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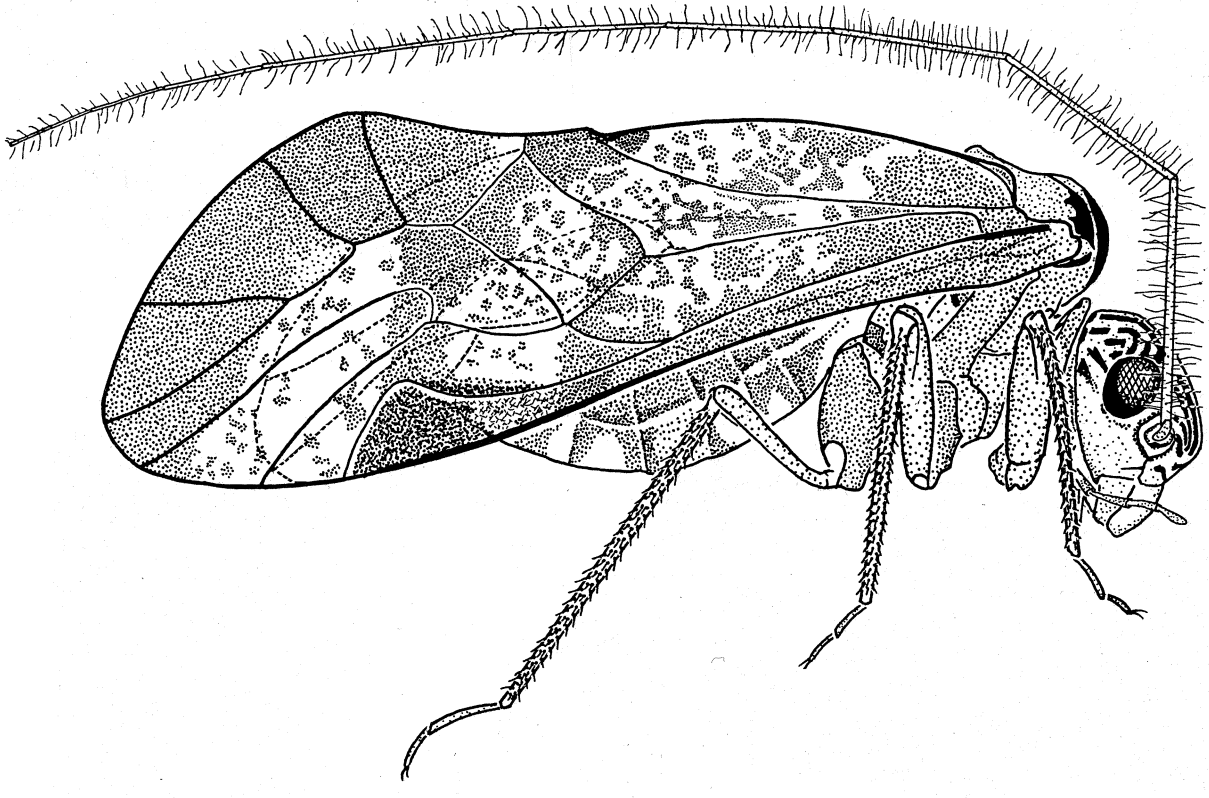

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Keys to the Families and Genera of Psocoptera (Arthropoda: Insecta)

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ABSTRACT. An illustrated key to the families and genera of the insect order Psocoptera is given. A conspectus of the families and genera expresses the classification of the order.

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Contents

Introduction

The most recent comprehensive key to the genera of the order Psocoptera is that of Roesler (1944). This dealt with over 150 genera arranged in 17 families. Roesler's work, so useful for so long, and still so, has gradually become out of date as more genera have been defined. It has been apparent for some time that a more up to date key, even if not completely satisfactory, would be useful, especially to those workers not very familiar with the group. This paper is an attempt to provide such a key. The keys include nearly 300 genera arranged in 36 families.

General introductions to the anatomy of the Psocoptera describing characters used in the keys can be found in Badonnel (1951), Weidner (1972), Smithers (1970,1972), Günther (1974) and New (1974). Routine study techniques are given in Smithers (1978a). There is a list of publications on the order to 1964 (Smithers, 1965) and a list of species to 1965 (Smithers, 1967).

Classification of the Psocoptera

A summary of the history of the classification of the Psocoptera has been published (Smithers, 1972). Most authors now use a classification which is essentially that of Badonnel (1951) which is a modification and combination of those of Pearman (1936) and Roesler (1944), together with recent subsequent contributions by many authors in various families. It should be noted that the suprafamily groups are not comparable with the superfamilies of other insect orders and that it is best to regard them as convenient categories until the many genera requiring further study have been assessed. This applies especially to the Homilopsocidea.A start has been made towards bringing the nomenclature of suprafamily groups into line with those of other orders. For example, Mockford & Garcia Aldrete (1976) have grouped the families of Pearman's Caecilietae into two superfamilies. Smithers (1972) suggested a phylogenetic classification of the order but pointed out that it would be preferable to retain the earlier arrangement for practical purposes until the phylogenetic hypotheses could be widely tested. This recommendation is followed here.

Notes on the Keys

The keys presented here are practical tools to help in recognising families and genera and nothing further is claimed for them. The first is a key to families; this is followed by keys to the genera of each family. While this work was being prepared New (1987) published a key to families. This has been extensively modified and revised to form the basis of the present family key. Mockford (1987) published a key to nymphs which, although based on North American forms, is of wide application. Living genera only are included in the present keys but the conspectus of families includes genera known from amber. The literature

contains some isolated keys to genera of some families or parts of families. Revised definitions of some genera have provided characters of value as key characters; these have been incorporated in some of the keys. Sources of these are acknowledged in the text. The illustrations have come from many sources. Many of them are repeated from Smithers (1972) where the sources are acknowledged. Others which have been added for this paper are acknowledged later.

The keys include genera which have come to my notice up to April, 1988.

Using the Keys

Material identified by means of the keys should always be checked carefully against published definitions and illustrations of the taxon to which the key has led.

Smithers (1972), although not containing a key, does contain definitions and illustrations of the taxa known then to generic level. These should still prove useful although many genera have been described since then and the scope of some has been altered. Genera which are defined (and mostly illustrated) in Smithers (1972) are marked with an asterisk(*) in the conspectus, in the keys to the genera and occasionally elsewhere. It is important to note the comments referring to some of the families and to remember the special problems relating to some of them. The couplets have sets of opposing characters but additional features are sometimes added, in brackets, for guidance only. These additional features may not be restricted to the genera to which the couplet leads. In a few cases more than one genus keys out to a couplet. This indicates that it has not been possible to find a reliable key character on which to separate the genera. It does not necessarily indicate likelihood of synonymy. In these cases a decision will have to be made after reference to the detailed generic diagnoses in the literature. Sometimes the information provided when a genus was originally described is less than that given under a description with a name which later proved to be a synonym. Generic synonyms are provided in Smithers (1967).

A few authors have established subgenera and in other cases genera have been subsequently considered as subgenera. Where these are currently recognised by most workers they are included in the keys as subgenera and appear in brackets.

Special Problems

Polymorphism is frequent in the Psocoptera with wing development varying from aptery, through microptery to macroptery in one or both sexes in some species. Associated with this phenomenon are other modifications in the adults such as loss of ocelli and trichobothria or retention of duplex setae on the paraprocts. In order to cater for these and other aberrant features of some genera it has been necessary to construct the keys so that some taxa run out at more than one point in the key. The keys have been kept as simple as possible using obvious features but it has been necessary to use genitalic features in some cases.

The genera *Clistopsocus* Navas, *Sigmatina* Enderlein and **Marcenendius* Navas cannot be keyed out with certainty as they have been very poorly defined. Roesler(1944) placed the first two as subgenera of the "holding genus" *Psocidus* Pearman. They are certainly members of the Psocidae. *Marcenendius* is probably an amphientomid. The genus *Ptycta* Enderlein now appears to include many species which may not be correctly placed so that some of its species may need reallocation on further study. The same applies to *Psocidus*, for a different reason. For many years species with diverse characters falling within the family Psocidae had been placed in *Psocus* Latreille. It thus became a very large genus without defined limits. Pearman (1932) redefined *Psocus* in a restricted sense. Owing to this redefinition many species were excluded. In order to place these he erected the genus *Psocidus* Pearman (Pearman, 1934) with the intention that it hold the species requiring better placement until they could be reassessed. Owing to the resulting heterogeneous nature of the contents of *Psocidus* it cannot be keyed out. Species not falling within the limits of defined genera of the Psocidae should be compared with those in *Psocidus*.

I shall be pleased to hear of difficulties arising from the use of the keys so that these can be reduced in future publications.

Conspectus of Families and Genera of the Psocoptera

As the keys do not indicate relationships this conspectus is provided to indicate the current classification in use by most authors. Genera illustrated and/or defined in Smithers (1972) are indicated by an asterisk(*).

Order **Psocoptera**

Suborder **Trogiomorpha**

Group **Atropetae**

Lepidopsocidae

Thylacellinae

**Thylacella* Enderlein, 1911; **Thylax* Hagen, 1866 (amber).

Perientominae

**Lepium* Enderlein, 1906b; **Nepticulomima* Enderlein,

1906b; **Notolepium* Enderlein, 1910; **Parasoa* Thornton, 1962; **Perientomum* Hagen, 1865; **Proentomum* Badonnel, 1949; **Soa* Enderlein, 1904.

Lepidopsocinae

**Cyptophania* Banks, 1931; **Echinopsocus* Enderlein, 1903; **Echmepteryx* Aaron, 1886; **Lepidopsocus* Enderlein, 1903; **Pteroxanium* Enderlein, 1922; **Scolopama* Enderlein, 1906b.

Lepolepidinae

**Lepolepis* Enderlein, 1906b.

Trogiidae

Empheriinae

**Empheria* Hagen, 1856 (amber); **Trichempheria* Enderlein, 1911 (amber).

Trogiinae

**Anomocopeus* Badonnel, 1967a; **Cerobasis* Kolbe, 1882a; *Eolepinotus* Vishnyakova, 1975(amber); **Lepinotus* Heyden, 1850; **Myrmicodipnella* Enderlein, 1909; **Trogium* Illiger, 1798.

Psoquillidae

**Balliella* Badonnel, 1949; **Eosilla* Ribaga, 1908; **Psoquilla* Hagen, 1865; *Rhyopsoculus* Garcia Aldrete, 1984; **Rhyopsocus* Hagen, 1876.

Group **Psocathropetae**

Psyllipsocidae

**Dorypteryx* Aaron, 1884; *Khatangia* Vishnyakova, 1975 (amber); *Pseudorypteryx* Garcia Aldrete, 1984; **Psocathropos* Ribaga, 1899; **Psyllipsocus* Selys-Longchamps, 1872.

Prionoglarididae

**Prionoglaris* Enderlein, 1909; **Speleketor* Gurney, 1943.

Suborder **Troctomorpha**

Group **Amphientometae**

Amphientomidae

Electrentominae

**Electrentomum* Enderlein, 1911 (amber); **Parelectrentomum* Roesler, 1940 (amber); **Phallopsocus* Badonnel, 1967a.

Tineomorphinae

**Cymatopsocus* Enderlein, 1903; **Tineomorpha* Enderlein, 1906b.

Amphientominae

**Amphientomum* Pictet, 1854; **Hemiseopsis* Enderlein, 1906b; **Marcenendius* Navas, 1913; *Neoseopsis* Badonnel, 1986; **Nephax* Pearman, 1935; **Paramphientomum* Enderlein, 1906b; *Proamphientomum* Vishnyakova, 1975(amber); **Pseudoseopsis* Badonnel, 1955; **Seopsis* Enderlein, 1906b; **Seopsocus* Roesler, 1940; **Stigmatopathus* Enderlein, 1903a; **Stimulopalpus* Enderlein, 1906b; **Syllysis* Hagen, 1865.

Musapsocidae

**Musapsocus* Mockford, 1967.

Troctopsocidae

Chelyopsocus Lienhard, 1980; **Protroctopsocus* Mockford, 1967; **Troctopsocopsis* Mockford, 1967; **Troctopsoculus* Mockford, 1967; **Troctopsocus* Mockford, 1967 (=**Plaumannia* Roesler, 1940).

Manicapsocidae

**Manicapsocus* Smithers, 1966; **Nothoentomum* Badonnel, 1967a.

Compsocidae

**Compsocus* Banks, 1930; **Electrentomopsis* Mockford, 1967.

Group **Nanopsocetae**

Liposcelidae

Embidopsocinae

**Belapha* Enderlein, 1917; **Belaphopsocus* Badonnel, 1955; **Belaphotroctes* Roesler, 1943; *Chaetotroctes* Badonnel, 1972;*Embidopsocopsis* Badonnel, 1972; **Embidopsocus* Hagen, 1866; **Troctulus* Badonnel, 1955.

Liposcelinae

**Liposcelis* Motschulsky, 1852.

Pachytroctidae

Tapinellinae

Nanopsocus Pearman, 1928; **Psylloneura* Enderlein, 1903; **Tapinella* Enderlein, 1908.

Pachytroctinae

**Antilopsocus* Gurney, 1965; *Leptotroctes* Badonnel, 1973; *Nymphotroctes* Badonnel, 1931; *Peritroctes* Ribaga, 1911; **Pachytroctes* Enderlein, 1905; *Psacadium* Enderlein, 1908.

Sphaeropsocidae

**Badonnelia* Pearman, 1953; **Sphaeropsocopsis* Badonnel, 1963; **Sphaeropsocus* Hagen, 1882 (amber).

Suborder **Psocomorpha**

Group **Epipsocetae**

Epipsocidae

Gojinae

**Goja* Navas, 1927.

Neurostigminae

**Neurostigma* Enderlein, 1900.

Epipsocinae

Dicropsocus Smithers & Thornton, 1977; **Epipsocopsis* Badonnel, 1955; **Epipsocus* Hagen, 1866a; *Mesepipsocus* Badonnel, 1969; *Hinduipsocus* Badonnel, 1981b; *Parepipsocus* Badonnel, 1986.

Dolabellapsocidae

Auroropsocus Eertmoed, 1973; *Dolabellapsocus* Eertmoed, 1973; *Isthmopsocus* Eertmoed, 1973.

Cladiopsocidae

**Cladiopsocus* Roesler, 1940; *Spurostigma* Eertmoed, 1973.

Ptiloneuridae

**Euplocania* Enderlein, 1910; **Ptiloneura* Enderlein, 1900; **Ptiloneuropsis* Roesler, 1940; **Triplocania* Roesler, 1940.

Group **Caecilietae**

Superfamily **Asiopsocoidea**

Asiopsocidae

**Asiopsocus* Günther, 1968; **Notiopsocus* Banks, 1913; *Pronotiopsocus* Mockford, 1983.

Superfamily **Caecilioidea**

Caeciliidae

Dypsocinae

**Coryphosmila* Enderlein, 1925; **Dypsocus* Hagen, 1866a; **Isophanes* Banks, 1937.

Caeciliinae

Aphyopsocus Smithers, 1982; *Austrocaecilius* Smithers, 1981; **Caecilius* Curtis, 1837; **Enderleinella* Badonnel, 1932;**Fuellebornella* Enderlein, 1902; *Isophanopsis* Badonnel, 1981; **Lacroixiella* Badonnel, 1943; **Mepleres* Enderlein, 1926; *Mockfordiella* Badonnel, 1977b; **Paracaecilius* Badonnel, 1931; **Ptenolasia* Enderlein, 1911; *Smithersiella* Badonnel, 1977; **Ypsiloneura* Pearman, 1932; *Hageniola* Banks, 1931.

Stenopsocidae

Graphopsocus Kolbe, 1880a; *Stenopsocus* Hagen, 1866a.

Amphipsocidae

Amphipsocinae

Kolbeini

Kolbea Bertkau, 1883.

Schizopechini

Schizopechus Pearman, 1934.

Capillopsocini

Capillopsocus Mockford, 1978.

Dasypsocini

Dasypsocus Enderlein, 1906; *Brachypsocus* Lienhard, 1979.

Polypsocini

Polypsocus Hagen, 1866a; *Monocladellus* Enderlein, 1909.

Amphipsocini

Taeniostigma Enderlein, 1901; *Tagalopsocus* Banks, 1916; *Ctenopsocus* Badonnel, 1969; *Amphipsocus* McLachlan, 1872; *Harpezoneura* Enderlein, 1909; *Pentathyrsus* Enderlein, 1912; *Xenopsocus* Kolbe, 1885; *Amphipsocopsis* Smithers, 1864; *Afropsocus* Mockford, 1978; *Kodamaius* Okamoto, 1907; *Epikodamaius* Kuwayama, 1961.

Calocaeciliinae

Calocaecilius Mockford, 1974.

Dasydemellinae

Dasydemellini

Dasydemella Enderlein, 1909; *Matsumuraiella* Enderlein, 1906; *Teliapsocus* Chapman, 1930.

Ptenopsilini

Ptenopsila Enderlein, 1923.

Group **Homilopsocidea**

Lachesillidae

Eolachesillinae

Graphocaeciliini

Anomopsocus Roesler, 1940b; *Antilachesilla* Mockford & Sullivan, 1986; *Archaelachesis* Vishnyakova, 1975 (amber); *Graphocaecilius* Enderlein, 1900; *Mesolachesilla* Mockford & Sullivan, 1986; *Nanolachesilla* Mockford & Sullivan, 1986; *Notolachesilla* Mockford & Sullivan, 1986; *Prolachesilla* Mockford & Sullivan, 1986; *Tricholachesilla* Mockford & Sullivan, 1986.

Eolachesillini

Eolachesilla Badonnel, 1967a.

Lachesillinae

Nadleria Badonnel & Garcia Aldrete, 1979; *Lachesilla* Westwood, 1840.

Ectopsocidae

Ectopsocopsis Badonnel, 1955; *Ectopsocus* McLachlan, 1899; *Interpsocus* Edwards, 1950; *Mascaropsocus* Badonnel & Pearman, 1971.

Peripsocidae

Kaestneriella Roesler, 1943; *Peripsocus* Hagen, 1866a.

Calopsocidae

Callistopterinae

Callistoptera Enderlein, 1903.

Calopsocinae

Calopsocus Hagen, 1866a; *Calosema* Thornton & Smithers, 1984; *Nemupsocus* New, 1978; *Neurosema* McLachlan, 1866; *Torrepsocus* Thornton & Smithers, 1984; *Dendropsocus* Thornton & Smithers, 1984; *Cyclopsocus* Thornton & Smithers, 1984.

Trichopsocidae

Palaeopsocus Kolbe, 1883 (amber); *Trichopsocus* Kolbe, 1882.

Archipsocidae

Archipsocinae

Archipsocopsis Badonnel, 1966; **Archipsocus* Hagen, 1882.

Pararchipsocinae

Pararchipsocus Badonnel, Mockford & Garcia Aldrete, 1984; *Pseudarchipsocus* Mockford, 1974.

Pseudocaeciliidae

Pseudocaeciliinae

**Allocaecilius* Lee & Thornton, 1967; *Allopsocus* Banks, 1920; **Cladioneura* Enderlein, 1906a; *Diplocaecilius* Badonnel, 1976; **Heterocaecilius* Lee & Thornton, 1967; **Lobocaecilius* Lee & Thornton, 1967; **Mesocaecilius* Okamoto, 1910; **Ophiodopelma* Enderlein, 1908; **Phallocaecilius* Lee & Thornton, 1967; **Pseudocaecilius* Enderlein, 1903; **Pseudoscottiella* Badonnel, 1946; **Scottiella* Enderlein, 1931; **Scytopsocopsis* Lee & Thornton, 1967; **Scytopsocus* Roesler, 1940a; **Trichocaecilius* Badonnel, 1967; *Trimerocaecilius* Meinander, 1978.

Zelandopsocinae

**Austropsocus* Smithers, 1962; *Novopsocus* Thornton, 1984; **Zelandopsocus* Tillyard, 1923.

Electropsocinae

**Electropsocus* Roesler, 1940 (amber).

Bryopsocidae

Bryopsocus Thornton, Wong & Smithers, 1977.

Philotarsidae

Philotarsini

**Haplophallus* Thornton, 1959; **Philotarsus* Kolbe, 1880a.

Aaroniellini

**Aaroniella* Mockford, 1951; *Latrobiella* Thornton, 1981; *Tarsophilus* Mockford & Broadhead, 1982.

Elipsocidae

Elipsocinae

Cretapsocus Vishnyakova, 1975 (amber); **Cuneopalpus* Badonnel, 1943; **Drymopsocus* Smithers, 1963; **Elipsocus* Hagen, 1866a; **Hemineura* Tetens, 1891; **Kilauella* Enderlein, 1913; **Palistreptus* Enderlein, 1920; *Sabulopsocus* Smithers, 1969.

Pseudopsocinae

Clinopsocus New, 1972; **Palmicola* Mockford, 1955; **Pseudopsocus* Kolbe, 1882a; **Reuterella* Enderlein, 1903.

Propsocinae

**Antarctopsocus* Badonnel, 1947; **Pentacladus* Enderlein, 1906a; **Propsocus* McLachlan, 1866; **Spilopsocus* Smithers, 1963a.

Nepiomorphinae

**Nepiomorpha* Pearman, 1936a; **Nothopsocus* Badonnel, 1967a; **Paedomorpha* Smithers, 1963; **Roesleria* Badonnel, 1963.

Lesneiinae

**Hemicaecilius* Enderlein, 1903a; **Lesneia* Badonnel, 1931.

Mesopsocidae

Cyrtopsochus Costa, 1885; **Hexacyrtoma* Enderlein, 1908; **Labocoria* Enderlein, 1910; **Mesopsocus* Kolbe, 1880; *Metapsocus* Badonnel, 1982; **Psoculus* Roesler, 1954; *Rhinopsocus* Badonnel & Lienhard, 1987.

Group Psocetae

Hemipsocidae

**Anopistoscena* Enderlein, 1912; **Hemipsocus* Selys-Longchamps, 1872.

Psocidae

Amphigerontiinae

**Amphigerontia* Kolbe, 1880a; **Blaste* Kolbe, 1883a; **Blastopsocidus* Badonnel, 1967; *Blastopsocus* Roesler, 1943; *Chaetopsocidus* Badonnel, 1986; *Euclismioides*

Smithers & Thornton, 1981; **Elaphopsocus* Roesler, 1940b; **Lasiopsocus* Enderlein, 1907a; **Neoblaste* Thornton, 1960; **Neopsocopsis* Badonnel, 1936.

Cerastipsocinae

Cerastipsocini

**Cerastipsocus* Kolbe, 1884; *Cervopsocus* New, 1978; *Clematoscenea* Enderlein, 1907; *Dinopsocus* Banks, 1920; *Dactylopsocus* Roesler, 1940; **Eremopsocus* McLachlan, 1866; **Ghesquierella* Badonnel, 1949b; *Podopterocus* Banks, 1920; **Neopsocus* Kolbe, 1882a; **Psococerastis* Pearman, 1932; *Setopsocus* Smithers & Thornton, 1981.

Metylophorini

**Brachinodiscus* Enderlein, 1925; **Diplacanthoda* Enderlein, 1909; **Metylophorus* Pearman, 1932; **Pearmania* Badonnel, 1946; **Pilipsocus* Badonnel, 1935; *Sigmatoneura* Enderlein, 1908.

Cycetini

**Cycetes* Enderlein, 1907.

Psocinae

**Atlantopsocus* Badonnel, 1944; *Barrowia* Smithers, 1984; **Camelopsocus* Badonnel, 1944; *Clematostigma* Enderlein, 1906; *Clistopsocus* Navas, 1924c; **Copostigma* Enderlein, 1903; *Elytropsocus* Smithers & Thornton, 1981; **Hyalopsocus* Roesler, 1954; *Indiopsocus* Mockford, 1974; *Kaindipsocus* Smithers & Thornton, 1981; *Mecampsis* Enderlein, 1939; **Oreopsocus* Roesler, 1939; **Psocidus* Pearman, 1934; *Psocomesites* Roesler, 1943; **Psocus* Latreille, 1794; *Sigmatina* Enderlein, 1925; **Steleops* Enderlein, 1910; **Ptycta* Enderlein, 1925; *Tanystigma* Smithers, 1983; **Trichadenotecnum* Enderlein, 1909.

Thyrsophorinae

**Thyrsophorus* Burmeister, 1839; **Thyrsopsocus* Enderlein, 1900.

Psilopsocidae

**Psilopsocus* Enderlein, 1903.

Myopsocidae

**Lichenomima* Enderlein, 1910; **Lophopterygella* Enderlein, 1907; *Mouldsia* Smithers, 1978; **Myopsocus* Hagen, 1866a.

Psocida agnota

Empheriopsis Vishnyakova, 1975 (amber) - position uncertain.

Key to the Families of Psocoptera

1. Macropterous 2

----- Brachypterous, micropterous or apterous 67

2. Tarsi 2-segmented 3

----- Tarsi 3-segmented 42

3. Tarsal claws with at least one preapical tooth on at least one claw on a pair (check all pairs) (Fig. 1) 4

----- Tarsal claws without preapical tooth (check all pairs) (Fig. 2) 30

4. Fore wing membrane with dense clothing of setae (Figs 3,4) 5

----- Fore wing membrane without dense clothing of setae. If setae are present on membrane they are limited in area or sparse 8

5. Fore wing veins evanescent, especially in distal part of wing (Fig. 4) ..... Archipsocidae

----- Fore wings veins distinct, obvious in distal part of wing (Fig. 3) 6

6. Fore wing venation normal, consisting of main veins, their branches and usual crossveins (Fig. 5) 7

----- Fore wing venation includes at least some accessory veins and anastomoses of veins with resultant formation of adventitious cells (Figs 3,6) ..... Calopsocidae

7. Areola postica fused to M (Fig. 7) ..... Psocidae

----- Areola postica free (Fig. 5) ..... Pseudocaeciliidae

8. Fore wing with secondary veins behind pterostigma (Fig. 8) 9

----- Fore wing without secondary veins behind pterostigma (Fig. 9). (Some irregular anastomoses of veins in central area of wing, but then pterostigma is widest in basal half, cf. *Thyrsopsocus*, Fig. 10) 10

9. Head elongate. Labrum with 2 longitudinal ridges or bars from base to anterior margin (Fig. 11) ..... Epipsocidae

----- Head not elongate. Labrum without ridges or bars from base to anterior margin (Fig. 12) ..... Calopsocidae

10. Fore wing without areola postica (Fig. 13). (If Cu1a joins a 2-branched M and is lost distally so that an areola postica appears to be very extensive cf.Hemipsocidae) 11

----- Fore wing with an areola postica (Fig. 9) 12

11. Wings glabrous (Fig. 13) or, if veins are setose in fore wing, hind wing margin is bare (Fig. 13) ..... Peripsocidae

----- Wings with at least a few setae on veins (Fig. 14). Hind wing usually with setae on margin between arms of radial fork ..... Elipsocidae

12. Areola postica joined to M by a crossvein (Fig. 15) or by fusion of Cu1a and M (Fig. 16) 13

----- Areola postica free, that is, Cu1a not connected to M (Fig. 9) 16

13. Areola postica joined to M by a crossvein (Figs 15,17) 14

----- Areola postica fused with M for a length (Fig. 16) 15

14. Fore wing M 2-branched (Fig. 15) ..... Hemipsocidae

----- Fore wing M 3-branched (Fig. 16) ..... Psocidae

15. Male hypandrium simple or with 2 simple posterior apophyses (Fig.18). Female gonapophyses reduced to ventral and external valves (or the 2 fused to appear as 1 valve) (Fig. 19) ..... Lachesillidae

----- Male hypandrium heavily sclerotised and ornamented with a variety of apophyses, spines, hooks, teeth, lobes or other structures (Fig. 20). Female gonapophyses complete, consisting of ventral, dorsal and external valves (Fig. 21) ..... Psocidae

16. Head elongate. Labrum with 2 longitudinal ridges or bars from base to anterior margin (Fig. 11) 17

----- Head not elongate. Labrum without ridges or bars from base to anterior margin. (Occasionally incomplete bars may be present) 20

17. Fore wing with 1 anal vein (Fig. 9) 18

----- Fore wing with 2 anal veins (Fig. 22) 19

18. Pterostigma with a series of crossveins from R1 to anterior wing margin (Fig. 23). Cu1a and Cu1b separate ..... *(Neurostigma)*Epipsocidae

----- Pterostigma without crossveins (Fig. 24) ..... Epipsocidae

19. Posterior angle of pterostigma with spurvein and/or other veins with spurs (Fig. 22) ..... Cladiopsocidae

----- Spurveins absent ..... Dolabellapsocidae

20. Fore wing veins setose (Fig. 25), sometimes the setae are sited close to the veins rather than on the veins 21

----- Fore wing veins bare or, at most, very sparsely setose (Fig. 26) 27

21. Fore wing membrane sparsely setose (Fig. 27) 22

----- Fore wing membrane without setae (Fig. 25) 23

22. Fore wing with Rs and M fused for a length (Fig. 27) ..... Pseudocaeciliidae

----- Fore wing with Rs and M meeting in a point or joined by a short crossvein (Fig. 28) ..... Lachesillidae

23. Hind wing margin extensively setose (Fig. 29) 24

----- Hind wing margin glabrous or with setae mostly restricted to margin between arms of radial fork (Fig. 30) 25

24. Fore wing M+Cu with 2 rows of setae (Fig. 25) ..... Pseudocaeciliidae

----- Fore wing M+Cu with 1 row of setae (Fig. 31) ..... Philotarsidae

25. Hind wing margin glabrous (Fig. 32) ..... Lachesillidae

----- Hind wing with setae mostly between arms of radial fork on margin (Fig. 30) 26

26. Male phallic frame extended anteriorly by a median process (Fig. 33). Female gonapophyses reduced to ventral and external valves (Fig. 34) ..... Lachesillidae

----- Male phallic frame rounded anteriorly (Fig. 35). Female gonapophyses complete (Fig. 36) ..... Elipsocidae

27. Hind wing margin glabrous 28

----- Hind wing margin setae mostly between arms of radial fork (Fig. 30) ..... Elipsocidae

28. Fore wing with 2 anal veins (Fig. 37). (Areola postica long and shallow) ..... Musapsocidae

----- Fore wing with 1 anal vein (Fig. 38). (Areola postica not long and shallow) 29

29. Male hypandrium simple. Phallosome closed. Outer parameres distinct (Fig. 39). (Females apterous) ..... Mesopsocidae

----- Male hypandrium usually with lateral accessory sclerites (Fig. 18). Phallosome modified, usually to form median anterior stem not a closed frame (Fig. 40). Female gonapophyses reduced to a single valve (external valve, setose) ..... Lachesillidae

30. Fore wing venation evanescent in distal part of wing (Fig. 4) ..... Archipsocidae

----- Fore wing venation in distal part of wing obvious (Fig. 9) 31

31. Areola postica present (Fig. 9) 34

----- Areola postica absent (Fig. 41) 32

32. Hind wing Rs and M fused (Fig. 42) 33

----- Hind wing with Rs and M joined by a crossvein (Fig. 43) ..... Ectopsocidae

33. Fore wing M 3-branched (Fig. 41) ..... Ectopsocidae

----- Fore wing M 2-branched (Fig. 44) ..... Asiopsocidae

34. Pterostigma joined to Rs by a crossvein and/or areola postica joined to M by a crossvein or by fusion of Cu1a with M (Fig. 45) 35

----- Pterostigma not joined to Rs and areola postica free (Fig. 9) 37

35. Fore wing M apparently 2-branched (Fig. 46) ..... Caeciliidae

----- Fore wing M 3-branched (Fig. 45) 36

36. Fore wing with 2 rows of setae on veins, setae sometimes small and fine (Fig. 47) ..... Amphipsocidae

----- Fore wing with 1 row of setae on veins (Fig. 45) ..... Stenopsocidae

37. Hind wing marginal setae behind wing apex alternately long and short (Fig. 48) ..... Trichopsocidae

----- Hind wing marginal setae (rarely absent) all of similar length (Fig. 49) 38

38. Male hypandrium heavily sclerotised (Fig. 50). Phallosome often with strong sclerites on penial bulb (Fig. 51). Female gonapophyses relatively complex. External valve large and setose (Fig. 52). (Fore wing veins with 2 rows of setae. Setae behind apex on margin cross each other) ..... Pseudocaeciliidae

----- Male hypandrium weakly sclerotised, without ornament. Phallosome without sclerites on penial bulb, but may have rugose areas on the bulb (Fig. 53). Female gonapophyses reduced. External valve reduced to small remnant, bare or with 1 or 2 setae (Fig. 54). (Setae posterior to wing apex on margin not crossing each other) 39

39. Pulvillus broad (Figs 55,56) 40

----- Pulvillus slender or absent (Fig. 57) ..... Asiopsocidae

40. Fore wing veins obviously setose (Fig. 9) 41

----- Fore wing apparently bare, setae minute or sparse on veins (Fig. 58) ..... Amphipsocidae

41. Fore wing vein branches with 2 rows of setae (Fig. 47). (Setae sometimes small but clearly present) ..... Amphipsocidae

----- Fore wing vein branches with a single row of setae (Fig. 9) ..... Caeciliidae

42. Body and wings with flattened scales 43

----- Body and wings without flattened scales 44

43. Antennae with many (up to 50) short segments. Paraprocts with posterior spine (Fig. 59) ..... Lepidopsocidae

----- Antennae with 13 -- 15 segments. (Basal flagellar segments much longer than broad). No posterior spine on paraprocts ..... Amphientomidae

44. Fore wing venation reduced to 2 parallel, partially evanescent, longitudinal veins (Fig. 60) ..... Liposcelidae

----- Fore wing venation more complex (Fig. 9) 45

45. Pterostigma thicker and more opaque than rest of wing membrane (Fig. 9) 46

----- Pterostigmal area not more opaque than rest of membrane(Fig. 61) 58

46. Head elongate. Labrum with 2 ridges or bars from base to anterior margin (Fig. 11) 47

----- Head not elongate. Labrum without 2 ridges or bars from base to anterior margin 48

47. Some fore wing veins with spurs (Fig. 62) ..... Cladiopsocidae

----- No spurs on fore wing veins (Fig. 63) ..... Ptiloneuridae

48. Areola postica free (Fig. 64) 50

----- Areola postica joined to M by a crossvein or by fusion (Fig. 65) 49

49. Fore wing veins glabrous (Fig.66). Hind wings glabrous. (Forewings with densely mottled pattern) ..... Myopsocidae

----- Fore wing veins with at least a few small setae. Hind wing margin with at least a few small setae, usually between arms of radial fork (Fig. 30). (Fore wing patterns various) ..... Elipsocidae

50. Cu1a and Cu1b separate well before wing margin (Fig. 67) ..... Psilopsocidae

----- Cu1a and Cu1b separate near wing margin (Fig. 64) 51

51. Fore wing margin and veins glabrous (Fig. 64) ..... Mesopsocidae

----- Fore wing veins and margin at least sparsely setose (Fig. 68) 52

52. Fore wing membrane setose, at least in distal part (Fig. 69) 53

----- Fore wing membrane glabrous (Fig. 31) 54

53. Hind wing with some setae on margin in addition to setae between arms of radial fork ..... Bryopsocidae

------ Hind wing with marginal setae only between arms of radial fork (Fig. 30) ..... Elipsocidae

54. Hind wing margin setose or glabrous. If setose, with setae only between arms of radial fork (Fig. 30) 55

------ Hind wing margin more extensively setose (Fig. 70) 56

55. Hind wing glabrous ..... Lachesillidae

------ Hind wing margin with setae between arms of radial fork or near wing margin (Fig. 30) ..... Elipsocidae

56. Fore wing M+Cu with 1 row of setae (Fig. 31) ..... Philotarsidae

------ Fore wing M+Cu with 2 rows of setae (Fig. 71) ..... (Pseudocaeciliidae) 57

57. Claws with preapical tooth (Fig. 11) ..... Pseudocaeciliidae and Bryopsocidae

------ Claws without preapical tooth (Fig. 2) ..... Pseudocaeciliidae

58. Fore wing without nodulus (Fig. 61) 65

------ Fore wing with nodulus (Fig. 37) 59

59. Fore wing with 2 anal veins (Fig. 72) 60

------ Fore wing with 1 anal vein (Fig. 73) 62

60. Hind wing M forked (Fig. 74) ..... Compsocidae

------ Hind wing M simple (Fig. 75) 61

61. Tarsal claws with 1 preapical tooth. Claws of each pair similar to one another ..... Manicapsocidae

------ Tarsal claws either with 2 preapical teeth (Fig. 76) or 2 claws on each leg different from one another, the anterior claw bearing a "cowl", the posterior claw with a single, long bent seta near base (Fig. 193) ..... Troctopsocidae

62. Lacinia normal, present (Fig. 78) 63

------ Lacinia lost at final moult, not present in adults ..... Prionoglarididae

63. Fore wing membranous (Fig. 79) 64

------ Fore wings elytriform, with thickened, reticulate venation (Fig. 80) ..... Troctopsocidae

64. Maxillary palp with conical sensillum on second segment (Fig. 81) ..... Prionoglarididae

------ Maxillary palp without sensillum on second segment (Fig. 82) ..... Psyllipsocidae

65. Maxillary palp with conical sensillum on second segment (Fig. 81). Distal flagellar segments of antenna without "secondary annulations" 66

------ Maxillary palp without conical sensillum on second segment (Fig. 82). Distal flagellar segments of antenna with transverse "secondary annulations" ..... Pachytroctidae

66. Claws with preapical tooth (Fig. 83). Fore wing narrowed apically, almost pointed (Fig. 84). (No scales) ..... Lepidopsocidae

------ Claws without preapical tooth. Fore wings not pointed, broadly rounded (Fig. 85) ..... Psoquillidae

67. Tarsi 2-segmented 68

------ Tarsi 3-segmented 108

68. Antennae 9- or 10-segmented ..... Liposcelidae

------ Antennae more than 10-segmented 69

69. Pulvillus broad (Figs 55,56) 72

------ Pulvillus narrow or absent (Figs 57,86) 70

70. Pulvillus absent, basal spine may be present (Fig. 57) 71

------ Pulvillus slender (Fig. 86) 85

71. Claws with preapical tooth (Fig. 86) ..... Elipsocidae

------ Claws without preapical tooth (Fig. 57) ..... Asiopsocidae

72. Apterous 76

------ Brachypterous or micropterous 73

73. Brachypterous, venation discernible 79

------ Brachypterous, micropterous, venation not discernible. (Females) 74

74. Female gonapophyses of 3 valves well developed. External valves large, ovoid, with many setae (Fig. 87) ..... Pseudocaeciliidae

------ Female gonapophyses modified. External valve mostly reduced to a small lobe with 1 seta (Figs 54,88,89,90) 75

75. External valve without seta (Figs 89,91) ..... Amphipsocidae

------ External valve with seta (Fig. 90). (Or wing membrane without setae) ..... Asiopsocidae

76. Tarsal claws without preapical tooth (Fig. 2) 77

------ Tarsal claws with preapical tooth (Fig. 56) ..... Elipsocidae

77. Male phallosome without sclerification of penial bulb, without strongly developed sclerites, but may have rugose thickening of bulb (Figs 92, 98). Female subgenital plate rounded behind or with slightly emarginate hind margin. Gonapophyses reduced (Figs 89,93) 78

------ Male phallosome with complex, irregular sclerites on penial bulb (Figs 94,99). (Epiproct and clunium usually ornamented [Fig. 95]). Female subgenital plate bilobed or with median posterior lobe (Fig. 96). Gonapophyses usually complete.External valve setose, rarely reduced to a small lobe (Fig. 97) ..... Ectopsocidae

78. Male phallosome without sclerification on penial bulb, frame sometimes open (Fig. 92). Female gonapophyses absent (viviparous forms) or reduced to dorsal valve and broad setose external valve (oviparous forms) (Fig. 93) ..... Archipsocidae

------ Female gonapophyses reduced. External valve represented by small basal lobe attached to dorsal valve, sometimes bearing a seta (Figs 88,89). (Male apterous forms not known in this family. If they occur they should have a rugose penial bulb, cf. Fig. 98) ..... Amphipsocidae (and a few apterous female Caeciliidae)

79. Claws with preapical tooth (Fig. 86) ..... Elipsocidae

------ Claws without preapical tooth (Fig. 57) 80

80. Fore wing membrane setose 81

------ Fore wing membrane not setose 82

81. Fore wing Rs and M meet in a point, or wings coriaceous ..... Amphipsocidae

------ Fore wing Rs and M meeting indistinct, wings membranous (Fig. 4) ..... Archipsocidae

82. Areola postica absent. Male with clunial structures (Fig. 95) and complex sclerification of penial bulb of various forms (Figs 94,99). Female subgential plate with median, posterior, setose lobe (Fig. 100) or pair of lobes (Fig. 96) ..... Ectopsocidae

------ Areola postica usually discernible. Male without clunial structures. Phallosome without complex sclerification but with rugose bulbous structures (Figs 53,98). Female subgenital plate simple 83

83. Pterostigma and areola postica free (Fig. 9) 84

----- Pterostigma and/or areola postica connected to other veins (Fig. 45) ..... Stenopsocidae

84. Fore wing veins with setae in 1 row (Fig. 9) ..... Caeciliidae

----- Fore wing veins with 2 rows of setae ..... Amphipsocidae

85. Head elongate. Labrum with 2 ridges or bars from base to anterior margin (Fig. 101) ..... Epipsocidae

----- Head not elongate. Labrum without ridges or bars from base to anterior margin 86

86. Brachypterous or micropterous (fore wing reduced to a small protuberance) 87

----- Apterous 103

87. Wing rudiments without distinct venation 88

----- Wing rudiments with discernible venation (Fig. 106) 91

88. Fore wing rudiments sparsely setose or bare 89

----- Fore wing rudiments clothed with dense setae ..... Archipsocidae

89. Claws with preapical tooth (Fig. 86) 90

----- Claws without preapical tooth (Fig. 57) ..... Asiopsocidae

90. Male hypandrium with sclerotised ornamentation (Fig. 104). Female subgenital plate with posterior lobe bearing normal setae along or near margin (Fig. 105) ..... Psocidae

----- Male hypandrium without sclerotised ornamentaion. Female subgential plate with 2 posterior lobes or a median lobe bearing a few very strong marginal setae (Figs 102,103) ..... Elipsocidae

91. Fore wing membrane with dense, short setae 92

----- Fore wing membrane without setae (Fig. 106) 93

92. Male hypandrium simple. Female gonapophyses reduced (Fig. 39) ..... Archipsocidae

----- Male hypandrium well sclerotised with at least some ornamentation (Fig. 104). Female gonapophyses complete (Fig. 21) ..... Psocidae

93. Fore wing veins glabrous (Fig. 106) 94

----- Fore wing veins setose 97

94. Veins broad (Fig. 107) ..... Psocidae

----- Veins narrow, of normal width 95

95. Areola postica absent ..... Peripsocidae

----- Areola postica present (Figs 106,107) 96

96. Areola postica free ..... Lachesillidae

----- Areola postica connected to M (Fig. 107) ..... Psocidae

97. Areola postica absent 98

----- Areola postica present 99

98. Male phallosome frame closed, without rod-like, radular sclerites (Fig. 35). Female gonapophyses with dorsal valve relatively slender, divided at apex. External valve large and setose (Fig. 108) ..... Elipsocidae

----- Male phallosome frame closed but with, usually, strongly developed rod-like radular sclerites on penial bulb (Figs 109,110). Female gonapophyses with dorsal valve broad, not divided at apex. External valve small (Fig. 111) ..... Peripsocidae

99. Areola postica connected to M 100

----- Areola postica free 101

100. Areola postica connected to M by a crossvein. Fore wing veins distinctly setose ..... Hemipsocidae

----- Areola postica fused with M for a length. Fore wing veins at most with few small setae (Fig. 107) ..... Psocidae

101. Fore wing veins with sparse setae (Fig. 112) ..... Elipsocidae

----- Fore wing veins with numerous setae 102

102. Claws with preapical tooth (Fig. 1) ..... Philotarsidae

----- Claws without preapical tooth (Fig. 2) ..... Pseudocaeciliidae

103. Male phallosome with outer parameres reduced, a simple frame without internal sclerification (Fig. 92). Female gonapophyses present consisting of a large broad external valve with setae and remnant of dorsal valve (Fig. 93) ..... Archipsocidae

----- Male phallosome with outer parameres distinct, a closed frame with at least traces of internal sclerification (Fig. 113). Female gonapophyses complete or external valve reduced to small lobe with or without setae (Figs 114,115) 104

104. Male ..... Elipsocidae

—— Female 105

105. Female gonapophyses strongly reduced. External valve a small lobe sometimes with a seta (Fig. 116). Claws without a preapical tooth (Fig. 57) ..... Asiopsocidae

—— Female gonapophyses complete (Fig. 108). Claws with preapical tooth (Fig. 86) 106

106. Ventral and dorsal valves of gonapophyses with preapical projection (Fig. 117) ..... Mesopsocidae

—— Ventral valve of gonapophyses without preapical projection 107

107. Dorsal valve of gonapophyses broadly rounded distally (Fig. 111) ..... Peripsocidae

—— Dorsal valve of gonapophyses with preapical projection (Fig. 118) ..... Elipsocidae

108. Body, and wing rudiments when present, with flattened scales 43

—— Body, and wing rudiments when present, without scales 109

109. Apterous 110

—— Brachypterous or micropterous 118

110. Claws without preapical tooth (Fig. 2) 111

—— Claws with preapical tooth (Fig. 179) 112

111. Maxillary palp with sensillum on second segment (Fig. 81) (very fine in *Anomocopeus*) ..... Trogiidae

—— Maxillary palp without sensillum on second segment ..... Amphientomidae

112. Paraproct with strong posterior spine (Fig. 119) ..... Psyllipsocidae

—— Paraproct without posterior spine 113

113. Antennae with 7,9,10,12 or 15 segments, nearly always with "secondary annulations" (Fig. 120) 115

—— Antennae with 13 segments 114

114. Distal segments of antennae with "secondary annulations" (Fig. 120) ..... Pachytroctidae

—— Distal segments of antennae without "secondary annulations" 117

115. Body of normal form, rotund. Hind femora not broad (Fig. 121) 116

----- Body flattened. Hind femora broad (Fig. 122) ..... Liposcelidae

116. Abdominal terga 1--4 fused ..... Sphaeropsocidae

----- Abdominal terga 1--4 not fused ..... Pachytroctidae
..... (see also *Phallopsocus* and *Neoseopsis* in Amphientomidae)

117. Antennae short, not extending beyond anterior region of abdomen. (Small species, 2.5mm or shorter) ..... Elipsocidae

----- Antennae long, usually almost as long as body. (Larger species, 3.5mm or longer) ..... Mesopsocidae

118. Fore wings elytriform, strongly thickened, not translucent (Fig. 211) 121

----- Fore wings not thickened, translucent 119

119. Venation apparent (Fig. 123). Male or female 128

----- Venation not apparent. (Female) 120

120. Subgenital plate with internal T-shaped sclerite, without posterior lobe (Fig. 124) ..... Manicapsocidae

----- Subgenital plate without internal T-shaped sclerite, with posterior median lobe ..... Mesopsocidae

121. Venation absent 122

----- Venation discernible 125

122. Antennae with fewer than 15 segments 124

----- Antennae with 15 or more segments 123

123. Antennae with 15 segments ..... Sphaeropsocidae

----- Antennae with more than 15 segments ..... Trogiidae

124. Antennae with 13 segments ..... Mesopsocidae

----- Antennae 10-segmented ..... Elipsocidae

125. Venation of longitudinal veins only (Fig. 211) ..... Sphaeropsocidae

----- Venation otherwise 126

126. Claws with 1 or 2 preapical teeth (Figs 1,83) 127

------ Claws without preapical tooth (Fig. 2). (Nodulus absent) ..... Psoquillidae

127. Claws with 1 preapical tooth (Fig. 1) ..... Bryopsocidae

------ Claws with 2 preapical teeth (Fig. 83) ..... Troctopsocidae

128. Fore wing venation consisting of a single longitudinal vein ..... Manicapsocidae

------ Fore wing venation consisting of more than a single longitudinal vein (Fig. 123) 129

129. Paraproct with posterior spine (Fig. 119)(Psyllipsocidae) 130

------ Paraproct without posterior spine 131

130. Claws with preapical tooth (Fig. 126). (If wing rudiments are large, a few setae occur on veins and a nodulus is present) ..... Psyllipsocidae

------ Claws without preapical tooth. (No nodulus) ..... Psyllipsocidae

131. Hind wing reduced to veinless flap ..... Psyllipsocidae

------ Hind wing reduced but at least some venation evident (Fig. 127) 132

132. Hind wing margin bare or very sparsely setose, setae usually limited to between arms of radial fork (Fig. 127) 133

------ Hind wing margin more extensively setose 135

133. Claws asymmetrical, inner claw normal, outer claw foliaceous (Fig. 128) ..... Pachytroctidae

------ Claws symmetrical, both pointed 134

134. Nodulus present in fore wing (Fig. 112) ..... Elipsocidae

------ Nodulus absent ..... Pachytroctidae

135. Claws with preapical tooth, pulvillus fine(Fig. 86) 136

------ Claws without preapical tooth (sometimes tooth is small). Pulvillus broad ..... Pseudocaeciliidae

136. Fore wing membrane setose ..... Bryopsocidae

------ Fore wing membrane without setae ..... Philotarsidae

Keys to the Genera of Psocoptera

Key to the Genera of Lepidopsocidae

1. Wings and body without scales. (Antennae of about 40 short segments. Hind wing with R1 arising proximal to M2. Hind wing with small basal cell (Fig. 1) ..... **Thylacella*

----- Body and wings with scales 2

2. Antennae with at most 30 segments. (Segments about 4 times long as wide). Hind wing with small basal cell (Fig. 130) 3

----- Antennae with 30--50 segments. (Segments about twice as long as wide). Fore and hind wings sometimes reduced. Hind wings without basal cell (Fig. 131) 9

3. Fore wing rounded apically (Fig. 132) 4

----- Fore wing pointed (Fig. 133) 5

4. Fore wing broad. Sc not broken. Hind wing with R1 arising distal to M1 (Fig. 134) ..... **Soa*

----- Fore wing narrow, venation reduced to Cu2 and 1 forked vein, or wings reduced to small, curved protuberances (Figs 135,136) ..... **Parasoa*

5. Hind wing with R1 arising distal to M1 (Fig. 130). (Fore wing with R1 and Rs meeting in a point or fused for a length) 6

----- Hind wing with R1 arising proximal to M1 (Fig. 137) 7

6. Fore wing with Sc broken (Fig. 138). Hind wing with M1 and M2 arising independently of one another (Fig. 137) ..... **Nepticulomima*

----- Fore wing with Sc not broken (Fig. 139). Hind wing with M1 and M2 arising from the same stem (Fig. 130) ..... *Proentomum*

7. Hind wing with R1 arising between M1 and M2 (exceptionally opposite M1) (Fig. 137). Fore wing with 2 anal veins 8

----- Hind wing with R1 arising proximal to M2. Fore wing with 1 anal vein. (R1 and Rs joined by a crossvein) ..... **Notolepium*

8. Fore wing with R1 and Rs fused for a short length or meeting in a point (Fig. 140) ..... **Perientomum*

----- Fore wing with R1 and Rs joined by a crossvein (Fig. 141) ..... **Lepium*

9. Fore wing fully developed or reduced but always with discernible veins, even if sometimes indistinct 10

----- Fore wings without veins (Fig. 142). (Antennae about 50-segmented) ..... *Lepolepis*

10. Fore wing Rs branched (Fig. 133). Hind wing usually developed (Fig. 131) 11

----- Fore wing Rs simple (Fig. 143). Hind wing very reduced or absent 13

11. Fore wing M 3-branched. Ocelli present. Usually macropterous (Fig. 133) 12

----- Fore wing M 2-branched. No ocelli. Fore wing reduced (Fig. 144) 15

12. Fore wing Rs joined to R1 by a crossvein (Fig. 133), sometimes missing (Rs free)(**Echmepteryx* sens lat) 16

----- Fore wing with Rs and R1 fused for a length (Fig. 145). (Hind wing with M1 and M2 separate or arising from one stem [Fig. 146]) ..... **Lepidopsocus*

13. Fore wing M 3-branched (Fig. 143). Ocelli present ..... **Scolopama*

----- Fore wing M simple or 2-branched (Fig. 147). No ocelli 14

14. Fore wing pointed. Rs and M fused for a length. Origin of Rs missing so that Rs seems to arise from M1 (Fig. 148) ..... **Echinopsocus*

----- Fore wing hardly pointed. Rs without fusion with M (Fig. 149) ..... **Pteroxanium*

15. Fore wing reduced, curved, with venation discernible ..... **Cyptophania*

----- Fore wings reduced, veins hardly visible ..... **Echmepteryx (sensu lato)* 16

16. Hind wing M1 and M2 arising separately (Fig. 131) 17

----- Hind wing M1 and M2 arising from same stem ..... *(Thylacomorpha)*

17. Hind wing with Rs stem long, at least as long as, usually longer than, R2+3 18

----- Hind wing with Rs stem very short, mostly shorter than half length of R2+3 19

18. Fore wing Rs stem as long as or shorter than R4+5 ..... **(Echmepteryx)*

----- Fore wing Rs stem longer than R4+5 ..... *(Thylacopsis)*

19. Fore wing costal cell very strongly sclerotised (Fig. 150) ..... *(Oxypsocus)*

----- Fore wing costal cell normal ..... *(Loxopholia)*

Key to the Genera of Trogiidae

1. Fourth segment of maxillary palp more than twice as long as wide (Fig. 151). (Hind tibia with apical spurs) ..... **Lepinotus*

----- Fourth segment of maxillary palp less than twice as long as wide (Fig. 152) 2

2. Hind tibia with 2 apical spurs. (Antennae 27-29-segmented. Fore wing scale-like) ..... **Trogium*

----- Hind tibia with 2 or 3 apical spurs and 1--3 preapical spurs 3

3. Fore wing scale-like (Fig. 153). (Hind tibia with 2 apical spurs and 2 preapical spurs) ..... **Cerobasis*

----- Fore wing strongly reduced (micropterous) (Fig. 154) or absent 4

4. Fore wing present as small knob-like remnant. (Hind tibia with 2 or 3 apical spurs and 1 or 2 preapical spurs) ..... **Cerobasis*

----- Apterous 5

5. Hind tibia with 2 apical spurs and 1 preapical spur ..... **Anomocopeus*

----- Hind tibia with 2 apical spurs and 3 preapical spurs ..... **Myrmicodipnella*

Key to the Genera of Psoquillidae

1. Fore wing elytriform, veins not easily seen (Figs 155, 157). Hind wing lacking R1 (Fig. 156) ..... **Eosilla* and *Rhyopsoculus*

----- Fore wing not elytriform, veins clearly visible. Hind wing with R1 present or hind wing reduced 2

2. Fore wing Rs branches near wing margin. Cu1 simple i.e. no areola postica (Fig. 158) ..... **Balliella*

----- Fore wing Rs branches well away from fore wing margin. Radial fork long. Cu1 branched i.e. areola postica present (Fig. 85) 3

3. Fore wing stem of Cu1 at least as long as Cu1b, sometimes slightly shorter (Fig. 85) ..... **Psoquilla*

----- Fore wing stem of Cu1 hardly a third length of Cu1b (Fig. 159) ..... **Rhyopsocus*

Key to the Genera of Psyllipsocidae

1. Apterous or micropterous, without evidence of veins ..... **Psyllipsocus*

----- Brachypterous or macropterous, wing veins evident in fore wing (Figs 160,161) 2

2. Fore wing margin setose. Fore wing often reduced and hind wing absent 3

----- Fore wing margin glabrous, sometimes a few setae on veins. In brachypterous forms a few setae on reduced hind wing (Fig. 162) ..... **Psyllipsocus*

3. Fore wing with both Rs and Cu1 branched (Fig. 162) 4

----- Fore wing with Rs branched or simple, Cu1 simple or absent (Fig. 160) 5

4. Fore wing Cu1a several times length of Cu1b (Fig. 162). Hind wing seldom reduced ..... **Psyllipsocus*

----- Cu1a twice as long as Cu1b. Hind wing reduced or absent ..... **Psyllipsocus*

5. Fore wing rounded, broad. M 2- or 3-branched. Venation variable but always at least 7 veins reaching margin (R1, Rs,M1,M2,Cu1,Cu2,IA) (Fig. 163) ..... **Psocathropos* and *Pseudorypteryx*

----- Fore wing spear-shaped, several times longer than wide (Fig. 160) 6

6. Up to 5 veins reaching wing margin (Fig. 160) ..... **Dorypteryx*

----- 6--8 veins reaching wing margin (Figs 164,165) ..... **Pseudorypteryx*

Key to the Genera of Prionoglarididae

1. Lacinia lacking in adults. Claw with small preapical tooth (Fig. 166). Second segment of maxillary palp without sensillum (Fig. 167) ..... **Prionoglaris*

----- Lacinia present. Claw without preapical tooth. Second segment of maxillary palp with sensillum (Fig. 168) ..... **Speleketor*

Key to the Genera of Amphientomidae

1. Apterous ..... **Phallopsocus* and *Neoseopsis*

----- Macropterous, brachypterous or micropterous 2

2. Hind wing M 2-branched (Fig. 169) 3

----- Hind wing M simple, or hind wings reduced (Fig. 171) 4

3. Ocelli close to compound eyes. Fore wing margin not curved between veins. Stem of Rs about as long as R2+3 (Fig. 170) ..... **Tineomorpha*

----- Ocelli more than their diameter distant from compound eyes. Fore wing margin curved between veins. Stem of Rs about one third length of R2+3 (Fig. 172) ..... **Cymatopsocus*

4. 3 ocelli. Fore wing with 2 anal veins (Fig. 173) 6

----- 2 ocelli or ocelli absent. Fore wing with 1 anal vein. (Macropterous, brachypterous or micropterous) 5

5. Ocelli absent. Macropterous. Cu2 present. Nodulus present 15

----- 2 ocelli. Brachypterous with strong reduction of veins. Cu2 absent. No nodulus (Figs 174,175) ..... **Nephax*

6. Hind wing R1 reaching wing margin (Fig. 171) 7

----- Hind wing R1 not reaching wing margin, often brachypterous or micropterous (Fig. 176) 8

7. Claw with 1 or 2 preapical teeth (Fig. 177). Fore wing with distal section of Sc present (Fig. 173) ..... **Amphientomum*

----- Claws with 1 preapical tooth (Fig. 179). Distal section of Sc absent (Fig. 178) ..... **Hemiseopsis*

8. Claw with preapical with 1 preapical tooth (Fig. 179) 9

----- Claw with 2 preapical teeth (Fig. 180) 11

9. Fore wing with distal section of Sc present (Fig. 181) ..... **Seopsis*

----- Fore wing lacking distal section of Sc (Fig. 182) 10

10. Fore wing acuminate (Fig. 182) ..... **Nephax*

----- Fore wing rounded (Fig. 183) ..... **Stimulopalpus*

11. Fore wing stem of Rs at least third length of R2+3. Distal section of Sc absent. Females always macropterous (Fig. 185) 12

----- Fore wing stem of Rs very short, or almost lacking so that branches of Rs arise separately (Fig. 184). Females often brachypterous, then with M3 or distal section of Sc absent ..... **Seopsocus*

12. Fore wing with strongly acuminate tip (Fig. 185) ..... **Syllysis*

----- Fore wing tip not strongly acuminate ..... **Paramphientomum* 14

13. Hind wing radial cell incompletely closed. Scales with truncate end ..... *(Colposeopsis)*

----- Hind wing radial cell always open (basal section of Rs absent). Scales usually with rounded ends ..... *(Syllysis)*

14. Eyes not reaching above level of vertex. (Scales with emarginate apex) ..... *(Paramphientomum)*

----- Eyes reaching above level of vertex ..... *(Hormocoria)*

15. Fore wing R1 and distal section of Sc lying close together ..... **Stigmatopathus*

----- Fore wing R1 and distal section of Sc diverging ..... **Pseudoseopsis*

Key to the Genera of Musapsocidae

**Musapsocus* is the only genus in the Musapsocidae.

Key to the Genera of Troctopsocidae

(Modified from Mockford, 1967)

1. Brachypterous 5

----- Macropterous 2

2. Pterostigma closed basally (Fig. 187) ..... **Protroctopsocus*

----- Pterostigma open basally, i.e. distal section of Sc absent (Fig. 188) 3

3. Areola postica joined to M by a crossvein (Fig. 189) ..... **Troctopsocus*

----- Areola postica not joined to M (Fig. 188) 4

4. 2 claws of a pair alike, each with 2 preapical teeth (Fig. 191) ..... **Troctopsoculus*

----- 2 claws of a pair not alike, anterior claw of each pair without tooth and bearing a setose membranous cowl (Fig. 192). Posterior claw without tooth, without cowl but with long bent basal seta (Fig. 193) ..... **Troctopsocopsis*

5. Claw with 1 preapical tooth. Wings strongly convex, elytriform, venation forming a set of polygonal cells ..... *Chelyopsocus*

----- Claw with 2 preapical teeth. Wings only slightly reduced but elytriform. Venation normal (Fig. 194) ..... **Protroctopsocus*

Key to the Genera of Manicapsocidae

(Modified from Mockford, 1967)

1. Macropterous (Fig. 195) 2

----- Micropterous. (Fore wing with a single longitudinal vein) ..... **Nothoentomum*

2. Fore wing with vein 2A not joining vein IA. R1 widened, forming a dark spot near junction with costal margin (Fig. 195) ..... **Manicapsocus*

----- Fore wing with vein 2A joining vein IA. R1 normal (Fig. 196) ..... **Nothoentomum*

Key to the Genera of Compsocidae

(Modified from Mockford, 1967)

1. Hind wing with first section of Rs present. Fore wing membrane with fine scale-like structures ..... **Compsocus*

----- Hind wing with first section of Rs absent (Fig. 197). Fore wing membrane with fine points in place of scale-like structures ..... **Electrentomopsis*

Key to the Genera of Liposcelidae

1. Tarsi 2-segmented. Antennae 7- 9- or 10-segmented 2

----- Tarsi 3-segmented. Antennae not 9- or 10-segmented 3

2. Antennae 7-9-segmented. (No "secondary annulations" on flagellum) ..... **Belaphopsocus*

----- Antennae 10-segmented ..... **Troctulus*

3. Hind tibia usually with at least 1 apical spur. Macropterous forms with compound eyes and 3 ocelli. Micropterous forms with small compound eyes. Apterous forms with at most 2 ommatidia, no ocelli 4

----- Hind tibia without apical spurs. No winged forms. Apterous forms with 6--8 ommatidia in place of compound eyes. No ocelli ..... **Liposcelis*

4. Maxillary palp with fourth segment narrow, hardly wider than other segments 5

----- Maxillary palp with fourth segment much wider than other segments (Fig. 198) 7

5. Field of conical sensilla on each side of frons near epistomial suture (Fig. 199) ..... *Chaetotroctes*

----- No field of sensilla on frons 6

6. Sternellum with 3 or 4 laterally placed setae (Fig. 200) ..... *Embidopsocopsis*

----- Sternellum without such setae (Fig. 201) ..... **Embidopsocus*

7. Maxillary palp with fourth segment ovoid, obviously wider than other segments but not as wide as long(Fig. 202) ..... **Belaphotroctes*

----- Maxillary palp with fourth segment very wide, circular, as wide as long (Fig. 198) ..... **Belapha*

Key to the Genera of Pachytroctidae

1. Vertex extended upwards into antler-like processes (Fig. 203) ..... **Antilopsocus*

----- Vertex not extended upwards into processes 2

2. Claws of each pair different, one claw foliaceous, the other normal (Fig. 204) ..... *Nanopsocus*

----- Claws of each pair similar to one another, of usual form 3

3. Median epicranial suture absent ..... *Peritroctes*

----- Median epicranial suture present, sometimes obvious only on top of vertex 4

4. Winged 5

----- Apterous 6

5. Hind wing stem of Rs and R+M confluence of about equal length (Fig. 205) ..... **Pachytroctes* and *Psylloneura*

----- Hind wing stem of Rs much longer than R+M confluence (Fig. 206) ..... **Tapinella*

6. Antenna with indistinct "secondary annulations". Lacinia with 5 apical teeth (Fig. 207) ..... *Nymphotroctes*

----- Antenna with "secondary annulations" obvious, at least from fifth or sixth flagellar segment. Lacinia with fewer than 5 apical teeth 7

7. Lacinia with 3 apical teeth 8

----- Lacinial tip bifid 9

8. Male parameres finely pointed (Fig. 208). Female subgenital plate with T-shaped sclerite (Fig. 209) ..... **Tapinella*

----- Male parameres bluntly acuminate (Fig. 210). Female subgenital plate without T-shaped sclerite ..... **Pachytroctes* 10

9. Eyes large, reaching level of vertex ..... *Psacadium*

----- Eyes small, not reaching level of vertex ..... *Leptotroctes*

10. Claw with row of fine teeth between base and usual preapical tooth ..... *(Neotroctes)*

----- Claw without row of fine teeth between base and usual preapical tooth ..... *(*Pachytroctes)*

Key to the Genera of Sphaeropsocidae

(From Badonnel, 1963)

1. Wing not bent down at the side. At least 4 main veins (Fig. 211). Membrane with granulations grouped into polygonal areas. Number of ommatidia variable. Sculpturation of body strongly granular. Maxillary palp fourth segment fusiform ..... **Sphaeropsocopsis*

----- Wing bent down at side. Only 2 main veins (Fig. 212). Membrane with hexagonal pattern of ridges. 7 ommatidia. Sculpturation finely granular on body. Maxillary palp fourth segment subcylindrical, elongate. (Mesothoracic dorsal lobes distinct) ..... **Badonnelia*

Key to the Genera of Epipsocidae

(Modified from Smithers & Thornton, 1977)

1. Pterostigma with thick crossveins from R1 to wing margin (Fig. 213) ..... **Neurostigma*

----- Pterostigma without crossveins (Fig. 214) 2

2. Hind wing M 5-branched (Fig. 215) ..... **Goja*

----- Hind wing M simple, or micropterous or apterous (Fig. 216) 3

3. Fore wing R and M 3-branched, or micropterous or apterous (Fig. 214) 4

—— Fore wing R and M more than 3-branched (Fig. 8) ..... *Dicropsocus*

4. Tip of lacinia broad with several small teeth (Figs 217,223) 5

—— Tip of lacinia not broad, without several small teeth, often extended into terminal point or filament (Fig. 218). (Female gonapophyses reduced to external valves, setose) ..... **Epipsocopsis*

5. Male ..... **Epipsocus*

—— Female 6

6. Female gonapophyses without any remnant of ventral valve (Fig. 221) 8

—— Female gonapophyses with at least a remnant of ventral valve (Figs 219,220) 7

7. Female subgenital plate simple behind ..... *Epipsocus*

—— Female subgenital plate apically divided (Fig. 222) ..... *Hinduipsocus*

8. External valve of gonapophyses with setae grouped on a raised area (Fig. 221). (Macropterous) ..... *Mesepipsocus*

—— External valve of gonapophyses with setae not on a raised area (Fig. 224). (Micropterous) ..... *Parepipsocus*

Note: Males of *Hinduipsocus, Mesepipsocus* and *Parepipsocus* have not yet been reported.

Key to the Genera of Dolabellapsocidae

(From Eertmoed, 1973)

1. Row of spines on anterior face of fore femur, on ventral side (Fig. 225). Rows of setae extend inwards from distal fore wing margin onto membrane (Fig. 226) ..... *Auroropsocus*

—— No row of spines on anterior face of fore femur. No setae in rows extending inwards from distal fore wing margin onto membrane 2

2. Fore wing vein 2A ends in 1A. Dorsal ocelli well developed. (More than 2 setae on external valve of gonapophyses [Fig. 227]) ..... *Isthmopsocus*

—— Fore wing vein 2A ends in anal cell or in wing margin (Figs 228,230). Dorsal ocelli reduced or absent. (1 or 2 setae on external valve of gonapophyses [Fig. 229]) ..... *Dolabellapsocus*

Key to the Genera of Cladiopsocidae

(From Eertmoed, 1973)

1. Tarsi 2-segmented. Pterostigma with spurvein (Fig. 22) ..... *Spurostigma*

----- Tarsi 3-segmented. Pterostigma without a spurvein but other veins often with spurs (Fig. 62) ..... **Cladiopsocus*

Key to the Genera of Ptiloneuridae

1. Hind wing M 2-4-branched (Fig. 232). (Fore wing M 5-8-branched) 2

----- Hind wing M simple 3

2. Areola postica joined to M by crossvein. (Fore wing M 7-8-branched) ..... **Ptiloneuropsis*

----- Areola postica free (Fig. 231) ..... **Ptiloneura*

3. Fore wing M 4-branched (Fig. 233) ..... **Euplocania*

----- Fore wing M 3-branched (Fig. 234) ..... **Triplocania*

Key to the Genera of Asiopsocidae

(Based on characters given by Mockford, 1983)

1. Macropterous 2

----- Micropterous 3

2. Male ..... **Asiopsocus*

----- Female ..... **Notiopsocus*

3. Male ..... **Notiopsocus*

----- Female 4

4. Pulvillus broad (Fig. 235). No labral sensilla. Pearman's organ represented by "mirror" only. External valve of gonapophyses small, setose (Fig. 236) ..... **Pronotiopsocus*

----- Pulvillus slender or absent (Fig. 57). 4--5 labral sensilla. Pearman's organ absent. External gonapophyses large, without setae (Fig. 116) ..... **Asiopsocus*

Note: The male of *Pronotiopsocus* has not been found.

Key to the Genera of Caeciliidae

1. Brachypterous ..... *Caecilius (female)

----- Macropterous 2

2. Epicranium very narrow, vertex sharp, head flattened antero-posteriorly 3

----- Epicranium rounded, vertex normal or somewhat flattened 5

3. Fore wing Cu1a fused with M, M apparently 2-branched (Fig. 46) ..... *Isophanes and Isophanopsis

----- Fore wing Cu1a not fused with M, i.e. areola postica free (Fig. 237) 4

4. Venation abnormal, distorted (Fig. 237) ..... *Dypsocus

----- Venation normal, not distorted ..... *Coryphosmila

5. Pterostigma with a spurvein (Fig. 238) 6

----- Pterostigma without a spurvein (Fig. 9) 7

6. Fore wing M 3-branched (Fig. 238) ..... *Fuelleborniella

----- Fore wing M 2-branched (Fig. 239) ..... *Ypsiloneura

7. Fore wing M 3-branched 9

----- Fore wing M 2-branched 8

8. Fore wing Rs and M joined by crossvein (Fig. 240) ..... Hageniola

----- Fore wing Rs and M fused for a length (Fig. 241) ..... Mepleres

9. Fore wing and hind wing tapering towards bluntly rounded tip, sparsely setose (Fig. 242) ..... *Lacroixiella

----- Fore and hind wing tips rounded apically (Fig. 9) 10

10. Epiproct in both sexes developed into a setose dome (Fig. 244). (Epiproct extremely long in white nymphs). First flagellar segment very thick (Fig. 243) ..... Aphyopsocus

----- Epiproct normal 11

11. Fore wing stem of Rs straight or nearly so. R1 usually not strongly sinuous so that pterostigma is shallow. Areola postica small, semicircular (Fig. 245) 12

----- Fore wing stem of Rs sinuous (Fig. 9). R1 usually sinuous to give distinct hind angle to pterostigma. Areola postica various 15

12. Ocelli absent ..... *Smithersiella*

----- Ocelli present 13

13. Male phallosome closed anteriorly (Fig. 53). Female gonapophyses with dorsal valve broad, lightly sclerotised, pointed. Ventral valve pointed (Fig. 246) 14

----- Male phallosome open anteriorly (Fig. 248). Female gonapophyses with dorsal valve broad, rounded, lightly sclerotised. Ventral valve rounded apically (Fig. 247) ..... **Paracaecilius*

14. Labrum with stylets at antero-lateral angle (Fig. 249). (Female subgenital plate with shallow, hyaline median lobe [Fig. 250]) ..... *Mockfordiella*

----- Labrum without stylets at each antero-lateral angle ..... **Enderleinella*

15. Male ..... **Caecilius*

----- Female 16

16. Gonapophyses with external valve present as narrow, sclerotised, curved plate without setae. Ventral and dorsal valves long and narrow (Fig. 251) ..... *Austrocaecilius*

----- Gonapophyses with external valve at most a small plate at base of dorsal valve (Fig. 246) ..... **Caecilius*

Note: The male of *Austrocaecilius* has not yet been found.

Key to the Genera of Stenopsocidae

1. Pterostigma elongate, narrow, expanded slightly at pterostigmal crossvein. Cu1a to M crossvein long. Fore wing margin obviously setose for whole length to Cu2 (Fig. 45) ..... **Stenopsocus*

----- Pterostigma strongly widened at pterostigmal crossvein. Cu1a to M crossvein short. Fore wing margin obviously setose to wing apex only (Fig. 252) ..... **Graphopsocus*

Key to the Genera of Amphipsocidae

(Modified from Mockford, 1978)

1. Fore wing elongate, somewhat elytriform and coriaceous (Fig. 253) ..... *Calocaecilius*

----- Fore wing normal or variously reduced, if elytriform and coriaceous not reaching tip of abdomen 2

2. Paraproct with large duplex seta (Fig. 254). Hind wing marginal setae, when present, between arms of radial fork only (Fig. 255) 3

—— Paraproct with minute or no duplex spine. Hind wing margin with setae from end of R1 to wing apex and beyond to wing base (Fig. 256) 6

3. Lacinia exceedingly broad immediately before distal end. Hind wing without setae (Fig. 257) ..... **Ptenopsila*

—— Lacinia not exceedingly broad before distal end. Hind wing with setae on margin between arms of radial fork (Fig. 258) 4

4. Fore wing with cell R5 parallel-sided immediately distal to its base (Fig. 259). Fewer than 8 setae in a field on outer side of galea 5

—— Fore wing cell R5 decidedly expanded for a short length immediately distal to its base (Fig. 260). At least 9 setae in a field on outer side of galea ..... **Matsumuraiella*

5. Fore wing membrane, veins and margin setose (Fig. 261). Spermapore partially bordered by dark crescentic mark (Fig. 262) ..... **Teliapsocus*

—— Fore wing setae restricted to veins and margin (Fig. 263). Spermapore not bordered by dark crescentic mark (Fig. 264) ..... **Dasydemella*

6. Tip of lacinia flat (Fig. 265). Bulb present in spermathecal duct immediately distal to sheath (Fig. 266). Females micropterous ..... **Kolbea*

—— Tip of lacinia at least slightly bicuspid (Fig. 267). Bulb absent between spermathecal sheath and sac or embedded in distal end of sheath (Fig. 268). Females variable in wing development, usually macropterous 7

7. Fore wing M not more than 2-branched (Fig. 269). (Lateral cusp of lacinial tip decidedly widened) 8

—— Fore wing M at least 3-branched (Fig. 270). (Lateral cusp of lacinial tip never very wide) 9

8. Fore wing M 2-branched (Fig. 271) ..... **Polypsocus*

—— Fore wing M simple (Fig. 272) ..... **Monocladellus*

9. Both sexes macropterous. Fore wing Cu1a multibranched (Fig. 273) ..... **Schizopechus*

—— Females variable in wing development. Fore wing Cu1a simple (Fig. 274) 10

10. Females brachypterous with fore wing coriaceous (Fig. 91). Males with fore wing cell R3 extended basad of level of pterostigma (Fig. 275) ..... *Capillopsocus*

------ Females macropterous or micropterous. Macropterous forms with fore wing cell R3 shorter, not extending basad much beyond level of middle of pterostigma (Fig. 274) 11

11. Row of cones on anterior femur, lacking in some forms with pterostigmal spurvein (Fig. 276) 12

------ No row of cones on anterior femur. No pterostigmal spurvein (Fig. 277) 20

12. Fore wing Cu1a fused with M for short length or joined to M by crossvein (Fig. 277) 21

------ Fore wing Cu1a free of M (Fig. 270) 13

13. Labral stylets absent. Hind wing anterior margin with basal brush (Fig. 279) 14

------ Labral stylets present. Hind wing anterior margin without basal brush ..... *Afropsocus*

14. Pterostigma shallow (Fig. 280). (Females sometimes micropterous) 15

------ Pterostigma angular, usually with spurvein (Fig. 274). (Females macropterous) 16

15. Females micropterous. Male fore wings less than 3.5 mm ..... *Ctenopsocus*

------ Females macropterous. Male fore wings greater than 4.0 mm (Fig. 280) ..... **Tagalopsocus*

16. Fore wing Rs 2-branched, M 3-branched (Fig. 274) ..... **Amphipsocus*

------ Fore wing Rs more than 2-branched, M more than 3-branched (Fig. 281) 17

17. Tip of lacinia with elongate lateral cusp (Fig. 282). Hind wing Rs 2-branched (Fig. 279) ..... **Amphipsocopsis*

------ Tip of lacinia normal (Fig. 283). Hind wing Rs 3-branched (Fig. 284) 18

18. Hind wing M 3-branched (Fig. 284). Vertex on each side raised well above eye level as 2 bladder-like swellings (Fig. 285) ..... **Pentathyrsus*

------ Hind wing M simple or 2-branched (Fig. 256). Vertex at most slightly extended above eye level 19

19. Anterior femur with row of cones ..... **Harpezoneura*

—— Anterior femur without row of cones ..... **Xenopsocus*

20. Labrum with sensilla in middle of anterior margin obviously different from adjacent setae (Fig. 286) ..... *Brachypsocus*

—— Labrum without sensilla in middle of anterior margin ..... **Dasypsocus*

21. Cu1a fused with M for a length (Fig. 277) ..... **Taeniostigma*

—— Cu1a joined to M by a crossvein (Fig. 287) ..... **Kodamaius* and **Epikodamaius*

Key to the Genera of Lachesillidae

(Modified from Mockford & Sullivan, 1986)

1. Tarsi 2-segmented 2

—— Tarsi 3-segmented ..... **Eolachesilla*

2. Male phallosome variable, open posteriorly (Figs 40,291). Female paraprocts without field of short, stout setae along median margin in ventral half. (Epistomial suture present and complete) 3

—— Male phallosome closed posteriorly (Fig. 288). Female paraprocts with field of short, stout setae along median margin in ventral half (Fig. 289). (Epistomial suture developed only laterally) 4

3. Fore wing membrane feebly setose in basal half (Fig. 290) ..... *Nadleria*

—— Fore wing membrane glabrous (Fig. 292) ..... **Lachesilla*

4. Macropterous forms with ocelli 10

—— Macropterous, brachypterous or micropterous forms without ocelli 5

5. Male 6

—— Female 12

6. Base of phallosome flat. Sclerites of penial bulb consist of minute denticles (Fig. 293) 7

—— Base of phallosome rounded. Sclerites of penial bulb consist of minute denticles and larger sclerites (Fig. 294) 8

7. Aedeagus terminates in pointed or knobbed process. Arms of aedeagus ribbon-like, capable of pleat-folding, each arm joining base of phallosome on lateral side of strut to external paramere (Fig. 293) ..... *Prolachesilla*

----- Aedeagus forming broad arch distally. Arms of aedeagus stout, joining external parameres on median surface of latter (Fig. 295) ..... *Notolachesilla*

8. Aedeagus terminates in acuminate process or knob (Figs 296,297) 9

----- Aedeagus terminates in broad process bifid at tip (Fig. 294) ..... *Tricholachesilla*

9. Aedeagus terminates in acuminate process (Fig. 296) ..... *Nanolachesilla*

----- Aedeagus terminates in a knob (Fig. 297) ..... *Antilachesilla*

10. Fore wing Cu1a joined to M for a length (Fig. 298) ..... **Anomocopeus*

----- Fore wing Cu1a not joined to M (Fig. 299) 11

11. Aedeagus broad and truncate distally (Figs 297,300). (Fused ventral and external valves terminating as a slender process in females [Fig. 301]) ..... *Mesolachesilla*

----- Aedeagus terminates as acuminate process (Fig. 302). (Fused ventral and external valves broadly rounded in females [Fig. 34]) ..... **Graphocaecilius*

12. Subgenital plate hind margin broadly truncate medially (Fig. 303). (Areola postica small, less than half distance to M [Fig. 304]) ..... *Antilachesilla*

----- Subgenital plate margin not broadly truncate (Fig. 305) 13

13. Subgenital plate with slight suggestion of median lobe (Fig. 305). (Areola postica tall [Fig. 306]) ..... *Prolachesilla*

----- Subgenital plate tapering posteriorly to form broad tip (Fig. 307) 14

14. Subgenital plate with broadly rounded tip (Fig. 307). (Areola postica small [Fig. 308]) ..... *Nanolachesilla*

----- Subgenital plate with small median emargination of tip (Fig. 309). (Areola postica small [Fig. 304]) ..... *Tricholachesilla*

Key to the Genera of Ectopsocidae

1. Hind wing Rs and M fused for a length (Fig. 310) ..... **Interpsocus*

—— Hind wing Rs and M connected by crossvein or wing reduced (Fig. 43) 2

2. Male with first flagellar segment strongly spinose. Female subgenital plate bilobed with a small protuberance between lobes (Fig. 311) ..... *Mascaropsocus*

—— Male with first flagellar segment not spinose. Female subgenital plate bilobed or with median lobe, never with protuberance between lobes (Figs 100,313) 3

3. Male tergite 9 bearing comb of teeth and/or other sclerotised structure (Fig. 95). Female subgenital plate bilobed and with row of subapical setae (Fig. 313). Gonapophyses complete (Fig. 97) ..... *Ectopsocus*

—— Male usually with complex structures dorsally at end of abdomen (Fig. 314) which may include a comb of teeth. Female subgenital plate usually with median posterior lobe (Fig. 100). Gonapophyses reduced to external valve only (Fig.315) ..... **Ectopsocopsis*

Note: It is not easy at present to provide any infallible key character to separate males of *Ectopsocus* and *Ectopsocopsis*. *Interpsocus* is sometimes considered to be synonymous with *Ectopsocus*.

Key to the Genera of Peripsocidae

1. Fore wing with as least some setae (often small in males) on veins, more obvious in brachypterous females (Fig. 316) ..... **Kaestneriella*

—— Fore wing glabrous (Fig. 13) ..... **Peripsocus*

Key to the Genera of Calopsocidae

(From Thornton & Smithers, 1984)

1. Hind wing Rs simple (Fig. 317). Fore wing margin straight posteriorly from nodulus to end of Cu1b, then curved ..... **Callistoptera*

—— Hind wing Rs 2-branched (Fig. 318). Fore wing posterior margin without distinct bulge distad of Cu1b (Fig. 319) 2

2. Fore wing with anterior apical lobe, emarginate posteriorly at apex (Fig. 319) ..... **Neurosema*

—— Fore wing not as above 3

3. Vertex not produced dorsally, median notch on vertex indistinct or absent ..... *Torrepsocus*

------ Vertex produced and flattened dorsally, median notch on vertex distinct (Fig. 320) 4

4. Fore wing with apical half little or not wider than basal half. Anterior and posterior margins parallel (Fig. 321) ..... *Nemupsocus*

------ Fore wing widest apically. Posterior margin curved (Fig. 3) 5

5. Male ninth tergite with posterior comb of more than 50 teeth, each as broad as long. Tubercular field wide as long (Fig. 322). Fore wing areola postica with angular vertex, angle smaller than a right angle (Fig. 323) ..... *Calosema*

------ Male ninth tergite with posterior comb of fewer than 45 teeth, each clearly longer than broad. Tubercular field not rectangular (Fig. 324). Areola postica not acutely angled at apex (Fig. 325) 6

6. Fore wing M 5-branched. Rs 4- 5-branched (Fig. 326). (Male epiproct as long as or longer than wide) ..... *Dendropsocus*

------ Fore wing M 3-branched. Rs 2- 4-branched (Fig. 328). (Male epiproct broader than long [Fig. 329]) 7

7. Fore wing length:breadth at nodulus greater than 3.0, wing narrower in basal half (Fig. 325) ..... *Cyclopsocus*

------ Fore wing length:breadth at nodulus less than 2.9, wing ovoid (Fig. 3) ..... **Calopsocus*

Key to the Genera of Trichopsocidae

**Trichopsocus* is the only recent genus in the Trichopsocidae.

Key to the Genera of Archipsocidae

1. Both sexes macropterous. Hind wing without closed basal cell, if present, small, triangular (Figs 330,331) 2

------ Males micropterous or apterous. Female showing alary polymorphism. Winged forms with elongate closed basal cell in hind wing (Fig. 332) 3

2. Male posterior apex of phallosome elongate and well sclerotised, pointed (Fig. 333). Females oviparous. Gonapophyses with ventral and external valves (Fig. 334) ..... *Pararchipsocus*

------ Male apex of phallosome hyaline and very feebly sclerotised (Fig. 336). Females viviparous. Gonapophyses reduced to external valve only (Fig. 335) ..... *Pseudarchipsocus*

3. Male with phallosome usually parallel-sided, apically more extended (Fig. 337). Females viviparous. Gonapophyses reduced to inconspicuous lobe or absent. Antennal segments 6--10 with discoidal sensilla bearing a central cone ..... **Archipsocopsis*

—— Male phallosome usually oval without apical prominence (Fig. 92). Females oviparous. Gonapophyses reduced to slender dorsal valve and broad external valve (Fig. 93). Antennal segments 6--10 with discoidal sensilla bearing a long filament ..... **Archipsocus*

Key to the Genera of Pseudocaeciliidae

1. Micropterous. (Venation absent) ..... *Diplocaecilius*

—— Macropterous or brachypterous. (Venation visible) 2

2. Tarsi 3-segmented 3

—— Tarsi 2-segmented 5

3. Head with sharp vertex, flattened so that postclypeus is hardly protruding. Fore wing long and narrow, almost parallel-sided (Fig. 338) ..... *Novopsocus*

—— Head normally rounded above. Wings normal, not exceptionally narrow 4

4. Male hypandrium 3-lobed (Fig. 339). Female subgenital plate with posterior lobe divided or incipiently so, with 1 or 2 setae on each lobe (Fig. 340). (Dorsal valve of gonapophyses with subapical spur [Fig. 341]). Macropterous forms with Rs and M meeting in a point (Fig. 342) ..... **Austropsocus* and *Trimerocaecilius*

—— Male hypandrium 5-lobed (Fig. 343). Female subgenital plate 2-lobed with lobes overlying each other, each with setae (Fig. 344). (Dorsal valve of gonapophyses with subapical spur [Fig. 345]). Macropterous forms usually with Rs and M fused for a length (Fig. 346) ..... **Zelandopsocus*

5. Fore wing M simple. Cu1a completely fused with distal section of M as a straight vein from Cu1b to wing apex, behind which membrane is hyaline (Fig. 347) ..... **Allopsocus*

—— Fore wing M 2- or 3-branched. Areola postica normal (Fig. 348) 6

6. Fore wing M 2-branched (Fig. 71) 7

—— Fore wing 3-branched (Fig. 348) 8

7. Areola postica semicircular, of usual form. Fore wing costal margin not thickened to wing apex (Fig. 71) ..... **Scottiella*

—— Areola postica depressed, long. Fore wing costal margin thickened to about wing apex (Fig. 28) ..... **Pseudoscottiella*

8. Claws with preapical tooth on at least one claw of each pair (sometimes small) 9

—— Claws without apical tooth 13

9. Fore wing setae sited on wing veins (Fig. 349) 10

—— Fore wing setae sited adjacent to veins,a little to one side of veins (Fig. 348) 11

10. Areola postica tall, triangular (Fig. 349) ..... **Mesocaecilius*

—— Areola postica shallow, almost semicircular (Fig. 5) 12

11. Fore wing Rs and M fused for a length. Cell IA without sensory papillae (Fig. 348) ..... **Cladioneura*

—— Fore wing Rs and M joined by a crossvein. Cell IA with sensory papillae (Fig. 350) ..... **Scytopsocus*

12. Fore wing cell IA with sensory papillae (Fig. 5) ..... **Trichocaecilius*

—— Fore wing cell IA without sensory papillae (Fig. 27) ..... **Scytopsocopsis*

13. Fore wing Rs slightly sinuous or almost straight before bifurcation (Figs 351,352) 14

—— Fore wing Rs strongly sinuous before bifurcation (Fig. 353) ..... **Ophiodopelma* and **Allocaecilius*

14. Fore wing Rs and M fused for a length or meeting in a point ..... **Pseudocaecilius, *Lobocaecilius* and **Heterocaecilius*

—— Fore wing Rs and M joined by a crossvein ..... *Phallocaecilius*

Key to the Genera of Bryopsocidae

Bryopsocus is the only genus in the Bryopsocidae

Key to the Genera of Philotarsidae

(Modified from Thornton, 1981)

1. Tarsi 2-segmented ..... *Tarsophilus*

—— Tarsi 3-segmented 2

2. Antennal apex attenuated, with single apical seta (Fig. 354). (Female subgenital plate with distinct subapical sclerite or sclerites [Fig. 355]) 3

—— Antennal apex normal, with whorl of apical setae. (Female subgenital plate without distinct subapical sclerites (Fig. 358) 4

3. Fore wing with sub-parallel sides. Cu2 without setae (Fig. 356). Male hypandrium simple (Fig. 357). Female gonapophyses with dorsal valve smoothly rounded apically (Fig. 359) ..... **Aaroniella*

—— Fore wing of more usual shape, distinctly widest at level of pterostigma. Cu2 setose (Fig. 360). Male hypandrium bilobed (Fig. 361). Female gonapophyses with dorsal valve rectangular (Fig. 362) ..... *Latrobiella*

4. Male phallosome with sclerites (Fig. 363). Male trichobothrial field narrow (Fig. 364). Female gonapophyses with dorsal valve pointed (Fig. 365) ..... **Philotarsus*

—— Male phallosome simple, without sclerites. Male trichobothrial field not narrow (Fig. 366). Female gonapophyses with dorsal valve not pointed (Fig. 367) ..... **Haplophallus*

Key to the Genera of Elipsocidae

(From Smithers, 1964, and New, 1972)

1. Female without gonapophyses. Male fore wing membrane beset with microtrichia (Fig. 368) ..... **Lesneia*

—— Female with gonapophyses. Male fore wing membrane normal or wing reduced or absent 2

2. Tarsi 2-segmented 3

—— Tarsi 3-segmented 7

3. Antennae 13-segmented. Body setae normal, pointed 5

—— Antennae sometimes with fewer than 13 segments. Body setae with expanded tips or spiniferous 4

4. Body with spiniferous setae. Females with normal gonapophyses (Fig. 36). Males apterous ..... **Nepiomorpha*

----- Body setae with expanded tips. Female gonapophyses with ventral valve reduced (Fig. 118) ..... **Paedomorpha*

5. Males with many setae on fore wing (Fig. 369). Female subgenital plate without median posterior lobe (Fig. 103) ..... **Reuterella*

----- Males with glabrous or almost glabrous fore wings (Fig. 37). Female subgenital plate with median lobe (Fig. 370) 6

6. Areola postica present (Fig. 371) ..... *Clinopsocus*

----- Areola postica absent (Fig. 372) ..... **Palmicola*

7. At least some body setae with expanded tips. (Female gonapophyses with reduced ventral valve (Fig. 118). Males unknown) 8

----- Body setae normal. (Female gonapophyses with ventral valve usually not reduced (Fig. 115) 9

8. Female subgenital plate with median posterior lobe bearing strong marginal setae (Fig. 373) ..... **Paedomorpha*

----- Female subgenital plate rounded behind (Fig. 374) ..... *Sabulopsocus*

9. Fore wing of both sexes much reduced to elytriform remnants. Venation not distinct (Fig. 375) ..... **Antarctopsocus* and **Nothopsocus*

----- Wings absent, reduced or macropterous. If reduced venation still evident 10

10. Cu1a fused with M for a length or joined to M by a crossvein (Fig. 376). Never apterous 11

----- Cu1a not joining M in brachypterous and macropterous forms, i.e. areola postica free (Fig. 26). Apterous forms known 14

11. Fore wing M more than 3-branched (Fig. 376) ..... **Pentacladus*

----- Fore wing M 3-branched (Fig. 377) 12

12. Male hypandrium (Fig. 378) and female subgenital plate (Fig. 379) bilobed ..... **Propsocus*

----- Male hypandrium simple behind or inwardly curving, not distinctly bilobed. Female subgenital plate not bilobed 13

13. Fore wing Rs and M joined by a crossvein ..... **Kilauella*

----- Fore wing Rs and M fused for a length ..... **Palistreptus*

14. Maxillary palp fourth segment truncate, hatchet-shaped (Fig. 380) ..... **Cuneopalpus*

----- Maxillary palp fourth segment ovate-elongate, i.e., normal shape 15

15. Apterous females 22

----- Macropterous males or brachypterous or macropterous females 16

16. Fore wing with strong colour pattern ..... **Spilopsocus* and **Palistreptus*

----- Fore wing without strong colour pattern and/or brachypterous 17

17. Fore wing Cu2 setose (Fig. 381) 20

----- Fore wing Cu2 without setae (Fig. 382). Females brachypterous 18

18. Hind wing without marginal setae between arms of radial fork (Fig. 383).(Females apterous) ..... **Hemineura* and **Roesleria*

----- Hind wing with marginal setae between arms of radial fork (Fig. 30). (Females apterous or brachypterous) 19

19. Antennae at most half as long as body. Fore wing setae normal. Pulvillus fine. (Females apterous, without trichobothria) ..... **Pseudopsocus*

----- Antennae at least half as long as body. Fore wing setae sparse and short. (Females brachypterous, with trichobothria) ..... **Drymopsocus*

20. Fore wing Rs and M joined by a crossvein ..... **Kilauella*

----- Fore wing Rs and M fused for a length (Fig. 381) 21

21. Hind wing Cu2 strongly recurved near margin (Fig. 30) ..... **Palistreptus*

----- Hind wing Cu2 not strongly recurved near margin (Fig. 384) 24

22. Paraprocts with small trichobothrial field ..... **Hemineura*

----- Paraprocts without trichobothria 23

23. Gonapophyses with ventral valve long and pointed (Fig. 385). Pulvillus narrow throughout with slightly enlarged tip (Fig. 386) ..... **Pseudopsocus*

----- Gonapophyses with ventral valve short, "fleshy". Pulvillus broadened, rigid, with apex sharply pointed (Fig. 86) ..... **Roesleria*

24. Fore wing veins with obvious setae. Stigmapophysis large (Fig. 68) ..... **Elipsocus* and **Hemineura*

----- Fore wing veins very sparsely setose. Stigmapophysis reduced (Fig. 384) ..... **Roesleria*

Note: The position of **Hemicaecilius* is uncertain.

Key to the Genera of Mesopsocidae

1. Tarsi 2-segmented in both apterous and macropterous forms ..... **Psoculus*

----- Tarsi 3-segmented in apterous, brachypterous and macropterous forms 2

2. Eyes "stalked", i.e. eyes on long dorso-lateral extensions of head capsule (Fig. 387) ..... **Labocoria*

----- Eyes not "stalked" 3

3. Male macropterous with costa thickened in margin of pterostigma (Fig. 388). Female micropterous with subgenital plate posterior lobe broad basally without distinct "neck" between lobe and plate (Fig. 389) ..... *Metapsocus*

----- Male macropterous without thickened costa in pterostigma (Fig. 64). Female with subgenital plate posterior lobe with narrow "neck" at base (Fig. 125). (Pulvillus not finely pointed [Fig. 390]) 4

4. Male macropterous with slight abdominal protuberances. Female micropterous or apterous with median dorsal protuberances (Fig. 391) 5

----- Abdomen without protuberances. (Female may be generally swollen dorsally in abdomen) ..... **Mesopsocus*

5. Postclypeus extended forwards to form large cone (Fig. 392) ..... *Rhinopsocus*

----- Postclypeus normally bulbous, not extended into cone (Fig. 391) ..... **Hexacyrtoma* and *Cyrtopsochus*

Key to the Genera of Hemipsocidae

1. Fore wing Cu1a fused with M but distal section of Cu1a lost (Fig. 393). (M 2-branched) ..... **Anopistoscena*

----- Fore wing Cu1a joined to M by crossvein (Fig. 394). (M 2-branched) ..... **Hemipsocus*

Key to the Genera of Psocidae

Note: The large, heterogeneous genus *Psocidus* is not included in this key for the reasons given above under the heading SPECIAL PROBLEMS.

(cf. Cerastipsocini modified from Mockford, 1981)

1. Pterostigma much broader in distal half, or fore wing elytriform, sometimes brachypterous, micropterous or apterous (Fig. 395) 3

—— Pterostigma much broader in basal half than in distal half (Fig. 396) 2

2. Fore tibia cylindrical, normal ..... **Thyrsopsocus*

—— Fore tibia flattened, broadened. (At least first flagellar segment of antenna thickened, sometimes also second is thickened) ..... **Thyrsophorus*

3. Fore wing strongly thickened, elytriform, covering abdomen (Fig. 397). (Whole insect very beetle-like) ..... *Elytropsocus*

—— Fore wing not elytriform, insect not beetle-like 4

4. Macropterous 10

—— Micropterous or brachypterous 5

5. Forewing membrane setose (Fig. 398) ..... *Chaetopsocidus*

—— Fore wing membrane glabrous 6

6. Micropterous, venation not distinct. Abdomen enlarged (Fig. 399) ..... **Camelopsocus*

—— Brachypterous, venation apparent (Fig. 107). (Male macropterous). Abdomen normal 7

7. Gonapophyses with dorsal valve ending in a pointed extension (Fig. 400) 8

—— Gonapophyses with dorsal valve gradually narrowing to a narrow, blunt apex (Fig. 401) ..... **Neopsocus*

8. Ocelli absent ..... **Oreopsocus*

—— At least 2 ocelli present 9

9. Wings almost reaching end of abdomen (Fig. 402) ..... **Hyalopsocus*

—— Wings not nearly reaching end of abdomen (Fig. 403) ..... **Neopsocopsis*

10. Cu1a joined to M by an obvious crossvein (Fig. 404) ..... **Elaphopsocus*

----- Fore wing Cu1a meeting M at a point or fused with it for a length or with mere suggestion of a crossvein (Fig. 395) 11

11. Fore wing R4+5 curving back to touch M (Fig. 405) ..... **Cycetes*

----- Fore wing with R4+5 not touching M (Fig. 395) 12

12. Maxillary palp fourth segment short and somewhat widened, length about 2.6--2.8 times width. (Female gonapophyses with dorsal valve pointed at apex (Figs 400,407). Pigmented area of subgential plate with arms forming a straight, transverse band bearing row of setae. Antennae often very long. Usually large species. Male hypandrium usually symmetrical (Fig. 406) 13

----- Maxillary palp fourth segment long, cylindrical, length about 3.5--4.5 times width. (Female gonapophyses various (Figs 408,409). Male hypandrium various (Figs 20,410), sometimes asymmetrical) 23

13. Fore wing R2+3 and R4+5 diverging to form sharp angle of about 60 degrees (Fig. 411) 14

----- Fore wing R2+3 and R4+5 diverging at right angle or a greater angle (Fig. 418) 17

14. Antennae at least partly incrassate ..... *Dactylopsocus*

----- Antennae fine, not incrassate 15

15. Glandular setae present, especially on head (Fig. 412) ..... **Neopsocus*

----- No glandular setae 16

16. Pterostigma deep, with strongly arched hind margin. M1 between M2 and M3 strongly curved to give a convex anterior margin to median cells (Fig. 413). Lacinia with apex strongly extended on one side (Fig. 414). (Areola postica very tall) ..... *Cervopsocus*

----- Pterostigma normal. Areola postica normal. Median cells not strongly convex anteriorly (Fig. 415) ..... **Psococerastis*

17. Antenna with first flagellar segment thickened (Fig. 416) 19

----- Antenna with first flagellar segment not greatly thickened 18

18. Fore wing cell M3 not greatly narrower than other median cells (Figs 417,418) ..... **Cerastipsocus* and **Ghesquierella*

----- Fore wing cell M3 narrower than other median cells, usually about half as wide (M3 and Cu1a almost parallel) (Fig. 419) ..... *Clematoscenea*

19. Antenna with first flagellar segment thickened, others normal 20

—— Antenna with first and second segments thickened, others normal (Fig. 420) ..... *Eremopsocus*

20. Fore wing veins in basal half of wing setose (Fig. 421) ..... *Setopsocus*

—— Fore wing veins glabrous 21

21. Hind tibia normal, cylindrical, not widened 22

—— Hind tibia widened ..... *Podopterocus*

22. Fore wing somewhat narrow almost pointed distally (Fig. 422) ..... *Dinopsocus*

—— Fore wing normal, broadly rounded distally (Fig. 417) ..... **Cerastipsocus*

23. Antenna hardly longer than fore wing, often shorter. (Female gonapophyses with dorsal valve pointed (Figs 409,423). Male hypandrium symmetrical or not (Fig. 410) 24

—— Antenna at least 1.5 times fore wing length. (Female gonapophyses with dorsal valve broad, rounded at end (Fig. 408). Pigmented area of subgenital plate with arms oriented obliquely to the posterior lobe (Fig. 424). Male hypandrium usually asymmetrical [Fig. 425]) 53

24. Male with sternite 8 strongly sclerotised and continuous with sternite 9 at least medially so that the hypandrium appears exceptionally large, sometimes occupying half abdomen (Fig. 426). Parameres separate, not posteriorly joined (Fig. 427). Areola postica with first section of Cu1a usually shorter than second, occasionally as long. Pterostigma without spurvein (Fig. 430) 25

—— Male hypandrium formed of sternite 9 only (Fig. 20). Parameres fused anteriorly or also posteriorly to form a closed ring-like phallosome (Fig. 428). Areola postica with first section of Cu1a longer or equal to second (Fig. 429). Pterostigma sometimes with spurvein 33

25. No glandular setae 26

—— Glandular setae present, especially on head ..... **Neopsocopsis*

26. Fore wing membrane setose (Fig. 398) ..... *Chaetopsocidus*

—— Fore wing membrane glabrous 27

27. Fore wing M before junction with Cu1a straight or inwardly curved so that discoidal cell is distally concave (Fig. 431) 28

—— Fore wing M before junction with Cu1a outwardly curved so that discoidal cell is convex distally (Fig. 432). (Rs and M joined by a crossvein) ..... **Amphigerontia*

28. Fore wing veins setose (Fig. 433) ..... *Lasiopsocus*

—— Fore wing veins glabrous or setae very fine and short 29

29. No ocelli ..... *Euclismioides*

—— Ocelli present 30

30. Fore wing with M+Cu1a somewhat sinuous (Fig. 434) ..... **Blastopsocus*

—— Fore wing M+Cu1a not sinuous 31

31. Male hypandrium asymmetrical (Fig. 435). Female subgenital plate with setae of lobe not restricted to apex of lobe (Fig. 436) ..... *Blastopsocidus*

—— Male hypandrium symmetrical (Fig. 437). Female subgenital lobe plate with setae restricted to apex of lobe (Fig. 438) (*Blaste* and *Neoblaste* females) 32

32. Hypandrium posteriorly with a lobe divided by deep incision or with 2 lobes between which is a spine (Fig. 437) ..... **Blaste*

—— Hypandrium posteriorly with bluntly rounded lateral lobes, 2 pairs of lateral accessory sclerites and median accessory sclerite (Fig. 439) ..... **Neoblaste*

Note: It is not possible to provide a reliable key character to separate females of *Blaste* and *Neoblaste*.

33. Eyes on strong dorso-lateral extensions of head capsule (Fig. 441) ..... **Steleops*

—— Eyes not so "stalked" (Fig. 440) 34

34. Fore wing margin and hind wing margin between R2+3 and R4+5 setose, setae often fine and small. (Pterostigma often with spurvein. First section of Cu1a shorter than second) ..... **Ptycta*

—— Fore wing glabrous 35

35. Pterostigma with strongly pronounced hind "angle" (sometimes with a spurvein) basad of which pterostigma is obviously concave (Fig. 395). (Post-pterostigmal mark ends at angle) 37

—— Pterostigma smoothly rounded without obvious hind "angle" (Fig. 442). (No spurvein). Pterostigma convex basad of broadest part as well as distal to it 36

Note: An "angled" pterostigma in relation to the psocid wing is a pterostigma which is definitely broadened with the broadest part being sharply rounded.

36. Phallosome not extended into anterior rod (Fig. 443) ..... **Oreopsocus*

—— Phallosome extended into median anterior rod, the rod longer than rest of phallosome (Fig. 446) ..... *Camelopsocus*

37. Pterostigma with hind angle fairly sharp, usually with spurvein 38

—— Pterostigma with hind angle smoothly rounded, never with spurvein (Fig. 442) 45

38. Pterostigma elongate, narrow, hind margin concave or convex basad of spurvein (Fig. 444) ..... *Tanystigma*

—— Pterostigma broad, of normal width, concave basad of spurvein (Fig. 445) 39

39. Fore wing Rs and M joined by a crossvein (Fig. 447) 40

—— Fore wing Rs and M fused for a length (Fig. 448) 42

40. Fore wing with first section of Cu1a shorter than second (Fig. 448) ..... **Copostigma*

—— Fore wing with first section of Cu1a longer than second (Fig. 449) 41

41. Fore wing discoidal cell very broad, as wide as long. Cu1 curved to give discoidal cell a convex basal side. (Areola postica tall, Cu1a fusion with M short [Fig. 447]) ..... *Kaindipsocus*

—— Fore wing discoidal cell elongate, almost parallel-sided. Anterior side not greatly longer than posterior (Fig. 442) ..... *Mecampsis*

42. Fore wing with first section of Cu1a longer than second (Fig. 449) ..... *Clematostigma* and some **Ptycta*

—— Fore wing with first section of Cu1a shorter than second 43

43. Male hypandrium with median, strap-like structure without teeth (Fig. 450). Phallosome with asymmetrical distal apophyses (Fig. 451). Female subgenital plate lobe posteriorly rounded, nearly parallel-sided (Fig. 453) ..... **Hyalopsocus*

—— Male hypandrium with teeth (Fig. 452). Subgenital plate lobe tapering or square-ended (Fig. 454) 44

44. Male hypandrium with 2 rows of teeth (asymmetrical) (Fig. 452). Phallosome not broadest anteriorly (Fig. 455). Female subgenital plate lobe square-ended, usually short. Lobe not reinforced by sclerotised ridges (Fig. 454) ..... **Ptycta*

—— Male hypandrium without teeth. If present not in rows (asymmetrical) (Fig. 456). Phallosome widest anteriorly (Fig. 457). Female subgenital plate lobe reinforced by 2 sclerotised ridges usually along sides (Fig. 458) ..... *Indiopsocus*

45. Fore wing with first and second sections on Cu1a in a straight line with one another (Fig. 442) 46

----- Fore wing with first and second sections of Cu1a at an angle to one another (Fig. 459) 47

46. Fore wing Rs and M meeting in a point (Fig. 442) ..... *Psocomesites*

----- Fore wing Rs and M fused for a length (Fig. 395) ..... **Trichadenotecnum*

47. Fore wing Sc evanescent ..... *Barrowia*

----- Fore wing Sc present (Fig. 459) 48

48. Fore wing Sc ends in R (Fig. 459) 49

----- Fore wing Sc ends in costal cell (Fig. 460) 50

49. Male hypandrium asymmetrical with median strap-like structure (Fig.450). Phallosome with distal. Asymmetrical apophyses (Fig. 451). Female subgenital plate lobe posteriorly rounded, nearly parallel-sided (Fig. 453) ..... **Hyalopsocus*

----- Male hypandrium asymmetrical with various structures but not median strap-like structure (Fig. 20).Phallosome narrowing posteriorly with an asymmetrical plate at posterior end (Fig. 428). Female subgenital plate lobe short or long but tapering towards end (Fig. 461) ..... **Psocus*

50. Male hypandrium symmetrical, bearing 2 longitudinal rows of teeth (Fig. 410). Phallosome open anteriorly, extended medially behind (Fig. 462). Female subgenital plate lobe short (Fig. 463). Dorsal valve of gonapophyses long,tapering to point (Fig. 409) ..... **Atlantopsocus*

----- Male hypandrium asymmetrical, toothed or not (Fig.450). Phallosome closed anteriorly (Fig. 455). Female subgenital plate lobe long or short, usually broad. Dorsal valve of gonapophyses narrowing abruptly before pointed apex (Fig. 400) 51

51. Male hypandrium with median strap-like structure without teeth (Fig. 450). Phallosome with asymmetrical distal apophyses (Fig. 451). Female subgenital plate lobe posteriorly rounded (Fig. 453) ..... **Hyalopsocus*

----- Male hypandrium with teeth (Fig. 464). Subgenital plate lobe square-ended (Fig. 454) 52

52. Male hypandrium with 2 rows of teeth (asymmetrical) (Fig. 452). Phallosome not broadest anteriorly (Fig. 455). Female subgenital plate lobe usually short, square-ended. Lobe not reinforced by ridges (Fig. 454) ..... **Ptycta*

----- Male hypandrium with teeth, not in rows (asymmetrical) (Fig. 456). Phallosome widest anteriorly (Fig. 457). Female subgenital plate lobe usually long, reinforced by 2 bars, usually along sides of lobe (Fig. 458) ..... *Indiopsocus*

53. Fore wing veins, especially in basal half of wing,and hind wing margin, setose (Fig. 465). Scutellum of meso- and metathorax with long spine ..... *Diplacanthoda*

—— Fore wing glabrous. Thorax without spines 54

54. Fore wing Rs and M connected by a crossvein. M and Cu1, where they form the discoidal cell, almost equal in length so that discoidal cell is almost rectangular (Fig. 466) 55

—— Fore wing Rs and M fused for a length or meeting in a point. Proportions of discoidal cell not as above (Fig. 459) 56

55. Pterostigma with spurvein ..... **Brachinodiscus*

—— Pterostigma without spurvein (Fig. 466) ..... *Sigmatoneura*

56. Fore wing Sc ends in R (Fig. 459). Female subgenital plate sclerification transverse (Fig. 467). Male hypandrium symmetrical (Fig. 468) ..... **Pearmania*

—— Fore wing Sc ends free in costal cell (Fig. 460). Female subgenital plate sclerification V-shaped (Fig. 469). Male hypandrium asymmetrical (Fig. 470) 57

57. Fore wing without curvature of margin between ends of branches of M (Fig. 471). Gonapophyses with dorsal valve without spicules (Fig. 472). Subgenital plate posterior lobe more than twice as long as wide (Fig. 424) ..... **Metylophorus*

—— Fore wing margin slightly curved between ends of branches of M (Fig. 460). Gonapophyses with dorsal valve with spicules (Fig. 408). Subgenital plate posterior lobe short, as long as wide (Fig. 469) ..... **Pilipsocus*

Key to the Genera of Psilopsocidae

**Psilopsocus* is the only genus in the Psilopsocidae.

Key to the Genera of Myopsocidae

1. Ocelli present 2

—— Ocelli absent ..... *Mouldsia*

2. Hind wing Rs and M fused for a length (Fig. 473) ..... **Myopsocus*

—— Hind wing Rs and M joined by a crossvein (Fig. 474) 3

3. Fore wing margin incurved between ends of branches of veins (Fig. 475) ..... **Lophopterygella*

—— Fore wing margin not incurved between ends of vein (Fig. 66) ..... *Lichenomima*

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It is inevitable that compilation of keys to the genera of any group as large as the Psocoptera must depend greatly on the work of others. This applies especially to the illustrations and I have drawn heavily on published work to provide these so that the characters used in the keys can be illustrated with the most appropriate illustrations. Many of the illustrations were used in Smithers (1972), in association with generic definitions, and acknowledgement of the sources is given there. These acknowledgements are not repeated here but a list of sources of material not previously borrowed is given below.

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References

Aaron, S.F., 1884. Description of new Psocidae in the collection of the American Entomological Society. Transactions of the American Entomological Society 11: 37--40, pl.9.

Aaron, S.F., 1886. On some new Psocidae. Proceedings of the Academy of Natural Sciences of Philadelphia 38: 13--18, pl.1.

Badonnel, A., 1931. Contribution a l'étude de la faune du Mozambique. Voyage de M.P. Lesne (1928-1929). 4e note. Copéognathes. Annales des sciences naturelles (Zoologie) (10)14: 229--260, 37 figs.

Badonnel, A., 1931a. Copéognathes de France. (IIIe note). Bulletin de la Société zoologique de France 56: 341--347, 5 figs.

Badonnel, A., 1932. Copéognathes de France. (IVe note). Bulletin de la Société zoologique de France 37: 77--79, 5 figs.

Badonnel, A., 1935. Psocoptères nouveaux d'Afrique et d'Arabie.Revue française d'Entomologie 2: 76--82, 15 figs.

Badonnel, A., 1936. Psocoptères de France. (VIIIe note). Bulletin de la Société zoologique de France 60: 418--423, 8 figs.

Badonnel, A., 1943. Psocoptères. Faune de France 42: 1--164, 375 figs.

Badonnel, A., 1944. Contribution a l'étude des Psocoptères de l'Atlantide. Revue française d'Entomologie 11: 47--60, 22 figs.

Badonnel, A., 1946. Psocoptères du Congo Belge. Revue de zoologie et de botanique africaines 39: 137--196, 126 figs.

Badonnel, A., 1947. Croisière de Bougainville aux les australes française. XIV. Psocoptères. Mèmoires du Museum nationale d'histoire naturelle Paris N.S. 20: 25--30, 25 figs.

Badonnel, A., 1949. Psocoptères de la Cote d'Ivoire. Mission Paulian-Delamere. (1945). Revue française d'Entomologie 16: 20--40, 61 figs.

Badonnel, A., 1949a. Psocoptères du Congo Belge. (3e Note). Bulletin de l'Institut r. des Sciences naturelle de Belgique 25: 1--64, 93 figs.

Badonnel, A., 1951. Psocoptères. Vol.10, fasc.2, pp.1301--1340; pp.1135--1170. **In** P. Grassé. Traité de Zoologie. Paris. 17 vols.

Badonnel, A., 1955. Psocoptères de l'Angola. Publiçacões culturais Companhia Diamang Angola 26: 1--267, 635 figs.

Badonnel, A., 1963. Psocoptères terricoles, lapidicoles et corticoles du Chili. Biologie de l'Amerique australe 2: 291--338, 88 figs.

Badonnel, A., 1966. Sur le genre *Archipsocus* Hagen (Psocoptera: Archipsocidae) Bulletin du Museum nationale d'histoire naturelle Paris (2) 38: 407--415, 5 figs.

Badonnel, A., 1967. Insectes Psocoptères. Faune de Madagascar 23: 1--238, 496 figs.

Badonnel, A., 1967a. Psocoptères edaphique due Chili. (2e note). Biologie de l'Amerique australe 3: 541--585, 80 figs.

Badonnel, A., 1969. Psocoptères de l'Angola et pays voisins avec revision de types africaines d'Enderlein (1902) et de Ribaga (1911). Publiçacões culturais Companhia Diamang Angola 79: 1--152, 256 figs.

Badonnel, A., 1972. Espèces bresiliennes de la sous-famille des Embidopsocinae (Psocoptera: Liposcelidae). Bulletin du Museum nationale l'histoire naturelle Paris (3) 87: 1097--1139, 99 figs.

Badonnel, A., 1975. Psocoptères de l'Angola. IV. Publiçacões culturias Companhia Diamang Angola 87: 59--104, 77 figs.

Badonnel, A., 1975. Trois espèces de Mesopsocidae nouvelles pour la faune française (Psocoptera). Bulletin de la Société entomologique de France 80: 184--191, 19 figs.

Badonnel, A., 1976. Compléments a l'étude des Psocoptères de Madagascar. Bulletin de la Museum nationale d'histoire naturelle Paris (3) 410, zoologie 287: 1143--1198, 169 figs.

Badonnel, A., 1977. Psocoptères de l'Angola. V. Publiçacões culturais Companhia Diamang Angola 89: 103--153, 97 figs.

Badonnel, A., 1977a. Psocoptères de l' le de Reunion. Bulletin de la Museum nationale d'histoire naturelle Paris (3)478, zoologie 335: 917--949, 79 figs.

Badonnel, A., 1981. Psocoptères de l' le de Reunion. 2e note. Bulletin de la Museum nationale d'histoire naturelle Paris (4) 3A(2): 663--674.

Badonnel, A., 1981a. Psocoptères (Insecta:Psocoptera) de l'Inde. Mission Besuchet-Löbl (1978) et voyage

entomologique Löbl 1979. Revue suisse de Zoologie 88: 381--411, 96 figs.

Badonnel, A., 1982. Mesopsocidae (Psocoptera) d'Afrique australe avec compléments a la description de Mesopsocus hiemalis Marikowsky. Bulletin de la Museum nationale d'histoire naturelle Paris (4) 4A (1-2): 165--188, 56 figs.

Badonnel, A., 1986. Psocoptères de Colombie (Insecta,Psocoptera). Spixiana 9(2): 179--223, 177 figs.

Badonnel, A. & A.N. Garcia Aldrete, 1979. *Nadleria*, un nouveau genre de Lachesillidae (Psocoptera) du Bresil. Nouvelle Revue d'Entomologie 9: 3--8, 16 figs.

Badonnel, A. & C. Lienhard, 1987. Description de *Rhinopsocus*, nouveau genre d'Afrique australe (Psocoptera:Mesopsocidae). Archives des Sciences, Geneve 40: 285--291, 14 figs.

Badonnel, A., E.L. Mockford & A.N. Garcia Aldrete, 1984. Pararchipsocinae, nouvelle subdivision des Archipsocidae (Insecta,Psocoptera) avec description de *Pararchipsocus* n.g. et de onze espèces inédites de cette sous-famille. Bulletin de la Museum nationale d'histoire naturelle (4) 6A (3): 741--768, 105 figs.

Badonnel, A. & J.V. Pearman, 1971. *Mascaropsocus*, nouveau genre d'Ectopsocinae des les mascareignes (Psocoptera, Peripsocidae) Bulletin de la Museum nationale d'histoire naturelle Paris (2) 5 (5): 857--963, 10 figs.

Banks, N., 1913. The Stanford Expedition to Brazil,1911. Neuropteroid Insects from Brazil. Psyche 20: 83--89, pl.4.

Banks, N., 1916. Neuropteroid insects of the Philippine Is. Philippine Journal of Science (D) 11: 195--217, 2 pls.

Banks, N., 1920. New Neuropteroid Insects. Bulletin of the Museum of Comparative Zoology at Harvard College 64: 299--382, 7 pls.

Banks, N., 1930. Some new neotropical Neuropteroid insects. Psyche 37: 183--191, pl.9.

Banks, N., 1931. On some Psocidae from the Hawaiian Is. Proceedings of the Hawaiian Entomological Society 7: 437--441, pls 7--9.

Banks, N., 1937. Neuropteroid insects from Formosa. Philippine Journal of Science 62: 255--291, 3 pls.

Burmeister, H., 1839. Handbuch der Entomologie. Berlin. 1832--1855, 5 vols.

Chapman, P.J., 1930. Corrodentia of the United States of America. I. Suborder Isotecnomera. Journal of the New York Entomological Society 38: 219--290, 319--402, pls 12--21.

Costa, A., 1885. Notizie ed osservationi sulla Geo-Fauna Sarda. Atti della R. Accademia delle Scienze e Mathematiche Napoli (2) 1: 131--31.[PAGES WRONG] (Psocids: pp. 5,15--17).

Curtis, J., 1837. British Entomology. London. 1823--1840.

Edwards, A.B., 1950. A study of Tasmanian Psocoptera with descriptions of new species. Papers and Proceedings of the Royal Society of Tasmania 1949: 93--134, 117 figs.

Eertmoed, G.E., 1973. The phenetic relationships of the Epipsocetae (Psocoptera): the higher taxa and the species of two new families. Transactions of the America Entomological Society 99: 373--414, 133 figs.

Enderlein, G., 1900. Die Psocidenfauna Perus. Zoologische Jahbücher, Abteilung Systematik 14: 133--160, figs A--D, pls 8,9.

Enderlein, G., 1901. Neue deutsche und exotische Psociden sowie Bermerkungen zur Systematik. Zoologische Jahbücher, Abteilung Systematik 14: 537--548, pl.35.

Enderlein, G., 1902. Zur Kenntnis der Insekten Deutsch-Ostafrikas. Ergebnisse der Nyassassee- und Kingagebirge-Expedition der Hackmann-Wentzelstiftung. 2. Psociden aus Deutsch Ostafrikas. Mitteilungen aus dem Zoologischen Museum in Berlin 2(2): 7--16, fig.3, pl.5.

Enderlein, G., 1903. Die Copeognathen des indo-australischen Faunengebietes. Annales historico-naturales Musei nationalis hungarici 1: 179--344, 12 figs, pls 3--14.

Enderlein, G., 1903a. Zur Kenntnis der amerikanischer Psociden. I. Neue Gattungen und Arten südamerikanischer Psociden. II. Zwei neue nordamerikanische Troctes-Arten. Zoologische Jahbücher,Abteilung Systematik 18: 351--364, pls 17,18.

Enderlein, G., 1903b. Über die Stellung von Leptella Reut. und *Reuterella* nov.gen. die Vertreter zweier neuer europaischer Copeognathensubfamilien. Zoologischer Anzeiger 27: 131--134.

Enderlein, G., 1904. Die von Herr. Prof. Dr. Friedr. Dahl im Bismarck-Archipel gesammelten Copeognathen nebst Bermerkungen über die physiologische Bedeutung des Stigmasackes. Zoologische Jahbücher, Abteilung Systematik 20: 105--112, pl.7.

Enderlein, G., 1905. Results of the Swedish Zoological Expedition to Egypt and the White Nile, 1901. No.18. Morphologie, Systematik und Biologie der Atropiden und Troctiden sowie zusammenstellung aller bisher bekannten recenten und fossilen formen. 58 pp., 11 figs, 4 pls.

Enderlein, G., 1906. Die Copeognathen-Faune Japans. Zoologische Jahrbücher, Abteilung Systematik 23: 243--256, pls 10,11.

Enderlein, G., 1906a. Die australische Copeognathen. Zoologische Jahr?bücher, Abteilung Systematik 23: 401--412, pl. 23.

Enderlein, G., 1906b. The scaly-winged Copeognatha (Monograph of the Amphientomidae, Lepidopsocidae and Lepidillidae in relation to their morphology and taxonomy). Spolia Zeylanica 4: 39--122, 6 figs, pls A--G.

Enderlein, G., 1907. Die Copeognathen Javas. Notes from the Leyden Museum 29: 107--126, 6 figs.

Enderlein, G., 1907a. Copeognatha. **In** W. Michelsen & F. Hartmeyer. Die Fauna Südwest-australiens Ergebnisse der Hamburger Südwest-australischen Forschungresise 1905. Jena.

Enderlein, G., 1908. Die Copeognathenfauna der Insel Formosa. Zoologischer Anzeiger 33: 759--779, 3 figs.

Enderlein, G., 1908a. Copeognatha. **In** L. Schulze. Forschungsreise im westlichen und zentralen Südafrika. 3. Copeognatha: Hexacyrtoma, eine neue Copeognathengattung von Kapland. Denkschriften der Medizinisch-naturwissenschaftlichen Gesellschaft zu Jena 13: 349--351, 2 figs, pl.19, fig.1.

Enderlein, G., 1909. Neue Gattungen und Arten nordamerikanischer Copeognathen. Bolletino de Laboratorio di Zoologia generale e agraria della Faculta agraria in Portici 3: 329--339, 4 figs.

Enderlein, G., 1909a. Diplacanthoda *Bouvieri*, nouveau genre de Copeognathes (Psocinae) de Madagascar. Bulletin de la Museum Nationale d'Histoire Naturelle

Paris 15: 448--449, 1 fig.
Enderlein, G., 1909b. Neue Gattungen und Arten von Copeognathen aus Transvaal sowie aus der Ohau'schen Ausbeute aus Ecuador. Stettiner entomologische Zeitung 70: 266--273, 3 figs.
Enderlein, G., 1909c. Biospeliogica. XI. Copeognathen (Erste Reihe). Archives de zoologie expérimentale et générale (5) 1: 533--539, pl.18.
Enderlein, G., 1910. Eine Dekade neuer Copeognathengattungen. Sitzungsberichte der Gesellschaft naturforschender Freunde zu Berlin 1910 (2): 63--77, 10 figs.
Enderlein, G., 1911. Die fossilen Copeognathen und ihre Phylogenie. Palaeontographica 57: 279--360, figs A--S, pls 21--27.
Enderlein, G., 1912. Über einiger hervorragende neue Copeognathengattungen. Zoologischer Anzeiger 39: 298--306, 2 figs.
Enderlein, G., 1913. Beiträge zur Kenntnis der Copeognathen. I. Zur Kenntnis der Copeognathen Hawaii. II. Über einige Copeognathen an Zitronenbaumen in Ostafrika. Zoologischer Anzeiger 41: 354--360.
Enderlein, G., 1917. Beitrage zur Kenntnis der Copeognathen. IV. Zur Kenntnis der Copeognathen des Kongogebietes. Zoologischer Anzeiger 49: 254--256, 3 figs.
Enderlein, G., 1920. Die Copeognathen der Hawaii-Inseln. Zoologische Jahbücher, Abteilung Systematik 43: 449--460, pls 5,6.
Enderlein, G., 1922. A scaly-winged Psocid, new to science, discovered in Britain. Entomologist's Monthly Magazine 58: 101--104.
Enderlein, G., 1923. Beitrage zur Kenntnis der Copeognathen. VII. Über die Typen Blanchards chilenisches Copeognathen. Zoologischer Anzeiger 55: 245--248, 1 fig.
Enderlein, G., 1926. Die Copeognathen Javas. Zoologische Mededeelingen 9: 50--70.
Enderlein, G., 1931. The Percy Sladen Trust Expedition to the Indian Ocean in 1905 under the leadership of Mr. Stanley Gardiner, M.A. VIII. Die Copeognathen der Seychellen. Transactions of theLinnean Society of London (Zoology) (2)19: 207--240, 52 figs, pls 14--16.
Garcia Aldrete, A.N., 1984. The Trogiomorpha (Psocoptera) of Chamela, Jalisco, Mexico. Folia Entomologica Mexicana 59: 25--69, 114 figs.
Günther, K.K., 1968. Staublause (Psocoptera) aus der Mongolei. Ergebnisse der Mongolisch-Deutsche Biologischen Expeditionen zeit 1962. Mitteilungen aus dem Zoologischen Museum in Berlin 44: 124--141, 25 figs.
Günther, K.K., 1974. Staublause (Psocoptera). In Die Tierwelt Deutschlands. Jena. 61 Theil, 314 pp, 437 figs.
Gurney, A.B., 1943. A synopsis of the Psocids of the tribe Psyllipsocini, including the description of an unusual new genus from Arizona (Corrodentia, Empheriidae, Empheriinae). Annals of the Entomological Society of America 36: 195--220, 6 pls.
Gurney, A.B., 1965. A new genus of neotropical Psocids with horn-like structures on the head. (Psocoptera, Pachytroctidae). Entomological News 76: 1--10, 21 figs.
Hagen, H., 1856. Die im Bernstein befindlichen Neuroptera der Vorwelt. In G. Berendt. Die im Bernstein befindlischen organischen Reste. Berlin.
Hagen, H., 1865. One some aberrant genera of Psocina. Entomologist's Monthly Magazine 2: 148--152.
Hagen, H., 1865a. Synopsis of Psocina without ocelli. Entomologist's Monthly Magazine 2: 121--124.
Hagen, H., 1866. On some aberrant genera of Psocina. Entomologist's Monthly Magazine 2: 170--172.
Hagen, H., 1866a. Psocinorum et Embidinorum Synopsis synonymica. Verhandelungen der Zoologisch-botanischen Gesellschaft in Wien 16: 201--222.
Hagen, H., 1876. Pseudoneuroptera. In J.H. Kidder. Contributions to the Natural History of Kerguelen Island made in connection with the United States transit of Venus Expedition, 1874--75. II. Bulletin of the United States National Museum 2: 1--122.
Hagen, H., 1882. Beitrage zur Monographie der Psociden. Über Psociden im Bernstein. Stettiner entomologische Zeitung 43: 265--276, 217--237, 276--300, 524--526, pls 1,2.
Heyden, G.H., 1850. Zwei neue deutsche Neuropterengattungen. Stettiner entomologische Zeitung 11: 83--85.
Illiger, J.C.W., 1798. Kugelann Verzeichniss der Käfer Preussens ausgearbeitet von Illiger, mit einer vorrede von Hellwig und dem angehängten Versuch einer natürlichen Ordnung und Gattungsfolge der Insecten. Halle.
Kolbe, H.J., 1880. Das Flügelgeäder der Psociden und seine systematische Bedeutung. Stettiner entomologische Zeitung 41: 179--186, 1 pl.
Kolbe, H.J., 1880a. Monographie der deutschen Psociden mit besonderer Berücksichtigung der Fauna Westfalens. Jahresbericht des Westfälischen Provinzial-Vereins fur Wissenschaft und Kunst 8: 73--142, pls 1--4.
Kolbe, H.J., 1882. Das phylogenetische Alter der europäischen Psocidengruppen. Jahresbericht des Westfälischen Provinzial-Vereins fur Wissenschaft und Kunst 10: 18--27.
Kolbe, H.J., 1883. Neue Beiträge zur Kenntniss der Psociden der Bernstein-Fauna. Stettiner entomologische Zeitung 44: 186--191.
Kolbe, H.J., 1883a. Neue Psociden des Königl. zoologischen Museum zu Berlin. Stettiner entomologische Zeitung 44: 65--87.
Kolbe, H.J., 1884. Der Entwicklunggang der Psociden im Individuum und in der Zeit. Berliner entomologische Zeitschrift 28: 35--38.
Kolbe, H.J., 1885. Zur Kentniss der Psociden-Fauna Madagaskars. Berliner entomologische Zeitschrift. 29: 183--192, pl.4B.
Kuwayama, S., 1961. Corrodentia of Thailand. Nature and Life in Southeast Asia 2: 203--205, 1 fig.
Latreille, P.A., 1794. Extrait d'un mémoire pour servir de suite à l'histoire des Tèrmes, ou Fourmis blanches. Bulletin de la Société Philomanthique de Paris 1: 84--85.
Lee, S.S. & I.W.B. Thornton, 1967. The family Pseudocaeciliidae (Psocoptera) -- a reappraisal based on the discovery of new Oriental and Pacific species. Pacific Insects Monographs 16: 1--116, 187 figs.
Lienhard, C., 1979. *Brachypsocus badonneli* n.gen.,n.sp., eine neue hemiedaphische Psocoptere aus Südfrankrich (Psocoptera: Amphipsocidae). Mitteilungen der Schweizerischen entomologischen Gesellschaft 52: 83--90, 19 figs.
Lienhard, C., 1980. *Chelyopsocus garganicus* n.gen.,n.sp., eine neue lapidicole Psocoptere aus

Süditalien (Psocoptera: Troctopsocidae). Mitteilungen der Schweizerischen entomologischen Gesellschaft 53: 209--214, 12 figs.

McLachlan, R., 1866. New genera and species of Psocidae. Transactions of the Entomological Society of London (3)5: 345--352.

McLachlan, R., 1872. Description of a new genus and five new species of exotic Psocidae. Entomologist's Monthly Magazine 9: 74--78, 1 fig.

McLachlan, R., 1899. *Ectopsocus briggsi*, a new genus and species Psocidae found in England. Entomologist's Monthly Magazine 35: 277--278, illust.

Meinander, M., 1978. Two new species of Pseudocaeciliidae (Psocoptera) from SE Europe. Entomologica Scandinavica 9: 1--16, figs 1A--J, 2A--J, 3A--C.

Mockford, E.L., 1951. On two North American Philotarsids (Psocoptera). Psyche 58: 102--107, 2 pls.

Mockford, E.L., 1955. Studies on the Reuterelline Psocids (Psocoptera). Proceedings of the Entomological Society of Washington 57: 97--108, 17 figs.

Mockford, E.L., 1965. A new genus of hump-backed psocids from Mexico and south western United States (Psocoptera:Psocidae). Folia Entomologica Mexicana 11: 1--16, 13 figs.

Mockford, E.L., 1967. The Electrentomoid Psocids (Psocoptera).Psyche 74: 118--165, 104 figs.

Mockford, E.L., 1974. Records and descriptions of Cuban Psocoptera. Entomologica Americana 48: 103--215, 230 figs.

Mockford, E.L., 1974a. New genus and species of Amphipsocidae from southeastern Asia (Psocoptera). Entomological News 85: 155--158, 7 figs.

Mockford, E.L., 1978. A generic classification of the family Amphipsocidae (Psocoptera: Caecilietae). Transactions of the American Entomological Society 104: 139--190, 109 figs.

Mockford, E.L., 1981. Systematics of the new world genera of Cerastipsocini and species of *Psococerastis* Pearman (Psocoptera: Psocidae: Cerastipsocinae). Transactions of the American Entomological Society 107: 249--298, 100 figs.

Mockford, E.L., 1983. Systematics of the Asiopsocidae (Psocoptera) including *Pronotiopsocus amazonicus* n.gen.,n.sp. Florida Entomologist 66: 241--249.

Mockford, E.L., 1987. Order Psocoptera. In F. Stehr (ed.). Immature Insects.

Mockford, E.L. & E. Broadhead, 1982. A new genus and two new species of Philotarsidae (Insecta: Psocoptera) from East Africa. Journal of Natural History 16: 431--437, 14 figs.

Mockford, E.L. & A.N. Garcia Aldrete, 1976. A new species and notes on the taxonomic position of *Asiopsocus* Günther (Psocoptera) Southwestern Naturalist 21: 335--346, 22 figs.

Mockford, E.L. & D.M. Sullivan, 1986. Systematics of the Graphocaeciliine Psocids with a proposed higher classification of the family Lachesillidae (Psocoptera). Transactions of the American entomological Society 112: 1--80, 157 figs.

Motschulsky, V., von 1852. Etudes entomologiques. Helsingfors.

Navas, L., 1913. Socidos (Ins.Neur.) de Espana nuevos. Revista de la R.Academia de Ciencias Exactas, Fisicas y Naturales de Madrid 12: 329--335, 5 figs.

Navas, L., 1924. Insectos de la Marica Central. Broteria (Serie Zoológica) 21: 55--86, 22 figs.

Navas, L., 1927. Communicaciones Entomologicas. 8. Socopteros del Museo de Hamburg. Revista de la Academia de Ciencia Exactas, Fisico-quimicas y Naturales de Zaragoza 11: 37--52, 9 figs.

New, T.R., 1972. A new genus and species of Elipsocidae (Psocoptera) from Australia. Journal of Entomology (B) 4: 31--34, 6 figs.

New, T.R., 1974. Handbook for the Identification of British Insects. Psocoptera. 1(7): 1--102, 350 figs.

New, T.R., 1978. Notes on Calopsocidae (Psocoptera). Oriental Insects 12: 305--318, 31 figs.

New, T.R., 1978a. Ergebnisse der Bhutan Expedition 1972 des Naturhistorisches Museum in Basel. Psocoptera. Entomologica Basiliensia 3: 67--86, 41 figs.

New, T.R., 1978b. Notes on some unusual Psocidae (Psocoptera) from Brasil. Revista Brasileira de Entomologia 22: 11--27, 18 figs.

New, T.R., 1987. Biology of the Psocoptera. Oriental Insects 21: 1--109, 19 figs.

Okamoto, H., 1907. Die Psociden Japans. Transactions of the Sapporo Natural History Society 2: 113--147, pl.2.

Okamoto, H., 1910. Die Caeciliiden Japans. Annales Historico-Naturales Musei Nationalis Hungarici 8: 185--212, pls 3--5.

Pearman, J.V., 1928. Some Psocoptera from New Hebrides. Entomologist's Monthly Magazine 64: 133--137, figs 1--9.

Pearman, J.V., 1932. Notes on the genus *Psocus* with special reference to the British species. Entomologist's Monthly Magazine 68: 193--204.

Pearman, J.V., 1932a. Some coccophagous Psocids (Psocoptera) from East Africa. Stylops 1: 90--96, 8 figs.

Pearman, J.V., 1934. New and little known African Psocoptera. Stylops 3: 121--132, 12 figs.

Pearman, J.V., 1935. Two remarkable Amphientomidae (Psocoptera). Stylops 4: 134--137, figs A,B.

Pearman, J.V., 1936. The taxonomy of the Psocoptera: preliminary sketch. Proceedings of the Royal Entomological Society of London (B) 5: 58--62.

Pearman, J.V., 1936a. Two new Psocids from Ceylon. Spolia Zeylanica 20: 1--7, 1 pl.

Pictet, F.J., 1854. Traité de Paléontologie ou Histoire naturelle des Animaux fossils considéres dans leur Rapports zoologiques et geologiques. Paris.

Ribaga, C., 1899. Descrizione di nuovo genere e di nuovo specie di Psocidi trovato in Italia. Revista di Patalogia Vegetale, Firenze 8: 156--159, pl.17.

Ribaga, C., 1908. Un nuovo Copeognatho dell'Isola di Giava. Redia 5: 20--26, pl.2.

Ribaga, C., 1911. Nuovi Copeognati Sudafricani. Redia 7: 156--171, 12 figs.

Roesler, R., 1939. Beiträge zur Kenntnis der Copeognathenfauna Deutschlands. Zoologischer Anzeiger 125: 157--176, 16 figs.

Roesler, R., 1940. Neue und wenig bekannte Copeognathengattungen. Zoologischer Anzeiger 129: 225--243, 39 figs.

Roesler, R., 1940a, Neue und wenig bekannte Copeognathengattungen II. Zoologischer Anzeiger 130: 1--25, figs 40--101.

Roesler, R., 1940b. Neue Copeognathen. Arbeiten über Morphologische und Taxonomische Entomologie 7: 236--244, 2 figs.

Roesler, R., 1943. Über einige Copeognathengenera.

Stettiner Entomologische Zeitung 104: 1--14, 13 figs.
Roesler, R., 1944. Die Gattungen der Copeognathen. Stettiner Entomologische Zeitung 105: 117--166.
Roesler, R., 1954. Neue Gattungen und Arten der deutschen Psocopterenfauna (Psocoptera). Beiträge zur Entomologie 4: 559--574, 24 figs.
Selys-Longchamps, E. de 1872. Notes on two new genera of Psocidae. Entomologist's Monthly Magazine 9: 145--146, 2 figs.
Smithers, C.N., 1963. Two new genera of Elipsocidae (Psocoptera) from Australia. Proceedings of the Royal Entomological Society of London (B) 32: 32--37, 12 figs.
Smithers, C.N., 1963a. The Elipsocidae of Australia. Pacific Insects 5: 885--898, 25 figs.
Smithers, C.N., 1964. Notes on the relationships of the genera of Elipsocidae (Psocoptera). Transactions of the Royal Entomological Society of London 116: 211--224.
Smithers, C.N., 1964a. On the Psocoptera of Madagascar. Revue de Zoologie et de Botanique Africaines 39: 137--196, 126 figs.
Smithers, C.N., 1965. A bibliography of the Psocoptera. Australian Zoologist 13: 137--209.
Smithers, C.N., 1966. Descriptions and new records of Atropetae, Psocatropetae and Amphientometae (Psocoptera) from Africa. Journal of the Entomological Society of South Africa 28: 44--49, 5 figs.
Smithers, C.N., 1967. A catalogue of the Psocoptera of the World. Australian Zoologist 14: 1--145.
Smithers, C.N., 1969. The Psocoptera of New Zealand. Records of the Canterbury Museum 8: 259--344, 211 figs.
Smithers, C.N., 1970. Psocoptera. In I. Mackerras (ed.). The Insects of Australia. Melbourne.
Smithers, C.N., 1972. The classification and phylogeny of the Psocoptera. Memoirs of the Australian Museum 14: 1--349, illust.
Smithers, C.N., 1978. A new genus of Myopsocidae (Psocoptera) from Queensland. Journal of the Australian Entomological Society 17: 105--107, 5 figs.
Smithers, C.N., 1978a. Collecting and preserving Psocoptera. (Psocids, Booklice, Barklice). Australian Entomological Magazine 4: 109--114, 5 figs.
Smithers, C.N., 1981. *Austrocaecilius*, a new genus of Caeciliidae (Psocoptera) from Australia. Australian Entomological Magazine 7: 68--70, 4 figs.
Smithers, C.N., 1982. *Aphyopsocus* gen.nov., a remarkable new genus of Caeciliidae (Psocoptera) from southeastern New South Wales. Australian Entomological Magazine 9: 13--18, 13 figs.
Smithers, C.N., 1983. A reappraisal of *Clematostigma* Enderlein with notes on related genera (Psocoptera, Psocidae). Australian Entomological Magazine 9: 71--79, 8 figs.
Smithers, C.N., 1984. The Psocoptera of Barrow and Boodie Islands, Western Australia. Entomologica Scandinavica 15: 215--226, 21 figs.
Smithers, C.N. & I.W.B. Thornton, 1977. A new genus and some new species of Epipsocidae (Psocoptera) from the Melanesian arc. Proceedings of the Linnean Society of New South Wales 102: 60--75, 44 figs.
Smithers, C.N. & I.W.B. Thornton, 1981. The Psocidae of New Guinea, including a new coleopteriform genus from high on Mount Wilhelm. Australian Journal of Zoology 29: 821--969, 125 figs.
Tetens, H., 1891. Zur Kenntnis der deutschen Psociden. Entomologische Nachrichten 17: 369--394.
Thornton, I.W.B. 1959. A new genus of Philotarsidae (Corrodentia) and new species of this and related families from Hong Kong. Transactions of the Royal Entomological Society of London 111: 331--349, 20 figs.
Thornton, I.W.B., 1960. New Psocidae and an aberrant new Myopsocid (Psocoptera) from Hong Kong. Transactions of the Royal Entomological Society of London 112: 239--261, 47 figs.
Thornton, I.W.B., 1962. Psocids (Psocoptera) from the Batu Caves, Malaya. Pacific Insects 4: 441--455, 30 figs.
Thornton, I.W.B., 1981. The systematics, phylogeny and biogeography of the psocopteran family Philotarsidae. Systematic Entomology 6: 413--452, 54 figs.
Thornton, I.W.B., 1984. An unusual Psocopteran from New Guinea and its relationship with the Philotarsidae. International Journal of Entomology 26: 378--385, 8 figs.
Thornton, I.W.B. & C.N. Smithers, 1984. Systematics of the Calopsocidae, an oriental and Melanesian family of Psocoptera. Systematic Entomology 9: 183--244, 214 figs.
Thornton, I.W.B., S.K. Wong & C.N. Smithers, 1977. The Philotarsidae of New Zealand and the islands of the New Zealand plateau. Pacific Insects 17: 197--228, 91 figs.
Vishnyakova, V.N., 1975. Copeognatha (Psocoptera) of the Later Cretaceous Period insect bearing ambers of Taimyr. Entomological Revue of the U.S.S.R. 44: 92--106, 51 figs, 5 pls.
Weidner, H., 1972. Copeognatha. Handbüch der Zoologie. (Psocoptera: Band IV, 2 Helfte, 2 Teil, Beiträg 16: 1--94, 100 figs).
Westwood, J.O., 1840. Synopsis of the genera of British Insects. London.

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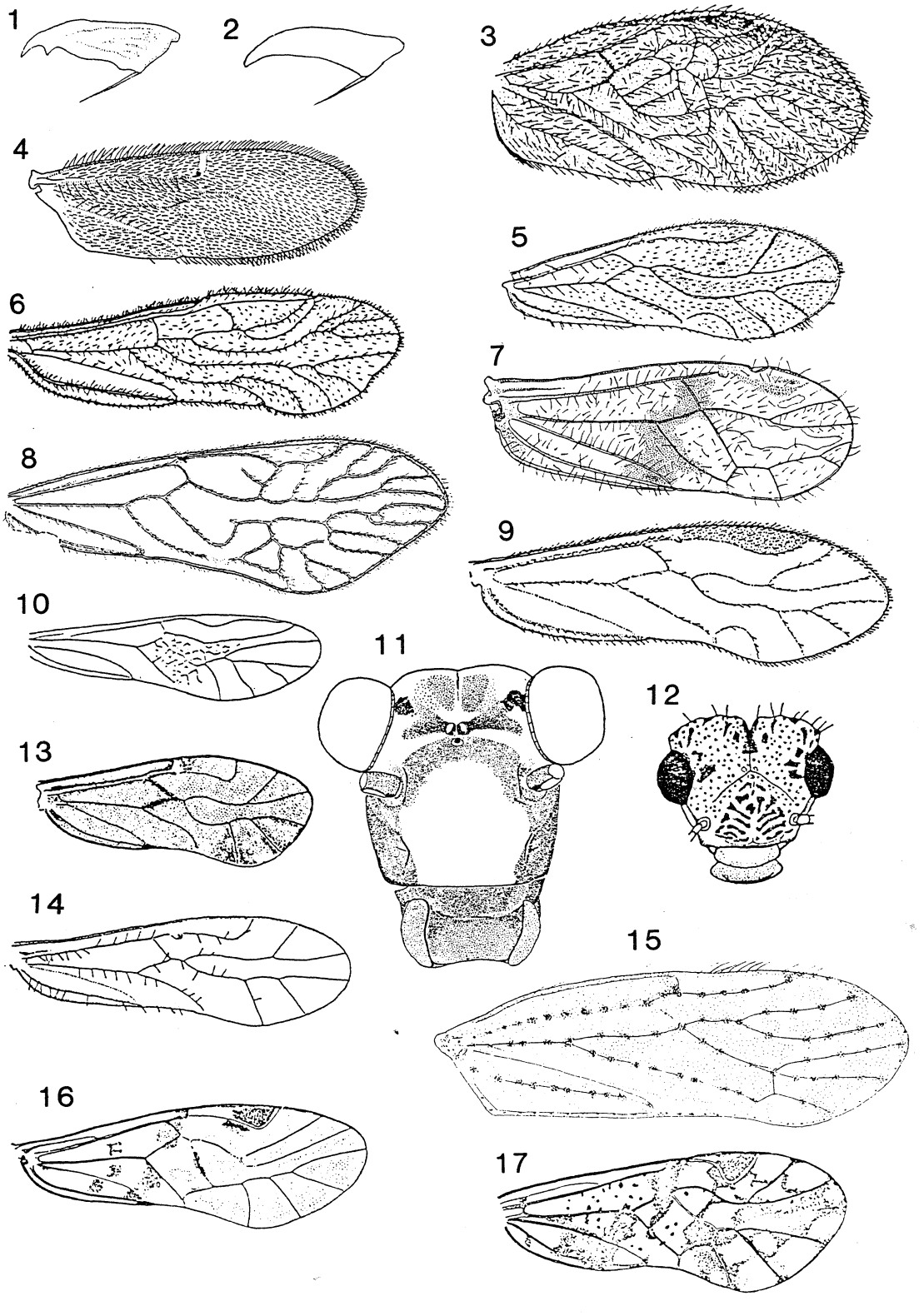
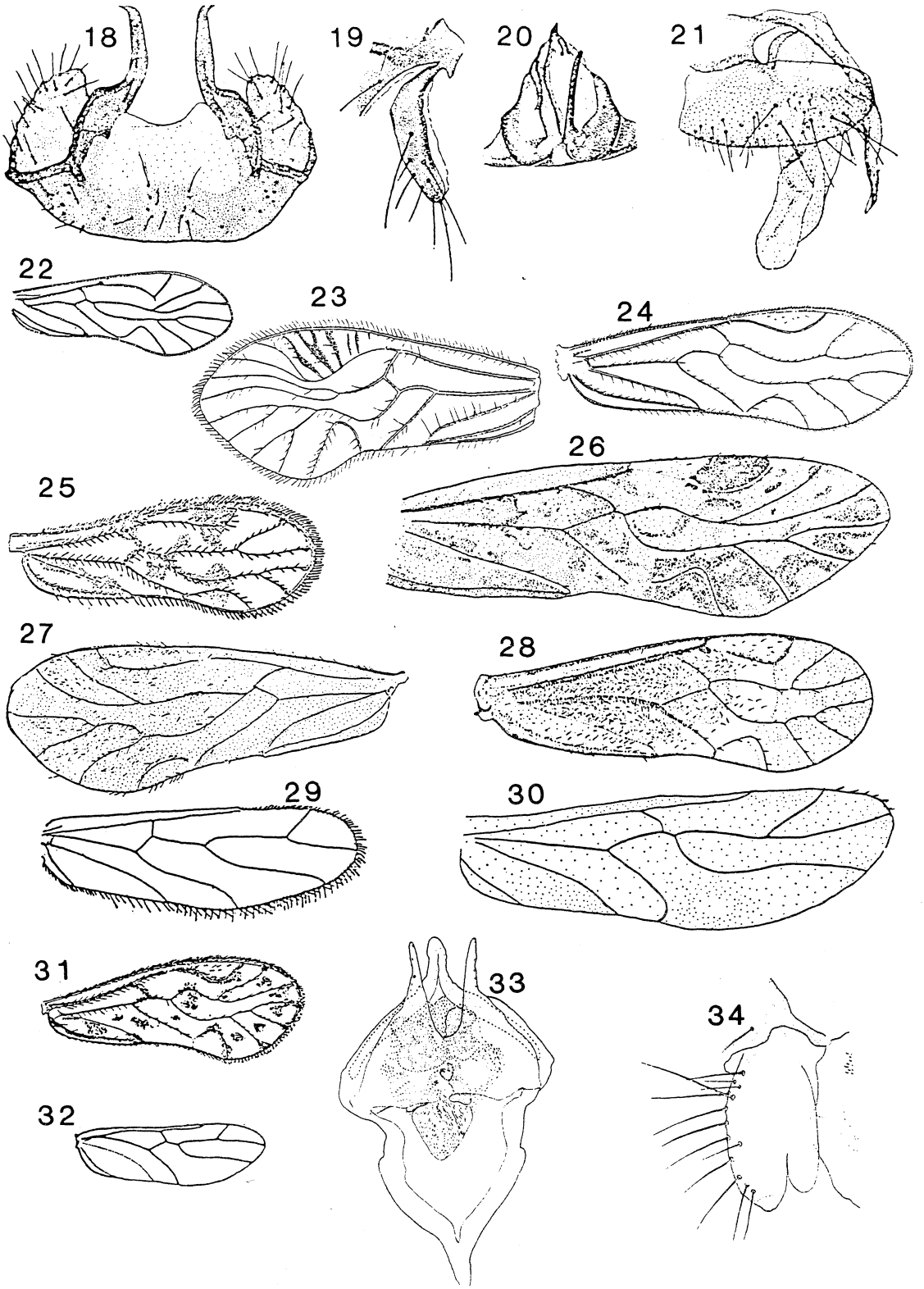
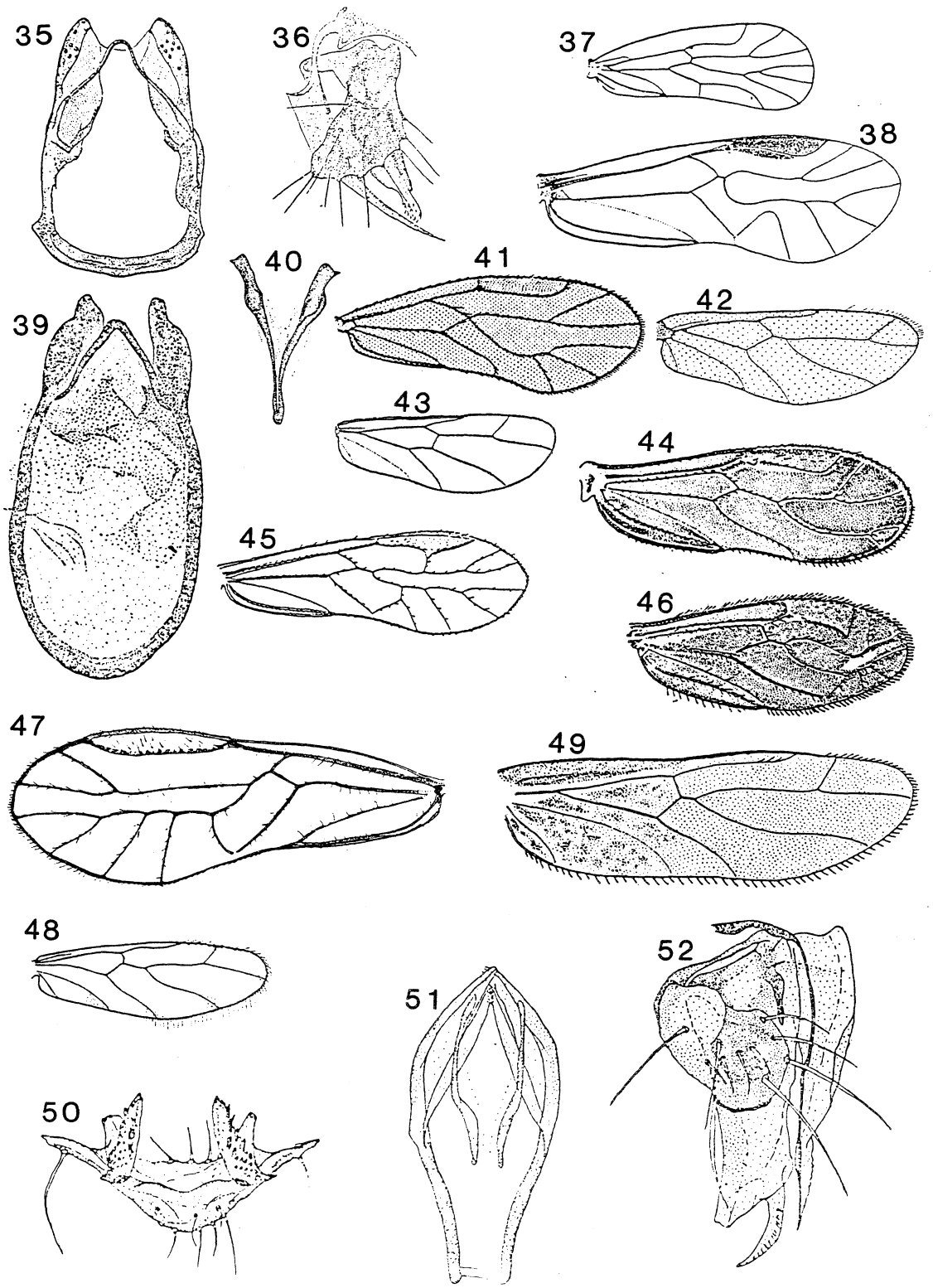


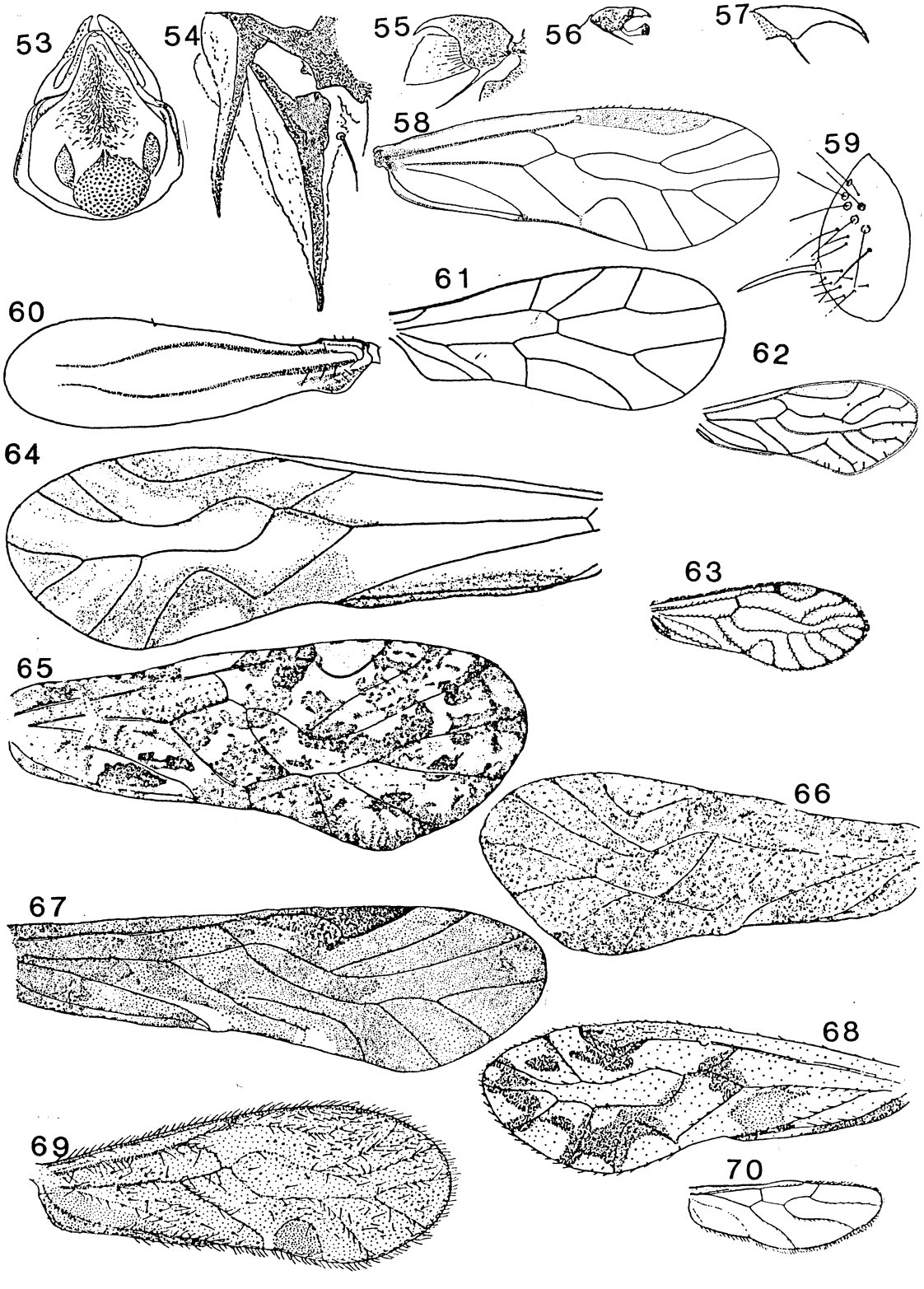
Figs 1--17. 1.Claw with preapical tooth. 2. Claw without preapical tooth. 3. *Calopsocus* fore wing. 4. *Pararchipsocus* fore wing. 5. *Trichocaecilius* fore wing. 6. *Callistoptera* fore wing. 7. *Chaetopsocidus* fore wing. 8. *Dicropsocus* fore wing. 9. *Caecilius* fore wing. 10. *Thyrsopsocus* fore wing. 11. *Epipsocopsis* head. 12. *Calopsocus* head. 13. *Peripsocus* fore wing. 14. *Nepiomorpha* fore wing. 15. *Hemipsocus* fore wing. 16. *Blastopsocidus* fore wing. 17. *Elaphopsocus* fore wing.



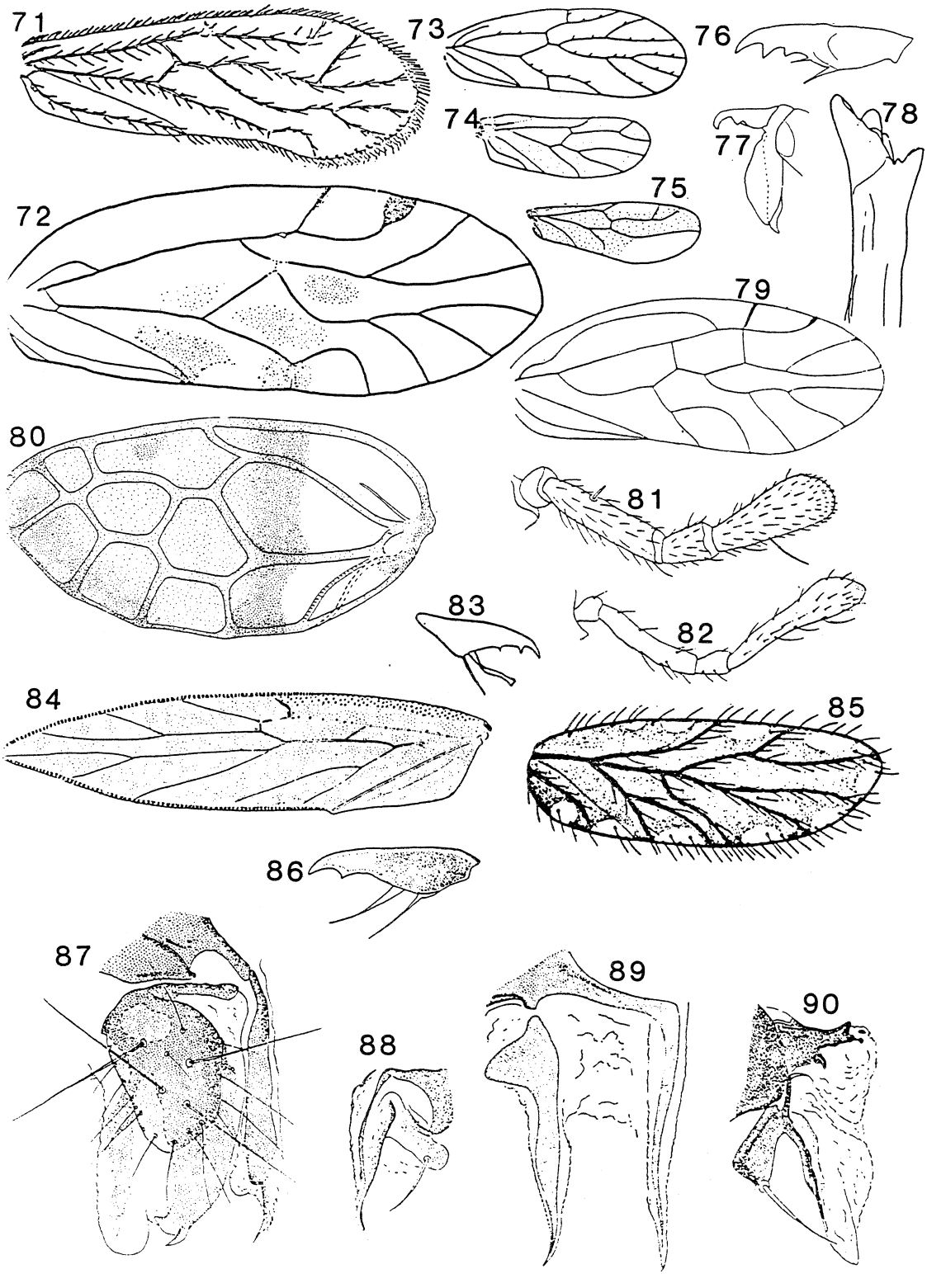
Figs 18--34. 18. *Lachesilla* hypandrium. 19. *Lachesilla* gonapophyses. 20. *Psocus* hypandrium. 21. *Sigmatoneura* gonapophyses. 22. *Spurostigma* fore wing. 23. *Neurostigma* fore wing. 24.*Mesepipsocus* fore wing. 25. *Pseudoscottiella* fore wing. 26. *Spilopsocus* fore wing. 27. *Scytopsocopsis* fore wing. 28. *Nadleria* fore wing. 29. *Scottiella* hind wing. 30. *Spilopsocus* hind wing. 31. *Philotarsus* fore wing. 32. *Lachesilla* hind wing. 33. *Graphocaecilius* phallosome. 34. *Graphocaecilius* gonapophyses.



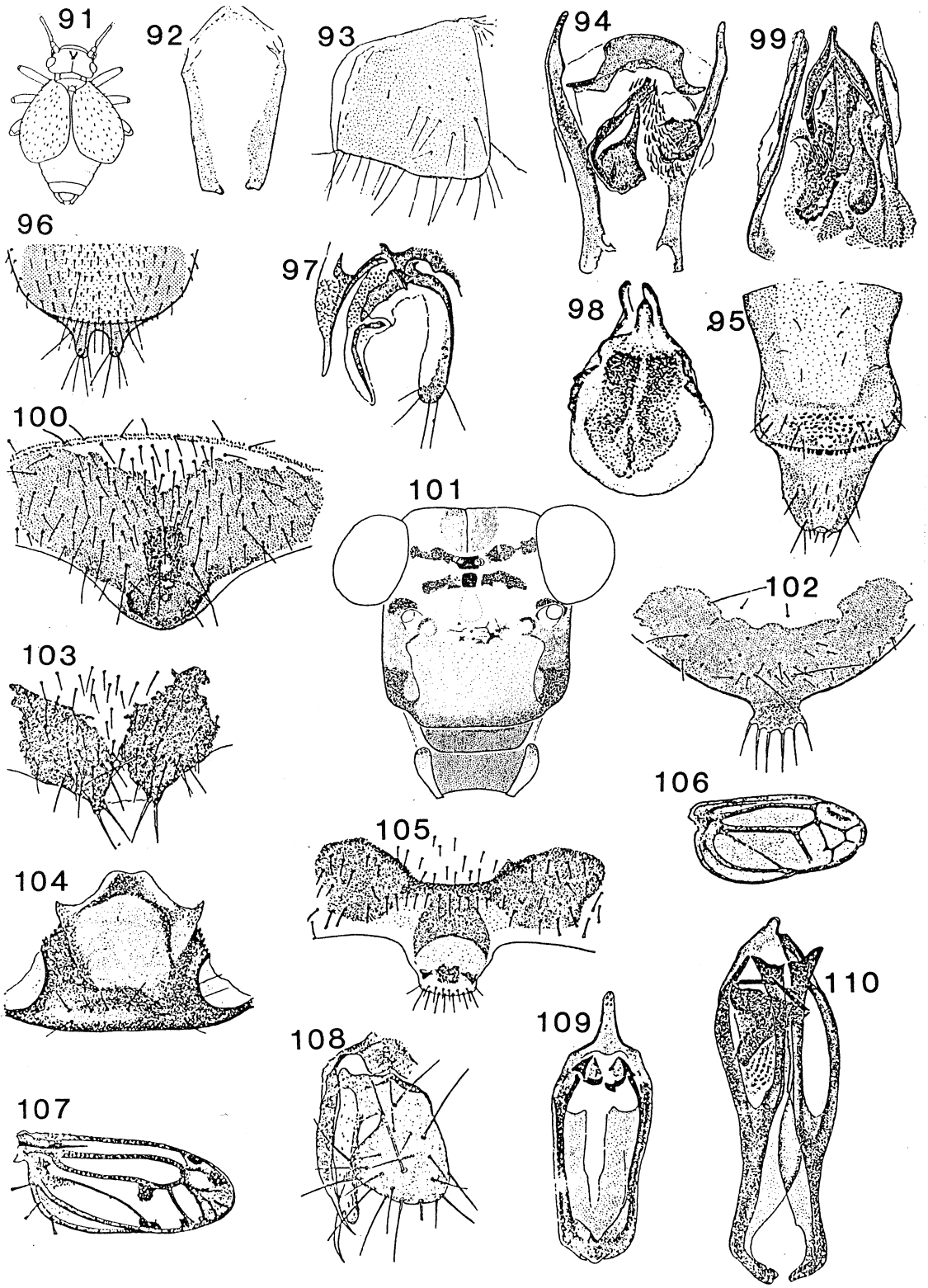
Figs 35--52. 35. *Nepiomorpha* phallosome. 36. *Nepiomorpha* gonapophyses. 37. *Musapsocus* fore wing. 38. *Mesopsocus* fore wing. 39. *Mesopsocus* phallosome. 40. *Lachesilla* phallosome. 41. *Interpsocus* fore wing. 42. *Interpsocus* hind wing. 43. *Ectopsocus* hind wing. 44. *Notiopsocus* fore wing. 45. *Stenopsocus* fore wing. 46. *Isophanes* fore wing. 47. *Taeniostigma* fore wing. 48. *Trichopsocus* hind wing. 49. *Kodamaius* hind wing. 50. *Cladioneura* hypandrium. 51. *Ophiodopelma* phallosome. 52. *Cladioneura* gonapophyses.



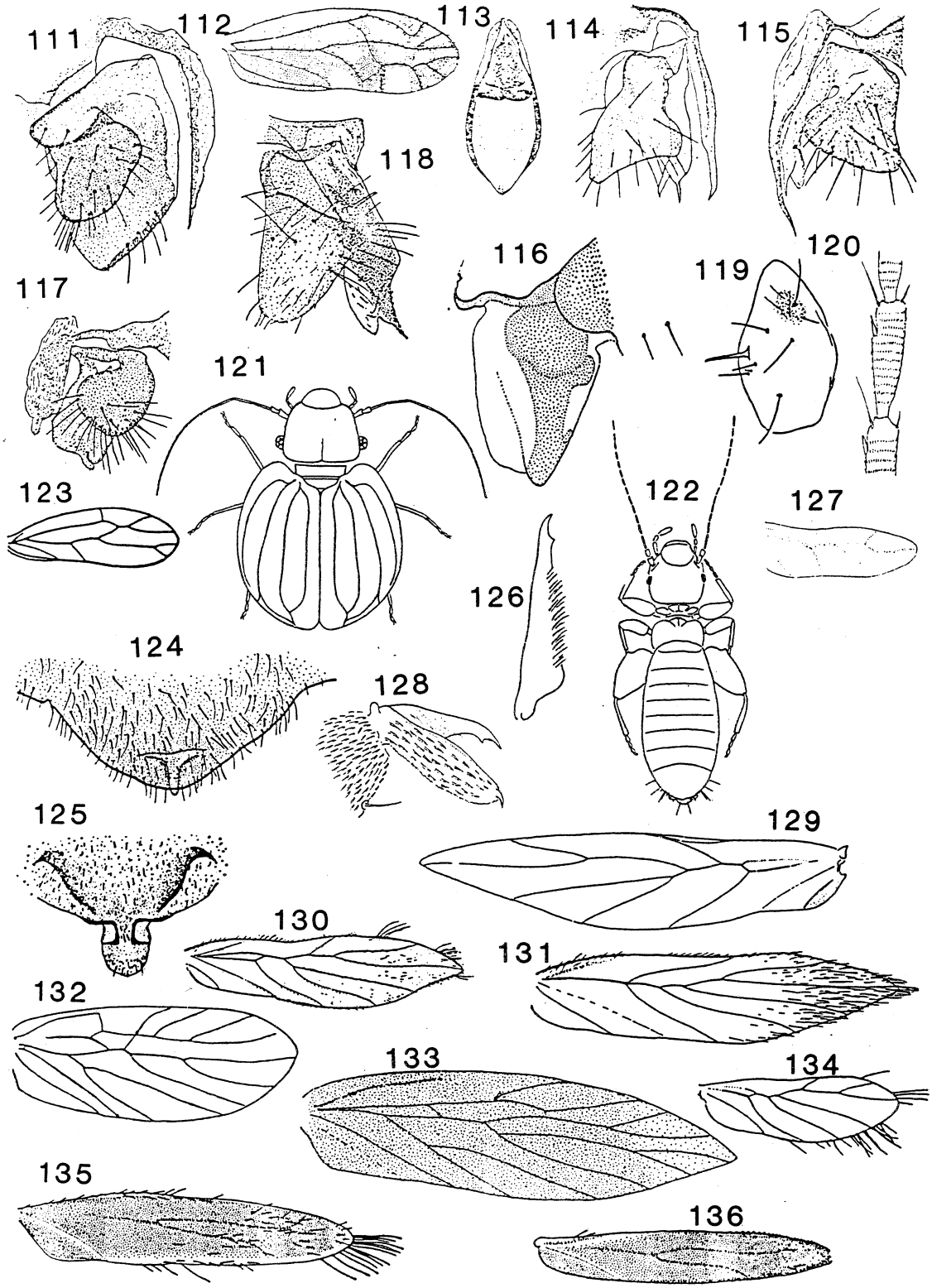
Figs 53--70. 53. *Caecilius* phallosome. 54. *Isophanes* gonapophyses. 55. *Kodamaius* claw. 56. Claw with broad pulvillus. 57. *Asiopsocus* claw without pulvillus. 58. *Ptenopsila* fore wing. 59. *Thylacella* paraproct. 60. *Embidopsocus* fore wing. 61. *Tapinella* fore wing. 62. *Cladiopsocus* fore wing. 63. *Triplocania* fore wing. 64. *Mesopsocus* fore wing. 65. *Myopsocus* fore wing. 66. *Lichenomima* fore wing. 67. *Psilopsocus* fore wing. 68. *Elipsocus* fore wing. 69. *Bryopsocus* fore wing. 70. *Philotarsus* hind wing.



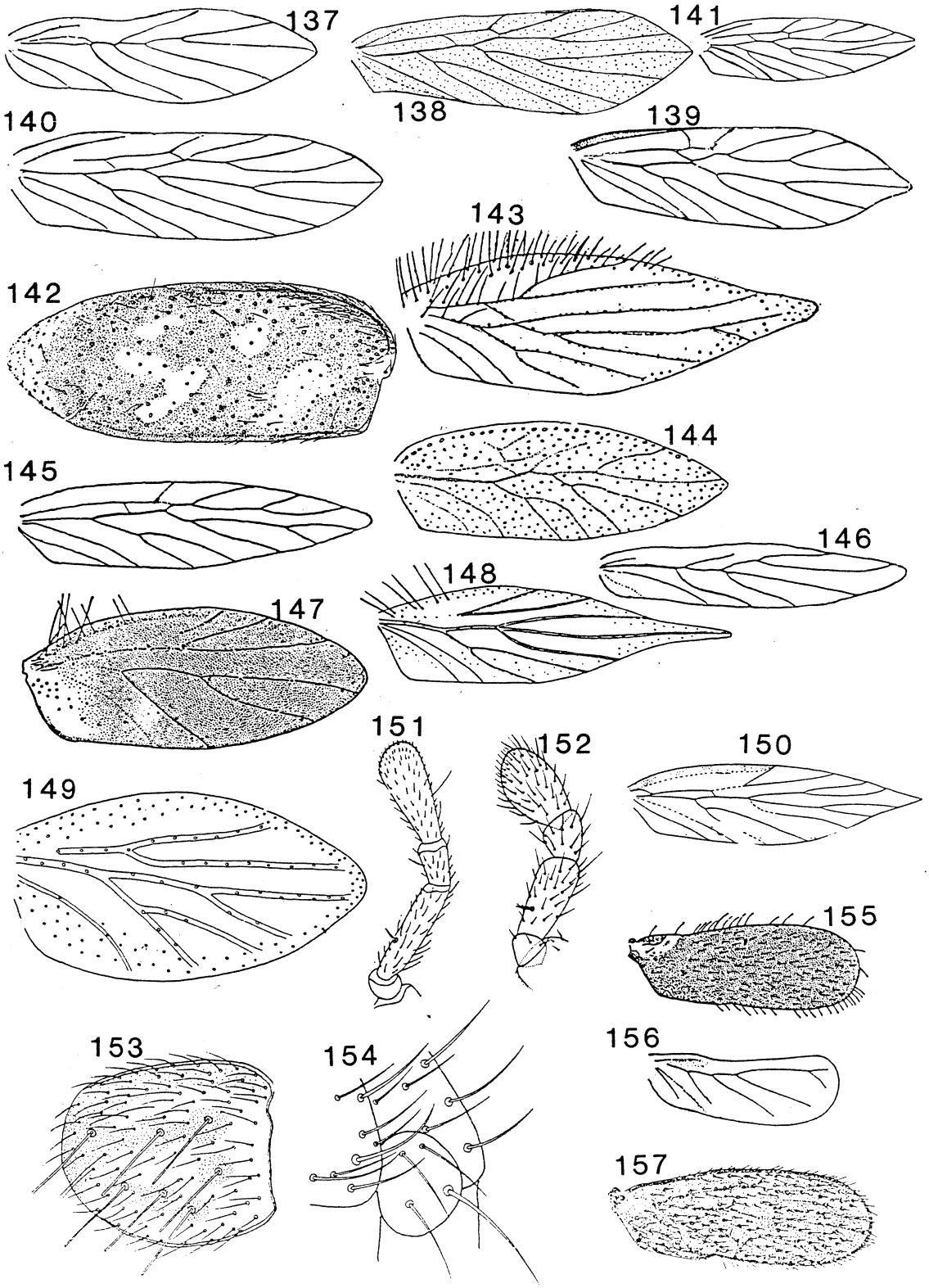
Figs 71--90. 71. *Scottiella* fore wing. 72. *Manicapsocus* fore wing. 73. *Psyllipsocus* fore wing. 74. *Compsocus* hind wing. 75. *Troctopsocus* hind wing. 76. *Protroctopsocus* claw. 77. *Musapsocus* claw. 78. *Protroctopsocus* lacinia. 79. *Prionoglaris* fore wing. 80. *Chelyopsocus* fore wing. 81. *Lepinotus* maxillary palp. 82. *Dorypteryx* maxillary palp. 83. Claw without preapical tooth. 84. *Thylacella* fore wing. 85. *Psoquilla* fore wing. 86. *Roesleria* claw. 87. *Diplocaecilius* gonapophyses. 88. *Caecilius* gonapophyses. 89. *Amphipsocus* gonapophyses. 90. *Notiopsocus* gonapophyses.



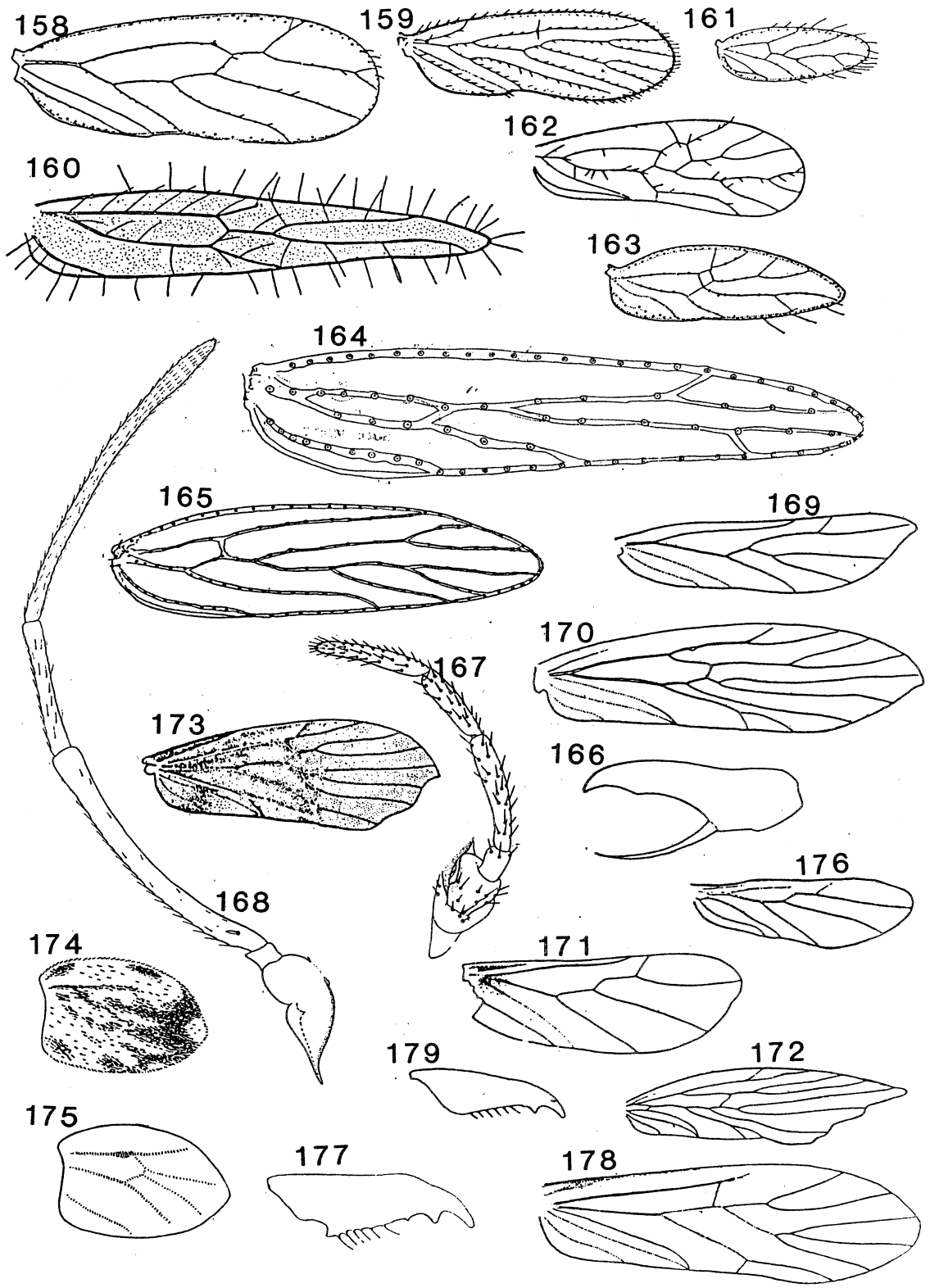
Figs 91--110. 91. *Capillopsocus* habitus. 92. *Archipsocus* phallosome. 93. *Archipsocus* gonapophyses. 94. *Ectopsocopsis* phallosome. 95. *Ectopsocus* 9th tergite and epiproct. 96. *Interpsocus* subgenital plate. 97. *Ectopsocus* gonapophyses. 98. *Amphipsocus* phallosome. 99. *Ectopsocus* phallosome. 100. *Ectopsocus* subgenital plate. 101. *Dicropsocus* head. 102. *Nepiomorpha* subgenital plate. 103.*Reuterella* subgenital plate. 104. *Neopsocus* hypandrium. 105. *Neopsocus* subgenital plate. 106. *Neopsocopsis* fore wing. 107. *Neopsocus* fore wing. 108. *Reuterella* gonapophyses. 109. *Peripsocus* phallosome. 110. *Peripsocus* phallosome.



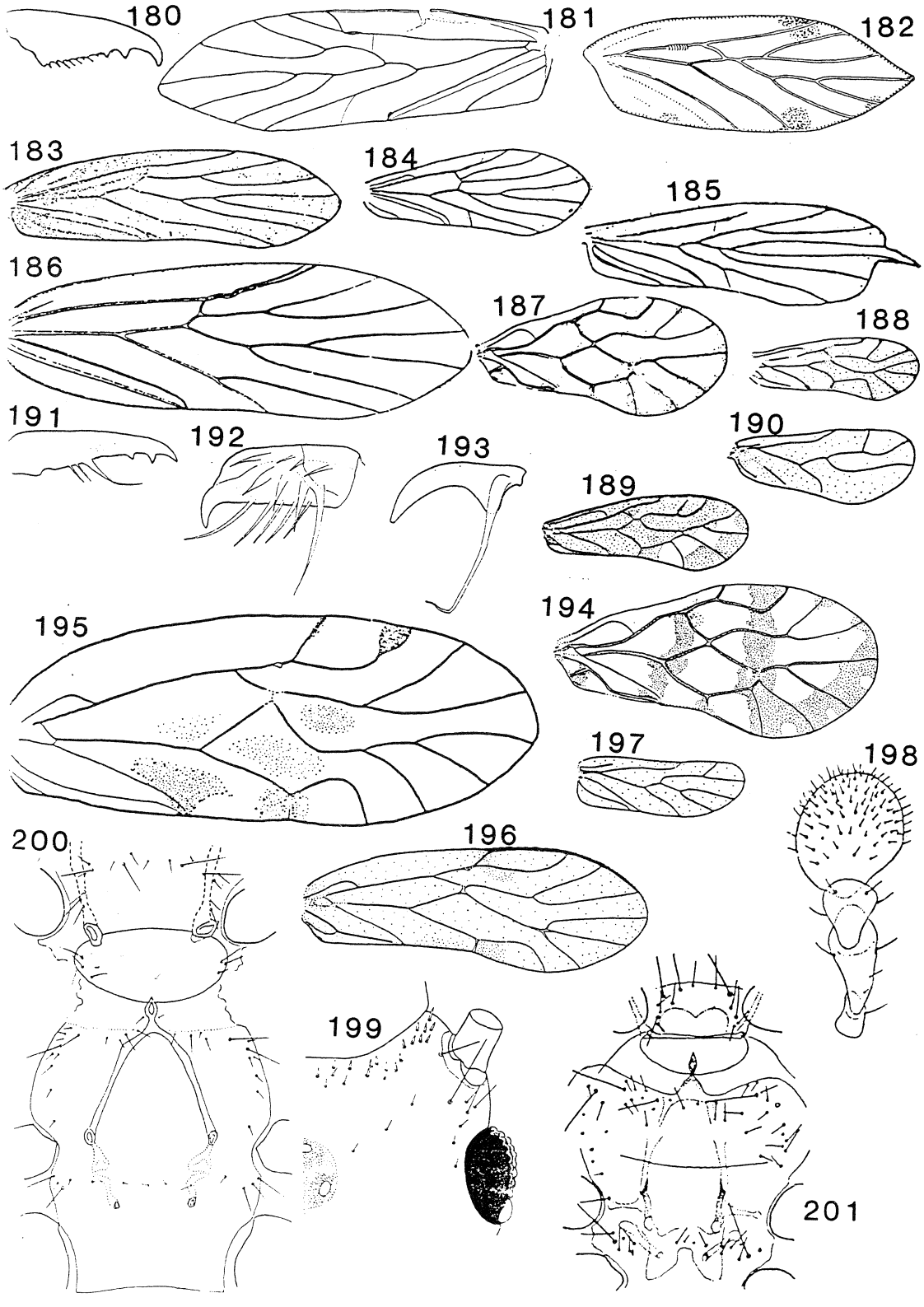
Figs 111--136. 111. *Peripsocus* gonapophyses. 112. *Propsocus* fore wing. 113. *Propsocus* phallosome. 114. *Propsocus* gonapophyses. 115. *Antarctopsocus* gonapophyses. 116. *Asiopsocus* gonapophyses. 117. *Psoculus* gonapophyses. 118. *Paedomorpha* gonapophyses. 119. *Psyllipsocus* paraproct. 120. "annulated" antenna. 121. *Sphaeropsocopsis* habitus. 122. *Liposcelis* habitus. 123. *Psyllipsocus* fore wing. 124. *Manicapsocus* subgenital plate. 125. *Mesopsocus* subgenital plate. 126. *Psyllipsocus* claw. 127. *Nanopsocus* hind wing. 128. *Nanopsocus* claw. 129. *Thylacella* hind wing. 130. *Proentomum* hind wing. 131. *Echmepteryx* hind wing. 132. *Soa* fore wing. 133. *Echmepteryx* fore wing. 134. *Soa* hind wing. 135. *Parasoa* fore wing. 136. *Parasoa* hind wing.



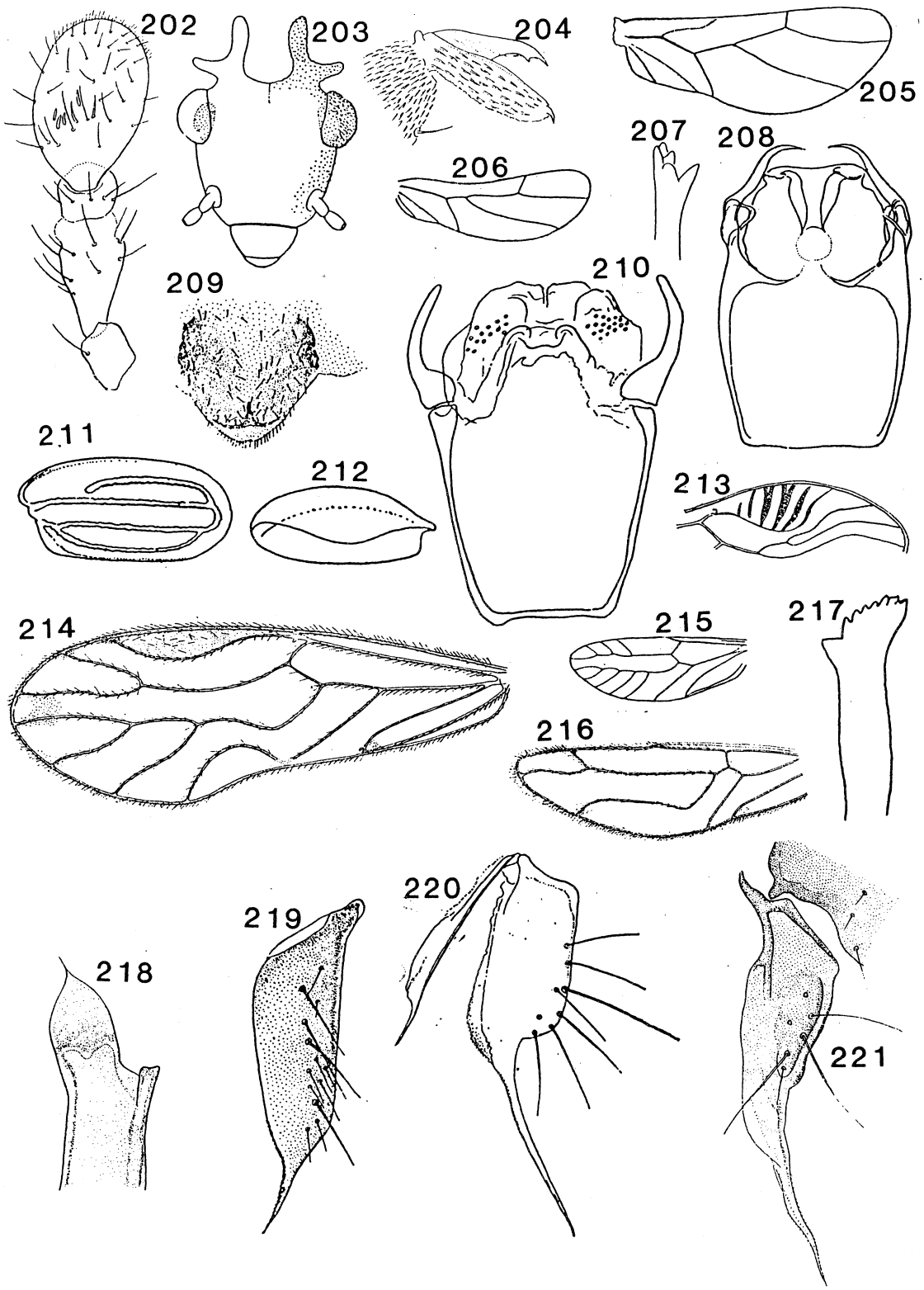
Figs 137--157. 137. *Perientomum* hind wing. 138. *Nepticulomima* fore wing. 139.*Proentomum* fore wing. 140. *Perientomum* fore wing. 141. *Lepium* fore wing. 142. *Lepolepis* fore wing. 143. *Scolopama* fore wing. 144. *Cyptophania* fore wing. 145. *Lepidopsocus* fore wing. 146. *Lepidopsocus* hind wing. 147. *Pteroxanium* fore wing. 148. *Echinopsocus* fore wing. 149. *Pteroxanium* fore wing. 150. *Oxypsocus* fore wing. 151. *Lepinotus* maxillary palp. 152. *Cerobasis* maxillary palp. 153. *Cerobasis* fore wing. 154. *Cerobasis* fore wing rudiment. 155. *Eosilla* fore wing. 156. *Eosilla* hind wing. 157. *Rhyopsoculus* fore wing.



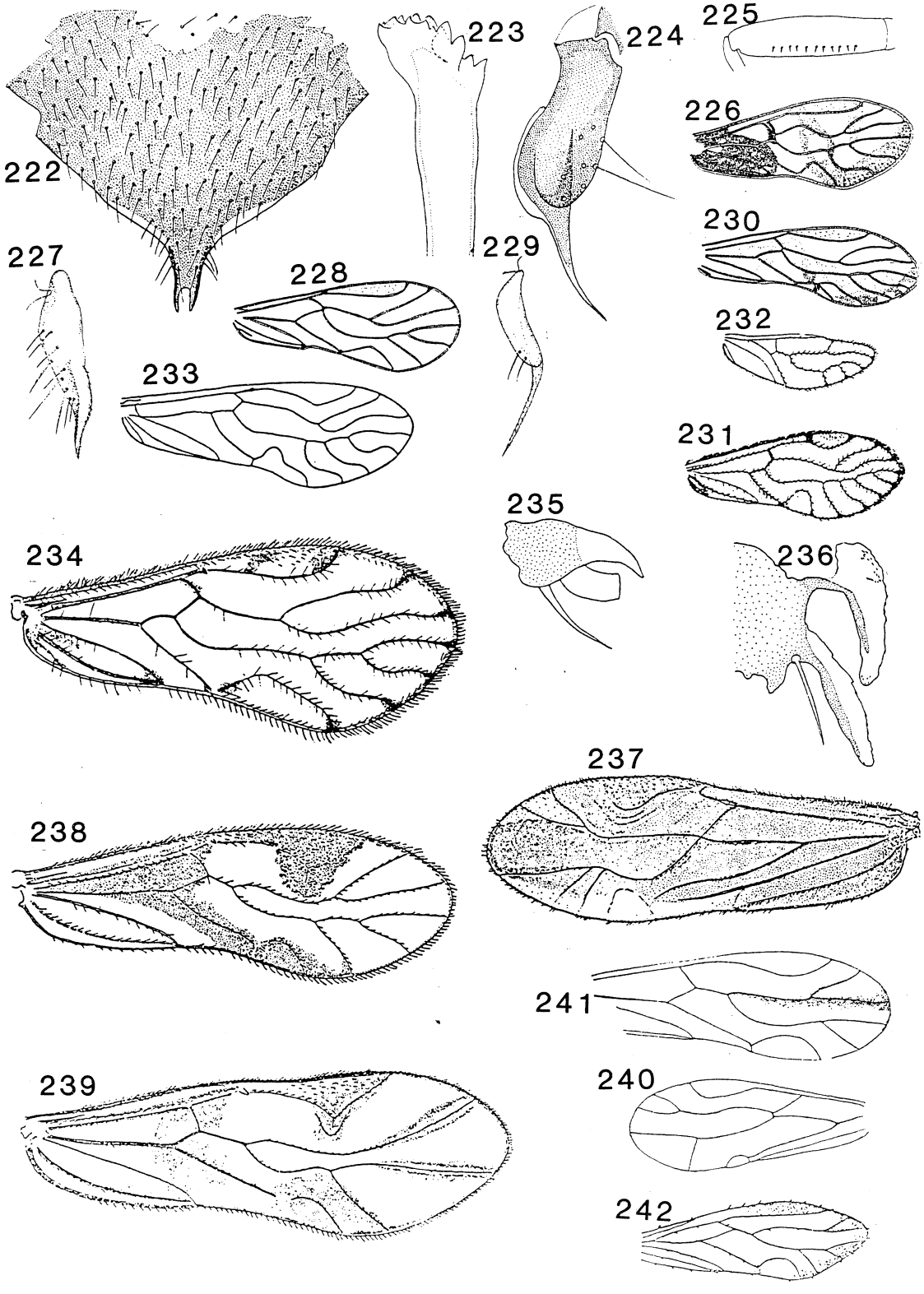
Figs 158--179. 158. *Balliella* fore wing. 159. *Rhyopsocus* fore wing. 160. *Dorypteryx* fore wing. 161. *Psocathropos* fore wing. 162. *Psyllipsocus* fore wing. 163. *Psocathropos* fore wing. 164. *Pseudorypteryx* fore wing. 165. *Pseudorypteryx* fore wing. 166. *Prionoglaris* claw. 167. *Prionoglaris* maxillary palp. 168. *Speleketor* maxillary palp. 169. *Tineomorpha* hind wing. 170. *Tineomorpha* fore wing. 171. *Amphientomum* hind wing. 172. *Electrentomum* fore wing. 173. *Amphientomum* fore wing. 174. *Nephax* fore wing. 175. *Nephax* fore wing. 176. *Syllysis* hind wing. 177. *Hemiseopsis* claw. 178. *Hemiseopsis* fore wing. 179. *Nephax* claw.



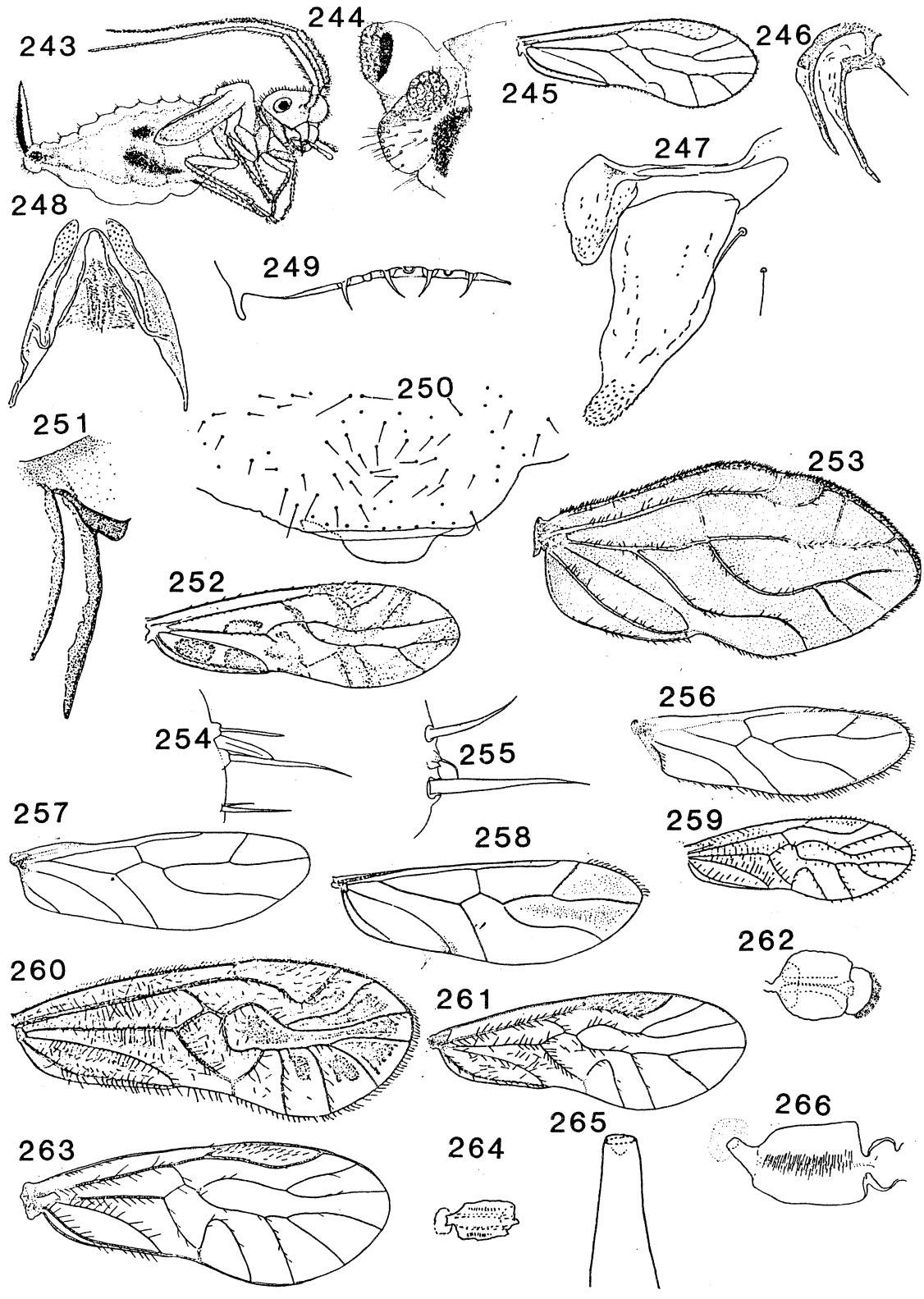
Figs 180--201. 180. *Tineomorpha* claw. 181. *Seopsis* fore wing. 182. *Nephax* fore wing. 183. *Stimulopalpus* fore wing. 184. *Seopsocus* fore wing. 185. *Syllysis* fore wing. 186. *Stigmatopathus* fore wing. 187. *Protroctopsocus* fore wing. 188. *Troctopsocopsis* fore wing. 189. *Troctopsocus* fore wing. 190. *Troctopsoculus* hind wing. 191. *Troctopsoculus* claw. 192. *Troctopsocopsis* claw. 193. *Troctopsocopsis* claw. 194. *Protroctopsocus* fore wing. 195. *Manicapsocus* fore wing. 196. *Nothoentomum* fore wing. 197. *Electrentomopsis* hind wing. 198. *Belaphopsocus* maxillary palp. 199. *Chaetotroctes* frons. 200. *Embidopsocopsis* thoracic sternites. 201. *Embidopsocus* thoracic sternites.



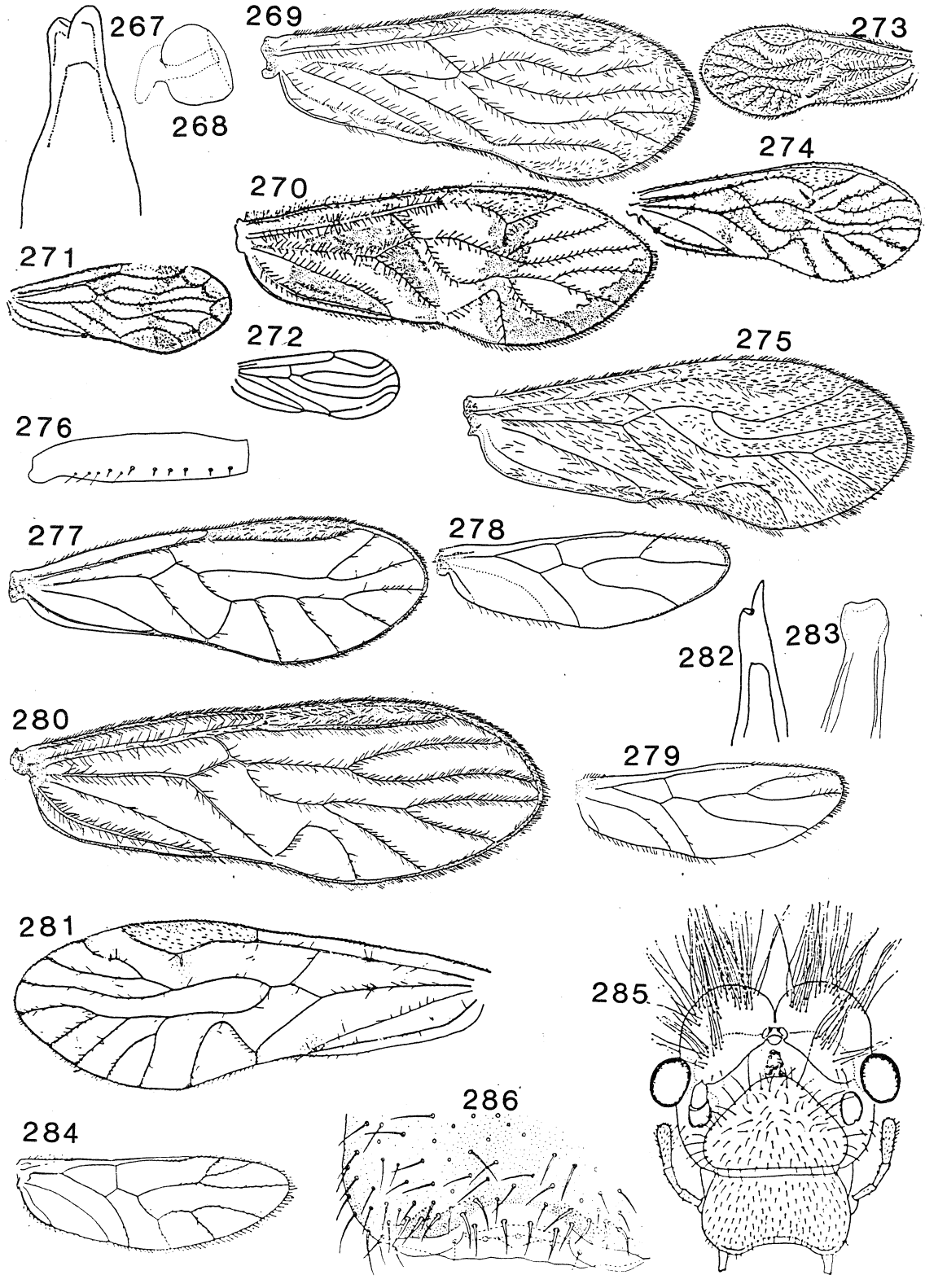
Figs 202--221. 202. *Belaphotroctes* maxillary palp. 203. *Antilopsocus* head. 204. *Nanopsocus claw.* 205. *Pachytroctes* hind wing. 206. *Tapinella* hind wing. 207. *Nymphotroctes* lacinia. 208. *Tapinella* phallosome. 209. *Tapinella* subgenital plate. 210. *Pachytroctes* phallosome. 211. *Sphaeropsocopsis* fore wing. 212. *Badonnelia* fore wing. 213. *Neurostigma* pterostigma. 214. *Epipsocopsis* fore wing. 215. *Goja* hind wing. 216. *Dicropsocus* hind wing. 217. *Epipsocus* lacinia. 218. *Epipsocopsis* lacinia. 219. *Epipsocus* gonapophyses. 220. *Epipsocus* gonapophyses. 221. *Mesepipsocus* gonapophyses.



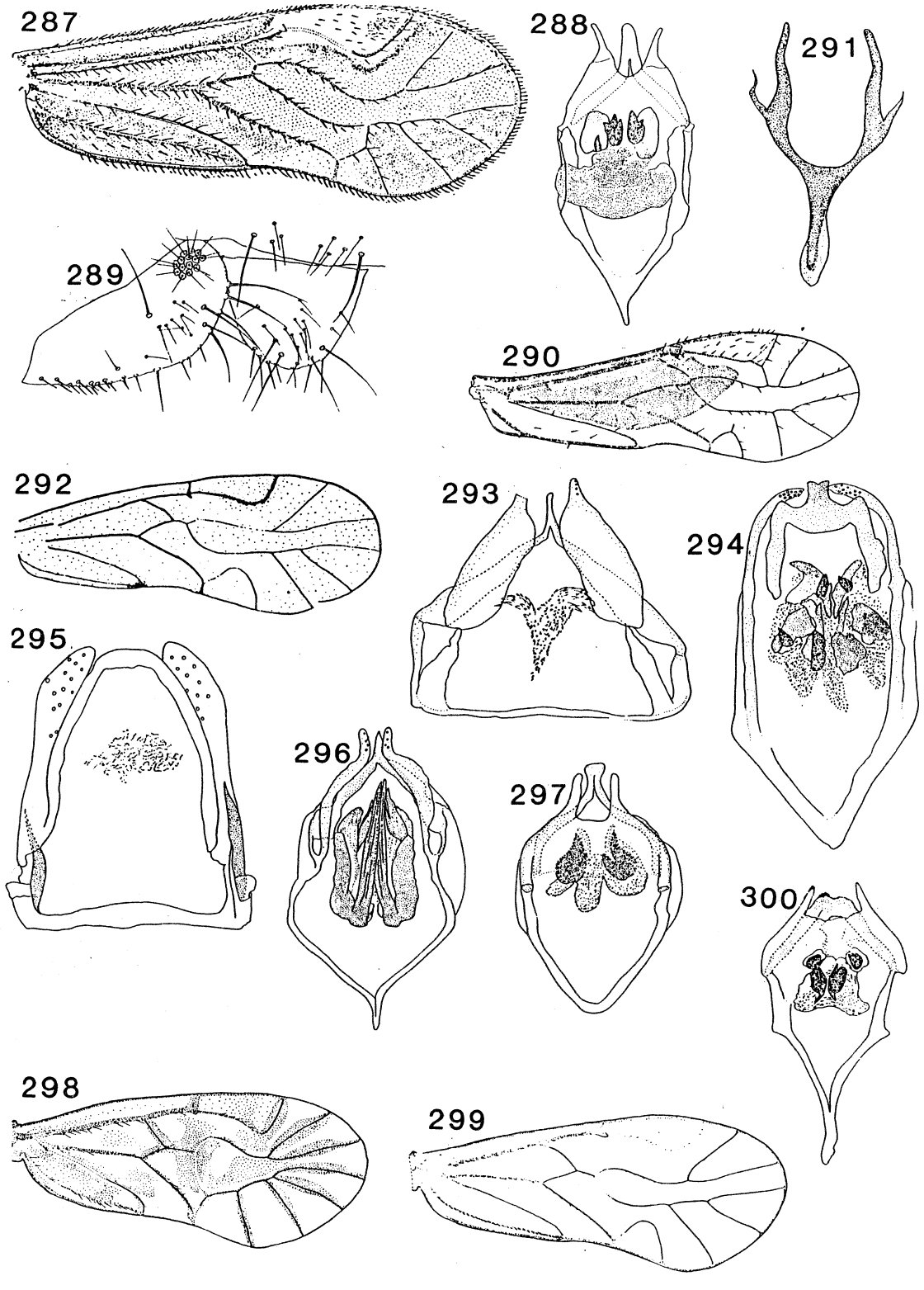
Figs 222--242. 222. *Hinduipsocus* subgenital plate. 223. *Mesepipsocus* lacinia. 224. *Parepipsocus* gonapophyses. 225. *Auroropsocus* fore femur. 226. *Auroropsocus* fore wing. 227. *Isthmopsocus* gonapophyses. 228. *Dolabellapsocus* fore wing. 229. *Dolabellapsocus* gonapophyses. 230. *Dolabellapsocus* fore wing. 231. *Ptiloneura* fore wing. 232. *Ptiloneura* hind wing. 233. *Euplocania* fore wing. 234. *Triplocania* fore wing. 235. *Pronotiopsocus* claw. 236. *Pronotiopsocus* gonapophyses. 237. *Dypsocus* fore wing. 238. *Fuellebornielia* fore wing. 239. *Ypsiloneura* fore wing. 240. *Hageniola* fore wing. 241. *Hemicaecilius* fore wing. 242. *Lacroixiella* fore wing.



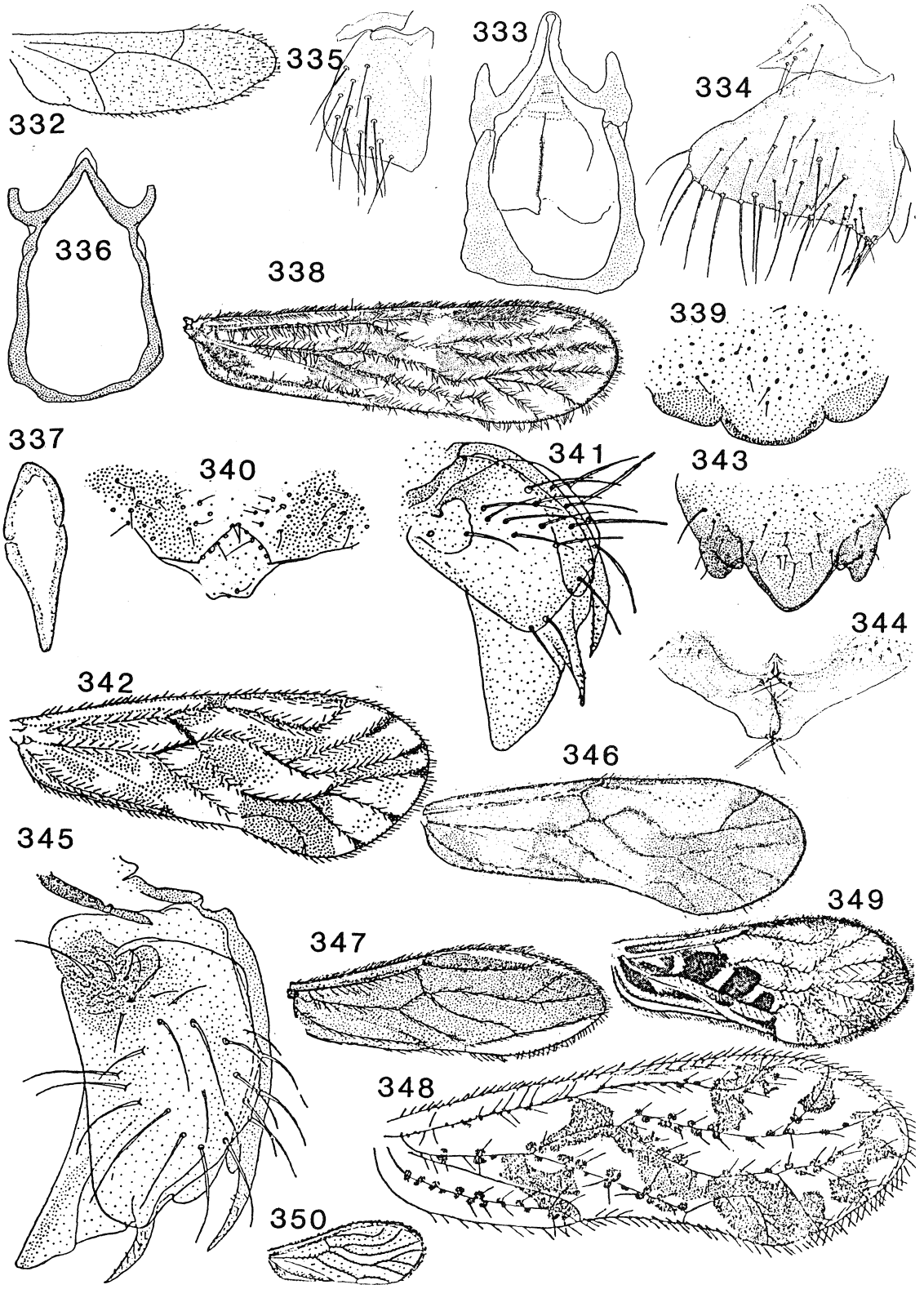
Figs 243--266. 243. *Aphyopsocus* nymph. 244. *Aphyopsocus* epiproct. 245. *Caecilius* fore wing. 246. *Caecilius* gonapophyses. 247. *Paracaecilius* gonapophyses. 248. *Paracaecilius* phallosome. 249. *Mockfordiella* margin of labrum. 250. *Mockfordiella* subgenital plate. 251. *Austrocaecilius* gonapophyses. 252. *Graphopsocus* fore wing. 253. *Calocaecilius* fore wing. 254. *Ptenopsila* duplex seta. 255. *Capillopsocus* duplex seta. 256. *Kolbea* hind wing. 257. *Ptenopsila* hind wing. 258. *Matsumuraiella* hind wing. 259. *Dasydemella* fore wing. 260. *Matsumuraiella* fore wing. 261. *Teliapsocus* fore wing. 262. *Teliapsocus* spermathecal duct and pore. 263. *Dasydemella* fore wing. 264. *Dasydemella* spermathecal duct and pore. 265. *Kolbea* lacinia. 266. *Kolbea* spermathecal duct and pore.



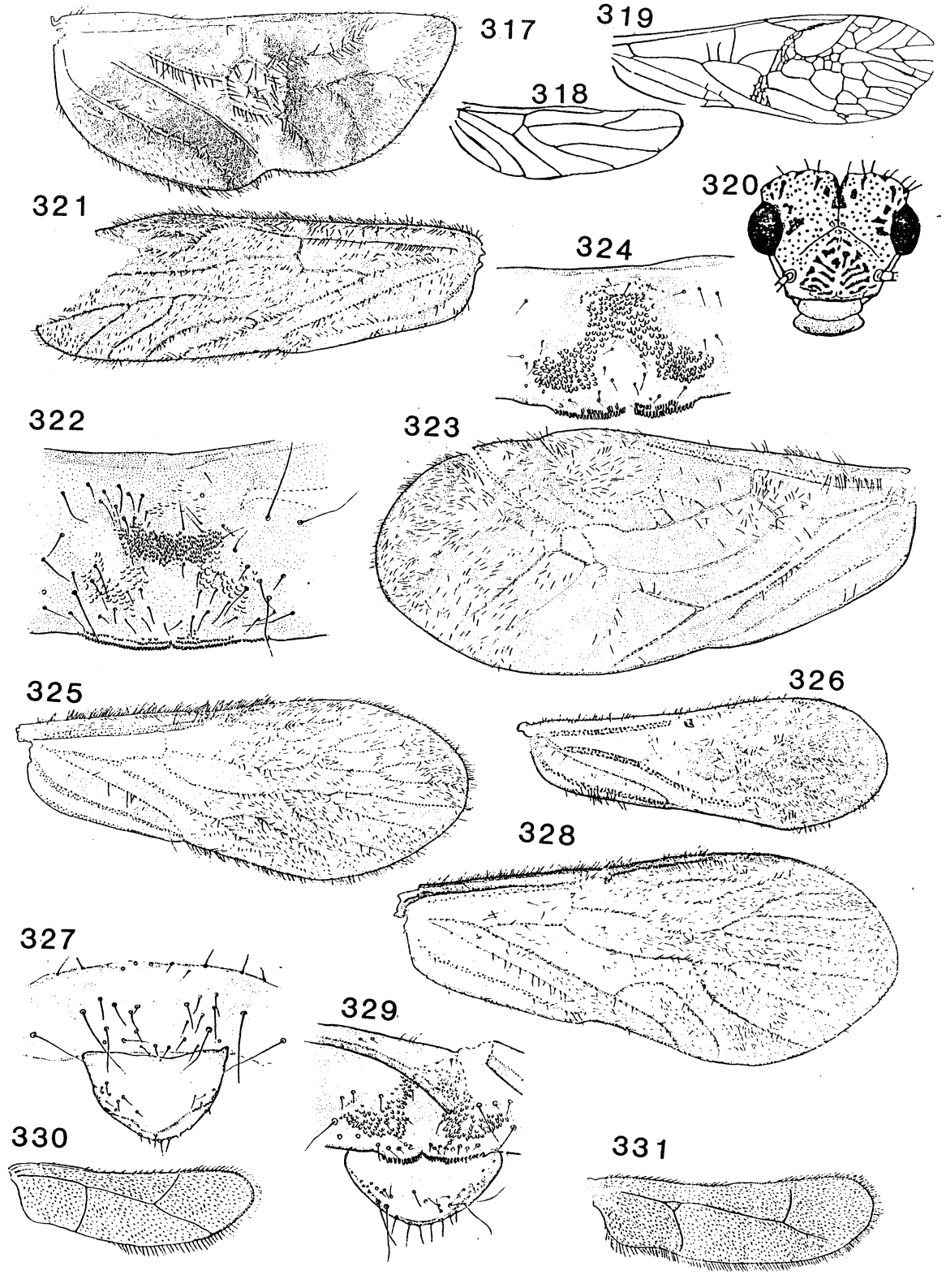
Figs 267--286. 267. *Amphipsocus* lacinia. 268. *Capillopsocus* spermathecal duct and pore. 269. *Polypsocus* fore wing. 270. *Amphipsocus* fore wing. 271. *Polypsocus* fore wing. 272. *Monocladellus* fore wing. 273. *Schizopechus* fore wing. 274. *Xenopsocus* fore wing. 275. *Capillopsocus* fore wing. 276. *Afropsocus* fore femur. 277. *Taeniostigma* fore wing. 278. *Amphipsocus* hind wing. 280. *Tagalopsocus* fore wing. 281. *Amphipsocopsis* fore wing. 282. *Amphipsocopsis* lacinia. 283. *Xenopsocus* lacinia. 284. *Amphipsocopsis* hind wing. 285. *Pentathyrsus* head. 286. *Brachypsocus* labrum.



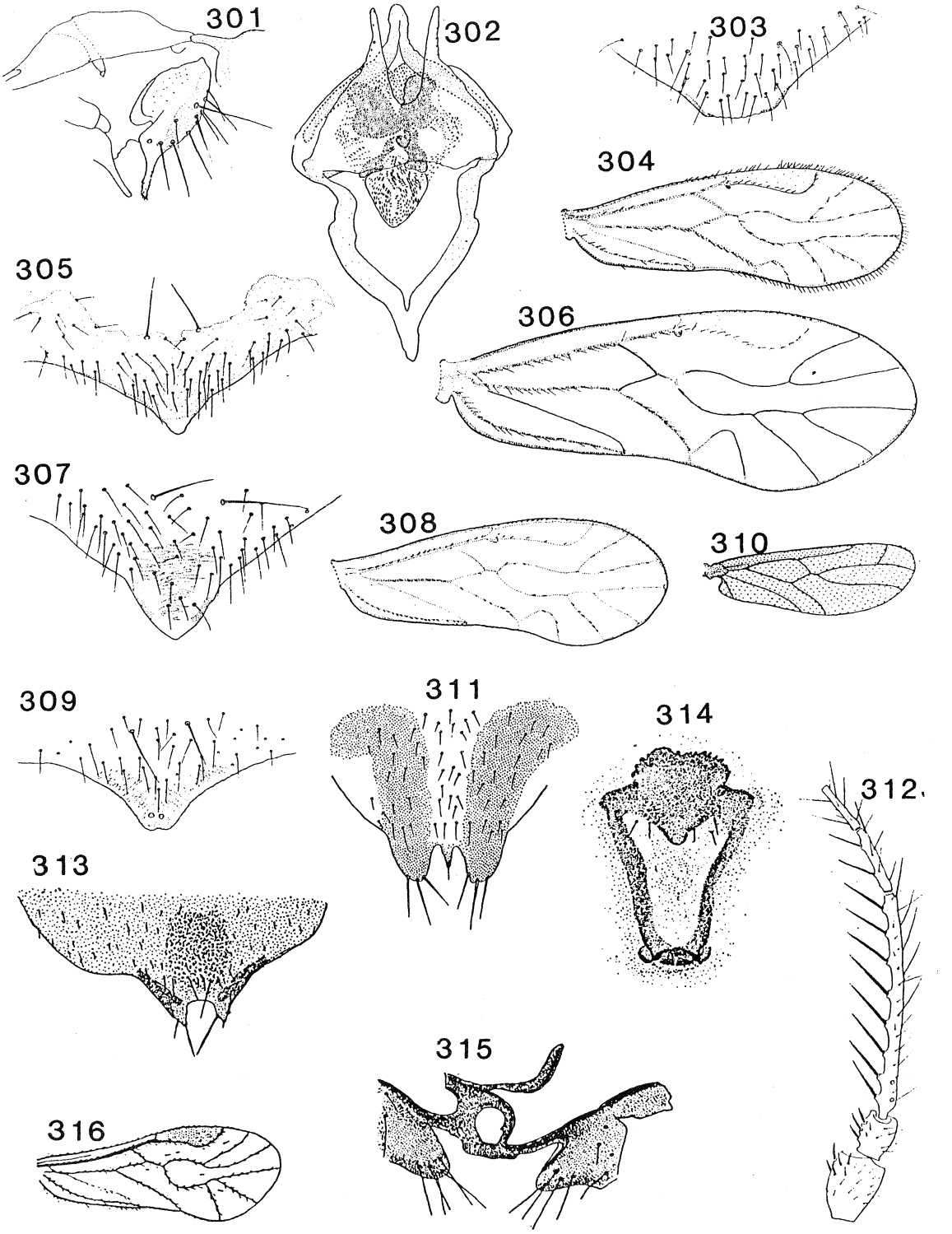
Figs 287--300. 287. *Kodamaius* fore wing. 288. *Graphocaecilius* phallosome. 289. *Prolachesilla* epiproct and paraproct. 290. *Nadleria* fore wing. 291. *Lachesilla* phallosome. 292. *Lachesilla* fore wing. 293. *Prolachesilla* phallosome. 294. *Tricholachesilla* phallosome. 295. *Notolachesilla* phallosome. 296. *Nanolachesilla* phallosome. 297. *Antilachesilla* phallosome. 298. *Anomopsocus* fore wing. 299. *Mesolachesilla* fore wing. 300. *Mesolachesilla* phallosome.



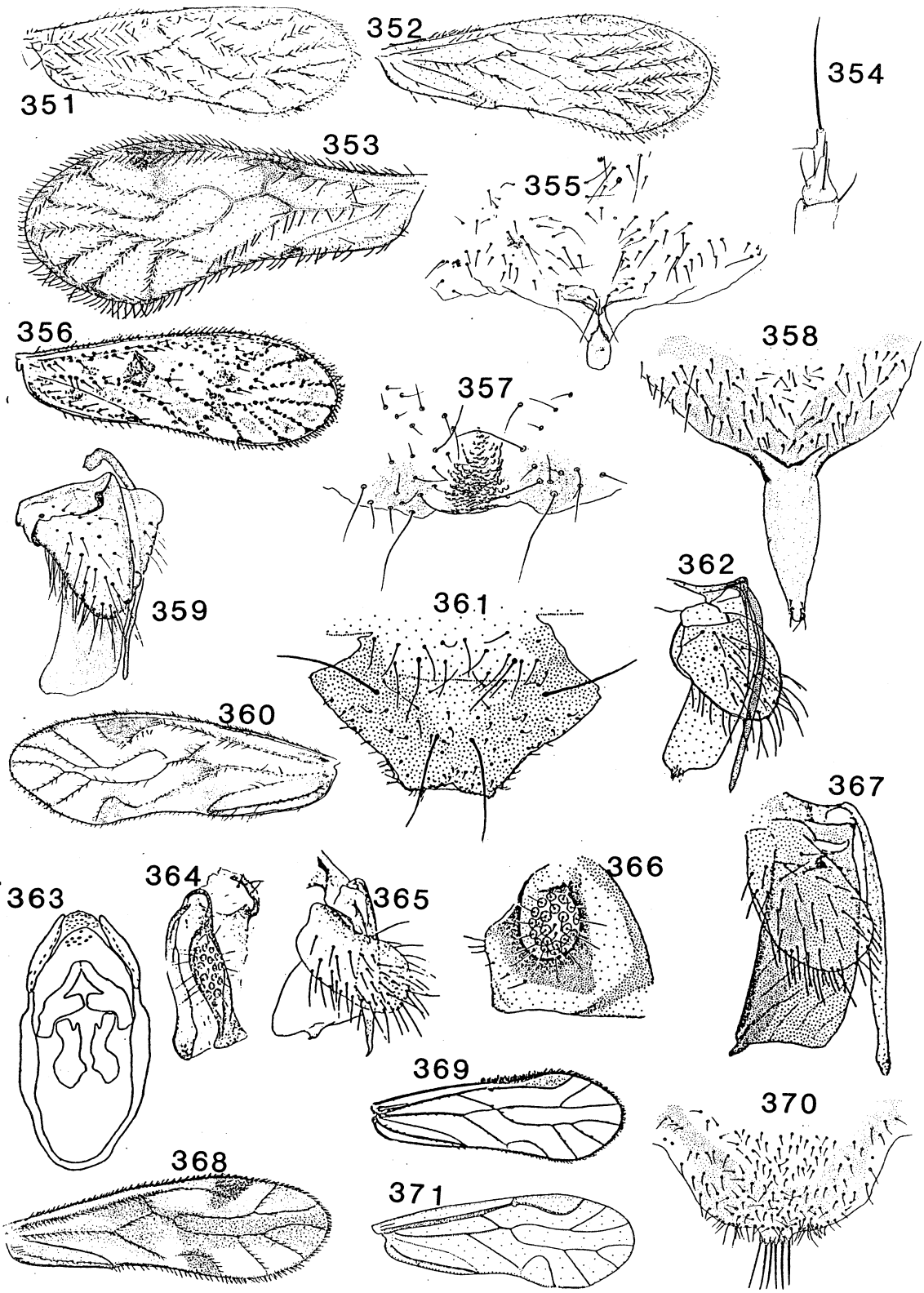
Figs 301--316. 301. *Mesolachesilla* gonapophyses. 302. *Graphocaecilius* phallosome. 303. *Antilachesilla* subgenital plate. 304. *Antilachesilla* fore wing. 305. *Prolachesilla* subgenital plate. 306. *Prolachesilla* fore wing. 307. *Nanolachesilla* subgenital plate. 308. *Nanolachesilla* fore wing. 309. *Tricholachesilla* subgential plate. 310. *Interpsocus* hind wing. 311. *Mascaropsocus* subgenital plate. 312. *Mascaropsocus* base of antenna. 313. *Ectopsocus* subgenital plate. 314. *Ectopsocopsis* 9th tergite. 315. *Ectopsocopsis* gonapophyses. 316. *Kaestneriella* fore wing.



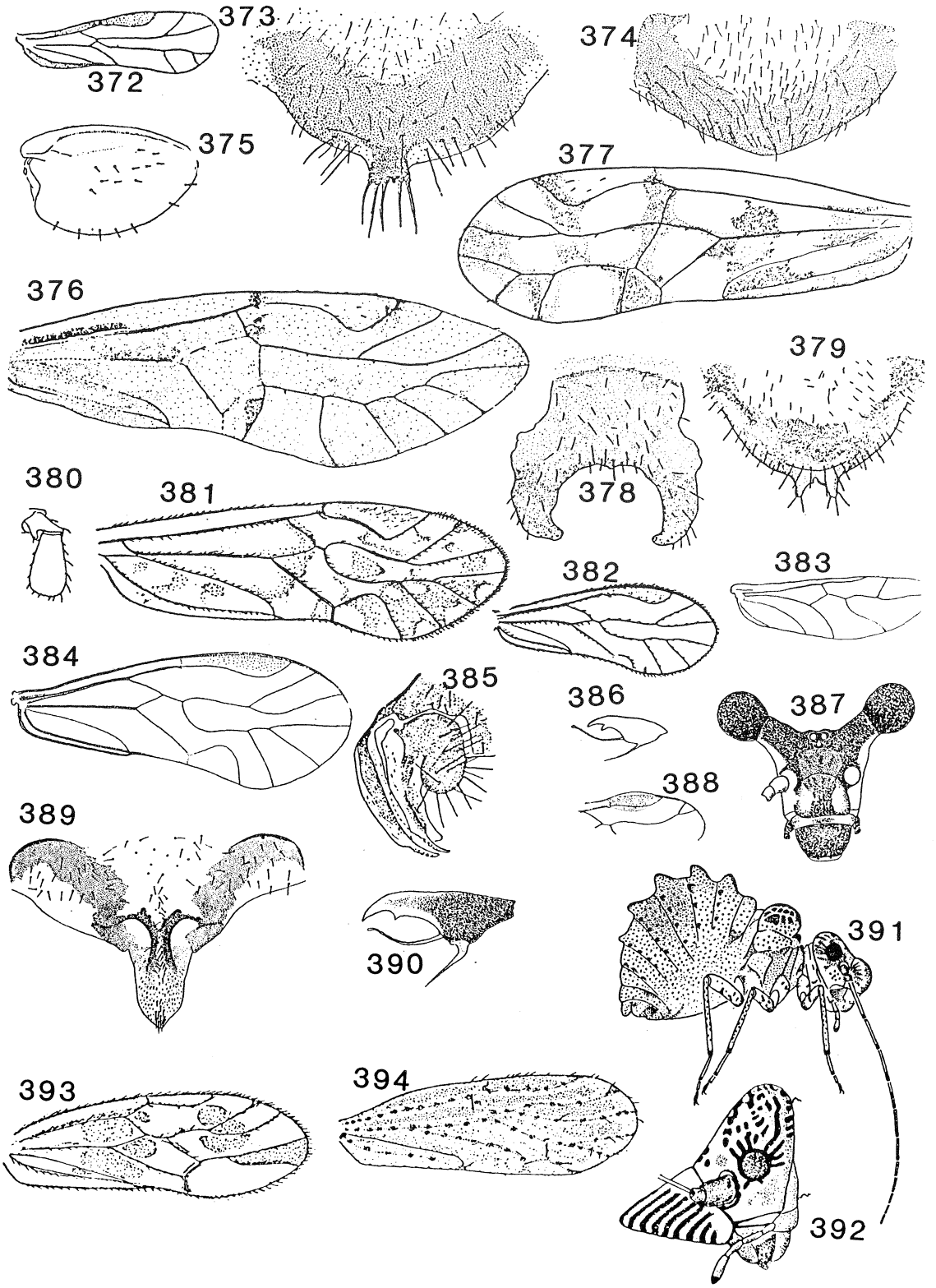
Figs 317--331. 317. *Callistoptera* hind wing. 318. *Neurosema* hind wing. 319. *Neurosema* fore wing. 320. *Calopsocus* head. 321. *Nemupsocus* fore wing. 322. *Calosema* 9th tergite. 323. *Calosema* fore wing. 324. *Cyclopsocus* 9th tergite. 325. *Cyclopsocus* fore wing. 326. *Dendropsocus* fore wing. 327. *Dendropsocus* 9th tergite and epiproct. 328. *Cyclopsocus* fore wing. 329. *Cyclopsocus* 9th tergite and epiproct. 330. *Pararchipsocus* hind wing. 331. *Pararchipsocus* hind wing.



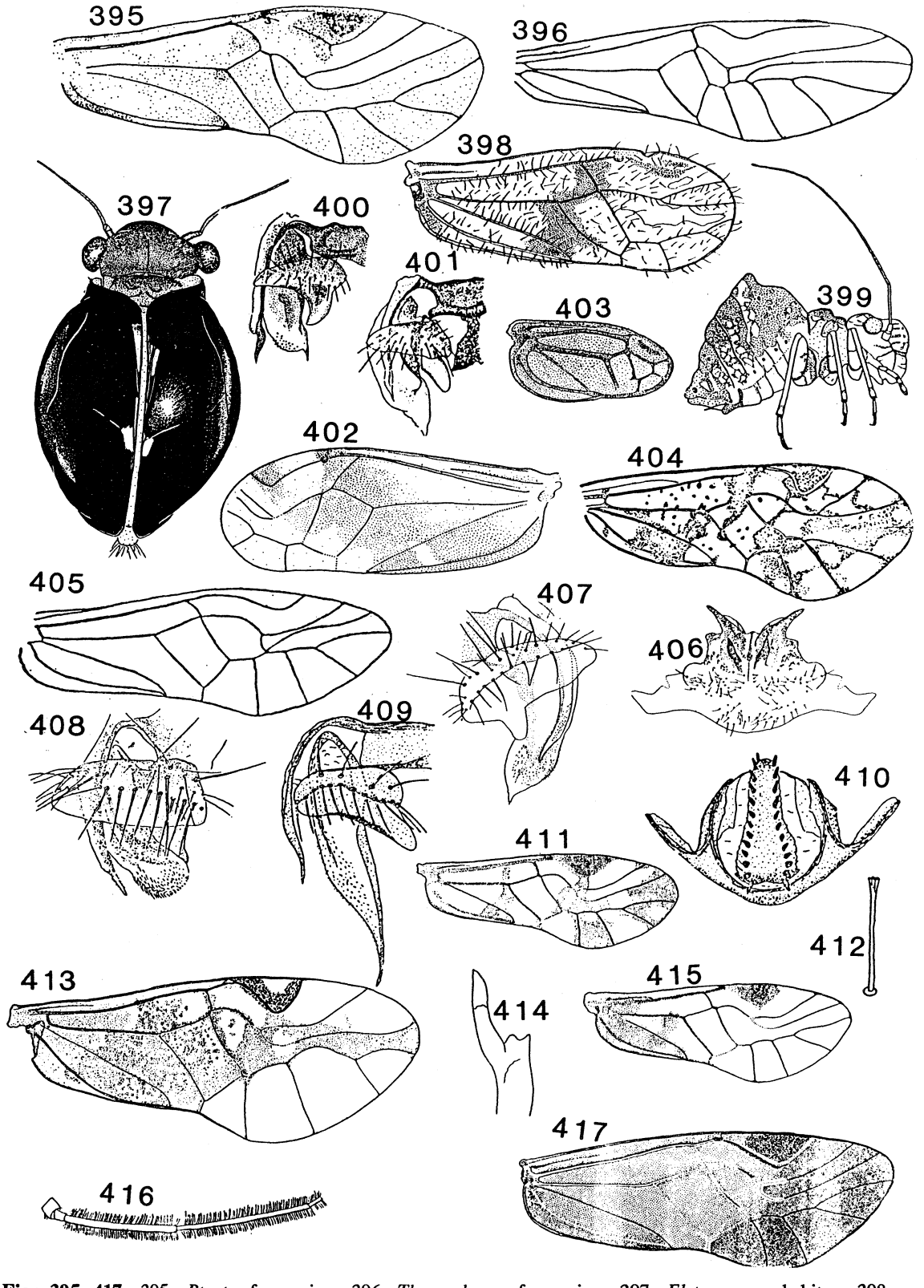
Figs 332--350. 332. *Archipsocus* hind wing. 333. *Pararchipsocus* phallosome. 334. *Pararchipsocus* gonapophyses. 335. *Pararchipsocus* gonapophyses. 336. *Pararchipsocus* phallosome. 337. *Archipsocopsis*phallosome. 338. *Novopsocus* fore wing. 339. *Austropsocus* hypandrium. 340. *Austropsocus* subgenital plate. 341. *Austropsocus* gonapophyses. 342. *Austropsocus* fore wing. 343. *Zelandopsocus* hypandrium. 344. *Zelandopsocus* subgenital plate. 345. *Zelandopsocus* gonapophyses. 346. *Zelandopsocus* fore wing. 347. *Allopsocus* fore wing. 348. *Cladioneura* fore wing. 349. *Mesocaecilius* fore wing. 350. *Scytopsocus* fore wing.



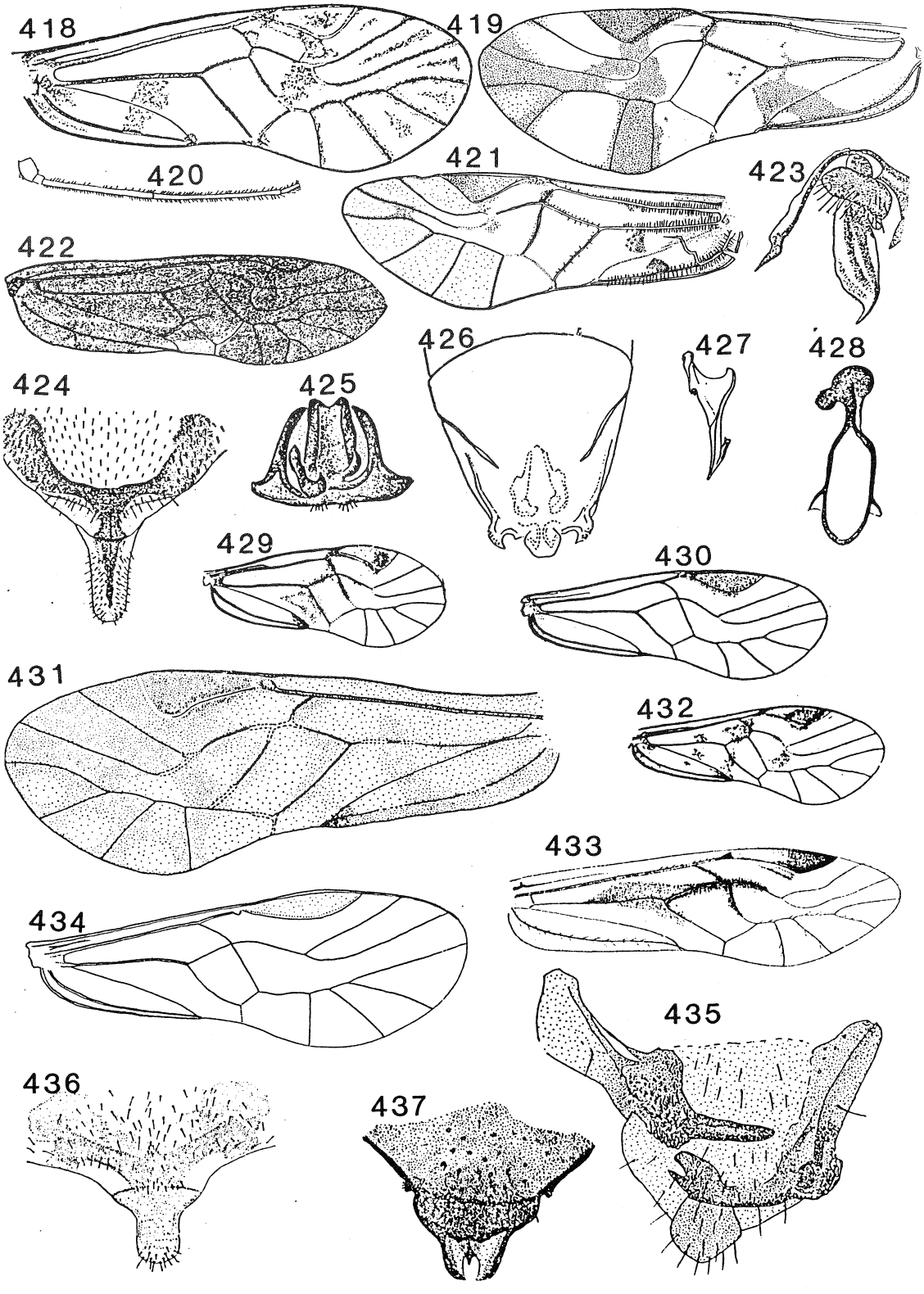
Figs 351--371. 351. *Pseudocaecilius* fore wing. 352. *Lobocaecilius* fore wing. 353. *Allocaecilius* fore wing. 354. *Aaroniella* antennal apex. 355. *Latrobiella* subgenital plate. 356. *Aaroniella* fore wing. 357. *Aaroniella* hypandrium. 358. *Haplophallus* subgenital plate. 359. *Aaroniella* gonapophyses. 360. *Latrobiella* fore wing. 361. *Haplophallus* hypandrium. 362. *Haplophallus* gonapophyses. 363. *Philotarsus* phallosome. 364. *Philotarsus* paraproct. 365. *Philotarsus* gonapophyses. 366. *Haplophallus* paraproct. 367. *Haplophallus* gonapophyses. 368. *Lesneia* fore wing. 369. *Reuterella* fore wing. 370. *Clinopsocus* subgenital plate. 371. *Clinopsocus* fore wing.



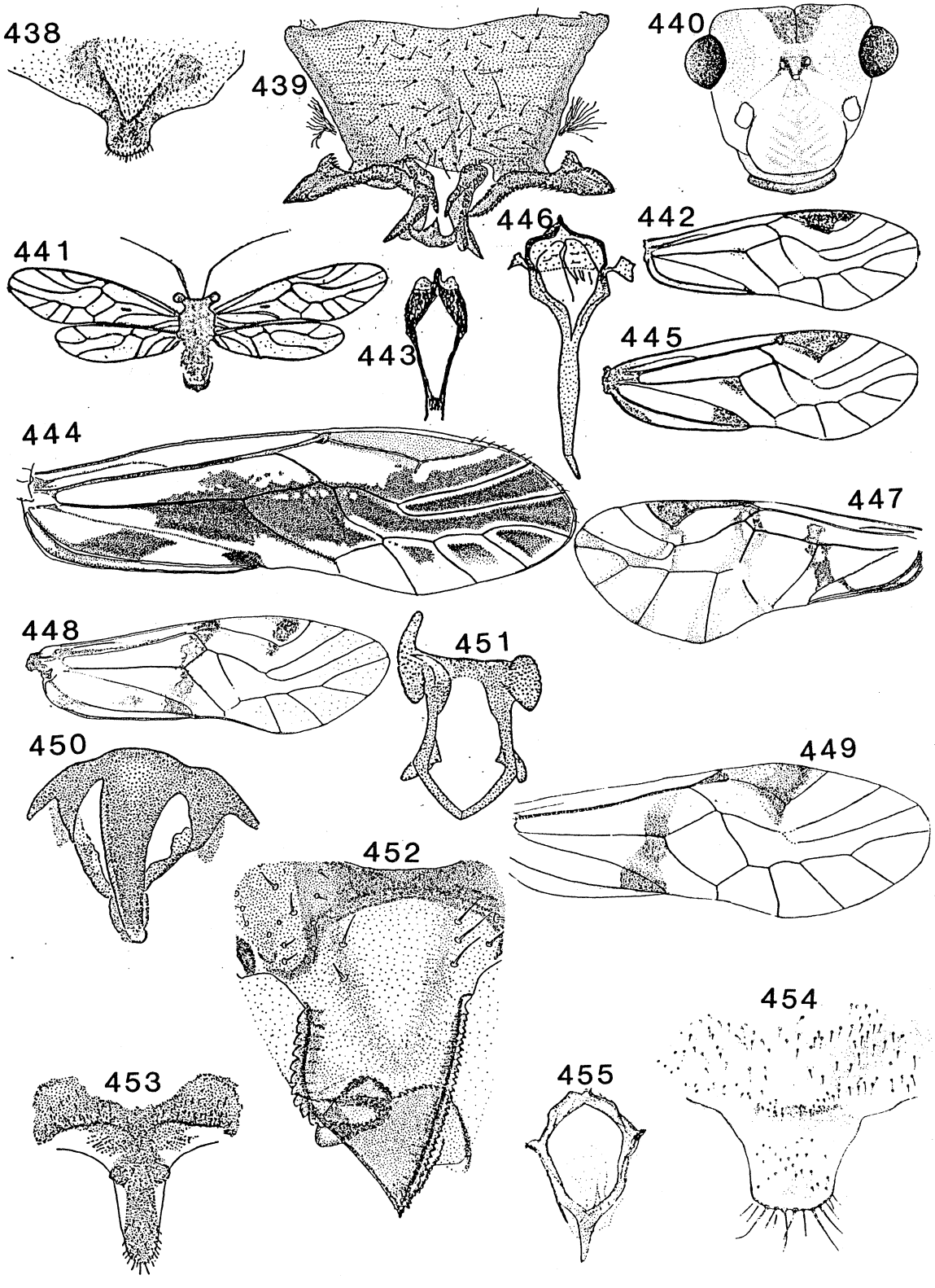
Figs 372--394. 372. *Palmicola* fore wing. 373. *Paedomorpha* subgenital plate. 374. *Sabulopsocus* subgenital plate. 375. *Antarctopsocus* fore wing. 376. *Pentacladus* fore wing. 377. *Propsocus* fore wing. 378. *Propsocus* hypandrium. 379. *Propsocus* subgenital plate. 380. *Cuneopalpus* maxillary palp. 381. *Palistreptus* fore wing. 382. *Pseudopsocus* fore wing. 383. *Hemineura* hind wing. 384. *Roesleria* fore wing. 385. *Pseudopsocus* gonapophyses. 386. *Pseudopsocus* claw. 387. *Labocoria* head. 388. *Mesopsocus* fore wing apex. 389. *Metapsocus* subgenital plate. 390. *Mesopsocus* claw. 391. *Hexacyrtoma* habitus. 392. *Rhinopsocus* head. 393. *Anopistoscena* fore wing. 394. *Hemipsocus* fore wing.



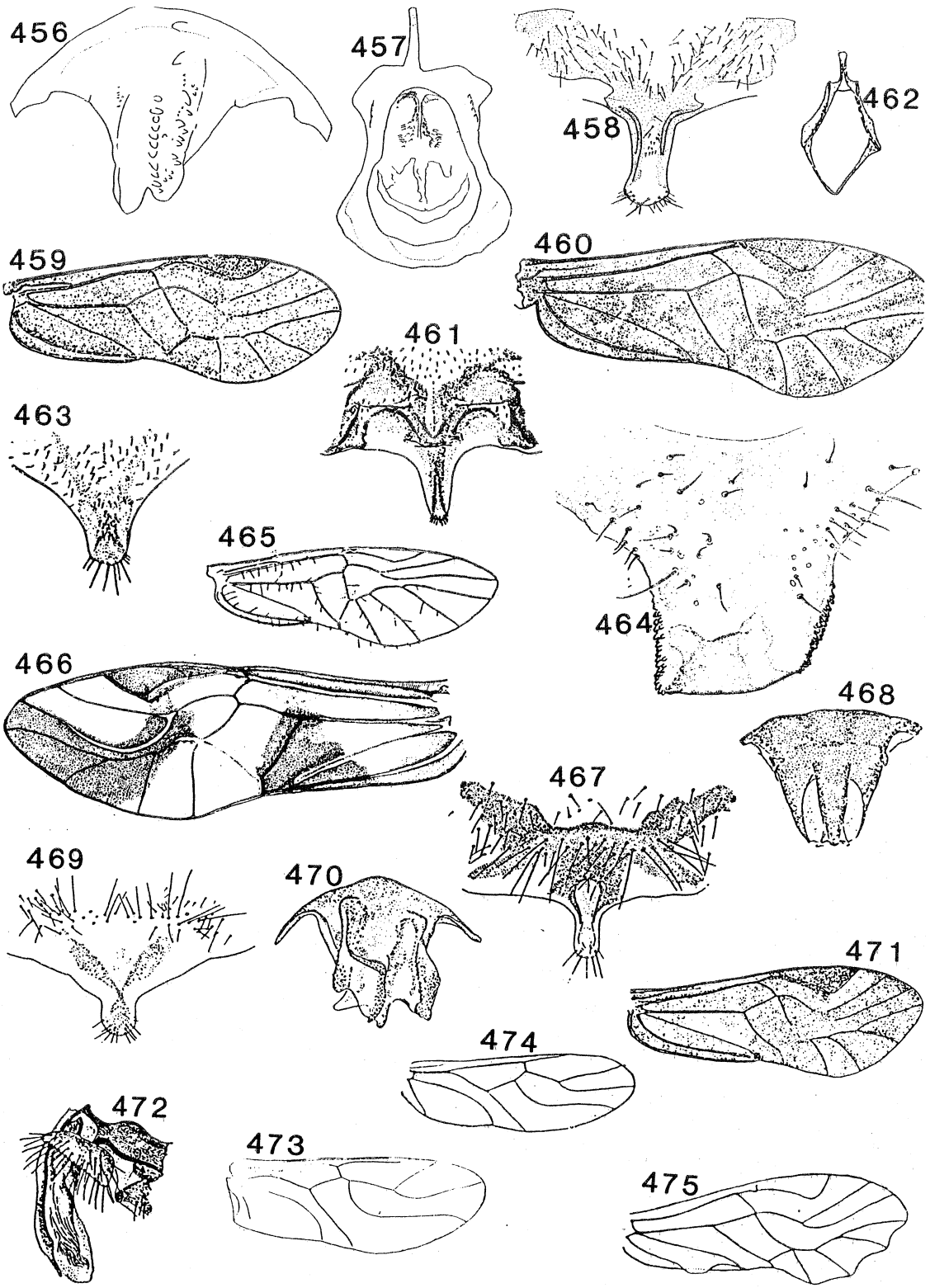
Figs 395--417. 395. *Ptycta* fore wing. 396. *Thyrsophorus* fore wing. 397. *Elytropsocus* habitus. 398. *Chaetopsocidus* fore wing. 399. *Camelopsocus* habitus. 400. *Oreopsocus* gonapophyses. 401. *Neopsocus* gonapophyses. 402. *Hyalopsocus* fore wing. 403. *Neopsocopsis* fore wing. 404. *Elaphopsocus* fore wing. 405. *Cycetes* fore wing. 406. *Psococerastis* hypandrium. 407. *Psococerastis* gonapophyses. 408. *Pilipsocus* gonapophyses. 409. *Atlantopsocus* gonapophyses. 410. *Atlantopsocus* hypandrium. 411. *Psococerastis* fore wing. 412. *Neopsocus* seta. 413. *Cervopsocus* fore wing. 414. *Cervopsocus* lacinia. 415. *Psococerastis* fore wing. 416. *Eremopsocus* base of antenna. 417. *Cerastipsocus* fore wing.



Figs 418--437. 418. *Ghesquierella* fore wing. 419. *Clematoscenea* fore wing. 420. *Eremopsocus* base of antenna. 421. *Setopsocus* fore wing. 422. *Dinopsocus* fore wing. 423. *Hyalopsocus* gonapophyses. 424. *Metylophorus* subgenital plate. 425. *Metylophorus* hypandrium. 426. *Neopsocopsis* hypandrium. 427. *Amphigerontia* paramere. 428. *Psocus* phallosome. 429. *Psocus* fore wing. 430. *Neopsocopsis* fore wing. 431. *Blastopsocidus* fore wing. 432. *Amphigerontia* fore wing. 433. *Lasiopsocus* fore wing. 434. *Blastopsocus* fore wing. 435. *Blastopsocidus* hypandrium. 436. *Blastopsocidus* subgenital plate. 437. *Blaste* hypandrium.



Figs 438--455. 438. *Blaste* subgenital plate. 439. *Neoblaste* hypandrium. 440. *Austropsocus* head. 441. *Steleops* habitus. 442. *Oreopsocus* fore wing. 443. *Oreopsocus* phallosome. 444. *Tanystigma* fore wing. 445. *Hyalopsocus* fore wing. 446. *Camelopsocus* phallosome. 447. *Kaindipsocus* fore wing. 448. *Indiopsocus* fore wing. 449. *Clematostigma* fore wing. 450. *Hyalopsocus* hypandrium. 451. *Hyalopsocus* phallosome. 452. *Ptycta* hypandrium. 453. *Hyalopsocus* subgenital plate. 454. *Ptycta* subgenital plate. 455. *Ptycta* phallosome.



Figs 456--475. 456. *Indiopsocus* hypandrium. 457. *Indiopsocus* phallosome. 458. *Indiopsocus* subgenital plate. 459. *Pearmania* fore wing. 460. *Pilipsocus* fore wing. 461. *Psocus* subgenital plate. 462. *Atlantopsocus* phallosome. 463. *Atlantopsocus* subgenital plate. 464. *Ptycta* hypandrium. 465. *Diplacanthoda* fore wing. 466. *Sigmatoneura* fore wing. 467. *Pearmania* fore wing. 468. *Atlantopsocus* hypandrium. 469. *Pilipsocus* gonapophyses. 470. *Pilipsocus* hypandrium. 471. *Metylophorus* fore wing. 472. *Metylophorus* gonapophyses. 473. *Myopsocus* hind wing. 474. *Lichenomima* hind wing. 475. *Lophopterygella* fore wing.