euhagena* H. Edwards, 1881:180 [*E. nebraskae* H. Edwards, 1881]
Larunda H. Edwards, 1881:182 [*L. solituda* H. Edwards, 1881 (= *Aegeria emphytiformis* Walker, 1856; preoccupied, Leach, 1815 (Crustacea); Hübner, 1823 (Geometridae)])
Gaea Beutenmüller, 1896:115 [*Larunda solituda* H. Edwards, 1881; replacement name for *Larunda* H. Edwards, 1881]
- E *callipleura* Meyrick, 1932b:338
N,NL *emphytiformis* (Walker, 1856:43), *Aegeria solituda* (H. Edwards, 1881:182), *Larunda erasmia* Zukowsky, 1950:23
- O *leucozona* (Hampson, 1919:63), *Gaea* [new combination]
NL *lilloi* Köhler, 1941:6
- N,NL *nebraskae* H. Edwards, 1881:181
form *mormoni* Engelhardt, 1946:171
form *intensa* Engelhardt, 1946:172
- E *nobilis* (Druce, 1910a:401), *Aegeria variegata* (Walker, [1865]:24), *Tinthia* [new combination]
- Sincara* Walker, 1856:61 [*S. eumeniformis* Walker, 1856]
NL *alopecura* Zukowsky, 1937:1258
NL *cambyses* Druce, 1884:33
- NL *confusa* Butler, 1874:409
NL *crassicornis* Walker, [1865]:7
NL *eumeniformis* Walker, 1856:62
NL *lytea* Druce, 1884:33
NL *maeonia* Druce, 1889:81
NL *manilia* Druce, 1889:82
NL *manoba* Druce, 1889:82
NL *phyllis* Druce, 1884:33
Tirista Walker, [1865]:22 [*T. argentifrons* Walker, 1865]
NL *argentifrons* Walker, [1865]:22
NL *praxila* Druce, 1896:325
Sura Walker, 1856:65 [*S. xylocopiformis* Walker, 1856]
Sara [sic] Druce, 1882:15 [misspelling]
- E *bicolor* Le Cerf, 1917:271
xylocopiformis Le Cerf, 1916b:11 [not *Sura xylocopiformis* Walker, 1856]
- O *chalybea* Butler, 1876:309
coeruleonitens (Rothschild, 1912:122), *Sphecia caeruleonitens* [sic] (Dalla Torre and Strand, 1925:121), *Sphecia* [misspelling]
- O *cyanea* Hampson, 1919:99
O *cyanolampra* Diakonoff, [1968]:229
E *ellenbergeri* (Le Cerf, 1917:319), *Episannina ignicauda* (Hampson, [1893a]:191), *Trilochana lampadura* Meyrick, 1935:558
E *melanochalcea* (Le Cerf, 1917:319), *Episannina phoenicia* Hampson, 1919:99
O *pryeri* Druce, 1882:15
E *pyroceria* Hampson, 1919:98
E *ruficauda* (Rothschild, 1911:46), *Aegeria rufitibia* Hampson, 1919:98
O *tetrapora* Diakonoff, [1968]:228
O *uncariae* Schneider, 1940:116
E *xylocopiformis* Walker, 1856:65
- Subfamily Sesiinae**
- Melittia* Hübner, [1819]:128 [*M. anthedoniformis* Hübner, 1819 (= *Sphinx bombyliformis* Cramer, 1782)]
Eumallopoda Wallengren, 1858:84 [*E. laniremis* Wallengren, 1858]
Parasa Wallengren, 1863:137 [*P. aureosquamata* Wallengren, 1863; preoccupied, Moore, 1858 (Limacodidae)]
Pansa Wallengren, 1865:9 [*Parasa aureosquamata* Wallengren, 1863; replacement name for *Parasa* Wallengren, 1863]
Poderis Boisduval, [1875]:433 [*Melittia anthedoniformis* Hübner, 1819; unavailable by publication in synonymy]
Melitha [sic] Kirby, 1879:145 [misspelling]
Melitta [sic] Druce, 1892:276 [misspelling]
Premelittia Le Cerf, 1916b:9 [*P. rufescens* Le Cerf, 1916]

- Neosphecia* Le Cerf, 1916b:9 [*N. combusta* Le Cerf, 1916]
Melittina Le Cerf, 1917:239 [*M. nigra* Le Cerf, 1917]
- E *abyssiniensis* Hampson, 1919:95
E *acosmetes* Hampson, 1919:86
E *aethiopica* Le Cerf, 1917:227
E *amblyphaea* Hampson, 1919:86
A,O *amboinensis* Felder, 1861:28
meeki Le Cerf, 1916b:8
celebica Le Cerf, 1916b:8
javana Le Cerf, 1916b:8
doddi Le Cerf, 1916b:8
variety *asiatica* Le Cerf, 1917:197
thaumasia Turner, 1917:81
- O *a. erythrina* Diakonoff, 1954:188
- NL *arcangeli* Giacomelli, 1911:29
arcangeli [sic] Anon., 1918:158 [misspelling]
- O *astarte* (Westwood, 1848:61), *Trochilium*
- E *aureosquamata* (Wallengren, 1863:137), *Parasa*
variety *houlberti* Le Cerf, 1917:233
- E *auripunia* Hampson, 1910c:506
laboissierei Le Cerf, 1917:229
- E *aurociliata* (Aurivillius, 1879:47), *Pansa*
- E *azrael* Le Cerf, 1914a:61
azrael Le Cerf, 1914a:61 [incorrect spelling]
- O *batchiana* Le Cerf, 1917:190
- NL *bergii* H. Edwards, 1883:157
- O *binghami* Niceville, 1900:174
burmana Le Cerf, 1916b:8
- O, P *bombyiformis* (Cramer, 1782:241), *Sphinx*
bombyiformis (Cramer 1782:248 [index]), *Sphinx*
[emendation]
chalciiformis (Fabricius, 1793:382), *Sesia*
anthedoniformis Hübner, [1819]:128
bombylipennis Boisduval, [1875]:473
arrecta Meyrick, 1918b:181
- E *boulleti* Le Cerf, 1917:222
- NL *brabantia* Le Cerf, 1917:212
- E *brevicornus* Aurivillius, 1905:43
- NL *butleri* Druce, 1883:32
- N,NL *calabaza* Duckworth and Eichlin, 1973b:151
- O *callosoma* Hampson, 1910b:92
- E *chalconota* Hampson, 1910a:149
congoana Le Cerf, 1916b:8
- A *chalybescens* Miskin, 1892:59
proserpina Hampson, 1919:92
- NL *chimana* Le Cerf, 1916b:9
- E *chrysobapta* Hampson, 1919:86
- O *chrysogaster* Walker, [1865]:16
- NL *combusta* (Le Cerf, 1916b:9), *Neosphecia*
- O *congruens* Swinhoe, 1890:169
dorsatiformis Hampson, 1891:43
- N,NL *cucurbitae* (Harris, 1828:33), *Aegeria* [revised status]
satyriniformis Hübner, [1827–1831]:17 [new synonymy]
ceto (Westwood, 1848:62) *Trochilium*
amoena H. Edwards, 1882a:53
satyriformis [sic] Englehardt, 1946:183 [misspelling]
- NL *cyaneifera* Walker, 1856:67
cyanifera [sic] H. Edwards, 1883:157 [misspelling]
variety *reducta* Le Cerf, 1917:218
- O *dichroipus* Hampson, 1919:90
- O *distincta* Le Cerf, 1916b:8
- NL *dolens* Druce, 1899:205
- E *ectothyrus* Hampson, 1919:94
- O *elaea* Hampson, 1919:89
- E *endoxantha* Hampson, 1919:85
- O *eurytion* (Westwood, 1848:62), *Trochilium*
strigipennis Walker, [1865]:17
aberration *microfenestrata* Strand, [1916]:45
- O *flaviventris* Hampson, 1919:91
- O *formosana* Matsumura, 1911:86
- NL *funesta* Le Cerf, 1917:164
- P *gephyra* Amsel, 1935:277
- O *gigantea* Moore, 1879a:413
humerosa Swinhoe, 1892:38
- O *g. tigripes* Diakonoff, 1954:187
- N,NL *gloriosa* H. Edwards, 1880:71
superba Barnes and Lindsey, 1922:122 [not *Melittia superba* Rothschild, 1909]
lindseyi Barnes and Benjamin, 1925:14 [replacement name for *Melittia superba* Barnes and Lindsey, 1922]
barnesi Dalla Torre, 1925:138 [replacement name for *Melittia superba* Barnes and Lindsey, 1922]
- N,NL *grandis* (Strecker, 1881:156), *Trochilium*
beckeri Druce, 1892:276
variety *hermosa* Engelhardt, 1946:186
- E *haematopis* Fawcett, 1916:736
- O *hampsoni* Beutenmüller, 1894b:365 [replacement name for *Melittia grandis* Hampson, 1893]
grandis Hampson, [1893a]:203 [not *Trochilium grandis* Strecker, 1881]
- NL *hervei* Le Cerf, 1917:166
- E *hyaloxantha* Meyrick, 1928d:467
- NL *imperator* Rothschild, 1911:45
- O *indica* Butler, 1874:411
bombyliiformis Walker, 1856:69 [not *Sphinx bombyliiformis* Cramer, 1782]
sumatrana Le Cerf, 1916b:8
- E *iridisquama* Mabilie, 1890:34
viridisquama [sic] Dalla Torre and Strand, 1925:149 [misspelling]

- P *japona* Hampson, 1919:91
curyton Bartel, 1912:379 [not *Trochilium curyton*
Westwood, 1848]
- NL *josepha* Le Cerf, 1916b:8
- O *khmer* Le Cerf, 1917:161
chmer Hampson, 1919:93 [emendation]
- O *kulluana* Moore, 1888:392
kuluana [sic] Bartel, 1912:379 [misspelling]
- NL *lagopus* Boisduval, [1875]:475
- E *laniremis* (Wallengren, 1858:84), *Eumallopoda*
laniremis (Wallengren, 1860:41), *Eumallopoda* [re-
description]
lanirenis [sic] Dalla Torre and Strand, 1925:145
[misspelling]
- NL *latimargo* Butler, 1874:410
- E *lentistriata* Hampson, 1919:93
- O *leucogaster* Hampson, 1919:90
- NL *louisa* Le Cerf, 1916b:9
- O *madureae* Le Cerf, 1916b:7
- N,NL *magnifica* Beutenmüller, [1900a]:151
- O *marangana* Le Cerf, 1916b:8
- O *moluccensis* Hampson, 1919:89
- E *natalensis* Butler, 1874:411
aenescens Butler, 1896:134
variety *occidentalis* Le Cerf, 1917:167
- O *nepcha* Moore, 1879b:10
nepha [sic] Dalla Torre and Strand, 1925:146
[misspelling]
- O *n. xanthodes* Diakonoff, 1954:180
- O *newara* Moore, 1879b:10
- NL *nigra* (Le Cerf, 1917:239), *Melittina*
- O *notabilis* Swinhoe, 1890:168
- NL *oberthueri* Le Cerf, 1916b:9
oberthüri Le Cerf, 1916b:9 [incorrect spelling]
- E *oedipus* Oberthür, 1878:30
ignidiscata Hampson, 1910c:507
oedipoides Strand, [1913]:68
ignidiscata aberration *thoracalis* Strand, [1917c]:11
oedipus [sic] Le Cerf, 1917:229 [misspelling]
- NL *pauper* Le Cerf, 1916b:9
- O *pellecta* Swinhoe, 1890:169
- O *phorus* (Westwood, 1848:62), *Trochilium*
- NL *pomponia* Le Cerf, 1911c:297
- NL *powelli* Le Cerf, 1917:210
variety *chrysescens* Schade, 1939:230
- O *proxima* Le Cerf, 1917:186
- NL *pulchripes* Walker, 1856:67
- NL *p. dangeloi* Köhler, 1941:10
d'angeloi Köhler, 1941:10 [incorrect spacing]
- E *pyropis* Hampson, 1919:84
- NL *riograndensis* Brethes, 1920:284
- NL *rufescens* (Le Cerf, 1916b:9) *Premelittia*
- E *rufodorsa* Hampson, 1910a:150
- NL *rugia* Druce, 1910b:180
- O *nutilipes* Walker, [1865]:16
- O *sangaica* Moore, 1877:84
- NL *scoliiformis* Schade, 1938:471
- O *siamica* Walker, [1865]:18
- NL *smithi* Druce, 1889:81
- N,NL *snowii* H. Edwards, 1882a:53
- O *staudingeri* Boisduval, [1875]:478
indica Le Cerf, 1916b:8 [not *Melittia indica* Butler,
1874]
- NL *sulphureopyga* Le Cerf, 1916b:8
- NL *superba* Rothschild, 1909:132
- O *tabanus* Le Cerf, 1916b:9
- NL *tayuyana* Bruch, 1941:161
- E *tibialis* (Drury, 1773:49, index page 1), *Sphinx*
- NL *unbrosa* Zukowsky, 1936b:1251
- E *urusipes* Walker, 1856:68
hirtipes (Boisduval, [1875]:475), *Poderis* [unavail-
able by publication in synonymy]
- E *usambare* Le Cerf, 1917:231
- E *victrix* Le Cerf, 1916b:9
- O *volatilis* Swinhoe, 1890:169
- E *xanthogaster* Hampson, 1919:94
- NL *xanthopus* Le Cerf, 1916b:9
- Desmopoda* Felder, 1874:4 [*D. bombiformis* Felder, 1874]
- O *bombiformis* Felder, 1874:4
- Sesia* Fabricius, 1775:547 [[*Sphinx*] *apiformis* Clerck, 1759]
Trochilium Scopoli, 1777:414 [*Sphinx apiformis*
Linnaeus, 1761 (= [[*Sphinx*] *apiformis* Clerck,
1759])]
- Aegeria* Fabricius, 1807a:288 [[*Sphinx*] *apiformis*
Clerck, 1759]
- Aegeria* Fabricius, 1807b:18 [[*Sphinx*] *apiformis*
Clerck, 1759; redescription]
- Setia* Oken, 1815:745 [rejected, ICZN, 1956]
- Sphecia* Hübner, [1819]:127 [*Sphinx crabroniformis*
Lewin, 1797 (= *Sphinx bembeciformis* Hübner,
1803–06); not *Sphinx crabroniformis* Denis and
Schiffermüller, 1775]
- Setia* Meigen, 1830:103 [emendation]
- Sometia* [sic] Meigen, 1830:115 [misspelling]
- Trochilum* [sic] Walker, 1854:3 [misspelling]
- Trochilia* Speyer & Speyer, 1858:327 [emenda-
tion; preoccupied, Dujardin, 1840 (Ciliata)]
- Sphecodoptera* Hampson, [1893a]:189 [*Sphecia re-
panda* Walker, 1856]
- Glossosphecia* Hampson, 1919:83 [*Sphecia contami-
nata* Butler, 1878]
- Aegina* [sic] Sherborn, 1922:6583 [misspelling]
- Sphecoptera* [sic] Dalla Torre and Strand, 1925:
121 [misspelling]
- Eusphecia* Le Cerf, 1937b:106 [*Sesia pimplaeformis*
Oberthür, 1872]
- Aegenia* [sic] Anon., 1966:81 [misspelling]

- P *agathiformis* (Walker, 1856:34), *Aegeria*
 P *albanensis* Rebel, 1918:86
 H *apiiformis* (Clerck, 1759: pl. 9: fig. 2), [*Sphinx*]
 apiiformis (Linnaeus, 1761:289), *Sphinx*
 vespiformis (Hufnagel, 1766:184), *Sphinx* [not
 Sphinx vespiformis Linnaeus, 1761]
 crabroniformis ([Denis & Schiffermüller], 1775:44),
 Sphinx
 sireciformis (Esper, 1782:208), *Sphinx*
 tenebrioniformis (Esper, 1782:209), *Sphinx*
 vespa (Retzius, 1783:33), *Sphinx*
 aberration brunnea (Caflisch, 1889:269), *Trochilium*
 [sic]
 aberration caflischii (Standfuss, 1892:369), *Trochilium*
 aberration caflischii [sic] (Dalla Torre and Strand,
 1925:131), *Aegeria* [misspelling]
 aberration rhodani (Mouterde, 1954:24), *Aegeria*
 P *asamaensis* (Hampson, 1919:81), *Sphecia* [new com-
 bination]
 asamaiensis [sic] (Dalla Torre and Strand, 1925:
 121), *Sphecia* [misspelling]
 P *bembeciformis* (Hübner, [1803–1806]: pl. 20: fig. 98),
 Sphinx
 crabroniformis (Lewin, 1797:2), *Sphinx* [not *Sphinx*]
 crabroniformis Denis and Schiffermüller, 1775]
 crabroniformis aberration *incognita* (Strand, [1927]:
 282), *Aegeria*
 crabroniforme variety *orophila* (Zukowsky, 1929a:
 20), *Sphecia*
 form *fumosa* (Lempke, 1961:175), *Sphecia*
 P *contaminata* (Butler, 1878:59), *Sphecia*
 P *coryrensis* Rebel, 1918:86
 P *dasypodiformis* (Walker, 1856:12), *Sphecia*
 P *flavicollis* (Hampson, [1893a]:190), *Sphecodoptera*
 P *gloriosa* (Le Cerf, 1914d:421), *Aegeria* [new combi-
 nation]
 mandarina (Le Cerf, 1916b:13), *Sphecia*
 P *gravesi* Rebel, 1927:60
 O *ignicollis* (Hampson, [1893a]:180), *Trochilium* [new
 combination]
 P *melanocephala* Dalman, 1816:217
 laphriaeformis (Hübner, [1824–1825]: pl. 35: fig.
 156), *Sphinx*
 P *molycodope* (Hampson, 1919:82), *Aegeria*
 P *montelli* (Löfqvist, 1922:82), *Aegeria*
 P *oberthueri* (Le Cerf, 1914d:422), *Aegeria*
 oberthüri (Le Cerf, 1914d:422), *Aegeria* [incorrect
 spelling]
 P *pimplaeformis* Oberthür, 1872:486
 maculiferum (Staudinger, 1895a:290), *Trochilium*
 P *przewalskii* (Alpheraky, 1882:18), *Trochilium*
 O *pugnax* (Meyrick, 1926a:266), *Trochilium*
 O *repanda* (Walker, 1856:11), *Sphecia*
 P *rhyngiooides* (Butler, 1881:589), *Sphecia*
 P *romanovi* (Leech, 1889a:591), *Sphecia*
 romanowi [sic] Dalla Torre and Strand, 1925:173
 [misspelling]
 O *sangaica* (Zukowsky, 1932:316), *Aegeria* [new com-
 bination]
 P *scribæ* (Bartel, 1912:379), *Sphecia*
 P *shugnana* (Sheljuzhko, 1943:79), *Sphecia* [new com-
 bination]
 N *tibialis* (Harris, 1839:309), *Trochilium*
 flavitibia (Walker, 1856:67), *Melittia*
 pacificum (H. Edwards, 1881:180), *Trochilium*
 californicum (Neumoegen, 1891:108), *Trochilium*
 minimum (Neumoegen, 1891:108), *Trochilium*
 variety *dyari* (Cockerell, 1908:330), *Aegeria*
 variety *anonyma* (Strand, 1925:124), *Aegeria*
 variety *melanoformis* (Engelhardt, 1946:178), *Ae-
 geria*
 P *timur* (Grum-Grzhimailo, 1893:385), *Trochilium*
 [new combination]
 P *yezoensis* (Hampson, 1919:81), *Aegeria*
 Toleria Walker, [1865]:19 [*T. abiaeformis* Walker, 1865]
 O *abiaeformis* Walker, [1865]:20
 O *sinensis* (Walker, [1865]:1), *Sphecia*
 Calasesia Beutenmüller, 1899b:256 [*Pyrrhotaenia coccinea* Beu-
 tenmüller, 1898]
 N *coccinea* (Beutenmüller, 1898:241), *Pyrrhotaenia*
 Callithia Le Cerf, 1916b:9 [*C. oberthueri* Le Cerf, 1916]
 NL *oberthueri* Le Cerf, 1916b:9
 oberthüri Le Cerf, 1916b:9 [incorrect spelling]
 Osminia Le Cerf, 1917:327 [*O. ferruginea* Le Cerf, 1917]
 Signaphora Engelhardt, 1946:131 [*Carmenta rufi-
 cornis* H. Edwards, 1881]
 NL *ferruginea* Le Cerf, 1917:328
 N,NL *ruficornis* (H. Edwards, 1881:184), *Carmenta*
 minuta (H. Edwards, 1881:185), *Carmenta*
 candescens (H. Edwards, 1882c:123), *Aegeria*
 marcia (Druce, 1889:81), *Tarsopoda*
 Kemneriella Bryk, 1947:96 [*K. malaiseorum* Bryk, 1947]
 O *malaiseorum* Bryk, 1947:96
 Synanthedon Hübner, [1819]:129 [*Sphinx oestriformis* Rottem-
 burg, 1775 (= *Sphinx vespiformis* Linnaeus,
 1761)]
 Conopia Hübner, [1819]:129 [*Sphinx stomoxiformis*
 Hübner, 1790]
 Austrosetia Felder, 1874:2 [*A. semirufa* Felder,
 1874]
 Teinotarsina Felder, 1874:9 [*Sesia longipes* Felder,
 1861]
 Pyrrhotaenia Grote, 1875:174 [*P. floridensis* Grote,
 1875 (= *Aegeria sapygaeformis* Walker, 1856)]

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|----|---|----|---|
| | <i>Ichneumenoptera</i> Hampson, [1893a]:187 [<i>I. auripes</i> Hampson, 1893] | NL | <i>asema</i> Zukowsky, 1936b:1219 |
| | <i>Vespanima</i> Beutenmüller, 1894a:87 [<i>Bembecia sequoiae</i> H. Edwards, 1881] | P | <i>astragali</i> (Joannis, 1909:183), <i>Sesia</i> |
| | <i>Sanninoidea</i> Beutenmüller, 1896:126 [<i>Aegeria existiosa</i> Say, 1823] | E | <i>astyarcha</i> (Meyrick, 1930b:584), <i>Aegeria</i> |
| | <i>Thamnosphex</i> Spuler, 1910:308 [<i>Sphinx culiciformis</i> Linnaeus, 1758] | E | <i>aulographa</i> (Meyrick, 1934a:455), <i>Aegeria</i> |
| | <i>Canopia</i> [sic] Wileman and South, 1918:169 [misspelling] | O | <i>aurania</i> (Druce, 1899:205), <i>Ceratocrema</i> |
| | <i>Scabisa</i> Matsumura, 1931a:1017 [<i>S. taikanensis</i> Matsumura, 1931] | O | <i>aurifera</i> (Hampson, 1919:73), <i>Conopia</i> [new combination] |
| | <i>Ramosia</i> Engelhardt, 1946:22 [<i>Sesia bibionipennis</i> Boisduval, 1869] | O | <i>auripes</i> (Hampson, [1893a]:194), <i>Ichneumenoptera</i> [new combination] |
| | <i>Sylvora</i> Engelhardt, 1946:77 [<i>Trochilium acerni</i> Clemens, 1860] | O | <i>auriplena</i> (Walker, [1865]:13), <i>Aegeria</i> [new combination] |
| | <i>Synathedon</i> [sic] Wolfsberger, 1961:233 [misspelling] | NL | <i>subauratus</i> Le Cerf, 1916b:11 |
| | <i>Tipula</i> Králický and Povolný, 1977:82 [<i>[Sphinx] (Tipula) tipuliformis</i> Clerck, 1759] | NL | <i>auritincta</i> (Wileman and South, 1918:169), <i>Canopia</i> [sic] [new combination] |
| N | <i>acerni</i> (Clemens, 1860a:14), <i>Trochilium acericolum</i> (Germadius, 1874:57), <i>Trochilium tepperi</i> (H. Edwards, 1881:203), <i>Pyrrhotaenia race buscki</i> (Engelhardt, 1946:79), <i>Sylvora</i> | NL | <i>autremonti</i> Le Cerf, 1917:312 |
| N | <i>acerubri</i> Engelhardt, 1925a:64 | NL | <i>basalis</i> (Walker, [1865]:5), <i>Aegeria</i> |
| NL | <i>aequalis</i> (Walker, [1865]:9), <i>Aegeria</i> | NL | <i>benoisti</i> Le Cerf, 1917:299 |
| E | <i>aerincincta</i> (Meyrick, 1928d:466), <i>Aegeria</i> | E | <i>beutenmuelleri</i> Heppner and Duckworth [new name for <i>Sesia albiventris</i> Beutenmüller, 1899] |
| NL | <i>aerosa</i> Zukowsky, 1936b:1236 | N | <i>albiventris</i> (Beutenmüller, 1899a:171), <i>Sesia</i> [not <i>Sesia albiventris</i> Lederer, 1853] |
| P | <i>albanica</i> (Rebel, 1910a:5), <i>Sesia</i> | N | <i>bibionipennis</i> (Boisduval, 1869:64), <i>Sesia</i> |
| NL | <i>albicalcarata</i> (Burmeister, 1878:361), <i>Sesia</i> | | <i>rutilana</i> (H. Edwards, 1881:186), <i>Albuna</i> |
| N | <i>albicornis</i> (H. Edwards, 1881:201), <i>Aegeria</i> | | <i>lupini</i> (H. Edwards, 1881:192), <i>Aegeria</i> |
| E | <i>alenica</i> (Strand, [1913]:70), <i>Trochilium</i> | | <i>perplexa</i> (H. Edwards, 1881:192), <i>Aegeria</i> |
| N | <i>alleri</i> (Engelhardt, 1946:124), <i>Thamnosphex</i> | | <i>impropria</i> (H. Edwards, 1881:193), <i>Aegeria</i> |
| P | <i>andrenaeformis</i> (Laspeyres, 1801:20), <i>Sesia</i> | | <i>aureola</i> (H. Edwards, 1881:194), <i>Aegeria</i> |
| | <i>anthraciniformis</i> (Esper, 1800:29), <i>Sphinx</i> [nomen oblitum; proposed suppression by Kristensen, in press, a] | | <i>neglecta</i> (H. Edwards, 1881:197), <i>Aegeria</i> |
| | <i>anthraciniformis</i> [sic] (Esper, 1800: pl. 44: fig. 1–2), <i>Sphinx</i> [misspelling] | | <i>washingtonia</i> (H. Edwards, 1881:197), <i>Aegeria</i> |
| | <i>andreniformis</i> [sic] (Staudinger, 1861:17), <i>Sesia</i> [misspelling] | | <i>hemizonia</i> (H. Edwards, 1881:198), <i>Aegeria</i> |
| | <i>andraeniformis</i> [sic] (Barrett, 1895:85), <i>Sesia</i> [misspelling] | | <i>madariae</i> (H. Edwards, 1881:201), <i>Aegeria</i> |
| | <i>monedulaeformis</i> Vorbrot, 1913:434 | | <i>hemizonae</i> [sic] Smith, 1891:20 [misspelling] |
| NL | <i>angarodes</i> (Meyrick, 1921a:443), <i>Sesia</i> | P | <i>bicingulata</i> (Staudinger, 1887c:165), <i>Sesia</i> |
| | <i>angarides</i> [sic] (Dalla Torre and Strand, 1925: 109), <i>Conopia</i> [misspelling] | E | <i>bifenestrata</i> Gaede, 1929:521 |
| O | <i>anisozona</i> (Meyrick, 1918b:180), <i>Sesia</i> [new combination] | NL | <i>blaciformis</i> (Walker, 1856:55), <i>Aegeria</i> |
| NL | <i>anomaliiformis</i> (Walker, 1856:47), <i>Aegeria</i> | N | <i>bolteri</i> (H. Edwards, 1883:155), <i>Aegeria</i> |
| NL | <i>apicalis</i> (Walker, [1865]:8), <i>Aegeria</i> | NL | <i>bosqi</i> Köhler, 1941:6 |
| N | <i>arctica</i> (Beutenmüller, 1900c:277), <i>Sesia</i> | | <i>bosqui</i> [sic] Anon., 1972:226 [misspelling] |
| N | <i>arizonensis</i> (Beutenmüller, 1916:372), <i>Gaea</i> | NL | <i>buprestiformis</i> (Walker, 1856:47), <i>Aegeria</i> |
| N | <i>arkansensis</i> Duckworth and Eichlin, 1973b:154 | NL | <i>caeruleifascia</i> (Rothschild, 1911:47), <i>Ichneumenoptera</i> |
| | | O | <i>caerulipes</i> (Hampson, 1900:43), <i>Ichneumenoptera</i> [new combination] |
| | | N | <i>canadensis</i> Duckworth and Eichlin, 1973b:157 |
| | | N | <i>castaneae</i> (Busck, 1913b:102), <i>Sesia</i> |
| | | O | <i>catalina</i> Meyrick, 1926a:267 |
| | | NL | <i>cateraulti</i> Strand, 1925:15 |
| | | P | <i>cephiformis</i> (Ochsenheimer, 1808:169), <i>Sesia</i> |
| | | | <i>laspeyres</i> (Herrich-Schäffer, 1852:49), <i>Sesia</i> |
| | | | <i>fumosa</i> Schütze, 1919:120 |
| | | | <i>ceraca</i> (Druce, 1893:280), <i>Aegeria</i> |
| | | | <i>cerceriformis</i> (Walker, 1856:49), <i>Aegeria</i> |
| | | | <i>ceres</i> (Druce, 1883:31), <i>Aegeria</i> |
| | | | <i>ceropaliformis</i> (Walker, 1856:52), <i>Aegeria</i> |

- O *chalybea* (Walker, 1862b:82), *Aegeria* [new combination]
NL *chea* (Druce, 1899:203), *Aegeria*
E *chlorothyrus* (Meyrick, 1935:557), *Aegeria*
P *chorogi* Sheljuzhko, 1943:80
P *chosensis* (Matsumura, 1931a:1013), *Conopia* [new combination]
N *chrysidiipennis* (Boisduval, 1869:64), *Sesia tacoma* (Beutenmüller, 1898:240), *Sesia race wallowa* (Engelhardt, 1946:30), *Ramosia*
E *chrysonympha* (Meyrick, 1932b:336), *Aegeria*
O *chrysoptera* (Hampson, 1919:82), *Aegeria* [new combination]
O *cirrhozona* Diakonoff, [1968]:222
E *citrura* (Meyrick, 1927b:371), *Aegeria*
NL *cladiiformis* (Walker, 1856:51), *Aegeria*
O *clavicornis* (Walker, [1865]:14), *Aegeria* [new combination]
NL *coccidivora* Duckworth, 1969:487
P *codeti* (Oberthür, 1881:67), *Sesia puigi* (Oberthür, 1881:67), *Sesia pingi* [sic] (Staudinger and Rebel, 1901:402), *Sesia* [misspelling in synonymy]
inversa Le Cerf, 1916a:16
kabyllaria Le Cerf, 1916a:16
aberration *atalus* Le Cerf, 1920:542
variety *maroccana* Le Cerf, 1920:543
variety *almohades* Le Cerf, 1920:544
O *concavifascia* Le Cerf, 1916b:12
P *conopiformis* (Esper, 1782: pl. 31: fig. 1-2), *Sphinx conopiformis* (Esper, 1783:213), *Sphinx* [text]
syrphiformis (Hübner, 1796: pl. 8: fig. 50), *Sphinx nomadaeformis* (Laspeyres, 1801:27), *Sesia*
aberration *lucasi* Le Cerf, 1922b:19
NL *coquimbensis* Ureta, 1956:265
NL *corporalis* (Meyrick, 1930a:260), *Aegeria*
P *cretica* (Rebel, 1916b:143), *Sesia*
P *croaticus* Kranjčev, 1979:27
NL *croesiformis* (Walker, 1856:53), *Aegeria*
P *cruentata* (Mann, 1859:91), *Sesia*
aberration *lugubris* Ragusa, 1923:213
P *cryptica* (Králíček and Povolný, 1977:85), *Aegeria* [new combination]
NL *cubana* (Herrich-Schäffer, 1866:109), *Sesia*
H *culiciformis* (Linnaeus, 1758:493), *Sphinx culex* (Retzius, 1783:33), *Sphinx thynniformis* (Laspeyres, 1801:21), *Sesia*
variety *americana* (Beutenmüller, 1896:136), *Sesia*
aberration *bianulata* Bartel, 1902:317
aberration *flavocingulata* (Spuler, 1910:311), *Trochilium*
aberration *triannulata* (Spuler, 1910:311), *Trochilium*
- A variety *biannulata* [sic] Dalla Torre and Strand, 1925:22 [misspelling]
aberration *albocingulata* Cockayne, 1955:3
NL *cuprefascia* (Miskin, 1892:58), *Trochilium*
E *cyanescens* (Hampson, 1910c:505), *Ichneumonoptera*
P *cyanospira* (Meyrick 1928d:465), *Aegeria*
P *danieli* Capuse, 1973:109
P *danubica* (Králíček, 1975:1), *Aegeria* [new combination]
NL *dasyproctos* (Zukowsky, 1936b:1242), *Conopia*
E *dasyseles* Bradley, 1968:51
NL *deceptura* (Butler, 1874:409), *Aegeria*
N *decipiens* (H. Edwards, 1881:197), *Aegeria*
imperfecta (H. Edwards, 1881:198), *Aegeria*
nicotianae (H. Edwards, 1881:202), *Aegeria*
rubristigma (Kellicott, 1892b:211), *Aegeria*
NL *deserta* (Staudinger, 1887c:166), *Sesia*
NL *dimorpha* Le Cerf, 1916b:12
NL *dinetiformis* (Walker, 1856:48), *Aegeria*
P *diotriaeformis* (Meigen, 1830:122), *Setia* [sic]
N *dominicki* Duckworth and Eichlin, 1973b:158
NL *drucei* Heppner and Duckworth [new name for *Aegeria peruviana* Druce, 1911]
peruviana (Druce, 1911:292), *Aegeria* [not *Sanninoidea peruviana* Rothschild, 1911]
P *duplex* (Staudinger, 1889:21), *Sesia*
O *duporti* Le Cerf, 1927:147
E *erythrogama* (Meyrick, 1934a:455), *Aegeria*
E *erythromma* Hampson, 1919:60
E *ethiopica* (Hampson, 1919:68), *Chamaesphecia* [new combination]
aethiopica (Dalla Torre and Strand, 1925:77), *Chamaesphecia* [emendation]
N *exitiosa* (Say, 1823:216), *Aegeria*
persica (Thomas, 1824:37), *Apis*
pepsidiformis (Hübner, [1827–1831]:32), *Paranthrene*
exitissa [sic] (Kirby, 1871:367), *Aegeria* [misspelling]
xiphiaeformis (Boisduval, [1875]:409), *Sesia*
graefii (H. Edwards, 1881:183), *Sciatoperon*
opalescens (H. Edwards, 1881:199), *Aegeria*
variety *fitchii* (H. Edwards, 1882a:55), *Aegeria*
pacifica (Riley, 1891b:393), *Sannina*
variety *luminosa* (Neumoegen, 1894:331), *Sannina*
variety *edwardsii* (Beutenmüller, [1900b]:160), *Sanninoidea*
graefii [sic] (Beutenmüller, 1900d:254), *Sanninoidea* [misspelling]
graefii [sic] variety *barnesi* (Beutenmüller, 1900d: 254), *Sanninoidea*
graefii variety *barnesi* (Beutenmüller, 1901:272), *Sanninoidea* [redescription]

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| | <i>persicae</i> [sic] (Dalla Torre and Strand, 1925:113), <i>Conopia</i> [misspelling] | NL | <i>guyanensis</i> Le Cerf, 1917:301 variety <i>clara</i> Le Cerf, 1917:303 |
| | aberration <i>fitchi</i> [sic] (Dalla Torre and Strand, 1925:113), <i>Conopia</i> [misspelling] | E | <i>hadassa</i> (Meyrick, 1932b:336), <i>Aegeria</i> |
| E | <i>exochiformis</i> (Walker, 1856:58), <i>Aegeria</i> | NL | <i>hades</i> (Druce, 1889:78), <i>Aegeria</i> |
| NL | <i>fasciculipes</i> (Walker, [1865]:5), <i>Aegeria</i> | NL | <i>haematica</i> Ureta, 1956:266 |
| N | <i>satifera</i> Hodges, 1962:139 | NL | <i>haemorrhoidalis</i> (Fabricius, 1775:549), <i>Sesia</i> [new status] |
| P | <i>ferdinandi</i> Rungg, 1972:671 | NL | <i>halmyris</i> (Druce, 1889:79), <i>Aegeria</i> |
| O | <i>flava</i> (Moore, 1879b:8), <i>Aegeria</i> [new combination] | E | <i>hampsoni</i> Heppner and Duckworth [new name for <i>Lepidopoda auripes</i> Hampson, 1910] |
| O | <i>flavicaudata</i> (Moore, 1887:559), <i>Aegeria</i> [new combination] | | <i>auripes</i> (Hampson, 1910a:152), <i>Lepidopoda</i> [not <i>Ichneumonoptera auripes</i> Hampson, 1893] |
| O | <i>flavicincta</i> (Hampson, [1893a]:195), <i>Ichneumonoptera</i> [new combination] | NL | <i>harti</i> (Druce, 1899:204), <i>Aegeria</i> |
| E | <i>flavipalpis</i> (Hampson, 1910c:505), <i>Lepidopoda</i> | P | <i>hector</i> (Butler, 1878:60), <i>Aegeria</i> |
| O | <i>flavipalpus</i> (Hampson, [1893a]:195), <i>Ichneumonoptera</i> [new combination] | NL | <i>heinrichi</i> Schade, 1938:471 |
| | <i>flavipalpis</i> [sic] (Dalla Torre and Strand, 1925:118), <i>Ichneumonoptera</i> [misspelling] | NL | <i>hela</i> (Druce, 1889:79), <i>Aegeria</i> |
| E | <i>flavipectus</i> (Hampson, 1910a:155), <i>Ichneumonoptera</i> [new combination] | NL | <i>helena</i> (Druce, 1889:80), <i>Aegeria</i> |
| P | <i>flaviventris</i> (Staudinger, 1883:177), <i>Sesia</i> aberration <i>fulva</i> H. Turner, 1928:165 | N | <i>helenis</i> (Engelhardt, 1946:50), <i>Carmenita</i> |
| NL | <i>flavostigma</i> Zukowsky, 1936b:1233 | NL | <i>hemigymna</i> Zukowsky, 1936b:1226 |
| NL | <i>flavostrigata</i> Le Cerf, 1917:298 | NL | <i>hermione</i> (Druce, 1889:79), <i>Aegeria</i> |
| P | <i>formicaeformis</i> (Esper, 1783:216), <i>Sphinx</i> <i>tenthrediniformis</i> (Esper, 1782: pl. 30: fig. 3), <i>Sphinx</i> [not <i>Sphinx tenthrediniformis</i> Denis and Schiffermüller, 1775] | NL | <i>hippolyte</i> (Druce, 1889:80), <i>Aegeria</i> |
| | <i>tenthrediniformis</i> [sic] (Esper, 1782:211 [text]), <i>Sphinx</i> [misspelling] | NL | <i>hispides</i> (Druce, 1889:80), <i>Aegeria</i> |
| | <i>flammens</i> (Haworth, 1803:6), <i>Sphinx</i> | O | <i>houqua</i> (Moore, 1877:83), <i>Aegeria</i> [new combination] |
| | <i>nomadaeformis</i> (Hübner, [1803–1806]: pl. 19: fig. 90), <i>Sphinx</i> [not <i>Slesia nomadaeformis</i> Laspeyres, 1801] | | <i>houqua</i> [sic] (Hampson, 1919:75), <i>Conopia</i> [misspelling] |
| | <i>flammeus</i> [sic] Dalla Torre and Strand, 1925:193 [index, misspelling] | O | <i>hypochalcia</i> Hampson, 1919:60 |
| | form <i>duplex</i> Schneider, 1942:111 | O | <i>ignicauda</i> (Hampson, 1919:74), <i>Conopia</i> |
| | aberration <i>uniformis</i> (Marquardt, 1959:196), <i>Sesia</i> | O | <i>ignifera</i> (Hampson, [1893a]:195), <i>Ichneumonoptera</i> [new combination] |
| N | <i>fulvipes</i> (Harris, 1839:312), <i>Aegeria</i> | NL | <i>infuscata</i> (Le Cerf, 1911c:300), <i>Sesia</i> |
| NL | <i>fulvopyga</i> (Le Cerf, 1911c:301), <i>Sesia</i> | O | <i>insidiosa</i> (Le Cerf, 1911b:93), <i>Sesia</i> |
| E | <i>gabuna</i> (Beutenmüller, 1899a:170), <i>Sesia</i> | E | <i>iris</i> Le Cerf, 1916b:12 |
| P | <i>gaderensis</i> (Králíček & Povolný, 1977:83), <i>Aegeria</i> [new combination] | NL | <i>ischniformis</i> (Walker, 1856:53), <i>Aegeria</i> |
| N,NL | <i>geliformis</i> (Walker, 1856:46), <i>Aegeria</i> | O | <i>javana</i> Le Cerf, 1916b:13 |
| NL | <i>germaini</i> Le Cerf, 1916b:12 | N | <i>kathyae</i> Duckworth & Eichlin, 1977a:193 |
| NL | <i>glyptaformis</i> (Walker, 1856:51), <i>Aegeria</i> | NL | <i>laeta</i> (Walker, 1856:59), <i>Aegeria</i> |
| E | <i>gracilis</i> (Hampson, 1910a:155), <i>Ichneumonoptera</i> [new combination] | NL | <i>laticincta</i> (Burmeister, 1878:361), <i>Sesia</i> |
| NL | <i>guatemalena</i> (Druce, 1883:31), <i>Aegeria</i> | O | <i>laticivora</i> (Meyrick, 1927b:372), <i>Aegeria</i> [new combination] |
| | <i>guatemalana</i> [sic] Dalla Torre and Strand, 1925:28 [misspelling] | NL | <i>laticraspedonis</i> Zukowsky, 1936b:1220 |
| NL | <i>g. melini</i> Bryk, 1953:262 | NL | <i>lecerfi</i> Heppner and Duckworth [new name for <i>Synanthon flavipectus</i> Le Cerf, 1916] |
| E | <i>guineabia</i> (Strand, [1913]:68), <i>Aegeria</i> | | <i>flavipectus</i> Le Cerf, 1916b:12 [not <i>Ichneumonoptera flavipectus</i> Hampson, 1910] |
| | | NL | <i>le moulti</i> Le Cerf, 1917:316 |
| | | E | <i>leptomorpha</i> (Meyrick, 1931a:50), <i>Aegeria</i> |
| | | E | <i>leptoscelis</i> Bradley, 1968:47 |
| | | O | <i>leucocyanea</i> Zukowsky, 1929b:36 |
| | | E | <i>leucogaster</i> (Hampson, 1919:76), <i>Conopia</i> |
| | | | <i>albiventris</i> (Le Cerf, 1917:318), <i>Ichneumonoptera</i> [not <i>Slesia albiventris</i> Beutenmüller, 1899] |

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| O | <i>longipes</i> (Felder, 1861:26), <i>Sesia</i> [new combination] | E | <i>nyanga</i> (Beutenmüller, 1899a:171), <i>Sesia</i> |
| P | <i>loranthi</i> (Králíček, 1966:231), <i>Aegeria</i> | E | <i>olenda</i> (Beutenmüller, 1899a:171), <i>Sesia</i> |
| P | <i>luctuosa</i> (Lederer, 1853:82), <i>Sesia</i> | O | <i>ommatiaeformis</i> (Moore, 1891:16), <i>Sphecia</i> [new combination] |
| NL | <i>macropyga</i> (Le Cerf, 1911c:299), <i>Sesia</i> | O | <i>opalizans</i> (Hampson, 1919:74), <i>Conopia</i> [new combination] |
| E | <i>maculiventris</i> Le Cerf, 1916b:12 | NL | <i>opiiformis</i> (Walker, 1856:51), <i>Aegeria</i> |
| NL | <i>mardia</i> (Druce, 1892:275), <i>Aegeria</i> | O | <i>orientalis</i> Heppner and Duckworth [new name for <i>Sesia uncinata</i> Hampson, 1893] |
| NL | <i>martenii</i> Zukowsky, 1936b:1224 | | <i>uncinata</i> (Hampson, [1893a]:196), <i>Sesia</i> [not <i>Sesia uncinata</i> Herrich-Schäffer, 1851] |
| P | <i>martjanovi</i> Sheljuzhko, 1918:104 | NL | <i>panisciformis</i> (Walker, 1856:55), <i>Aegeria</i> |
| O | <i>melli</i> (Zukowsky, 1929b:34), <i>Aegeria</i> | NL | <i>panurgiformis</i> (Walker, 1856:54), <i>Aegeria</i> |
| N | <i>mellinipennis</i> (Boisduval, 1836: pl. 14: fig. 12), <i>Sesia artemisiae</i> (H. Edwards, 1881:187), <i>Albuna senecoides</i> (H. Edwards, 1881:198), <i>Aegeria senecoides</i> [sic] (Smith, 1891:20), <i>Sesia</i> [misspelling] | E | <i>pauper</i> (Le Cerf, 1916b:13), <i>Sylphidia paupera</i> [sic] (Dalla Torre and Strand, 1925:115), <i>Conopia</i> [misspelling] |
| E | <i>mercattria</i> (Meyrick, 1931a:50), <i>Aegeria</i> | NL | <i>peltastiformis</i> (Walker, 1856:52), <i>Aegeria</i> |
| P | <i>mesiaeformis</i> (Herrich-Schäffer, 1846:74), <i>Sesia masariformis</i> (Meigen, 1830:120), <i>Setia</i> [sic] [not <i>Sesia masariformis</i> Ochsenheimer, 1808] | E | <i>peltata</i> (Meyrick, 1932b:230), <i>Aegeria</i> |
| | <i>mesiiiformis</i> [sic] (Staudinger, 1856:200), <i>Sesia</i> [misspelling] | O | <i>pensilis</i> (Swinhoe, 1892:36), <i>Aegeria</i> [new combination] |
| E | <i>mesochoriformis</i> (Walker, 1856:56), <i>Aegeria</i> | O | <i>pentazona</i> (Meyrick, 1918b:180), <i>Sesia</i> [new combination] |
| P | <i>mimus</i> Le Cerf, 1922b:17 | NL | <i>peruviana</i> (Rothschild, 1911:47), <i>Sanninoidea</i> [new |
| NL | <i>modesta</i> (Butler, 1874:408), <i>Aegeria</i> | O | <i>phasiaeformis</i> (Felder, 1861:26), <i>Aegeria</i> [new combination] |
| E | <i>monogama</i> (Meyrick, 1932b:337), <i>Aegeria</i> | N | <i>pictipes</i> (Grote and Robinson, 1868:182), <i>Aegeria</i> |
| E | <i>monozona</i> (Hampson, 1910a:156), <i>Aegeria</i> | | <i>inusitata</i> (H. Edwards, 1881:201), <i>Aegeria</i> |
| O | <i>moorei</i> Heppner and Duckworth [new name for <i>Aegeria tricincta</i> Moore, 1879] | N | <i>pi</i> (Kellicott, 1881:5), <i>Aegeria</i> |
| | <i>tricincta</i> (Moore, 1879b:8), <i>Aegeria</i> [not <i>Aegeria tricincta</i> Harris, 1839] | P | <i>pipiziformis</i> (Lederer, 1855:195), <i>Aegeria</i> |
| P | <i>moupinicola</i> Strand, 1925:30 | P | <i>pistarcha</i> (Meyrick, 1931a:50), <i>Aegeria</i> |
| O | <i>mushana</i> (Matsumura, 1931a:1013), <i>Conopia</i> [new combination] | NL | <i>pittheis</i> (Druce, 1899:203), <i>Aegeria</i> |
| NL | <i>mydaides</i> Ureta, 1956:263 | | <i>pittheis</i> [sic] Dalla Torre and Strand, 1925:35 [misspelling] |
| P | <i>myopiformis</i> (Borkhausen, 1789:169), <i>Sphinx zonatus</i> (Donovan, 1797:35, pl. 195), <i>Sphinx</i> [not <i>Sphinx zonata</i> Drury, 1770] | NL | <i>plagiophleps</i> Zukowsky, 1936b:1222 |
| | <i>mutillaeformis</i> (Laspeyres, 1801:26), <i>Sesia myopaeformis</i> [sic] Hübner, [1819]:129), <i>Conopia</i> [misspelling] | E | <i>platyuriformis</i> (Walker, 1856:57), <i>Aegeria</i> |
| | <i>elegans</i> (Lederer, 1861:150), <i>Sesia</i> variety <i>graeca</i> (Staudinger, 1870:92), <i>Scapteron myrmosaeformis</i> (Walker, 1856:46), <i>Aegeria nannion</i> Bryk, 1953:263 | NL | <i>plectisciformis</i> (Walker, 1856:49), <i>Aegeria</i> |
| O | <i>nautica</i> (Meyrick, 1932b:229), <i>Aegeria</i> | P | <i>polaris</i> Staudinger, 1877:175 |
| NL | <i>neotropica</i> Heppner and Duckworth [new name for <i>Aegeria flava</i> H. Edwards, 1881] | | <i>aurivillii</i> (Lampa, 1883:127), <i>Sesia</i> |
| | <i>flava</i> (H. Edwards, 1881:189), <i>Aegeria</i> [not <i>Aegeria flava</i> Moore, 1879] | | <i>aurivillii</i> [sic] (Fibiger and Kristensen, 1974:55), <i>Sesia</i> [misspelling in synonymy] |
| P | <i>nigrifrons</i> (Le Cerf, 1911d:244), <i>Sesia</i> | N,NL | <i>polygona</i> (H. Edwards, 1881:202), <i>Pyrrhotaenia fragariae</i> (H. Edwards, 1881:202), <i>Pyrrhotaenia helianthi</i> (H. Edwards, 1881:203), <i>Pyrrhotaenia achillae</i> (H. Edwards, 1881:203), <i>Pyrrhotaenia eremocarpi</i> (H. Edwards, 1881:203), <i>Pyrrhotaenia meadii</i> (H. Edwards, 1881:204), <i>Pyrrhotaenia orthocarpi</i> (H. Edwards, 1881:204), <i>Pyrrhotaenia praestans</i> (H. Edwards, 1882b:98), <i>Aegeria behrensi</i> (H. Edwards, 1882c:123), <i>Pyrrhotaenia animosa</i> (H. Edwards, 1883:156), <i>Pyrrhotaenia elda</i> (H. Edwards, 1885:49), <i>Pyrrhotaenia fragariae</i> variety <i>semipraestans</i> (Cockerell, 1908: 329), <i>Sesia</i> |
| N | <i>novaroensis</i> (H. Edwards, 1881:199), <i>Aegeria piceae</i> (Dyar, 1904:106), <i>Parharmonia brunneri</i> (Busck, 1914a:143), <i>Sesia</i> | | |
| E | <i>nuba</i> (Beutenmüller, 1899a:172), <i>Sesia</i> | | |

| | | |
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| | <i>achillaeae</i> [sic] Dalla Torre and Strand, 1925:9 [misspelling] | |
| | <i>beehrensi</i> [sic] Dalla Torre and Strand, 1925:14 [misspelling] | |
| NL | <i>porizoniformis</i> (Walker, 1856:54), <i>Aegeria</i> | |
| NL | <i>producta</i> (Walker, [1865]:4), <i>Aegeria</i> | |
| NL | <i>proserpina</i> (Druce, 1883:31), <i>Aegeria</i> | |
| N | <i>proxima</i> (H. Edwards, 1881:201), <i>Aegeria</i> <i>modesta</i> (Kellicott, 1892a:46), <i>Albuna</i> [not <i>Aegeria modesta</i> Butler, 1874] | |
| NL | <i>pulchripennis</i> (Walker, [1865]:6), <i>Aegeria</i> | |
| E | <i>pyrethra</i> (Hampson, 1910a:154), <i>Sciapteron</i> | |
| N | <i>pyri</i> (Harris, 1830:2), <i>Aegeria</i> <i>koebelei</i> (H. Edwards, 1881:196), <i>Aegeria</i> | |
| O | <i>pyrodisca</i> (Hampson, 1910b:94), <i>Aegeria</i> | |
| O | <i>pyrosoma</i> Hampson, 1919:61 | |
| NL | <i>pyrosoma</i> (Meyrick, 1918b:180), <i>Sesia</i> | |
| E | <i>pyrostoma</i> (Meyrick, 1927b:372), <i>Aegeria</i> | |
| P | <i>quercus</i> (Matsumura, 1911:86), <i>Sesia</i> <i>niphonica</i> Bartel, 1912:388 <i>chibensis</i> (Matsumura, 1931a:1013), <i>Conopia</i> <i>galloisi</i> (Matsumura, 1931a:1013), <i>Conopia</i> <i>nihonica</i> [sic] (Matsumura, 1931a:1014), <i>Conopia</i> [misspelling] | |
| N | <i>refulgens</i> (H. Edwards, 1881:199), <i>Aegeria</i> <i>marica</i> (Beutenmüller, 1899b:254), <i>Sesia</i> <i>seminole</i> (Beutenmüller, 1899b:255), <i>Sesia</i> <i>marcia</i> [sic] (Dyar, [1903]:370), <i>Sesia</i> [misspelling] | |
| N | <i>resplendens</i> (H. Edwards, 1881:186), <i>Albuna</i> | |
| E | <i>rhodia</i> (Druce, 1899:203), <i>Aegeria</i> | |
| N | <i>rhododendri</i> (Beutenmüller, 1909:82), <i>Sesia</i> | |
| O | <i>rhodothictis</i> (Meyrick, 1918b:179), <i>Sesia</i> | |
| NL | <i>rhyssaeformis</i> (Walker, 1856:50), <i>Aegeria</i> <i>rhyphaeformis</i> [sic] (Walker, 1856:270 [index]), <i>Aegeria</i> [misspelling] | |
| N | <i>richardsi</i> (Engelhardt, 1946:87), <i>Conopia</i> | |
| N | <i>rileyana</i> (H. Edwards, 1881:187), <i>Albuna</i> <i>brunneipennis</i> (H. Edwards, 1881:191), <i>Aegeria</i> <i>hyperici</i> (H. Edwards, 1881:195), <i>Aegeria</i> <i>austini</i> (Engelhardt, 1946:57), <i>Carmenta</i> | |
| NL | <i>romani</i> Bryk, 1953:262 | |
| E | <i>rubripalpis</i> (Meyrick, 1932b:337), <i>Aegeria</i> | |
| O | <i>rubripipes</i> (Pagenstecher, 1900:22), <i>Sesia</i> | |
| E | <i>rubripicta</i> Hampson, 1919:61 | |
| N | <i>rubrofascia</i> (H. Edwards, 1881:191), <i>Aegeria</i> <i>rubofascia</i> [sic] (Duckworth & Eichlin, 1973a:26), <i>Aegeria</i> [misspelling] | |
| NL | <i>rufa</i> (Butler, 1883:58), <i>Aegeria</i> | |
| P | <i>rufibasalis</i> (Bartel, 1906a:190), <i>Sesia</i> | |
| NL | <i>ruficaudis</i> (Walker, [1865]:6), <i>Aegeria</i> | |
| NL | <i>santanna</i> (Kaye, 1924:427), <i>Aegeria</i> | |
| N | <i>sapygaeformis</i> (Walker, 1856:45), <i>Aegeria</i> <i>floridensis</i> (Grote, 1875:174), <i>Pyrrhotaea</i> | |
| N | <i>saxifragae</i> (H. Edwards, 1881:190), <i>Aegeria</i> | |
| NL | <i>henshawii</i> (H. Edwards, 1882a:56), <i>Aegeria</i> | |
| P | <i>scarabitis</i> (Meyrick, 1921a:444), <i>Sesia</i> | |
| NL | <i>schwarzi</i> (Králíček and Povolný, 1977:91), <i>Aegeria</i> [new combination] | |
| N | <i>sciophilaeformis</i> (Walker, 1856:49), <i>Aegeria</i> | |
| N | <i>scitula</i> (Harris, 1839:313), <i>Aegeria</i> <i>gallivorum</i> (Westwood, 1854:757), <i>Trochilium</i> <i>hospes</i> (Walsh, 1867:270), <i>Trochilium</i> <i>corusca</i> (H. Edwards, 1881:193), <i>Aegeria</i> <i>aemula</i> (H. Edwards, 1883:155), <i>Aegeria</i> | |
| P | <i>scoliaeformis</i> (Borkhausen, 1789:173), <i>Sphinx</i> <i>scoliiformis</i> [sic] (Speyer and Speyer, 1858:329), <i>Sesia</i> | |
| | <i>emphytiformis</i> (Herrich-Schäffer, 1846:75), <i>Sesia</i> | |
| NL | <i>scythropa</i> Zukowsky, 1936b:1232 | |
| NL | <i>sellustiformis</i> (Druce, 1883:30), <i>Aegeria</i> <i>salustiformis</i> [sic] Dalla Torre and Strand, 1925: 41 [misspelling] | |
| E | <i>semirufa</i> (Felder, 1874:2), <i>Astrosetia</i> | |
| NL | <i>semitrista</i> Zukowsky, 1936b:1236 | |
| NL | <i>senta</i> (Druce, 1883:30), <i>Aegeria</i> | |
| N | <i>sequoiae</i> (H. Edwards, 1881:181), <i>Bembecia</i> <i>superba</i> (H. Edwards, 1881:181), <i>Bembecia</i> <i>pinorum</i> (Behrens, 1889:163), <i>Aegeria</i> | |
| P | <i>serica</i> (Alpheraky, 1882:21), <i>Sesia</i> | |
| E | <i>setodiformis</i> (Mabille, 1891:174), <i>Sesia</i> | |
| N | <i>signoidea</i> (Beutenmüller, 1897:214), <i>Sesia</i> | |
| O | <i>simois</i> (Druce, 1899:201), <i>Aegeria</i> [new combination] | |
| P | <i>sodalis</i> Püngeler, 1912:383 | |
| P | <i>spheciiformis</i> ([Denis and Schiffermüller], 1775:306), <i>Sphinx</i> | |
| | <i>sphegiformis</i> (Fabricius, 1787:99), <i>Sphinx</i> | |
| | <i>ichneumoniformis</i> (Borkhausen, 1789:43), <i>Sphinx</i> [not <i>Sphinx ichneumoniformis</i> Denis & Schiffermüller, 1775] | |
| | <i>oxibiliformis</i> (Boisduval, 1840:42), <i>Sesia</i> [nomen nudum] | |
| | <i>sphaeciiformis</i> [sic] Dalla Torre and Strand, 1925: 46 [misspelling] | |
| O | <i>sphenodes</i> Diakonoff, [1968]:223 | |
| P | <i>spuleri</i> (Fuchs, 1908:33), <i>Sesia</i> | |
| E | <i>stenothyris</i> (Meyrick, 1933b:416), <i>Aegeria</i> | |
| P | <i>stomoxiformis</i> (Hübner, 1790:93), <i>Sphinx</i> <i>culiciformis</i> (Scopoli, 1763:188), <i>Sphinx</i> [not <i>Sphinx culiciformis</i> Linnaeus, 1758] | |
| | <i>stomoxiformis</i> [sic] (Schrank, 1801:234), <i>Sesia</i> [misspelling] | |
| O | <i>variety amasina</i> (Staudinger, 1856:209), <i>Sesia</i> | |
| | <i>subtilima</i> (Bryk, 1947:108), <i>Conopia</i> [new combination] | |
| NL | <i>surinamensis</i> (Möschler, 1878:631), <i>Sesia</i> | |
| NL | <i>tabogana</i> (Druce, 1883:31), <i>Aegeria</i> <i>tobogana</i> [sic] Dalla Torre and Strand, 1925:55 [misspelling] | |

- O *taikanensis* (Matsumura, 1931a:1017), *Scabisa*
- P *talischensis* (Bartel, 1906b:169), *Sesia*
- P *tenuis* (Butler, 1878:60), *Aegeria*
- O *tenuiventris* Le Cerf, 1916b:12
- NL *tetranoma* (Meyrick, 1932b:337), *Aegeria*
- O *theobroma* (Bradley, 1957:67), *Conopia* [new combination]
- NL *theobromae* (Busck, 1910:242), *Sesia*
- P *theryi* Le Cerf, 1916a:16
- NL *tineosphecia* Zukowsky, 1936b:1232
- C *tipuliformis* (Clerck, 1759: pl. 9: fig. 1), [*Sphinx*]
 salmachus (Linnaeus, 1758:493), *Sphinx* [nomen oblitum; proposed suppression by Kristensen, in press, b]
 tipula (Retzius, 1783:33), *Sphinx*
 myopaeformis aberration *bicingulata* (Rebel, 1910c: 466), *Sesia* [not *Sesia bicingulata* Staudinger, 1887]
- E *trithrys* (Meyrick, 1926a:266), *Aegeria*
- NL *tryphoniformis* (Walker, 1856:48), *Aegeria*
- NL *tucumana* (Le Cerf, 1911c:300), *Sesia*
- P *typhiaeformis* (Borkhausen, 1789:174), *Sphinx*
 typhiiformis [sic] (Speyer and Speyer, 1858:332), *Sesia* [misspelling]
 tiphiaeformis Dalla Torre and Strand, 1925:49 [emendation]
- P *unocingulata* Bartel, 1912:383
- P *uralensis* (Bartel, 1906b:169), *Sesia*
- O *uranauges* (Meyrick, 1926a:266), *Aegeria* [new combination]
- E *vasseri* (Le Cerf, 1917:337), *Aegeria*
- P *velox* (Fixsen, 1887:323), *Sesia*
- NL *ventralis* (Druce, 1911:292), *Aegeria*
- O *versicolor* Le Cerf, 1916b:12
- P *vespiformis* (Linnaeus, 1761:289), *Sphinx*
 asiliformis (Rottemburg, 1775:108), *Sphinx*
 oestriformis (Rottemburg, 1775:109), *Sphinx*
 cynipiformis (Esper, 1783:214), *Sphinx*
 sesia (Gmelin, 1789:2389), *Sphinx*
 chrysorrhoea (Donovan, 1795:21), *Sphinx*
 melliniformis (Laspeyres, 1801:19), *Sesia*
 aberration *rufimarginata* (Spuler, 1910:310), *Trochilium*
 tabaniformis form *sangaica* (Bartel, 1912:380), *Paranthrene*
 aberration *polycincta* Le Cerf, 1922b:19
 form *quadriannulata* Schnaider, 1942:110
 form *quadriannulata-rufimarginata* Schnaider, 1942:110
 vespiformis [sic] Kranjčev, 1979:27 [misspelling]
- N *viburni* Engelhardt, 1925a:65
- NL *votaria* (Meyrick, 1921a:444), *Sesia*
 votaria [sic] (Dalla Torre and Strand, 1925:117), *Conopia* [misspelling]
- NL *wagneri* (Le Cerf, 1911c:298), *Sesia*
- NL *whitelyi* (Druce, 1899:204), *Aegeria*
- NL *xanthomelanina* Zukowsky, 1936b:1241
- NL *xanthoneura* Zukowsky, 1936b:1220
- NL *xanthonympha* (Meyrick, 1921a:443), *Sesia*
- E *xanthopyga* (Aurivillius, 1905:45), *Sesia*
- O *xanthosoma* Hampson, [1893a]:195), *Ichneumonoptera* [new combination]
 xanthosome [sic] (Dalla Torre and Strand, 1925: 202) [index], *Ichneumonoptera* [misspelling]
- O *xanthosticta* (Hampson, [1893a]:197), *Sesia* [new combination]
- O *xanthozonata* (Hampson, 1895:282), *Sciapteron*
- Chamaesphecia* Spuler, 1910:311 [*Sphinx empiformis* Esper, 1783 (= *Sphinx tenthrediniformis* Denis and Schiffermüller, 1775)]
- P *adelpha* Le Cerf, 1938:98
- P *arerifrons* (Zeller, 1847b:415), *Sesia*
 variety *sardoa* (Staudinger, 1856:281), *Sesia*
 meriiformis [sic] (Rambur, [1866]:152), *Sesia* [misspelling]
- P *aestivata* Králiek, 1969:115
- P *affinis* (Staudinger, 1856:278), *Sesia*
 leucospidiformis [sic] (Lederer, 1853:84), *Sesia* [misspelling for *Sphinx leucopsisformis* Esper, 1800; misdetermination]
- P *albiventris* (Lederer, 1853:82), *Sesia*
- P *almanea* (Rebel, 1917:275), *Sesia*
- P *alysoniformis* (Herrich-Schäffer, 1846:73), *Sesia*
 trivittata (Zeller, 1847a:13), *Sesia*
 alyoniformis [sic] (Failla-Tedaldi, 1890:29), *Sesia* [misspelling]
- P *anatolica* Schwingenschuss, 1938:175
- P *annellata* (Zeller, 1847b:415), *Sesia*
 masariformis variety *oxybeliformis* (Herrich-Schäffer, 1846:69), *Sesia*
- P *aseliana* [sic] (Heydenreich, 1851:20), *Sesia* [misspelling]
- P *ortalidiformis* (Lederer, 1853:68), *Sesia* [nomen nudum]
- P *ceriaeformis* (Lederer, 1853:85), *Sesia* [not *Sesia ceriaeformis* Lucas, 1849]
- P *anellata* [sic] (Lederer, 1853:86), *Sesia* [misspelling]
- P *muscinaeformis* (Walker, 1856:33), *Aegeria*
 variety *ceriiformis* [sic] (Staudinger, 1861:18), *Sesia* [misspelling]
- P *minorata* (Staudinger, 1894:253), *Sesia*
 form *ledererii* Bartel, 1912:404
- P *clermonti* Le Cerf, 1914a:62
- P *ortaliformis* [sic] Dalla Torre and Strand, 1925: 197 [index; misspelling]
- P *anthracias* Le Cerf, 1937b:84
- P *anthraciformis* (Rambur, 1832:266), *Sesia*

- allantiformis* (Newman, 1832b:79), *Trochilium*
monedulaeformis (Boisduval, 1840:43), *Sesia* [no-
men nudum]
agriliiformis (Walker, 1856:16), *Aegeria*
joppiformis (Staudinger, 1856:325), *Sesia*
- P *anthrax* Le Cerf, 1916a:15
- P *armeniaca* (Bartel, 1906b:170), *Sesia*
- P *atlantis* Schwingenschuss, 1935:106
- NL *atramentaria* Zukowsky, 1950:22
- NL *aurata* (H. Edwards, 1881:190), *Aegeria*
- P *aurifera* (Romanoff, 1885:116), *Sesia*
- P *azonos* (Lederer, 1855:194), *Sesia*
- P *balcanica* Zukowsky, 1929a:21
- P *bibioniformis* (Esper, 1800:30), *Sphinx*
philanthiformis (Herrich-Schäffer, 1846:69), *Sesia*
[not *Sesia philanthiformis* Laspeyres, 1801]
- P *boisduvali* Bartel, 1912:404 [replacement name for
Sesia mysiniformis Boisduval, 1840]
mysiniformis (Boisduval, 1840:42), *Sesia* [nomen
nudum; not *Sesia mysiniformis* Rambur, 1866]
- P *borreyi* Cerf, 1922a:133
- NL *borsanii* Köhler, 1953:21
- P *brandti* Le Cerf, 1937b:82
- NL *breyeri* Köhler, 1941:7
- P *chalceiformis* (Esper, [1803–1804]:44), *Sphinx*
chalcidiformis (Hübner, [1803–1806]): pl. 19: fig.
93), *Sphinx* [new synonymy]
prosopiformis (Ochsenheimer, 1808:146), *Sesia*
[new synonymy]
halictiformis (Herrich-Schäffer, 1846:78), *Sesia*
[new synonymy]
- crabroniformis* variety *caucasica* (Kolenati, 1846:
91), *Sesia* [new synonymy]
- expleta* (Staudinger, 1878:310), *Sesia* [new syn-
onymy]
- chalcidiformis* aberration *albotarsata* (Staudinger
and Rebel, 1901:406), *Sesia* [new synonymy]
- P *chrysoneura* Püngeler, 1912:399
melanophleps Zukowsky, 1935:40 [new synonymy]
- P *cirgis* Bartel, 1912:408
- E *clathrata* Le Cerf, 1917:291
- P *colpiformis* (Staudinger, 1856:267), *Sesia*
- P *consobrina* Le Cerf, 1938:94
- P *corsica* (Staudinger, 1856:274), *Sesia*
philanthiformis (Rambur, 1833:53), *Sesia* [not *Sesia*
philanthiformis Laspeyres, 1801]
meriaeformis (Boisduval, 1840:42), *Sesia* [nomen
nudum]
venatensis (Joannis, 1908:758), *Sesia*
- P *crassicornis* Bartel, 1912:409
- P *cryptiformis* (Walker, 1856:59), *Aegeria* [new combi-
nation]
- O *cyanopasta* (Hampson, 1910b:93), *Aegeria*
- P *deltaica* Popescu-Gorj and Capuse, 1965:341
- P *djakonovi* Popescu-Gorj and Capuse, 1966:862
- P *doleriformis* (Herrich-Schäffer, 1846:69), *Sesia*
dolerilinea [sic] Dalla Torre and Strand, 1925:88
[misspelling]
- P *doryceraeformis* (Lederer, 1853:87), *Sesia*
sefid Le Cerf, 1938:95 [new synonymy]
- P *doryliformis* (Ochsenheimer, 1808:141), *Sesia*
euceraeformis (Herrich-Schäffer, 1846:79), *Sesia*
[not *Sesia euceraeformis* Ochsenheimer, 1816]
icteropus (Zeller, 1847b:403), *Sesia* [not *Sesia icter-
opus* Herrich-Schäffer, 1846]
- schmidtii* (Zeller, 1847b:408), *Sesia*
- euglossaeformis* (Lucas, 1849:368), *Sesia*
- ceriaeformis* (Lucas, 1849:369), *Sesia*
- braconiformis* (Ghiliani, 1852:216), *Sesia* [not *Sesia*
braconiformis Herrich-Schäffer, 1846]
- miniacea* (Oberthür, 1876:31), *Sesia* [not *Sesia min-
iacea* Lederer, 1853]
- teriolensis* (Staudinger, 1894:251), *Sesia*
- erythrostigma* (Staudinger and Rebel, 1901:405),
Sesia [unavailable by publication in syn-
onymy]
- variety *teroliensis* [sic] (Staudinger and Rebel,
1901:405), *Sesia* [misspelling]
- unicolor* (Ragusa, 1904:114), *Sesia*
- ceriaeformis* aberration *xanthia* (Le Cerf, 1911a:
17), *Sesia*
- variety *chimena* (Le Cerf, 1916a:13), *Pyropteron*
- variety *bellieri* (Le Cerf, 1916a:13), *Pyropteron*
- variety *tingitana* (Le Cerf, 1916a:13), *Pyropteron*
- form *intermedia* (Le Cerf, 1916a:13), *Pyropteron*
- form *funebris* (Le Cerf, 1916a:14), *Pyropteron*
- form *melanina* (Le Cerf, 1916a:14), *Pyropteron*
- form *subceriaeformis* (Le Cerf, 1916a:14), *Pyropteron*
- aberration *xanthia* (Le Cerf, 1916a:14), *Pyropteron*
[redescription]
- form *tristis* (Le Cerf, 1916a:14), *Pyropteron*
- form *fatma* (Le Cerf, 1916a:14), *Pyropteron*
- form *aureasiana* (Le Cerf, 1916a:14), *Pyropteron*
- variety *andalusica* (Le Cerf, 1920:414), *Pyropteron*
- variety *chretieni* (Le Cerf, 1920:425), *Pyropteron*
- aberration *flavina* (Le Cerf, 1920:431), *Pyropteron*
- variety *maghrebica* (Le Cerf, 1920:440), *Pyropteron*
- doriliformis* [sic] Dalla Torre and Strand, 1925:88
[misspelling]
- doryliformis* *euglossaeformis* form *androchroma* (Le
Cerf, 1934:11), *Pyropteron*
- inexpectata* (Le Cerf, 1938:93), *Pyropteron* [new syn-
onymy]
- P *dumonti* Le Cerf, 1922b:35
- P *elampiformis* (Herrich-Schäffer, 1846:78), *Sesia*
mandana (Le Cerf, 1938:92), *Pyropteron* [new syn-
onymy]
- P *empinaeformis* (Walker, 1856:33), *Aegeria*

- P *erodiiphaga* Dumont, 1922:215
- P *euceraeformis* (Ochsenheimer, 1816:171), *Sesia stelidiformis* (Freyer, 1836:141), *Sesia* [new synonymy]
- icteropus* (Herrich-Schäffer, 1846:68), *Sesia* [new synonymy]
- unicincta* (Herrich-Schäffer, 1851: pl. 10: fig. 57), *Sesia* [new synonymy]
- herrickii* (Staudinger, 1856:264), *Sesia* [new synonymy]
- stelidiformis* form *amygdaloidis* Schleppnik, 1933: 24 [new synonymy]
- P *fenusaeformis* (Lederer, 1853:84), *Sesia leucopsisformis* (Herrich-Schäffer, 1846:73), *Sesia* [not *Sphinx leucopsisformis* Esper, 1800]
- P *ferganae* Sheljuzhko, 1924:184
- fergana* [sic] Dalla Torre and Strand, 1925:94 [misspelling]
- P *festai* Turati, 1925:5
- P *foeniformis* (Herrich-Schäffer, 1846:78), *Sesia phoeniformis* (Failla-Tedaldi, 1883:250), *Sesia* [emendation]
- phaeniformis* [sic] Dalla Torre and Strand, 1925: 94 [misspelling]
- P *fredi* Le Cerf, 1938:99
- P *guriensis* (Emich von Emöke, 1872a:63), *Sesia guriensis* (Emich von Emöke, 1872b:41), *Sesia* [redescription]
- P *haberhaueri* (Staudinger, 1879:308), *Sesia*
- P *infernalis* Sheljuzhko, 1935:64
- P *iranica* Le Cerf, 1937c:173
- P *kautzi* Reisser, 1930:104
- P *koshantschikovi* Püngeler, 1914:54
- P *lahayei* (Oberthür, 1888:28), *Sesia oryssiformis* (Staudinger and Rebel, 1901:405), *Sesia* [not *Sesia oryssiformis* Herrich-Schäffer, 1846]
- P *lanipes* (Lederer, 1863:20), *Sesia*
- P *lecerfi* (Oberthür, 1909:186), *Sesia*
- le cerfi (Oberthür, 1909:186), *Sesia* [incorrect spacing]
- E *lemur* Le Cerf, 1957:99
- P *leuconemis* Le Cerf, 1938:100
- P *leucomelaena* (Zeller, 1847b:410), *Sesia therevaeformis* (Lederer, 1853:83), *Sesia*
- P *leucoparea* (Lederer, 1871:13), *Sesia*
- P *leucopsisformis* (Esper, 1800:25), *Sphinx alysaeformis* (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
- foenusaeformis* (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
- leucospidiformis* [sic] (Staudinger, 1854:57), *Sesia* [misspelling; not *Sesia leucospidiformis* [sic] Lederer, 1853]
- P *leucophiiformis* [sic] (Walker, 1856:32), *Sphinx* [mis-spelling in synonymy]
- P *loewii* (Zeller, 1847a:14), *Sesia*
- P *variety minor* (Staudinger, 1856:214), *Sesia*
- P *mannii* (Lederer, 1853:88), *Sesia*
- P *margiana* Püngeler, 1912:400
- P *masariformis* (Ochsenheimer, 1808:173), *Sesia culiciformis* (Sulzer, 1776:152), *Sphinx* [not *Sphinx culiciformis* Linnaeus, 1758]
- banchiformis* (Hübner, [1808–1813]: pl. 27: fig. 126), *Sphinx*
- allantiformis* (Eversmann, 1844:104), *Sesia* [not *Trochilium allantiformis* Newman, 1832]
- odynieriformis* (Herrich-Schäffer, 1846:63), *Sesia*
- pompiliformis* (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
- P *maurusia* Püngeler, 1912:412
- P *micro Le Cerf*, 1916a:15
- P *minianiformis* (Freyer, 1845:35), *Sesia chrysidiiformis* (Herrich-Schäffer, 1846:77), *Sesia*
- pepsiformis* (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
- eumeniformis* (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
- miniacea* (Lederer, 1853:89), *Sesia*
- miniacea* variety *pepsiformis* (Lederer, 1853:90), *Sesia*
- destituta* (Staudinger, 1894:253), *Sesia*
- nigrobarbata* Rebel, 1916b:144
- aberration *friesei* Niculescu, 1960:4
- NL *minima* Le Cerf, 1916b:12
- P *mirza* Le Cerf, 1938:97
- P *modica* Le Cerf, 1938:95
- P *monspliensis* (Staudinger, 1856:223), *Sesia tengraiformis* (Boisduval, 1840:42), *Sesia* [nomen nudum]
- P *montandoni* Le Cerf, 1922b:37
- P *moreau* (Le Cerf, 1911e:334), *Sesia*
- P *morosa* Le Cerf, 1937c:175
- P *multilata* (Staudinger, 1887a:67), *Sesia*
- P *myrsinites* Pinker, 1954:182
- P *mysiniformis* (Rambur, [1866]:151), *Sesia*
- P *obraztsovi* Sheljuzhko, 1943:81
- P *oryssiformis* (Herrich-Schäffer, 1846:79), *Sesia*
- P *osmiaeformis* (Herrich-Schäffer, 1848:pl. 9: fig. 52), *Sesia*
- P *stelidiformis* (Zeller, 1947b:406), *Sesia* [not *Sesia stelidiformis* Freyer, 1836]
- P *zelleri* (Lederer, 1853:69), *Sesia*
- P *floricola* (Oberthür, 1881:67), *Sesia*
- P *agnes* (Oberthür, 1890:26), *Sesia*
- P *palustris* Kautz, 1927:1
- P *pechi* (Staudinger, 1887b:30), *Sesia*
- NL *penthetria* Zukowsky, 1936b:1240

- P *philanthiformis* (Laspeyres, 1801:31), *Sesia muscaeformis* (Vieweg, 1789:18), *Sphinx* [not *Sphinx muscaeformis* Esper, 1783; new synonymy]
occidentalis (Joannis, 1908:758), *Sesia* [new synonymy]
- NL *pluto* Zukowsky, 1936b:1240
- P *powelli* Le Cerf, 1920:507
- P *proximata* (Staudinger, 1891:244), *Sesia*
variety *fallax* (Staudinger, 1891:245), *Sesia*
- P *pudorina* (Staudinger, 1881:396), *Sesia*
- P *pygmaea* (Rebel, 1899:360), *Pyropteron* [new combination]
- P *ramburi* (Staudinger, 1866:53), *Sesia*
- P *regula* (Staudinger, 1891:246), *Sesia*
- P *rondouana* Le Cerf, 1922b:32
rondonana [sic] Dalla Torre and Strand, 1925:104
[misspelling]
- P *schmidtii* (Freyer, 1836:140), *Sesia*
prosopiformis (Herrich-Schäffer, 1846:78), *Sesia*
[not *Sesia prosopiformis* Ochsenheimer, 1808]
rubriformis (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
schenkellaeformis (Heydenreich, 1851:20), *Sesia*
[unavailable by publication in synonymy]
schmidtii (Lederer, 1853:69), *Sesia* [not *Sesia schmidtii* Zeller, 1847]
- P *seitzi* (Püngeler, 1905b:129), *Sesia*
suprema (Oberthür, 1907b:331), *Sesia*
louisae (Le Cerf, 1915:54), *Dipsosphecia*
phoenix (Le Cerf, 1925:210), *Pyropteron*
louisae form *pallipes* (Le Cerf, 1925:211), *Pyropteron*
louisae form *aicha* (Le Cerf, 1925:211), *Pyropteron*
major (Rothschild, 1925b:336), *Pyropteron*
- P *sevenari* Liphay, 1961:213
aberration *schmidtii* Liphay, 1961:217
- E *seyrigi* Le Cerf, 1957:98
- P *staudingeri* (Failla-Tedaldi, 1890:28), *Sesia*
- P *taediiformis* (Freyer, 1836:142), *Sesia*
astatiformis (Herrich-Schäffer, 1846:70), *Sesia*
[new synonymy]
thyreiformis (Herrich-Schäffer, 1846:72), *Sesia*
[new synonymy]
- P *tenthrediniformis* ([Denis and Schiffermüller], 1775:
30), *Sphinx*
empiformis (Esper, 1783:215), *Sphinx*
bombyciformis (Geoffroy, 1785:252), *Sphinx*
muscaeformis (Borkhausen, 1789:35), *Sphinx* [not *Sphinx muscaeformis* Esper, 1783]
variety *schizoceriformis* (Kolenati, 1846:92), *Sesia*
schiroceriformis [sic] (Heydenreich, 1851:20), *Sesia*
[misspelling]
empiformis variety *hungarica* (Tomala, 1901:47),
Sesia
empiformis variety *hungarica* (Tomala, 1902:13),
Sesia [redescription]
empiformis aberration *flavoabdominalis* Popescu-Gorj, 1955:1100 [new synonymy]
- P *thomyris* Le Cerf, 1938:101
- O *tritonias* Hampson, 1919:68
- P *turbida* Le Cerf, 1936b:84
- P *umbrifera* (Staudinger, 1870:96), *Sesia*
- P *xantho* Le Cerf, 1937b:87
- P *zimmermanni* (Lederer, 1871:16), *Sesia*
- Ceritypetes Bradley, 1956:203 [*C. idiotropha* Bradley, 1956]
- E *idiotropha* Bradley, 1856:203
- Weismanniola Naumann, 1971:31 [*Sesia agdistiformis* Staudinger, 1866; replacement name for *Weismannia Spuler, 1910*]
Weismannia Spuler, 1910:317 [*Sesia agdistiformis* Staudinger, 1866; preoccupied, Tutt, 1904 (Sphingidae)]
Weismannia [sic] Hampson, 1919:51 [mispelling]
- P *agdistiformis* (Staudinger, 1866:54), *Sesia*
- Palmia Beutenmüller, 1896:123 [*Sciapteron praecedens* H. Edwards, 1883]
- N *praecedens* (H. Edwards, 1883:155), *Sciapteron*
- Podosesia Möschler, 1879:246 [*Grotea longipes* Möschler, 1876
(= *Aegeria syringae* Harris, 1839); replacement name for *Grotea* Möschler, 1876]
Grotea Möschler, 1876:312 [*G. longipes* Möschler, 1876; preoccupied, Cresson, 1864 (Hymenoptera)]
- N *aureocincta* Purrington and Nielsen, 1977:906
- E *surodes* Hampson, 1919:63
- N *syringae* (Harris, 1839:311), *Aegeria*
longipes (Möschler, 1876:313), *Grotea*
denudatum (Osborn, 1881:108), *Aegeria* [not *Trochilium denudatum* Harris, 1839]
fraxini (Lugger, 1891:109), *Trochilium*
- Sannina Walker, 1856:63 [*S. uroceriformis* Walker, 1856]
Saunina [sic] Boisduval, [1875]:465 [misspelling]
- Sospita H. Edwards, 1882a:57 [*Aegeria quinquecaudata* Ridings, 1862 (= *Sannina uroceriformis* Walker, 1856); preoccupied, Rafinesque, 1815 (Ctenophora)]
- Phemonoe H. Edwards, 1882b:97 [*Aegeria quinquecaudata* Ridings, 1862; replacement name for *Sospita* H. Edwards, 1882]
- N *uroceriformis* Walker, 1856:64
quinquecaudata (Ridings, 1862:277), *Aegeria*
uroceripennis Boisduval, [1875]:465, *Saunina* [sic]
- Scalarignathia Capuse, 1973:112 [*S. kaszabi* Capuse, 1973]
- P *kaszabi* Capuse, 1973:114
- Diakonoffia Niculescu, 1969:33 [*Synanthedon chrysostetha* Diakonoff, 1968]
- O *chrysostetha* (Diakonoff, [1968]:221), *Synanthedon*
- Carmenta H. Edwards, 1881:184 [*Aegeria pyralidiformis* Walker, 1856]

- N,NL *albociliata* (Engelhardt, 1925c:215), *Synanthedon anthracipennis* (Boisduval, [1875]:392), *Sesia sanborni* H. Edwards, 1881:185
morula (H. Edwards, 1881:196), *Aegeria apache* Engelhardt, 1946:54
- N *arizonae* (Beutenmüller, 1898:240), *Sesia armasata* (Druce, 1892:275), *Aegeria* [new combination]
- N *auritincta* (Engelhardt, 1925c:216), *Synanthedon bassiformis* (Walker, 1856:39), *Aegeria lustrans* (Grote, 1880:213), *Trochilium aureopurpurea* (H. Edwards, 1880:72), *Aegeria bollii* (H. Edwards, 1881:191), *Aegeria sexfasciata* (H. Edwards, 1881:193), *Aegeria consimilis* (H. Edwards, 1881:194), *Aegeria eupatorii* (H. Edwards, 1881:195), *Aegeria imitata* (H. Edwards, 1881:196), *Aegeria aureopurpurea* [sic] (Smith, 1891:20), *Sesia* [misspelling]
bollii [sic] (Smith, 1891:20), *Sesia* [misspelling]
- A *chrysophanes* (Meyrick, 1886b:689), *Sesia panyasis* (Druce, 1899:201), *Aegeria caetia* (Druce, 1899:202), *Aegeria melanocera* (Hampson, 1919:71), *Conopia commoni* Duckworth and Eichlin, 1974:31
- N *corni* (H. Edwards, 1881:190), *Aegeria infirma* (H. Edwards, 1881:195), *Aegeria engelhardti* Duckworth and Eichlin, 1973b:158
- N,NL *giliae* (H. Edwards, 1881:200), *Aegeria vitrina* (Neumoegen, 1891:109), *Albuna deceptiva* (Beutenmüller, 1894a:93), *Aegeria race woodgatei* Engelhardt, 1946:61
- N *ithaca* (Beutenmüller, 1897:215), *Sesia mariona* (Beutenmüller, 1900d:254), *Sesia mariona* (Beutenmüller, 1901:308), *Sesia* [redescription]
- N,NL *mimuli* (H. Edwards, 1881:200), *Aegeria torrancia* Engelhardt, 1946:56
- N *odda* Duckworth and Eichlin, 1977a:195
- N *ogalala* Engelhardt, 1946:73
- N,NL *pallene* (Druce, 1889:80), *Aegeria* [new combination]
- N *phoradendri* Engelhardt, 1946:51
- N,NL *prosopis* (H. Edwards, 1882b:99), *Aegeria pyraliformis* (Walker, 1856:44), *Aegeria nigella* (Hulst, 1881:75), *Sesia variety aurantis* Engelhardt, 1946:47
- N *querci* (H. Edwards, 1882b:98), *Aegeria quercis* [sic] (H. Edwards, 1888:224), *Aegeria* [misspelling]
comes (Heinrich, 1920:79), *Podosesia quercus* [sic] (Dalla Torre and Strand, 1925:38), *Synanthedon* [misspelling; not *Sesia quercus* Matsumura, 1911]
- N,NL *rubricincta* (Beutenmüller, 1909:84), *Sesia subaerea* (H. Edwards, 1883:156), *Pyrrhotaenia suffusata* Engelhardt, 1946:74
- N *tecta* (H. Edwards, 1882a:56), *Aegeria texana* (H. Edwards, 1881:204), *Pyrrhotaenia wittfeldii* (H. Edwards, 1883:156), *Pyrrhotaenia verecunda* (H. Edwards, 1881:190), *Aegeria nigra* Beutenmüller, 1894a:95
- N *florissantella* (Cockerell, 1908:330), *Sesia florisantella* [sic] (Dalla Torre and Strand, 1925:24), *Synanthedon* [misspelling]
hirsuta (Engelhardt, 1946:172), *Euhagena welchelorum* Duckworth and Eichlin, 1977b:175
- N,NL *wellerae* Duckworth and Eichlin, 1976:304
- A *xanthogyna* (Hampson, 1919:54), *Lepidopoda Penstemonia* Engelhardt, 1946:14 [*Aegeria edwardsii* Beutenmüller, 1894]
- N *clarkei* Engelhardt, 1946:18
- N *dammersi* Engelhardt, 1946:19
- N *brevifolia* Engelhardt, 1946:21
- N *edwardsii* (Beutenmüller, 1894a:92), *Aegeria utahensis* (Beutenmüller, 1909:83), *Sesia hennei* Engelhardt, 1946:16
- Alcathoe H. Edwards, 1882a:53 [*Aegeria caudata* Harris, 1839]
Acalthoe [sic] Riley and Howard, 1891:219 [misspelling]
Alcothoe [sic] Patch, 1908:358 [misspelling]
- NL *altera* Zukowsky, 1937:1258
- N *carolinensis* Engelhardt, 1925b:156
autumnalis Engelhardt, 1946:105
- N *caudata* (Harris, 1839:311), *Aegeria cordata* [sic] Riley and Howard, 1891:220, *Acalthoe* [sic] [misspelling]
aberration walkeri Neumoegen, 1894:331
race annettella Engelhardt, 1946:103
- NL *korites* (Druce, 1884:34), *Sannina leucopyga* Bryk, 1953:264
- NL *melini* Bryk, 1953:266
- N *pepsioides* Engelhardt, 1925b:157
- NL *variety atra* Engelhardt, 1925b:158
race ferrugata Engelhardt, 1946:105
- N,NL *verruco* (Druce, 1884:34), *Sannina variety corvinus* Engelhardt, 1946:107
- Hymenoclea Engelhardt, 1946:98 [*Sesia palmii* Beutenmüller, 1902]
- N,NL *palmii* (Beutenmüller, 1902:126), *Sesia palmi* [sic] (Barnes and McDunnough, 1918:178), *Gaea* [misspelling]
- Bembecia Hübner, [1819]:128 [*Sphinx ichneumoniformis* Denis and Schiffermüller, 1775 (= *Sphinx scopigera* Scopoli, 1763)]

- Pyropteron* Newman, 1832b:75 [*Sphinx chrysidiiformis* Esper, 1782]
Pyropteron Agassiz, 1846:319 [emendation]
Dipsosphecia Püngeler, 1910:316 [*Sphinx ichneumoniformis* Denis and Schiffmüller, 1775 (=*Sphinx scopigera* Scopoli, 1763)]
Dipsosphecia [sic] Le Cerf, 1920:269 [misspelling]
Dipsosphecia [sic] Dalla Torre and Strand, 1925: 67 [misspelling]
Dipsosphecia [sic] Wolfsberger, 1961:233 [misspelling]
- P *alaica* (Püngeler, 1912:395), *Dipsosphecia*
P *auricauata* (Bartel, 1912:393), *Dipsosphecia*
P *balkis* (Le Cerf, 1937a:42), *Pyropteron* [new combination]
P *barbara* (Bartel, 1912:390), *Dipsosphecia*
P *bestianaeli* Capuse, 1973:121
P *biedermannii* Le Cerf, 1925:210), *Pyropteron* [new combination]
P *bohatschi* (Püngeler, [1905a]:268), *Sesia*
P *ceiformis* (Staudinger, 1881:395), *Sesia*
P *chrysidiiformis* (Esper, 1782:210), *Sphinx haemorrhoidalis* (Cyrillo, 1787: pl. 4: fig. 3), *Sphinx polistiformis* (Boisduval, 1840:41), *Sesia* [nomen nudum]
cerceriformis (Heydenreich, 1851:20), *Sesia* [unavailable by publication in synonymy]
chalcochremis (Staudinger, 1856:323), *Sesia*
variety *turanica* (Erschoff, 1874:26), *Sesia*
aberration *gallica* (Bartel, 1902:293), *Sesia*
form *nigripes* (Le Cerf, 1909:118), *Sesia*
form *obturata* (Le Cerf, 1909:118), *Sesia*
variety *joannisi* (Le Cerf, 1909:118), *Sesia*
form *infusca* (Le Cerf, 1909:119), *Sesia*
variety *sicula* (Le Cerf, 1922b:27), *Pyropteron*
aberration *melanoxanthia* (Le Cerf, 1922b:28), *Pyropteron*
variety *castiliana* (Le Cerf, 1922b:29), *Pyropteron*
aberration *margaritosa* (Le Cerf, 1922b:30), *Pyropteron*
variety *chlorotica* (Le Cerf, 1922b:30), *Pyropteron*
aberration *anthracias* (Le Cerf, 1922b:31), *Pyropteron*
aberration *melanoxantha* [sic] (Dalla Torre and Strand, 1925:76), *Pyropteron* [misspelling]
form *servens* (Bytinski-Salz, [1937]:198), *Pyropteron*
aberration *lecerfi* (Schawerda, 1938:584), *Chamaesphecia*
NL *chrysomelaena* (Le Cerf, 1916b:11), *Pyropteron*
P *dancaudani* Capuse, 1973:119
NL *deipyta* (Druce, 1883:30), *Aegeria*
P *dioctriformis* (Romanoff, 1884:74), *Sesia*
dioctriformis [sic] Dalla Torre and Strand, 1925: 192 [index; misspelling]
- P *dispar* (Staudinger, 1891:243), *Sciapteron*
variety *oberthuri* (Le Cerf, 1916a:12), *Dipsosphecia* [incorrect spelling]
variety *dumonti* (Le Cerf, 1920:371), *Dipsosphecia deniba* (Le Cerf, 1934:11), *Dipsosphecia* [new synonymy]
P *flavida* (Oberthür, 1890:24), *Sesia sirphiformis* (Staudinger and Rebel, 1901:403), *Sesia* [not *Sesia sirphiformis* Lucas, 1849]
O *fortis* Diakonoff, [1968]:234
P *grunerii* (Staudinger, 1856:197), *Sciapteron grunerii* [sic] form *norma* (Le Cerf, 1914d:423), *Dipsosphecia*
P *hannemanni* Capuse, 1973:115
P *himmighoffeni* (Staudinger, 1866:51), *Sesia*
P *hymenopteriformis* (Bellier, 1860:681), *Sesia*
variety *algeriensis* (Le Cerf, 1911a:15), *Sesia*
aberration *ducellieri* (Le Cerf, 1911a:15), *Sesia*
algarica [sic] (Le Cerf, 1920:269), *Dipsosphecia* [sic] [misspelling]
aberration *fulusororcula* (Zukowsky, 1936a:534), *Dipsosphecia*
variety *luticornis* (Mariani, 1937:8), *Dipsosphecia ili* Capuse, 1973:124
P *jakuta* (Herz, 1904:19), *Sesia*
P *kalarytana* (Sheljuzhko, 1924:183), *Dipsosphecia* [new combination]
P *lasicera* (Hampson, 1906:495), *Trochilium*
P *lomatiaeformis* (Lederer, 1853:89), *Sesia*
megillaformis (Hübner, [1808–1813]: pl. 24: fig. 14), *Sphinx*
variety *tunetana* (Le Cerf, 1920:305), *Dipsosphecia montis* (Leech, 1889a:592), *Sesia*
muscaeformis (Esper, 1783:217), *Sphinx* [not *Sphinx muscaeformis* Vieweg, 1789]
P *ninae* (Sheljuzhko, 1935:53), *Dipsosphecia* [new combination]
P *palariformis* (Lederer, 1858:141), *Sesia*
variety *rubrescens* (Staudinger, 1887b:29), *Dipsosphecia nazir* (Le Cerf, 1938:103), *Dipsosphecia* [new synonymy]
nazir form *rubefacta* (Le Cerf, 1938:103), *Dipsosphecia*
P *parthica* (Lederer, 1870:27), *Sesia*
P *polyzona* (Püngeler, 1912:394), *Dipsosphecia*
P *powelli* (Le Cerf, 1925:211), *Dipsosphecia* [new combination]
P *romanovi* (Bartel, 1912:392), *Dipsosphecia*
P *rondoui* (Siepi, 1909:117), *Sesia*
P *roseiventris* (Bartel, 1912:393), *Dipsosphecia*
rothschildi (Bartel, 1912:393), *Dipsosphecia*
sareptana (Bartel, 1912:395), *Dipsosphecia*

- P *schwingenschussi* (Le Cerf, 1937c:172), *Dipsosphecia* [new combination]
- P *scopigera* (Scopoli, 1763:188), *Sphinx ichneumoniformis* ([Denis and Schiffermüller], 1775:44), *Sphinx vespiformis* (Hübner, 1796: pl. 6: fig. 39–40), *Sphinx* [not *Sphinx vespiformis* Linnaeus, 1761] *systrophaeformis* (Hübner, [1808–1813]: pl. 24: fig. 113), *Sphinx ophioniformis* (Hübner, [1808–1813]: pl. 27: fig. 127), *Sphinx palpina* (Dalman, 1816:129), *Sesia rhagioniformis* (Hübner, [1819]:129), *Sphinx statiformis* (Freyer, 1836:142), *Sesia ichneumoniformis* aberration *lugubris* (Staudinger, 1871:40), *Sesia ichneumoniformis* variety *illustris* (Rebel, 1901a: 403), *Sesia ichneumoniformis* variety *aprya* (Le Cerf, 1937b:89), *Dipsosphecia*
- P *senilis* (Grum-Grzhimailo, 1890:515), *Sesia sirphiformis* (Lucas, 1849:367), *Sesia syrphiformis* [sic] (Dalla Torre and Strand, 1925: 67), *Dipsosphecia* [misspelling; not *Sphinx syrphiformis* Hübner, 1796]
- P *splendida* (Staudinger, 1891:242), *Sciapteron stiziformis* (Herrich-Schäffer, 1851: pl. 10: fig. 58), *Sesia* *stiziforme* variety *melasomon* (Staudinger, 1871:39), *Sciapteron* form *astyages* (Le Cerf, 1938:92), *Dipsosphecia strandi* (Kozhanchikov, 1936:26), *Dipsosphecia* [new combination]
- P *tancrei* (Püngeler, [1905a]:269), *Sesia teleta* (Le Cerf, 1916b:11), *Dipsosphecia*
- P *tenebrosa* (Püngeler, 1914:53), *Dipsosphecia* [new combination]
- P *tengyraformis* (Herrich-Schäffer, 1851: pl. 10: fig. 59), *Sesia sanguinolenta* (Lederer, 1853:81), *Sesia* form *miranda* (Le Cerf, 1914d:423), *Dipsosphecia triannuliformis* (Freyer, 1845:35), *Sesia meriaeformis* (Assmann, 1845:47), *Sesia bracconiformis* (Herrich-Schäffer, 1846:68), *Sesia philanthiformis* (Lederer, 1853:87), *Sesia* [not *Sesia philanthiformis* Laspeyres, 1801]
- P *tristis* (Staudinger, 1895b:349), *Sesia tshimgana* (Sheljuzhko, 1935:53), *Dipsosphecia* [new combination]
- P *turcmena* (Bartel, 1912:396), *Dipsosphecia*
- P *uroceriformis* (Treitschke, 1834:121), *Sesia* *crabroniformis* (Fabricius, 1793:383), *Sesia* [not *Sphinx crabroniformis* Denis and Schiffermüller, 1775]
- mamertina (Zeller, 1847b:404), *Sesia odyneriformis* (Ghiliani, 1852:216), *Sesia* [not *Sesia odyneriformis* Herrich-Schäffer, 1846] variety *athaliaeformis* (Boisduval, [1875]:411), *Sesia* [unavailable by publication in synonymy] variety *armoricana* (Oberthür, [1907a]:1), *Sesia* variety *atlantica* (Le Cerf, 1920:271), *Dipsosphecia* variety *nigricornis* (Mariani, 1937:8), *Dipsosphecia vidua* (Staudinger, 1889:22), *Sesia viguraea* (Püngeler, 1912:394), *Dipsosphecia vulcanica* (Pinker, [1969]:75), *Dipsosphecia* [new combination]
- P *wagneri* (Püngeler, 1912:395), *Dipsosphecia Euryphrissa* Butler, 1874:409 [*Aegeria plumipes* Walker, 1865]
- NL *plumipes* (Walker, [1865]:8), *Aegeria*
- NL *syngenica* Zukowsky, 1936b:1246
- Aegerina* Le Cerf, 1916b:11 [*Aegeria ovinia* Druce, 1896]
- NL *alotriochora* Zukowsky, 1936b:1245
- NL *alomyaeformis* Zukowsky, 1936b:1245
- NL *mesostenos* Zukowsky, 1936b:1245
- NL *ovinia* (Druce, 1896:324), *Aegeria vignae* Busck, 1929:134
- Lepidopoda* Hampson, 1900:44 [*L. heterogyna* Hampson, 1900]
- O *andrepiclera* Hampson, 1910b:94
- andrepicta* [sic] Dalla Torre and Strand, 1925:5 [misspelling]
- andrepictura* Dalla Torre and Strand, 1925:5 [emendation]
- O *heterogyna* Hampson, 1900:44
- NL *homotropha* Meyrick, 1921a:443
- NL *infra* Meyrick, 1921a:442
- O *lutescens* Diakonoff, [1968]:224
- E *pictipes* Hampson, 1919:54
- E *sylphina* Hampson, 1919:55
- E *sylvestralis* Viette, [1955]:90
- O *tenuimarginata* (Hampson, [1893a]:193), *Sciapteron*
- E *xanthopimplaeformis* Viette, [1955]:89
- Leptaegeria* Le Cerf, 1916b:11 [*L. flavocastanea* Le Cerf, 1916]
- NL *axiomnemoneuta* Zukowsky, 1936b:1242
- NL *cillutincariensis* Zukowsky, 1936b:1243
- NL *costalimai* Köhler, 1953:21
- NL *flavocastanea* Le Cerf, 1916b:11
- NL *schreiteri* Köhler, 1941:8
- Chamanthedon* Le Cerf, 1916b:12 [*C. hypochroma* Le Cerf, 1916]
- O *albicincta* Hampson, 1919:65
- E *amorpha* Hampson, 1919:67
- NL *aurantiibasis* (Rothschild, 1911:46), *Aegeria brillians* (Beutenmüller, 1899a:172), *Sesia*
- E *chalypsa* Hampson, 1919:67
- E *chrysopasta* Hampson, 1919:65
- P *coreacola* Matsumura, 1931a:1012
- E *critheis* (Druce, 1899:202), *Aegeria*

- E *elymais* (Druce, 1899:202), *Aegeria*
 O *flavipes* (Hampson, 1893b:60), *Aegeria*
 E *fulvipes* (Hampson, 1910c:506), *Lepidopoda*
 NL *gaudens* (Rothschild, 1911:46), *Aegeria*
 E *heliotoma* Meyrick, 1926a:267
 E *hilariformis* (Walker, 1856:57), *Aegeria*
 O *hypochroma* Le Cerf, 1916b:12
 E *leucocera* Hampson, 1919:66
 E *leucopleura* Hampson, 1919:67
 O *melanoptera* Le Cerf, 1927:149
 E *ochracea* (Walker, [1865]:10), *Aegeria*
 O *quinquecincta* (Hampson, [1893a]:196), *Sesia*
 E *striata* Gaede, 1929:523
 E *tapeina* Hampson, 1919:67
 E *tiresa* (Druce, 1899:202), *Aegeria*
 E *tropica* (Beutenmüller, 1899a:172), *Sesia*
 E *xanthopasta* Hampson, 1919:66
 O *xanthopleura* Le Cerf, 1916b:12
Chimaerosphicia Strand, [1916]:46 [*C. aegerides* Strand, 1916]
 O *aegerides* Strand, [1916]:46
 O *cocolchelyna* Bryk, 1947:98
Conopsia Strand, [1913]:71 [*C. terminiflava* Strand, 1913]
 E *terminiflava* Strand, [1913]:71
 terminiphora [sic] Dalla Torre and Strand, 1925:4
 [misspelling]
Crinipus Hampson, 1896:277 [*C. leucozonipus* Hampson, 1896]
 E,O *leucozonipus* Hampson, 1896:277
Mimocrypta Naumann, 1971:21 [*Cryptomima hampsoni* Butler, 1902: replacement name for *Cryptomima* Butler, 1902]
 Cryptomima Butler, 1902:50 [*C. hampsoni* Butler, 1902: preoccupied, Meyrick, 1883 (Pyralidae)]
 E *hampsoni* (Butler, 1902:50), *Cryptomima*
Parasesia Le Cerf, 1916b:11 [*P. crystallina* Le Cerf, 1916]
 NL *crystallina* Le Cerf, 1916b:11
Rhipidurina Naumann, 1971:25 [*Rhipidura aurora* F. Philippi, 1859; replacement name for *Rhipidura* F. Philippi, 1859]
 Rhipidura F. Philippi, 1859:1096 [*R. aurora* F. Philippi, 1859; preoccupied, Vigors and Horsfield, 1826 (Aves)]
 Rhipidura R. Philippi, 1860:274 [*R. aurora* R. Philippi, 1860 (= *R. aurora* F. Philippi, 1859); redescription]
 NL *aurora* (F. Philippi, 1859:1096), *Rhipidura*
 aurora (R. Philippi, 1860:275), *Rhipidura* [redescription]
Stenosphicia Le Cerf, 1917:285 [*S. columbica* Le Cerf, 1917]
 NL *columbica* Le Cerf, 1917:286
Pseudalcathoe Le Cerf, 1916b:14 [*P. chatanayi* Le Cerf, 1916]
 Pseudalcathoe Le Cerf, 1916b:14 [incorrect spelling]
 E *aspetura* Meyrick, 1932b:229
 NL *chatanayi* Le Cerf, 1916b:14, *Pseudalcathoe* [sic]
Tarsopoda Butler, 1874:410 [*T. remipes* Butler, 1874]
 NL *remipes* Butler, 1874:410
 lanipes [sic] Dalla Torre and Strand, 1925:135
 [misspelling]
Teleosphicia Le Cerf, 1916b:11 [*T. bibio* Le Cerf, 1916]
 NL *bibio* Le Cerf, 1916b:11
 NL *unicolor* (Walker, [1865]:9), *Aegeria*
Callisphecia Le Cerf, 1916b:13 [*C. oberthueri* Le Cerf, 1916]
 E *bicincta* Le Cerf, 1916b:13
 E *oberthueri* Le Cerf, 1916b:13
 oberthüri Le Cerf, 1916b:13 [incorrect spelling]
 E *puera* Viette, 1957:92
Tipulamima Holland, 1893:183 [*T. flavifrons* Holland, 1893]
 Macrotarsipodes Le Cerf, 1916b:13 [*M. tricinctus* Le Cerf, 1916; new synonymy]
 Tipulomima [sic] Meyrick, 1931a:49 [misspelling]
 E *aristura* Meyrick, 1931a:49, *Tipulomima* [sic]
 E *auronitens* (Le Cerf, 1913b:212), *Sesia* [new combination]
 E *festiva* (Beutenmüller, 1899a:170), *Sesia*
 E *flammipes* (Hampson, 1910a:153), *Macrotarsipus*
 E *flavifrons* Holland, 1893:183
 E *grandidieri* (Le Cerf, 1917:341), *Macrotarsipodes*
 E *haugi* (Le Cerf, 1917:343), *Macrotarsipodes*
 P *hypocalla* Le Cerf, 1937d:409
 E *ivondro* Viette, [1955]:88
 E *malimba* (Beutenmüller, 1899a:172), *Sesia*
 E *nigriceps* Hampson, 1919:57
 E *opalimargo* Le Cerf (1913a:167), *Sesia*
 E *pyrosoma* Hampson, 1919:56
 E *sexualis* (Hampson, 1910a:152), *Macrotarsipus*
 variety *waterloti* (Le Cerf, 1917:341), *Macrotarsipodes*
 E *seyrigi* Viette, [1955]:88
 E *sophax* (Druce, 1899:203), *Aegeria*
 E *tricincta* (Le Cerf, 1916b:13), *Macrotarsipodes*
Episannina Aurivillius, 1905:44 [*E. chalybea* Aurivillius, 1905]
 Sylphidia (Le Cerf, 1911c:305 [*S. perlucida* Le Cerf, 1911])
 E *albifrons* (Hampson, 1910a:151), *Lepidopoda*
 E *chalybea* Aurivillius, 1905:45
 pulchra (Le Cerf, 1916b:13), *Sylphidia*
 E *flavicincta* Hampson, 1919:55
 E *modesta* (Le Cerf, 1916b:13), *Sylphidia*
 E *perlucida* (Le Cerf, 1911c:306), *Sylphidia*
 E *zygaenura* Meyrick, 1933b:416
Camaegeria Strand, 1914:48 [*C. auripicta* Strand, 1914]
 E *auripicta* Strand, 1914:48
Aegerosphecia Le Cerf, 1916b:13 [*A. calliptera* Le Cerf, 1916]

- O *calliptera* Le Cerf, 1916b:13
 O *cyanea* Hampson, 1919:80
 O *fasciata* (Walker, 1862b:83), *Melittia*
 O *fulviventris* Le Cerf, 1916b:13
 O *mysolica* (Walker, [1865]:18), *Melittia*
Aenigmina Le Cerf, 1912b:291 [*A. aenea* Le Cerf, 1912]
 E *aenea* Le Cerf, 1912b:291
 variety *latimargo* Le Cerf, 1912b:292
Lophoceps Hampson, 1919:69 [*L. abdominalis* Hampson, 1919]
 E *abdominalis* Hampson, 1919:69
 E *alenicola* (Strand, [1913]:67), *Aegeria*
 O *cyaniris* Hampson, 1919:70
 E *quinquepuncta* Hampson, 1919:70
 quinquepunctata [sic] Dalla Torre and Strand,
 1925:108 [misspelling]
 O *tetrazona* Hampson, 1919:70
Pseudomelittia Le Cerf, 1917:240 [*P. berlandi* Le Cerf, 1917]
 E *andraenipennis* (Walker, 1856:69), *Melittia*
 andraeniformis [sic] (Boisduval, [1875]:470), *Mel-*
 ittia [misspelling]
 E *berlandi* Le Cerf, 1917:241
 E *cingulata* Gaede, 1929:533
Dasyphicia Hampson, 1919:79 [*Sphecia bombyliformis* Rothschild, 1911]
 O *bombyliformis* (Rothschild, 1911:45), *Sphecia*
 bombiformis [sic] Dalla Torre and Strand, 1925:
 172 [misspelling]
Tradescanticola Hampson, 1919:64 [*Sesia uniformis* Snellen,
 1900]
 O *uniformis* (Snellen, 1900:34), *Sesia*
Hypanthedon Hampson, 1919:62 [*Aegeria marisa* Druce, 1899]
 E *marisa* (Druce, 1899:205), *Aegeria*
 marica [sic] Dalla Torre and Strand, 1925:59
 [misspelling]
Hypomelittia Hampson, 1919:16 [*H. hyaloptera* Hampson,
 1919]
 O *hyaloptera* Hampson, 1919:96
Epitarsipus Le Cerf, 1922b:23 [*E. rufithorax* Le Cerf, 1922]
 E *rufithorax* Le Cerf, 1922b:23
Amphithales Meyrick, 1926a:268 [*A. episcopopa* Meyrick, 1926]
 O *episcopopa* Meyrick, 1926a:268
Malgassesia Le Cerf, 1922b:20 [*M. rufescens* Le Cerf, 1922]
 E *ankaratalis* Viette, 1957:91
 E *pauliani* Viette, [1955]:92
 E *rufescens* Le Cerf, 1922b:21
 E *seyrigi* Viette, [1955]:91
Oligophlebia Hampson, 1893b:61 [*O. nigralba* Hampson, 1893]
 O *amalleuta* Meyrick, 1910b:219
 O *cristata* Le Cerf, 1916b:11
 O *nigralba* Hampson, 1893b:61
 O *subapicalis* Hampson, 1919:52
Metasphecia Le Cerf, 1917:335 [*M. vuilleti* Le Cerf, 1917]
 E *vuilleti* Le Cerf, 1917:335
Micrecia Hampson, 1919:113 [*M. methyalina* Hampson, 1919]
 O *methyalina* Hampson, 1919:113
Microsynanthon Viette, [1955]:94 [*M. ambrensis* Viette, 1955]
 E *ambrensis* Viette, [1955]:94
Monopetalotaxis Wallengren, 1858:135 [*M. wahlbergi* Wallengren,
 1858 (= *Aegeria doleriformis* Walker,
 1856)]
Trochilina Felder, 1874:9 [*T. candescens* Felder,
 1874; preoccupied, Gray, 1867 (Mollusca)]
Felderiola Naumann, 1971:17 [*Trochilina candes-*
 cens Felder, 1874; replacement name for *Tro-*
 chilina Felder, 1874; new synonymy]
 E *candescens* (Felder, 1874:9), *Trochilina*
 E *chalciphora* Hampson, 1919:59
 E *doleriformis* (Walker, 1856:56), *Aegeria*
 wahlbergi Wallengren, 1858:135
 wahlbergi Wallengren, 1860:41 [redescription]
 taylori (Druce, 1899:204), *Aegeria*
 E *pyrocraspis* (Hampson, 1910a:153), *Scapteron*
 O *sinensis* Hampson, 1919:59
Vespanthedon Le Cerf, 1917:329 [*V. cerceris* Le Cerf, 1917]
 E *cerceris* Le Cerf, 1917:330
- ### Genera Unassigned to Subfamily
- Adixoa* Hampson, [1893a]:198 [*Aegeria alterna* Walker, 1865]
 O *alterna* (Walker, [1865]:10), *Aegeria*
 O *soror* Le Cerf, 1916b:10
 O *tomentosa* Schulze, 1908:28
Adixoana Strand, [1913]:69 [*A. auripyga* Strand, 1913]
 E *auripyga* Strand, [1913]:69
Agriomelissa Meyrick, 1931a:51 [*A. gypsospora* Meyrick, 1931]
 E *gypsospora* Meyrick, 1931a:51
Alonina Walker, 1856:62 [*A. rygchiiformis* Walker, 1856]
 Cicinnoscelis Holland, 1893:182 [*C. longipes* Hol-
 land, 1893]
 Cicinoscelis [sic] Dalla Torre and Strand, 1925:
 120 [misspelling]
 E *diformis* Hampson, 1919:78
 E *longipes* (Holland, 1893:183), *Cicinnoscelis*
 E *rygchiiformis* Walker, 1856:63
 rygchiiformis [sic] Boisduval, [1875]:465 [misspell-
 ing]
 rhynchiiformis Hampson, 1919:78 [emendation]
 rhynchiiformis [sic] Dalla Torre and Strand, 1925:
 120 [misspelling]
Anaudia Wallengren, 1863:138 [*A. felderii* Wallengren, 1863]

- Anaudia* Wallengren, 1865:9 [*A. felderri* Wallengren, 1865; redescription]
 E *felderi* Wallengren, 1863:138
 felderi Wallengren, 1865:9 [redescription]
- Aschistophleps* Hampson, [1893a]:200 [*A. lampropoda* Hampson, 1893]
 O *lampropoda* Hampson, [1893a]:200
 O *metachryseis* Hampson, 1895:282
 metachrysis [sic] Dalla Torre and Strand, 1925:4
 [misspelling]
 O *ruficrista* (Rothschild, 1912:122), *Aegeria*
Augangela Meyrick, 1932b:338 [*A. xanthomias* Meyrick, 1932]
 O *xanthomias* Meyrick, 1932b:338
- Caudicornia* Bryk, 1947:104 [*C. xanthopimpla* Bryk, 1947]
 O *xanthopimpla* Bryk, 1947:105
- Conopyga* Felder, 1861:27 [*C. metallescens* Felder, 1861]
 O *metallescens* Felder, 1861:27
- Echidgnathia* Hampson, 1919:97 [*Tinthia vitrifasciata* Hampson, 1910]
 E *vitrifasciata* (Hampson, 1910a:150), *Tinthia*
 vitrifascia [sic] Dalla Torre and Strand, 1925:151
 [misspelling]
- Erectica* Walker, [1865]:20 [*E. fasciata* Walker, 1865]
 NL *fasciata* Walker, [1865]:21
- Erismatica* Meyrick, 1933b:415 [*E. erythropis* Meyrick, 1933]
 E *erythropis* Meyrick, 1933b:415
- Grypopalpia* Hampson, 1919:52 [*G. iridescentia* Hampson, 1919]
 E *iridescentia* Hampson, 1919:53
- Gymnosophistis* Meyrick, 1934a:454 [*G. thrysodoxa* Meyrick, 1934]
 E *thrysodoxa* Meyrick, 1934a:454
- Heterosphecia* Le Cerf, 1916b:9 [*H. myticus* Le Cerf, 1916]
 O *cruentata* (Swinhoe, 1896:359), *Adixoa*
 O *haematochrodes* (Le Cerf, 1912a:54), *Aschistophleps*
 O *melissoides* (Hampson, [1893a]:201), *Aschistophleps*
 O *myticus* Le Cerf, 1916b:9
- Homogyna* Le Cerf, 1911c:303 [*H. alluaudi* Le Cerf, 1911]
 Pyranthrene Hampson, 1919:110 [*P. flammans* Hampson, 1919]
 E *albicincta* Hampson, 1919:112
 E *alluaudi* Le Cerf, 1911c:303
 E *endopyra* (Hampson, 1910a:151), *Tinthia*
 E *flammans* (Hampson, 1919:110), *Pyranthrene*
 E *ignivittata* Hampson, 1919:110
 E *pyrophora* Hampson, 1919:111
 E *sanguicosta* Hampson, 1919:111
 E *spadicicorpus* Prout, 1919:190
 E *xanthophora* (Hampson, 1910a:150), *Tinthia*
- Hovaesia* Le Cerf, 1957:99 [*Sesia donckieri* Le Cerf, 1912]
 E *donckieri* (Le Cerf, 1912a:55), *Sesia*
- Hymenosphecia* Le Cerf, 1917:284 [*H. albomaculata* Le Cerf, 1917]
 E *Hymenophecia* [sic] Le Cerf, 1917:283 [misspelling]
 E *albomaculata* Le Cerf, 1917:284
- Idiopogon* Meyrick, 1934a:456 [*I. uranopla* Meyrick, 1934]
 E *uranopla* Meyrick, 1934a:456
- Isocylindra* Meyrick, 1930b:584 [*I. melitosoma* Meyrick, 1930]
 E *melitosoma* Meyrick, 1930b:584
- Isothamnis* Meyrick, 1935:601 [*Thamnoscelis prisciformis* Meyrick, 1935; replacement name for *Thamnoscelis* Meyrick, 1935]
 Thamnoscelis Meyrick, 1935:558 [*T. prisciformis* Meyrick, 1935; preoccupied, Meyrick, 1928 (Sesiidae)]
 O *prisciformis* (Meyrick, 1935:558), *Thamnoscelis*
- Lenyra* Walker, 1856:71 [*Trochilium ashtaroth* Westwood, 1848]
 O *ashtaroth* (Westwood, 1848:14), *Trochilium*
 tonkiniana Le Cerf, 1927:149 [new synonymy]
 P *simonyi* Rebel, 1931:102
- Lenyrhova* Le Cerf, 1957:97 [*Lenyra heckmanniae* Aurivillius, 1909]
 E *heckmanniae* (Aurivillius, 1909:342), *Lenyra*
- Leuthneria* Dalla Torre, 1925:149 [*Eublepharis ruficincta* Felder, 1874; replacement name for *Eublepharis* Felder, 1874]
 Eublepharis Felder, 1874:4 [*E. ruficincta* Felder, 1874; preoccupied, Gray, 1827 (Reptilia)]
 E *ruficincta* (Felder, 1874:4), *Eublepharis*
- Macroscelesia* Hampson, 1919:84 [*Melittia longipes* Moore, 1877]
 O *longipes* (Moore, 1877:84), *Melittia*
- Macrotarsipus* Hampson, [1893a]:194 [*M. albipunctus* Hampson, 1893]
 Macrolarisipes [sic] Dalla Torre and Strand, 1925:6 [misspelling]
 E *africana* (Beutennüller, 1899a:170), *Sesia*
 belia (Druce, 1910b:181), *Aegeria*
 O *albipunctus* Hampson, [1893a]:194
 albipunctatus [sic] Dalla Torre and Strand, 1925:7 [misspelling]
 E *lioscelis* Meyrick, 1935:557
 E *microthyris* Hampson, 1919:58
- Megalosphecia* Le Cerf, 1916b:13 [*M. gigantipes* Le Cerf, 1916]
 E *callosoma* Hampson, 1919:78
 E *gigantipes* Le Cerf, 1916b:13
 variety *obscura* Le Cerf, 1916b:13
- Melanosphecia* Le Cerf, 1916b:10 [*M. atra* Le Cerf, 1916]
 O *atra* Le Cerf, 1916b:10

- O *auricollis* (Rothschild, 1912:123), *Melittia bouvieri* Le Cerf, 1917:247
- O *dohertyi* Hampson, 1919:96
- A *funebris* (Rothschild, 1911:46), *Melittia*
- Melisophista* Meyrick, 1927b:371 [*M. geraropa* Meyrick, 1927]
- E *geraropa* Meyrick, 1927b:371
- Nyctaegeria* Le Cerf, 1914c:336 [*N. rohani* Le Cerf, 1914]
- E *rohani* Le Cerf, 1914c:336
- Oligophlebiella* Strand, [1916]:49 [*O. polishana* Strand, 1916]
- O *polishana* Strand, [1916]:49
- Pedalonina* Gaede, 1929:528 [*P. semimarginata* Gaede, 1929]
- E *semimarginata* Gaede, 1929:528
- Proaegeria* Le Cerf, 1916b:14 [*P. vouauxi* Le Cerf, 1916]
- E *vouauxi* Le Cerf, 1916b:14
- Rodolphia* Le Cerf, 1911b:92 [*R. hombergi* Le Cerf, 1911]
Rudolfia [sic] Dalla Torre and Strand, 1925:187
[misspelling]
- E *hombergi* Le Cerf, 1911b:92
- Similipepsis* Le Cerf, 1911c:304 [*S. violaceus* Le Cerf, 1911]
Vespaegeria Strand, [1913]:70 [*V. typica* Strand,
1913; new synonymy]
- E *aurea* Gaede, 1929:536
- O *lasiocera* Hampson, 1919:114
- E *typica* (Strand, [1913]:71), *Vespaegeria* [new combination]
- E *violaceus* Le Cerf, 1911c:304
- Sphecosesia* Hampson, 1910b:93 [*S. pedunculata* Hampson,
1910]
- O *aterea* Hampson, 1919:77
- E *brachyptera* Hampson, 1919:77
- O *melanostoma* Diakonoff, [1968]:219
- O *pedunculata* Hampson, 1910b:93
- Thamnoscelis* Meyrick, 1928d:466 [*T. inclemens* Meyrick, 1928]
- O *inclemens* Meyrick, 1928d:466
- Thyranthrene* Hampson, 1919:97 [*Lepidopoda obliquizona*
Hampson, 1910]
- E *metazonata* Hampson, 1919:97
- E *obliquizona* (Hampson, 1910c:506), *Lepidopoda*
- E *squamata* Gaede, 1929:532
- Trichobaptes* Holland, 1893:184 [*T. sexstriata* Holland, 1893
(= *Melittia auristrigata* Plötz, 1880)]
- E *auristrigata* (Plötz, 1880:77), *Melittia*
sexstriata Holland, 1893:184
- Trilochana* Moore, 1879b:9 [*T. scolioides* Moore, 1879]
Scoliomima Butler, 1885:370 [*S. insignis* Butler,
1885]
- O *chalciptera* Hampson, 1919:83
- O *insignis* (Butler, 1885:371), *Scoliomima*
aberration *pseudoinsignis* (Strand, [1917b]:89),
Scoliomima

- O *oberthueri* Le Cerf, 1917:353
oberthüri Le Cerf, 1917:353 [incorrect spelling]
oberthüri variety *boulleti* Le Cerf, 1917:355
- E *phaedrostoma* Meyrick, 1934a:455
- O *scoliooides* Moore, 1879b:10
- O *smaragdina* Diakonoff, 1954:185
- O *triscoliopsis* Rothschild, 1925a:208
- Tyriktaca* Walker, 1862b:83 [*T. apicalis* Walker, 1862]
- O *antiphanova* Meyrick, 1927b:372
- O *apicalis* Walker, 1862b:84
- Uranothyris* Meyrick, 1933b:416 [*U. pterotarsa* Meyrick, 1933]
- E *pterotarsa* Meyrick, 1933b:417
- Xenoses* Durrant, 1924:lxxv [*X. macropus* Durrant, 1924]
- O *macropus* Durrant, 1924:lxxv.

Taxa Excluded from Sesiidae

1. Genera hereby transferred to Glyphipterigidae:
Cotaena Walker, [1865]:21 [*C. mediana* Walker, 1865]
NL *mediana* Walker, [1865]:21
NL *plenella* (Busck, 1914b:61), *Glyphipteryx* [sic] [new combination]
Myrsila Boisduval, [1875]:433 [*M. auripennis* Boisduval, 1875]
NL *auripennis* Boisduval, [1875]:433
2. Genera hereby transferred to Oecophoridae (Stathmopodini):
Arauzona Walker, [1865]:25 [*A. basalis* Walker, 1865]
NL *basalis* Walker, [1865]:26
NL *moorei* Busck, 1913a:88
Bonia Walker, 1862b:83 [*B. unicolor* Walker, 1862]
O *unicolor* Walker, 1862b:83
3. Genera hereby transferred to Dolophsynidae (Dolophsynellidae):
Dolophsynella Fletcher, 1940:18 [*Dolophsyne balteata* Durrant, 1919; replacement name for *Dolophsyne* Durrant, 1919]
Dolophsyne Durrant, 1919:120 [*D. balteata* Durrant, 1919; preoccupied, Prout, 1918 (Notoodontidae: Dioptinae)])
A *balteata* (Durrant, 1919:121), *Dolophsyne*
Tinaegeria Walker, 1856:260 [*T. ochracea* Walker, 1856]
NL *ochracea* Walker, 1856:260
aeneiceps (Felder and Rogenhofer, 1875:9), *Eretmocera*
(There are 5 other species known in *Tinaegeria* from South America).
3. Genus excluded to Heliodinidae (transferred by Naumann, 1971):
Anypoptus Durrant, 1919:120 [*Sphecia tricolor* Rothschild, 1912]

- O *tricolor* (Rothschild, 1912:123), *Sphecia*
4. Genera excluded to Zygaenidae (transferred by Naumann, 1971):
Balataea Walker, [1865]:110 [*B. aegerioides* Walker, 1865]
O *aegerioides* Walker, [1865]:111
Cicinnocnemis Holland, 1893:181 [*C. cornuta* Holland, 1893]
Ninia Walker, 1856:72 [*Sphinx plumipes* Drury, 1782 (= *Cicinnocnemis cornuta* Holland, 1893); preoccupied, Baird and Baird, 1853 (Reptilia)]
E *cornuta* Holland, 1893:181
plumipes (Drury, 1782: pl. 2: fig. 3), *Sphinx* [not *Sphinx plumipes* Drury, 1773 (Arctiidae: Ctenuchinae)]
Toosa Walker, 1856:64 [*T. glaucoptiformis* Walker, 1856]
E *glaucoptiformis* Walker, 1856:65
5. Species hereby excluded to Sphingidae:
NL "Sesia" *gehleni* Closs, 1922:118 [unplaced]
(The type of this species has not been located and the current sphingid genus in which it belongs is also not known).
6. Species hereby excluded to Arctiidae (Ctenuchinae):
P *Aethria leucaspis* (Cramer, 1775:83), *Sphinx leucopsis* [sic] (Dalla Torre and Strand, 1925:96),
Chamaesphecia [misspelling]
N *Cosmosoma omphala* (Say, 1825:42), *Aegeria*

Family CHOREUTIDAE

- CHOREUTIDAE** Stainton, 1859:157 [type-genus: *Choreutis* Hübner, [1825]:373].
- SIMAETHIDAE** Cotes, 1889:700 [type-genus: *Simaethis* Leach, 1815:135 (= *Anthophila* Haworth, 1811)].
- HEMEROPHILIDAE** Busck, 1910:242 [type-genus: *Hemerophila* Hübner, [1817]: pl. 213: fig. 1].
- CHOREUTHIDAE** [sic] Hackman, 1947:71 [misspelling].

DIAGNOSTIC CHARACTERS (Figures 32–39, 63–74, 93–101, 106–107).—Small moths (2–11 mm base to apex forewing length).

Head: Frons smooth scaled; vertex with loosely appressed scales; haustellum scaled at base; maxillary palpus minute, 1- to 2-segmented; labial palpus upcurved, usually with projecting ventral scale tuft on segment 2, sometimes smooth scaled; ocellus present; chaetosema absent; eye large, naked; antenna filiform, with long ventral setae in male, sometimes dorsally heavily scaled.

Thorax: Normal; legs smooth except for tufts by tibial spurs.

Forewing: Rectangular, often with apex somewhat pointed and termen quadrate; opaque, often with metallic iridescent scale spots; Sc to margin at half wing length; radius 5-branched, no stalking but sometimes R2 and R3, as also R4 and R5 in close proximity to one another at end of cell; chorda present, rarely absent; pterostigma present, sometimes vestigial; usually vestigial vein in median cell; median and cubital veins present; CuP present at tornal margin, extended as fold; anal veins reduced to fused A1+A2, basally long-forked; A3 vestigial.

Hindwing: Very little shorter than forewing, pointed, triangular, broader or nearly subequal to forewing; opaque, without hyaline areas; simple frenulum-retinaculum coupling, with usually 3 setae in female frenulum; Sc+R1 fused, to costal margin at apex or $\frac{1}{4}$ from apex; Rs free basally, to apex; all median veins usually present, rarely M3 absent; M3 often stalked with CuA1 from crossvein or slightly after; CuP present at tornal margin, extended as fold; 4 anal veins present; A1+A2 fused, basally forked; A3 distinct; A4 usually long, in close proximity to basal margin.

Abdomen: Normal; no abdominal coremata.

Male Genitalia: Uncus rarely present, usually absent; tegumen developed; socius-like setaceous area present; tuba analis often prominent; gnathos rarely present; valva usually relatively simple, with ventral setal fields, sometimes complex, occasionally bifurcate or fused along anterior margin; vinculum developed; saccus often large, sometimes absent; aedeagus usually with phallo-base; cornutus usually present.

Female Genitalia: Ovipositor usually unspecialized, sometimes floricomous; ostium bursae usually on sternite 7, sometimes on intersegmental membrane between sternites 7 and 8; ductus bursae often sclerotized, sometimes membranous, sometimes spiralled, rarely extremely long and thin; bulla seminalis small; bursa copulatrix usually ovate, sometimes variously modified; signum usually present, sometimes large or absent.

Larva: Head hypognathous; frontoclypeus usually nearly at epicranial notch, sometimes only $\frac{1}{2}$ as long (*Brenthia*); stemmata relatively closely arranged in a rectangular semi-circle, with VI reduced; proleg long and slender; crochets usually in circle, sometimes in lateral penellipse; prothorax with distinct sclerotized shield; L-group trisetose on pinaculum; SD2 distant to SD1; SV setae approximate; meso- and metathorax with L1 close to L2 and distant from L3; abdominal segment 2 with SV setae in triangle; abdominal segments 1–8 with SD2 closer to spiracle than SD1; L2 approximate and antero-ventrad to L1; abdominal segment 8 with D2 setae more distant than D1 setae; usually numerous sclerotized pinacula on thoracic and abdominal segments.

Pupa: Dorsal spines present in one row on abdominal segments 2–7; segments 3–7 in male (3–6 in female) movable; head smooth; maxillary palpus relatively large; appendages free when beyond wing tips; no distinct cremaster but with several long hook-tipped setae on segment 10; pupation in a double-walled fusiform cocoon on leaf surface or leaf axil; protruded at ecdysis.

DISTRIBUTION.—From all faunal regions, with greatest speciation in the Oriental and Australian regions for known species.

CURRENT TAXA.—16 genera, 356 species.

HOSTS.—Aristolochiaceae (*Millieria*); Betulaceae (temperate *Choreutis*); Boraginaceae (*Caloreas*); Compositae (*Asterivora*, *Tebenna*); Ericaceae (temperate *Choreutis*); Fagaceae (*Litobrenthia*); Labiateae (*Prochoreutis*); Leguminosae (*Brenthia*); Moraceae (*Hemerophila*, *Tortyra*, *Rhobonda*, and tropical *Choreutis*); Rosaceae (temperate *Choreutis*); Salicaceae (temperate *Choreutis*); Scrophulariaceae (*Tebenna*); Ulmaceae (temperate *Choreutis*); Umbelliferae (*Tebenna*); Urticaceae (*Anthophila*, *Brenthia*).

DISCUSSION.—The Choreutidae are easily distinguished from other sesioid families by the basally scaled haustellum. The scaled haustellum is present in all species of Choreutidae as here restricted and these scales are generally attached in two rows, one on each galea; only in *Hemerophila* are there fewer scales, and specimens may be

found with the scales removed due to use of the haustellum by the adult. The note by Diakonoff (1977) that some Choreutidae have a naked haustellum involves the inclusion in the family of genera herein restricted to Brachodidae. Choreutidae also typically have metallic iridescent scale markings on the forewings and often have a large scale tuft on the labial palpi.

The choreutids were viewed as tortricid relatives by early nineteenth-century lepidopterists using characters generally of only a superficial nature, although they were soon restricted as a separate group within Tortrices. Stainton (1859) appears to have been the first to segregate them as a separate family, which was alternately followed and ignored over the years by other researchers. Staudinger (1870) was the first to combine the choreutids with the Glyphipterigidae and, after Meyrick (1880; 1914c) stabilized this combination, the two groups have generally been considered as one family, the Glyphipterigidae (auctorum).

The combination of these two unrelated groups was based primarily on the superficial resemblance of wing maculation, probably formed by common adaptive strategies to diurnal adult activity, and on similarities in wing venation. Meyrick and earlier workers, in deriving their assessments of phylogenetic relationships among Lepidoptera families, generally did not use genitalic characters, or a number of fundamental (often internal) morphological characters, or characters of the immature stages. Consequently, the combination of the choreutids and the glyphipterigids occurred and has remained stable until the last few years when comparative study of basic characters has demonstrated that the two groups are actually unrelated (Brock, [1968]; 1971). The characters distinguishing the two families have been discussed by Heppner (1977a) in detail. Briefly stated, the main distinctions segregating them to different superfamilies involve the tineoid abdominal articulation, bisetose larva (prothoracic L-group setae), and nonprotruded pupa of the Glyphipterigidae (*Copromorphoidea*), and the

tortricoid abdominal articulation, trisetose larva, and protruded pupa of the Choreutidae (Sesioidae).

Among the genera here included in Choreutidae, there is a relatively steady progression among several characters from *Litobrenthia* to *Rhobonda*, although until larvae become known for all genera it remains difficult to determine which genus is most advanced within the family. *Litobrenthia* and *Brenthia* appear, however, to be the least advanced choreutid genera in terms of their un-specialized wing venation, yet the genitalia of *Brenthia* have become very complex in most species. The two genera are otherwise isolated within the family and are currently the only genera of the new subfamily Brenthiinae. *Millieria* is Palearctic and possibly closest to *Brenthia* among the Choreutinae, yet even so is still rather distinct and more related to *Prochoreutis*, new name.

Prochoreutis, *Caloreas*, and *Tebenna* are very closely related and are mainly north temperate genera, although a few *Prochoreutis* are known from tropical India and there are Neotropical *Caloreas* and *Tebenna*. *Choreutis* is related to the former three genera but has CuA2 of the forewing distant from the end of the cell and most species lack a scale tuft on the labial palpi. They have speciated to a great extent in the Oriental and Australian regions but also contain a number of species in north temperate regions. *Anthophila* is difficult to place phylogenetically among the other genera of Choreutidae, since it is the only genus with a gnathos in the male, while female characters show tendencies to *Choreutis*. Head morphology, wing venation, and larval characters, however, indicate that the genus is a plesiomorphic member of the Choreutinae. *Anthophila* species, as here restricted, are known primarily from the Holarctic, with only a few species in tropical regions adjacent to temperate areas.

In addition to *Choreutis* the remaining genera are almost exclusively tropical, with *Saptha* in the Oriental and Australian regions and *Tortyra*, *Hemerophila*, *Zodia*, *Melanoxena*, and *Rhobonda* in the Neotropical region. New World "Simaethis" have been newly segregated to appropriate genera in

a recent paper (Heppner, 1977b). *Melanoxena*, *Rhobonda*, *Tortyra*, *Zodia* and *Hemerophila* have the forewing vein CuA2 removed from the distal end of the cell, while this is somewhat less pronounced in *Choreutis* and *Saptha*.

Choreutids are all diurnally active as adults as far as is known and typically are found only in close proximity to their larval host plant. The larvae are virtually all leaf feeders, except for three known exceptions, one each in New Zealand and North America, and the Palearctic leaf-mining *Millieria*. In the North American species, *Tebenna carduiella* (Kearfott), the larvae occur in the stems of thistles, *Carduus* species (Compositae), where they are partially communal. The stems of *Carduus*, however, are hollow and the larvae appear to feed mainly on the inner surface of the stems. The New Zealand choreutid, *Asterivora tillyardi* (Philpott), apparently is within the stem of its host plant, *Raoulia* sp., for larval protection (Dugdale, pers. comm.).

The larval morphology of Choreutidae is relatively well known inasmuch as it is based on the study of examples from several genera, although usually only from a few species of each genus. Features held in common with Brachodidae and Sesiidae include the trisetose L-group of the prothorax (not *Sagalassa* in Brachodidae), the 2 adfrontal setae of the head, and the slender spinneret, to note three main characters. A number of other characters, however, vary from the other two families: the usually long frontoclypeus (short only in Brenthiinae), the more closely spaced stemmata with VI reduced, the sclerotized prothoracic shield, long prolegs with circular crochets in most genera, SV setae of abdominal segment 2 triangular, and L1 close to L2 and distant from L3 on the meso- and metathorax.

These larval characters are also present in Tortricidae and demonstrate the tortricoid aspects of choreutids. The trisetose L-group prothoracic setae and the protruded pupa are the predominant characters that indicate closer relationship to Sesiidae than to yponomeutoid families, while adult characters support this as well. Unlike Brachodidae and Sesiidae, the pupae of Choreutidae have

only single rows of dorsal abdominal spines on segments 2–7, but as in the other two families there are well-developed maxillary palpi. It appears that concurrent with the evolution to external feeding in Choreutidae there were several changes in the appearance and chaetotaxy of choreutid larvae and pupae; features that are perhaps not as important in exophagous larvae as they are in endophagous larvae of the Brachodidae were lost and others were developed.

Most choreutids form typical double-walled cocoons on host leaf surfaces or in a leaf axil, with the cocoon having an inner fluted part of white silk and an outer covering net of thin white silk. One species, *Tortyra slossonia* (Fernald), from Florida, feeds within the unopened leaf buds of *Ficus* and forms a cocoon within the particular bud

occupied by the last larval instar. *Tebenna carduella* makes an emergence hole at leaf axils for frass deposition and cocoon placement.

Several genera of Choreutidae appear to have diverged among distinct plant families; this was summarized for the New World genera by Heppner (1977b).

The subfamily classification used below is innovative and is useful in segregating groups of genera now that the family is known to be distinct from Glyphipterigidae. Previously the subfamily Choreutinae encompassed all choreutids as a subfamily of Glyphipterigidae. The only recent summary of the family has been that of Toll (1956) for Poland.

Some representative Choreutidae adults are illustrated in Figures 14–19.

Key to Subfamilies of Choreutidae

| | |
|--|--------------------|
| Forewings with termen distinctly rounded; chorda absent | BRENTHIINAE |
| Forewings with apex more or less pointed and whole termen more or less quadrate, not distinctly rounded; chorda present (rarely) vestigial | CHOREUTINAЕ |

BRENTHIINAE Heppner, new subfamily

TYPE-GENUS.—*Brenthia* Clemens, 1860b:172.

DIAGNOSTIC CHARACTERS.—Adults with 2–5 mm base to apex forewing length. Characters as for the family but with the following distinctions: labial palpus without large scale tuft on segment 2; forewing with broadly rounded termen; metallic iridescent spots restricted to termen as subterminal band of spots; hindwing iridescent subapical spot often present; veins equidistant in forewings; chorda absent; no vein in median cell; hindwing apex relatively rounded; uncus absent; tuba analis usually prominent; tegumen with setaceous socius-like area; gnathos absent; juxta often complex, with bifurcated prolongations resembling a gnathos, sometimes simple; valva often complex, sometimes fused along anterior margin, or partly bifurcate, rarely simple; saccus reduced, rarely developed; phallobase absent, rarely present; cornutus absent or only as fine spicules; ovipositor often floricomous, sometimes

unspecialized; ostium bursae at posterior margin of sternite 7, as conical projection or cup with central protrusion, sometimes a membranous funnel; ductus bursae membranous, usually exceedingly long, thin, and convoluted, rarely simple, often attached to bursa laterally with ductus seminalis arising from bursa as ductus bursae normally does; bursa copulatrix ovate; signum usually absent. Larva with head distinctly larger than in Choreutinae, very hypognathous with long setae; abdominal segments 1–6 with SD1 closer to spiracle than SD2, subequal on segment 7; D1 setae closer to each other than D2 to each other; D2 on segment 9 very long; crochets in circle. Pupa with noticeably elongated setae.

DISTRIBUTION.—Mostly tropical, centered in the Neotropical, Oriental, and Australian regions.

CURRENT TAXA.—Two genera, 66 species.

Subfamily CHOREUTINAЕ

CHOREUTIDAE Stainton, 1859:157 [type-genus: *Choreutis* Hübner, [1825]:373].

SIMAEETHINAE Cotes, 1889:700 [type-genus: *Simaethis* Leach, 1815:135 (= *Anthophila* Haworth, 1811)].
CHOREUTINAE Walsingham, 1892:529.

DIAGNOSTIC CHARACTERS.—Adults with 3–8 mm base to apex forewing length. Characters as for the family but with the following distinctions: labial palpus usually with more or less prominent ventral scale tuft on segment 2, but sometimes tuft reduced; forewings more or less pointed at apex; metallic iridescent spots usually prominent on forewing; chorda present; vein in median cell or vestigial; hindwing apex more or less pointed; uncus rarely present; gnathos rarely present; tuba analis usually prominent; socius usually as well-developed setaceous area; valva usually simple, sometimes with apical hook and cucullus-like appendage; saccus usually prominent and large; juxta a plate with a basal elongation or a small plate with separate rod to valval base; phallobase present; cornutus present; ovipositor simple with sharply defined distal edges; ostium bursae usually well defined, a cup on sternite 7, at posterior margin of sternite 7, or on intersegmental membrane; ductus bursae often at least partially sclerotized, simple or off-set in attachment to bursa, rarely spiralled; bursa copulatrix ovate to heart-shaped; signum usually present, a spicule band, spicule patch, or fused inwardly projecting spicule line. Larvae with head of normal size relative to Brenthiinae, normal oblique hypognathous with setae of average length; abdominal segments 1–6 with SD2 closer to spiracle than SD1, same on segment 7; D1 setae closer to each other than D2 to each other; D2 on segment 9 of normal length; crochets in circle or lateral penellipse. Pupa with setae of normal length, not noticeably elongate.

DISTRIBUTION.—Temperate Holarctic and in Pantropical areas, with extensive speciation in the Indo-Australian regions.

CURRENT TAXA.—14 genera, 290 species.

Generic Synopsis of Choreutidae

| | Species |
|-------------------------------------|---------|
| BRENTHIINAE | |
| <i>Litobrenthia</i> Diakonoff, 1978 | 3 |

| | |
|---------------------------------------|----|
| <i>Brenthia</i> Clemens, 1860 | 63 |
| CHOREUTINAE | |
| <i>Anthophila</i> Haworth, 1811 | 11 |
| <i>Millieria</i> Ragonot, 1874 | 1 |
| <i>Peotyle</i> Diakonoff, 1978 | 2 |
| <i>Prochoreutis</i> Heppner, new name | 35 |
| <i>Caloreas</i> Heppner, 1977 | 18 |
| <i>Tebenna</i> Billberg, 1820 | 29 |
| <i>Asterivora</i> Dugdale, 1979 | 23 |
| <i>Choreutis</i> Hübner, 1825 | 96 |
| <i>Saptha</i> Walker, 1864 | 18 |
| <i>Tortyra</i> Walker, 1863 | 21 |
| <i>Hemerophila</i> Hübner, 1817 | 27 |
| <i>Zodia</i> Heppner, 1979 | 5 |
| <i>Melanoxena</i> Dognin, 1910 | 1 |
| <i>Rhobonda</i> Walker, 1863 | 3 |

Checklist of Choreutidae

Subfamily BRENTHIINAE

| | |
|---|--|
| <i>Litobrenthia</i> Diakonoff, 1978a:28 [<i>Brenthia japonica</i> Issiki, 1930] | |
| O <i>grammodes</i> Diakonoff, 1979:296 | |
| P <i>japonica</i> (Issiki, 1930:424), <i>Brenthia kiuiensis</i> (Matsumura, 1931a:1078), <i>Choreutis</i> | |
| O <i>stephanephora</i> Diakonoff, 1979:292 | |
| <i>Brenthia</i> Clemens, 1860b:172 [<i>B. pavonacella</i> Clemens, 1860] | |
| <i>Microaethia</i> Chambers, 1878a:76 [<i>M. amphicarpeoceanus</i> Chambers, 1878 (= <i>Brenthia pavonacella</i> Clemens, 1860); unavailable by publication in synonymy] | |
| NL <i>acmogramma</i> Meyrick, 1915b:217 | |
| A,O <i>albimaculana</i> (Snellen, 1875:77), <i>Simaethis hecatea</i> Meyrick, 1907b:109 | |
| NL <i>amatana</i> (Walker, 1863b:451), <i>Simaethis</i> | |
| O <i>anisopa</i> Diakonoff, [1968]:207 | |
| O <i>ardens</i> Meyrick, 1912a:52 | |
| O <i>argyroxantha</i> (Meyrick, 1938a:87), <i>Choreutis</i> [new combination] | |
| NL <i>bicaudella</i> Walsingham, 1914:308 | |
| O <i>buthusalis</i> (Walker, 1863b:454), <i>Simaethis buthalis</i> Meyrick, 1913a:37 [emendation] | |
| A <i>caelicola</i> Meyrick, 1910a:468 | |
| O <i>carola</i> Meyrick, 1912a:53 | |
| O <i>catenata</i> Meyrick, 1907a:748 | |
| NL <i>ceutholychna</i> Meyrick, 1915b:218 | |
| NL <i>confluxana</i> (Walker, 1863b:452), <i>Simaethis</i> | |
| O <i>coronigera</i> Meyrick, 1918c:194 | |
| O <i>cyanula</i> Meyrick, 1912a:53 | |
| O <i>dendronymphia</i> Meyrick, 1937:125 | |
| NL <i>depulsana</i> (Walker, 1863b:452), <i>Simaethis</i> | |
| E <i>dicentrota</i> Meyrick, 1931b:183 | |
| A <i>diplotaphra</i> Meyrick, 1938b:523 | |

- A *elachista* Walsingham, 1900a:76
 O *elatella* (Walker, 1863b:455), *Simaethis*
 NL *episotras* Meyrick, 1920a:335
 NL *eriopsis* Meyrick, 1920a:337
 O *excusana* (Walker, 1863b:455), *Simaethis*
 O *formosensis* Issiki, 1930:425
 E *gamicopis* Meyrick, 1930c:6
 O *harmonica* Meyrick, 1918c:192
 NL *heptacosma* Meyrick, 1920a:336
 NL *hexascelena* Meyrick, 1909a:41
 E *leptocosma* Meyrick, 1916:560
 E *leucatoma* Meyrick, 1918a:36
 O *lithocrossa* Meyrick, 1922:487
 NL *logistis* Meyrick, 1909a:41
 O *luminifera* Meyrick, 1912a:51
 NL *malachitis* Meyrick, 1909a:40
 A *melodica* Meyrick, 1922:487
 O *moniligera* (Meyrick, 1912a:54), *Choreutis* [new combination]
 NL *monynchna* Meyrick, 1915b:218
 P *nephelosema* Diakonoff, 1978a:31
 NL *ocellata* Walsingham, 1914:308
 E *octogemmifera* (Walsingham, 1897:52), *Choreutis*
 O *ocularis* (Felder and Rogenhofer, 1875:6), *Choreutis*
 A *pampocilia* Turner, 1913:209
 O *paranympha* Meyrick, 1912a:53
 N *pavonacella* Clemens, 1860b:172
 amphicarpeoana (Chambers, 1878a:76), *Microae-*
 thia [unavailable by publication in synonymy]
 pavonicella [sic] Chambers, 1878b:132 [misspell-
 ing]
 P *pileae* Arita, 1971:351
 E *pleiadopa* Meyrick, 1921c:112
 A *quadriforella* Zeller, 1877:172
 quadriflorella [sic] Walsingham, 1900a:77 [mis-
 spelling]
 hypocalla (Lower, 1905:113), *Simaethis*
 A *salaconia* Meyrick, 1910a:468
 O *salinata* Meyrick, 1918c:193
 NL *sapindella* Busck, [1934]:183
 A *spintheristis* Meyrick, 1910a:469
 NL *stenorma* Meyrick, 1915b:219
 NL *stimulans* Meyrick, 1920a:336
 O *strophalaria* Meyrick, 1912a:51
 NL *stylophora* Meyrick, 1920a:335
 NL *suavis* (Felder and Rogenhofer, 1875:6), *Choreutis*
 P *tetartodipla* Diakonoff, 1978a:33
 O *trilampus* Meyrick, 1918c:193
 A *trilitha* Meyrick, 1907b:108
 A *trimachaera* Meyrick, 1927a:103
 E *virginalis* Meyrick, 1912a:52
 P *yaeyamae* Arita, 1971:350

Subfamily CHOREUTINAE

- Anthophila* Haworth, [1811]:471 [*A. fabricii* Haworth, 1811
 (= *Phalaena* (*Tortrix*) *fabriciana* Linnaeus,
 1767)]
Simaethis Leach, 1815:135 [*Tortrix dentana* Hüb-
 ner, 1796–99 (= *Phalaena* (*Tortrix*) *fabriciana*
 Linnaeus, 1767)]
Xylopode Latreille, 1825:476 [vernacular name]
Xylopoda Berthold, 1827:484 [*Tortrix dentana* Hüb-
 ner, 1796–99]
Xylopoda Latreille, 1829:412 [*Tortrix dentana* Hüb-
 ner, 1796–99]
Simoethis [sic] Desmarest, 1848:617 [misspelling]
Symaethis [sic] Bruand d'Uzelle, 1850:101 [mis-
 spelling]
Simaethis [sic] Kautz, 1931:28 [misspelling]
Simethis [sic] Bleszynski, Razowski, and Zu-
 kowski, 1965:413 [misspelling]
Antophila [sic] Bleszynski, Razowski, and Zu-
 kowski, 1965:413 [misspelling; not *Antophila*
 Hübner, 1806 (Noctuidae); rejected, ICZN,
 1926]
Siamethis [sic] Klimesch, 1968:150 [misspelling]
 P *abhasica* Danilevsky, 1969:928
 N *alpinella* (Busck, 1904:746), *Hemerophila*
 P *armata* Danilevsky, 1969:930
 form superba Diakonoff, 1979:299 [new synon-
 yomy]
 NL *brachymorpha* (Meyrick, 1915b:216), *Simaethis*
 P *colchica* Danilevsky, 1969:931
 P *decolorana* Danilevsky, 1969:931
 P *dischides* Diakonoff, 1978a:3
 P *fabriciana* (Linnaeus, 1767:880), *Phalaena* (*Tortrix*)
 oxyacanthella (Linnaeus, 1767:886), *Phalaena* (*Ti-*
 nea)
 urticana ([Denis and Schiffermüller], 1775:132),
 Phalaena
dentana (Hübner, [1796–1799]: pl. 1: fig. 4), *Tor-*
trix
fabricii Haworth, [1811]:471 [emendation]
oxyacanthae Haworth, [1811]:471 [emendation]
dentalalis (Treitschke, 1829:158), *Asopia* [emen-
 dation]
alternalis (Treitschke, 1829:160), *Asopia*
parietariae (Stainton, 1855:42), *Simaethis*
oxyacanthana (Holle, 1865:220), *Tortrix*
aeternalis [sic] (Frey, 1880:333), *Simaethis* [mis-
 spelling in synonymy]
uriicana [sic] (Meyrick, 1914c:22), *Simaethis* [mis-
 spelling]
 P *filipjevi* Danilevsky, 1969:927
 O *halimora* (Meyrick, 1912a:50), *Simaethis*
 O *oreina* Diakonoff, 1979:297

- Millieria* Ragonot, 1874:173 [*Choreutis dolosana* Herrich-Schäffer, 1854]
Ripismia Wocke, [1876]:339 [*Choreutis dolosana* Herrich-Schäffer, 1854]
Rhipismia Reutti, 1898:180 [emendation]
Millieria Spuler, 1910:298 [emendation]
Milliera [sic] Le Marchand, 1937:192 [misspelling]
Millieroa [sic] Le Marchand, 1937:192 [misspelling]
P *dolosana* (Herrich-Schäffer, 1854:95), *Choreutis dolosana* [sic] (Desmarest, [1857]:228), *Choreutes* [sic] [misspelling]
Peotyle Diakonoff, 1978a:23 [*Choreutis atmodesma* Meyrick, 1933]
O *atmodesma* (Meyrick, 1933:371), *Choreutis atmodesma* [sic] (Caradja, 1940:119), *Choreutis* [misspelling]
O *batangensis* (Caradja, 1940:119), *Choreutis*
Prochoreutis Heppner, new name [*Pyralis myllerana* Fabricius, 1794; for *Choreutis* of authors, not *Choreutis* Hübner, 1825; see Addendum]
P *alpina* (Arita, 1976:118), *Choreutis* [new combination]
E *argyrastra* (Meyrick, 1932a:115), *Choreutis* [new combination]
O *argyrota* (Meyrick, 1912a:55), *Choreutis* [new combination]
P *arisema* (Diakonoff, 1978a:14), *Choreutis* [new combination]
P *atrox* (Diakonoff, 1978a:18), *Choreutis* [new combination]
P *brunescens* (Diakonoff, 1978a:16), *Choreutis* [new combination]
P *caliclista* (Diakonoff, 1978a:7), *Choreutis* [new combination]
P *chionocosma* (Diakonoff, 1978a:21), *Choreutis* [new combination]
NL *clemensella* (Walsingham, 1914:309), *Porpe* [new combination]
P *delicata* (Arita, 1976:119), *Choreutis* [new combination]
P *drosodoxa* (Meyrick, 1933a:370), *Choreutis* [new combination]
N *dyarella* (Kearfott, 1902:112), *Choreutis* [new combination]
N *extrinicella* (Dyar, 1900:86), *Choreutis* [new combination]
extrinsecella (Meyrick, 1913a:39), *Choreutis* [emendation]
P *hadrogastra* (Diakonoff, 1978a:11), *Choreutis* [new combination]
P *holotoxa* (Meyrick, 1903:6), *Choreutis* [new combination]
nolotoxa [sic] (Hartig, 1956:126), *Choreutis* [misspelling]
P *incerta* (Capuse, 1970:354), *Choreutis* [new combination]
N *inflatella* (Clemens, 1863:5), *Brenthia* [new combination]
virginiella (Clemens, 1864:505), *Brenthia*
P *intermedia* (Rebel, 1910b:10), *Choreutis* [new combination]
intermedia [sic] (Diakonoff, 1978a:21), *Choreutis* [misspelling]
P *irradiata* (Meyrick, 1913b:67), *Choreutis* [new combination]
P *monognama* (Diakonoff, 1978a:5), *Choreutis* [new combination]
P *montelli* (Hackman, 1947:73), *Choreuthis* [sic] [new combination]
P *myllerana* (Fabricius, 1794:377), *Pyralis* [new combination]
mylleri (Haworth, [1811]:472), *Anthophila* [emendation]
angustana (Hübner, [1811–13]: pl. 32: fig. 204), *Tortrix*
urticana (Hübner, [1819–22]: pl. 44: fig. 273), *Tortrix* [not *Phalaena urticana* Denis and Schiffmüller, 1775]
scintilulana (Hübner, [1825]:373), *Choreutis*
scintilulalis (Treitschke, 1835:33), *Choreutes* [sic] [emendation]
scintillulalis [sic] (Zeller, 1839:325), *Choreutis* [misspelling]
albipunctalis (Zetterstedt, [1839]:974), *Choreutes* [sic]
augustana [sic] (Guenée, 1845:191), *Simaethis* [misspelling]
scintilimanus [sic] (Stephens, 1856:223), *Choreutes* [sic] [misspelling]
scintilutana [sic] (Desmarest, [1857]:224), *Choreutes* [sic] [misspelling]
scintillulana [sic] (Morris, 1872:208), *Choreutes* [sic] [misspelling]
müllerana [sic] (Bang-Haas, 1875:1), *Choreutis* [misspelling]
myllerala [sic] (Schütze, 1931:171), *Choreutis* [misspelling]
myllerans [sic] (Arita, 1976:116), *Choreutis* [misspelling]
N *pernivalis* (Braun, 1921:12), *Choreutis* [new combination]
O *phalaraspis* (Meyrick, 1923:617), *Choreutis* [new combination]

- O *philonyma* (Meyrick, 1912a:55), *Choreutis* [new combination]
 P *radians* (Diakonoff, 1978a:9), *Choreutis* [new combination]
 P *sachalinensis* (Danilevsky, 1969:919), *Choreutis* [new combination]
 P *sehestediana* (Fabricius, 1776:293), *Pyralis* [new combination]
sehestediana [sic] (Turton, [1802]:358), *Pyralis* [misspelling]
punctosa (Haworth, [1811]:472), *Anthophila punctuosa* [sic] (Wood, 1835:121), *Choreutis* [misspelling]
 P *sibirica* (Hackman, 1947:74), *Choreuthis* [sic] [new combination]
 P *solaris* (Erschoff, 1877:342), *Choreutis* [new combination]
 N *soroculella* (Dyar, 1900:86), *Choreutis* [new combination]
 P *stellaris* (Zeller, 1847b:642), *Choreutis* [new combination]
 P *talyshensis* (Danilevsky, 1969:921), *Choreutis* [new combination]
 P *ultimana* (Krulikovsky, [1909]:275), *Choreutis* [new combination]
 P *ussurica* (Danilevsky, 1969:921), *Choreutis* [new combination]
- Caloreas* Heppner, 1977b:631 [*Choreutis apocynoglossa* Heppner, 1976]
 N *apocynoglossa* (Heppner, 1976:256), *Choreutis*
 N *augustella* (Clarke, 1933:91), *Choreutis*
 NL *blandinalis* (Zeller, 1877:171), *Choreutis*
 N *caliginosa* (Braun, 1921:13), *Choreutis*
 NL *charmonica* (Walsingham, 1914:312), *Porpe*
 N *coloradella* (Dyar, 1900:85), *Choreutis*
coloradella (Kearfott, 1902:123), *Choreutis*
 NL *cydota* (Meyrick, 1915b:220), *Choreutis*
 NL *enantia* (Walsingham, 1914:310), *Porpe*
 NL *hymenaea* (Meyrick, 1909a:38), *Choreutis*
 NL *lactibasis* (Walsingham, 1914:311), *Porpe*
 N *leucobasis* (Dyar, 1900:85), *Choreutis*
leucobasis (Fernald, 1900:242), *Choreutis*
 NL *loxotenes* (Walsingham, 1914:309), *Porpe*
 N *multimarginata* (Braun, 1925:203), *Choreutis*
melanifera (Keifer, 1937:338), *Choreutis*
 N *occidentella* (Dyar, 1900:86), *Choreutis*
 NL *pelinobasis* (Walsingham, 1914:310), *Porpe*
 N,NL *schausella* (Busck, [1907]:86), *Choreutis*
 NL *tacubayella* (Kearfott, 1908:181), *Choreutis*
 NL *venusta* (Walsingham, 1914:311), *Porpe*
- Tebenna* Billberg, 1820:90 [*Tinea bjerkandrella* Thunberg, 1784; not *Tebenna* Hübner, 1825 (Agonoxenidae)]

SMITHSONIAN CONTRIBUTIONS TO ZOOLOGY

- Porpe* Hübner, [1825]:373 [*P. fibrana* Hübner, 1825 (= *Tinea bjerkandrella* Thunberg, 1784)]
Tebeuna [sic] Danilevsky, 1969:922 [misspelling]
 O *agalmatopa* (Meyrick, 1926b:305), *Choreutis* [new combination]
 E *agelasta* (Bradley, 1965:104), *Choreutis* [new combination]
 NL *aliciens* (Meyrick, 1926b:305), *Choreutis*
 N *balsamorrhizella* (Busck, 1904:748), *Choreutis*
 P *bjerkandrella* (Thunberg, 1784:24), *Tinea*
cardui (Ström, 1783:87), *Phalaena* (*Tortrix*) [proposed suppression, Nye et al, 1977]
bierkandrana (Fabricius, 1787:236), *Pyralis* [emendation]
vibrana (Hübner, [1811–13]: pl. 32: fig. 202), *Tinea*
fibrana [sic] (Hübner, [1825]:373), *Porpe* [misspelling]
vibralis (Treitschke, 1835:33), *Choreutes* [sic] [misspelling]
bjerkandrana (Guenée, 1845:191), *Simaethis* [emendation]
bjerkandella [sic] (Hulst, 1887:21), *Choreutes* [sic] [misspelling]
biercandrella [sic] (Gerasimov, 1930:29), *Choreutis* [misspelling]
 A *bradleyi* Clarke, 1971:166
 N *carduiella* (Kearfott, 1902:116), *Choreutis*
busckiella (Kearfott, 1902:120), *Choreutis*
carduella (Meyrick, 1913a:39), *Choreutis* [emendation]
 P *caucasica* Danilevsky, 1976:34
 P *chingana* Danilevsky, 1969:922, *Tebeuna* [sic]
 P *chodzhajevi* (Gerasimov, 1930:30), *Choreutis*
chodjaevi [sic] (Gerasimov, 1930:30), *Choreutis* [misspelling]
 O *chrysotacta* (Meyrick, 1933a:371), *Choreutis* [new combination]
 NL *chrysotarma* (Meyrick, 1932c:275), *Choreutis*
 A *diana* (Bradley, 1961:155), *Choreutis* [not *Tortrix diana* Hübner, 1819–1822; new combination]
 NL *fuscidorsis* (Zeller, 1877:170), *Choreutis*
 N *gemmalis* (Hulst, 1886:148), *Chalcocela*
gnaphaliella (Kearfott, 1902:113), *Choreutis*
gnaphiella [sic] (Mosher, 1916:47), *Choreutis* [misspelling]
 N *immutabilis* (Braun, 1927:192), *Choreutis*
 E *inspirata* (Meyrick, 1916:560), *Choreutis* [new combination]
 P *issikii* (Matsumura, 1931a:1078), *Choreutis*
issikii [sic] Arita, 1975:299 [misspelling]
 P *kawabei* Arita, 1975:301
lapidaria (Meyrick, 1909a:39), *Choreutis*
leptilonella (Busck, [1934]:186), *Choreutis*
micalis (Mann, 1857:181), *Choreutis*

- N *onustana* (Walker, 1864:996), *Simaethis pretiosana* variety *ohiensis* (Zeller, 1875:320), *Choreutis reutis*
ohioensis [sic] (Kearfott, 1902:113), *Choreutis* [misspelling]
- N *piperella* (Busck, 1904:749), *Choreutis*
- P *pretiosana* (Duponchel, 1842:182), *Xylopoda australis* (Zeller, 1847b:643), *Choreutis*
- E *pychnomochla* (Bradley, 1965:104), *Choreutis* [new combination]
- N *silphiella* (Grote, 1881b:40), *Choreutes* [sic]
- P *submicalis* Danilevsky, 1969:923
- Asterivora* Dugdale, 1979:461 [*Simaethis combinatana* Walker, 1863]
Asterophaga Horning and Greenwood, 1977:295
[nomen nudum]
- A *albifasciata* (Philpott, 1924a:213), *Simaethis*
- A *analogia* (Meyrick, 1912b:122), *Simaethis*
- A *antigrapha* (Meyrick, 1911a:76), *Simaethis*
- A *barbigena* (Meyrick, 1915a:203), *Simaethis*
- A *chatuidea* (C. Clarke, 1926:421), *Simaethis*
- A *colpota* (Meyrick, 1911a:67), *Simaethis*
- A *combinatana* (Walker, 1863b:456), *Simaethis abstitella* (Walker, 1864:997), *Simaethis*
- A *exocha* (Meyrick, 1907b:120), *Simaethis exoepta* [sic] (Meyrick, 1914c:22), *Simaethis* [misspelling]
- A *fasciata* (Philpott, 1930:12), *Simaethis*
- A *homotypa* (Meyrick, 1907b:109), *Choreutis*
- A *inspoliata* (Philpott, 1930:12), *Simaethis*
- A *iochondra* (Meyrick, 1911a:77), *Simaethis*
- A *lampadias* (Meyrick, 1907b:110), *Choreutis*
- A *marmarea* (Meyrick, 1888:85), *Simaethis*
- A *microlitha* (Meyrick, 1888:84), *Simaethis*
- A *ministra* (Meyrick, 1912b:121), *Simaethis*
- A *nivescens* (Philpott, 1926:397), *Simaethis*
- A *oleariae* Dugdale, 1979:462
- A *symbolaea* (Meyrick, 1888:85), *Simaethis*
- A *tillyardi* (Philpott, 1924b:666), *Simaethis*
- A *tristis* (Philpott, 1930:12), *Simaethis*
- A *urbana* (C. Clarke, 1926:420), *Simaethis*
- A *zomeuta* (Meyrick, 1912b:121), *Simaethis*
- Choreutis* Hübner, [1825]:373 [[*Phalaena pariana* Clerck, 1759]
Hemerophila Hübner, [1806]:[2] [rejected, ICZN, 1926; new synonymy]
Eutromula Frölich, 1828:11 [[*Phalaena pariana* Clerck, 1759; new synonymy]
Choreutes Treitschke, 1835:31 [emendation]
Macropia O. Costa, [1836]:[196] [*Asopia incisalis* Treitschke, 1829 (= *Tortrix nemorana* Hübner, 1796–1799); not *Macropia* Malloch, 1930 (Diptera); new synonymy]
Chorentes [sic] Morris, 1872:iv [misspelling]
- N *Entomoloma* Ragonot, 1875:45 [*Tortrix nemorana* Hübner, 1796–1799; new synonymy]
Chorenthis [sic] Turner, 1898:203 [misspelling]
Orchemia sensu Fernald, 1900:238 [*Tortrix diana* Hübner, 1819–1822; not *Orchemia* Guenée, 1845 (Tortricidae); new synonymy]
Hemerophila sensu Fernald, 1900:239 [*Simaethis vicarialis* Zeller, 1875 (= *Tortrix diana* Hübner, 1819–1822); not *Hemerophila* Hübner, 1817 (Choreutidae); new synonymy]
Choreutidia Sauber, 1902:702 [*C. sexfasciella* Sauber, 1902]
Allonyma Busck, 1904:745 [*Tortrix diana* Hübner, 1819–1822; new synonymy]
Allonyma [sic] Fracker, 1915:77 [misspelling]
Cloreutis [sic] Kautz, 1931:28 [misspelling]
Choreuthis [sic] Hackman, 1947:71 [misspelling]
Chloreutis [sic] Viette, 1947:40 [misspelling]
Allonymia [sic] Ferguson, 1975:41 [misspelling]
O *achyrodes* (Meyrick, 1912a:46), *Simaethis* [new combination]
albifascialis (Marumo, 1923:199), *Simaethis kochiensis* (Matsumura, 1931a:1080), *Simaethis*
- P *aegyptiaca* (Zeller, 1867:461), *Simaethis* [new combination]
O *anethystodes* (Meyrick, 1914b:57), *Simaethis* [new combination]
O *angulosa* (Diakonoff, [1968]:202), *Anthophila* [new combination]
O *anthorma* (Meyrick, 1912a:42), *Simaethis* [new combination]
O *antichlora* (Meyrick, 1912a:44), *Simaethis* [new combination]
O *antiptila* Meyrick, 1912a:56
O *argoxantha* (Meyrick, 1934b:458), *Simaethis* [new combination]
P *atrosignata* (Christoph, 1888:311), *Simaethis* [new combination]
moiwana (Matsumura, 1931a:1080), *Simaethis ussuriensis* (Danilevsky and Kuznetsov, 1973:15), *Hemerophila*
- A,O *basalis* (Felder and Rogenhofer, 1875:18), *Simaethis* [new combination]
chionodesma (Lower, 1896:167), *Simaethis*
- P *bathysema* (Diakonoff, 1978a:25), *Eutromula* [new combination]
N *betuliperda* (Dyar, 1902:403), *Orchemia* [new combination]
A *chalcotoxa* (Meyrick, 1886a:287), *Simaethis* [new combination]
A *chelaspis* (Meyrick, 1928b:504), *Simaethis* [new combination]
A *chi* (Durrant, 1915:156), *Hemerophila* [new combination]

- O *collapsa* (Meyrick, 1934b:457), *Simaethis* [new combination]
 O *cothurnata* (Meyrick, 1912a:45), *Simaethis* [new combination]
 P *cunuligera* (Diakonoff, 1978b:205), *Eutromula* [new combination]
 P *cyanogramma* (Diakonoff and Arita, 1979a:15), *Eutromula* [new combination]
 A *cyanotoxa* (Meyrick, 1907b:113), *Simaethis* [new combination]
 H *diana* (Hübner, [1819–22]: pl. 44: fig. 247), *Tortrix dianalis* (Treitschke, 1835:31), *Choreutes* [sic] [emendation]
decorana (Zetterstedt, [1839]:982), *Coccyx luridana* (Walker, 1863b:318), *Amphisa vicarialis* (Zeller, 1875:322), *Simaethis vicarialis* [sic] (Dyar, 1900:41), *Simaethis* [misspelling]
 O *dichlora* (Meyrick, 1912a:48), *Simaethis* [new combination]
pilaria (Meyrick, 1912a:50), *Simaethis*
 O *diplogramma* (Meyrick, 1912a:49), *Simaethis* [new combination]
 E *dryodora* (Meyrick, 1921c:111), *Simaethis* [new combination]
 A *empteka* (Turner, 1942:93), *Simaethis* [new combination]
 E *entechna* (Meyrick, 1920b:295), *Simaethis* [new combination]
 E *equatoris* (Walsingham, 1897:53), *Simaethis* [new combination]
 O *euclista* (Meyrick, 1918c:192), *Simaethis* [new combination]
 O *eumetra* (Meyrick, 1912a:43), *Simaethis* [new combination]
 A *falsifica* (Meyrick, 1927a:104), *Simaethis* [new combination]
 E *flavimaculata* (Walsingham, 1891:77), *Simaethis* [new combination]
 O *fulminea* (Meyrick, 1912a:48), *Simaethis* [new combination]
 E *gratiosa* (Meyrick, 1911b:290), *Simaethis* [new combination]
 O *hestiarcha* Meyrick, 1912a:54
 O *holachryma* (Meyrick, 1912a:47), *Simaethis* [new combination]
 P *hyligenes* (Butler, 1879:80), *Simaethis* [new combination]
 P *hypocroca* (Diakonoff, 1978a:23), *Eutromula* [new combination]
 O *ialeura* (Meyrick, 1912a:46), *Simaethis* [new combination]
 O *inscriptana* (Snellen, 1875:76), *Simaethis* [new combination]
- O *irrimochla* (Meyrick, 1921b:182), *Simaethis* [new combination]
 E *irridens* (Meyrick, 1921c:111), *Simaethis* [new combination]
 O *itriodes* (Meyrick, 1912a:49), *Simaethis* [new combination]
 P *japonica* (Zeller, 1877:176), *Simaethis* [new combination]
 O *lethaea* (Meyrick, 1912a:47), *Simaethis* [new combination]
limonias (Meyrick, 1907b:111), *Simaethis* [new combination]
 E *ludifica* (Meyrick, 1914a:283), *Simaethis* [new combination]
 O *lutescens* (Felder and Rogenhofer, 1875:18), *Simaethis* [new combination]
a-coeruleum (Pagenstecher, 1884:287), *Simaethis a-caeruleum* [sic] (Meyrick, 1907b:114), *Simaethis* [misspelling]
 A *lygaeopa* (Turner, 1923:166), *Simaethis* [new combination]
 A *melanopepla* (Meyrick, 1880:212), *Simaethis* [new combination]
 O *melophaga* (Meyrick, 1931b:182), *Simaethis* [new combination]
 P *mesolyma* (Diakonoff, 1978a:27), *Eutromula* [new combination]
 A *metallica* (Turner, 1898:202), *Simaethis* [new combination]
 P *minuta* (Diakonoff and Arita, 1979a:10), *Eutromula* [new combination]
 P *montana* (Danilevsky and Kuznetsov, 1973:16), *Hemerophila* [new combination]
 P *nemorana* (Hübner, [1796–1799]: pl. 1: fig. 3), *Tortrix incisalis* (Treitschke, 1829:157), *Asopia nemoranalis* (Treitschke, 1829:158), *Asopia* [emendation]
 A *niphocrypta* (Meyrick, 1930c:6), *Simaethis* [new combination]
 O *novarae* Felder and Rogenhofer, 1875:6
 O *obarata* (Meyrick, 1921b:184), *Simaethis* [new combination]
 A,O *ophiosema* (Lower, 1896:167), *Simaethis* [new combination]
 O *optica* (Meyrick, 1921b:183), *Simaethis* [new combination]
 A *ornaticornis* (Walsingham, 1900a:77), *Simaethis* [new combination]
 O *orthogona* (Meyrick, 1886a:287), *Simaethis* [new combination]
 H *pariana* (Clerck, 1759: pl. 10: fig. 9), [*Phalaena lutosa* (Haworth, [1811]:472), *Anthophila parialis* (Treitschke, 1829:159), *Asopia* [emendation]]

- pariava* [sic] (Desmarest, 1849:330), *Xylopoda* [mis-spelling]
parina [sic] (Procter, 1946:317), *Anthophila* [mis-spelling]
- O *parva* (Pagenstecher, 1884:288), *Simaethis* [new combination]
- O *pelargodes* (Meyrick, 1921b:183), *Simaethis* [new combination]
- A *periploca* (Turner, 1913:210), *Simaethis* [new combination]
- O *piepersiana* (Snellen, 1885a:19), *Simaethis* [new combination]
- E *plectodes* (Meyrick, 1921c:111), *Simaethis* [new combination]
- O *plumbealis* (Pagenstecher, 1884:288), *Simaethis* [new combination]
- A *porphyralma* (Meyrick, 1930c:5), *Simaethis* [new combination]
- O *psilachrya* (Meyrick, 1912a:47), *Simaethis* [new combination]
- A *pyrrhoclista* (Meyrick, 1922:486), *Simaethis* [new combination]
- E *quincyella* (Legrand, 1965:48), *Anthophila* [new combination]
- A,O *regularis* (Pagenstecher, 1884:288), *Simaethis* [new combination]
- O *sandaracina* (Meyrick, 1907a:748), *Simaethis* [new combination]
- P *sapporensis* (Matsumura, 1931a:1080), *Simaethis* [new combination]
- O *semicincta* (Meyrick, 1921b:182), *Simaethis* [new combination]
- O *sexfasciella* (Sauber, 1902:702), *Choreutidia sexfasciella* [sic] (Arita, 1976:115), *Eutromula* [mis-spelling]
- A *simplex* Diakonoff, 1955:29
- E *stereocrossa* (Meyrick, 1921c:110), *Simaethis* [new combination]
- O *strepsidesma* (Meyrick, 1912a:45), *Simaethis* [new combination]
- A,O *strepitma* Meyrick, 1938b:523
macropa (Diakonoff, 1948:204), *Anthophila*
- O *submarginalis* (Walker, [1866]:1286), *Herbula* [new combination; not *Herbula submarginalis* Walker, [1866]:1288 (Pyralidae)]
multiferalis (Walker, [1866]:1286), *Herbula sessilis* (Pagenstecher, 1886:179), *Simaethis*
- A *sycopola* (Meyrick, 1880:211), *Simaethis* [new combination]
- O *taprobanes* (Zeller, 1877:178), *Simaethis* [new combination]
- P *threnodes* (Walsingham, 1910:257), *Simaethis* [new combination]
- O *tigroides* (Meyrick, 1921b:181), *Simaethis* [new combination]
- A *tomicodes* (Meyrick, 1930c:5), *Simaethis* [new combination]
- A *topitis* (Durrant, 1915:167), *Hemerophila* [new combination]
- E *torridula* (Meyrick, 1926b:304), *Simaethis* [new combination]
- O *tricyanitis* (Meyrick, 1925b:431), *Simaethis* [new combination]
- O *trogalia* (Meyrick, 1912a:43), *Simaethis* [new combination]
- E *turilega* (Meyrick, 1924:554), *Simaethis* [new combination]
- P *vinosa* (Diakonoff, 1978b:202), *Eutromula* [new combination]
- P *v. discolor* (Diakonoff and Arita, 1979a:29), *Eutromula* [new combination]
- O *xanthogramma* (Meyrick, 1912a:42), *Simaethis* [new combination]
- P *yakushimensis* (Marumo, 1923:198), *Simaethis* [new combination]
- Saptha* Walker, 1864:1015 [*S. divitiosa* Walker, 1864]
Badera Walker, 1866:1819 [*B. pretiosa* Walker, 1866]
Chordates Snellen, 1877:49 [*Simaethis pronubana* Snellen, 1877]
Choredates [sic] Pagenstecher, 1884:289 [misspelling]
Saphtha [sic] Walsingham, 1900b:567 [misspelling]
O *aeolodoxa* (Meyrick, 1928a:423), *Tortyra* [new combination]
O *angustistrata* (Issiki, 1930:423), *Tortyra* [new combination]
O *beryllitis* (Meyrick, 1910a:462), *Tortyra* [new combination]
A *chrysoprasitis* (Meyrick, 1936a:617), *Tortyra* [new combination]
O *cypridia* (Meyrick, 1910a:462), *Tortyra* [new combination]
O *divitiosa* Walker, 1864:1015
prodigella (Walker, 1866:1820), *Badera nobilis* (Felder and Rogenhofer, 1875:3), *Badera striana* (Snellen, 1885a:17), *Choregia elegans* Walsingham, 1900b:567, *Saptha* [sic]
A *exanthista* (Meyrick, 1910a:464), *Tortyra* [new combination]
prodigella (Meyrick, 1907b:100), *Tortyra* [not *Badera prodigella* Walker, 1866]
A *iridopa* (Meyrick, 1907b:97), *Tortyra* [new combination]
libanota (Meyrick, 1910a:463), *Tortyra* [new combination]

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|----|--|-------|--|
| O | <i>macropsila</i> (Diakonoff, [1968]:200), <i>Tortyra</i> [new combination] | NL | <i>Guaris</i> [sic] Fernald, 1900:236 [misspelling] |
| A | <i>paradelpha</i> (Meyrick, 1907b:98), <i>Tortyra</i> [new combination] | NL | <i>albertiana</i> (Cramer, 1781:163), <i>Phalaena (Tortrix) siphana</i> (Sepp, [1832–1840]:139), <i>Phalaena zebra</i> (Walker, [1858]:774), <i>Agrophila arcigera</i> (Felder and Rogenhofer, 1875:10), <i>Gauris bifurana</i> (Walker, 1863b:418), <i>Gauris bigerana</i> (Walker, 1863b:419), <i>Gauris lacunaris</i> (Felder and Rogenhofer, 1875:10), <i>Gauris</i> |
| A | <i>prasochalca</i> (Meyrick, 1907b:98), <i>Tortyra</i> [new combination] | NL | <i>canofusana</i> (Walker, 1863b:419), <i>Gauris</i> |
| O | <i>pretiosa</i> (Walker, 1866:1819), <i>Badera</i> [new combination] | NL | <i>chorica</i> (Meyrick, 1926b:302), <i>Tortyra cinctipes</i> (Felder and Rogenhofer, 1875:10), <i>Gauris</i> variety <i>isthmia</i> Walsingham, 1914:318 |
| | <i>basalis</i> (Snellen, 1885a:18), <i>Choregia formosana</i> (Matsumura, 1931a:1081), <i>Tortyra</i> | NL | <i>contrariana</i> (Walker, 1863b:420), <i>Gauris</i> |
| O | <i>pronubana</i> (Snellen, 1877:48), <i>Simaethis</i> [new combination] | NL | <i>contubernalis</i> (Zeller, 1877:175), <i>Simaethis</i> |
| O | <i>smaragditis</i> Meyrick, 1905:610 | N | <i>diva</i> (Riley, 1889:158), <i>Walsinghamia dyari</i> Busck, 1900:242 |
| | <i>centrifuga</i> (Meyrick, 1910a:463), <i>Tortyra</i> | N, NL | <i>felis</i> Walsingham, 1914:315 |
| A | <i>sybaritis</i> (Meyrick, 1912a:37), <i>Tortyra</i> [new combination] | NL | <i>gradella</i> Walsingham, 1914:316 |
| A | <i>tabularia</i> (Meyrick, 1912a:37), <i>Tortyra</i> [new combination] | NL | <i>houttuinalis</i> (Cramer, 1782:192), <i>Phalaena (Pyralis) houttuinalis</i> (Verloren, 1837:143), <i>Botys</i> [emendation] |
| | <i>Tortyra</i> Walker, 1863a:510 [<i>T. spectabilis</i> Walker, 1863] | NL | <i>pulsana</i> (Walker, 1863b:417), <i>Gauris</i> |
| | <i>Choregia</i> Felder and Rogenhofer, 1875:6 [<i>C. fulgens</i> Felder and Rogenhofer, 1875; not <i>Choregia</i> Warren, 1899 (Geometridae)] | NL | <i>houttuinalis</i> [sic] (Zeller, 1877:182), <i>Simaethis</i> [misspelling] |
| | <i>Choregia</i> Zeller, 1877:191 [<i>C. fulgens</i> Felder and Rogenhofer, 1875] | NL | <i>houttuinalis</i> [sic] Busck, 1914b:56 [misspelling] |
| NL | <i>aenescens</i> (Dognin, 1905:90), <i>Choregia</i> | NL | <i>houttuinalis</i> Walsingham, 1914:315 [emendation] |
| NL | <i>argentifascia</i> Walsingham, 1914:313 | NL | <i>immarginata</i> Walsingham, 1914:317 |
| NL | <i>auriferalis</i> Walker, 1863b:510 | NL | <i>laciniosella</i> Busck, 1914b:44 |
| NL | <i>aurofasciana</i> (Snellen, 1875:74), <i>Simaethis</i> | NL | <i>meratella</i> Busck, 1914b:55 |
| | <i>aurofasciata</i> [sic] Wolcott, 1936:485 [misspelling] | NL | <i>millaria</i> (Meyrick, 1922:486), <i>Simaethis</i> |
| NL | <i>cantharodes</i> Meyrick, 1922:484 | NL | <i>musicosema</i> (Meyrick, 1926b:305), <i>Simaethis</i> |
| NL | <i>caracasiae</i> Amsel, 1956:290 | NL | <i>ophiodesma</i> (Meyrick, 1915b:216), <i>Simaethis</i> |
| NL | <i>chalcobathra</i> Meyrick, 1922:485 | NL | <i>orinympha</i> (Meyrick, 1926b:304), <i>Simaethis</i> |
| NL | <i>chalcodes</i> Walsingham, 1914:312 | NL | <i>rimulalis</i> (Zeller, 1875:321), <i>Simaethis</i> |
| NL | <i>cuprinella</i> Busck, 1914b:57 | NL | <i>scenophora</i> (Meyrick, 1922:486), <i>Simaethis</i> |
| NL | <i>ferratella</i> Busck, 1914b:58 | NL | <i>triacmias</i> (Meyrick, 1926b:304), <i>Simaethis</i> |
| NL | <i>fulgens</i> (Felder and Rogenhofer, 1875:6), <i>Choregia</i> | NL | <i>tristis</i> (Felder and Rogenhofer, 1875:10), <i>Gauris</i> |
| NL | <i>hyalozona</i> Meyrick, 1912a:38 | NL | <i>velatana</i> (Walker, 1863b:420), <i>Gauris</i> |
| NL | <i>ignita</i> (Zeller, 1877:195), <i>Choregia</i> | NL | <i>xutholopa</i> Walsingham, 1914:318 |
| NL | <i>malacozona</i> Meyrick, 1922:485 | NL | <i>Zodia</i> Heppner, 1979b:685 [<i>Simaethis plutusana</i> Walker, 1863] |
| NL | <i>orphnophanes</i> Meyrick, 1932c:275 | NL | <i>chrysosperma</i> (Meyrick, 1931b:183), <i>Brenthia</i> |
| NL | <i>rhodochlaena</i> Meyrick, 1930c:5 | NL | <i>ochripalpis</i> (Meyrick, 1920a:335), <i>Brenthia</i> |
| N | <i>slossonia</i> (Fernald, 1900:244), <i>Walsinghamia</i> | NL | <i>plutusana</i> (Walker, 1863b:453), <i>Simaethis</i> |
| NL | <i>spectabilis</i> Walker, 1863b:510 | NL | <i>aeneigutta</i> (Felder and Rogenhofer, 1875:6), <i>Choregia</i> |
| NL | <i>sporodelta</i> Meyrick, 1922:485 | NL | <i>reutis</i> |
| NL | <i>violacea</i> (Felder and Rogenhofer, 1875:6), <i>Choregia</i> | NL | <i>plutana</i> (Meyrick, 1913a:37), <i>Simaethis</i> [emendation] |
| NL | <i>vividis</i> Busck, [1934]:185 | NL | <i>rutilella</i> (Walker, 1863b:453), <i>Simaethis</i> |
| | <i>Hemerophila</i> Hübner, [1817]: pl. 213: fig. 1 [<i>Phalaena (Tortrix) albertiana</i> Cramer, 1781; not <i>Hemerophila</i> Stephens, 1829 (Geometridae)] | NL | <i>scintillana</i> (Walker, 1863b:454), <i>Simaethis</i> |
| | <i>Gauris</i> Hübner, 1821:[1] [<i>Phalaena (Tortrix) albertiana</i> Cramer, 1781] | NL | <i>Melanoxena</i> Dognin, 1910:121 [<i>M. falsissima</i> Dognin, 1910] |
| | <i>Walsinghamia</i> Riley, 1889:157 [<i>W. diva</i> Riley, 1889] | NL | <i>falsissima</i> Dognin, 1910:122 |
| | | | <i>Rhobonda</i> Walker, 1863b:424 [<i>R. gaurisana</i> Walker, 1863] |

- NL *gaurisana* Walker, 1863b:425
 gauridana Meyrick, 1913a:34 [emendation]
 NL *heliiaspis* (Meyrick, 1926b:303), *Tortyra* [new combination]
 O *palaecosma* (Meyrick, 1926b:303), *Tortyra* [new combination]

Taxa Excluded from Choreutidae

1. Genus hereby transferred to Oecophoridae (Stenomatinae):
Lygronoma Meyrick, 1913b:100 [*L. sporimaea* Meyrick, 1913]
 NL *sporimaea* Meyrick, 1913b:100
2. Species excluded to Oecophoridae (Stenomatinae) (transferred by Heppner, 1977b):
 NL "Brenthia" *cyanastria* Meyrick, 1909a:40 [unplaced]
 NL "Hilarographa" *fassliana* Dognin, 1913:417 [unplaced]
 NL *Setiostoma albipes* (Felder and Rogenhofer, 1875:18),
 Simaethis [new combination]
3. Genus hereby transferred to Oecophoridae (Xyloryctinae):
Symphorostola Meyrick, 1927c:376 [*S. encomias* Meyrick, 1927]
 O *encomias* Meyrick, 1927c:376
4. Species hereby transferred to Gelechiidae:
 NL "Simaethis" *chalybea* Felder and Rogenhofer, 1875:
 18 [unplaced]
5. Species excluded to Glyphipterigidae (transferred by Heppner, 1977b):
 NL *Cronicombra lamella* (Busck, 1914b:59), *Porpe*
6. Genus hereby transferred to Yponomeutidae:

- Iridostoma* Meyrick, 1909b:425 [*T. ichthyopa* Meyrick, 1909]
 O *ichthyopa* Meyrick, 1909b:425
7. Species excluded to Tortricidae (Hilarographini) (transferred by Diakonoff, 1977):
 P *Mictocommosis nigromaculata* (Issiki, 1930:423), *Simaethis takaonis* (Matsumura, 1931a:1081), *Anthophila*

8. Species previously excluded to Pyralidae:
 P *Simaethis* [sic] *leechi* Caradja, 1926:373 (= *Simaethis t. leechi* R. South, 1901)
 P "Choreutis" *pentacyba* Meyrick, 1926c:110 [unplaced in Odontiinae]

9. Species previously excluded to Noctuidae (Acontiinae):

P *Ozarba lascivalis* (Lederer, 1855:233), *Choreutis* Genera recently transferred to Tortricidae (Chlidanotinae: Hilarographini) include *Hilarographa*, *Idiothauma*, *Mictopsichia*, *Thaumatographa*, and the new genera *Mictocommosis*, *Nexosa*, and *Embolostoma* (Diakonoff, 1977; Heppner, 1978). The genus *Irianassa* also belongs to the Hilarographini. Genera once included as the subfamily Hypertrophinae of Choreutidae are now in Oecophoridae (Common, 1970). In addition to genera transferred to Glyphipterigidae (sensu stricto), notes on the family position of other genera associated with the choreutids, formerly in Glyphipterigidae (auctorum), and not mentioned here will be given in the generic catalog elucidating these names (Heppner, in prep., a).

Addendum

Following corrections of proofs of this paper, information was made available (D. S. Fletcher, pers. comm.) regarding the unavailability of a type-species designation being used for the genus *Choreutis* Hübner. It was pointed out that the earliest valid type-species designation for *Choreutis* was that of Walsingham (1908:987) using *Phalaena pariana* Clerck, instead of the species usually referred to this genus, *Pyralis myllerana* Fabricius. The result of this change requires the transfer of *Choreutis* Hübner, 1825, to a group of species up to now referred to *Eutromula* Frölich, 1828, with the latter genus becoming a junior objective synonym of *Choreutis*. The species formerly referred to *Choreutis*, in addition, require a new generic name. Inasmuch as voting procedures at the International Commission on Zoological Nomenclature

apparently would preclude a decision to retain *Choreutis* and *Eutromula* in their present sense (as much as this would seem to be the more logical choice to prevent further confusion in the family), the following new generic name is proposed for species until recently referred to *Choreutis* Hübner.

***Prochoreutis* Heppner, new name**

Choreutis of authors [not *Choreutis* Hübner, 1825].

TYPE-SPECIES.—*Pyralis myllerana* Fabricius, 1794:377.

DIAGNOSIS.—Adults small (forewing lengths of 4–7.5 mm); labial palpus upcurved, with scale tuft ventrally on segment 2; forewing with pterostigma; costal and dorsal margins convex, and apex acute; Sc to margin at $\frac{1}{2}$ distance to apex; R1-R4 to costal margin; R5 to termen; R3 and R4, and R5 and M1 convergent at end of cell; M3 free to CuA1; CuA1 and CuA2 nearly parallel, then divergent at termen; CuP present at tornus; A1+A2 with long basal stalk; hindwing Sc+R1 to near apex, Rs to apex, M1 to termen, M3 short-stalked with CuA1, and cubital veins nearly parallel, with CuP present at tornus; male genitalia with uncus absent, socius large around anal tube, gnathos absent, valva usually simple with setal fields and spines, aedeagus with phallobase, and cornuti with serrations; female genitalia with unspecialized ovipositor, ostium usually a simple cup shape on posterior edge of genital plate of sternite 7 (rarely on sternite), ductus bursae often partially or fully sclerotized, bursa copulatrix usually a simple ovate shape, and signum usually an invaginated spicule line, patch, or thorns.

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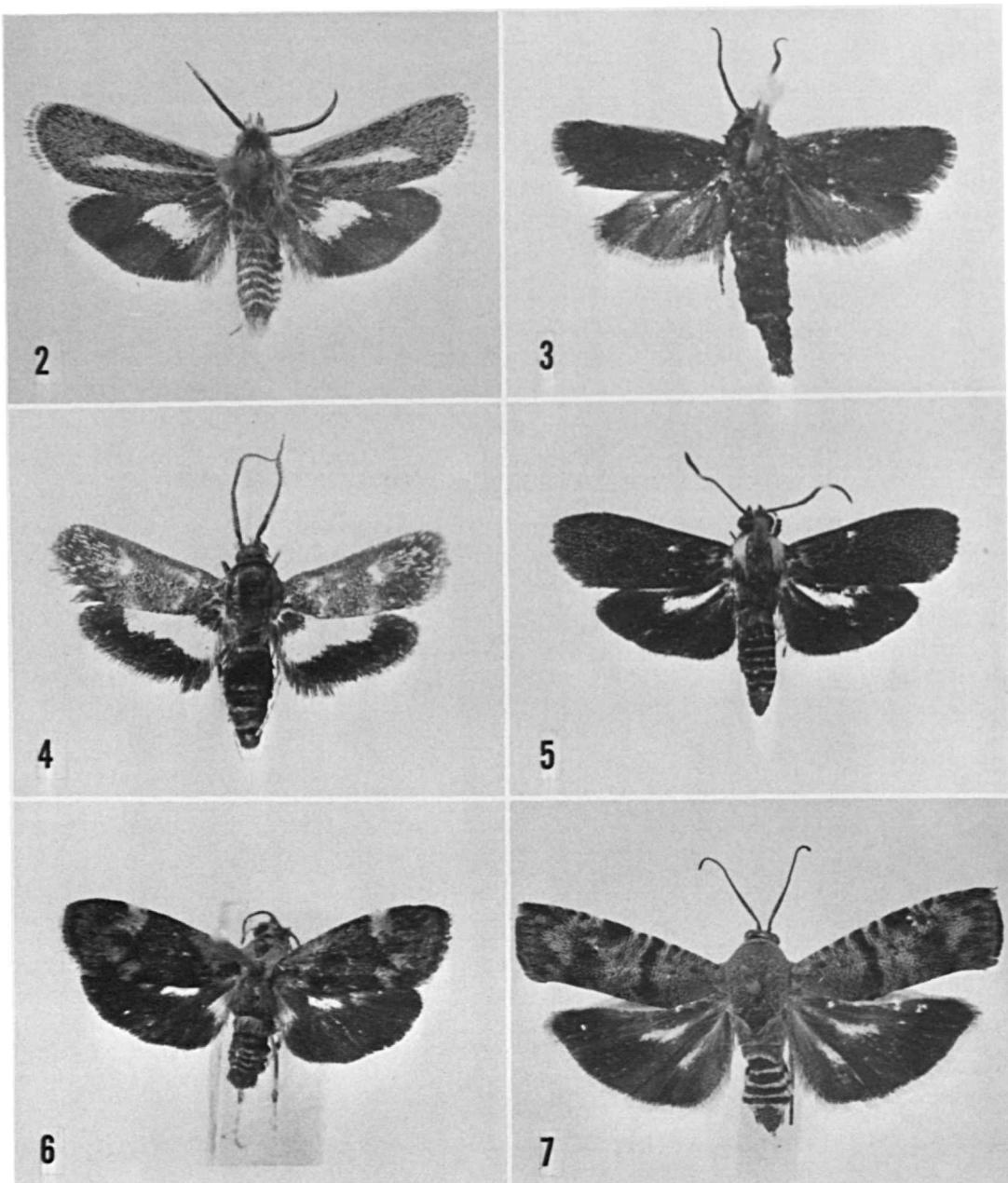
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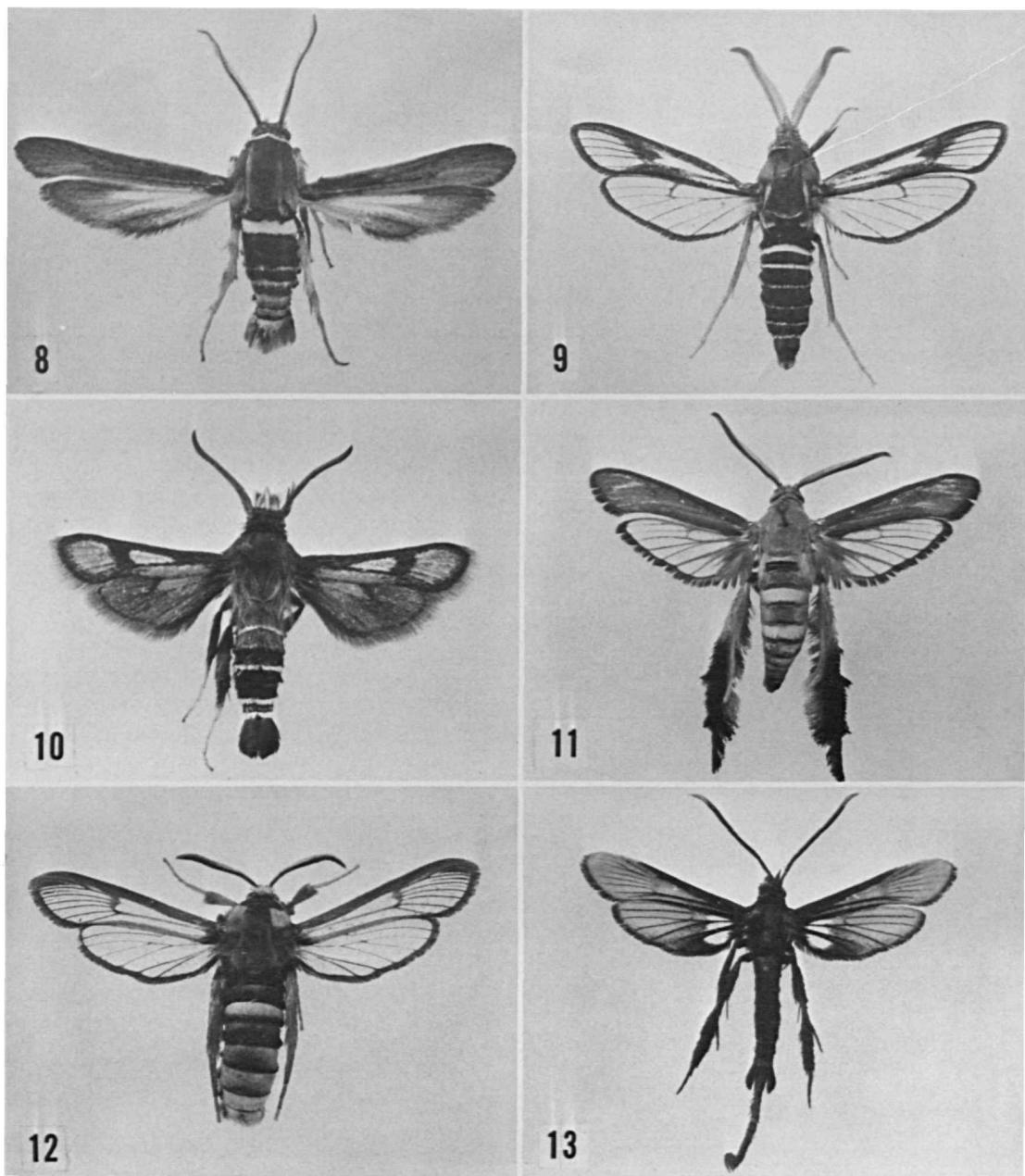
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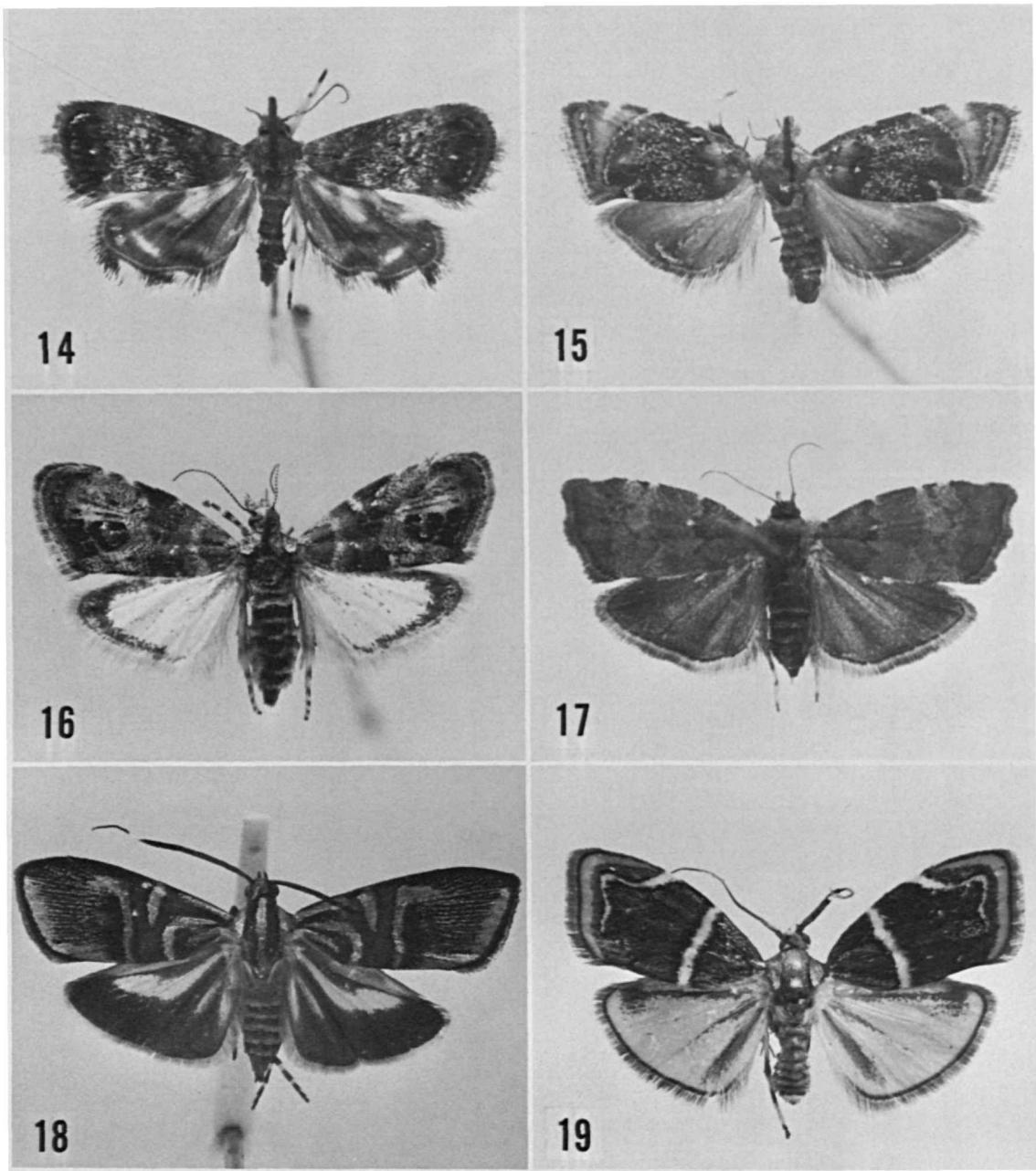
Figures 2–107



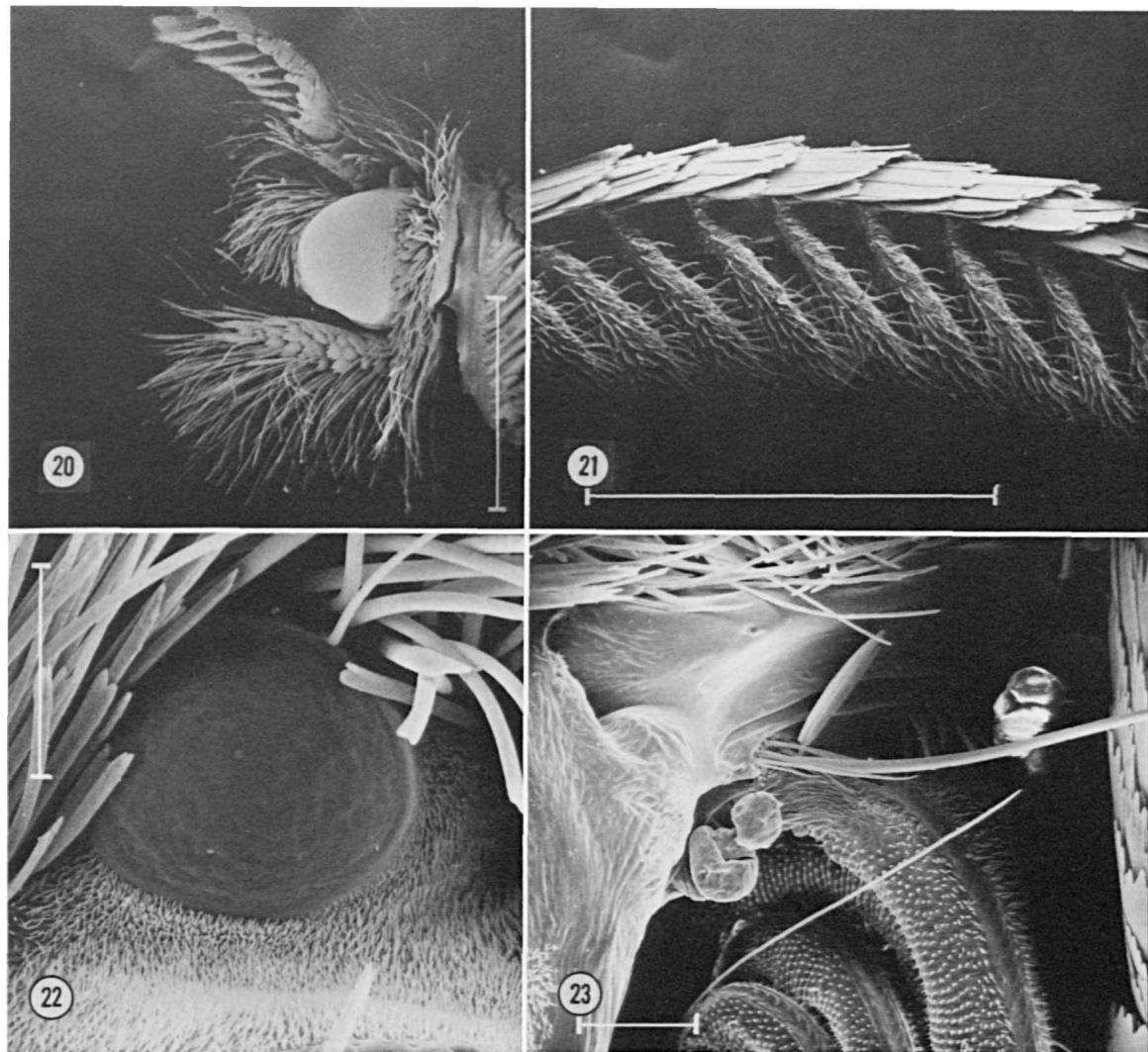
FIGURES 2-7.—Brachodidae adults: 2, *Brachodes appendiculatus* (Esper), male (20 mm wingspread, Hungary); 3, *B. appendiculatus*, female (14 mm wingspread, Hungary); 4, *Miscera resumptana* Walker, male (13.5 mm wingspread, Australia); 5, *Synechodes coniophora* Turner, male (16.5 mm wingspread, Australia); 6, *Sagalassa valida* Walker, male (14 mm wingspread, Guyana); 7, *Phycodes radiata* (Ochsenheimer), female (22 mm wingspread, Sri Lanka).



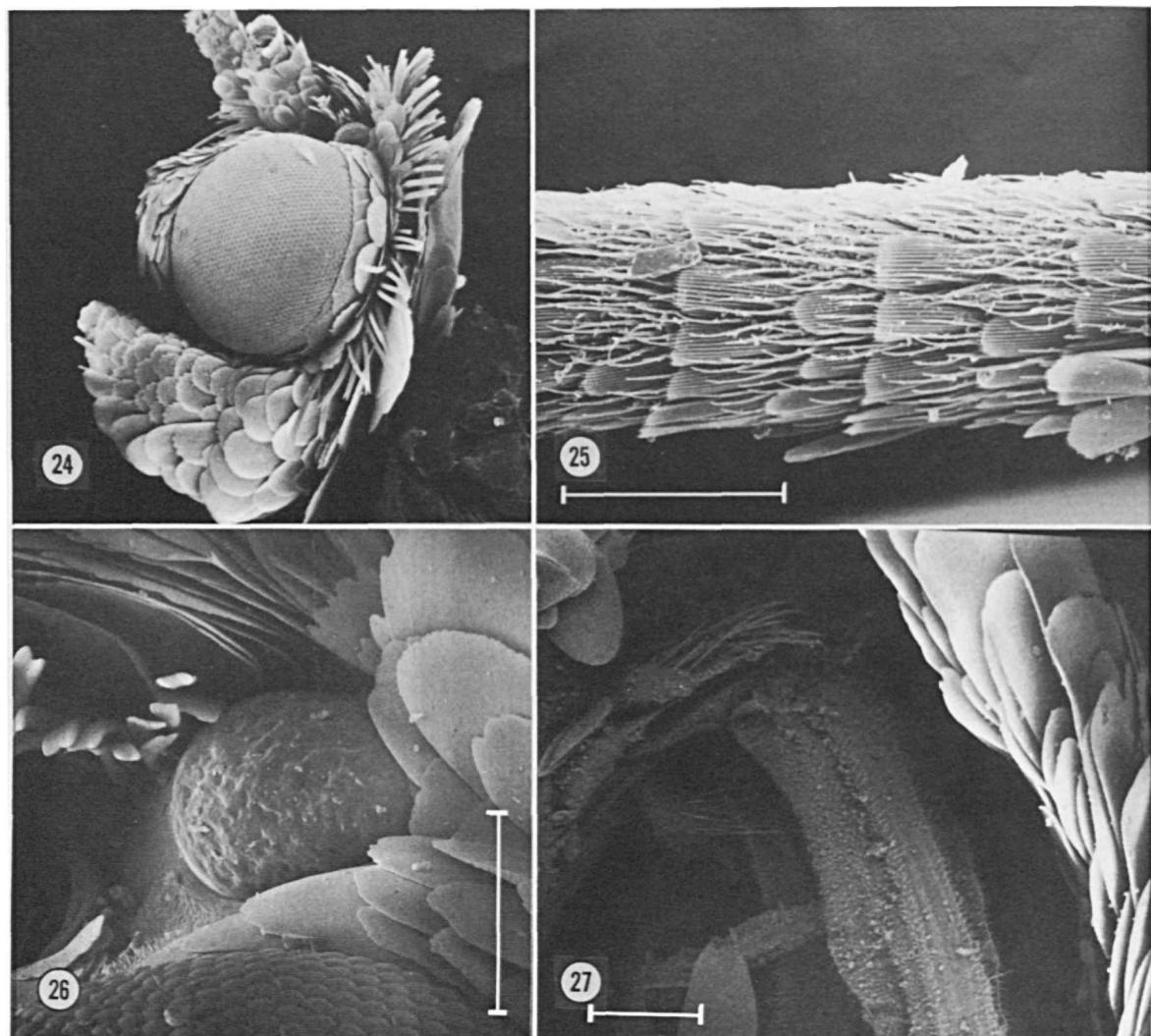
FIGURES 8–13.—Sesiidae adults: 8, *Zenodoxus palmii* (Neumoegeen), male (24 mm wingspread, Washington, USA); 9, *Paranthrene asilipennis* (Boisduval), male (32 mm wingspread, New York, USA); 10, *Euhagena nebraskae* H. Edwards, male (28 mm wingspread, Colorado, USA); 11, *Melittia gloriosa* H. Edwards, male (45 mm wingspread, Oregon, USA); 12, *Sesia apiformis* (Clerck), male (37 mm wingspread, Germany); 13, *Alcathoe carolinensis* Engelhardt, male (33 mm wingspread, Texas, USA).



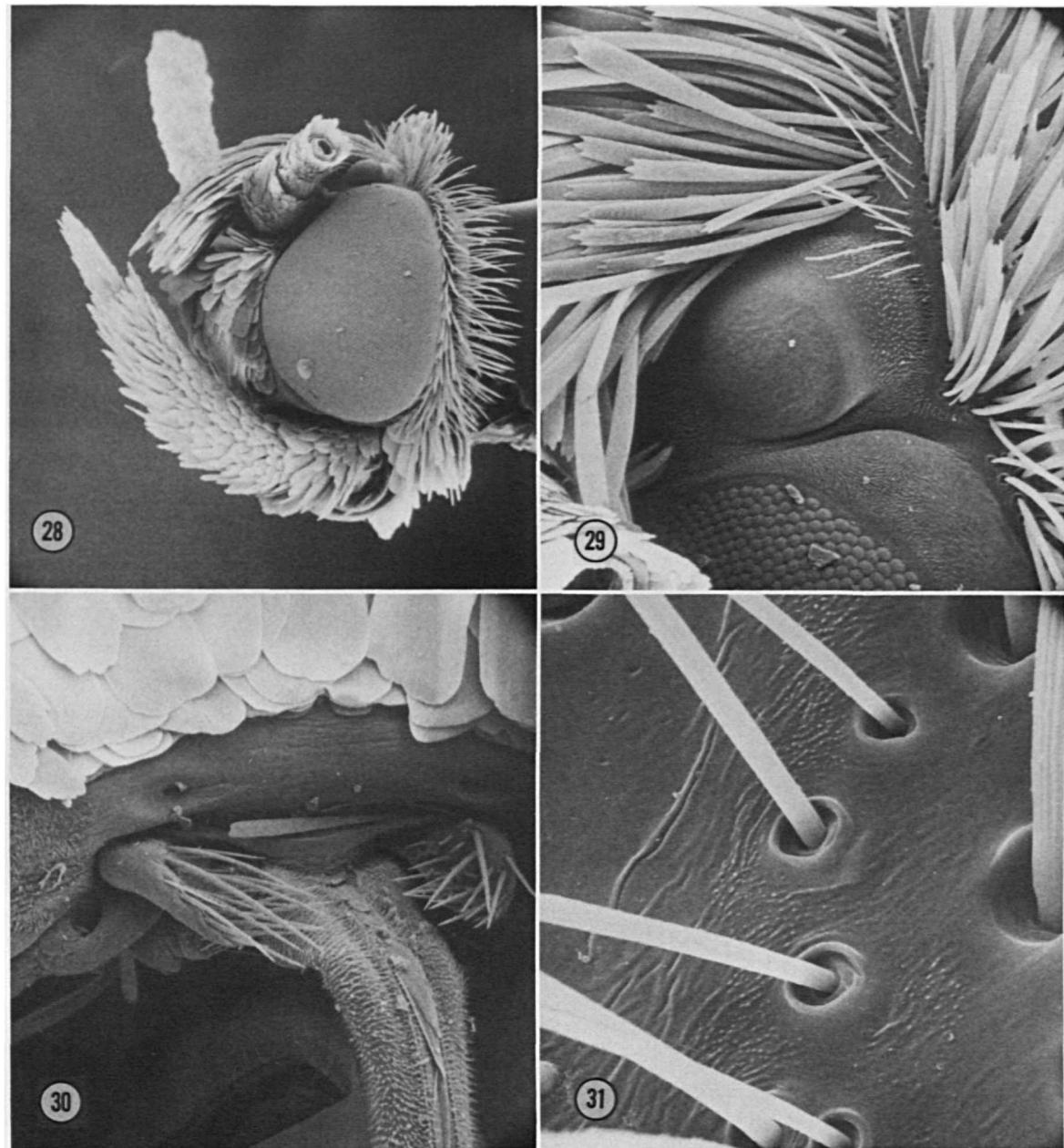
FIGURES 14-19.—Choreutidae adults: 14, *Brenthia pavonacella* Clemens, male (9 mm wingspread, Ohio, USA); 15, *Prochoreutis inflatella* (Clemens), male (10.5 mm wingspread, Ohio, USA); 16, *Caloreas apocynoglossa* (Heppner), female (13 mm wingspread, California, USA); 17, *Choreutis pariana* (Hübner), female (14 mm wingspread, Oregon, USA); 18, *Saptha divitiosa* Walker, female (19 mm wingspread, Taiwan); 19, *Hemerophila diva* (Riley), male (13 mm wingspread, Florida, USA).



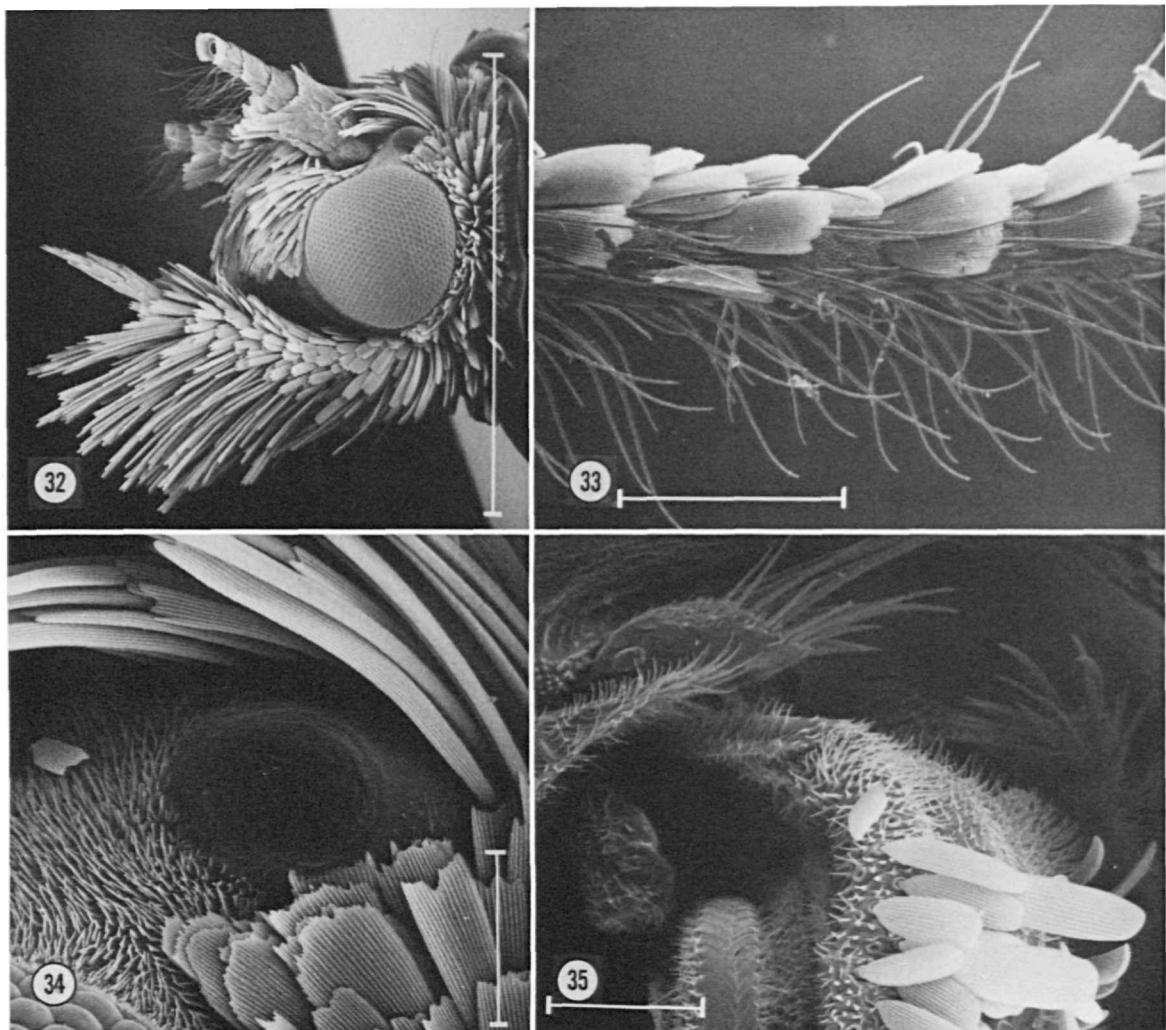
FIGURES 20-23.—Head morphology of Brachodidae: 20, *Brachodes appendiculatus* (Esper), male, head profile ($\times 33$, scale line = 1 mm, slide USNM 77332, Austria); 21, antenna detail ($\times 130$, scale line = 0.5 mm); 22, haustellum base ($\times 185$, scale line = 0.1 mm); 23, ocellus ($\times 330$, scale line = 0.1 mm).



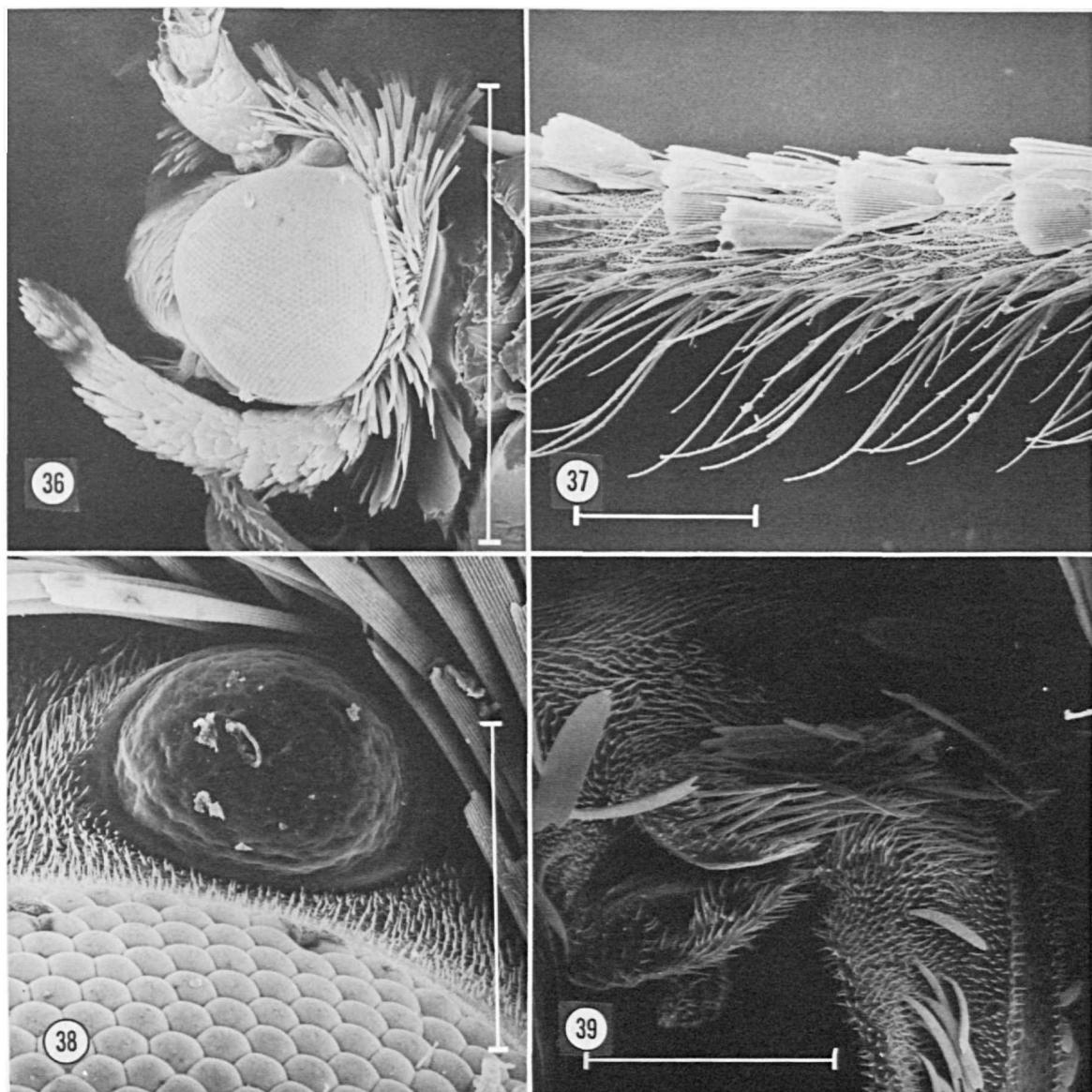
FIGURES 24-27.—Head morphology of Brachodidae: 24, *Phycodes radiata* (Ochsenheimer), male, head profile ($\times 50$, slide USNM 77328, India); 25, antenna detail ($\times 345$, scale line = 0.1 mm); 26, ocellus ($\times 315$, scale line = 0.1 mm); 27, haustellum base ($\times 172$, scale line = 0.1 mm).



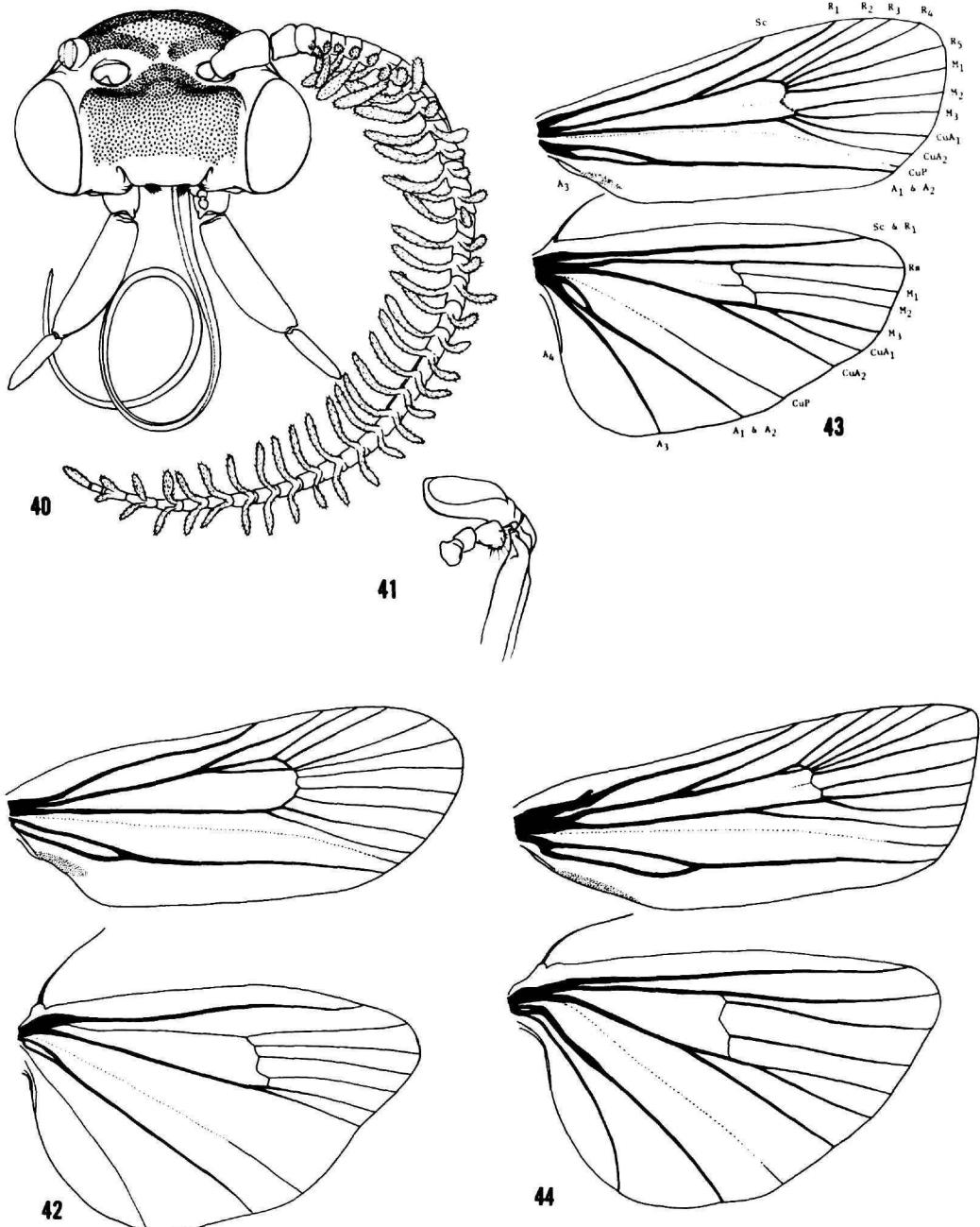
FIGURES 28-31.—Head morphology of Sesiidae: 28, *Synanthesdon exitiosa* (Say), female, head profile ($\times 35$, slide USNM 77701, Georgia, USA); 29, ocellus ($\times 145$); 30, haustellum base ($\times 145$); 31, chaetosema detail ($\times 1450$). (Micrographs reduced to 95%).



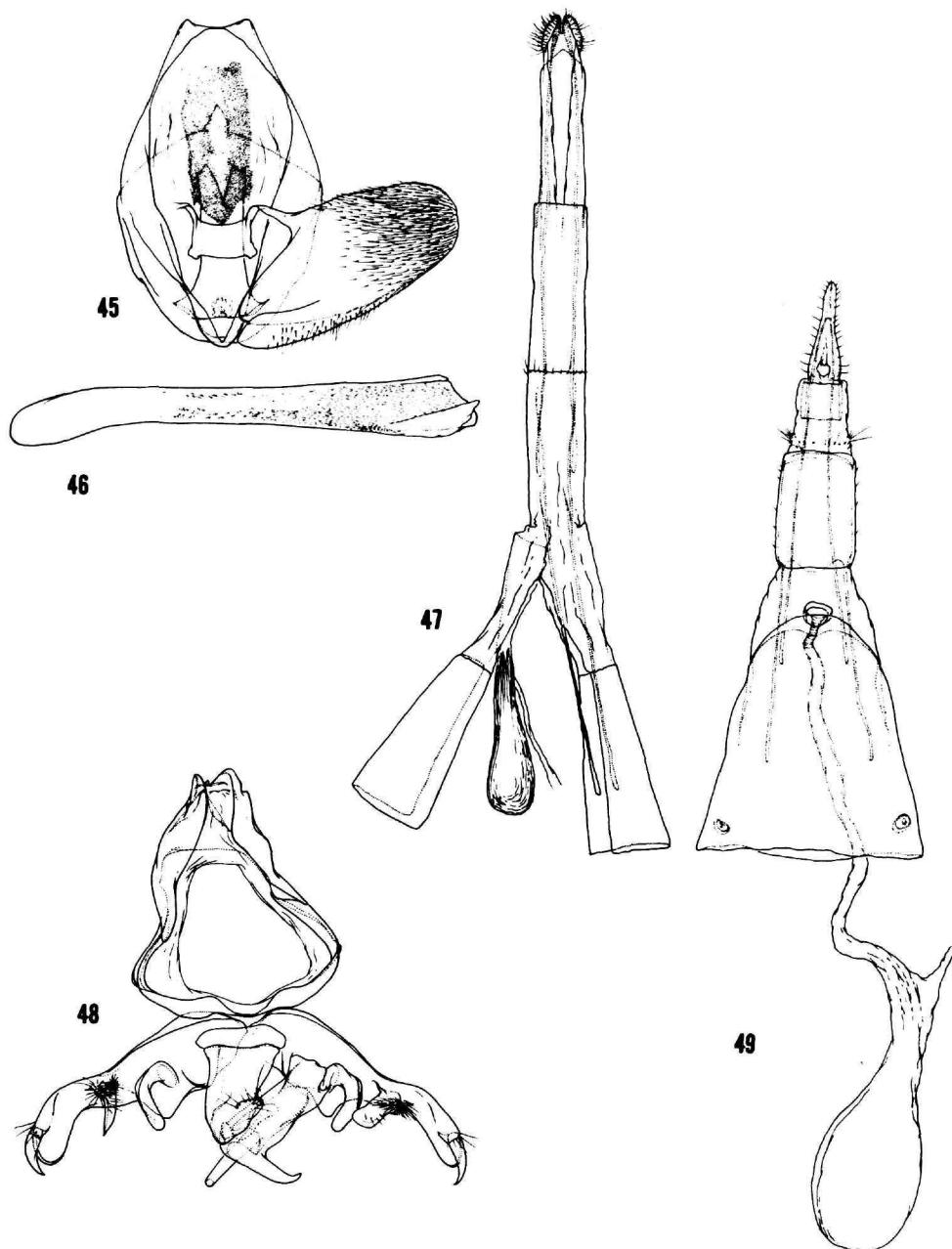
FIGURES 32-35.—Head morphology of Choreutidae: 32, *Caloreas apocynoglossa* (Heppner), male, head profile ($\times 69$, scale line = 1 mm, slide USNM 77329, California, USA); 33, antenna detail ($\times 345$, scale line = 0.1 mm); 34, ocellus ($\times 515$, scale line = 0.05 mm); 35, haustellum base ($\times 455$, scale line = 0.05 mm).



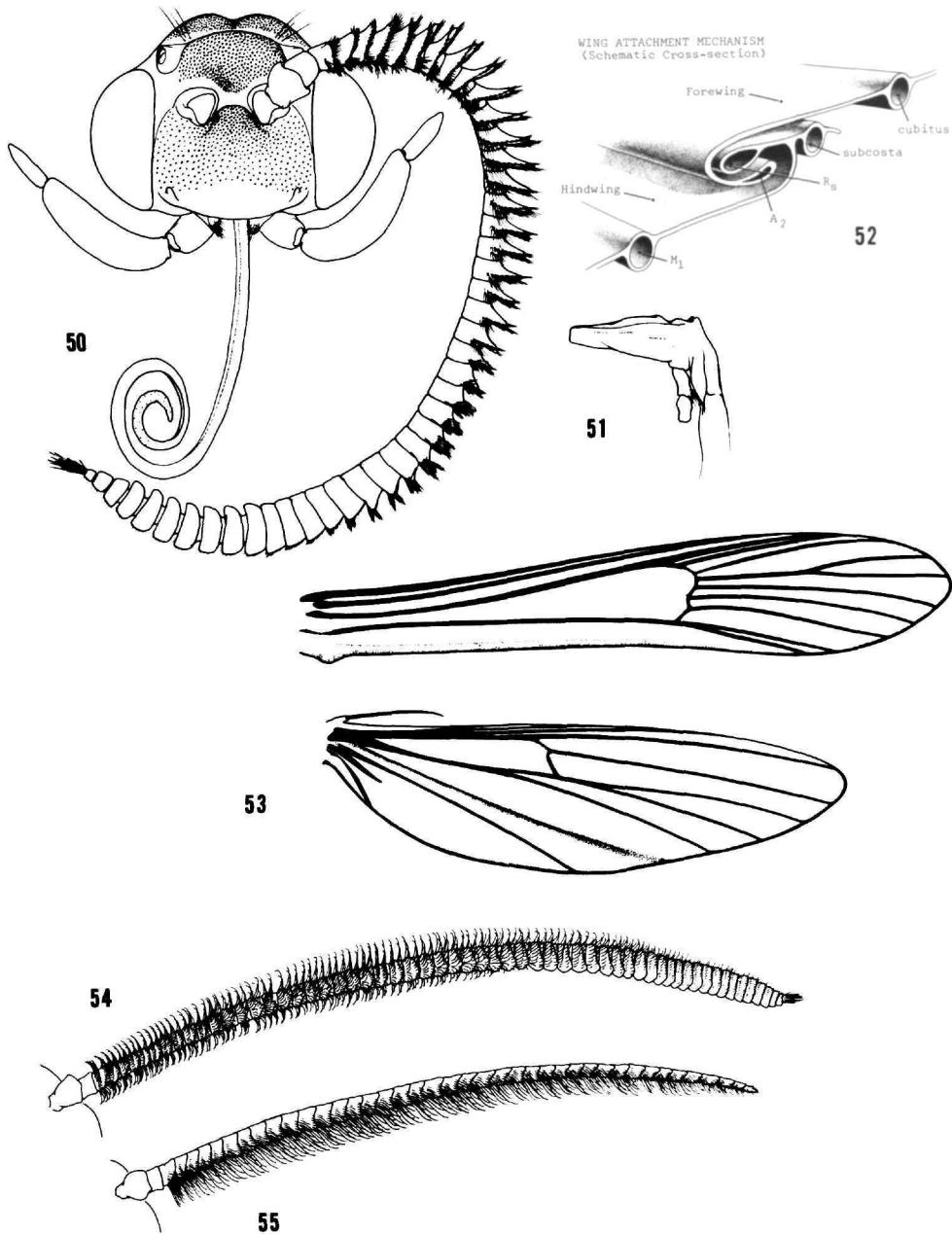
FIGURES 36-39.—Head morphology of Choreutidae: 36, *Hemerophila albertiana* (Cramer), male, head profile ($\times 73$, scale line = 1 mm, slide USNM 77325, Venezuela); 37, antenna detail ($\times 295$, scale line = 0.1 mm); 38, ocellus ($\times 525$, scale line = 0.1 mm); 39, haustellum base ($\times 405$, scale line = 0.1 mm).



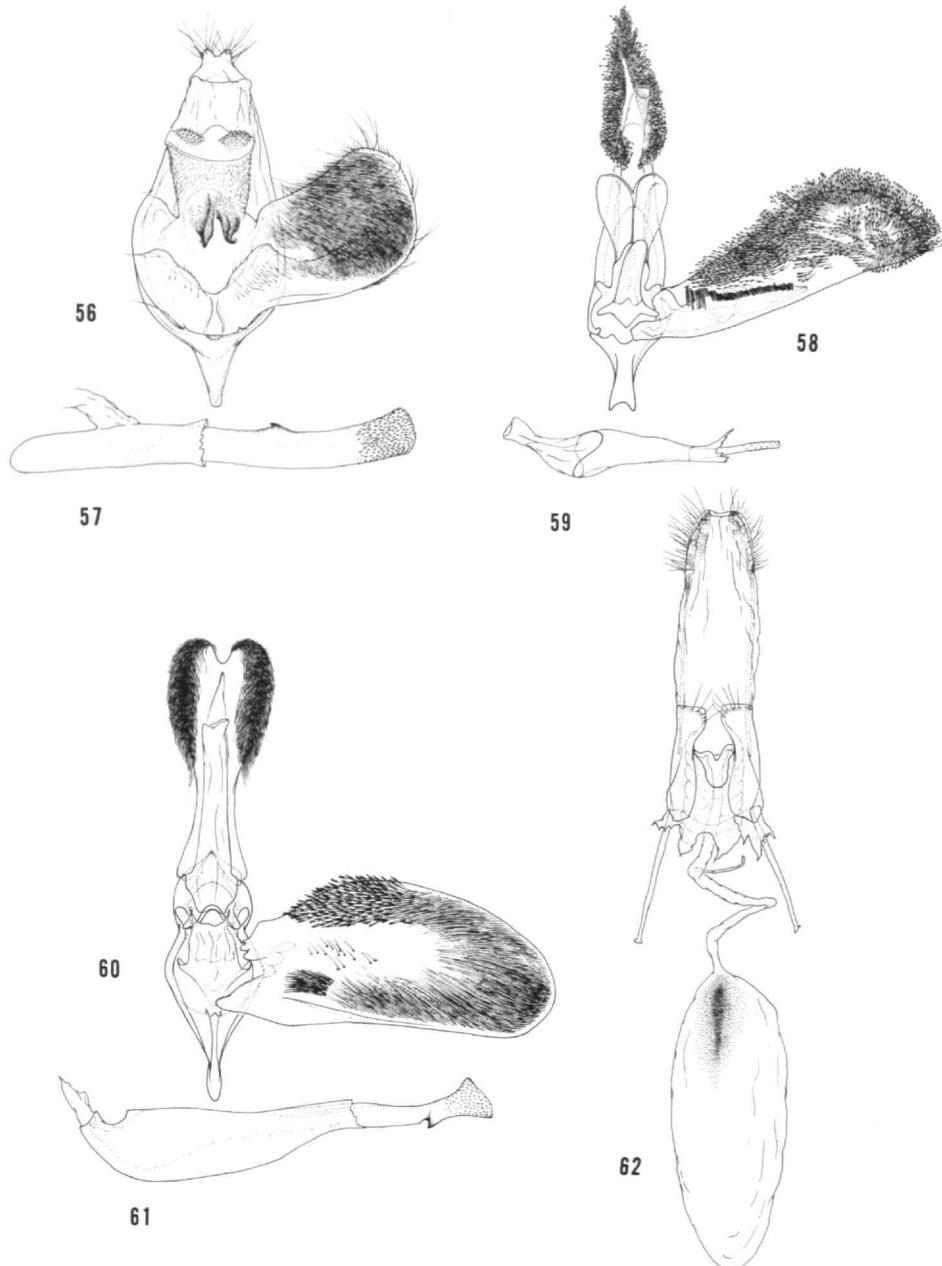
FIGURES 40-44.—Morphology of Brachodidae: 40, *Brachodes appendiculatus* (Esper), female, frontal view of head (slide USNM 77705, Europe); 41, detail of maxillary palpus; 42, wing venation (slide USNM 77548, Europe); 43, *Sagalassa valida* Walker, wing venation (slide USNM 77554, Panama); 44, *Phycodes radiata* (Ochsenheimer), wing venation (slide USNM 77633, India).



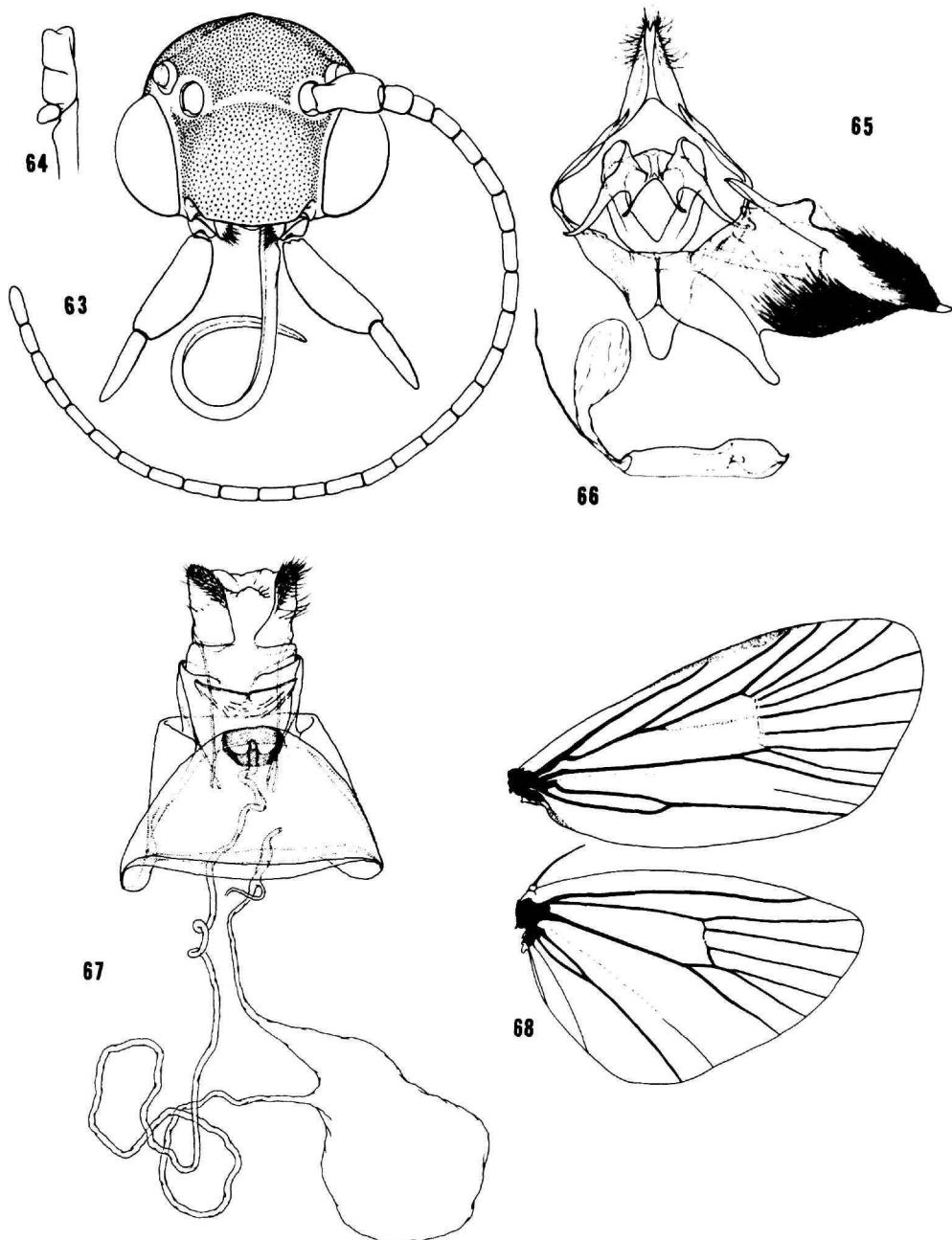
FIGURES 45-49.—Morphology of Brachodidae: 45, *Brachodes appendiculatus* (Esper), male, genitalia (slide USNM 77545, Algeria); 46, aedeagus; 47, female, genitalia (slide USNM 77545, Algeria); 48, *Sagalassa valida* Walker, male, genitalia with aedeagus in situ (slide USNM 77593, Panama); 49, female, genitalia (slide USNM 77593, Panama).



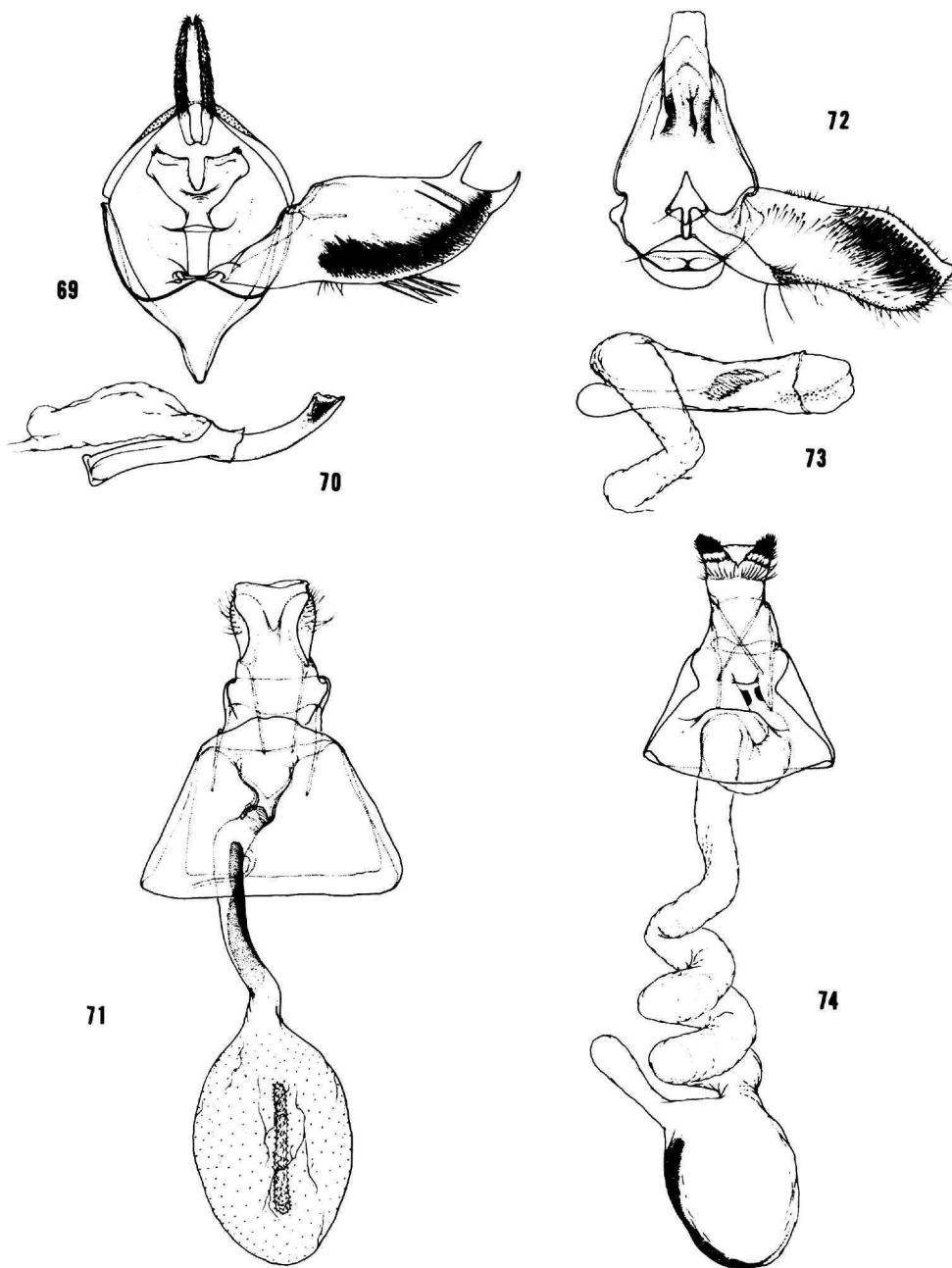
FIGURES 50-55.—Morphology of Sesiidae: 50, *Paranthrene robiniae* (H. Edwards) male, frontal view of head (slide USNM 75777, California, USA); 51, detail of maxillary palpus; 52, schematic cross-section of wing attachment mechanism of Sesiidae; 53, *Podosesia syringae* (Harris), wing venation; 54, male bipectinate-clavate antennal type (Sesiinae); 55, male fasciculate-filiform antennal type (Tinthiinae).



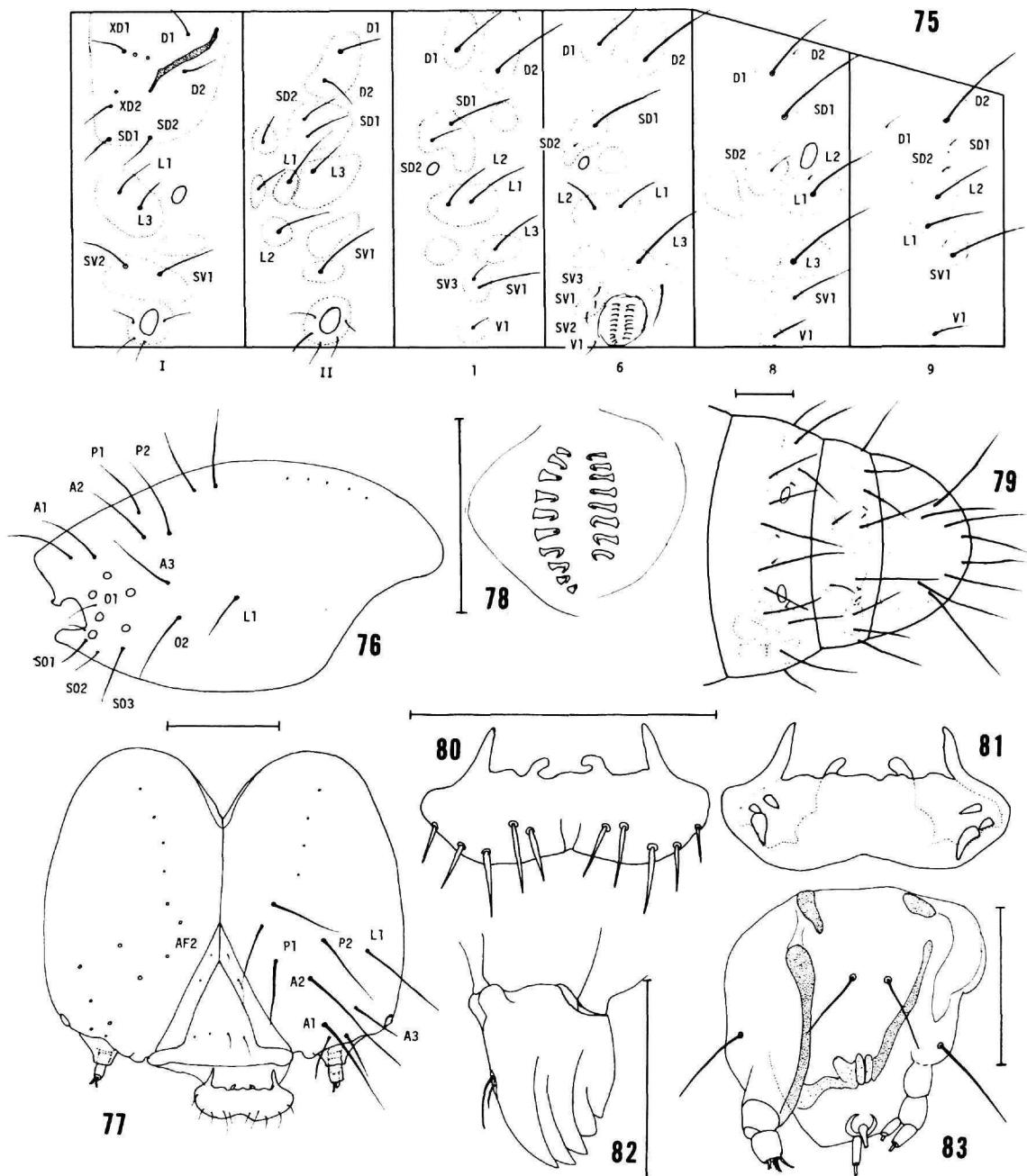
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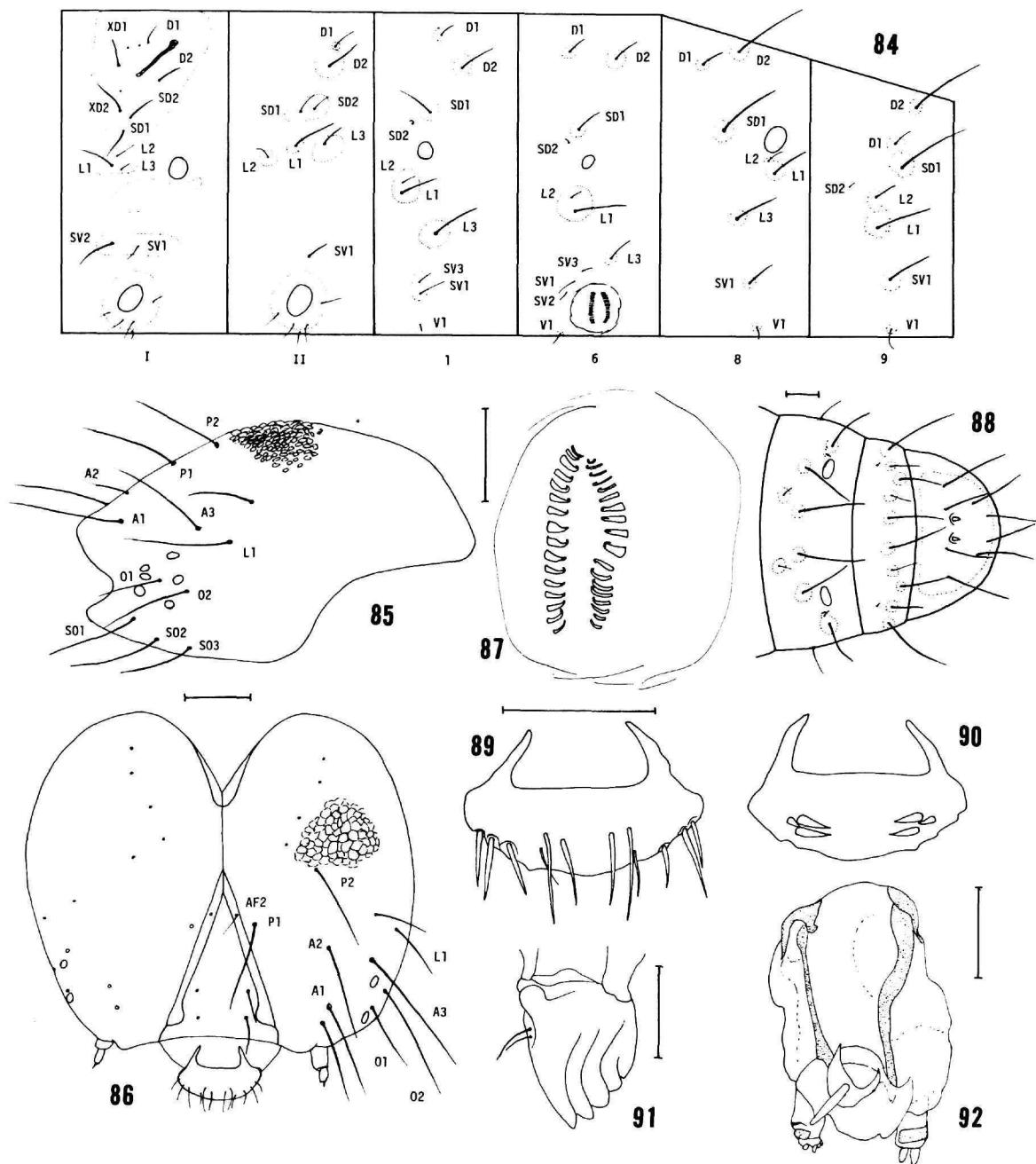
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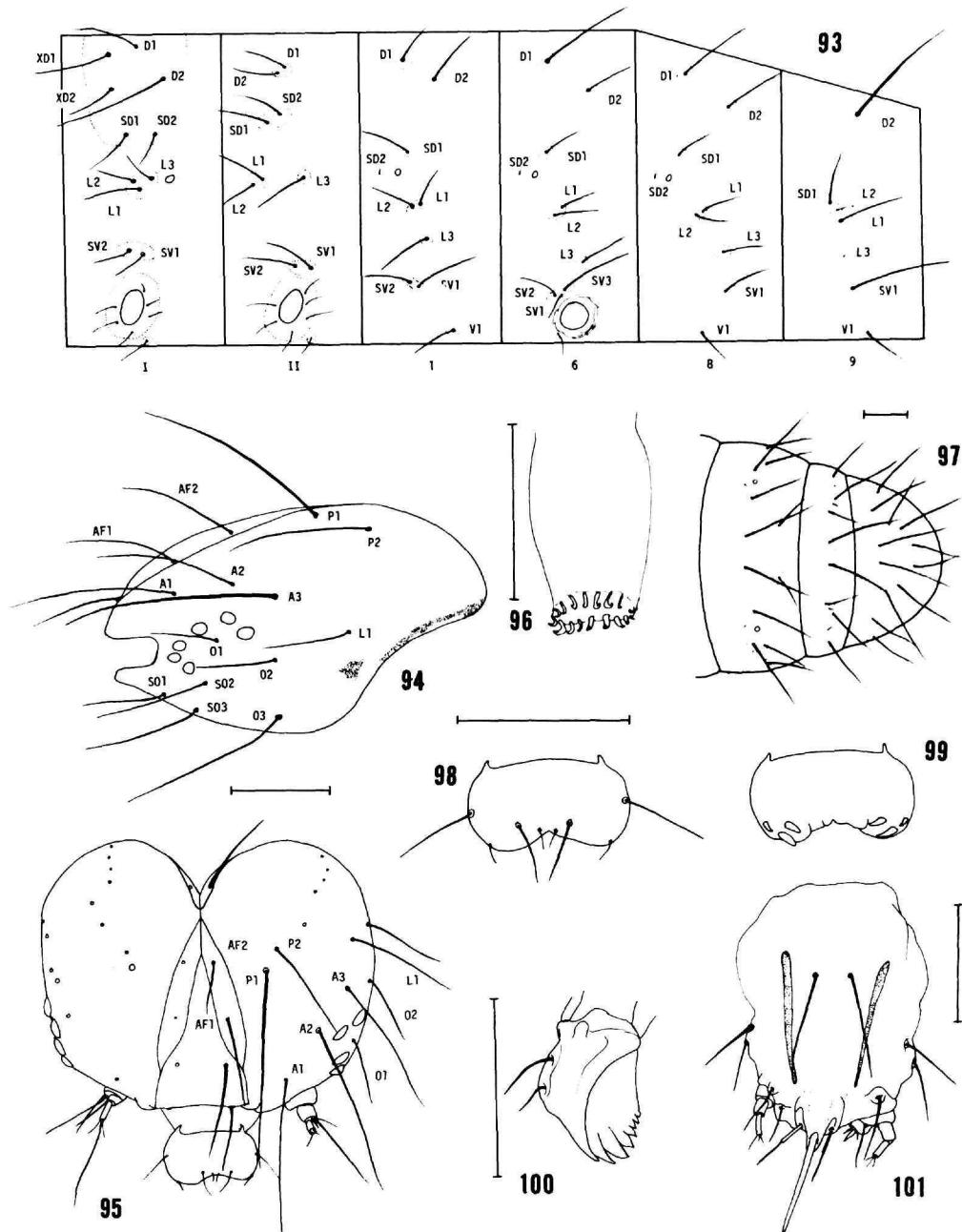
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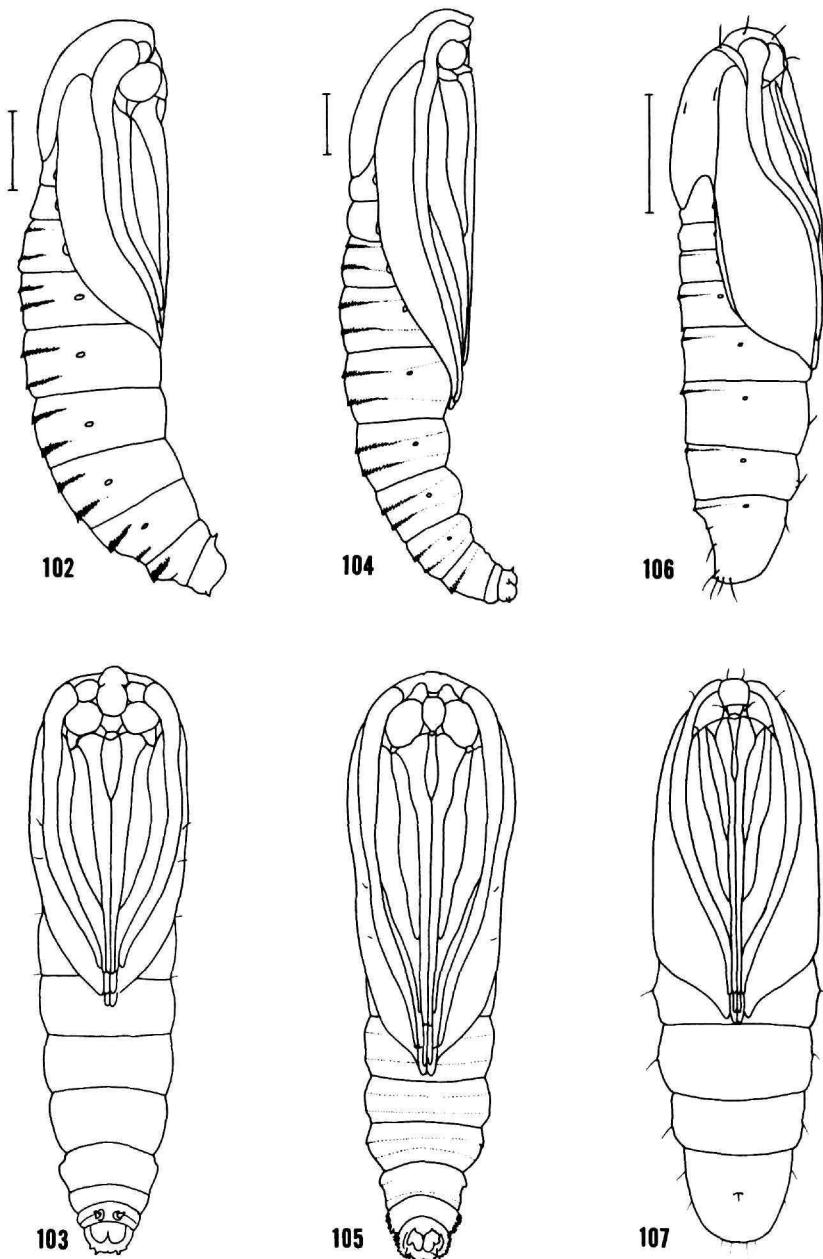
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