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Annotated bibliography of Palearctic species of Drosophilidae (Diptera)

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Introduction

The total number of publications dealing with drosophilids may well exceed 25000, and it is often difficult to find all the relevant papers which deal with a certain aspect. Most of these publications are concerned with genetics, physiology, biochemistry, developmental biology and other such related topics; these were already reviewed by ASHBURNER and NOVITSKI (1976). However other aspects such as taxonomy, faunistics etc. have not yet been fully documented. This bibliography is based on references to the taxonomic and faunistic aspects of Palearctic species, critically reviewed under six keywords. All species included in the "Catalogue of Palearctic Diptera" (BÄCHLI and ROCHA PITÉ, in press) are dealt with, with the exception of the doubtful species. The species are alphabetically arranged within each genus.

The six keywords include the following information:

General features of adults: We refer to all descriptive notes, such as full descriptions of morphology and anatomy, diagnoses, comparisons with other species etc.

Figures: All papers with morphological and anatomical illustrations of adults, as well as those of eggs, larvae and puparia are mentioned.

Keys: We refer to all keys, including those of early stages. Keys which are out-of-date, or those made for areas outside of the Palearctic region have been included as they could give additional descriptive information.

Development: Because of the extensive experimental work being done on some species we restrict ourselves to references to basic descriptive notes of eggs, larvae and puparia.

Biology: We do not quote laboratory work papers, but we include all references to wild populations in a wide sense, covering information on distribution in time and space, breeding, feeding, collecting and so on.

Distribution: Only original records are quoted; distributional notes in catalogues, reviews and check lists have been omitted except for cases where no other references were found. The quotations are separately given for each country. The European countries are arranged in alphabetical order, including the whole of the USSR and Turkey. The other countries are arranged according to their geographic position, from west to east. The range of the Palearctic region is taken from BÄCHLI and ROCHA PITRE (1981). Articles in *Drosophila* Information Service (DIS) are treated as preliminary reports, which are usually published later elsewhere. In order to shorten the bibliography we do not quote DIS except in cases where no other publications were found. In these cases DIS is cited by volume and page number.

We critically checked the distributional publications and excluded references considered doubtful because of possible misidentifications of species. However many questionable records may still be included. Countries without reliable records are labelled with a question-mark. In order to complete the information about the species distribution, we also mention countries with only unpublished records, which have been acquired from personal information or from collections we have seen.

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Annotated list of species

Acetoxenus FRAUENFELD, 1868

Acetoxenus formosus LOEW, 1864

Other names used: *A. siphonoides* FRAUENFELD (syn.), *A. ornata* MIEGEM (misident.).

General features of adults: COLLIN (1902a, 1902b), DUDA (1934), FRAUENFELD (1868a, 1868b), LOEW (1864), MALLOCH (1929), OLDENBERG (1914), SÉGUY (1934a, 1934b), WALKER (1853).

Figures: COLLIN (1902a), DUDA (1934a, 1934), FRAUENFELD (1868b), PAPP (1973), SÉGUY (1934b).

Keys: DUDA (1924a, 1934), ENDERLEIN (1936), FONSECA (1965), LAŠTOVKA and MÁČA (1977), McALPINE (1966), MALLOCH (1929), PAPP (1973), SÉGUY (1934b), STAKELBERG (1970).

Development: FRAUENFELD (1868a).

Biology: BRAUER (1883), COLYER and HAMMOND (1951), FRAUENFELD (1868a), GAUTIER (1923), KNAB (1914), SÉGUY (1933b, 1934a, 1934b, 1950, 1951), STURTEVANT (1921), WALKER (1853).

Distribution:

AUSTRIA: BASDEN (1961), FRAUENFELD (1868a), OLDENBERG (1914), STROBL (1900a, 1901). — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b). — FRANCE: GAUTIER (1923), SÉGUY (1934a, 1934b). — GERMAN DEMOCRATIC REPUBLIC: OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: DUDA (1934), LOEW (1864). — GREAT BRITAIN: ADAMS (1902), COLLIN (1902a, 1911), FONSECA (1965), JENSENSON (1901), WALKER (1853). — HUNGARY: ALADI (1959), PAPP (1973), SOCS (1945). — ITALY: FRAUENFELD (1868a), ZANGHORI (1950). — NETHERLANDS: DE MEIJERE (1932, 1939b). — POLAND: DUDA (1934), LOEW (1864). — ROMANIA: ARADI (1959), PAPP (1973), SOCS (1945). — SWITZERLAND: unpublished. — YUGOSLAVIA: ARADI (1959), FRAUENFELD (1868a), SOCS (1945), STROBL (1898a, 1900a). — CANARY IS.: DUDA (1934), FREY (1936). — ISRAEL: BASDEN (1966).

Amiota LOEW, 1862

Amiota acuta OKADA, 1968

General features of adults: OKADA (1968c, 1971a).

Figures: OKADA (1968c).

Key: OKADA (1971a).

Biology: OKADA (1968c).

Distribution:

JAPAN: OKADA (1968c).

Amiota albilabris ROTH in ZETTERSTEDT, 1860

Other name used: *A. albigutata* var. *obscuripes* STROBL (syn.).

General features of adults: BASDEN (1961), COLLIN (1952), MÁČA (1980), OKADA (1960a, 1961a, 1971a), OLDENBERG (1914), STROBL (1910), WAHLGREN (1927), ZETTERSTEDT (1860).

Figures: BEFFU et al. (1977), MÁČA (1980), OKADA (1960a), PAPP (1973).

Keys: BEFFU et al. (1977), DUDA (1934), FONSECA (1965), MÁČA (1980), OKADA (1960a, 1971a), PAPP (1973), WAHLGREN (1927).

Biology: KIMURA and TODA (1976), MINAMI et al. (1979), TODA (1977).

Distribution:

AUSTRIA: BASDEN (1961), STROBI (1894, 1910). — CZECHOSLOVAKIA: MÁČA (1980). — FINLAND: FRBY et al. (1941). — GREAT BRITAIN: COLLIN (1952), FONSECA (1965). — ROMANIA: MÁČA (1980), PAPP (1973). — SWEDEN: WAHLGREN (1927), ZETTERSTEDT (1960). — SWITZERLAND: BÄCHLI (1974c), MÁČA (1980). — YUGOSLAVIA: BASDEN (1961), STROBI (1910). — JAPAN: KIMURA and TODA (1976), MÁČA (1980), MINAMI et al. (1979), OKADA (1960a), TODA (1977).

***Amiota algutata* WAHLBERG, 1839**

Other names used: *A. obscuripes* STROBI (misident.), *A. leucotoma* BECKER (syn.), *Phortica* sp., *Amiota* sp.

General features of adults: BASDEN (1957b), BASDEN and HARNDEN (1956), BECKER (1908a), COLLIN (1911), DUDA (1926b, 1944), MÁČA (1980), OKADA (1971a), OLDENBERG (1914), WAHLBERG (1839), WAHLGREN (1927), ZETTERSTEDT (1847).
Figures: DUDA (1934), MÁČA (1980), PAPP (1973).

Keys: BASDEN (1954b), DUDA (1924a, 1934), FONSECA (1965), LAŠTOVKA and MÁČA (1977), MÁČA (1980), OKADA (1971a), OLDENBERG (1914), PAPP (1973), SEGUY (1934a, 1934b), ŠTAKELBERG (1970), WAHLGREN (1927).

Biology: BASDEN (1954b), BASDEN and HARNDEN (1956), BUXTON (1960), EDWARDS (1936), FRBY (1932), KÜHLHOEN (1973), MOMMA (1957), STORI (1957), WAKELY (1953).

Distribution:

CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1980). — FINLAND: FRBY (1929, 1932), LEMME et al. (1978), STORI (1955, 1957). — FRANCE: unpublished. — GERMAN DEMOCRATIC REPUBLIC: OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: KÜHLHOEN (1978). — GREAT BRITAIN: BASDEN (1952, 1954b), COLLIN (1911), EDWARDS (1936), FONSECA (1965), WAKELY (1953), YERBURY (1913). — HUNGARY: PAPP (1973). — ITALY: OLDENBERG (1914). — NETHERLANDS: DE MELIËRE (1939b), VAN DER WULF and DE MELIËRE (1982). — NORWAY: BASDEN and HARNDEN (1956). — ROMANIA: ARADI (1959), BECKER (1908a), DUDA (1934), OLDENBERG (1914, 1922), SOGG (1945). — SWEDEN: RINGDAHL (1941), WAHLBERG (1839), WAHLGREN (1927), ZETTERSTEDT (1847, 1855, 1860). — SWITZERLAND: BÄCHLI (1974b), MÁČA (1980). — USSR: ŠTAKELBERG (1936, 1970).

Comment:

This species was also recorded in S. Korea, Japan and Alaska, but these records may refer to other species.

***Amiota aquilotaurensata* TAKADA, BEPPU and TODA, 1979**

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

***Amiota bálaenodentata* TAKADA, BEPPU and TODA, 1979**

Other name used: *Amiota* sp. 8.

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Biology: MINAMI et al. (1979).

Distribution:

JAPAN: MINAMI et al. (1979), TAKADA et al. (1979).

***Amiota basdeni* FONSECA, 1965**

Other name used: *Amiota* sp.

General features of adults: FONSECA (1965), MÁČA (1980).

Figures: MÁČA (1980).

Keys: FONSECA (1965), MÁČA (1980).

Development: MÁČA (1980).

Distribution:

CZECHOSLOVAKIA: MÁČA (1980). — GREAT BRITAIN: FONSECA (1965), MÁČA (1980). — HUNGARY: MÁČA (1980). — SWITZERLAND: BÄCHLI (1972b, 1973a, 1975a, 1975b), MÁČA (1980).

***Amiota chungii* OKADA, 1971**

Other name used: *A. alboguttata* forma *clavata* OKADA

General features of adults: CHUNG and RHO (1959), OKADA (1971a), OKADA and CHUNG (1960), TAKADA et al. (1979).

Figures: OKADA and CHUNG (1960).

Keys: LEE (1964c), OKADA (1971a).

Biology: OKADA and CHUNG (1960).

Distribution:

S. KOREA: LEE (1964c, 1966b), OKADA (1971a), OKADA and CHUNG (1960).

***Amiota clavata* OKADA, 1971**

Other name used: *A. alboguttata* forma *clavata* OKADA.

General features of adults: OKADA (1960a, 1971a).

Figures: BEPPU et al. (1977), OKADA (1960a).

Keys: BEPPU et al. (1977), OKADA (1960a, 1971a).

Biology: KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI et al. (1979), TODA (1977).

Distribution:

JAPAN: KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI et al. (1979), OKADA (1960a, 1971a), TODA (1977).

Amiota confera OKADA, 1977

Other names used: *A. confera takadai* OKADA, *Amiota* sp. like *variegata*.

General features of adults: OKADA (1977a), TAKADA (1980).

Figures: OKADA (1977a), TAKADA (1980).

Key: OKADA (1977a).

Diology: MINAMI et al. (1979), TAKADA (1980).

Distribution:

JAPAN: BEPPU (1978), MINAMI (1979), MINAMI et al. (1979), OKADA (1977a), TAKADA (1980).

Amiota curvistyla OKADA, 1971

General features of adults: OKADA (1971a).

Figures: OKADA (1971a).

Key: OKADA (1971a).

Distribution:

JAPAN: OKADA (1971a).

Amiota delta TAKADA, BEPPU and TODA, 1979

Other name used: *Amiota* sp. 3.

General features of adults: MÁCA (1980), TAKADA et al. (1979).

Figures: BEPPU et al. (1977), TAKADA et al. (1979).

Key: BEPPU et al. (1977).

Distribution:

JAPAN: TAKADA et al. (1979).

Amiota dentata OKADA, 1971

General features of adults: OKADA (1971a).

Figures: OKADA (1971a).

Key: OKADA (1971a).

Distribution:

JAPAN: OKADA (1971a).

Amiota dispina OKADA, 1960

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1960a, 1971a), TAKADA et al. (1979).

Figures: OKADA (1960a).

Keys: BEPPU et al. (1977), OKADA (1960a, 1971a), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), MINAMI et al. (1979), OKADA (1960a), TODA (1973b, 1977).

Distribution:

S. KOREA: KANG et al. (1985b), LEE (1966b). — JAPAN: KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), MINAMI et al. (1979), OKADA (1960a), TODA (1973b, 1977).

Amiota elongata OKADA, 1971

Other name used: *A. alboguttata* forma *elongata* OKADA.

General features of adults: OKADA (1960a, 1971a).

Figures: BEPPU et al. (1977), OKADA (1960a).

Keys: BEPPU et al. (1977), OKADA (1960a, 1971a).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976), KIMURA and TODA (1976), MINAMI et al. (1979), TODA (1977).

Distribution:

JAPAN: KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), KIMURA (1976b), KIMURA and TODA (1976), MINAMI et al. (1979), OKADA (1960a, 1971a), TODA (1977).

Amiota erinacea MÁCA, 1977

General features of adults: MÁCA (1977).

Figures: MÁCA (1977).

Key: MÁCA (1977).

Biology: MÁCA (1977).

Distribution:

BULGARIA: MÁCA (1977).

Amiota falcilis TAKADA, BEPPU and TODA, 1979

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

***Amiota filipes* MÁCA, 1980**

General features of adults: MÁCA (1980).
 Figures: MÁCA (1980).
 Key: MÁCA (1980).
 Biology: MÁCA (1980).
 Distribution:
 CZECHOSLOVAKIA: MÁCA (1980).

***Amiota flagellata* OKADA, 1971**

General features of adults: MÁCA (1980), NISHIHARU (1979), OKADA (1971a).
 Figures: OKADA (1971a).
 Key: OKADA (1971a).
 Biology: MINAMI et al. (1979).
 Distribution:
 JAPAN: MINAMI et al. (1979), OKADA (1971a).

***Amiota flavopruinosa* DUDA, 1934**

Other name used: *A. lacteoguttata* PORTSCHINSKY (misident.).
 General features of adults: DUDA (1934), MÁCA (1980).
 Figures: MÁCA (1980).
 Keys: DUDA (1934), MÁCA (1980).
 Distribution:
 CZECHOSLOVAKIA: MÁCA (1980). — GERMAN DEMOCRATIC REPUBLIC: MÁCA (1980), OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: DUDA (1934), MÁCA (1980). — SWITZERLAND: MÁCA (1980). — YUGOSLAVIA: MÁCA (1980).

***Amiota forficula* TAKADA, BEPPU and TODA, 1979**

General features of adults: TAKADA et al. (1979).
 Figures: TAKADA et al. (1979).
 Distribution:
 JAPAN: TAKADA et al. (1979).

***Amiota furcata* OKADA, 1971**

Other name used: *A. albovittata* forma *furcata* OKADA.
 General features of adults: OKADA (1960a, 1971a, 1971b, 1977a).
 Figures: BEPPU et al. (1977), OKADA (1960a, 1968c, 1971b).
 Keys: BEPPU et al. (1977), OKADA (1960a, 1971a).
 Biology: KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI et al. (1979), SAITO et al. (1962), TODA (1977).
 Distribution:
 JAPAN: KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1969), KIMURA and TODA (1976), MINAMI et al. (1979), OKADA (1960a, 1971a, 1971b), SAITO et al. (1962), TAKADA (1968, 1971), TODA (1977), WAKAHAMA (1962a, 1964, 1966).

***Amiota kappa* MÁCA, 1977**

General features of adults: MÁCA (1977), OKADA (1977a).
 Figures: MÁCA (1977), OKADA (1977a).
 Keys: MÁCA (1977), OKADA (1977a).
 Distribution:
 JAPAN: MÁCA (1977), OKADA (1977a).

***Amiota lanceolata* OKADA, 1971**

General features of adults: OKADA (1971a), TAKADA et al. (1979).
 Figures: OKADA (1971a).
 Key: OKADA (1971a).
 Distribution:
 JAPAN: OKADA (1971a).

✓ *Amiota lata* BECKER, 1907

General features of adults: BECKER (1907b), DUDA (1934).
 Key: DUDA (1934).
 Distribution:
 CHINA: BECKER (1907b), DUDA (1934). *Stylops phoenicia*

***Amiota magna* OKADA, 1960**

General features of adults: MÁCA (1977), OKADA (1960a, 1971a, 1977a).

Figures: MÁCA (1977), OKADA (1960a, 1968a, 1977a).

Keys: MÁCA (1977), OKADA (1960a, 1971a, 1977a).

Development: OKADA (1968a, 1968a).

Biology: NAGATA (1960), OKADA (1960a, 1962, 1968a), WAKAHAMA (1962b, 1964).

Distribution:

JAPAN: KAWANISHI et al. (1975), MÁCA (1977), OKADA (1960a, 1962, 1966b, 1968a), WAKAHAMA (1962a, 1962b, 1962c, 1964).

***Amiota nagatai* OKADA, 1971**

Other name used: *A. albopectata* forma *nagatai* OKADA.

General features of adults: OKADA (1960a, 1971a).

Figures: OKADA (1960a).

Keys: OKADA (1960a, 1971a).

Biology: OKADA (1960a).

Distribution:

JAPAN: OKADA (1960a, 1971a).

Recorded also on the Ryukyu Islands.

***Amiota neochungi* TAKADA, BEFFU and TODA, 1979**

General features of adults: MÁCA (1980), TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

***Amiota okadae* MÁCA, 1977**

Other name used: *A. variegata* FALLEN (misident.).

General features of adults: MÁCA (1977), OKADA (1956, 1977a).

Figures: MÁCA (1977), OKADA (1956, 1977a).

Keys: MÁCA (1977), OKADA (1956, 1977a).

Biology: MINAMI et al. (1979).

Distribution:

JAPAN: MÁCA (1977), MINAMI (1979), MINAMI et al. (1979), OKADA (1977a).

***Amiota oldenbergi* DUDA, 1924**

General features of adults: DUDA (1926b, 1934), MÁCA (1977).

Figures: DUDA (1924a, 1934), MÁCA (1977).

Keys: DUDA (1924a, 1934), MÁCA (1977), SÉOUY (1934a, 1934b).

Distribution:

GERMAN DEMOCRATIC REPUBLIC: DUDA (1924a, 1934), MÁCA (1977), ROHLFEN and EWALD (1972).

***Amiota onchopyga* NISHIHARU, 1979**

General features of adults: NISHIHARU (1979).

Figures: NISHIHARU (1979).

Distribution:

JAPAN: NISHIHARU (1979).

***Amiota orchidea* OKADA, 1968**

General features of adults: OKADA (1968c, 1971a).

Figures: OKADA (1968c).

Key: OKADA (1971a).

Distribution:

JAPAN: OKADA (1968c).

***Amiota patijera* OKADA, 1971**

General features of adults: OKADA (1971a).

Figures: OKADA (1971a).

Key: OKADA (1971a).

Distribution:

JAPAN: OKADA (1971a).

***Amiota promissa* OKADA, 1960**

General features of adults: OKADA (1960a, 1968c, 1971a).

Figures: OKADA (1960a).

Keys: OKADA (1960a, 1971a).

Distribution:

JAPAN: OKADA (1960a), TAKADA et al. (1979).

***Amiota rufescens* OLDENBERG, 1914**Other name used: *A. leucostoma* LOEW (misident.).

General features of adults: DUDA (1926b, 1934), MÁCA (1980), OKADA (1968c), OLDENBERG (1914), WAKAHAMA and OKADA (1958).

Figures: MÁCA (1980).

Keys: DUDA (1924a, 1934), FONSECA (1965), MÁCA (1980), OLDENBERG (1914), PAPP (1973), SÉGUY (1934a, 1934b), STAHELBERG (1970).

Biology: SCHMID (1968).

Distribution:

FINLAND: unpublished. — GREAT BRITAIN: FONSECA (1965). — ROMANIA: ARADI (1959), DUDA (1934), MÁCA (1980), OLDENBERG (1914), PAPP (1973), BOHLRIEN and EWART (1979), ROGER (1945). — SWITZERLAND: MÁCA (1980), SCHMID (1968). — USSR: DUDA (1934), STAKELBERG (1980, 1970).

Comment:

All European records of *A. leucostoma* LOEW may refer to *A. rufescens* OLDENBERG.***Amiota semivirgo* MÁCA, 1977**Other name used: *A. variegata* FALLÉN (misident.).

General features of adults: MÁCA (1977).

Figures: MÁCA (1977).

Key: MÁCA (1977).

Distribution:

AUSTRIA: unpublished. — CZECHOSLOVAKIA: MÁCA (1977). — ROMANIA: MÁCA (1977). — SWITZERLAND: BÄCHLI (1972c, 1973a, 1979). — YUGOSLAVIA: unpublished.

***Amiota sigma* OKADA, 1971**

General features of adults: OKADA (1971a), TAKADA et al. (1979).

Figures: OKADA (1971a).

Key: OKADA (1971a).

Distribution:

JAPAN: OKADA (1971a).

***Amiota sinuata* OKADA, 1968**

General features of adults: OKADA (1968c, 1971a).

Figures: OKADA (1968c).

Key: OKADA (1971a).

Biology: OKADA (1968c).

Distribution:

JAPAN: OKADA (1968c).

***Amiota stylopyga* WAKAHAMA and OKADA, 1958**Other names used: *A. leucostoma* LOEW (misident.), *Amiota* sp. I.

General features of adults: MÁCA (1980), OKADA (1961a, 1971a), WAKAHAMA and OKADA (1958).

Figures: BEPPU et al. (1977), WAKAHAMA and OKADA (1958).

Keys: BEPPU et al. (1977), OKADA (1971a), TAKADA (1971).

Biology: BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1957), TODA (1973a, 1977), WAKAHAMA and OKADA (1958).

Distribution:

S. KOREA: KANG et al. (1965), LEE (1966b). — JAPAN: BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968), KIMURA and TODA (1976), MÁCA (1980), MINAMI et al. (1979), MOMMA (1957), OKADA (1960a), TAKADA (1968), TODA (1973a, 1977), WAKAHAMA (1964), WAKAHAMA and OKADA (1958).

***Amiota subfurecata* OKADA, 1971**Other name used: *A. alboguttata* forma *furecata* OKADA.

General features of adults: OKADA (1960a, 1971a, 1971b, 1977a).

Figures: BEPPU et al. (1977), OKADA (1960a, 1971b).

Keys: BEPPU et al. (1977), OKADA (1971a).

Biology: KIMURA and TODA (1976), MINAMI et al. (1979).

Distribution:

JAPAN: KIMURA and TODA (1976), MINAMI et al. (1979), OKADA (1960a, 1971a, 1971b). Recorded also in Taiwan.

Amiota subtusradiata DUDA, 1934

General features of adults: DUDA (1934), MÁCA (1980), OKADA (1960a).

Figures: MÁCA (1980), PAPP (1973).

Keys: DUDA (1934), MÁCA (1980), PAPP (1973), STARKLEBERG (1970).

Distribution:

FINLAND: DUDA (1934), MÁCA (1980). — ? HUNGARY: PAPP (1973). — POLAND: DUDA (1934). — ROMANIA:

ARADI (1959), DUDA (1934), SOÓS (1945). — USSR: DUDA (1934), STARKLEBERG (1970).

Recorded also in North America.

Comment:

Some records, especially in North America, may refer to other species.

Amiota taurusata TAKADA, BEPPU and TODA, 1979

Other name used: *Amiota* sp. 1.

General features of adults: TAKADA et al. (1979).

Figures: BEPPU et al. (1977), TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

Amiota trifurcata OKADA, 1968

General features of adults: OKADA (1968c, 1971a).

Figures: BEPPU et al. (1977), OKADA (1968c).

Keys: BEPPU et al. (1977), OKADA (1971a).

Biology: MINAMI et al. (1979), TODA (1977).

Distribution:

JAPAN: MINAMI et al. (1979), OKADA (1968c), TODA (1977).

Amiota trochlea TAKADA and TODA, 1973

General features of adults: TAKADA and TODA (1973).

Figures: BEPPU et al. (1977), TAKADA and TODA (1973).

Key: BEPPU et al. (1977).

Biology: MINAMI et al. (1979).

Distribution:

JAPAN: MINAMI et al. (1979), TAKADA and TODA (1973).

Amiota variegata FALLÉN, 1823

General features of adults: BÄSDEN (1957b), DUDA (1927, 1934), FALLÉN (1823), HENDEL (1914), MÁCA (1977), MACQUART (1835), MEIGEN (1830), SÉGUY (1934a, 1934b), SHARP (1903), WAHLGREN (1927), ZETTERSTEDT (1847).

Figures: DUDA (1934), MÁCA (1977), PAPP (1973), SÉGUY (1934b).

Keys: DUDA (1924a, 1934), FONSECA (1965), LAŠTOVKA and MÁCA (1977), MÁCA (1977), SÉGUY (1934a, 1934b), WAHLGREN (1927), ZETTERSTEDT (1847).

Development: MÁCA (1977).

Biology: BREZI (1891), COLLIN (1911), COLYER and HAMMOND (1951), DUDA (1934), KÜHLHORN (1978), MÁCA (1977),

SÉGUY (1934a, 1934b), SHARP (1903), WACHL (1882), WAHLBERG (1839).

Distribution:

? ALBANIA: unpublished. — ? AUSTRIA: SCHNER (1864), STROBL (1894, 1910). — BULGARIA: MÁCA (1977). —

CZECHOSLOVAKIA: ČIZĚK (1910), LAŠTOVKA and MÁCA (1977), MÁCA (1977), MARTINEC (1973). — ? FINLAND: FRYB (1930), ZETTERSTEDT (1840). — ? FRANCE: SÉGUY (1934a, 1934b). — ? GERMAN DEMOCRATIC REPUBLIC: OLDENBERG (1914). — ?

GERMAN FEDERAL REPUBLIC: KÜHLHORN (1978), MACQUART (1835), OLDENBERG (1914). — GREAT BRITAIN: ADAMS (1906), COLLIN (1911), FONSECA (1965), MÁCA (1977), SÉGUY (1934a, 1934b), SHARP (1903). —

HUNGARY: ARADI (1959), MÁCA (1977), PAPP (1973), SOÓS (1945), THALHAMMER (1899). — ? ITALY: BREZI (1891, 1892a). — ? PORTUGAL: ROCHA PITE (1975a), SÉGUY (1934a, 1934b, 1936). — ? ROMANIA: ARADI (1959), DUDA (1934), OLDENBERG (1914), THALHAMMER (1899). — ? SPAIN: SÉGUY (1934a, 1934b). — SWEDEN: FALLÉN (1823), MÁCA (1977), RINGDahl (1949), WAHLGREN (1927), WAHLBERG (1839), ZETTERSTEDT (1838, 1847, 1855, 1860). — SWITZERLAND: unpublished. — ? USSR: DUDA (1934), PETROVA (1968), STARKLEBERG (1970), SYTSHYNSKAYA (1978). — ? YUGOSLAVIA: ARADI (1959), COE (1859), STROBL (1898a, 1900a, 1910), THALHAMMER (1899). — ? AZORES: SÉGUY (1936).

Comment:

Records of this species in various countries may refer to other species. This could be true especially of the Japanese and Korean area. We therefore do not quote from this area.

Cacoxenus LOEW, 1858*Cacoxenus argyreator* FREY, 1932

General features of adults: DUDA (1934), FREY (1932).

Figures: DUDA (1934).

Keys: DUDA (1934), FREY (1932), MCALPINE (1968).

Biology: FREY (1932), STORA (1957).

Distribution:

FINLAND: DUDA (1934), FREY (1932), HARDY and WHEELER (1960), LUMME et al. (1979), MCALPINE (1968), STORA (1957). — NORWAY: BÄSDEN and HÄRNBERG (1956), HARDY and WHEELER (1960). — SWEDEN: unpublished.

***Cacozenus exiguus* DUDA, 1924**

General features of adults: DUDA (1934), HENDEL (1933), McALPINE (1968).

Figures: DUDA (1934), McALPINE (1968), PAPP (1973).

Keys: DUDA (1924a, 1934), FONSECA (1965), FREY (1932), McALPINE (1968), PAPP (1973), SÉGUY (1934a, 1934b).

Distribution: GREAT BRITAIN: FONSECA (1965). — POLAND: DUDA (1934), HARDY and WHEELER (1960). — SWITZERLAND: BÄCHLI (1974c).

***Cacozenus indagator* LOEW, 1858**Other name used: *C. obscura* KRÖBER (syn.).

General features of adults: DUDA (1934), ENDERLEIN (1927), HACKMAN (1969a), HARDY (1965), HARDY and WHEELER (1960), HENDEL (1933), KRÖBER (1912), LOEW (1858), MIK (1892, 1894), OSTEN-SÄCKEN (1892), SCHNER (1894), SÉGUY (1934a, 1934b).

Figures: DUDA (1934), HACKMAN (1969a), HARDY (1965), HARDY and WHEELER (1960), HENNING (1952), DE MEIJERE (1944), PAPP (1973), SÉGUY (1934b).

Keys: DUDA (1924a, 1934), FONSECA (1965), FREY (1932), LAŠTOVKA and MĀCA (1977), McALPINE (1968), PAPP (1973), SÉGUY (1934a, 1934b), STAKELBERG (1970).

Development: HENNING (1952), DE MEIJERE (1944).

Biology: DUDA (1934), GRAUD (1861), JULIARD (1947, 1948), KARL (1936), KRÖBER (1910, 1912, 1935), LOEW (1858), DE MEIJERE (1944), OLDROYD (1965), RADDATZ (1873), SÉGUY (1933b, 1934a, 1934b, 1956, 1951, 1955), TSACAS and DESMIER DE CERON (1976).

Distribution: AUSTRIA: BASSEN (1961), DUDA (1934), MIK (1892), SÉGUY (1934a, 1934b), STROBL (1910). — CZECHOSLOVAKIA: LAŠTOVKA and MĀCA (1977). — FRANCE: GRAUD (1861), SÉGUY (1934a, 1934b). — GERMAN DEMOCRATIC REPUBLIC: KARL (1936), RADDATZ (1873). — GERMAN FEDERAL REPUBLIC: BRUTHIN (1837), KRÖBER (1910, 1912, 1935), OSTEN-SÄCKEN (1892), SCHNER (1894). — GREAT BRITAIN: AUDCOTT (1950), FONSECA (1965), HARDY and WHEELER (1960). — HUNGARY: ARADI (1959), PAPP (1973). THALMANNE (1899). — NETHERLANDS: DE MEIJERE (1944). — POLAND: HARDY and WHEELER (1960), KARL (1936), LOEW (1858). — ROMANIA: ARADI (1959). — SPAIN: HACKMAN (1969a), SÉGUY (1934a, 1934b). — SWITZERLAND: JULIARD (1947, 1948). — YUGOSLAVIA: SÉGUY (1934a, 1934b), STROBL (1898a, 1900a).

***Cacozenus inquilinus* HENDEL, 1933**

General features of adults: HENDEL (1933), McALPINE (1968), OKADA (1973c).

Key: PAPP (1973).

Distribution:

AUSTRIA: HENDEL (1933).

***Cacozenus kaszabi* OKADA, 1973**

General features of adults: OKADA (1973c).

Figures: OKADA (1973c).

Distribution:

CZECHOSLOVAKIA: unpublished. — MONGOLIA: OKADA (1973a).

***Cacozenus perspicax* KNAB, 1914**Other name used: *C. punctatus* DUDA (syn.).

General features of adults: BRYAN (1938), DUDA (1925b, 1934), GUPTA (1970), HARDY (1965), HARDY and WHEELER (1960), HENDEL (1933), KNAB (1914), McALPINE (1968), MALLOCH (1924a, 1924b), TSACAS and DESMIER DE CERON (1976).

Figures: DUDA (1924a), GUPTA (1970), HARDY (1965).

Keys: BRYAN (1938), DUDA (1924), HARDY (1965).

Biology: BEZZI (1917), BRYAN (1938), HARDY (1965), KNAB (1914), MALLOCH (1924a), SÉGUY (1933b, 1951), STURTEVANT (1921), SWEZEY (1928, 1932).

Distribution:

EGYPT: unpublished.

Recorded mainly in Old World tropics.

***Cacozenus vlasovi* (DUDA), 1934**

General features of adults: DUDA (1934), McALPINE (1968), OKADA (1973c), SÉGUY (1941).

Figures: DUDA (1934), OKADA (1973c).

Key: DUDA (1934).

Biology: DUDA (1934).

Distribution:

USSR: DUDA (1934), McALPINE (1968). — MONGOLIA: OKADA (1973).

Chymomyza* CZERNY, 1903**Chymomyza amoena* LOEW, 1862**

General features of adults: HSU (1949), LOEW (1862), OKADA (1976), PATTERSON (1943), STURTEVANT (1921), TROCK-NORTON (1962).

Figures: DUDA (1927), HSE (1949), OKADA (1976), PATTERSON (1943), THROCKMORTON (1962).

Keys: DUDA (1927), MALLOCH and MCATER (1924), OKADA (1970), STURTEVANT (1916, 1921), WHEELER (1949), 1952).

Development: DUDA (1934), PATTERSON (1943).

Biology: MALLOCH and MCATER (1924), SABATH (1974), STURTEVANT (1916, 1921), TESKEY (1976), WHEELER (1952).

Distribution:

CZECHOSLOVAKIA: unpublished.

Recorded mainly in North America.

Chymomyza atrimana OKADA, 1956

General features of adults: OKADA (1956, 1976).

Figures: OKADA (1956).

Keys: OKADA (1956, 1976), TAKADA (1971).

Biology: KANeko and TOKUMITSU (1969), OKADA (1956), TODA (1973a).

Distribution:

JAPAN: KANeko and TOKUMITSU (1969), OKADA (1956), TODA (1973a), WAKAHAMA (1964), WAKAHAMA et al. (1963).

Chymomyza caudatula OLDENBERG, 1914

Other names used: *Ch. costata* ZETTERSTEDT (misident.), *Neotanyastrella* sp.

General features of adults: DUDA (1927, 1934), HACKMAN et al. (1970), OKADA (1954b, 1956, 1961a, 1976), OLDENBERG (1914), STURTEVANT (1916), WHEELER (1949b, 1952).

Figures: BEPPU et al. (1977), DUDA (1934), HACKMAN et al. (1970), OKADA (1956, 1968a), OLDENBERG (1914), PAPP (1973), STAKELBERG (1970).

Keys: BEPPU et al. (1977), DUDA (1924a, 1927, 1934), HACKMAN et al. (1970), OKADA (1956, 1976), OLDENBERG (1914), PAPP (1973), SÉGUY (1934b), STAKELBERG (1970), STURTEVANT (1916, 1921), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976), KANeko and TOKUMITSU (1969), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KÜHLHOHN (1978), LUMME et al. (1979), MINAMI et al. (1979), MOMMA (1967), OKADA (1956, 1968a), SHIMID (1968), TODA (1973a, 1977), WHEELER and THROCKMORTON (1962).

Distribution:

AUSTRIA: BÄCHLI (1961), SEROBI (1894, 1901, 1910). — FINLAND: HACKMAN et al. (1970), LUMME et al. (1979). — GERMAN FEDERAL REPUBLIC: KÜHLHOHN (1978). — ROMANIA: ARADI (1959), DUDA (1934), OLDENBERG (1914), PAPP (1973), ROHLFEN and EWALD (1972), SOG6 (1945). — SWITZERLAND: BÄCHLI (1972c, 1973c), SCHMID (1968). — USSR: STAKELBERG (1970). — JAPAN: BEPPU (1976, 1978), KANeko and TAKADA (1960), KANeko and TOKUMITSU (1969), KIMURA (1976a, 1976b), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1967), OKADA (1956, 1968a, 1976), TAKADA (1968), TODA (1973a, 1977), WAKAHAMA (1964).
Recorded also in North America.

Chymomyza costata ZETTERSTEDT, 1838

General features of adults: COLLIN (1911), CZERNY (1903a), DUDA (1934), HACKMAN et al. (1970), OKADA (1956, 1976), OLDENBERG (1914), WAHLGREN (1927), ZETTERSTEDT (1838, 1847).

Keys: BEPPU et al. (1977), DUDA (1934), HACKMAN et al. (1970), LAŠTOVKA and MÁČA (1977), PAPP (1973).

Figures: BASDEN (1954b), BEPPU et al. (1977), CZERNY (1903a), DUDA (1924a, 1934), FONSECA (1965), HACKMAN et al. (1970), LAŠTOVKA and MÁČA (1977), OKADA (1956, 1976), OLDENBERG (1914), PAPP (1973), SÉGUY (1934b), STAKELBERG (1970), WAHLGREN (1927), ZETTERSTEDT (1847).

Development: HACKMAN et al. (1970), LAKOVAARA et al. (1972b), OKADA (1956).

Biology: BASDEN (1954b), BASDEN and HARNED (1956), HACKMAN et al. (1970), LAKOVAARA et al. (1972b), LUMME et al. (1978, 1979), MINAMI et al. (1979), MORGE (1963), OLDENBERG (1922), RADDATZ (1873), STORÁ (1957), TODA (1977).

Distribution:

AUSTRIA: DUDA (1934), CZERNY (1903a), OLDENBERG (1914). — CZECHOSLOVAKIA: DUDA (1934), LAŠTOVKA and MÁČA (1977), OLDENBERG (1914), PAPP (1973), SOG6 (1945). — FINLAND: BASDEN (1956), HACKMAN (1971), HACKMAN et al. (1970), LAKOVAARA et al. (1972b), LUMME et al. (1978, 1979), OKADA (1976), STORÁ (1957, 1957), ZETTERSTEDT (1860). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1934), RADDATZ (1873). — GERMAN FEDERAL REPUBLIC: DUDA (1934), OLDENBERG (1914, 1922). — GREAT BRITAIN: BASDEN (1952, 1954b), COLLIN (1911), FONSECA (1965), OKADA (1976). — NETHERLANDS: DE MELDER (1916b, 1939b). — NORWAY: BASDEN and HARNED (1956), LAKOVAARA et al. (1972b), ZETTERSTEDT (1847). — POLAND: DUDA (1934), OLDENBERG (1914). — SWEDEN: LAKOVAARA et al. (1972b), RINGDÄHL (1951), WAHLGREN (1927), ZETTERSTEDT (1838, 1847). — SWITZERLAND: BÄCHLI (1977), BÜELA (1951), DUDA (1934), OLDENBERG (1914). — USSR: BASDEN (1956), HACKMAN (1973), STAKELBERG (1930, 1970). — N. KOREA: OKADA (1974b, 1976). — JAPAN: MINAMI et al. (1979), TODA (1977).

Chymomyza distincta EGGER, 1862

Other names used: *Ch. oldenbergi* DUDA (syn.), *Ch. fuscimana* ZETTERSTEDT (misident.).

General features of adults: DUDA (1934), EGGER (1862), HACKMAN et al. (1970), OKADA (1976), OLDENBERG (1914).

Figures: BEPPU et al. (1977), DUDA (1934), HACKMAN et al. (1970), HENNIG (1958), OLDENBERG (1914), PAPP (1973).

Keys: BASDEN (1954b), BEPPU et al. (1977), DUDA (1924a, 1934), FONSECA (1965), HACKMAN et al. (1970), OKADA (1976), OLDENBERG (1914), PAPP (1973), SCHNER (1864), SÉGUY (1934b).

Biology: BASDEN (1954b), MINAMI et al. (1979), MORGE (1963).

Distribution:

AUSTRIA: EGGER (1862), FRAUSCHER (1895). — CZECHOSLOVAKIA: ARADI (1959), PAPP (1973), VIMMER (1918). — FINLAND: FEET (1929), HACKMAN et al. (1970). — ? FRANCE: KUTNER (1913). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1934), OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: DUDA (1934), OLDENBERG (1914). — GREAT BRITAIN: BASDEN (1954b), COLLIN (1952), FONSECA (1965). — NORWAY: unpublished. — POLAND: DUDA (1934). — SWEDEN: unpublished. — SWITZERLAND: unpublished. — ? USSR: STAKELBERG (1980). — ? YUGOSLAVIA: STROBL (1904). — JAPAN: MINAMI et al. (1979).

Comment:

This species was confused with *Ch. fuscimana* ZETTERSTEDT. Some records may refer to the latter species.

***Chymomyza fuscimana* ZETTERSTEDT, 1838**

Other names used: *Ch. albopunctata* BECKER (syn.), *Ch. distincta* EGGER (misident.), *Ch. nigrimana* MICHEN (? syn.).
 General features of adults: BECKER (1900), COLLIN (1911), CZERNY (1903a), DUDA (1934), HACKMAN et al. (1970), HENNIG (1958), OKADA (1956, 1961a, 1973a, 1976), OLDENBERG (1914), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1852).

Figures: BEPPU et al. (1977), DUDA (1924a, 1934), HACKMAN et al. (1970), HENNIG (1958), OKADA (1956), OLDENBERG (1914), PAPP (1973), STAKELBERG (1970).

Keys: BEPPU et al. (1977), CZERNY (1903a), DUDA (1924a, 1934), FONSECA (1965), HACKMAN et al. (1970), OKADA (1956, 1976), OLDENBERG (1914), PAPP (1973), SEGVU (1934b), STAKELBERG (1970), TAKADA (1973), WAHLGREN (1927).

Biology: KANEKO et al. (1966), MINAMI et al. (1979), MOMMA (1957), OKADA (1956), OLDENBERG (1922), SCHMID (1968).

Distribution:

AUSTRIA: BADEN (1961), CZERNY (1903a), DUDA (1934), OLDENBERG (1914), STROBL (1910). — CZECHOSLOVAKIA: ARADI (1959), PAPP (1973), SOOS (1973). — DENMARK: unpublished. — FINLAND: HACKMAN et al. (1970), LEMME et al. (1979), STORA (1956). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1934), OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: DUDA (1934), OLDENBERG (1914, 1922). — GREAT BRITAIN: COLLIN (1911), FONSECA (1965). — ? HUNGARY: SOOS (1945). — POLAND: BADEN (1961), DUDA (1934), OLDENBERG (1914). — SWEDEN: OLDENBERG (1914), KINGDAHL (1949, 1951), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1850). — SWITZERLAND: BÄCHLI (1977), SCHMID (1968). — USSR: BECKER (1900), HACKMAN (1957), HACKMAN et al. (1970), STAKELBERG (1970). — JAPAN: KANEKO et al. (1966), MINAMI et al. (1979), MOMMA (1957), OKADA (1956, 1976), TAKADA (1968), WAKAHAMA (1964, 1966), WAKAYAMA et al. (1963).

Comment:

This species was confused with *Ch. distincta* EGGER. Some records may refer to the latter species.

***Chymomyza japonica* OKADA, 1956**

General features of adults: OKADA (1956, 1961a, 1976).

Figures: OKADA (1956).

Key: OKADA (1956, 1976).

Development: OKADA (1968a).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956, 1968a, 1976).

***Chymomyza obscura* DE MEIJERE, 1911**

General features of adults: BURLA (1954a), DE MEIJERE (1911b), OKADA (1956, 1976).

Figures: DUDA (1924a), OKADA (1976).

Keys: DUDA (1924a), OKADA (1956, 1976).

Distribution:

JAPAN: KIKKAWA and PENG (1938).

Recorded mainly in South Asia.

Comment:

The record of this species in Japan was later not confirmed.

***Chymomyza obscuroides* OKADA, 1976**

Other name used: *Ch. costata* ZETTERSTEDT (misident.).

General features of adults: OKADA (1956, 1976).

Figures: OKADA (1976).

Key: OKADA (1976).

Development: OKADA (1968a).

Distribution:

JAPAN: OKADA (1956, 1968a, 1976).

***Chymomyza procnemis* WILLISTON, 1896**

General features of adults: BRYAN (1938), DUDA (1927), HARDY (1965), KUROKAWA and HIHARA (1976), NATER (1950, 1953), OKADA (1976), PATTERSON (1943), STURTEVANT (1921), WHEELER (1949b); WILLISTON (1896).

Figures: HARDY (1965), NATER (1950, 1953), OKADA (1976), PATTERSON (1943).

Keys: BRYAN (1938), HARDY (1965), OKADA (1976), PATTERSON (1943), STURTEVANT (1916, 1921), WHEELER (1949b), WILLISTON (1896).

Development: PATTERSON (1943).

Biology: CARTER (1938), SAKIMURA and LINFORD (1940), WHEELER (1952).

Distribution:

JAPAN: OKADA (1976).

Recorded mainly in America and Hawaii.

Deltopomyia* LAMB, 1914**Deltopomyia nigrovittata* MALLOCH, 1924**

Other names used: *D. argentifrons* OKADA (syn.), *Styloptera* sp.

General features of adults: DE CASTRO (1963), HARDY (1965), MALLOCH (1924b), OKADA (1953a, 1955b, 1956, 1961a), TAKADA (1966a, 1976), WHEELER (1952).

Figures: HARDY (1965), OKADA (1956, 1968a), TAKADA (1966a).

Keys: HARDY (1965), OKADA (1956).
 Development: OKADA (1956, 1968a).
 Biology: HACKMAN (1958), OKADA (1956, 1962), WHEELER (1951, 1952).
 Distribution:
 MADEIRA: unpublished. — CANARY IS.: HACKMAN (1958), MONCLÉS (1976). — JAPAN: KAWANISHI and WATANABE (1977), OKADA (1956, 1962), WAKAHAMA (1962a, 1964).
 Recorded mainly in America, Australia and on some Pacific Islands.

✓ *Dettopsomyia pictipes* DE MELJERE (1911) *not Palearctic*

Other name used: *D. pictipes* var. *sumatrensis* DUDA.
 General features of adults: DUDA (1924a), DE MELJERE (1911b).
 Figures: DUDA (1924a).
 Keys: DUDA (1924a), DE MELJERE (1911b).
 Distribution:
 ✗ JAPAN: OKADA (1977b).
 Recorded mainly in South Asia, America, Australia and Hawaii.

Drosophila FALLÉN, 1823

Drosophila acuminata COLLIN, 1952

General features of adults: COLLIN (1952), HACKMAN (1959), LAŠTOVKA and MÁČA (1978), OKADA (1968d), OKADA and KUROKAWA (1957), PAPP (1971).
 Figures: COLLIN (1952), LAŠTOVKA and MÁČA (1978), PAPP (1973).
 Keys: FONSECA (1965), LAŠTOVKA and MÁČA (1978), PAPP (1973).
 Biology: LAŠTOVKA and MÁČA (1978).
 Distribution:
 CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1978). — GREAT BRITAIN: COLLIN (1952), FONSECA (1965). — IRELAND: ROCHA PITÉ and TSACAS (1980).

Drosophila acutissima OKADA, 1956

Other name used: *Drosophila* sp. II like *grandis*.
 General features of adults: KUROKAWA and HIHARA (1976), OKADA (1956, 1961b).
 Figures: OKADA (1956).
 Keys: OKADA (1956, 1960a).
 Biology: OKADA (1954d, 1956, 1962).
 Distribution:
 JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), OKADA (1954d, 1956, 1962, 1966b).
 Recorded also in Nepal.

Drosophila afer TAN, HSU and SHENG, 1949

General features of adults: TAN et al. (1949).
 Distribution:
 CHINA: TAN et al. (1949).

Drosophila alboralis MOMMA and TAKADA, 1954

Other name used: *Drosophila (Hirtodrosophila)* sp. II.
 General features of adults: KIM (1962), KUROKAWA and HIHARA (1976), MOMMA and TAKADA (1954), OKADA (1956).
 Figures: KIM (1962), MOMMA and TAKADA (1954), OKADA (1968a).
 Keys: BEFFU et al. (1977), KANG and LEE (1964), OKADA (1956, 1967), TAKADA (1971).
 Development: OKADA (1965a, 1968a).
 Biology: BEFFU (1976), KANEKO and TOKUMITSU (1969), KIMURA (1976a, 1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1965b), MOMMA and TAKADA (1954), OKADA (1954d, 1968a), SUZUKI (1955), TAKADA (1957, 1964), WAKAHAMA (1957a, 1962b, 1964).
 Distribution:
 N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), CHUNG and RHO (1959), KANG and LEE (1964), KANG et al. (1969), LEE (1966b), OKADA (1967). — JAPAN: BEFFU (1976), BEFFU and TODA (1976), KANEKO (1960), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KAWANISHI et al. (1975), KIMURA (1976a, 1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1964, 1967, 1968a, 1965b), MOMMA and TAKADA (1954), OKADA (1954d, 1956, 1967, 1968a), SUZUKI (1955), TAKADA (1957, 1960, 1968), TAKADA and OKADA (1960), TAKADA et al. (1953), TODA (1977), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1962a, 1962b, 1962c, 1964, 1966).

Drosophila alpina BURLA, 1948

Other name used: *Drosophila* sp. like *alpina*.
 General features of adults: BURLA (1948, 1951a), FREIRE-MAIA (1949), NATER (1953), OKADA (1953b, 1956, 1961b).
 Figures: BEFFU et al. (1977), BURLA (1948, 1951a), HACKMAN (1954), OKADA (1956, 1968a), TAKADA et al. (1979).
 Keys: BEFFU et al. (1977), BURLA (1951a), HACKMAN (1954), OKADA (1956).

Development: BURLA (1951a), OKADA (1956, 1968a).

Biology: BÄCHLI (1977, 1979), BURLA (1949), KANEKO and TOKUMITSU (1969), LUNNE et al. (1978, 1979), OKADA (1956), STORA (1957).

Distribution:

FINLAND: HACKMAN (1954, 1971), LAKOVAARA et al. (1972a, 1972c), LUNNE et al. (1978, 1979), STORA (1957). — NORWAY: ROCHA PITÉ and TSACAS (1980). — SWEDEN: LAKOVAARA et al. (1972a, 1972c). — SWITZERLAND: BÄCHLI (1978a, 1978c, 1975a, 1975b, 1977, 1979), BURLA (1948, 1951a), NATER (1953). — MONGOLIA: HACKMAN (1968b). — N. KOREA: OKADA (1974b). — JAPAN: KANEKO and TOKUMITSU (1969), MORIWAKI et al. (1954), OKADA (1956, 1968a).

Drosophila ambigua POMINI, 1940

General features of adults: BURLA (1951a), CAIN et al. (1952), FRIERE-MAIA (1949), LAKOVAARA and LANKINEN (1974), MONCLÚS (1964), MORIWAKI et al. (1952), NAYER (1953), OKADA (1953b, 1961b), POMINI (1940).

Figures: BURLA (1951a), DYSON-HUDSON (1954), LAKOVAARA and LANKINEN (1974), LAŠTOVKA and MÁCA (1977), PAPP (1973), POMINI (1940), ROCHA PITÉ (1975a), SHORROCKS (1972), TROCKMORTON (1962).

Keys: BASDEN (1954b), BURLA (1951a), DYSON-HUDSON (1954), FONSECA (1965), FRYDENBERG (1956a), LAŠTOVKA and MÁCA (1977), MONCLÚS (1964), OKADA (1956), PAPP (1973), POMINI (1940), ROCHA PITÉ (1975a), SHORROCKS (1972).

Development: BURLA (1951a).

Biology: BÄCHLI (1979), BASDEN (1953, 1954b, 1957a), BEGON (1975), BURLA (1961), FRYDENBERG (1956a), KÖNIG (1965), KÜHNHORN (1978), LEVER and SOBELS (1951), MAINX et al. (1953), SCHMID (1968), SHORROCKS (1974, 1975), SOBELS et al. (1954), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: BUZZATI-TRAVERSO and SCOSSIROLI (1952), MAINX et al. (1953). — CZECHOSLOVAKIA: BASDEN (1961), LAŠTOVKA and MÁCA (1977), ZUSKA and LAŠTOVKA (1969). — DENMARK: FRYDENBERG (1956a). — FINLAND: HACKMAN (1971), LAKOVAARA et al. (1972a, 1972c). — FRANCE: HADORN et al. (1952), ROCHA PITÉ and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: KÖNIG (1965), KÜHNHORN (1978). — GREAT BRITAIN: BASDEN (1952, 1953, 1954b, 1957a), BEATY and SIDHU (1969), BEGON (1973), CAIN et al. (1952), DYSON-HUDSON (1954), FONSECA (1965), KOSKE (1953), MAINX et al. (1953), POMINI (1940), SHORROCKS (1969, 1970, 1974, 1975, 1977), TROCKMORTON (1962). — GREECE: ROCHA PITÉ and TSACAS (1980). — HUNGARY: PAPP (1973). — IRELAND: BASDEN (1962). — ITALY: BUZZATI-TRAVERSO and SCOSSIROLI (1952), KOSKE (1953), MAINX et al. (1953), NIGRO (1979). — NETHERLANDS: LEVER and SOBELS (1951), SOBELS et al. (1954). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1979). — SPAIN: HADORN et al. (1952), MONCLÚS (1964). — SWEDEN: unpublished. — SWITZERLAND: BÄCHLI (1972b, 1972c, 1978a, 1978c, 1975a, 1975b, 1977, 1979), BURLA (1951a, 1961), BUZZATI-TRAVERSO and SCOSSIROLI (1952), KOSKE (1953), MAINX et al. (1953), NATER (1953), SCHMID (1968). — TURKEY: unpublished. — YUGOSLAVIA: KERK and MARINKOVIĆ (1979). — CANARY IS. unpublished. — MOROCCO: unpublished. — TUNISIA: unpublished. — IRAN: unpublished.

Drosophila ananassae DOLESCHALL, 1858

Other names used: *D. imparata* WALKER (syn.), *D. similis* LAMB (syn.), *D. caribae* STURTEVANT, 1916 (syn.), *D. errans* MALLOCH, 1933 (syn.).

General features of adults: BOCK (1976), BOCK and WHEELER (1973), BOHART and GRESSITT (1951), BRICIO (1957), BRUNETTI (1925), CURRAN (1936), DOLESCHALL (1858), DUDA (1926a, 1927, 1931), FURCH (1966), HARDY (1965), HSU (1949), KIKKAWA and PENG (1938), KUROKAWA and HIBARA (1976), LAMB (1914), LIN et al. (1973), MALLOCH (1933), MALOGOLWIKIN (1948), MATHÉ (1955), DE MELIERE (1968), MORIWAKI and OKADA (1952), NATER (1953), OKADA (1953b, 1954c, 1954d, 1956, 1959, 1961b), PARSHAD and DUGGAL (1966), PARSHAD and PAJKA (1964), PATTERSON (1943), PENG (1937), STURTEVANT (1916, 1921), VAIDYA and GODBOLD (1971), WHEELER and TAKADA (1964).

Figures: BOHART and GRESSITT (1951), COVA GARCIA and SUÁREZ (1962), DUDA (1927), HARDY (1965), HSU (1949), KIKKAWA and PENG (1938), LAMB (1914), MALOGOLWIKIN (1948), MONCLÚS (1964), NATER (1953), OKADA (1954c, 1956, 1968a), PATTERSON (1943), PENG (1937), TROCKMORTON (1962), VAIDYA and GODBOLD (1971), WHEELER and TAKADA (1964).

Keys: BASDEN (1954b), BOCK (1976), BOHART and GRESSITT (1951), BRICIO (1957), BURLA (1954a), DUDA (1926a, 1925, 1926a, 1927, 1940), FONSECA (1965), GUPTA and RAY-CHAUDHURI (1970), HARDY (1965), HARRISON (1954), KIKKAWA and PENG (1938), MALLOCH (1934b, 1934c), DE MELIERE (1968), MONCLÚS (1964), OKADA (1956), PATTERSON (1943), PATTERSON and MAINLAND (1944), PAVAN and DA CUNHA (1947), PENG (1937), STURTEVANT (1921, 1942), WHEELER and TAKADA (1964).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a), PARSHAD and PAJKA (1964).

Biology: BASDEN (1954b), BOCK (1977b), BOHART and GRESSITT (1951), BURLA (1954a), BUWAGA and OLEMBO (1971), CARSON (1965, 1971), COVA GARCIA and SUÁREZ (1962), DAVID (1971), DOBZYNSKY and PAVAN (1950), DOLESCHALL (1858), FEJA (1925a), HIRD (1956, 1957), KIKKAWA and PENG (1938), LACHAISE (1971, 1974a, 1974b, 1975), MARTINEZ (1963), NATER (1953), OKADA (1956), PARSHAD and DUGGAL (1966), PARSHAD and PAJKA (1964), PATTERSON (1942), PIPKIN (1955), PIPKIN et al. (1966), STURTEVANT (1919, 1921).

Distribution:

GREAT BRITAIN: BASDEN (1954b). — SPAIN: BASDEN (1954b), MONCLÚS (1964). — MADEIRA: MONCLÚS (1976). — CANARY IS.: BASDEN (1954b). — CHINA: HSU (1949), PENG (1937), TAN et al. (1949). — JAPAN: KIKKAWA and PENG (1938), MORIWAKI (1934, 1935, 1958), OKADA (1954d, 1966).

Recorded as pantropical species.

Drosophila andalusica STROEL, 1906

Other names used: *D. forcipata* COLLIN (syn.), *D. fenestrarum* FALLÉN (nisiident.).

General features of adults: BASDEN (1957a, 1961), BRADMORE (1967), COLLIN (1952), HACKMAN (1955), LAŠTOVKA and MÁCA (1978), OKADA and KUROKAWA (1957), PAPP (1971), STROEL (1906).

Figures: BASDEN (1961), COLLIN (1952), HACKMAN (1955), LAŠTOVKA and MÁCA (1978), PAPP (1973).

Keys: BASDEN (1954b), FONSECA (1965), FRYDENBERG (1956a), LAŠTOVKA and MÁCA (1978), PAPP (1973), ROCHA PITÉ (1975a), SHORROCKS (1972).

Development: LAŠTOVKA and MÁCA (1978).

Biology: BASDEN (1954b), BRADMORE (1967), COE (1959), HERBING (1955), LAŠTOVKA and MÁCA (1978), NASWAFY (1956), PAPP (1976), ROCHA PITÉ (1979).

Distribution:

AUSTRIA: THALER (1977). — BELGIUM: unpublished. — CYPRUS: HACKMAN (1960). — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1978). — DENMARK: FRYDENBERG (1956a). — FRANCE: ROCHA PITÉ and TSAGAS (1979). — GERMAN FEDERAL REPUBLIC: HERTING (1955), NASWATY (1959). — GREAT BRITAIN: BASDEN (1952, 1954b), BEARDMORE (1967), COLLEN (1952), FONSECA (1965), SHORROCKS (1977), SMITH (1960). — GREECE: DIS 37: 135-136. — HUNGARY: LAŠTOVKA and MÁČA (1978), PAPP (1973, 1976). — IRELAND: BEARDMORE (1967). — NETHERLANDS: BEARDMORE (1967), HACKMAN (1960). — PORTUGAL: ROCHA PITÉ (1979a, 1979b, 1979). — ROMANIA: PAPP (1973). — SPAIN: BASDEN (1961), HACKMAN (1960a). — SWEDEN: SZOHL (1960). — SWEDEN: BEARDMORE (1967). — SWITZERLAND: BÄCHLI (1974b). — YUGOSLAVIA: BEARDMORE (1967), COR (1959), PAPP (1973). — AZORES: FREY (1945), HACKMAN (1960). — MADEIRA: FREY (1949). — CANARY IS.: FREY (1936). — MOROCCO: HACKMAN (1960). — ISRAEL: BASDEN (1966), BEARDMORE (1967). — SYRIA: LAŠTOVKA and MÁČA (1978).

Drosophila angularis OKADA, 1956

Other names used: *D. transversa* FÄLLEN (misident.), *D. transversa* type B.

General features of adults: CHUNG and RHO (1959), KIKKAWA and PENG (1938), KIM (1962), OKADA (1953b, 1956, 1959, 1961b, 1968a).

Figures: KIKKAWA and PENG (1938), KIM (1962), OKADA (1956, 1968a).

Keys: KIKKAWA and PENG (1938), LEE (1964c), OKADA (1956).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: LEE (1962), OKADA (1956, 1962, 1968a), SAITO et al. (1962), WAKAHAMA (1961, 1962b, 1962c).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1959, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1960), KIKKAWA and PENG (1938), KIM (1962, 1963), LEE (1962, 1964a, 1964b), TAKADA and LEE (1958). — JAPAN: KAWANISHI (1978), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), OKADA (1956, 1959, 1962, 1966b, 1968a), SAITO et al. (1962), TOKUMITSU et al. (1967), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966).

Drosophila annulipes DUDA, 1924

Other name used: *D. virgata* TAN, HSU and SHENG (syn.).

General features of adults: DUDA (1924b, 1926a), KIM (1963), KUROKAWA and HIHARA (1976), OKADA (1953, 1955b, 1956, 1961b, 1966a), TAN et al. (1949), WHEELER and TAKADA (1964).

Figures: DUDA (1924a, 1926a), KIM (1963), OKADA (1955a, 1956, 1968a).

Keys: DUDA (1924a, 1926a), OKADA (1956, 1966a).

Development: OKADA (1963a, 1968a).

Biology: NOZAWA (1956), OKADA (1956, 1962), TODA (1976), WAKAHAMA (1961, 1962b, 1964).

Distribution:

S. KOREA: LEE (1966b). — JAPAN: KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), NOZAWA (1956), OKADA (1955a, 1956, 1962, 1966b, 1966a), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966).

Recorded also in South Asia and on the Bonin Islands.

Drosophila asozana OKADA, 1956

Other name used: *Drosophila* sp. like *histrice*.

General features of adults: OKADA (1956).

Figures: OKADA (1956).

Keys: OKADA (1956, 1967).

Development: OKADA (1968a).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956, 1967, 1968a).

Drosophila auraria PENG, 1937

General features of adults: BOCK and WHEELER (1972), BURLA (1954a, 1954b), DE CASTRO (1953), FERREIRA-MAIA (1949), HSU (1949), KIKKAWA and PENG (1937), KUROKAWA (1956, 1969, 1967b), KUROKAWA and HIHARA (1976), LEE (1964b), MATHER (1955), OKADA (1953b, 1954c, 1954d, 1956, 1959, 1961b), PENG (1937), TAKADA (1952).

Figures: BOCK and WHEELER (1972), BURLA (1954a, 1954b), HSU (1949), KIKKAWA and PENG (1938), OKADA (1954a, 1956, 1968a), PENG (1937), THROCKMORTON (1962).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), OKADA (1956), PENG (1937), TAKADA (1971).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), ISHIHARA (1955a, 1955b), IWAO et al. (1980), KANEKO (1960, 1968), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968), KATŌ (1954d), KAWANISHI and WATANABE (1977), KIKKAWA and PENG (1938), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI (1979), MINAMI et al. (1979), MOMMA (1964, 1965b), NOZAWA (1956), OKADA (1954, 1956, 1962), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1964, 1967, 1956), TAKADA and TOKUMITSU (1960), TODA (1976a, 1976b, 1976c, 1974, 1975), WAKAHAMA (1956b, 1957a, 1957b, 1961, 1962b), WATABE (1979).

Distribution:

CHINA: BURLA (1954b), HSU (1949), KIKKAWA and PENG (1938), PENG (1937), TAN et al. (1949), THROCKMORTON (1962). — N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1959, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959, 1960, 1964a), KUROKAWA (1962, 1967a), LEE (1962, 1964b, 1964c, 1965, 1966b), OKADA (1956), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), BURLA (1954b), ISHIHARA (1955a, 1955b), IWAO et al. (1980), KANEKO (1960, 1968), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KATŌ (1954), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), KUROKAWA (1956, 1958, 1959, 1960, 1962, 1967a, 1967b), MINAMI (1979), MINAMI and KIMURA (1980), MINAMI et al. (1979),

MONMA (1957, 1964, 1965a, 1965b), NOZAWA (1956), OKADA (1954c, 1954d, 1956, 1959, 1962, 1966b, 1968a), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1952, 1954, 1957, 1958, 1960), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1955a, 1958b), TOYOFUKU and KITAHARA (1960, 1961), WAKAHAMA (1966), WATAHARA (1957a, 1957b, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATAHARA (1979), WATAHARA and BEPPU (1977), WATANABE and KAWANISHI (1976).
Recorded also in India.

Comment:
Some records may refer to the sibling species *D. bitarsus* BOCK and WHEELER or *D. tritarsus* BOCK and WHEELER.

Drosophila bitarsus BOCK and WHEELER, 1972

Other name used: *D. avaria* race B.

General features of adults: BOCK and WHEELER (1972), KUROKAWA (1956, 1967), OKADA (1953b).

Figures: BEPPU et al. (1977), BOCK and WHEELER (1972), OKADA (1953b).

Keys: BEPPU et al. (1977), TAKADA (1971).

Biology: BEPPU (1976), BEPPU and TODA (1976), IWAQ et al. (1980), KANEKO (1968), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1958), KIMURA (1976b), KIMURA and TODA (1978), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), TAKADA (1954, 1957, 1958, 1960), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1964), WATAHARA (1979).

Distribution:

S. KOREA: CHUNG (1958, 1959, 1960a), CHUNG and RHO (1959, 1960), KUROKAWA (1967a), LEE (1964c, 1965, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), KANEKO (1968), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), KUROKAWA (1956, 1959, 1960, 1967a, 1967b), MINAMI (1979), OKADA (1953b, 1966b), SHIMA (1960), TAKADA (1954, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TAKADA et al. (1955), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1966), WAKAHAMA et al. (1963), WATAHARA (1979), WATAHARA and BEPPU (1977).

Drosophila bifasciata POMINI, 1940

Other names used: *D. bilineata* POMINI (syn.), *D. obscura* FALLÉN (misident.).

General features of adults: BARDEN (1954b, 1957b), BARDEN and HARDEN (1956), BURELA (1951a), CAIN et al. (1952), FERRE-MATA (1949), FRYDENBERG (1964a), HSU (1949), KIM (1962), KUROKAWA and HIHARA (1976), LAKOVAARA and LANKINEN (1974), MONCLÉUS (1964), MORIWAKI et al. (1952, 1967), NATER (1953), OKADA (1953b, 1964c, 1966, 1961b), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), POMINI (1940), TAKADA and LEE (1955).

Figures: BEPPU et al. (1977), BURELA (1951a), CAIN et al. (1952), FROLOWA and ASTAUROV (1929), HSU (1949), KIM (1962), LAKOVAARA and LANKINEN (1974), OKADA (1956, 1968a), PAPP (1973), POMINI (1940), ROCHA PITÉ (1975a), STAKELBERG (1970), TAKADA et al. (1979).

Keys: BEPPU et al. (1977), BURELA (1951a), FONSECA (1965), GUPTA and RAY-CHAUDHURI (1970), LEE (1964c), MONCLÉUS (1964), OKADA (1956), PAPP (1973), POMINI (1940), ROCHA PITÉ (1975a), STAKELBERG (1970), TAKADA (1971).

Development: BURELA (1951a), OKADA (1963a, 1968a), PARSHAD and PAIKA (1964), WATAHARA (1979).

Biology: BARDEN and HARDEN (1956), BEPPU (1976), BEPPU and TODA (1976), HADORN et al. (1952), ISHIHARA (1955a, 1955b), KANEKO (1960), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LAKOVAARA et al. (1972b), LUMME et al. (1978, 1979), MAGNI (1959), MINAMI et al. (1979), POMINI (1965b), MORIWAKI et al. (1952), OKADA (1954d, 1956, 1962), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), SCHMID (1968), SHIMA (1960), TAKADA (1954, 1957), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1966b, 1967a, 1962b, 1964), WATAHARA (1979), ZUBKA and LÁSTOVKA (1969).

Distribution:

AUSTRIA: MAINX et al. (1953). — CZECHOSLOVAKIA: ZUBKA and LÁSTOVKA (1969). — FINLAND: HACKMAN (1971), LAKOVAARA et al. (1973a, 1972b, 1972c, 1968a), LUMME et al. (1978, 1979), SAURA (1974). — FRANCE: HADORN et al. (1952), ROCHA PITÉ and TSACAS (1942a). — GERMANY FEDERAL REPUBLIC: unpublished. — HUNGARY: PAPP (1973). — ITALY: BUZZATI-TRAVERSO (1942a), IKEDA (1970), LAKOVAARA et al. (1972c), MAGNI (1952, 1953, 1959), MAINX et al. (1953), MORIWAKI and KITAGAWA (1957), POMINI (1940), SAURA (1974), YAMAGUCHI (1973). — NETHERLANDS: LEVIER and SOBELIS (1951). — NORWAY: BARDEN and HARDEN (1956), LAKOVAARA et al. (1972b), SAURA (1974). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1979). — SPAIN: HADORN et al. (1952), MONCLÉUS (1964). — SWEDEN: LAKOVAARA et al. (1972a, 1972b, 1972c), SAURA (1974). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1975b, 1979), BURELA (1948, 1951a), HSU (1949), LAKOVAARA et al. (1972a), MORIWAKI and KITAGAWA (1957), NATER (1953), SAURA (1974), SCHMID (1966), YAMAGUCHI (1973). — USSR: BUZZATI-TRAVERSO and SCROSSIOLI (1955), DUBININ et al. (1957b), FROLOWA (1926), FROLOWA and ASTAUROV (1929), HACKMAN (1957), STAKELBERG (1970). — YUGOSLAVIA: KRKIC and MARINKOVIC (1979). — N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), CHUNG and RHO (1959, 1960), KANG et al. (1968, 1959), KIM (1962), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1975), BEPPU and TODA (1976), IKEDA (1970), IKEDA and MORIWAKI (1968), ISHIHARA (1955a, 1955b), KANEKO (1960, 1963), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KAWANISHI (1975), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LAKOVAARA et al. (1972a, 1972c), MINAMI (1979), MINAMI et al. (1979), MONMA (1957, 1965a, 1965b), MORIWAKI and KITAGAWA (1955, 1957), MORIWAKI et al. (1952, 1953, 1954, 1967), OKADA (1954d, 1956, 1962, 1966b, 1968a), SAURA (1974), SHIMA (1960), TAKADA (1964, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1957, 1958a, 1958b), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1966b, 1957a, 1962a, 1962b, 1962c, 1964), WAKAHAMA et al. (1963), WATAHARA (1979), WATAHARA and BEPPU (1977), YAMAGUCHI (1973), YAMAGUCHI and MORIWAKI (1971).
Recorded also in India.

Comment:

Some Japanese records may refer to *D. imaii* MORIWAKI, KITAGAWA and OKADA.

Drosophila bizonata KIKKAWA and PENG, 1938

General features of adults: HARDY (1965), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), OKADA (1953a, 1954d, 1955a, 1956, 1959, 1961b, 1966a), TAN et al. (1949).

Figures: HARDY (1965), KIKKAWA and PENG (1938), KIM (1962), OKADA (1955a, 1956, 1968a).

Keys: BEPPU et al. (1977), HARDY (1965), KIKKAWA and PENG (1938), OKADA (1956).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: KATO (1954), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), LEE (1962), NOZAWA (1956), OKADA (1934d, 1956, 1962), SAITO et al. (1962), WAKAHAMA (1961, 1962b, 1962c, 1964).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1960a), CHUNG and RHO (1960), KANG et al. (1958, 1959, 1964a), KIM (1962, 1963), LEE (1962, 1964c, 1966b), PARK (1955), TAKADA and LEE (1958). — JAPAN: KATO (1954), KAWANISHI (1975), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), MOMMA (1957), NOZAWA (1956), OKADA (1954, 1955a, 1956, 1959, 1962, 1966b, 1968a), SAITO et al. (1962), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963).
Recorded also in Hawaii and on the Ryukyu Islands.

Drosophila brachyephephros OKADA, 1956

Other names used: *D. transversa* FALLEN (misident.), *D. transversa* type A, *D. transversa* type I.

General features of adults: CHUNG and RHO (1959), KUROKAWA and HIHARA (1976), KIM (1962), LEE (1964c), OKADA (1953b, 1955a, 1955b, 1956, 1961b), PARSHAD and DUGGAL (1966).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1955b, 1956, 1968a), WAKAHAMA (1956a).

Keys: BEPPU et al. (1977), GUPTA and RAY-CHAUDHURI (1970), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), KANEKO (1960), KANeko and TOKUMITSU (1963, 1969), KANEKO et al. (1966), KIMURA (1976a, 1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI et al. (1979), MOMMA (1953b), OKADA (1954d, 1956), PARSHAD and DUGGAL (1966), SAITO et al. (1962), TAKADA (1958), TAKADA and LEE (1958), TODA (1978a, 1978b, 1978c, 1974, 1977), WAKAHAMA (1962b, 1964), WATABE (1979).

Distribution:

S. KOREA: CHUNG (1958), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959), KIM (1962, 1963), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), KANEKO (1960, 1966), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KIMURA (1976a, 1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954d, 1955a, 1956, 1966b, 1968a), SAITO et al. (1962), SHIMA (1960, 1967), TAKADA (1958, 1968), TAKADA and OKADA (1960), TAKADA et al. (1953), TODA (1978a, 1978b, 1978c, 1974, 1977), TOKUMITSU et al. (1967), TOYOFUKU (1958a, 1958b), TOYOFUKU and KIKURA (1966, 1961), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEPPU (1977).
Recorded also in India.

Drosophila brevicornis DUDA, 1935

General features of adults: DUDA (1935).

Key: DUDA (1935).

Distribution:

USSR: DUDA (1935).

Drosophila busckii COQUILLET, 1901

Other names used: *D. rubrostriata* BECKER (syn.), *D. plurivittata* VILLENUEVE (syn.).

General features of adults: BECKER (1908b), BOCK (1976), BRINIC (1957), BURLA (1951a), DE CASTRO (1953), COQUILLET (1901), DUDA (1924c, 1925, 1935), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), LEMCHE (1949), MALLOCH (1924b), NATER (1950, 1953), NISWONGER (1911), OKADA (1953a, 1954b, 1956, 1959, 1961b, 1963a, 1963b), PARSHAD and DUGGAL (1966), PATTERSON (1943), PATTERSON and STONE (1952), PENG (1937), SÉGUY (1934a, 1934b), STURTEVANT (1921), TSACAS and BOCCUET (1976), VILLENUEVE (1911), WARREN (1920).

Figures: BEPPU et al. (1977), DUDA (1924a, 1924c, 1935), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KAMBYSELLIS (1968), KIKKAWA and PENG (1938), KIM (1962), LEMCHE (1949), NATER (1950, 1953), NISWONGER (1911), OKADA (1951b, 1954, 1955a, 1963b, 1968a), PATTERSON (1943), PATTERSON and STONE (1952), SHORROCKS (1972), STURTEVANT (1921), THROGMORFON (1962).

Keys: BASDEN (1954b), BEPPU et al. (1977), BOCK (1976), BRINIC (1957), BURLA (1951a), DUDA (1924a, 1924c, 1925, 1926a, 1927, 1935, 1940), FONSECA (1965), FRYDENBERG (1956a), GUPTA (1974a), GUPTA and RAY-CHAUDHURI (1970), HACKMAN (1954), HARDY (1965), HARRISON (1952, 1959), KIKKAWA and PENG (1938), LAŠTOVKA and MACA (1977), LEE (1964c, 1966b), MALLOCH (1923a, 1927, 1934a), MALLOCH and MCATEER (1924), MONTEUS (1964, 1976), OKADA (1956), PAPP (1978), PATTERSON (1943), PATTERSON and MALIND (1944), PAVAN and DA CUNHA (1947), PENG (1937), ROCHA PÉREZ (1975a), SÉGUY (1934a, 1934b), SHORROCKS (1975), STAKELBERG (1970), STURTEVANT (1918, 1921), TAKADA (1971).

Development: BURLA (1951a), BURIGA and OLEKHO (1971), COTTRE (1933), DUDA (1934, 1935), HENNIG (1952), KAMBYSELLIS (1968), KIKKAWA and PENG (1938), LEMCHE (1949), MAYER (1935), NISWONGER (1911), OKADA (1968a), PATTERSON (1943), SÉGUY (1934a, 1934b, 1961).

Biology: ATKINSON and SHORROCKS (1977), BASDEN (1952, 1954b, 1957a), BEPPU (1976), BEPPU and TODA (1976), BICKLEY (1968), BOCK (1976), BONNAMOUR (1921, 1926), BURLA (1948, 1951a), BURLA and BÄCHLI (1968), BURIGA (1976), CANZANELLI (1941), CARSON (1965, 1971), COLLENS (1956), COTTRE (1933), DELL-DRAKOVITS and BAROS (1976), DELLY-DRAKOVITS and PAPP (1973), DUDA (1935, 1940), EISENBERG (1957), FRYDENBERG (1956a), GUYER et al. (1956), HACHIDA (1954), HACKMAN and MINKANDER (1978), HEED (1963), HENNIG (1950, 1953), HERBERT (1955), HOWARD (1900), HUNTER et al. (1973), KANEKO and TOKUMITSU (1960), KANEKO et al. (1968), KATO (1954), KATO and HORI (1952), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA and TODA (1976), KIMURA et al. (1977), KÖNIG (1965), KÜHLJOHN (1964, 1968, 1978, 1979), LAURENCO (1953), LEE (1962), LEMCHE (1949), LEVIER and SOBELS (1951), LINDNER (1923), LUMME et al. (1979), MCCOY (1962), MCFADDEN (1914), MALINX (1949), MALLOCH and MCATEER (1924), MAYER (1935), MAYER (1935), DE MELIER (1916a, 1935, 1946), MERRILL and HUTTON (1953), MILLS (1950), MINAMI et al. (1979), NASWATY (1959), NOZAWA (1958), OKADA (1958), OKADA and SASAKAWA (1956), ODRONCZ (1965), PAPP (1978), PARSHAD and DUGGAL (1966), PATTERSON (1942), PATTERSON and STONE (1952), PETERSEN (1960/9), PEPEIN (1952), PEPEIN et al. (1966), SAITO et al. (1962), SCHAYEMANN (1977), SCHULZ (1912), SCHUMANN (1943), SÉGUY (1933b, 1934a, 1934b, 1950, 1951), SHAW (1969), SHORROCKS (1974, 1975, 1977, 1979), SHORROCKS and WOOD (1973), SOBELS et al. (1954), STURTEVANT (1919b), TAKADA (1957, 1958), TAKADA and TOYOFUKU (1960), TSCHEKNER (1961), TODA (1973a, 1974, 1977), WAKAHAMA (1957a, 1961, 1962b, 1964), WATABE (1979), ZITSEK and LAŠTOVKA (1969).

Distribution:

AUSTRIA: ROCHA PITÉ and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: DOŠKOČIL (1962), LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MÁRYENK (1974b), ŽOŠKA and LAŠTOVKA (1969). — DENMARK: BASDEN (1956), FRYDENBERG (1956), LEMCHER (1949). — FINLAND: HACKMAN (1954, 1971), HACKMAN and MERINÄKÄ (1979), LOMME et al. (1978, 1979), SUOMALAINEN (1997). — FRANCE: BONNAMOUR (1921, 1926), HADORN et al. (1952), DELLY-DRASKOVITS (1979), ROELERS and EWALD (1978), SÉGUY (1934a, 1934b), VILLENEUVE (1911). — GERMAN DEMOCRATIC REPUBLIC: HENNIG (1950), SCHUMANN (1963), SÉGUY (1933b), TIMOFEEFF-RESSOVSKY (1941a). — GERMAN FEDERAL REPUBLIC: ESFELDER (1957), HERTING (1955), KÖNIG (1966), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928), NASWATY (1959), KRÖBER (1935). — GREAT BRITAIN: AYKINSON and SHORROCKS (1977), A'DJEDD (1956), BASDEN (1952, 1954b, 1957a), BUXTON (1960), FONSECA (1965), HUNYER et al. (1973), KRIVSHENKO (1952), LAURENCE (1953), MILES (1950), SHAW (1969), SHORROCKS (1969, 1972, 1974, 1975, 1977), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979), SMITH (1959, 1960). — GREECE: ROCHA PITÉ and TSACAS (1980). — HUNGARY: ARABI (1958), DELLY-DRASKOVITS and BAROS (1976), DELLY-DRASKOVITS and PAPP (1973, 1975), SOGS (1945, 1946). — IRELAND: ROCHA PITÉ and TSACAS (1980), SHORROCKS (1973). — ITALY: KRIVSHENKO (1952), NEGRO (1979), ZANGHERI (1969). — NETHERLANDS: LEVER and SOBELS (1951), DE MELIERE (1935, 1946), SOBELS et al. (1954). — NORWAY: BASDEN (1956). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1975b, 1977b, 1979). — SPAIN: HADORN et al. (1970), MONCLÉS (1964), ORTIZ (1968). — SWEDEN: BASDEN (1956), RINGDAHL (1949). — SWITZERLAND: BÄCHLI (1928, 1973a, 1973b, 1974a, 1974b, 1975a, 1975b), BURLA (1948, 1949, 1951a), BURLA and BLOELI (1968), HSU (1949), NATER (1958), SCHAYMANN (1977). — TURKEY: unpublished. — URSR: KRIVSHENKO (1963), PAPP (1973), STAKELBERG (1970). — YUGOSLAVIA: KIKIĆ and MARINKOVIĆ (1975, 1979), KIKIĆ et al. (1980). — AZORES: FREY (1945). — MADAGASCAR: FREY (1949). — CANARY IS.: BECKER (1908b), FREY (1936), MONCLÉS (1976). — MOROCCO: PRIVOSTI (1974), SÉGUY (1933b). — TUNISIA: unpublished. — EGYPT: MOURAD and MALLAH (1960), TANTAWY et al. (1970). — ISRAEL: unpublished. — LEBANON: PIPKIN (1952). — CHINA: HSU (1949), PENG (1937), TAN et al. (1949). — N. KOREA: KIKAWA and PENG (1938), OKADA (1974b). — S. KOREA: CHUNG (1958, 1960a), KANG et al. (1958, 1959), KIKAWA and PENG (1933), KIM (1962), LEE (1962, 1964c, 1966b), OKADA (1956), FAIK (1958), TAKADA and LEE (1956). — JAPAN: BEPPU (1976), BEPPU and TODA (1976), HACHIYA (1954), KANRO (1960), KANRO and SHIMA (1962), KANEKO and TOKIHIRO (1969), KANEKO et al. (1966), KATO (1954), KATO and HOJI (1952, 1954), KAWAYISHI (1975), KAWAYISHI and WAKAYAMA (1977), KAWAYISHI et al. (1975), KIKAWA and PENG (1938), KWON (1976a), KIMURA and TODA (1974), KIMURA et al. (1977), KRIVSHENKO (1952), MINAMI (1979), MITSAMI et al. (1979), MOSHIMA (1954, 1957, 1965a), NOZAWA (1956), OKADA (1956, 1959, 1962, 1968a), OKADA and SASAKAWA (1956), SAITO et al. (1962), SHIMA (1960), TAKADA (1957, 1958, 1968), TAKADA and OKADA (1960), TODA (1973a, 1974, 1977), TOYOFUKU and KIMURA (1960, 1961), WAKAYAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WATABE (1979).
Recorded as virtually cosmopolitan species.

***Drosophila buzzatii* PATTERSON and WHEELER, 1942**

Other names used: *D. nigra* BUZZATI-TRAVERSO (syn.), *D. versicolor* MATHER (syn.).

General features of adults: BRUER and ROCHA (1971), BURLA (1951a), BUZZATI-TRAVERSO (1945), HACKMAN (1969a), HSU (1949), MATHER (1955), NATER (1953), PATTERSON and WHEELER (1942), WASSERMAN (1962c).

Figures: BRUER and ROCHA (1971), BUZZATI-TRAVERSO (1945), HSU (1949), MATHER (1955), NATER (1953), THROCKMORTON (1962), WASSERMAN (1962c).

Keys: BOCK (1976), BURLA (1951a), MATHER (1955), MONCLÉS (1964, 1976), PAVAN and DA CUNHA (1947), ROCHA PITÉ (1975a).

Biology: CARSON (1965, 1971), CÁRSON and WASSERMAN (1965), MATHER (1955, 1956), ORTIZ (1968), PIPKIN (1952), ROCHA PITÉ (1979).

Distribution:

ITALY: BUZZATI-TRAVERSO (1945), CÁRSON and WASSERMAN (1965), PATTERSON (1942), SPERMACH (1961), WASSERMAN (1954), WHARTON (1942). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1979). — SPAIN: HACKMAN (1969a), MONCLÉS (1964), ORTIZ (1968). — YUGOSLAVIA: unpublished. — MADAGASCAR: unpublished. — CANARY IS.: MONCLÉS (1976). — MOROCCO: PRIVOSTI (1974). — EGYPT: MOURAD and MALLAH (1960). — ISRAEL: CARSON (1965), CARSON and WASSERMAN (1965). — LEBANON: JOHNSON et al. (1966), PIPKIN (1952), THROCKMORTON (1962), WASSERMAN (1954, 1962c).

Recorded mainly in America and Australia.

***Drosophila catidata* TAKADA, TODA and BEPPU, 1979**

Other names used: *Drosophila* sp. 5.

General features of adults: TAKADA et al. (1979).

Figures: BEPPU et al. (1977), TAKADA et al. (1979).

Key: BEPPU et al. (1977).

Distribution:

JAPAN: TAKADA et al. (1979).

***Drosophila cameraria* HALIDA Y, 1933**

Other names used: *D. unistriata* STROBL (syn.), *D. latestriata* BECKER (syn.), *D. fungicola* VILLENEUVE (syn.), *D. pallida* ZÜRTNERSTEDT (insident.).

General features of adults: BASDEN (1961), BECKER (1908b), BURLA (1951a), BURLA and GLOOR (1952), CURTIS (1833), DUDA (1921, 1924c, 1927, 1935), FRYDENBERG (1956a), HACKMAN (1955), HALIDAY (1833), NATER (1953), OKADA (1956), SÉGUY (1934b), STROBL (1898a, 1900a, 1906), VILLENEUVE (1921).

Figures: CURTIS (1835), DUDA (1924a, 1935), NATER (1953), PAPP (1973).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), MONCLÉS (1964, 1976), PAPP (1973), SÉGUY (1934a, 1934b), SHORROCKS (1972), STAKELBERG (1970).

Biology: BASDEN (1952, 1954b), BONNAMOUR (1926), BURLA (1951a), BURLA and BÄCHLI (1968), BUXTON (1960), CANZANELLI (1941), CHARLESWORTH and SHORROCKS (1980), COB (1959), CURTIS (1833), DELLY-DRASKOVITS and BAROS (1976), DELLY-DRASKOVITS and PAPP (1973), FALCOZ (1924), HADORN et al. (1952), HALIDAY (1833), HERTING (1955), KÖNIG (1965), LEVER and SOBELS (1951), LINDBERG (1962), DE MELIERE (1928), ORTIZ (1968), ROCHA PITÉ (1979), ROCHA PITÉ and CHARLESWORTH (1980), SHORROCKS et al. (1979), SOBELS et al. (1954), VILLENEUVE (1921).

Distribution:

ALBANIA: DUDA (1924c, 1935). -- AUSTRIA: DUDA (1924c, 1935). -- BULGARIA: unpublished. -- CZECHOSLOVAKIA: unpublished. -- FINLAND: HACKMAN (1971), TORRE et al. (1975). -- FRANCE: BOUSSABON (1929), DUDA (1924c, 1935), FALCOZ (1924), HADORN et al. (1952), ROCHA PITE and TSACAS (1979), SÉGVY (1934b), VILEKŠEVIC (1921). -- GERMAN FEDERAL REPUBLIC: HERTING (1955), KÖNIG (1965). -- GREAT BRITAIN: BASDEN (1952, 1958, 1964b), BASDEN and GOODEY (1955), BUXTON (1960), CHARLESWORTH and SHORROCKS (1950), CURTIS (1983), FONSECA (1965), HALDAY (1833), HENDERSON (1911), SHORROCKS (1975, 1977), SHORROCKS and CHARLESWORTH (1980), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979). -- GREECE: DIS 37: 95. -- HUNGARY: DELY-DRASKOVITS and BAJOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973), SÓOS (1945). -- IRELAND: DIS 27: 81. -- ITALY: DUDA (1935), NIGRO (1979), ZANCHERI (1950, 1969). -- NETHERLANDS: LUYER and SOBELS (1951), DE MELDER (1928), SOBELS et al. (1954). -- POLAND: DUDA (1935). -- PORTUGAL: HADORN et al. (1952), LINDBERG (1962), ROCHA PITE (1972, 1975a, 1975b, 1977b, 1979), ROCHA PITE and DA COSTA NICOLAU (1978). -- ROMANIA: ARADI (1969), SÓOS (1945). -- SPAIN: BURLA and GLOOR (1952), DUDA (1935), HADORN et al. (1952), MONCLÓS (1964), ORTIZ (1968). -- SWEDEN: DUDA (1935). -- SWITZERLAND: BÄCHLI (1973a, 1973c, 1974b, 1974c, 1975a, 1975b, 1977), BURLA (1951a), BURLA and BÄCHLI (1968), NAYER (1953), SCHMID (1965). -- TURKEY: unpublished. -- USSR: HACKMAN (1957), STAKELBERG (1970). -- YUGOSLAVIA: ARADI (1959), BASDEN (1961), COE (1959), DUDA (1924c, 1935), SÓOS (1945), STROBL (1898a, 1900a). -- AZORES: unpublished. -- MADEIRA: FREY (1949). -- CANARY IS.: BECKER (1908b), DUDA (1924c, 1935), FREY (1936), MONCLÓS (1976). -- TUNISIA: unpublished. -- IRAN: unpublished.

***Drosophila cheda* TAN, HSU and SHENG, 1949**

General features of adults: HSU (1949), KANIKO et al. (1964), KANG and LEE (1961), KIM (1962), OKADA (1956, 1961b), TAN et al. (1949).

Figures: HSU (1949), KIM (1962), OKADA (1968a).

Key: LEE (1964c).

Development: OKADA (1963a, 1968a).

Distribution:

CHINA: HSU (1949), TAN et al. (1949). -- S. KOREA: CHUNG (1958), KIM (1962), LEE (1962, 1964c, 1966b), OKADA (1968a), TAKADA and LEE (1955).

***Drosophila cititarsis* HERING, 1940**

General features of adults: HERING (1940).

Figures: MORGE (1976b).

Distribution:

CHINA: HERING (1940), ROHLFSEN and EWALD (1972).

***Drosophila clarofinis* LEE, 1959**

General features of adults: BOCK and WHEELER (1972), LEE (1959, 1964a), TAKADA et al. (1979).

Figures: LEE (1959, 1964a), TAKADA et al. (1979).

Keys: BEPPU et al. (1977), LEE (1964a).

Biology: LEE (1959, 1962).

Distribution:

N. KOREA: OKADA (1974b). -- S. KOREA: LEE (1959, 1962, 1964a, 1966b). -- JAPAN: KAWANISHI et al. (1975), TAKADA et al. (1979).

***Drosophila collinella* OKADA, 1968**

Other names used: *Scaptomyza apicalis* HARDY (misident.), *Scaptomyza* sp. II, *Drosophila (Lodiphosa)* sp., *Drosophila* sp. of *fenestrarum* group.

General features of adults: KIM (1962), OKADA (1956, 1968d).

Figures: KIM (1962), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), OKADA (1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1956), OKADA and SASAKAWA (1956), SUZUKI (1955), TAKADA (1958), WAKAHAMA (1957a, 1964).

Distribution:

S. KOREA: CHUNG (1958), KANG et al. (1958, 1959), KIM (1962), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). -- JAPAN: KANIKO and SHIMA (1962), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LAŠTOVKA and MÁČA (1978), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1956, 1968a, 1968d), SUZUKI (1955), TAKADA (1958, 1968), TAKADA and OKADA (1960), WAKAHAMA (1957a, 1964, 1966), WAKAHAMA et al. (1963).

***Drosophila confusa* STAEGE, 1844**

Other names used: *D. cf. tritarsis* DUDA (SPL.), *D. priscus* BURLA (SYN.), *D. histrioides* OKADA and KUROKAWA (SYN.), *Drosophila* sp. like *histrio*, *Drosophila (Hirtodrosophila)* sp.

General features of adults: BASDEN (1961), BURLA (1951c), DUDA (1924c, 1935), FRYDENBERG (1956b), HACKMAN (1969c), KUROKAWA and HIRARA (1976), NAYER (1953), NEUBAU (1886), OKADA (1956, 1961b), OKADA and KUROKAWA (1957), SÉGVY (1934a, 1934b), STURTEWANT (1921), TAKADA (1960), ZETTERSTEDT (1847).

Figures: BEPPU et al. (1977), BURLA (1951c), DUDA (1924c, 1935), FRYDENBERG (1956b), NAYER (1953), OKADA (1956, 1968a), OKADA and KUROKAWA (1957), SÉGVY (1934b), TAKADA (1960), TROCKMORTON (1962).

Keys: BEPPU et al. (1977), DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), KANG and LEE (1964), LAŠTOVKA and MÁČA (1977), LEE (1964c), MONCLÓS (1964), OKADA (1967), PAPP (1973), SCHNER (1964), SHORROCKS (1972), SÉGVY (1934a, 1934b), TAKADA (1971).

Development: OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), BONNAMOUR (1926), BUCKTON (1960), CANZANELLI (1941), CHARLESWORTH and SHORROCKS (1956), COE (1959), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), FALCOZ (1921), FRYDENBERG (1956a), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966), KIMURA (1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MÄKA (1978), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956), SCHULZ (1912), SUGIY (1934a, 1934b, 1950), SHIMA (1960), SHORROCKS (1975), SHORROCKS and CHARLESWORTH (1959), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979), SUZUKI (1955), TAKADA (1958, 1960), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1962b, 1964), WATABE (1979).

Distribution:

AUSTRIA: SYROHL (1880, 1884), WACHTEL (1882). — CZECHOSLOVAKIA: ARADI (1959), BRANČIK (1910), ČIŽEK (1910), DUBA (1935), LAŠTOVKA and MÄKA (1977), MÄKA (1978), ROHLFEN and EWALD (1972), ŠOŠE (1945), VIMMER (1913). — DENMARK: FRYDENBERG (1956a, 1956b), STAEGER (1844), ZETTERSTEDT (1847). — FRANCE: BONNAMOUR (1926), FALCOZ (1921), HADORN et al. (1952), KUNTZE (1913), ROCHA PÉREZ and TSACAS (1979), SÉDUY (1934a, 1934b). — ? GERMAN DEMOCRATIC REPUBLIC: NEUBAU (1986), RABDATY (1873). — GERMAN FEDERAL REPUBLIC: unpublished. — GREAT BRITAIN: BUCKTON (1960), CHARLESWORTH and SHORROCKS (1959), FOSCOLO (1965), FRYDENBERG (1956b), SHORROCKS (1975, 1977), SHORROCKS and CHARLESWORTH (1980), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979), SMITH (1960), YERKURY (1913). — HUNGARY: DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973). — ? ITALY: BEZZI (1893b), CANZANELLI (1941), PALM (1869), ZANONERI (1950, 1969). — ? NETHERLANDS: DE MEIJERE (1916b, 1920). — ROMANIA: ARADI (1959), DUBA (1924c, 1935), ROHLFEN and EWALD (1972), ŠOŠE (1945). — SPAIN: HADORN et al. (1952), MONOLÉS (1964). — SWEDEN: ZETTERSTEDT (1847, 1849). — SWITZERLAND: BÄCHLI (1973a, 1973b, 1973c, 1975b, 1976), BUGLA (1951c), NATER (1953). — ? USSR: BALKASHINA and BOKACHOFF (1935), BOGRIE (1937), TROLOVA (1920). — ? YUGOSLAVIA: BARDON (1961), COE (1959), ŠTOSHL (1929a, 1960a). — N. KOREA: OKADA (1974d). — S. KOREA: CHUNG (1958), CHUNG and RHO (1959, 1960), KANG and LEE (1964), KANG et al. (1959, 1964a), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958), OKADA (1967). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KIMURA (1976a, 1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1975), SHIMA (1960), SUZUKI (1955), TAKADA (1958, 1960, 1968), TAKADA and OKADA (1960), TAKADA et al. (1953), THEROCHEKTON (1962), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1958a, 1958b), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEPPU (1977).

Comment:

Some records may refer to *D. funebris* FABRICIUS.

Drosophila coracina KIKKAWA and PENG, 1938

Other name used: *Drosophila* sp. of *melanica* group.

General features of adults: BUZZATI-TRAVERSO (1943), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), MATHER (1955), OKADA (1953b, 1956, 1959, 1961b, 1960a).

Figures: BEPPU et al. (1977), KIKKAWA and PENG (1938), KIM (1962), OKADA (1955b, 1956, 1968a).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1968), KANEKO and TOKUMITSU (1963, 1969), KATO (1954), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI et al. (1979), MOMMA (1965b), NOZAWA (1956), OKADA (1954d, 1956, 1962, 1968a), SUZUKI (1955), TAKADA (1954, 1957, 1968), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1957a, 1962b, 1964).

Distribution:

CHINA: TAN et al. (1949). — S. KOREA: CHUNG (1958, 1959, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959, 1964a), KIM (1962, 1963), LEE (1962, 1964c, 1966b), PAIK (1958), TAKADA and LEE (1956). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1960, 1968), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1968, 1969), KATO (1954), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), NOZAWA (1956), OKADA (1954d, 1956, 1959, 1962, 1966, 1968a), SHIMA (1960), SUZUKI (1955), TAKADA (1954, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1955a, 1955b), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963).
Recorded also on the Ryukyu Islands and in South Asia.

Drosophila curviceps OKADA and KUROKAWA, 1957

Other names used: *Drosophila* sp. of *immigrans* group, *D. curviceps* (lapsus).

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1953b, 1955a, 1956, 1959, 1961b), OKADA and KUROKAWA (1957), FARSHAD and DUGGAL (1966).

Figures: OKADA (1955a, 1956, 1968a), OKADA and KUROKAWA (1957), FARSHAD and DUGGAL (1966).

Keys: BEPPU et al. (1977), GUPTA and RAY-CHAUDHURI (1970), OKADA (1956).

Development: OKADA (1963a, 1968a).

Biology: KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), OKADA (1954d, 1955a, 1962), OKADA and KUROKAWA (1957), FARSHAD and DUGGAL (1966).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), OKADA (1954d, 1959, 1962, 1966b, 1968a), OKADA and KUROKAWA (1957), SAITO et al. (1962), WAKAHAMA (1962a, 1964, 1966).
Recorded also in India.

Drosophila daruma OKADA, 1956

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1956, 1961b).

Figures: BEPPU et al. (1977), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), OKADA (1956).

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Development: OKADA (1968a).

Biology: OKADA (1968a, 1971c).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: KAWANISHI and WATANABE (1977), MOMMA (1965a), OKADA (1956, 1968a), WAKABANA (1962a, 1964).

Recorded also in Southeast Asia and on the Ryukyu and Bonin Islands.

Drosophila deflexa DUDA, 1924

Other name used: *D. guenotii* BURLA (syn.).

General features of adults: BARDEN (1952, 1954b), BURLA (1948, 1951a), DUDA (1924c, 1935), HERTING (1953), HSU (1949), NATER (1953).

Figures: BURLA (1948, 1951a), DUDA (1924a, 1924c, 1935), HSU (1949), LAŠTOVKA and MÁČA (1977), NATER (1953), PAPP (1975), ROCHA PIRE (1975a), SHORROCKS (1972).

Keys: BARDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), LAŠTOVKA and MÁČA (1977), MONOLUS (1964), PAPP (1973), ROCHA PIRE (1975a), SHORROCKS (1972).

Development: BARDEN (1954a), BURLA (1951a).

Biology: BARDEN (1952, 1954b), BEGON et al. (1975), BURLA (1948, 1951a), DUDA (1935), FRYDENBERG (1956a), HADORN et al. (1952), HERTING (1953), SCHMID (1965), SHORROCKS (1975), SOBELS et al. (1954).

Distribution:

CZECHOSLOVAKIA: ARADI (1959), LAŠTOVKA and MÁČA (1977), SOGS (1945). — DENMARK: FRYDENBERG (1956a). — FINLAND: HAAKMAN (1971), LUMME et al. (1978). — FRANCE: HADORN et al. (1952), ROCHA PIRE and TSACAS (1979).

GERMAN DEMOCRATIC REPUBLIC: DUDA (1955). — GERMAN FEDERAL REPUBLIC: DUDA (1955), HERTING (1955). — GREAT BRITAIN: BARDEN (1952, 1954a, 1954b), BEGON et al. (1975), COLLIN (1911, 1932), FONSECA (1965), SHORROCKS (1975, 1977). — HUNGARY: ARADI (1959), DUDA (1935), PAPP (1973), SOGS (1945). — IRELAND: BARDEN (1952).

ITALY: NEGRO (1979). — NETHERLANDS: DUDA (1935), LEVER and SOBELS (1951), DE MEIJERE (1935), SOBELS et al. (1954). — POLAND: DUDA (1924c, 1935). — PORTUGAL: ROCHA PIRE (1972, 1975a, 1979). — SPAIN: HADORN et al. (1952), MONOLUS (1964). — SWEDEN: ROCHA PIRE and TSACAS (1980). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1975a, 1975b), BURLA (1948, 1949, 1951a, 1961), HERTING (1953), HSU (1949), NATER (1953), SCHMID (1968). — ? TURKEY: unpublished. — YUGOSLAVIA: KEKIC and MARINKOVIC (1978, 1979).

Drosophila denticeps OKADA and SASAKAWA, 1956

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1956, 1961b), OKADA and SASAKAWA (1956).

Figures: OKADA (1956), OKADA and SASAKAWA (1956).

Keys: OKADA (1956, 1967, 1971d).

Development: OKADA (1968a).

Biology: OKADA (1956), OKADA and SASAKAWA (1956).

Distribution:

JAPAN: KAWANISHI et al. (1975), OKADA (1956, 1968a, 1971d), OKADA and SASAKAWA (1956).

Drosophila elliptosa OKADA, 1974

Other name used: *D. elliptica* OKADA (syn.).

General features of adults: OKADA (1973b).

Figures: OKADA (1973b).

Distribution:

JAPAN: OKADA (1973b).

Drosophila enivae TAKADA, BEPPU and TODA, 1979

Other name used: *Drosophila* sp. 3.

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Key: BEPPU et al. (1977).

Distribution:

JAPAN: TAKADA et al. (1979).

Drosophila eskoii LAKOVAARA and LANKINEN, 1974

General features of adults: LAKOVAARA and LANKINEN (1974).

Figures: LAKOVAARA and LANKINEN (1974).

Biology: LUMME et al. (1978, 1979).

Distribution:

FINLAND: LAKOVAARA and LANKINEN (1974), LUMME et al. (1978, 1979). — NORWAY: LAKOVAARA and LANKINEN (1974). — SWEDEN: LAKOVAARA and LANKINEN (1974).

Drosophila ezovana TAKADA and OKADA, 1957

Other names used: *D. unimaculata* STROEL (misident.), *D. lakosarai*.

General features of adults: KUROKAWA (1972), KUROKAWA and HIHARA (1976), TAKADA and OKADA (1958), WATABE and HIGUCHI (1979).

Figures: BEPPU et al. (1977), KUROKAWA (1972), OKADA (1968a), TAKADA and OKADA (1958), THROCKMORTON (1962), WATABE and HIGUCHI (1979).

Keys: BEPPU et al. (1977), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976, 1979, 1980), KANEKO and TOKUMITSU (1969), KANEKO et al. (1966), KIMURA and TODA (1976), KIMURA et al. (1977), LUMME et al. (1978, 1979), MINAMI et al. (1979), TAKADA (1957, 1958), TAKADA and OKADA (1958), TAKADA and TOYOFUKU (1960), TODA (1973a, 1974), WAKAHAMA (1964).

Distribution:

FINLAND: LAKOVAARA and HACKMAN (1973), LAKOVAARA and HOIKKALA (1979), LUMME et al. (1978, 1979). — NORWAY: ROCHA PITE and TSACAS (1980). — SWEDEN: ROCHA PITE and TSACAS (1980). — JAPAN: BEPPU (1976, 1978, 1979, 1980), KANEKO (1966, 1968), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969, 1969), KANEKO et al. (1966, 1968, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), KUROKAWA (1972), LAKOVAARA and HOIKKALA (1979), MINAMI (1979), MINAMI et al. (1979), MOMMA (1965a), OKADA (1968a), SNON et al. (1960), TAKADA (1957, 1958, 1960, 1968), TAKADA and OKADA (1958), TAKADA and TOYOFUKU (1960), THEROCKMORON (1962), TODA (1973a, 1974), WAKAHAMA (1964), WAKAHAMA et al. (1963), WATABE and BEPPU (1977), WATABE and HIGUCHI (1979).

Drosophila fuscipennis OKADA, 1967

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Biology: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

Recorded also in Taiwan.

Drosophila fenestrarum FALLÉN, 1923

Other names used: *D. virginea* MEIGN (syn.), *D. fenestrarum* var. *hirsuta* DUDA.

General features of adults: BIGOT (1831), BURLA (1951a), COLLIN (1952), DUDA (1921, 1924c, 1926a, 1927, 1935), FALLÉN (1923), HACKMAN (1955), HALDAY (1933), HENNIG (1953), LAŠTOVKA and MÁČA (1978), LEE (1955), MACQUART (1835), MEIGN (1830), MONCLÉS (1964), NEURHAUS (1886), OKADA and KUROKAWA (1967), OLSENBERG (1914), PAPP (1971), SEGUÉ (1934b), STAEBER (1844), STURTEVANT (1916), WAHLGREN (1927), WALKER (1853), ZETTERSTEDT (1838, 1847).

Figures: COLLIN (1952), DUDA (1924a, 1924c, 1926a, 1935), HACKMAN (1954), LAŠTOVKA and MÁČA (1977, 1978), MOREZ (1976a, 1976c), PAPP (1973), SEGUÉ (1934b).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1926a, 1935), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), LAŠTOVKA and MÁČA (1978), PAPP (1973), RICHARDS and HEFFORD (1930), ROCHA PITE (1975a), SCHNEIDER (1864), SEGUÉ (1934a, 1934b), SHORROCKS (1972), STAKEBERG (1970), WAHLGREN (1927).

Development: HENNIG (1952), MAYER (1935), UNWIN (1907).

Biology: BASDEN (1954b, 1956), COLVER and HAMMOND (1951), FRYDENBERG (1956a), HERTING (1955), LAŠTOVKA and MÁČA (1978), MAYER (1935), NASWATY (1959), PAPP (1976), SCHATZMANN (1977), SCHMID (1968), SEGUÉ (1934b), SOBRES et al. (1954).

Distribution:

AUSTRIA: ARADI (1959), BASDEN (1961), DUDA (1924c), STROBL (1880, 1894), THALER (1977), TIEF (1888). — CYPRUS: unpublished. — CZECHOSLOVAKIA: ARADI (1959), DALA TORRE (1878), DOSKOČIL (1902), MARTINEK (1973, 1974a), LAŠTOVKA and MÁČA (1977, 1978), VIMMER (1913). — DENMARK: FRYDENBERG (1956a), STAEBER (1844), ZETTERSTEDT (1847). — FINLAND: HACKMAN (1954), LUMME et al. (1978), ZETTERSTEDT (1860). — FRANCE: KUNZE (1915), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: KARL (1936), KRÄMER (1917), LAŠTOVKA and MÁČA (1978), NEURHAUS (1886), RADJANYI (1978). — GERMAN FEDERAL REPUBLIC: BASDEN (1961), BRUTHN (1857), HERTING (1955), KRÜBER (1910, 1935), NASWATY (1959), ZETTERSTEDT (1847). — GREAT BRITAIN: ADCOCKS (1950), BASDEN (1954b), COLLIN (1952), FONSECA (1965), HENDERSON (1911), RICHARDS and HEFFORD (1930), SHORROCKS (1969), WALKER (1840, 1853), YERBERY (1913). — HUNGARY: ARADI (1959), PAPP (1973, 1976), SOÓS (1943), THALHAMMER (1890). — IRELAND: ROCHA PITE and TSACAS (1980). — ? ITALY: BREZZI (1892b), POKORSY (1887), ZANGHERI (1960, 1969). — NETHERLANDS: LEVER and SOBRES (1951), SOBRES et al. (1954). — NORWAY: BASDEN (1956). — ? POLAND: BOBEK (1930), KARL (1936), STROBL (1901). — PORTUGAL: HADORN et al. (1952), ROCHA PITE (1972, 1975a). — ROMANIA: ARADI (1959), THALHAMMER (1880, 1901). — SWEDEN: FALLÉN (1923), LAŠTOVKA and MÁČA (1978), RINGDAHL (1941), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1855). — SWITZERLAND: BIEHLI (1975a), BIEHLI (1943, 1951a), SCHATZMANN (1977), SCHMID (1968). — USSR: EVERSMANN (1834), HACKMAN (1954, 1957), STAKEBERG (1960, 1970). — YUGOSLAVIA: ARADI (1959), KERIĆ and MARINKOVIĆ (1978), STROBL (1880a, 1900a).

Recorded also in Sumatra.

Comment:

This species was often confused with *D. melanogaster* MEIGN and other species. The subspecies *hirsuta* DUDA is probably a separate species.

Drosophila fusciphila KIKKAWA and PENG, 1938

General features of adults: BOCK and WHEELER (1972), FREIER-MAJ (1949), KIKKAWA and PENG (1938), KUROKAWA and HIHARA (1976), MATHER (1955), OKADA (1963b, 1964c, 1964d, 1966, 1969, 1981b).

Figures: BOCK and WHEELER (1972), KIKKAWA and PENG (1938), OKADA (1954c, 1956, 1964, 1968a).

Keys: KIKKAWA and PENG (1938), LEE (1964a), OKADA (1956).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: KIKKAWA and PENG (1938), OKADA (1956, 1962), WAKAHAMA (1962b, 1964).

Distribution:

S. KOREA: LEE (1964a, 1966b), TAKADA and LEE (1958). — JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), KIKKAWA and PENG (1938), OKADA (1964c, 1964d, 1956, 1959, 1962, 1966b, 1968a), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966).

Recorded also in South Asia and Australia.

***Drosophila flavofasciata* TAKADA, BEPPU and TODA, 1979**

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

***Drosophila funebris* FABRICIUS, 1787**Other names used: *D. clarkii* HUTTON (syn.), *Leucophaea altinsoni* MILLER (syn.), *D. dudai* MALLOCH (syn.), *D. confusa* STÄCKER (misident.).

General features of adults: BOCK (1976), BENCIC (1957), BURELA (1951a), DUDA (1924c, 1935), DUFOUR (1845), FÄRBERG (187, 1794, 1895), FALLÉN (1823), FRYE (1954), FRYDENBERG (1956a), HALIDAY (1833), HARDY (1965), HARRISON (1952, 1959), HEGER (1955), HSU (1949), HUTTON (1901), KIKKAWA and PENG (1935), KUROWAKA and HIRAHARA (1970), LEMCHE (1949), MALLOCH (1954a), MATSUMURA (1931), MILLER (1921), NATER (1953), NETER (1953), NEUBAUER (1896), OKADA (1933b, 1935a, 1956, 1961b), OLDENBERG (1914), PATTERSON (1943), PRITTYUNTS (1955), SEGUÉ (1934a, 1934b), SMART (1943), STÄCKER (1844), STÄCKER and SPENCER (1939), STROBL (1893b, 1910), STURTEVANT (1921), TAKADA (1960b), VILLENUEVE (1921), WAHLGREN (1927), WALKER (1853), ZETTERSTEDT (1838, 1847).

Figures: BARDEN (1961), BEPPU et al. (1977), DUDA (1924a, 1924c, 1935), HEGER (1955), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KIKKAWA and PENG (1935), LEMCHE (1949), MALLOCH (1954a), MALLOCHOWICZ (1953), MATSUMURA (1931), MILLER (1921), MORGE (1976a), NATER (1953), OKADA (1935a, 1935, 1958a), PAPP (1973), PATTERSON (1943), PATTERSON and SPENCER (1939), ROCHA PIYE (1975a), SEGUÉ (1934b), SHORROCKS (1972), SMART (1943), STÄCKER (1970), STÄCKER and SPENCER (1939), STURTEVANT (1921), THORCKMORTON (1962), UNWIN (1907), WAHLGREN (1927).

Keys: BARDEN (1954b), BEPPU et al. (1977), BOCK (1976), BENCIC (1957), BURELA (1951a), DUDA (1924a, 1924c, 1927, 1935, 1940), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), HARDY (1965), HARRISON (1952, 1959), KIKKAWA and PENG (1935), LAŠTOVKA and MÄCÁ (1977), MALLOCH (1934a), MALLOCH and MCATEE (1924), MONGLIS (1964, 1976), OKADA (1956), PAPP (1973), PATTERSON (1943), RICHARDS and HERFORD (1930), ROCHA PIYE (1975a), SCHNEK (1864), SEGUÉ (1934a, 1934b), SHORROCKS (1972), STÄCKER (1970), STURTEVANT (1918, 1921), TAKADA (1971), WAHLGREN (1927), ZETTERSTEDT (1847).

Development: DUDA (1934), HEGER (1958), HENNING (1952), KAMBYSSELLIS (1968), KIKKAWA and PENG (1935), LEMCHE (1949), MAYER (1935), DE MELJERE (1916a), OKADA (1963a, 1968a), STURTEVANT (1921), UNWIN (1907).

Biology: ARADI and MIHALYI (1971), ATKINSON and SHORROCKS (1977), BARDEN (1953, 1954b, 1957a), BARDEN and HARNDEN (1956), BICKLEY (1956), BRAUER (1889), BENCIC and DOBZHANSKY (1957), BURELA (1949, 1953), BURELA and BÄCHLI (1968), BUXTON (1924, 1930), CANZANIELLA (1939, 1943), CARSON (1965), CHENYI and HAMMOND (1951), DELY-DRASKOVITS and BAROS (1970), DELY-DRASKOVITS and PAPP (1973), DOBZHANSKY (1955), DUDA (1935, 1940), FRYDENBERG (1956a), GORDON (1942), HACKMAN and MEINANDER (1979), HEGER (1958), HENNING (1952, 1953), HERTING (1955), HOWARD (1900), HUNTER et al. (1973), ISHIHARA (1955a), KANEKO (1960), KANEKO and TOKUMITSU (1969), KANEKO et al. (1966), KIKKAWA and PENG (1938), KIMURA et al. (1977), KÖNIG (1965), KRAMER (1917), KÜHLHORN (1964, 1968, 1978, 1979), LEBLERG (1946a, 1946b, 1955), LEMCHE (1949), LEVER and SOBELS (1951), LINDHÖRST et al. (1974), LUMME et al. (1979), MÄCÁ (1975), MAINX (1949), DE MELJERE (1916), MILLER (1921), MINAKI et al. (1979), MOMMA (1965b), NASAWY (1950), NETERAUS (1896), OKADA (1954d, 1956), OLDENBERG (1910), ROCHA PIYE (1972, 1979), PATTERSON (1942), PAVAN (1949), SCHUTZ (1912), RICHARDS and HERFORD (1930), ROCHA PIYE (1977), SCHMID (1968), SCHOLTZ (1849, 1869), SCHULTZ (1912), SCHUMANN (1903), SEGUÉ (1934a, 1934b, 1950, 1951), SHORROCKS (1972, 1974, 1975, 1977), SHORROCKS and WOOD (1973), SOBELS et al. (1954), STÄCKER and SPENCER (1939), STORA (1957), STURTEVANT (1919b, 1921), SUZUKI (1955), TAKADA (1954, 1957, 1958), TAKADA and TOYOFUKU (1960), TESCHNER (1959, 1962), TIMOFEEFF-RESSOVSKY (1927, 1935), TIMOFEEFF-RESSOVSKY and TIMOFEEFF-RESSOVSKY (1941b, 1941c, 1941d), UNWIN (1907), WAKAHAMA (1956b, 1957a, 1964), WEBSTER (1900), WHEELER and THORCKMORTON (1960), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: BARDEN (1961), PALM (1860), STROBL (1880, 1894, 1901), TDF (1838). — BELGIUM: LEBLERG (1916a, 1946b, 1955). — BULGARIA: CERNY (1959). — CZECHOSLOVAKIA: ARADI (1939), CZIŽEK (1860), DALLA TORRE (1873), FRISCH (1875), LAŠTOVKA and MÄCÁ (1977), MÄCÁ (1972a, 1975), MARTINEK (1973), STROBL (1901), VIMMER (1913), ZUSKA and LAŠTOVKA (1969). — DENMARK: FABRICIUS (1787), FRYDENBERG (1956a), LEMCHE (1949), TIMOFEEFF-RESSOVSKY (1935), ZETTERSTEDT (1847). — FINLAND: BARDEN (1956), FRY (1950), HACKMAN (1954, 1971), HACKMAN and MEINANDER (1979), LUMME et al. (1978, 1979), STORA (1936, 1957), ZETTERSTEDT (1860). — FRANCE: HADORN et al. (1962), LISNER (1923), ROCHA PIYE and TSACAS (1973), TIMOFEEFF-RESSOVSKY (1955). — GERMANY: DEMOCHACTI REPUBLIC: BARDEN (1961), BUZZATI et al. (1938), KRAMER (1917), NEUBAUER (1896), RADDATZ (1873), SCHUMANN (1903), TIMOFEEFF-RESSOVSKY (1935), TIMOFEEFF-RESSOVSKY and TIMOFEEFF-RESSOVSKY (1941a, 1941b, 1941c). — GERMANY FEDERAL REPUBLIC: BUCHTEN (1857), DALLA TORRE (1873), FRY (1950), HERTING (1955), KÖNIG (1965), KRÖBER (1910, 1935), KÜHLHORN (1964, 1968, 1978, 1979), NASAWY (1950), TESCHNER (1959, 1962). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), AUBICHT (1950), BASKIN (1932, 1953, 1954b, 1957a), BARDEN and GOODEY (1955), BEATTY and SIDHU (1969), BUXTON (1960), CARTER (1914), FONSECA (1965), GORDON (1942), HALIDAY (1833), HUNTER et al. (1973), PELJE (1924), RICHARDS and HERFORD (1930), SHORROCKS (1969, 1972, 1974, 1975, 1977), SMITH (1959, 1960), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1935), WALKER (1853). — GREECE: ROCHA PIYE and TSACAS (1970). — HUNGARY: ARADI (1939), ARADI and MIHALYI (1971), DELY-DRASKOVITS and BAROS (1970), DELY-DRASKOVITS and PAPP (1973), PAPP (1973, 1975, 1976), SÖCS (1943), THALHAMMER (1907), THORCKMORTON (1960), UNWIN (1907). — ITALY: BUZZI (1891, 1902a, 1902b), BUZZI and DE STEFANI-PREZ (1897), BUZZATI-TRAVERSO (1942a), CANZANIELLA (1941), LIOTY (1895), PALM (1869), PELJE (1954), TIMOFEEFF-RESSOVSKY (1935), ZANONERI (1950, 1969). — NETHERLANDS: LEVER and SOBELS (1951), DE MELJERE (1935, 1940), SOBELS et al. (1954), STURTEVANT (1921). — NORWAY: BARDEN (1956), BARDEN and HARNDEN (1956), HACKMAN (1965a), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1935), ZETTERSTEDT (1847). — POLAND: BOBBE (1890), KARI (1935), KRAMER (1874). — PORTUGAL: HADORN et al. (1952), ROCHA PIYE (1972, 1975a, 1975b, 1977, 1978). — TIMOFEEFF-RESSOVSKY (1935). — ROMANIA: ARADI (1939), SÄGER (1904), STROBL (1897), THORCKMORTON (1960), TIMOFEEFF-RESSOVSKY (1935). — ROMANIA: ARADI (1939), HADORN (1950), MONGLIS (1964), ORTIZ (1968), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1935). — SWEDEN: FALLÉN (1823), PELJE (1954), RINGDAHL (1941, 1951), TIMOFEEFF-RESSOVSKY (1935), WAHLGREN (1827), ZETTERSTEDT (1838, 1847, 1855). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1973c, 1974b, 1974c, 1974d, 1974e, 1975b, 1977, 1979), BURELA (1948, 1949, 1951a, 1961), BURELA and BÄCHLI (1968), NATER (1953), PAVAN et al. (1950), SCHMID (1968), HADORN (1950), MONGLIS (1964), ORTIZ (1968), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1935). — TURKEY: DUBININ (1946), DUBININ and ROMASCHOFF (1932), DUBININ and TINKALOV (1945, 1953), DOBZHANSKY (1955), DUBININ (1946), DUBININ and ROMASCHOFF (1932), DUBININ (1946), OKADA (1954), OKADA (1956), OKADA (1957), KIKKAWA and PENG (1935), PAPP (1973), PETRYUKA (1968), STÄCKER (1970), STÄCKER and SCHULTZ (1912), TIMOFEEFF-RESSOVSKY (1927, 1933, 1935), VESKILIN (1979).

(1966). — YUGOSLAVIA: ARADI (1959), COE (1959), KRKIĆ and MARINROVIĆ (1978, 1979), STROBL (1968a, 1969a, 1964). — AZORES: FELY (1945), H. TAKADA (1960), SÉGUIN (1939). — MADÉIRA: unpublished. — CANARY IS.: BUCKER (1968b), MONCLÚS (1976). — MOROCCO: PRYOSH (1974). — LIBYA: TIMOFEEV-KESOVSKY (1955). — EGYPT: TANAWAY and MALLAH (1961), TIMOFEEV-KESOVSKY (1955). — ISRAEL: BUXTON (1924). — LEBANON: JOHNSON et al. (1966), PIRIN (1952). — IRAN: unpublished. — MONGOLIA: HACKMAN (1968b), OKADA (1973c). — N. KOREA: OKADA (1974b). — JAPAN: ISHIHARA (1955a), KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1966, 1969), KIKKAWA and PENG (1938), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954d, 1956a, 1958, 1968a, 1968d), FUKUI (1954), SHIMA (1960), SUZUKI (1955), TAKADA (1954, 1957, 1958b, 1960, 1966), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TOYOFUKU (1957, 1958b), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1964), WAKAHAMA et al. (1963).
Recorded as virtually cosmopolitan species, but absent in the Oriental region.

Drosophila grandis KIKKAWA and PENG, 1938

General features of adults: KIKKAWA and PENG (1938), OKADA (1953a, 1956, 1961b).

Figures: KIKKAWA and PENG (1938), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), LIN and TSENG (1971), OKADA (1956).

Development: OKADA (1968a).

Biology: KIKKAWA and PENG (1938), OKADA (1956), WAKAHAMA (1962b, 1964).

Distribution: S. KOREA: KANG et al. (1959), LEE (1964b). — JAPAN: KIKKAWA and PENG (1938), OKADA (1956, 1968a), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966).
Recorded also in India.

Drosophila ganche MONCLÚS, 1976

General features of adults: MONCLÚS (1976).

Figures: MONCLÚS (1976).

Key: MONCLÚS (1976).

Biology: MONCLÚS (1976).

Distribution:

CANARY IS.: MONCLÚS (1976).

Drosophila helvetica BURLA, 1948

Other name used: *Drosophila* sp. like *helvetica*.

General features of adults: BURLA (1948, 1951a), CAIN et al. (1952), COLLIN (1952), FREIRE-MATA (1949), HSU (1949), NATER (1953), OKADA (1961b), FARSHAD and DUGGAL (1966).

Figures: BEPPU et al. (1977), BURLA (1948, 1951a), DYSON-HUDSON (1954), HSU (1949), MONCLÚS (1964), OKADA (1956, 1968a), PAPP (1973), SHORROCKS (1972), TAKADA et al. (1979).

Keys: BEPPU et al. (1977), BURLA (1951a), DYSON-HUDSON (1954), FONSECA (1965), GUPTA and RAY-CHAUDHURI (1970), MONCLÚS (1964), OKADA (1956), PAPP (1973), SHORROCKS (1972), TAKADA (1971).

Development: BURLA (1951a), OKADA (1963a, 1968a).

Biology: BURLA (1949, 1951a, 1961), BUZZATI-TRAVEZZI and SCOSSIROLI (1955), COLLIN (1952), HADORN et al. (1952), HERGEN (1965), KANEKO and TOKUMITSU (1969), KÖNIG (1965), OKADA (1956), FARSHAD and DUGGAL (1966), SCHMID (1968), SOBELS et al. (1954), TAKADA (1957), TODA (1973a, 1977).

Distribution:

AUSTRIA: BARDEN (1961). — CZECHOSLOVAKIA: unpublished. — FRANCE: HADORN et al. (1952), ROCHA PITÉ and TSACAS (1979). — GERMAN FEDERAL REPUBLIC: HERTING (1955), KÖNIG (1965). — GREAT BRITAIN: COLLIN (1952), DYSON-HUDSON (1954), FONSECA (1965), SHORROCKS (1969, 1977). — IRELAND: ROCHA PITÉ and TSACAS (1980). — ITALY: NIGRO (1970), OKADA (1968a). — NETHERLANDS: LUYER and SOBELS (1951), SOBELS et al. (1954). — SPAIN: MONCLÚS (1964). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1974b, 1974c, 1975a, 1975b), BURLA (1948, 1949, 1951a, 1951b, 1961), HSU (1949), LAKOVAARA et al. (1972c), NATER (1953), SCHMID (1968). — TURKEY: unpublished. — YUGOSLAVIA: unpublished. — IRAN: unpublished. — S. KOREA: KANG et al. (1959), LEE (1964b), PAIK (1958). — JAPAN: KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), MOMMA (1965a), OKADA (1956), TAKADA (1957, 1958, 1968), TODA (1973a, 1977), WAKAHAMA (1964).
Recorded also in India.

Drosophila heasticha PAPP, 1971

Other name used: *D. seminata* COLLIN (misident.).

General features of adults: HACKMAN (1954, 1957), LAŠTOVKA and MÁČA (1978), PAPP (1971, 1976).

Figures: HACKMAN (1954), LAŠTOVKA and MÁČA (1978), PAPP (1973).

Keys: HACKMAN (1954), LAŠTOVKA and MÁČA (1978), PAPP (1971, 1973), ŠTAKELBERG (1970).

Biology: LAŠTOVKA and MÁČA (1978), PAPP (1976).

Distribution:

HUNGARY: LAŠTOVKA and MÁČA (1978), PAPP (1971, 1973, 1976). — ROMANIA: PAPP (1971, 1973). — USSR: HACKMAN (1954, 1957), ŠTAKELBERG (1970).

Drosophila hiharai OKADA, 1967

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Biology: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

Drosophila histrio MEIGEN, 1830

Other names used: *D. polyorni* DUDA (syn.).

General features of adults: BROCKE (1903a), BURLA (1951a), BURLA and GLOOR (1952), CHUNG and RHO (1959), DUDA (1924c, 1926a, 1925), FRYDENBERG (1955), HSU (1948), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), MAQUART (1835), MEIGEN (1830), NATER (1953), NUHHAUS (1886), OKADA (1953b, 1954, 1955a, 1956, 1961b), OKADA and KUROKAWA (1957), OLDENBERG (1914), SÉGUY (1934a, 1934b), WAHLGREN (1927), ZEYHERST (1847).

Figures: BEPPU et al. (1977), BURLA (1951a), BURLA (1924a, 1924c, 1935), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), MEIGEN (1830), MONCLÉUS (1964), MORSE (1976a), NATER (1953), OKADA (1955a, 1956, 1968a), PAPP (1973), ROCHA PITE (1975a), SÉGUY (1934b), STÄLKER (1970), TAKADA (1971), WAHLGREN (1927).

Keys: BEPPU et al. (1977), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), HACKMAN (1954), KIKKAWA and PENG (1938), MEIGEN (1830), MONCLÉUS (1964), OKADA (1953), PAPP (1973), ROCHA PITE (1975a), SCHNER (1954), SÉGUY (1934a, 1934b), STÄLKER (1970), TAKADA (1971), WAHLGREN (1927).

Development: BURLA (1951a), MAYER (1935), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), BROTHEN (1887), BONNAGOUR (1929), BURLA (1949, 1951a), BURLA and BÄCHLI (1968), BIXTON (1960), MONCLÉUS (1964), OKADA (1953), PAPP (1973), DELLY-DRASKOVITS and BABOS (1974), DELLY-DRASKOVITS and PAPP (1973), FALOUS (1924), HACKMAN (1954), HADORN et al. (1952), HERING (1955), ISHIMURA (1954, 1955b), KANEKO (1960), KANEKO and TOKUMITSU (1969), KANEKO et al. (1966), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), KÖNIG (1965), KRÖBER (1910, 1935), MAYER (1935), MINAMI et al. (1979), OKADA (1954b, 1956), OLDENBERG (1914), SÉGUY (1934b, 1960), SHORROCKS (1977), SHORROCKS and WOOD (1973), SUZUKI (1955), TAKADA (1954, 1957, 1958), TAKADA and LEE (1955), TODA (1973a, 1975b, 1975c, 1974, 1977), WAKAHAMA (1957a, 1962b, 1964), WATABE (1979).

Distribution: AUSTRIA: BÄCHLI (1961), DUDA (1924c, 1935), MEIGEN (1830), PALM (1869), STROBL (1850, 1894, 1901), TIEF (1888). — CZECHOSLOVAKIA: STROBL (1961). — FINLAND: HACKMAN (1954, 1971), LUMMEK et al. (1975). — FRANCE: BONNAGOUR (1929), FALOUS (1924), HADORN et al. (1952), ROCHA PITE and TSACAS (1979), SÉGUY (1934b). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1924a, 1935), NUHHAUS (1886). — GERMAN FEDERAL REPUBLIC: BAUMANN (1887), DUDA (1924c, 1935), HERING (1955), KÖNIG (1965), KRÖBER (1910, 1935). — GREAT BRITAIN: FONSECA (1965), SHORROCKS (1977). — HUNGARY: ARADI (1958), DELLY-DRASKOVITS and BABOS (1974), DELLY-DRASKOVITS and PAPP (1973), PAPP (1973), SÓOS (1945). — ITALY: COVA (1924c, 1935). — NETHERLANDS: LEVER and SOBRIJS (1951), SOBRIJS et al. (1954). — NORWAY: ROCHA PITE and TSACAS (1980). — POLAND: DUDA (1924c, 1935), KARL (1936). — PORTUGAL: ROCHA PITE (1972, 1975a). — ROMANIA: ANATY (1959), OLDENBERG (1914), SÓOS (1945). — SPAIN: HADORN et al. (1952), MONCLÉUS (1964). — SWEDEN: WAHLGREN (1927), ZEYHERST (1847). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1973b, 1974b, 1974c, 1975a, 1975b, 1979), BURLA (1948, 1949, 1951a, 1961), BURLA and BÄCHLI (1968), HSU (1949), NATER (1953). — TURKEY: unpublished. — USSR: PROLOVA (1926), HACKMAN (1954, 1957), STÄLKER (1970). — YUGOSLAVIA: COB (1959), KIKKAWA and MARINKOVIC (1978). — ALGERIA: SÉGUY (1934b). — N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1960a), CHUNG and RHO (1959, 1960), KANO et al. (1965, 1959), KIM (1962), LEE (1962, 1964c, 1966b), PAIK (1958), TAKADA and LEE (1955). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), ISHIMURA (1955a, 1955b), KANEKO (1960, 1968), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954d, 1955a, 1956, 1962a), SHIMA (1966), SUZUKI (1955), TAKADA (1954, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TODA (1975a, 1975b, 1975c, 1974, 1977), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEPPU (1977).

Recorded also in South China.

Drosophila hydei STURTEVANT, 1921

Other names used: *D. repella* WOLLASTON (misident.), *D. setosa* DORZHANSKY and PAVAN (syn.).

General features of adults: BARDEN (1954b), BICKLEY (1956), BREUER and ROCHA (1971), BURLA (1951a), DORZHANSKY and PAVAN (1943), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KUROKAWA and HIHARA (1976), NATER (1953), OKADA (1953b, 1955a, 1956, 1959, 1961b), PATTERSON (1943), STURTEVANT (1921), WASSERMAN (1962b), WHEELER (1966b), WHEELER and TAKADA (1964).

Figures: BREUER and ROCHA (1971), BURLA (1951a), COVA GARCÍA and SUÁREZ (1962), DORZHANSKY and PAVAN (1943), HARDY (1965), HARRISON (1952, 1959), HSU (1949), HUFF (1925), NATER (1953), OKADA (1955a, 1956, 1968a), PAPP (1973), PATTERSON (1943), THORNTON (1962), WASSERMAN (1962b), WHEELER and TAKADA (1964).

Keys: BARDEN (1954b), BEPPU et al. (1977), BOCK (1976), BURLA (1951a), FONSECA (1965), FRYDENBERG (1956a), HARDY (1965), HARRISON (1952, 1959), LAŠTOVKA and MÁČA (1977), MALLOCH (1923a, 1927), MALLOCH and MCATEE (1924), MONCLÉUS (1964), OKADA (1956), PAPP (1973), PATTERSON (1943), PATTERSON and MAINLAND (1944), PAVAN and DA CUNHA (1947), RICHARDS and HEYFORD (1939), ROCHA PITE and TSACAS (1973), TAKADA (1971), WASSERMAN (1962b).

Development: HEINIG (1925), HUFF (1925), KAMYSZELLIS (1968), OKADA (1963a, 1968a).

Biology: ATKINSON and SHORROCKS (1977), BARDEN (1954b, 1957a), BICKLEY (1956), BURLA (1949, 1951a), CARSON (1955, 1971), COLLINS (1969), COLYER (1951), COVA GARCÍA and SUÁREZ (1962), FRYDENBERG (1956a), GIERER et al. (1960), HERRING (1958), HERRING (1958), HUNTER et al. (1973), KAWANISHI and WATABE (1977), KIMURA and TODA (1976), KÜHLHORN (1964, 1968, 1978, 1979), LEVER and SOBRIJS (1951), LINDNER (1928), MCCOY (1962), MATHER (1956), MINAMI et al. (1979), NOZAWA (1950), OKADA (1956, 1962), OLDROYD (1965), ORTIZ (1968), PAPP (1975, 1976), PATTERSON (1942), PATTERSON and SPONER (1952), PEPLIN (1952), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SHORROCKS et al. (1979), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: ROCHA PITE and TSACAS (1980). — BELGIUM: unpublished. — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MATINEK (1973), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a). — FINLAND: HARRIS (1974). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: unpublished. — GERMAN FEDERAL REPUBLIC: HERING (1955), KÜHLHORN (1964, 1968, 1978, 1979), LINDNER (1928). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), COLYER (1951, 1954), FONSECA (1965), HUNTER et al. (1973), RICHARDS and HEYFORD (1939), SHAW (1969), SHORROCKS (1974, 1975), SOBRIJS (1952), SOBRIJS et al. (1954), STÄLKER (1946), TAKADA (1957), WAKAHAMA (1957a, 1964), ZUSKA and LAŠTOVKA (1969).

YUGOSLAVIA: KRIEČIĆ and MARINKOVIĆ (1973, 1979), KRIEČIĆ et al. (1980), MARINKOVIĆ et al. (1980). — AZORES: HACEKMAN (1960). — MADERA: unpublished. — MOROCCO: FRYDBERG (1974). — TUNISIA: PAPP (1978). — BOYPT: TANTAWY et al. (1979). — ISRAEL: unpublished. — LEBANON: PAPP (1952). — JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1957, 1965a), NOZAWA (1956), OKADA (1955a, 1956, 1959, 1962, 1968a), TAKADA (1957), TAKADA et al. (1955), TODA (1973a), WAKAHAMA (1957a, 1964).
 Recorded as virtually cosmopolitan species.

Drosophila imaii MORIWAKI, KITAGAWA and OKADA, 1967

Other name used: *D. bifasciata* POMINI (misident.).

General features of adults: KUROKAWA and HIHARA (1976), MORIWAKI et al. (1967), TAKADA et al. (1979).

Figures: BEPPU et al. (1977), MORIWAKI et al. (1967), TAKADA et al. (1979).

Keys: BEPPU et al. (1977), TAKADA (1971).

Biology: BEPPU (1976), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI et al. (1979), TODA (1973a, 1973b, 1973c, 1974, 1977).

Distribution:

JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), KIMURA and TODA (1976), LAKOVAAK et al. (1972c), MINAMI (1979), MINAMI et al. (1979), MORIWAKI et al. (1967), OHSISHI and MORIWAKI (1968), TAKADA (1968), TODA (1973a, 1973b, 1973c, 1974, 1977), YAMAGUCHI (1973).

Drosophila immigrans STURTEVANT, 1921

Other names used: *D. browni* HUTTON (syn.), *D. cliffemur* VILLENUEVE (syn.), *D. flexipilosa* PIPEL (syn.), *D. tripunctata* LOEW (misident.).

General features of adults: BROCKH (1908b), BRNCIC (1957), BURLA (1951a), DE CASTRO (1953), CURRAN (1932), DUDA (1924c, 1926a, 1926b, 1934), HARDY (1965), HARRISON (1952, 1959), HERMING (1956), HSU (1949), HUTTON (1901), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), LEN and TING (1971), LEN and TUNG (1973), MALLOCH (1923a, 1924a), MALOGOLOWIN (1953), NATER (1953), OKADA (1953b, 1955a, 1956, 1959, 1961b), PARSHAD and DROGAL (1966), PATTERSON (1948), PENG (1937), PIPEL (1964), RINGDAHL (1948), SEGU (1934b, 1936), STURTEVANT (1921), VILLENUEVE (1925), WHEELER and TAKADA (1964).

Figures: BEPPU et al. (1977), BURLA (1951a), DUDA (1924c, 1926b, 1934), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), MALLOCH and MCATEE (1924), MALOGOLOWIN (1953), NATER (1953), OKADA (1955a, 1956, 1968a), PAPP (1973), PARSHAD and DROGAL (1966), PATTERSON (1948), PATTERSON and STONE (1952), PIPEL (1964), ROCHA PITE (1975a), SHORROCKS (1972), THORCKMORTON (1962), WHEELER and TAKADA (1964).

Keys: BARDEN (1954b), BEPPU et al. (1977), BOCK (1976), BRNCIC (1957), BRYAN (1938), BURLA (1951a), DUDA (1924a, 1924c, 1926b, 1934), RINDERLEIN (1936), FONSECA (1965), FRYDBERG (1956a), GUPTA and RAY-CHAUDHURI (1970), HACKMAN (1954), HARDY (1965), HARRISON (1952, 1959), KIKKAWA and PENG (1938), LEE (1964c), MALLOCH (1923a, 1924b, 1927), MALLOCH and MCATEE (1924), MONCLÉS (1964, 1976), OKADA (1956, 1966a), PAPP (1973), PATTERSON (1948), PATTERSON and MAINLAND (1944), PAVAN and DA CUNHA (1947), PENG (1937), RICHARDS and HERPOLD (1930), ROCHA PITE (1975a), SEGU (1934a, 1934b), SHORROCKS (1972), STURTEVANT (1921, 1927), TAKADA (1971), WHEELER and TAKADA (1964).

Development: BURLA (1951a), BRNCIC (1952), KAMBYSELLIS (1968), KIKKAWA and PENG (1938), OKADA (1963a, 1968a), PATTERSON (1948), PERL (1964).

Biology: ATKINSON and SHORROCKS (1977), RICCHI (1979), BARDEN (1952, 1954b, 1957a), BEPPU (1976), BEPPU and TODA (1976), ECKLEY (1956), BOCK (1976), BURLA (1949, 1951a, 1961), BUREGA (1976), CARSON (1965, 1971), COLLINS (1956), DROZDZANSKY and PAVAN (1950), DUDA (1934, 1940), FRYDBERG (1956a), HACHIYA (1954), HEND (1968), HENNO (1953), HIRTSBO (1955), ISHIZARA (1955a), KANEKO (1960), KANEKO and TOKUMITSU (1966, 1969), KANEKO et al. (1966), KATO (1954), KATO and HORI (1952), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), KÖNIG (1965), KÜHLBORN (1964, 1978, 1979), LEVY and SOBELS (1951), MCKENZIE and PATSONS (1974), MATHER (1956), MERESIL and HUBBOS (1953), MINAMI et al. (1979), MOMMA (1965b), NASWATY (1959), NOZAWA (1956), OKADA (1954d, 1956, 1962), PAPP (1975), PATSONS (1978), PATTERSON (1942), PEFFERSKY (1960), PIPEL (1952, 1964), PIPEL et al. (1966), RICHARDS and HERPOLD (1930), RICHARDS (1975), RICHARDS (1979), ROCHA PITE and DA COSTA NICOLAU (1978), SARATH (1974), SAITO et al. (1962), SEGU (1934b), SCHAUZMANN (1977), SHORROCKS (1972, 1974), SHORROCKS et al. (1954), SUZUKI (1955), TAKADA (1954, 1957, 1958), TAKADA and TOYOFUKU (1960), TODA (1973a, 1973b, 1973c, 1974, 1976, 1977), WAKAHAMA (1957a, 1961, 1962b, 1962c, 1964), WATANABE (1979), WHEELER and THORCKMORTON (1960), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: unpublished. — BELGIUM: unpublished. — CZECHOSLOVAKIA: MČA (1972b), ZUSKA and LAŠTOVKA (1969). — DENMARK: BARDEN (1956), FRYDBERG (1966a). — FINLAND: HACKMAN (1971). — FRANCE: BARDEN (1956), ROCHA PITE and TSACAS (1979), SEGU (1934b), VILLENUEVE (1925). — GERMANY: DEMOCRATIC REPUBLIC: unpublished. — GERMANY FEDERAL REPUBLIC: DUDA (1934), HERTING (1955), KÖNIG (1965), KRÖBER (1953), KÜHLBORN (1964, 1978, 1979), NASWATY (1959). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1954b, 1957a), BEATTY and SIDHU (1969), FONSECA (1965), RICHARDS and HERPOLD (1930), SHORROCKS (1969, 1974, 1977), SHORROCKS et al. (1979), SMITH (1980). — GREECE: DIS 37: 95. — HUNGARY: PAPP (1973, 1975). — IRELAND: unpublished. — ITALY: DUDA (1924c, 1934), MAINX (1958), NIRO (1970), SPIRIG (1961). — NETHERLANDS: LEVY and SOBELS (1951), SOBELS et al. (1954). — NORWAY: STURTEVANT (1921). — PORTUGAL: ROCHA PITE (1975, 1975a, 1975b, 1977b, 1978, 1979), ROCHA PITE and DA COSTA NICOLAU (1978). — SPAIN: HACKMAN (1968a), HUBBOS (1953), ORTEGA (1968). — SWITZERLAND: REPUBLIC: DUDA (1934). — SWITZERLAND: RICHARDS (1972b, 1972c, 1973a, 1973b, 1974, 1976, 1977a, 1977b, 1979), BURLA (1948, 1949, 1951a, 1961), DUDA (1934), HSU (1949), NATER (1953), SCHAUZMANN (1977). — TURKEY: unpublished. — USSR: DIS 11: 44. — YUGOSLAVIA: KRIEČIĆ and MARINKOVIĆ (1973, 1979), KRIEČIĆ et al. (1980). — AZORES: FREY (1945), HACKMAN (1960), SEGU (1934b, 1936). — MADERA: unpublished. — CANARY IS.: BROCKH (1908b), BURLA (1924c, 1934), FREY (1938), MONCLÉS (1976). — MOROCCO: unpublished. — TUNISIA: unpublished. — BOYPT: MOURAD and MALLAH (1960), TANTAWY et al. (1979). — ISRAEL: CARSON (1965). — LEBANON: PIPEL (1952). — CHINA: HSU (1949), KIKKAWA and PENG (1938), PENG (1937), TAY et al. (1949). — S. KOREA: CHUNG (1957), HIDEI, RICHARDS (1954), REPUBLIC (1949). — SWITZERLAND: RICHARDS (1972b, 1972c, 1973a, 1973b, 1974, 1976, 1977a, 1977b, 1979), BURLA (1948, 1949, 1951a, 1961), DUDA (1934), HSU (1949), NATER (1953), SCHAUZMANN (1977). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), HACHIYA (1954), HIRUMI (1961), ISHIZARA (1955a), KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1968, 1969), KANEKO et al. (1966, 1968), KATO (1954), KATO and HORI (1952, 1954), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976a, 1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), KUROKAWA (1967a), MINAMI (1979), MINAMI et al. (1979), MOMMA (1967, 1966a, 1966b), NOZAWA (1956), OKADA

(1954d, 1955a, 1956, 1959, 1962, 1966b, 1968a), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1952, 1954, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1957, 1958a, 1958b, 1961), TOYOFUKU and KIMURA (1960, 1961), WAKABAYAMA (1957a, 1961, 1958a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEFFU (1977), WATANABE and KAWA, YONEI (1976).
Recorded as virtually cosmopolitan species.

***Drosophila ingraca* HACKMAN (1957)**

General features of adults: HACKMAN (1957).

Figures: HACKMAN (1957), ŠTAKELBERG (1970).

Key: ŠTAKELBERG (1970).

Distribution:

USSR: HACKMAN (1957), ŠTAKELBERG (1970).

***Drosophila iri* BURLA, 1954**

General features of adults: BURLA (1954a).

Figures: BURLA (1954a).

Keys: BURLA (1954a), FONSECA (1965).

Biology: BASDEN (1957a), BURLA (1954a), LACHAISE (1975).

Distribution:

GREAT BRITAIN: BASDEN (1957a), FONSECA (1965).

Recorded mainly in the Ivory Coast.

Comment:

This species is frequently introduced by ships into British ports, but is not yet recorded there as a wild species.

***Drosophila kanekoi* WATABE and HIGUCHI, 1979**

Other name used: *Drosophila* sp. 4.

General features of adults: WATABE and HIGUCHI (1979).

Figures: BEFFU et al. (1977), WATABE and HIGUCHI (1979).

Key: BEFFU et al. (1977).

Development: WATABE and HIGUCHI (1979).

Biology: WATABE and HIGUCHI (1979).

Distribution:

JAPAN: LAKOVAARA and HOIKKALA (1979), MINAMI (1979), WATABE and HIGUCHI (1979).

***Drosophila kangii* OKADA and LEE, 1961**

General features of adults: KANG et al. (1965b), OKADA and LEE (1961).

Figures: OKADA and LEE (1961).

Keys: BEFFU et al. (1977), KANG and LEE (1964), OKADA (1967), TAKADA (1971).

Distribution:

S. KOREA: KANG and LEE (1964), LEE (1966b), OKADA and LEE (1961). — JAPAN: TAKADA (1968).

***Drosophila kikakawai* BURLA, 1954**

Other name used: *D. montium* DE MEIJERE (misident.).

General features of adults: BOCK and WHEELER (1972), BURLA (1954b), DE CASYEO (1953), DUDA (1926a), HARDY (1965), HSU (1949), KIKKAWA (1936), KIKKAWA and PENG (1938), KUROKAWA and HIRARA (1976), MALLOCH (1934b), OKADA (1953b, 1954c, 1956, 1959, 1961b), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), PAVAN and DA CUNHA (1947), TSACAS and DAVID (1977), VAIDYA and GODBOLE (1971), WATABE (1977), WHEELER and TAKADA (1964).

Figures: BOCK and WHEELER (1972), BURLA (1954b), DUDA (1926a), HARDY (1965), HSU (1949), KIKKAWA (1936), KIKKAWA and PENG (1938), LACHAISE (1976), OKADA (1953c, 1956, 1966a, 1968a), PAVAN and DA CUNHA (1947), THROCKMORTON (1962), TSACAS and BOQUET (1976), TSACAS and DAVID (1977), VAIDYA and GODBOLE (1971), WHEELER and TAKADA (1964).

Keys: DUDA (1926a), GUPTA and RAY-CHAUDHURI (1970), HARDY (1965), HARRISON (1954), KIKKAWA and PENG (1938), MALLOCH (1934b), OKADA (1956), PAVAN and DA CUNHA (1947), WHEELER and TAKADA (1964).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a), PARSHAD and PAIKA (1964).

Biology: BOCK (1976), HACHIYA (1954), HUNTER (1966), KATO and HORI (1952), KIKKAWA and PENG (1938), LACHAISE (1976), NOZAWA (1956), OKADA (1956, 1964), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), TODA (1976).

Distribution:

CHINA: HSU (1949), KIKKAWA and PENG (1938), TAN et al. (1949). — S. KOREA: KANG et al. (1958, 1959), LEE (1966b). — JAPAN: HACHIYA (1954), KATO and HORI (1952, 1954), KAWANISHI et al. (1975), KIKKAWA (1936), KIKKAWA and PENG (1938), NOZAWA (1956), OKADA (1954c, 1956, 1959, 1968a).
Recorded as pantropical species.

***Drosophila kirishimana* OKADA, 1967**

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

***Drosophila kuntzei* DUDA, 1924**

General features of adults: BURLA (1951a), BURLA and GLOOR (1952), DUDA (1924c, 1926a, 1935), HSU (1949), KUROKAWA and HIHARA (1976), NATER (1953), OKADA (1956, 1961b, 1973c).

Figures: BEPPU et al. (1977), BURLA (1951a), DUDA (1924a, 1924c, 1935), HSU (1949), NATER (1953), OKADA (1956, 1968a, 1973c), PAPP (1973), SHORROCKS (1972).

Keys: BEPPI et al. (1977), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), LEE (1961c), MONCLÚS (1964), OKADA (1956), PAPP (1973), SHORROCKS (1972), TAKADA (1971).

Development: BURLA (1951a), OKADA (1968a).

Biology: BÄCHLI (1969, 1979), BURLA (1949, 1951a, 1961), BURLA and BÄCHLI (1968), COE (1959), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), HADORN et al. (1952), HERTING (1955), KANG et al. (1960), KERKIC and MAJINKOVIC (1979), KÖNIG (1965), KÜHLHORN (1978, 1979), LEVER and SOBELS (1951), NASWATY (1959), OKADA (1956), PAPP (1976, 1979), SAITO et al. (1962), SCHAYTMANN (1977), SCHMID (1968), SHORROCKS and WOOD (1973), SOBELS et al. (1954), TAKADA (1957), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: unpublished. — BELGIUM: unpublished. — CZECHOSLOVAKIA: ARABI (1959), SOÓS (1945), ZUSKA and LAŠTOVKA (1969). — FRANCE: DUDA (1935), HADORN et al. (1952), ROCHA PITI and TSACAS (1979). — GERMANY FEDERAL REPUBLIC: DUDA (1924c, 1935), HERTING (1955), KÖNIG (1965), KÜHLHORN (1978, 1979), NASWATY (1959). — GREAT BRITAIN: FONSECA (1965), SHORROCKS (1977), SHORROCKS and WOOD (1973). — GREECE: DIS 38: 76. — HUNGARY: ARADI (1959), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), DUDA (1924, 1935), PAPP (1973, 1976), SOÓS (1945). — ITALY: NIGRO (1979). — NETHERLANDS: LEVER and SOBELS (1951), SOBELS et al. (1954). — POLAND: DUDA (1924c). — ROMANIA: ARABI (1959), SOÓS (1945). — SPAIN: HADORN et al. (1952), MONCLÚS (1964). — SWITZERLAND: BÄCHLI (1969, 1979b, 1972c, 1973a, 1974b, 1974c, 1975a, 1975b, 1979), BURLA (1948, 1949, 1951a, 1951b, 1961), BURLA and BÄCHLI (1968), HSU (1949), NATER (1953), SCHAYTMANN (1977), SCHMID (1968). — TURKEY: unpublished. — USSR: PAPP (1979). — YUGOSLAVIA: BARDEN (1961), COE (1959), KERKIC and MAJINKOVIC (1979). — MOROCCO: PREVOSTI (1974). — IRAN: unpublished. — S. KOREA: CHUNG and RHO (1959, 1960), KANG et al. (1959, 1960), LEE (1964c, 1966b). — JAPAN: KAWANISHI et al. (1975), MOMMA (1957), OKADA (1956, 1968a), SAITO et al. (1962), SHIMA (1960), TAKADA (1957), WAKAHAMA (1964).

***Drosophila kurokawai* OKADA, 1971**

General features of adults: OKADA (1971d).

Figures: OKADA (1971d).

Key: OKADA (1971d).

Distribution:

JAPAN: KAWANISHI et al. (1975), OKADA (1971d).

***Drosophila kyushuensis* TSACAS and CHASSAGNARD, 1976**

Other name used: *D. brunnei* DE MEIJERE (misident.).

General features of adults: OKADA (1968d), TSACAS and CHASSAGNARD (1976).

Figures: OKADA (1968d).

Distribution:

JAPAN: OKADA (1968d), TSACAS and CHASSAGNARD (1976).

***Drosophila laceriosa* OKADA, 1956**

Other name used: *Drosophila* sp. of *robusta* group I.

General features of adults: CHUNG and RHO (1959), KANEKO and TAKADA (1966), KIM (1962), KUROKAWA and HIHARA (1976), LIN and TING (1971), MOMMA (1956), OKADA (1953b, 1955a, 1956, 1959, 1961b), TAKADA (1959).

Figures: BEPPU et al. (1977), KIM (1962), MOMMA (1956), OKADA (1955a, 1955b, 1956, 1963a, 1968a).

Keys: BEPPI et al. (1977), GUPTA and RAY-CHAUDHURI (1970), LEE (1964c), OKADA (1955a, 1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPI (1976, 1979, 1980), BEPPI and TODA (1976), KANEKO (1960, 1968), KANEKO and TOKUMITSU (1965, 1969), KANEKO et al. (1966), KANG et al. (1960), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956, 1962), SAITO et al. (1962), SHIMA (1960), TAKADA (1957, 1958), TODA (1973a, 1973b, 1974, 1977), WAKAHAMA (1957a, 1961, 1962b, 1964), WAKAHAMA et al. (1963).

Distribution:

S. KOREA: CHUNG (1958, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959, 1960), KIM (1962), LEE (1962, 1963c, 1964b), TAKADA and LEE (1958). — JAPAN: BEPPI (1976, 1978, 1979, 1980), BEPPI and TODA (1976), KANEKO (1960, 1968), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1965, 1969), KANEKO et al. (1966, 1968, 1969), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1954, 1956, 1957, 1965a, 1965b), OKADA (1955a, 1956, 1959, 1962, 1968a), SAITO et al. (1962), SHIMA (1960), TAKADA (1957, 1958, 1959, 1960, 1968), TAKADA and OKADA (1960), TAKAHASHI and KANEKO (1969), TODA (1973a, 1973b, 1974, 1977), TOYOYUKU (1957, 1958a, 1958b), TOYOYUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963).

Recorded also in Nepal, India and Taiwan.

***Drosophila latifrontata* FROTA-PESSOA, 1945**

Other names used: *D. carinata* DUDA (syn.), *D. latifrons* DUDA (syn.), *D. latifrontata yakusensis* OKADA.

General features of adults: BÄCHLI (1974a), DUDA (1923), OKADA (1956, 1967).

Figures: BÄCHLI (1974a), DUDA (1924a), OKADA (1967).

Keys: BÄCHLI (1974a), DUDA (1924a, 1925, 1926, 1927), OKADA (1967).

Biology: OKADA (1967).

Distribution:

JAPAN: BÄCHLI (1974a), OKADA (1967).

Recorded mainly in southeast Asia.

Comment:

The subspecies *patuensis* OKADA is probably a separate species.

Drosophila latinkogovi OKADA, 1968

General features of adults: OKADA (1968d).

Figures: OKADA (1968d).

Distribution:

JAPAN: OKADA (1968d).

Drosophila lebanonensis WHEELER, 1949

Other names used: *D. lebanonensis castelsi* PIPKIN, *D. victoria* STREBYANT (misident.).

General features of adults: HSU (1949), MATHER (1955), PIPKIN (1956, 1961, 1962), WATABE (1977), WHEELER (1949a).

Figures: HSU (1949).

Key: MONCLÚS (1976).

Biology: PIPKIN (1952).

Distribution:

GRECE: ROCHA PITÉ and TSACAS (1980). — SPAIN: ROCHA PITÉ and TSACAS (1980). — CANARY IS.: MONCLÚS (1976). — ISRAEL: PIPKIN (1961, 1962). — LEBANON: PIPKIN (1952, 1956, 1962), WHEELER (1949a).

Recorded also in North America.

Drosophila limbata VON ROSER, 1840

General features of adults: BECKER (1903a), BURLA (1951a), BURLA and GLOOR (1952), DUDA (1924c, 1935), HERTING (1940), HSU (1949), NATER (1953), NIGRO (1979), VON ROSER (1840).

Figures: BURLA (1951a), DUDA (1924c), HSU (1949), NATER (1953), PAPP (1973), ŠTAKELBERG (1970).

Keys: DUDA (1924a, 1924c, 1935), BURLA (1951a), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), PAPP (1973), ŠTAKELBERG (1970).

Development: BURLA (1951a).

Biology: BURLA (1951a, 1961), BURLA and BÄCHLI (1968), FRYDENBERG (1956b), HERTING (1955), HUMMEL et al. (1979), KÜHLHORN (1978, 1979), LEVER and SOBELS (1951), NASWATY (1959), PAPP (1979), SCHATZMANN (1977), SOBELS et al. (1954).

Distribution:

AUSTRIA: BASDEN (1961), DUDA (1924c, 1935), THALER (1977). — BELGIUM: unpublished. — CZECHOSLOVAKIA: ARADI (1959), SOCS (1945). — DENMARK: FRYDENBERG (1906a). — FINLAND: HACKMAN (1954, 1971). — FRANCE: DUDA (1935), HADORN et al. (1952), ROCHA PITÉ and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1955). — GERMAN FEDERAL REPUBLIC: DUDA (1935), HERTING (1955), KÜHLHORN (1978, 1979), NASWATY (1959), VON ROSER (1840). — GREAT BRITAIN: FONSECA (1965), SHORROCKS (1972). — HUNGARY: ARADI (1959), DUDA (1924c, 1935), PAPP (1973), SOCS (1945). — ITALY: NIGRO (1979), ZANONERI (1969). — NETHERLANDS: HUMMEL et al. (1979), LEVER and SOBELS (1951), SOBELS et al. (1954). — POLAND: DUDA (1924c, 1935). — ROMANIA: ARADI (1959), SOCS (1945). — SPAIN: HADORN et al. (1952). — SWEDEN: unpublished. — SWITZERLAND: BÄCHLI (1972b, 1972c, 1975a, 1975b, 1974b, 1974c, 1975a, 1975b), BURLA (1948, 1951a, 1951b, 1961), BURLA and BÄCHLI (1968), HSU (1949), NATER (1953), SCHATZMANN (1977). — USSR: ARADI (1959), DUDA (1924c, 1935), HACKMAN (1957), SOCS (1945), PAPP (1979), ŠTAKELBERG (1970). — YUGOSLAVIA: ARADI (1959), KRIC and MARINOVIC (1979), SOCS (1945). — JAPAN: TAKADA et al. (1979).

Drosophila littoralis MEIGEN, 1830

Other names used: *D. parenti* VILLENUEVE (SYD.), *D. lugubris* DUDA (SYD.), *D. imerensis* SOKOLOV (SYD.).

General features of adults: BURLA (1951a), DUDA (1924c, 1935), HACKMAN (1969c, 1972), HSU (1949), LAKOVAARA and HACKMAN (1973), MACQUART (1835), MEIGEN (1830), NATER (1953), OKADA (1961b), PATTERSON (1952), SOKOLOV (1948), TAKADA and OKADA (1958), VILLENUEVE (1921), WATABE and HIGUCHI (1979), ZETTERSTEDT (1835).

Figures: BURLA (1951a), DUDA (1924a, 1935), HACKMAN (1972), HSU (1949), KUROKAWA (1972), MORGE (1976c), NATER (1953), PAPP (1973), ROCHA PITÉ (1975a), SHORROCKS (1972), TAKADA and OKADA (1958), THEOCKOROTOS (1962), WATABE and HIGUCHI (1979).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), PAPP (1973), ROCHA PITÉ (1975a), SHORROCKS (1972), ŠTAKELBERG (1970).

Development: BURLA (1951a).

Biology: BASDEN (1954b), BASDEN and HARNDEN (1956), BURLA (1949, 1951a), COE (1959), FREY (1932), FRYDENBERG (1956b), HACKMAN (1954), HERTING (1955), KÜHLHORN (1978), LAKOVAARA et al. (1972b), LEVER and SOBELS (1951), LUMME et al. (1978, 1979), NASWATY (1959), SOBELS et al. (1954), SPIETH (1979), STORÅ (1957), ŽUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: BASDEN (1961), PATTERSON (1952). — CZECHOSLOVAKIA: ŽUSKA and LAŠTOVKA (1969). — DENMARK: FRYDENBERG (1906a). — FINLAND: BASDEN (1955), DUDA (1935), FREY (1929, 1932), HACKMAN (1954, 1971), LAKOVAARA and HOKKALA (1979), LAKOVAARA et al. (1972b, 1973), LUMME and OIKARINEN (1977), LUMME et al. (1972, 1974, 1975, 1978, 1979), STORÅ (1956, 1957). — FRANCE: DUDA (1935), HADORN et al. (1952), PATTERSON (1952), ROCHA PITÉ and TSACAS (1979), VILLENUEVE (1921). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1924c, 1935). — GERMAN FEDERAL REPUBLIC: HERTING (1955), KÜHLHORN (1978), NASWATY (1959), VON ROSER (1840). — GREAT BRITAIN: BASDEN (1954b), FONSECA (1962), SHORROCKS (1972, 1977), WALKER (1858). — HUNGARY: PAPP (1973), THALHAMMER (1899). — IRELAND: ROCHA PITÉ and TSACAS (1980). — ITALY: PATTERSON (1952). — NETHERLANDS: LEVER and SOBELS (1951), DE MELJER (1928), SOBELS et al. (1954). — NORWAY: BASDEN and HARNDEN (1956). — POLAND:

DUDA (1924c, 1935), KARL (1936). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a). — ROMANIA: ARABE (1959), LAKOVAARA and HOIKKALA (1979), PAPP (1973). — SPAIN: HADORN et al. (1952). — SWEDEN: DUDA (1935), LAKOVAARA and HOIKKALA (1979), LAKOVAARA et al. (1972b). — SWITZERLAND: BACHLI (1972b, 1972c, 1973a, 1973b, 1977), BUELA (1948, 1949, 1951a, 1951b), CLAYTON and WARD (1954), HEU (1949), JOHNSON et al. (1966), LAKOVAARA and HOIKKALA (1979), LAKOVAARA et al. (1973), LUMME and OIKARINEN (1977), LUMME et al. (1972, 1974, 1975), NÄTHER (1953), PATTERSON (1952), PATTERSON and STONE (1952), THROCKMORTON (1962). — TURKEY: unpublished. — USSR: BARDEN (1956, 1961), DUDA (1935), HACKMAN (1957), LAKOVAARA and HOIKKALA (1979), LUMME and OIKARINEN (1977), SOLOV'OV (1948), STAKELBERG (1950, 1970). — YUGOSLAVIA: COX (1959), KEKIĆ and MARINČIĆ (1979). — AZORES: ERBY (1945). — IRAN: unpublished.

Comment:
Some records may refer to other species.

Drosophila lummei HACKMAN, 1972

General features of adults: HACKMAN (1972), LAKOVAARA and HACKMAN (1973), WATABE and HIGUCHI (1979).

Figures: HACKMAN (1972), LAKOVAARA and HACKMAN (1973), WATABE and HIGUCHI (1979).

Biology: LUMME et al. (1978), SPIETH (1979).

Distribution:
CZECHOSLOVAKIA: unpublished. — FINLAND: HACKMAN (1972), LAKOVAARA and HOIKKALA (1979), LUMME et al. (1978, 1979). — NORWAY: ROCHA PITÉ and TSACAS (1980). — SWEDEN: HACKMAN (1972), LAKOVAARA and HOIKKALA (1979). — USSR: HACKMAN (1972). — JAPAN: WATABE and HIGUCHI (1979).

Drosophila tundstroemi DUDA, 1935

Other names used: *D. oldenbergi* DUDA (misident.), *D. rufipes* (misident.).

General features of adults: BACHLI (1972a), BARDEN (1961), DUDA (1935), HACKMAN (1965a).

Figures: BARDEN (1961), HACKMAN (1957, 1965a), PAPP (1973), STAKELBERG (1970).

Keys: HACKMAN (1954), OKADA (1967), PAPP (1973), STAKELBERG (1970).

Biology: DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973).

Distribution:

AUSTRIA: BARDEN (1961), SYROBE (1964). — FINLAND: DUDA (1935), HACKMAN (1954, 1965a), LUMME et al. (1979). — HUNGARY: BACHLI (1972a), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973). — ROMANIA: BACHLI (1972a), PAPP (1973). — USSR: HACKMAN (1957, 1965a), STAKELBERG (1970).

Drosophila lutescens OKADA, 1975

Other names used: *D. isocola* OKADA (syn.), *D. lutescens* KIKKAWA and PENG (syn.).

General features of adults: BOCK and WHEELER (1972), FRERIK-MALA (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), MATHER (1955, 1957), OKADA (1953a, 1954c, 1954d, 1955c, 1956, 1959, 1961b), FARSHAD and PAIKA (1964).

Figures: BEPPU et al. (1977), BOCK and WHEELER (1972), KIKKAWA and PENG (1938), KIM (1962), OKADA (1954c, 1955c, 1956, 1968a).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), LEE (1964a), OKADA (1956), TAKADA (1971).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1960), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1960), KATO (1954), KATO and HORI (1952), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA et al. (1977), MINAMI et al. (1979), NOZAWA (1956), OKADA (1954d, 1956, 1962), SAITO et al. (1962), SUZUKI (1955), TAKADA (1954, 1957, 1958), TAKADA and TOYOYUKU (1960), TODA (1975a, 1975b, 1974, 1977), WAKAHAMA (1957a, 1961, 1962b, 1962c, 1964).

Distribution:

S. KOREA: CHUNG (1960a), KANG et al. (1958, 1959), KIM (1962, 1963), LEE (1962, 1964c, 1966b), PARK (1963), TAKADA and LEE (1956). — JAPAN: BEPPU (1976), BEPPU and TODA (1976), FUKATAMI (1975), ISHIHARA (1955a), KANEKO (1960, 1968), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KATO (1954), KATO and HORI (1952, 1954), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976a, 1976b), KIMURA et al. (1977), KUROKAWA (1967a), MINAMI et al. (1979), MOHMA (1957, 1965a, 1965b), NOZAWA (1956), OKADA (1954c, 1954d, 1956, 1959, 1961b, 1962, 1966b, 1968a), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1954, 1957, 1958, 1968), TAKADA and OKADA (1960), TAKADA et al. (1953), TODA (1973a, 1973b, 1974, 1977), TOYOYUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1961, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATANABE and KAWANISHI (1976).

Drosophila macromaculata KANG and LEE, 1961

General features of adults: KANG and LEE (1961).

Figures: KANG and LEE (1961).

Keys: BEPPU et al. (1977), KANG and LEE (1964), OKADA (1967).

Biology: KANG and LEE (1961), MINAMI et al. (1979).

Distribution:

S. KOREA: KANG and LEE (1961, 1964), LEE (1966b). — JAPAN: MINAMI et al. (1979).

Drosophila maculnotata OKADA, 1956

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1956, 1961b).

Figures: OKADA (1956, 1968a).

Key: OKADA (1956).

Development: OKADA (1963a, 1968a).

Biology: OKADA (1956, 1968a).

Distribution:

JAPAN: KAWANISHI et al. (1975), OKADA (1956, 1968a).

***Drosophila magnipectinata* OKADA, 1956**

Other names used: *D. megalypetinata*, *Drosophila* sp. from Sapporo.

General features of adults: BOCK and WHEELER (1972), KIM (1962), LEE (1959), OKADA (1954c, 1955b, 1956, 1961b), TAKADA and OKADA (1960).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1954c, 1955b).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1954c, 1956), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956), SUZUKI (1955), TAKADA (1957), WAKAHAMA (1957a, 1964).

Distribution:

S. KOREA: KANO et al. (1959), KIM (1962), LEE (1964c, 1966b). — JAPAN: KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954c, 1956), SUZUKI (1955), TAKADA (1957, 1968), WAKAHAMA (1957a, 1964), WAKAHAMA et al. (1963).

***Drosophila makinoi* OKADA, 1956**

Other names used: *Drosophila* sp. like *pallida*, *D. cameraria* HALIDAY (misident.).

General features of adults: KIM (1962), KUROKAWA and HILARA (1976), OKADA (1956, 1961b).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1956).

Keys: BEPPU et al. (1977), OKADA (1956), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), OKADA (1954d, 1956), TAKADA (1957, 1958), TODA (1977).

Distribution:

S. KOREA: KIM (1962), LEE (1966b). — JAPAN: BEPPU (1978), KANEKO and TOKUMITSU (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MOMMA (1957), OKADA (1954b, 1956), TAKADA (1957, 1958), TODA (1977), WAKAHAMA (1964).

***Drosophila mediohispidata* OKADA, 1967**

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Biology: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

***Drosophila melanogaster* MËRIGEN, 1830**

Other names used: *D. fasciata* MËRIGEN (syn.), *D. nigricincta* MACQUART (syn.), *D. approximata* ZETTERSTEDT (syn.), *D. ampelophilis* LOEW (syn.), *D. ustera* RONDANI (syn.), *D. pilosula* BECKER (syn.), *D. fenestrarum* FALLËN (misident.).

General features of adults: AUSTROPHOF (1959), AUSTEN (1905), BAIKATI (1967, 1968), BECKER (1903b, 1903b), BIGOT (1881), BOCK (1977), BOCK and WHEELER (1972), BOERSIGER (1974), BOHART and GRESSITT (1951), BRNËC (1957), BURLA (1951a, 1954a), COCKRELL (1923), CURRAN (1932), DAVID (1974), DAVID and BOUQUET (1972), DAVID et al. (1974), DELCOURT (1909), DUDA (1924c, 1934, 1935), FRIEHE-MAIA (1949), FREY (1921), GALLO (1973), GLEICHAUF (1936), GUGGENHEIM et al. (1975), HALIDAY (1833), HANNAH-ALAVA (1958), HARRISON (1952, 1959), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HILARA (1976), LIN et al. (1973), LINTNER (1882), LOEW (1862), MACQUART (1842), MAINX (1949), MALCOOLOWEN (1948), MËRIGEN (1830), DE MËLIERIS (1911a), NATER (1953), NEUHAIN (1886), OKADA (1955, 1964a, 1954c, 1954d, 1956, 1965, 1969), PARSHAD and DUGGAL (1966), PARSHAD et al. (1964), PATTERSON (1943), PENG (1957), PERUTTI (1955), RAY-CHAUDHURI and MUKHERJEE (1941), RILEY (1919), RONDANI (1875, 1876), SALLES (1948), SËGUY (1934a, 1954b), SOKOLOV (1948), STURTEVANT (1916, 1919a, 1921, 1929), TAKADA (1952, 1966b), TSACAS (1945), TSACAS and BOUQUET (1976), TSACAS et al. (1971), VAIDYA and GODDOL (1971), VILKESRUVE (1911), WAHLGREN (1927), WHEELER (1960b), ZETTERSTEDT (1847).

Figures: BAIKATI (1967, 1968), BANKS (1912), BEPPU et al. (1977), BOCK and WHEELER (1979), BOERSIGER (1974), BURLA (1951a), COVA GARCIA and SCARZ (1962), DUDA (1924a, 1924c, 1935), FREY (1921), GLEICHAUF (1936), GUGGENHEIM et al. (1975), GURNEY (1912), HANNAH-ALAVA (1958), HARDY (1905), HARRISON (1952, 1959), HSU (1949), KÄHLIN (1915), KIKKAWA and PENG (1938), KIM (1962), LACHAISE (1976), LASTOVKA and MÄCA (1977), LINTNER (1882), MAINX (1949), MARTELLI (1910), MAYER (1935), MONCLÉS (1964), MORGE (1976a, 1976c), OKADA (1954c, 1956, 1968a), PAPP (1973), PARSHAD et al. (1964), PATTERSON (1943), SHORROCKS (1972), SHORROCKS (1972), SMART (1917), SNEAT (1937), STURTEVANT (1921), THORCKORNY (1962), TSACAS et al. (1971), VAIDYA and GODDOL (1971), ZIMM (1948).

Keys: BASDEN (1954b), BEPPU et al. (1977), BOCK (1976), BOHART and GRESSITT (1951), BRNËC (1957), BRYAN (1938), BURLA (1951a), DUDA (1924a, 1924c, 1926, 1926, 1927, 1935, 1949), FOSBERG (1965), FRYDENBERG (1956a), GREGOR (1961), GUPTA and RAY-CHAUDHURI (1970), HACKMAN (1954), HARDY (1905), HARRISON (1952, 1954, 1959), KIKKAWA and PENG (1938), LASTOVKA and MÄCA (1977), LEE (1964c), MALLOCH (1925a, 1927, 1934b, 1934c), MALLOCH and MCATER (1924), MONCLÉS (1964, 1976), OKADA (1956, 1966a), PAPP (1973), PATTERSON (1943), PATTERSON and MAINLAND (1944), PENG (1937), RICHARDS and HERFORD (1930), ROCHA PITTÉ (1975a), SCHNER (1864), SËGUY (1934a, 1934b), SHORROCKS (1972), STÄCKELBERG (1970), STURTEVANT (1921, 1942), TAKADA (1971), WAHLGREN (1927), ZIMM (1948).

Development: BANKS (1912), BASDEN (1954a), BURLA (1951), BUZZATI-TRAVINCO et al. (1988), DUDA (1949), GURNEY (1912), HENNING (1952), KÄHLIN (1915), KLUG et al. (1974), MAINX (1949), MARTELLI (1910), MAVRIS (1935), OKADA (1963a, 1968a), PARSHAD et al. (1964), PATTERSON (1943), PERUTTI (1955), RILEY (1919), SMART (1943), TSACAS (1975), WATARE (1979), ZIMM (1948).

Biology: ATKINSON and SHORROCKS (1977), AUSTEN (1905), BASDEN (1952, 1954b, 1957a), BEPPU (1976), BICKLEY (1956), BIGOT (1881), BOCK (1977b), BOHART and GRESSITT (1951), BURLA (1949, 1951a, 1954a), BURGA (1976), BURGA and OLEMO (1971), CANZANELLI (1941), CARSON (1966, 1971), COLLINS (1956), COLYER and HAMMOND (1951), COVA GARCIA and SCARZ (1962), DAVID (1971), DE COUSSEY (1925), DUDA (1934), FREY (1936, 1954), FRYDENBERG (1956a), GOLD-SCHMIDT (1956b), GRISWOLD (1956), GURNEY (1912), GUYER et al. (1956), HADORN et al. (1952), HARRISON et al. (1954), HEID (1956), HENNING (1950, 1953), HERTING (1955), HOENIGSBERG and LIN (1977), HOWARD (1900), HUNTER (1966), HUNTER et al. (1973), JUNGLEN (1968a), KANEKO (1960), KANEKO et al. (1966), KAWANISHI and WATANABE (1977), KRECI

and MARINKOVIĆ (1979), KIKAWA and PENG (1938), KIMURA and TODA (1976), KIMURA et al. (1977), KÖNIG (1965), KÜHLHORN (1964, 1968, 1978, 1979), LACHAISE (1971), 1975, 1976), LEE (1962), LYMER and SOBLES (1951), LINDNER (1882), MÁČA (1975), McCOY (1962), McKENZIE and PARSONS (1974), MAINX (1949), MALLOCH (1938), MALLOCH and McATEE (1952), MARVELLI (1910), MARTINZIC et al. (1965), MASON (1956), MATHER (1958), MAYNE (1935), DE MELIERE (1948), MELICHAMP (1961), MICHELETTI (1910), OKADA (1956, 1962), OLDROYD (1965), ORTIZ (1968), PAPP (1975), PARIKH and DUGGAL (1966), PARIKH and FAIRA (1964), PARIKH et al. (1964), PARSONS (1970), PATTERSON and BROWN (1958), PAVAN et al. (1960), PÉREZ (1976), PICARD (1919), PIPKIN (1952, 1965), PIPKIN et al. (1966), REAL and REAL (1949), RICHARDS and HERFORD (1950), RILEY (1919), ROCHA PITÉ (1972, 1975a, 1977b, 1978, 1979), ROCHA PITÉ and DA COSTA NICOLAU (1976), RONDANI (1875), SALATH (1974), SATTO et al. (1962), SAKIMURA and LINFOR (1940), SCHATZMAN (1977), SCHILLER (1919), SÉGUY (1954a, 1954b, 1956, 1957), SERGENT and KOGGHEUR (1924, 1928a, 1928b), SHORROCKS (1974, 1975, 1977), SHORROCKS and WOOD (1978), SHORROCKS et al. (1979), SOBLES et al. (1954), SPENCER (1950), STALKER (1945), STOLÁ (1957), STURTEVANT and YAKUDA (1944, 1941b, 1941c), TODA (1973a, 1974, 1976, 1977), UNWIN (1907), WAKAHAMA (1957a, 1961, 1962b, 1964), WATABE (1979), WATANABE and KAWANISHI (1976), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRALIA: ASHBURNER and LEMUNIER (1976), KUNZE-MÜLLER et al. (1958), MERIGN (1930), MELICHAMP (1901), STROBL (1880, 1894), TIEP (1888). — CZECHOSLOVAKIA: ARADI (1950), ASHBURNER and LEMUNIER (1976), BRASČIŠK (1910), ČIŽEK (1910), DOŠKOČIL (1962), DOŠKOČIL and HŮRKA (1962), LAŠTOVKA and MÁČA (1975), MÁČA (1972b, 1975), MARTINEK (1972, 1974b), SCHŮRAVÝ et al. (1959), STROBL (1901), VIMMER (1913), ZUSKA and LAŠTOVKA (1969). — DENMARK: FRYDENBERG (1956a). — FINLAND: ASHBURNER and LEMUNIER (1976), FREY (1917, 1918, 1921), HACKMAN (1954, 1969, 1971), LUNME et al. (1978), SOGÅR (1957). — FRANCE: ASHBURNER and LEMUNIER (1976), BÉROT (1881), DASTO (1969), DAVID LUNME and BOUQUET (1954), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1940), WALKER (1949). — GERMANY: DEMOCRATIC REPUBLIC: ROZANT-TRAVERSO et al. (1935), HENNIG (1950), KRAMER (1917), NEUBAU (1886), RADDATZ (1873), TIMOFEEFF-RESSOVSKY and TIMOFEEFF-RESSOVSKY (1941a, 1941b, 1941c). — GERMANY FEDERAL REPUBLIC: BAUMANN (1977), HEITING (1955), KÖNIG (1965), KRÖBE (1916, 1935), KÜHLHORN (1944, 1968, 1978, 1979), MERIGN (1890), NASWATY (1959). — GREAT BRITAIN: ASHBURNER and LEMUNIER (1976), ATKINSON and SHORROCKS (1977), AUBICENT (1950), AUSTERN (1965), BASDEN (1962, 1954b, 1957a), BEARDMORE (1978), BONDIANT (1875, 1966), SILVERSTEIN (1917), SMITH (1973), HALDANE (1924), RICHARDS and HERFORD (1950), SHORROCKS (1969, 1972, 1974, 1975, 1977), SHORROCKS and WOOD (1978), SHORROCKS et al. (1979), SMITH (1959, 1960), TANTAWY and EL-HELW (1970), TIMOFEEFF-RESSOVSKY (1940), WALKER (1949). — GREECE: ASHBURNER and LEMUNIER (1976), BEARDMORE (1976), FENTOS-DAPONTE (1964), TRIANTAFYLIDIS (1978). — HUNGARY: ARADI (1950), ASHBURNER and LEMUNIER (1976), PAPP (1973, 1975), SOGÅR (1943), THELHAMMER (1899). — IRELAND: BASDEN (1952). — ITALY: ASHBURNER and LEMUNIER (1976), BASDEN (1961), BEZZI (1891, 1892a, 1892b, 1895), BEZZI and DE STEFANI-PÉREZ (1897), KARLIK and SPILLICH (1902), KUNZE-MÜLLER and SPILLICH (1962), MAINX (1958), MASING (1927), NIGRO (1970), POKOENY (187), RONDANI (1875, 1966), SILVERSTEIN (1917), SERGENT (1961), STURTEVANT (1921), ZANGHERI (1950, 1969). — NETHERLANDS: BEARDMORE (1978), EISSES et al. (1979), LEVY and SOBLES (1951), DE MELIERE (1907, 1928, 1935, 1946), SOBLES et al. (1954), STURTEVANT (1921). — POLAND: BOEK (1890), KARL (1936). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1975b, 1977b, 1978, 1979), ROCHA PITÉ and DA COSTA NICOLAU (1978). — ROMANIA: ARADI (1950), THELHAMMER (1899). — SPAIN: ASHBURNER and LEMUNIER (1976), FRAUENFELD (1867), HACKMAN (1969a), HADORN et al. (1952), MONCLUS (1964), ORTIZ (1968), STROBL (1906), STURTEVANT (1921), TIMOFEEFF-RESSOVSKY (1940). — SWEDEN: WALGREN (1921), WESTERSTRÖM (1847). — SWITZERLAND: BACHLI (1972b, 1972c, 1973a, 1974b, 1974c, 1975a, 1975b, 1975c, 1976), BÜLLER (1948, 1949, 1950a), NÄTER (1935), SCHÄFFNER (1977). — TURKEY: ASHBURNER and LEMUNIER (1976), BEARDMORE (1978), LOREN (1954). — USSR: ASHBURNER and LEMUNIER (1976), BUZATI-TRAVERSO et al. (1935), DUBENI et al. (1934, 1937a, 1937b), FROLOVA (1928), GROSSMAN and KORNENVA (1970), HACKMAN (1957), MASING (1927), NARODITSKYA (1941), PETROVA (1968), PLUS et al. (1975), STAKELBERG (1970), TIMOFEEFF-RESSOVSKY (1932, 1933, 1940), ZELJIN (1941). — YUGOSLAVIA: BASDEN (1961), KEKIĆ and MARINKOVIĆ (1978, 1979), KEKIĆ et al. (1980), MARINKOVIĆ et al. (1980), STROBL (1888a, 1900a, 1904). — AZORES: FREY (1914), SÉGUY (1936). — MADEIRA: BEARDMORE (1973), FREY (1934). — MOROCCO: ASHBURNER and LEMUNIER (1976), PLUS et al. (1975), PRIVOST (1974), SÉGUY (1934b). — ALGERIA: FREY (1934a). — BOYPT: ASHBURNER and LEMUNIER (1976), BEARDMORE (1978), BRECKER (1908b), KRISHIN (1961), TANTAWY (1964), TANTAWY and EL-HELW (1970), TANTAWY and MALLAH (1961), TANTAWY et al. (1970). — ISRAEL: ASHBURNER and LEMUNIER (1971), BASDEN (1966), EISSES et al. (1979), GOLDSCHMIDT (1951, 1956b), GOLDSCHMIDT et al. (1955). — LIBANON: ASHBURNER and LEMUNIER (1976), KRISHIN (1961), PIPKIN (1952), TANTAWY and MALLAH (1961). — IRAN: ASHBURNER and LEMUNIER (1976). — AFGHANISTAN: HACKMAN (1969b). — CHINA: HSU (1949), KIKAWA and PENG (1938), PENG (1957), OKADA (1974b). — MONGOLIA: HACKMAN (1968), OKADA (1975c). — N. KOREA: KIKAWA and PENG (1938), PAPP (1937), TAN et al. (1949). — S. KOREA: ASHBURNER and LEMUNIER (1976), CHUNG (1958, 1960), CHUNG and RHO (1959), KANG et al. (1958, 1959, 1964, 1964b), KIKAWA and PENG (1938), KIM (1962, 1963), LEE (1962, 1964c, 1966b), PAIK (1958, 1960), TAKADA and LEE (1958), YANG and YOON (1962). — JAPAN: ASHBURNER and LEMUNIER (1976), BEPPU (1976), KANEKO (1960), KANEKO et al. (1966), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKAWA and PENG (1938), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MIYAKI et al. (1979), MIYAMOTO and AZUMA (1962), MOMMA (1957, 1965a), NOZAKA (1956), OKADA (1954c, 1954d, 1956, 1957, 1962, 1966b, 1968a), PLUS et al. (1975), SATO et al. (1962), TAKADA (1952, 1954, 1957, 1968), TAKADA and TOYOFUKU (1960), TAKEDA et al. (1965), TAKAHASHI and KANEKO (1960), TANTAWY and EL HELW (1970), TODA (1973a, 1974, 1977), TOYOFUKU (1957), WAKAHAMA (1956b, 1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WATABE (1979), WATANABE and KAWANISHI (1976).

Recorded as virtually cosmopolitan species.

Comments:

There is an immense literature about this species and our collection of references is far from being complete. Some records may refer to other *Drosophila* species, especially to *D. simulans* STURTEVANT.

Drosophila mercatorum PATTERSON and WHEELER, 1942

Other names used: *D. carinata* GRIMSHAW (syn.), *D. pavarepleta* DOBZHANSKY and PAVAN (syn.), *D. pattersoni*, *D. mulderi*.

General features of adults: DE BARROS (1950), BRUNER and ROCHA (1971), BRNČIĆ (1957), DOBZHANSKY and PAVAN (1943), GRIMSHAW (1961), HARDY (1965), HSU (1949), KUROGAWA and HIHARA (1970), NÄTER (1953), PATTERSON (1943), PATTERSON and WHEELER (1942), WASSERMAN (1962a).

Figures: BRUNER and ROCHA (1971), COVA GARCÍA and SÁIZ (1962), DOBZHANSKY and PAVAN (1943), GRIMSHAW (1961), HARDY (1965), HSU (1949), NÄTER (1953), PATTERSON (1943), THROCKMORTON (1962), WASSERMAN (1962a).

Keys: BRNČIĆ (1957), DOBZHANSKY and PAVAN (1943), GRIMSHAW (1961), HARDY (1965), MONCLUS (1964, 1976), PATTERSON (1943), PATTERSON and MAINLAND (1944), PAVAN and DA CUNHA (1947), ROCHA PITÉ (1975a), STURTEVANT (1942).

Development: HENNIG (1952), PATTERSON (1943).
 Biology: CARSON (1965), COVA GARCÍA and SUÁREZ (1962), HRED (1968).
 Distribution:
 PORTUGAL: ROCHA PITTÉ (1972, 1975a). — SPAIN: MONCLÚS (1964), ORTIZ (1968). — MADEIRA: unpublished. —
 CANARY IS.: MONCLÚS (1976). — MOROCCO: PRÉVOSTI (1974).
 Recorded mainly in America and Hawaii.

Drosophila metakuntzei OKADA, 1973

General features of adults: OKADA (1973c).

Figures: OKADA (1973c).

Distribution:

MONGOLIA: OKADA (1973c).

Drosophila miki DUDA, 1924

General features of adults: DUDA (1924c, 1935), LAŠTOVKA and MÁČA (1978).

Figures: DUDA (1924a, 1935), LAŠTOVKA and MÁČA (1978).

Keys: DUDA (1924a, 1924c, 1935), LAŠTOVKA and MÁČA (1978), PAPP (1973).

Distribution:

AUSTRIA: DUDA (1924c, 1935), LAŠTOVKA and MÁČA (1978).

Drosophila mommai TAKADA and OKADA, 1960

Other name used: *Drosophila* sp. like *magnipectinata*.

General features of adults: LAŠTOVKA and MÁČA (1978), OKADA (1956, 1966a, 1974b), TAKADA and OKADA (1960).

Figures: BEPPU et al. (1977), OKADA (1956, 1968a), TAKADA and OKADA (1960).

Keys: BEPPU et al. (1977), OKADA (1956, 1968a), TAKADA (1971).

Development: OKADA (1968a).

Biology: KIMURA (1976a), KIMURA et al. (1977).

Distribution:

JAPAN: KANEKO et al. (1969), KIMURA (1976a), KIMURA et al. (1977), LAŠTOVKA and MÁČA (1975), MOMMA (1965a),
 OKADA (1956, 1968a), TAKADA (1965), TAKADA and OKADA (1960), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1964).

Drosophila montana PATTERSON and WHEELER, 1942

Other names used: *D. montana* STONE, GRIFFEN and PATTERSON (? syn.), *D. arivoraara* LAKOVAARA and HACKMAN (syn.).

General features of adults: HSU (1949), LAKOVAARA and HACKMAN (1973), NAYER (1953), PATTERSON (1943), PATTERSON and WHEELER (1942), WATABE and HIGUCHI (1979).

Figures: HSU (1949), NAYER (1953), PATTERSON (1943), THROCKMORTON (1962), WATABE and HIGUCHI (1979).

Keys: PATTERSON (1943), STURTEVANT (1942).

Development: PATTERSON (1943).

Biology: CARSON (1971), CARSON et al. (1956), LEMME et al. (1978, 1979), SPENCER (1950), SPIETH (1979), WHEELER and THROCKMORTON (1960).

Distribution:

FINLAND: LAKOVAARA and HACKMAN (1973), LEMME et al. (1978, 1979). — NORWAY: DIS 51: 122. — SWEDEN: LAKOVAARA and HACKMAN (1973). — JAPAN: WATABE and HIGUCHI (1979).
 Recorded mainly in North America.

Drosophila moriwakii OKADA and KUROKAWA, 1957

Other name used: *Drosophila* sp. of *robusta* group II.

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1953b, 1956, 1959, 1961b), OKADA and KUROKAWA (1957).

Figures: BEPPU et al. (1977), OKADA (1955b, 1956, 1968a), OKADA and KUROKAWA (1957).

Keys: BEPPU et al. (1977), OKADA (1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976, 1978, 1980), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1963, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), TAKADA (1957, 1958), TODA (1973a, 1973b, 1973c, 1977), WAKAHAMA (1957a, 1964).

Distribution:

JAPAN: BEPPU (1976, 1978, 1979, 1980), BEPPU and TODA (1976), ISHIHARA (1955b), KANEKO (1960, 1968), KANEKO and SHIMA (1963), KANEKO and TAHARA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1968, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1954, 1957, 1965a), OKADA (1956, 1968a), OKADA and KUROKAWA (1957), TAKADA (1957, 1958, 1960, 1968), TAKAHASHI and KANEKO (1969), TODA (1973a, 1973b, 1973c, 1977), TOKUMITSU et al. (1967), WAKAHAMA (1957a, 1964, 1966), WAKAHAMA et al. (1963), WATABE and BEPPU (1977).

Drosophila multispina OKADA, 1956

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1956, 1961b), PARSHAD and DUGGAL (1966).

Figures: BEPPU et al. (1977), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), OKADA (1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976), KANEKO and TOKUMITSU (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), OKADA (1966, 1968a), TODA (1973a, 1977), WAKAHAMA (1964), WATABE (1979).

Distribution:

JAPAN: BEPPU (1976, 1978), KANEKO (1960), KANEKO and TOKUMITSU (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965a), OKADA (1956, 1968a), TAKADA (1968), TODA (1973a, 1977), WAKAHAMA (1964), WATABE (1979).

Drosophila neokadai KANEKO and TAKADA, 1966

General features of adults: KANEKO and TAKADA (1966).

Figures: BEPPU et al. (1977), KANEKO and TAKADA (1966).

Keys: BEPPU et al. (1977), TAKADA (1971).

Biology: BEPPU (1976, 1978, 1979, 1980), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), KIMURA et al. (1977), TODA (1973a).

Distribution:

JAPAN: BEPPU (1976, 1978, 1979, 1980), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), TODA (1973a), WATABE and BEPPU (1977).

Drosophila nigricolor STROBL, 1898

General features of adults: BARDEN (1961), DUDA (1924c, 1935, 1940), LAŠTOVKA and MÁČA (1978), STROBL (1898b).

Figures: DUDA (1924a, 1924c, 1935), LAŠTOVKA and MÁČA (1978), PAPP (1973).

Keys: DUDA (1924a, 1924c, 1935), LAŠTOVKA and MÁČA (1978), PAPP (1973), ŠTAKELBERG (1970).

Distribution:

AUSTRALIA: BARDEN (1961), DUDA (1924c, 1935), STROBL (1898b, 1901, 1910), THALER (1977). — FINLAND: HACKMAN (1957), LAŠTOVKA and MÁČA (1978). — GERMAN FEDERAL REPUBLIC: DUDA (1935), LAŠTOVKA and MÁČA (1978). — USSR: HACKMAN (1957), ŠTAKELBERG (1970).

Drosophila nigripennis KANG, LEE and BAHNG, 1965

General features of adults: KANG et al. (1965b), OKADA (1968).

Figures: KANG et al. (1965b).

Key: OKADA (1968).

Biology: KANG et al. (1965b).

Distribution:

S. KOREA: KANG et al. (1965b), LEE (1966b), OKADA (1967).

Drosophila nigromaculata KIKKAWA and PENG, 1938

General features of adults: KIKKAWA and PENG (1938), KANEKO and SHIMA (1965), KIM (1962), KUROKAWA and HIRAHARA (1976), OKADA (1963b, 1964d, 1965a, 1966, 1969, 1969b).

Figures: BEPPU et al. (1977), KIKKAWA and PENG (1938), KIM (1962), OKADA (1955a, 1964, 1968a).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), LEE (1964c), OKADA (1966), TAKADA (1971).

Development: KIKKAWA and PENG (1938), OKADA (1966, 1968a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), HACHIYA (1954), ISHIHARA (1955a, 1955b), KANEKO (1960, 1968), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966), KANG et al. (1966), KANG and LEE (1965), KIKKAWA and PENG (1938), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI et al. (1979), MOMMA (1965b), NOZAWA (1956), OKADA (1954d, 1955a, 1956, 1959, 1960b, 1968a), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1964, 1967, 1968), TAKADA and LEE (1965), TAKADA and TOYOFUKU (1960), TODA (1973a, 1973b, 1973c, 1974), WAKAHAMA (1966b, 1957a, 1957b, 1961, 1962b, 1964), WATABE (1979), WATABE and BEPPU (1977).

Distribution:

KIM (1962), OKADA (1974b). — S. KOREA: CHUNG (1958, 1959), CHUNG and RHO (1960), KANG et al. (1958, 1959, 1960), KIM (1962), LEE (1962, 1964c, 1966a), PAIK (1958), TAKADA and LEE (1965). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), HACHIYA (1954), ISHIHARA (1955a, 1955b), KANEKO (1960, 1968), KANEKO and SHIMA (1962, 1965), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1966, 1968, 1969), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976a, 1976b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1954, 1957, 1965a, 1965b), NOZAWA (1956), OKADA (1954d, 1955a, 1956, 1959, 1960b, 1968a), SAITO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1964, 1967, 1968), TAKADA and LEE (1965), TAKADA and TOYOFUKU (1960), TAKAHASHI and KANEKO (1969), TODA (1973a, 1973b, 1973c, 1974, 1977), TOKUMITSU et al. (1967), TOYOFUKU (1957, 1958a, 1958b, 1960, 1962), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1966b, 1957a, 1957b, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEPPU (1977).

Drosophila nigroparsa STROBL, 1898

General features of adults: BARDEN (1961), BURLA (1951a), DUDA (1924c, 1934), NATER (1953), OLDENBERG (1914), STROBL (1898b).

Figures: BURLA (1951a), DUDA (1924a, 1924c, 1934), NATER (1953), PAPP (1973).

Keys: BURLA (1951a), DUDA (1924a, 1924c, 1927, 1934), ENDRHEIN (1936), LAŠTOVKA and MÁČA (1977), PAPP (1973).

Development: BURLA (1951a).

Biology: BÄCHLI (1979).

Distribution:

AUSTRALIA: BARDEN (1961), DUDA (1934), STROBL (1898b, 1910). — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b, 1975), PAPP (1973). — FRANCE: BOUCHÉ FÉVÉ and TACAS (1979). — GERMAN FEDERAL REPUBLIC: unpublished. — ITALY: DUDA (1934), OLDENBERG (1914). — POLAND: DUDA (1924c, 1934), OLDENBERG (1914). — SPAIN: unpublished. — SWITZERLAND: BÄCHLI (1973c, 1975b, 1977, 1979), BURLA (1951a, 1951b), NATER (1953).

***Drosophila nipponica* KIKKAWA and PENG, 1938**

General features of adults: BOCK and WHEELER (1972), FREIB-MALIA (1949), KIKKAWA and PENG (1938), LEE (1959), MATHER (1955), OKADA (1953b, 1954c, 1955b, 1956, 1959, 1961b).

Figures: KIKKAWA and PENG (1938), OKADA (1954c, 1955b, 1956).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1938), LEE (1964c), OKADA (1956), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1965b), OKADA (1954d, 1956), SUZUKI (1955), TAKADA (1958), TAKADA and TOYOFUKU (1960), WAKAHANA (1956b, 1957a, 1961, 1964).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), KANG et al. (1959), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), KIKKAWA and PENG (1938), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954c, 1954d, 1956, 1959, 1961b), SHIMA (1960), SUZUKI (1955), TAKADA (1955, 1965), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TODA and KIMURA (1978), TOYOFUKU and KIMURA (1960, 1961), WAKAHANA (1956b, 1957a, 1961, 1962b, 1964, 1966), WAKAHANA et al. (1963).

Recorded also on the Ryukyu Islands.

***Drosophila nokogiri* OKADA, 1956**

General features of adults: BASDEN (1957b), KANG et al. (1965b), KIM (1962), OKADA (1956, 1961b, 1967), OKADA and LEE (1961).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1956, 1967).

Keys: BEPPU et al. (1977), KANG and LEE (1964), LEE (1964c), OKADA (1956, 1967), TAKADA (1971).

Biology: BEPPU (1976), KANEKO and TOKUMITSU (1969), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956), WAKAHANA (1957a, 1964).

Distribution:

S. KOREA: CHUNG (1958), KANG and LEE (1964), KANG et al. (1958, 1959), KIM (1962), LEE (1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976), KANEKO and TOKUMITSU (1969), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1956, 1967, 1968a), TAKADA (1968), WAKAHANA (1957a, 1964).

***Drosophila nudinokogiri* OKADA, 1967**

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

Recorded also on the Ryukyu Islands.

***Drosophila obscura* FALLÉN, 1823**

Other names used: *D. obscuroides* POMINI (syn.), *D. obscura* var. *meigeni* DUDA, *D. obscura* 2, *D. bifasciata* POMINI (misident.).

General features of adults: BASDEN and HARNDEN (1956), BUZZATI-TRAVERSO and SCOSSIBOLI (1955), BURLA (1951a), BURLA and KALIN (1957), CAIN et al. (1952), CZERNY and STROBL (1900), DUDA (1924c, 1925, 1935), FALLÉN (1823), FREIB-MALIA (1949), FRYDENBERG (1955, 1956a), HSU (1949), KUROKAWA and HIHARA (1976), LOWE (1873), MACQUART (1835), MEGDIN (1836), MONCLÉS (1964), MORIWAKI et al. (1952), NATR (1953), NEUBAU (1866), OKADA (1953b, 1958), POMINI (1940), SÉGUY (1934b), SMAY (1945), STROBL (1893a, 1910), STURTEVANT (1921), WAHLGREN (1927), ZETTERSTEDT (1938, 1847).

Figures: BASDEN and HARNDEN (1956), BURLA (1951a), CAIN et al. (1952), DUDA (1924a, 1924c, 1935), DYSON-HUDSON (1954), HSU (1949), MAYER (1935), DE MELIERE (1916a), MORGE (1978a), NATR (1953), PAFF (1975), POMINI (1940), ROCHA PITÉ (1975a), SÉGUY (1934b), SHORROCKS (1972), STAKELBERG (1970), STURTEVANT (1921).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), DYSON-HUDSON (1954), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), MALLOCH and MCATEE (1924), MONCLÉS (1964), OKADA (1956), PAF (1973), POMINI (1940), RICHARDS and HERFORD (1930), ROCHA PITÉ (1975a), SCHINER (1894), SÉGUY (1934a, 1934b), SHORROCKS (1972), STAKELBERG (1970), STURTEVANT (1921), WAHLGREN (1927).

Development: BURLA (1951a), DUDA (1934), HENNIG (1952), MAYER (1935), DE MELIERE (1916a, 1947), STURTEVANT (1921).

Biology: BÄCHLI (1977, 1979), BASDEN (1952, 1953, 1954b), BASDEN and HARNDEN (1956), BEGON (1975, 1976a, 1978), BEGON et al. (1975), BONNAMOURE (1926), BURLA (1949, 1951a, 1961), BURLA and GRUTTER (1959a, 1959b, 1961), BURLA (1976), BUZZATI-TRAVERSO and SCOSSIBOLI (1955), CANZANELLI (1941), COX (1959), COLYER and HAMMOUD (1951), DYSON-HUDSON (1954), FALOGZ (1924), FREY (1932), FRYDENBERG (1956a), GORDON (1942), GRUTTER (1968), HACKMAN (1954), HADORN et al. (1952), HERITING (1955), JUNGLEN (1966a), KREJČÍ and MARENČIČ (1979), KOCH (1967), KÖNIG (1965), KRÄMER (1917), KÜHLHORN (1978), LEYER and SOBELS (1951), LURKE et al. (1978, 1979), MAYER (1935), DE MELIERE (1916a), PERRIS (1876), RADDAZ (1873), ROBERTSON (1965), ROCHA PITÉ (1975), ROCHA PITÉ and DA COSTA NICOLAU (1978), SCHLIZMANN (1977), SÉGUY (1934a, 1934b, 1950), SHORROCKS (1974, 1975, 1977), SHORROCKS and BROOK (1975), SHORROCKS and WOOD (1975), SOBELS et al. (1954), STORÁ (1957), STURTEVANT (1921), TESCHNER (1961, 1962).

Distribution:

AUSTRIA: BASDEN (1961), MAINZ et al. (1953), STROBL (1894, 1901), TIEF (1885). — CZECHOSLOVAKIA: ARADI (1959), CZERK (1966), STROBL (1901), VIMMER (1913). — DENMARK: FRYDENBERG (1956a), ZETTERSTEDT (1847). — FINLAND: BASDEN (1956), FREY (1932), HACKMAN (1954, 1963, 1971), LAKOVAARA and SAURA (1971a), LAKOVAARA et al. (1972c), LEMME et al. (1975, 1979), STORÁ (1956, 1957), ZETTERSTEDT (1860). — FRANCE: BONNAMOURE (1926), FALOGZ (1924), HADORN et al. (1952), ROCHA PITÉ and TSAOS (1979). — GERMAN DEMOCRATIC REPUBLIC: KRÄMER (1917), NEUBAU (1886), POMINI (1940), RADDAZ (1873), SCHUMANN (1963). — GERMAN FEDERAL REPUBLIC: BROTHEN (1887), DUDA (1935), HERRING (1954), KÖNIG (1965), KRÖBER (1910, 1935), KÜHLHORN (1978), TESCHNER (1961, 1962). — GREAT BRITAIN: AUDENOT (1950), BASDEN (1952, 1953, 1954a, 1954b), BASDEN and GOODEY (1955), BHATTY and

SIDHU (1969), BEGON (1975, 1976a, 1978), BEGON et al. (1975), CAIN et al. (1952), DYSON-HUDSON (1954, 1956), FONSECA (1965), GORDON (1942), RICHARDS and HERFORD (1930), ROBERTSON (1965), SHORROCKS (1969, 1970, 1972, 1974, 1975, 1977), SMITH (1959, 1960). — GREECE: ROCHA PITE and TSAOAS (1960). — HUNGARY: ARADI (1965), PAPP (1973). — IRELAND: EASON (1952). — ITALY: BEZZI (1891, 1922a, 1922b), BEZZI and de STEFANI-PERZI (1897), CANZIANI (1941), MAINI et al. (1953). — JAPAN: SHIBUYAMA (1921). — NETHERLANDS: BRUNES et al. (1979), LEVIER and SORRES (1951), DE MEIJER (1916a, 1925), SORRES et al. (1954), STURTEVANT (1921). — NORWAY: BASHEN (1956), BASHEN and HANNDEN (1956), LAHOVAARA and SATRA (1971a), LAHOVAARA et al. (1972c). — ? POLAND: KARL (1926). — PORTUGAL: HADORN et al. (1952), ROCHA PITE (1972, 1976a, 1977b, 1978, 1979), ROCHA PITE and da COSTA NICOLAI (1978). — ROMANIA: ARADI (1965), SACK (1904), STROBL (1897), THALHAMMER (1899, 1901). — SPAIN: CZERNY and STROBL (1909), HADORN et al. (1952), MONCLUS (1944). — SWEDEN: BUZZATI-TRAVERSO and SCOSSEROLI (1955), FALLÉN (1823), LAHOVAARA and SAUBA (1971a), RINGDAHL (1941, 1951), WÄRNGREN (1927), ZWITZERSTEDT (1908, 1947, 1960). — SWITZERLAND: BÄCHLI (1972a, 1972c, 1973a, 1973c, 1974a, 1974c, 1975a, 1975b, 1977, 1979), BURILA (1948, 1949, 1951a, 1961), BURILA and GREUTER (1959a, 1959b), BURILA and KALIN (1957), GREUTER (1963), HSU (1949), KOCH (1967), LAHOVAARA et al. (1972c), NATER (1953), SCHATZMANN (1977), SCHMID (1968), STUMM-ZOLLINGER (1953). — TURKEY: unpublished. — USSR: DUBININ et al. (1937b), FROLOVA (1926), FROLOVA and ASTAUFOW (1929), GERSEHNSON (1928, 1934), HACKMAN (1957), STAKELBERG (1930, 1970). — YUGOSLAVIA: COB (1959), KRKIĆ and MARINKOVIC (1979), STROBL (1893a, 1894, 1898a, 1900a). — ? CANARY IS.: SEGUY (1934b). — IRAN: unpublished.

Comment:

This species may have been confused with other species of the *obscura* species group.

Drosophila okadai TAKADA, 1959

General features of adults: KANeko and TAKADA (1960), TAKADA (1959).

Figures: BEPPU et al. (1977), TAKADA (1959).

Key: BEPPU et al. (1977).

Biology: BEPPU (1976, 1978, 1979, 1980), KANeko and TOKUMITSU (1963, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), TODA (1973a, 1973b).

Distribution:

JAPAN: BEPPU (1976, 1978, 1979, 1980), KANeko (1960, 1968), KANeko and SHIMA (1962), KANeko and TAKADA (1966), KANeko and TOKUMITSU (1963, 1969), KANeko et al. (1968, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), MOMMA (1965a), TAKADA (1958, 1959, 1968), TAKADA and OKADA (1960), TAKAHASHI and KANeko (1969), TODA (1973a, 1973b), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1964), WAKAHAMA et al. (1963), WAFABI and BEPPU (1977).

Drosophila okadomei OKADA, 1967

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

Drosophila oldenbergi DUDA, 1924

General features of adults: BÄCHLI (1972a), DUDA (1924c, 1935), HACKMAN (1965a).

Figures: HACKMAN (1957, 1965a), STAKELBERG (1970).

Keys: DUDA (1924a, 1924c, 1925, 1927), ENDERLEIN (1936), OKADA (1967), PAPP (1973), STAKELBERG (1970).

Distribution:

AUSTRIA: BÄCHLI (1972a). — ROMANIA: BÄCHLI (1972a), DUDA (1924c, 1935), PAPP (1973), ROHLFIEN and EWALD (1972), Soós (1945). — SWITZERLAND: BÄCHLI (1972a, 1972b, 1975b). — USSR: HACKMAN (1957, 1965a), STAKELBERG (1970).

Drosophila omogoensis OKADA, 1956

General features of adults: OKADA (1956).

Figures: OKADA (1956).

Key: OKADA (1956, 1967).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956).

Drosophila oshimai CHOO and NAKAMURA, 1973

Other name used: *Drosophila* sp.

General features of adults: CHOO and NAKAMURA (1973).

Figures: CHOO and NAKAMURA (1973).

Biology: KAWANISHI (1978), OKADA (1975).

Distribution:

JAPAN: CHOO and NAKAMURA (1973), KAWANISHI (1978), KAWANISHI and WATANABE (1977).

Drosophila pappi OKADA, 1974

General features of adults: LAŠTOVKA and MĀCA (1978), OKADA (1974b).

Figures: OKADA (1974b).

Distribution:

N. KOREA: OKADA (1974b).

***Drosophila parakuntzei* OKADA, 1973**

General features of adults: OKADA (1970c).

Figures: OKADA (1973c).

Distribution:

MONGOLIA: OKADA (1973c).

***Drosophila pattersoni* PIPKIN, 1956**

General features of adults: PIPKIN (1956, 1961).

Figures: PIPKIN (1956), THROCKMORTON (1962).

Biology: PIPKIN (1961).

Distribution:

LEBANON: PIPKIN (1956), THROCKMORTON (1962).

***Drosophila pengi* OKADA and KUROKAWA, 1957**Other name used: *D. melanissima* STURTEVANS (misident.).

General features of adults: KIKKAWA and PENG (1958), KUROKAWA and HIRANA (1976), OKADA (1953a, 1955a, 1956, 1961b), OKADA and KUROKAWA (1957).

Figures: BEPPU et al. (1977), OKADA (1955a, 1956, 1968a), OKADA and KUROKAWA (1957).

Keys: BEPPU et al. (1977), KIKKAWA and PENG (1958), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: KIKKAWA and PENG (1957), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KIKKAWA and PENG (1958), KIMURA and TODA (1976), MINAMI et al. (1976), OKADA (1956, 1962, 1968a), OKADA and KUROKAWA (1957), TODA (1973a, 1974, 1977), WAKAHAMA (1957a, 1962b, 1964).

Distribution:

S. KOREA: LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), KANEKO (1968), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KIKKAWA and PENG (1958), KIMURA and TODA (1976), MINAMI et al. (1976), MOMMA (1957, 1965a), OKADA (1955a, 1956, 1959, 1962, 1968a), OKADA and KUROKAWA (1957), TODA (1973a, 1974, 1977), WAKAHAMA (1957a, 1962a, 1962b, 1962c, 1964, 1966), WATABE and BEPPU (1977).

***Drosophila phalerata* MEIGEN, 1830**

General features of adults: BECKER (1902), BURLA (1951a), BURLA and GLOOR (1952), DUDA (1924c, 1926a, 1935), DEFOUR (1839), HENNIG (1958), HEKING (1940), HSU (1949), MACQUART (1835), MEIGEN (1830), NATER (1953), NETHAUS (1886), OLDENBERG (1914), SÉGUY (1934b), STROHL (1893, 1906), VILLENUEVE (1911, 1925), WAHLGREN (1927).

Figures: BURLA (1951a), DUDA (1924a, 1924c, 1935), HSU (1949), MEIGEN (1830), DE MEIJERE (1947), MONCLIS (1964), NETER (1976), NATER (1953), PAPP (1973), ROCHA PITÉ (1975), SÉGUY (1934b), SHORROCKS (1972), STÄKELBERG (1970), THROCKMORTON (1962).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), LAŠTOVKA and MÁČA (1977), MONCLIS (1964), PAPP (1973), ROCHA PITÉ (1975a), SCHINER (1884), SÉGUY (1934a, 1934b), SHORROCKS (1972), STÄKELBERG (1970), WAHLGREN (1927).

Development: BURLA (1951a), HENNIG (1952), DE MEIJERE (1947), SCHATZMANN (1977).

Biology: AZARIAN (1968), BÄCHLI (1970, 1979), BASDEN (1952, 1953, 1954b, 1956), BRUTHIN (1887), BONNAMOER (1926), BURLA (1949, 1951a, 1961), BURLA and BÄCHLI (1968), BIXTON (1960), CANZANELLI (1941), CHARLESWORTH and SHORROCKS (1980), COX (1959), CURTIS (1833), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), FALCOZ (1924), FRYDENBERG (1966a), HACKMAN (1954), HACKMAN and MEINANDER (1979), HADORN et al. (1952), HENNIG (1953), HURTIG (1955), KALTENBACH (1874), KERIC and MARINKOVIC (1979), KÖNIG (1965), KRAMER (1917), KRÖBER (1910, 1935), KÜHLHORN (1978), LEYER and SOBRIE (1951), LUMME et al. (1978), MAYER (1965), NASWATY (1959), ORTIZ (1968), PAPP (1978, 1979), PIPKIN (1952), RADDAZ (1875), REEL (1921), ROCHA PITÉ (1977a, 1977b, 1978, 1979), ROCHA PITÉ and DA COSTA NICOLAU (1978), SCHMID (1968), SCHULZE (1912), SÉGUY (1934a, 1934b, 1950), SHORROCKS (1976, 1972, 1974, 1975, 1977), SHORROCKS and CHARLESWORTH (1980), SHORROCKS and WOOD (1978), SHORROCKS et al. (1979), SOBRIE et al. (1954), STORA (1957), TIMOFEEFF-RESSOVSKY and TIMOFEEFF-RESSOVSKY (1941a).

Distribution:

AUSTRIA: BASDEN (1961), STROHL (1880, 1894, 1901, 1910), TIRF (1888). — CZECHOSLOVAKIA: ARADI (1959), ČIŽEK (1910), DOSKOKL (1962), LAŠTOVKA and MÁČA (1977), MARTINEK (1973, 1974b), STROHL (1901), VEDMER (1913). — DENMARK: FRYDENBERG (1956a). — FINLAND: HACKMAN (1964, 1971), HACKMAN and MEINANDER (1979), LUMME et al. (1978), STORA (1957). — FRANCE: BONNAMOER (1926), FALCOZ (1924), HADORN et al. (1952), REEL (1921), ROCHA PITÉ and TSAOUS (1979), SÉGUY (1934b). — GERMANY DEMOCRATIC REPUBLIC: NETHAUS (1886), RADDAZ (1873), TIMOFEEFF-RESSOVSKY and TIMOFEEFF-RESSOVSKY (1941a). — GERMANY FEDERAL REPUBLIC: BRUTHIN (1887), HEKING (1952), KERIC (1965), KRÖBER (1910, 1935), KÜHLHORN (1978), NASWATY (1959). — GREAT BRITAIN: AMICENT (1950), BASDEN (1952, 1953, 1954b), BIXTON (1960), CURTIS (1833), EDWARDS and COLLIN (1932), HALDAY (1833), HENDERSON (1911), SHORROCKS (1969, 1970, 1974, 1975, 1977), SHORROCKS and CHARLESWORTH (1980), SHORROCKS and WOOD (1973), SHORROCKS et al. (1978), SMYTH (1960), WALKER (1849), YERUBUY (1913). — GREECE: ROCHA PITÉ and TSAOUS (1980). — HUNGARY: ARADI (1959), BASDEN (1961), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973, 1976), THALHAMMER (1899). — IRELAND: ROCHA PITÉ and TSAOUS (1980). — ITALY: BEZZI (1892b), CANZANELLI (1941), COBTI (1897), NIGRO (1979), PORONYI (1887), ZANGHERI (1950, 1969). — NETHERLANDS: DE MEIJERE (1947), LEYER and SOBRIE (1951), SOBRIE et al. (1954). — NORWAY: BASDEN (1956). — POLAND: KARL (1890). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1974a, 1974b, 1977a, 1977b, 1978, 1979), ROCHA PITÉ and DA COSTA NICOLAU (1978). — ROMANIA: ARADI (1959), STROBL (1897), THALHAMMER (1899, 1901). — SPAIN: CHARLESWORTH and SHORROCKS (1980), HACKMAN (1969a), HADORN et al. (1952), MONCLIS (1964), ORTIZ (1968). — SWEDEN: BASDEN (1956), EINGDARL (1941, 1949), WAHLGREN (1927). — SWITZERLAND: BÄCHLI (1970, 1972b, 1972c, 1973a, 1973c, 1974b, 1974c, 1975a, 1975b, 1977, 1979), BURLA (1948, 1949, 1951a, 1961), BURLA and BÄCHLI (1968), HSU (1949), NATER (1953), SCHATZMANN (1977), SCHMID (1968). — TURKEY: unpublished. — USSR: AZARIAN (1968), BALASHOV (1947), LAYNER and SOBRIE (1951), BOBBS (1987), EVERSMAN (1854), FROLOWA (1926), GEYSSEFF and SIMONENKO (1970), GIMMERTHAL (1845, 1847), HACKMAN (1954, 1957), PAPP (1979), STÄKELBERG (1970). — YUGOSLAVIA: ARADI (1959), COE (1959), KERIC and MARINKOVIC (1979), SOBRIE (1989a, 1990a). — AZORES: PEY (1945), SÉGUY (1960). — MOROCCO: PÉREZ (1974). — TUNISIA: unpublished. — LEBANON: CLAYTON and WARD (1954), JOHNSON et al. (1966), PIPKIN (1952), THROCKMORTON (1962). — IRAN: unpublished.

***Drosophila picta* ZETTERSTEDT, 1847**

Other names used: *D. macularis* VILLENEUVE (syn.), *D. pleurofasciata* DUDA (syn.), *D. histrio* MEIGEN (nonsident.).

General features of adults: DUDA (1924c, 1935), FRYDENBERG (1955), OKADA (1956), OKADA and KUROKAWA (1967), TSACAS (1969), VILLENEUVE (1921), ZETTERSTEDT (1847).

Figures: DUDA (1924a, 1935), FRYDENBERG (1955), TSACAS (1969).

Keys: DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), PAPP (1973), ZETTERSTEDT (1847).

Development: DUDA (1934), HENNIG (1962), TSACAS (1969).

Biology: DUDA (1935), DYSON-HUDSON and VOCKEROOTH (1955), FRYDENBERG (1955), LEVER and SOBELS (1951), PAPP (1976), SOBELS et al. (1954), TIESCHNER (1961, 1962), TSACAS (1969).

Distribution:

AUSTRIA: DUDA (1924c, 1935), TSACAS (1969). — CZECHOSLOVAKIA: unpublished. — DENMARK: FRYDENBERG (1955, 1956a), TSACAS (1969), ZETTERSTEDT (1847). — FINLAND: ROCHA PITE and TSACAS (1980). — FRANCE: DUDA (1935), ROCHA PITE and TSACAS (1979), TSACAS (1969), VILLENEUVE (1921). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1924a), ROHLFEN and EWALD (1972), TSACAS (1969). — GERMAN FEDERAL REPUBLIC: TIESCHNER (1961, 1962). — GREAT BRITAIN: DYSON-HUDSON and VOCKEROOTH (1955), FONSECA (1965), TSACAS (1969). — GREECE: TSACAS (1969). — HUNGARY: AKADI (1959), DUDA (1924c, 1935), PAPP (1973, 1976), SOOS (1945), TSACAS (1969). — NETHERLANDS: LEVER and SOBELS (1951), SOBELS et al. (1954), TSACAS (1969). — POLAND: DUDA (1935), TSACAS (1969). — SPAIN: unpublished. — SWEDEN: RINGDAHL (1949).

***Drosophila polychaeta* PATTERSON and WHEELER, 1942**

Other name used: *D. pattersoni*.

General features of adults: BOHART and GRESSITT (1951), DE CASTRO (1955), HARDY (1965), HSU (1949), LIN and TSENG (1971), NAYER (1953), PATTERSON (1943), PATTERSON and WHEELER (1942), WHEELER and TAKADA (1964).

Figures: HARDY (1965), HSU (1949), MALOGOLOWKIN (1953), NAYER (1953), PATTERSON (1943), THROCKMORTON (1962), WHEISSER and TAKADA (1964).

Keys: BOHART and GRESSITT (1951), FONSECA (1965), HARDY (1965), LIN and TSENG (1971), PATTERSON (1943), STURTEVANT (1942), TAKADA (1971), WHEELER and TAKADA (1964).

Development: PATTERSON (1943).

Biology: BADSEN (1957a), BOHART and GRESSITT (1951), PATTERSON and WHEELER (1942), SOBELS et al. (1954).

Distribution:

GREAT BRITAIN: BADSEN (1957a), FONSECA (1965). — NETHERLANDS: SOBELS et al. (1954).
Recorded mainly in America and on some Pacific Islands.

***Drosophila pseudonokogiri* KANG, LEE and BAHNG, 1965**

General features of adults: KANG et al. (1965b, 1967), LIX and TING (1971), OKADA (1967, 1973a).

Figures: BEPPU et al. (1977), KANG et al. (1965b, 1967), OKADA (1967).

Keys: BEPPU et al. (1977), OKADA (1967), TAKADA (1971).

Biology: KANG et al. (1965b).

Distribution:

S. KOREA: KANG et al. (1965b, 1967), LEE (1966b). — JAPAN: OKADA (1967).

***Drosophila pseudosordidula* KANEKO, TOKUMITSU and TAKADA, 1964**

General features of adults: KANEKO and TAKADA (1966), KANEKO et al. (1964).

Figures: BEPPU et al. (1977), KANEKO et al. (1964).

Keys: BEPPU et al. (1977), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976, 1979, 1980), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1963, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), TAKADA (1971), TODA (1973a, 1973b).

Distribution:

JAPAN: BEPPU (1976, 1978, 1979, 1980), BEPPU and TODA (1976), KANEKO (1968), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969), KANEKO et al. (1964, 1968, 1969), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), TAKAHASHI and KANEKO (1969), TODA (1973a, 1973b), TOKUMITSU et al. (1967), WATABE and BEPPU (1977).

***Drosophila pulchella* TAN, HSU and SHENG, 1949**

General features of adults: BOCK and WHEELER (1972), HSU (1949), KUROKAWA and HIRARA (1976), OKADA (1953b, 1954c, 1956, 1959, 1961b, 1966a), FARSHAD and DUGGAL (1966), FARSHAD and PAIKA (1964), TAN et al. (1949).

Figures: BOCK and WHEELER (1972), HSU (1949), OKADA (1954c, 1956, 1968a).

Keys: GUPTA and RAY-CHAUDHURI (1979), OKADA (1956, 1966a).

Development: OKADA (1963a, 1968a).

Biology: KAWANISHI et al. (1975), NOZAWA (1956), OKADA (1956, 1962), FARSHAD and DUGGAL (1966), WAKAHAMA (1962b, 1964).

Distribution:

JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), NOZAWA (1956), OKADA (1954c, 1956, 1959, 1962, 1968a), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966).

Recorded also in South Asia.

***Drosophila pullata* TAN, HSU and SHENG, 1949**

General features of adults: HSU (1949), OKADA (1956), TAN et al. (1949).

Figures: HSU (1949).

Distribution:

CHINA: TAN et al. (1949).

***Drosophila puncticeps* OKADA, 1956**

General features of adults: OKADA (1956, 1968d), WAKAHAMA (1966).

Figures: OKADA (1956, 1968d), WAKAHAMA (1966).

Keys: BEPPU et al. (1977), LEE (1964c).

Biology: OKADA (1956).

Distribution:

S. KOREA: CHUNG (1958), KANG et al. (1958, 1959), LEE (1964, 1966b). — JAPAN: KAWANISHI (1978), KAWANISHI et al. (1975), OKADA (1956, 1968d), WAKAHAMA (1966).

***Drosophila quadrisetata* TAKADA, BEPPU and TODA, 1979**Other name used: *Drosophila* sp. 3.

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Key: BEPPU et al. (1977).

Distribution:

JAPAN: TAKADA et al. (1979).

***Drosophila quadricittata* OKADA, 1956**

General features of adults: HACKMAN (1969c), KUROKAWA and HIHARA (1976), OKADA (1956, 1961b, 1967).

Figures: BEPPU et al. (1977), OKADA (1956, 1967, 1968a).

Keys: BEPPU et al. (1977), KANG and LEE (1964), LEE (1964c), OKADA (1956, 1967, 1968a), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976), KIMURA (1974b), KIMURA et al. (1977), OKADA (1956), TODA (1973b), WAKAHAMA (1962b, 1964).

Distribution:

S. KOREA: KANG and LEE (1964), KANG et al. (1958, 1959), LEE (1964c, 1966b). — JAPAN: BEPPU (1976), KIMURA (1974b), KIMURA et al. (1977), OKADA (1956, 1967, 1968a), TAKADA (1968), TODA (1973b), WAKAHAMA (1962a, 1962b, 1962c, 1964).

***Drosophila reptata* WOLLASTON, 1858**Other names used: *D. punctulata* LOEW (syn.), *D. adpersa* MIX (syn.), *D. prorepta* DUDA (syn.), *D. austrorepta* DOBZHANSKY and PAVAN (syn.).

General features of adults: BRNCIC (1957), BURLA (1951a), DE CASTRO (1953), COE (1943), DOBZHANSKY and PAVAN (1943), DUDA (1924c, 1925, 1935, 1939), FRAPPA (1931), HACKMAN (1969a), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KIKKAWA and PENG (1958), KNAB (1912), KUROKAWA and HIHARA (1976), LOEW (1862), MALLOCH (1922a, 1924b), MALOGOLOWIK (1953), NATER (1963), OKADA (1956, 1959, 1961b), PATTERSON (1943), SALLES (1945), SÉGUY (1934b), STURTEVANT (1916, 1921), VAIDYA and GODBOLE (1971), WHEELER (1960b), WOLLASTON (1858).

Figures: COVA GARCÍA and SUÁREZ (1962), DUDA (1935), FRAPPA (1931), HARRISON (1952, 1959), HSU (1949), KIRKOWA and PENG (1938), MALOGOLOWIK (1953), OKADA (1956), PAPP (1973), PATTERSON (1943), SÉGUY (1934b), STURTEVANT (1962), VAIDYA and GODBOLE (1971), WHEELER (1960b).

Keys: BOCK (1976), BRNCIC (1957), BRYAN (1958), BURLA (1951a), DUDA (1924a, 1924c, 1925, 1926, 1935, 1940), ENDERLEIN (1936), FONSECA (1965), GUEPPA and RAY-CHAUDHURI (1970), HARDY (1965), HARRISON (1952, 1959), KIKKAWA and PENG (1958), LAŠTOVKA and MÁČA (1977), MALLOCH and MCATER (1924), MATHER (1953), MONTELLI (1964, 1976), OKADA (1956), PAPP (1973), PATTERSON (1943), PATTERSON and MAINLAND (1944), ROCHA PITÉ (1975a), SÉGUY (1934a, 1934b), STURTEVANT (1921, 1942), WILLISTON (1896).

Development: DUDA (1934), FRAPPA (1931), HERNING (1952), KAMBYSELLIS (1968), KIKKAWA and PENG (1938), OKADA (1968a), PATTERSON (1943).

Biology: BASDEN (1957a), BUCKLEY (1956), BURLA (1949, 1954a), BURGA and OLMEBO (1971), BUXTON (1954, 1960), CARSON (1965, 1971), COE (1943), COLYER (1954), COLYER and HAMMOND (1951), COVA GARCÍA and SUÁREZ (1962), DUDA (1934), HEED (1956), HERNING (1953), HERTING (1955), KIKKAWA and PENG (1958), KÖNIG (1965), KÖHLHORN (1964, 1968, 1978), LEVER and SOBELS (1951), MARTINEZ et al. (1965), MATHER (1956), NELSON (1938), OLDROD (1966), ORTIZ (1965), PIPKIN (1952, 1965), PIPKIN et al. (1966), ROCHA PITÉ (1979), SAKIMURA and LINFORD (1940), SÉGUY (1933b, 1934b, 1951), SHORROCKS and WOOD (1973), SIMMONS and DOVE (1942), STURTEVANT (1916b), TAYLOR (1955), TESCHNER (1959), ŽEŠKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: SÉGUY (1934b), STURTEVANT (1921). — CZECHOSLOVAKIA: LAŠTOVKA and MÁČA (1977), MÁČA (1972b), MARTINEZ (1973), ŠRAMEL et al. (1959), ŽEŠKA and LAŠTOVKA (1969). — FINLAND: HACKMAN (1969b). — FINLAND: ROCHA PITÉ and TSACAS (1979), SÉGUY (1934b). — GERMANY: DEMOCRATIC REPUBLIC: unpublished. — GERMANY: FEDERAL REPUBLIC: HERTING (1955), KÖNIG (1965), KÖHLHORN (1964, 1968, 1978), TESCHNER (1959). — GREAT BRITAIN: BASDEN (1954b, 1957a), BUXTON (1954, 1960), COE (1943), COLYER (1954), FONSECA (1965), TAYLOR (1965). — GREECE: DIS 37: 95. — HUNGARY: ARADI (1959), PAPP (1973), SOÓS (1943, 1945). — ITALY: BEZZI (1910), NEGRO (1979), OKADA (1959), SÉGUY (1934b), ZANGHERI (1950, 1969). — NETHERLANDS: LEVER and SOBELS (1951), DE MEIJERE (1935). — POLAND: DUDA (1935). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1977b, 1979). — SPAIN: ZHENTY and SUGRI (1969), MONGES (1964), ORTIZ (1965), SÉGUY (1934b), STURTEVANT (1921). — SWITZERLAND: BÄCKH (1973a, 1975a, 1975b), BURLA (1948, 1949, 1951a, 1961), NATER (1963). — TURKEY: unpublished. — YUGOSLAVIA: unpublished. — AZORES: FREY (1945), SÉGUY (1936). — MADEIRA: FREY (1949), GARDNER and CLAS-

SEY (1960), WOLLASTON (1858). — CANARY IS.: BROCKER (1908b), FREY (1936), HACKMAN (1958), MONCLÚS (1976), SÉGUY (1934a, 1934b). — MOROCCO: SÉGUY (1933b, 1934a). — ALGERIA: SÉGUY (1934b). — TUNISIA: unpublished. — LIBYA: BEZZI (1924b). — EGYPT: DIS 30: 124. — LEBANON: PIPKIN (1952). — ISRAEL: unpublished. — CHINA: KIKKAWA and PENG (1938). — S. KOREA: LEE (1966b). — JAPAN: KIKKAWA and PENG (1938), WHARTON (1942).
Recorded as virtually cosmopolitan species.

Comment:

Some records may refer to *D. hydei* STURBEVANT.

Drosophila repletoides HSU, 1943

Other names used: *D. tumiditarsus* TAN, HSU and SHENG (syn.), *D. chinai* OKADA (syn.), *D. hayashii* OKADA, *Drosophila* sp. of *repleta* group I.

General features of adults: HSU (1949), KUROKAWA and HIRARA (1976), OKADA (1953b, 1955a, 1956), TAN et al. (1949).

Figures: HSU (1949), OKADA (1955a, 1956a, 1968), THROCKMORTON (1962).

Keys: OKADA (1955a, 1956).

Development: OKADA (1963a, 1968a).

Biology: OKADA (1956, 1962), TAN et al. (1949).

Distribution:

CHINA: HSU (1949), TAN et al. (1949), THROCKMORTON (1962). — JAPAN: OKADA (1955a, 1956, 1962, 1968a).

Drosophila rufa KIKKAWA and PENG, 1938

General features of adults: BOCK and WHEELER (1972), BURLA (1954b), FERRE-MAIA (1949), HSU (1949), KIM (1962), KIKKAWA and PENG (1938), KUROKAWA and HIRARA (1976), MATHER (1955), OKADA (1953b, 1954c, 1954d, 1956, 1959, 1961b), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964).

Figures: BEPPU et al. (1977), BOCK and WHEELER (1972), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), LIN et al. (1973), OKADA (1954c, 1956, 1958a), PARSHAD and PAIKA (1964), THROCKMORTON (1962).

Keys: BEPPU et al. (1977), GUPTA and RAY-CHAUDHURI (1970), KIKKAWA and PENG (1938), OKADA (1956), TAKADA, (1971).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a), PARSHAD and PAIKA (1964).

Biology: ISHIHARA (1955a), KANEKO (1960), KAWANISHI and WATANABE (1977), KIKKAWA and PENG (1938), NOZAWA (1954), OKADA (1956, 1962), PARSHAD and DUGGAL (1966), WAKAHAMA (1957a, 1961, 1962b, 1964).

Distribution:

CHINA: HSU (1949), TAN et al. (1949), THROCKMORTON (1962). — S. KOREA: CHUNG (1959, 1960a), KANG et al. (1959), KIM (1962, 1963), LEE (1966b). — JAPAN: ISHIHARA (1955a), KANEKO (1960), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KUROKAWA (1967a), MOMMA (1954, 1957, 1965a), NOZAWA (1956), OKADA (1954c, 1954d, 1956, 1959, 1962, 1966b, 1968a), TAKADA et al. (1953), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966).

Recorded also on the Ryukyu Islands and in India.

Drosophila rufifrons LOEW, 1873

Other name used: *D. nitens* BUZZATI-TRAVERSO (syn.).

General features of adults: BURLA (1948, 1951a), BUZZATI-TRAVERSO (1943), DUDA (1924c, 1935), HERTING (1953), LOEW (1873), MATHER (1955), NATER (1953), OKADA (1973b), OLDENBERG (1914), PAPP (1973), PARSHAD and DUGGAL (1966), PIPKIN (1961), POMINI (1946), STROEL (1893a), WHEELER (1949a).

Figures: BURLA (1948, 1951a), BUZZATI-TRAVERSO (1943), DUDA (1924a, 1924c, 1935), MONCLÚS (1964), OKADA (1955b), PAPP (1973), ROCHA PITÉ (1975a).

Keys: BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), MONCLÚS (1964), PAPP (1973), ROCHA PITÉ (1975a), STAKELBERG (1970).

Development: BASDEN (1954a), BURLA (1951a), BUZZATI-TRAVERSO (1943).

Biology: BASDEN (1954b), BERTANI (1947), BURLA (1951a), BUZZATI-TRAVERSO (1943), COE (1959), COLLIN (1952), HADORN et al. (1952), HERTING (1955), KERIC and MARINKOVIC (1979), KÜHLHORN (1978), OLDENBERG (1914), ORTIZ (1908), SOBELS et al. (1954).

Distribution:

AUSTRIA: DUDA (1924c, 1935). — CZECHOSLOVAKIA: ROCHA PITÉ and TSACAS (1980). — FRANCE: HADORN et al. (1952), ROCHA PITÉ and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1924c, 1935). — GERMAN FEDERAL REPUBLIC: HERTING (1955), KÜHLHORN (1978). — GREAT BRITAIN: BASDEN (1954b), COLLIN (1952), FONSECA (1965), SHODENKES (1977). — GREECE: DIS 37: 135-136. — HUNGARY: ARADI (1959), PAPP (1973, 1975). — ITALY: BUZZATI (1961), BUZZATI-TRAVERSO (1943), HERTING (1953), MAGNI (1959), NATER (1953). — NETHERLANDS: SOBELS et al. (1954). — POLAND: DUDA (1935). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1975b, 1977b). — ROMANIA: ARADI (1959), OLDENBERG (1914), THALHAMMER (1899). — SPAIN: HADORN et al. (1952), MONCLÚS (1964), ORTIZ (1968). — SWEDEN: DIS 29: 160-161. — SWITZERLAND: BÄCHLI (1972c, 1973a, 1975a), BURLA (1948, 1951a). — ? TURKEY: unpublished. — USSR: HACKMAN (1957), STAKELBERG (1936, 1970). — YUGOSLAVIA: ARADI (1959), COE (1959), KERIC and MARINKOVIC (1979). — ? MOROCCO: unpublished. — ? IRAN: unpublished.

Comment:

Some records may refer to *D. deflexa* DUDA.

Drosophila scaptomyzoptera DUDA, 1935

General features of adults: DUDA (1935).

Key: DUDA (1935).

Distribution:

USSR: DUDA (1935).

***Drosophila schmidti* DUDA, 1924**

General features of adults: DUDA (1924c, 1935).

Figures: DUDA (1924a, 1924c, 1935), PAPP (1973).

Keys: DUDA (1924a, 1924c, 1935), PAPP (1973).

Distribution:

HUNGARY: ARADI (1959), DUDA (1924c, 1935), PAPP (1973), Soós (1945).

***Drosophila serritata* OKADA, 1956**

Other names used: *D. serritata triangulata* OKADA, *Drosophila (Hirtodrosophila) sp. I*.

General features of adults: CHUNG and RHO (1959), KIM (1962), KUROKAWA and HIHARA (1970), OKADA (1956, 1959, 1961b, 1967).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), KANG and LEE (1964), LEE (1964c), OKADA (1956, 1967), TAKADA (1971).

Development: OKADA (1963a, 1968a).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1965b), OKADA (1954d, 1956, 1968a), SUZUKI (1955), TAKADA (1960), TODA (1977), WAKAHAMA (1957a, 1961, 1962b, 1964).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), CHUNG and RHO (1959), KIM (1962), KANG and LEE (1964), KANG et al. (1959), LEE (1964c, 1966b). — JAPAN: BEPPU and TODA (1976), KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968), KIMURA (1976a, 1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954d, 1956, 1956, 1967, 1968a), SUZUKI (1955), TAKADA (1960, 1968), TODA (1977), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1963c, 1964, 1966), WAKAHAMA et al. (1963).

***Drosophila simulans* STURTEVANT, 1919**

Other names used: *D. melanogaster* MEIGEN (misident.).

General features of adults: BOCK (1976), BOCK and WHEELER (1972), BURLA (1951a, 1954a), BRNCIC (1957), DAVID and BOQUET (1972), DAVID et al. (1974), DUDA (1927), FRIERE-MALA (1949), GALLO (1973), HARRISON (1952, 1959), HSU (1949), KIKAWA and PENG (1938), KUROKAWA and HIHARA (1970), MALOGOLOWIK (1948), NATER (1953), OKADA (1953b, 1954c, 1956, 1961b), PATTENSON (1943), SALLIS (1948), SÉGUY (1934b), STURTEVANT (1919a, 1929), TSACAS et al. (1971).

Figures: BEPPU et al. (1977), BOCK and WHEELER (1972), BURLA (1951a), COVA GARCIA and STÁREZ (1962), HARDY (1965), HARRISON (1952, 1959), HSU (1949), KIKAWA and PENG (1938), LACHAISE (1976), MATYER (1965), MONCLUS (1964), OKADA (1954c, 1956, 1968a), PAPP (1973), PATTERSON (1943), ROCHA PÉREZ (1975a), SALLIS (1948), SÉGUY (1934b), SHORROCKS (1972), STURTEVANT (1919a, 1929), THROCKMORTON (1952), TSACAS et al. (1971).

Keys: BASDEN (1954b), BEPPU et al. (1977), BOCK (1976), BRNCIC (1957), BURLA (1951a), DUDA (1925, 1927), FONSECA (1965), FRYDENBERG (1956a), HARDY (1965), HARRISON (1952, 1959), KANEKO (1960), KANEKO and SHIMA (1962), MCAYER (1964), MONCLUS (1964, 1976), OKADA (1956), PAPP (1973), PATTERSON (1943), PATTERSON and MANTLAND (1944), PAVAN and DA CUNHA (1947), ROCHA PÉREZ (1975a), SÉGUY (1934a, 1934b), SHORROCKS (1972), STURTEVANT (1921, 1942).

Development: HENNIG (1952), KIKAWA and PENG (1938), MATYER (1965), OKADA (1968a), PATTERSON (1943), SÉGUY (1934b), WATABE (1979).

Biology: ATKINSON and SHORROCKS (1977), BASDEN (1954b, 1957a), BOCK (1977b), BURLA (1949, 1951a), BURUGA (1976), BURUGA and OLIBMO (1971), CARSON (1965, 1971), COLLINS (1965), COVA GARCIA and STÁREZ (1962), DAVID (1971), DORZHANSKY (1965), DORZHANSKY and DA CUNHA (1955), DORZHANSKY and PAVAN (1950), FRYDENBERG (1956a), GOLDSCHMIDT (1956b), HEED (1956, 1968), HUNTER (1966), JUNGENT (1968a), KAWANISHI and WATANABE (1977), KKKIC and MARINKOVIĆ (1978), KIKAWA and PENG (1938), LACHAISE (1976), MATHER (1956), MCKENZIE and PARSONS (1974), OKADA (1956), ORTIZ (1968), PARSONS (1978), PAVAN et al. (1950), PIPKIN (1952, 1965), ROCHA PÉREZ (1975a, 1977a, 1977b, 1978, 1979), ROCHA PÉREZ and DA COSTA NICOLAU (1978), SHORROCKS et al. (1979), STURTEVANT (1921), TODA (1976), WATABE (1979), WATANABE and KAWANISHI (1976).

Distribution:

AUSTRIA: ROCHA PÉREZ and TSACAS (1980). — CZECHOSLOVAKIA: unpublished. — DENMARK: FRYDENBERG (1956a). — FINLAND: HACKMAN (1971), LUMME et al. (1978). — FRANCE: DAVID and BOQUET (1972), HADORN et al. (1952), ROCHA PÉREZ and TSACAS (1979), SÉGUY (1934b). — GERMANY DEMOCRATIC REPUBLIC: unpublished. — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BASDEN (1952, 1954b, 1957a), FONSECA (1965), SHORROCKS et al. (1979). — GREECE: TRIANTAPHYLIDIS (1978). — HUNGARY: PAPP (1973). — ICELAND: unpublished. — ITALY: BEARDMORE (1978), KUNZE-MÜHL and SPERL (1962), MAGNI (1959), MAYER (1965), NIGRO (1979), SPRELLER (1961), ZANONHESI (1969). — NETHERLANDS: ROCHA PÉREZ and TSACAS (1980). — PORTUGAL: HADORN et al. (1952), ROCHA PÉREZ (1975a, 1975b, 1977a, 1978, 1979), ROCHA PÉREZ and DA COSTA NICOLAU (1978). — SPAIN: BEARDMORE (1978), MONCLUS (1964), ORTIZ (1968). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1974b), BURLA (1948, 1949, 1951a). — TURKEY: BEARDMORE (1978). — USSR: BOCK and WHEELER (1972). — YUGOSLAVIA: KKKIC and MARINKOVIĆ (1978, 1979), MARINKOVIĆ et al. (1980). — AZORES: FREY (1945), HACKMAN (1969), SÉGUY (1936). — MADAGASCAR: unpublished. — CANARY IS.: unpublished. — MOROCCO: PRYOST (1974). — TUNISIA: JUNGENT (1968a). — EGYPT: BEARDMORE (1978), TANYAWY (1964), TANYAWY and MALLAH (1961), TANYAWY et al. (1970). — ISRAEL: BASDEN (1966), GOLDSCHMIDT (1966b). — LEBANON: PIPKIN (1952), TANYAWY and MALLAH (1961). — IRAQ: unpublished. — S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: KAWANISHI (1978), KAWANISHI and WATANABE (1977), WATABE (1979), WATANABE and KAWANISHI (1976).

Recorded as virtually cosmopolitan species, but absent to higher latitudes.

***Drosophila sordidula* KIKAWA and PENG, 1938**

General features of adults: KANEKO et al. (1964), KIKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1970), LIN and TENG (1971), OKADA (1953b, 1955a, 1955b, 1956, 1959), TAN et al. (1949).

Figures: BEPPU et al. (1977), KIKAWA and PENG (1938), KIM (1962), OKADA (1955a, 1955b, 1956, 1968a), THROCKMORTON (1962).

Keys: BEPPU et al. (1977), KIKAWA and PENG (1938), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: KIKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: BEPPU (1976, 1979, 1980), BEPPU and TODA (1979), ISHIHARA (1955a), KANEKO (1960, 1968), KANEKO and TOKUMITSU (1969), KATŌ (1954), KATŌ and HORI (1952), KIKKAWA and PENG (1958), KIMURA et al. (1977), MINAMI et al. (1979), OKADA (1964, 1961b, 1962, 1968a), SAITO et al. (1962), TAKADA (1954, 1957, 1958), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1957a, 1962b, 1964).

Distribution: CHUNG (1958), KANG et al. (1958, 1959, 1964a), KIKKAWA and PENG (1958), KIM (1962), LEE (1962, 1964c, S. KOHKA, TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978, 1979), BEPPU and TODA (1979), BEPPU et al. (1977), 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978, 1979), BEPPU and TODA (1979), BEPPU et al. (1977), ISHIHARA (1955a), KANEKO (1960, 1968), KANEKO and SHIWA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KATŌ (1954), KATŌ and HORI (1952, 1954), KIKKAWA and PENG (1958), KIMURA MITSU (1969), MINAMI (1979), MINAMI et al. (1979), MORMA (1954, 1957, 1955a), OKADA (1955a, 1956, 1959, 1962, 1966b, et al. (1977), MINAMI (1979), MINAMI et al. (1979), MORMA (1954, 1957, 1955a), OKADA (1955a, 1956, 1959, 1962, 1966b, 1968a), SAITO et al. (1962), SHIWA (1960), TAKADA (1954, 1957, 1958), TAKAHASHI and KANEKO (1969), THORCKMORTON (1962), TODA (1973a, 1973b, 1973c, 1974, 1977), TOKUMITSU et al. (1967), TOYOFUKU (1957, 1958a, 1958b), WAKAHAMA (1957a, 1962a, 1962b, 1962c, 1964), WATABE and BEPPU (1977).

Drosophila staclebergi DUDA, 1935

General features of adults: DUDA (1935).

Key: DUDA (1935).

Distribution:
USSR: DUDA (1935).

Drosophila sternopteuratis OKADA and KUROKAWA, 1957

Other names used: *Drosophila* sp. of *quinaria* section, *Drosophila* sp. of *histris* group I.

General features of adults: KUROKAWA and HIBARA (1976), OKADA (1953b, 1956, 1959, 1961b, 1966a), OKADA and KUROKAWA (1957).

Figures: OKADA (1956, 1965a), OKADA and KUROKAWA (1957).

Keys: BEPPU et al. (1977), LEE (1964c).

Development: OKADA (1963a, 1968a).

Biology: KAWANISHI et al. (1975), OKADA (1962), OKADA and KUROKAWA (1957), WAKAHAMA (1961, 1962b, 1964).

Distribution: CHUNG (1958, 1960), KANG et al. (1959), LEE (1962, 1964c, 1966b), PARK (1958), TAKADA and LEE (1958). — JAPAN: KAWANISHI (1978), KAWANISHI and WATABE (1977), KAWANISHI et al. (1975), OKADA (1956, 1959, 1962, 1968a), OKADA and KUROKAWA (1957), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966).

Drosophila stonei PIPKIN, 1956

General features of adults: PIPKIN (1956, 1961).

Figures: PIPKIN (1956).

Biology: PIPKIN (1961).

Distribution:
LEBANON: PIPKIN (1956).

Drosophila subarectica HACKMAN, 1969

General features of adults: HACKMAN (1969c).

Figures: HACKMAN (1969c).

Biology: LAKOVAARA et al. (1972b), LUMME et al. (1979).

Distribution: FINLAND: HACKMAN (1969c, 1971), LAKOVAARA et al. (1972b), LUMME et al. (1978, 1979). — NORWAY: LAKOVAARA et al. (1972b). — SWEDEN: LAKOVAARA et al. (1972b).

Drosophila subobscura COLLIN, 1936

Other names used: *D. obscura* FALLÉN (misident.), *D. obscura* 8.

General features of adults: BURLA (1951a), CAIN et al. (1952), FREIRE-MAIA (1949), GORDON (1936), HSE (1949), MISRA (1966), MISRA and REBEV (1964), MONCLÉS (1964), MORIWARU et al. (1952), NATER (1953), OKADA (1953b, 1961b), POMINI (1940), PRIVOSTI (1955a, 1976), REED and REED (1948), SMART (1945).

Figures: BURLA (1951a), CAIN et al. (1952), DYSON-HUDSON (1954), HOLLINGSWORTH (1960), Hsu (1949), MAYNARD SMITH and SONDIH (1961), OKADA (1956), PAPP (1973), POMINI (1940), ROCHA PITEZ (1975a), SHORROCKS (1972).

Keys: BASDEN (1954b), BURLA (1951a), DYSON-HUDSON (1954), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), MONCLÉS (1964), OKADA (1956), PAPP (1973), POMINI (1940), ROCHA PITEZ (1975a), SHORROCKS (1972).

Development: BURLA (1951a), SMART (1945).

Biology: ATKINSON and SHORROCKS (1977), BICCHI (1977, 1979), BASDEN (1952, 1963, 1954b, 1956, 1957a), BEGON (1975, 1976a, 1976b, 1977, 1978), BEGON et al. (1975), BURLA (1949, 1951a, 1961), BURLA and GRUTTER (1959a, 1959b, 1961), BUXTON (1960), BUZZATI-TRAVERSO (1942a), BUZZATI-TRAVERSO and SOSSEROLI (1955), COR (1959), DELLY-DRASKOVITS and BUXTON (1960), DELLY-DRASKOVITS and PAPP (1973), DYSON-HUDSON (1956), DYSON-HUDSON and VOCKEROOTH (1955), FRYDENBERG (1956a), GOLDSCHMIDT (1956b), GORDON (1942), GRUTTER (1960), HADONS et al. (1955), HUBER (1955), JINGWIN DENBERG (1956a), KIKKAWA and MARINKOVIC (1979), KOCH (1967), KONIG (1965), KÜHNHORN (1978, 1979), LEVER and SORLES (1951), LEWIS and TAYLOR (1964), MAINX et al. (1955), PHILIP et al. (1944), PIPKIN (1952), RIECH (1971), ROBERTSON (1965), ROCHA PITEZ (1972, 1975a, 1977a, 1977b, 1978, 1979), ROCHA PITEZ and DA COSTA NICOLAU (1975), SHORROCKS (1965), SCHMID (1978), SHORROCKS (1972, 1974, 1975, 1977), SHORROCKS and BRON (1975), SHORROCKS and CHARLESWORTH (1960), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979), SMART (1945), SORLES et al. (1954), TAYLOR and KALMUS (1954), ZUSKA and LAŠTOVKA (1969).

Distribution: AUSTRIA: BALDUZZI (1954), KUNZE-MÜHL and SPERLICH (1955), KUNZE-MÜHL et al. (1958), MAINX (1950), MAINX et al. (1953), MISRA and KEVE (1964), POMINI (1940), RICHTER and HUNDLER (1955), SPERLICH (1959, 1966), SPERLICH and

FEUERBACH (1966), THALER (1977). — BELGIUM: WATIAUX (1968). — CYPRUS: unpublished. — CZECHOSLOVAKIA: ARADI (1959), ZUSKA and LÁSTOVKA (1969). — DENMARK: BARDEN (1956), FRYDENBERG (1956a), LAKOVAARA et al. (1976b), McFARQUHAR and ROBERTSON (1963), MISRA and REEVE (1964), SAURA et al. (1973). — FINLAND: HACKMAN (1971), LAKOVAARA and SAURA (1971b), LAKOVAARA et al. (1972c, 1976b), SAURA et al. (1973). — FRANCE: BALDUZZI (1954), HADORN et al. (1952), LAKOVAARA et al. (1976b), MISRA and REEVE (1964), PŘEVOSTI (1964a, 1966b, 1968), PŘEVOSTI et al. (1975), ROCHA PITÉ and TSACAS (1980), SAURA et al. (1973), STUMM-ZOLLINGER (1953). — GERMAN DEMOCRATIC REPUBLIC: POMINI (1940). — GERMAN FEDERAL REPUBLIC: BALDUZZI, BERTING, BÜTZLER, DART (1960), HÄNDLER (1955), HADORN (1956), KÜHLHORN (1978, 1979), PINSKER and SPERLICH (1979), PINSKER et al. (1978). — GREAT BRITAIN: ATKINSON and SHORROCKS (1977), BARDEN (1952, 1958, 1964a, 1964b, 1957a), BARDEN and GOODEY (1955), BEGON (1975, 1976a, 1976b, 1978), BEGON et al. (1975), BUZZATI-TRAVERO (1942b), CAIN et al. (1952), CLARKE et al. (1961), DYSON-HUDSON (1954, 1956), DYSON-HUDSON and VOCKEROTH (1955), FONSECA (1965), GONZALEZ-DEARTE et al. (1973), GORDON (1936, 1942), GORDON et al. (1939), HARTMAN-GOLDSTEIN and SPERLICH (1963), KNIGHT (1961), KUNZE-MÜHL and SPERLICH (1955), LEWIS and TAYLOR (1964), McFARQUHAR and ROBERTSON (1963), MAINX et al. (1953), MAYNARD SMITH et al. (1955), MILANI (1953), MISRA and REEVE (1964), PHILIP et al. (1944), FOMENT (1944), FOMENT (1960), PŘEVOSTI (1955a, 1955b, 1957), RICHTER and HÜNDLER (1955), ROBERTSON (1965), SHORROCKS (1969, 1970, 1974, 1975, 1977), SHORROCKS and CHAIRSWORTH (1960), SHORROCKS and WOOD (1973), SHORROCKS et al. (1979), SMART (1945), SMITH (1956, 1960), SPERLICH (1964), TAYLOR and KALMUS (1954). — GREECE: KRIMBAS (1964a, 1967), KRIMBAS and ALKIVIZOS (1973), LAKOVAARA and SAURA (1971b), PENTZOS-DAPONTE (1964), PENTZOS-DAPONTE et al. (1967), SPERLICH (1966), ZOCROS et al. (1974). — HUNGARY: ARADI (1959), DEVEY-TRASKOVITS and BABOS (1967), DEVEY-TRASKOVITS and PAPP (1978), PAPP (1978). — IRLAND: BARDEN (1955), PŘEVOSTI (1955b). — ITALY: BALDUZZI (1954), BUZZATI-TRAVERO (1942a, 1942b), FREZZI (1950), KUNZE-MÜHL and SPERLICH (1955, 1962), LAKOVAARA et al. (1971b), MAJOS (1959), MAINX (1956, 1958), MAINX et al. (1953), MILANI (1953), MISRA and REEVE (1964), PHILIP et al. (1944), PINSKER and SPERLICH (1979), POMINI (1940), PŘEVOSTI et al. (1975), RICHTER and HÜNDLER (1955), RUMERER (1959), SAURA et al. (1973), SPERLICH (1961, 1966), SPERLICH and KUNZE-MÜHL (1963). — NETHERLANDS: ISSERS et al. (1979), KRIMBAS (1964b), KUNZE-MÜHL and SPERLICH (1955), LEVER and SOBELS (1951), RICHTER and HÜNDLER (1955), SOBELS et al. (1954). — NORWAY: BARDEN (1956), JOHNSON et al. (1966), SPERLICH (1964, 1966). — PORTUGAL: HADORN et al. (1952), ROCHA PITÉ (1972, 1975a, 1975b, 1977a, 1977b, 1978, 1979), ROCHA PITÉ and DA COSTA NICOLAU (1978), STUMM-ZOLLINGER (1953). — SPAIN: BALDUZZI (1954), BARDEN (1961), FREZZOS (1972), GONZALEZ DEARTE et al. (1973), HACKMAN (1960a), HADORN et al. (1952), LAKOVAARA and SAURA (1971b), MONCLÉS (1953, 1964), ORTIZ (1968), PŘEVOSTI (1951, 1952, 1954, 1955a, 1957, 1960, 1961, 1964b, 1966, 1967, 1967, 1968). — SWEDEN: BALDUZZI (1954), BOK (1972), BURLA (1948, 1949, 1951a, 1961), BURLA and GÖZ (1965), BURLA and GRÜTTER (1959a, 1959b), CLARKE et al. (1961), GÖZ (1965a), GRÜTTER (1968), HSU (1949), JUNGÉN (1970), KOCH (1967), KUNZE-MÜHL and SPERLICH (1955), LAKOVAARA and SAURA (1971b), McFARQUHAR and ROBERTSON (1963), MAINX (1956), MAINX et al. (1953), MAYNARD SMITH et al. (1955), MISRA and REEVE (1964), NAYR (1953), PINSKER and SPERLICH (1979), PŘEVOSTI (1957), RIESCH (1971), SCHATZMANN (1977), SCHMID (1968), STUMM-ZOLLINGER (1953), ZOLLINGER (1960). — TURKEY: GÖZ (1965a, 1967). — USSR: DUMNIN et al. (1937b), MAINX et al. (1953). — YUGOSLAVIA: ANĐELJKOVIĆ and STRELIČ (1973), BARDEN (1961), COE (1959), KERIĆ and MARINKOVIĆ (1974, 1979), KERIĆ et al. (1980), MARINKOVIĆ et al. (1980). — AZORES: FREY (1945), HACKMAN (1960). — MADEIRA: FREY (1949), PŘEVOSTI (1972). — CANARY IS.: FREY (1956), HACKMAN (1955), MONCLÉS (1976), PŘEVOSTI (1971, 1972). — MOROCCO: GONZALEZ-DEARTE et al. (1973), GÖZ (1965a, 1965b), PŘEVOSTI (1974), PŘEVOSTI et al. (1975). — TUNISIA: JUNGÉN (1968a, 1968b), PAPP (1978), PINSKER and SPERLICH (1972). — ISRAEL: FREY (1952). — IRELAND: BARDEN (1956), CLARKE et al. (1961), GOLDSTEIN (1956a, 1956b, 1958), KUNZE-MÜHL and SPERLICH (1955), McFARQUHAR and ROBERTSON (1963), MISRA and REEVE (1964), RICHTER and HÜNDLER (1955), STUMM-ZOLLINGER and GOLDSCHMIDT (1959), WATIAUX (1968). — LEBANON: PIPKIN (1952). — SYRIA: KUNZE-MÜHL and SPERLICH (1955), MAINX et al. (1953), RICHTER and HÜNDLER (1955). — IRAQ: GÖZ (1965a, 1967). Recorded also in South America.

Drosophila subsitcestris HARDY and KANESHIRO, 1968

Other names used: *D. sitcestris* BARDEN (syn.), *D. obscura* X, *Drosophila* sp. near *obscura*.

General features of adults: BARDEN (1954b), BARDEN and HARDEN (1956), BURLA (1951a), CAIN et al. (1952), DYSON-HUDSON (1954), KNIGHT (1956).

Figures: DYSON-HUDSON (1954), KNIGHT (1956), SHORROCKS (1972), STAKELBERG (1970).

Keys: BARDEN (1954b), DYSON-HUDSON (1954), FONSECA (1965), FRYDENBERG (1956a), PAPP (1973), SHORROCKS (1972), STAKELBERG (1970).

Biology: BARDEN (1953, 1954b), BARDEN and HARDEN (1956), BEGON (1978), BURLA (1961), FRYDENBERG (1956a), BERTING (1955), KÜHLHORN (1978), LUMME et al. (1975, 1979), SCHATZMANN (1977), SHORROCKS (1972, 1975), SOBELS et al. (1954).

Distribution.

AUSTRIA: unpublished. — CZECHOSLOVAKIA: ROCHA PITÉ and TSACAS (1980). — DENMARK: FRYDENBERG (1956a). — FINLAND: HACKMAN (1971), LAKOVAARA et al. (1972a, 1972c), LUMME et al. (1978, 1979). — FRANCE: ROCHA PITÉ and TSACAS (1980). — GERMAN FEDERAL REPUBLIC: BERTING (1955), KÜHLHORN (1978). — GREAT BRITAIN: BARDEN (1952, 1953, 1954b), BARDEN and GOODEY (1955), BEGON (1978), BUZZATI-TRAVERO (1942), RICHTER and HÜNDLER (1955), DYSON-HUDSON (1954), FONSECA (1965), KNIGHT (1956), SHORROCKS (1969, 1970, 1975, 1977), SMITH (1959). — IRELAND: BURLA, PITÉ and TSACAS (1980). — NETHERLANDS: SOBELS et al. (1954). — NORWAY: BARDEN and HARDEN (1956). — SWEDEN: LAKOVAARA et al. (1972a, 1972c). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1973c, 1974b, 1974c, 1975a, 1975b, 1979), BURLA (1951a, 1961), SCHATZMANN (1977). — USSR: HACKMAN (1957), STAKELBERG (1970). — YUGOSLAVIA: unpublished.

Drosophila subtilis KIKKAWA and PENG, 1938

General features of adults: HSU (1949), KIKKAWA and PENG (1938), OKADA (1953a, 1955a, 1956, 1961b), CANARY IS.

Figures: HSU (1949), KIKKAWA and PENG (1938), OKADA (1955a, 1956, 1959, 1968a).

Keys: KIKKAWA and PENG (1938), OKADA (1956).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: KIKKAWA and PENG (1938), NOZAWA (1956), OKADA (1956, 1962, 1968a), TAN et al. (1949), WAKAHAMA (1962b, 1962c, 1964).

Distribution.

S. KOREA: CHUNG (1960a), KANG et al. (1959), LEE (1966b). — JAPAN: KAWANISHI and WATANABE (1977), KIKKAWA and PENG (1938), NOZAWA (1956), OKADA (1955a, 1956, 1959, 1962, 1968a), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966). Recorded also in South China.

***Drosophila suzukii* MATSUMURA, 1931**Other name used: *D. suzukii indica* PARSHAD and PAIKA.

General features of adults: BOCK and WHEELER (1972), FRIED-MAIA (1949), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), MATSUMURA (1931), OKADA (1953b, 1954c, 1956, 1959, 1961b, 1966a), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), PENG (1937).

Figures: BEPPU et al. (1977), BOCK and WHEELER (1972), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), MATSUMURA (1931), OKADA (1954c, 1956, 1968a), PARSHAD and PAIKA (1964).

Keys: BEPPU et al. (1977), GUPTA and RAY-CHAUDHURI (1970), KIKKAWA and PENG (1938), LEE (1964c), OKADA (1956), PENG (1937), TAKADA (1971).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), HENNIG (1953), ISHIHARA (1955a), KANEKO (1960), KANEKO and TOKUMITSU (1963, 1969), KATO (1964), KATO and HOJI (1952), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), LEE (1962), MINAMI (1979), MINAMI et al. (1978), MOMMA (1965a), NOZAWA (1956), OKADA (1956, 1962), PARSHAD and DUGGAL (1966), PARSHAD and PAIKA (1964), SAITO et al. (1962), TAKADA (1954, 1957, 1958), TODA (1973a, 1973b, 1974, 1976, 1977), WAKAHAMA (1957a, 1961, 1962b, 1964).

Distribution:

CHINA: HSU (1949), PENG (1937), TAN et al. (1949). — S. KOREA: CHUNG (1958, 1959, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959), KIM (1962, 1963), LEE (1962, 1964c, 1965, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1960, 1965), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969, 1969), KANEKO et al. (1960, 1969), KATO (1954), KATO and HOJI (1952, 1954), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIKKAWA and PENG (1938), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MATSUMURA (1931), MINAMI et al. (1979), MOMMA (1957, 1965a), NOZAWA (1956), OKADA (1964c, 1954d, 1956, 1962, 1966b, 1968a), SAITO et al. (1962), SHIMA (1960), TAKADA (1954, 1957, 1958, 1960, 1965), TAKADA and OKADA (1960), TODA (1973a, 1973b, 1974, 1977), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1964b), WAKAHAMA et al. (1963), WATABE and BEPPU (1977). Recorded also in India and on the Ryukyu and Bonin Islands.

***Drosophila takadai* LEE, 1964**

General features of adults: LEE (1964a, 1964c).

Figures: LEE (1964a, 1964c).

Key: LEE (1964c).

Development: LEE (1964a, 1964c).

Distribution:

S. KOREA: LEE (1964a, 1964c, 1966b).

***Drosophila takahashii* STURTEVANT, 1927**

General features of adults: BOCK and WHEELER (1972), BOHART and GRESSITT (1951), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA and HIHARA (1976), NATER (1950, 1953), OKADA (1953b, 1954c, 1954d, 1955, 1956, 1959, 1961b), PARSHAD and PAIKA (1964), PENG (1937), VAIDYA and GODDOLLE (1971), WHEELER and TAKADA (1964).

Figures: BOCK and WHEELER (1972), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), NATER (1950, 1953), OKADA (1954c, 1955c, 1956, 1968a), PARSHAD and PAIKA (1964), PENG (1937), TEROCCKOMOROS (1962), VAIDYA and GODDOLLE (1971), WHEELER and TAKADA (1964).

Keys: BOHART and GRESSITT (1951), GUPTA and RAY-CHAUDHURI (1970), KIKKAWA and PENG (1938), OKADA (1956, 1960a), PENG (1937), WHEELER and TAKADA (1964).

Development: KIKKAWA and PENG (1938), OKADA (1963a, 1965a), PARSHAD and PAIKA (1964).

Biology: BOHART and GRESSITT (1951), KIKKAWA and PENG (1938), OKADA (1956), PARSHAD and PAIKA (1964).

Distribution:

CHINA: HSU (1949), KIKKAWA and PENG (1938), OKADA (1954c), PENG (1937), TAN et al. (1949). — S. KOREA: KIM (1962), LEE (1966b). — JAPAN: OKADA (1954c, 1954d, 1955c, 1956, 1959, 1968a). Recorded mainly in South Asia.

***Drosophila tenuicauda* OKADA, 1956**Other name used: *Drosophila* sp. III like *grandis*.

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1955b, 1956, 1961b, 1966a), TAKADA and LEE (1958).

Figures: BEPPU et al. (1977), OKADA (1956, 1968a).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), OKADA (1956), TAKADA and LEE (1958).

Distribution:

S. KOREA: KANG et al. (1959, 1964a), LEE (1964c, 1966b), TAKADA and LEE (1958). — JAPAN: KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), KAWANISHI et al. (1975), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957), OKADA (1956, 1960a, 1968a), TAKADA (1968), TAKADA and OKADA (1960), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1964). Recorded also on the Ryukyu Islands.

***Drosophila testacea* VON ROSER, 1840**Other names used: *D. nigritorax* STROBL (syn.), *D. setosa* VILLENUEVE (syn.), *D. fasciata* MEIGEN (misident.).

General features of adults: BECKER (1968a), BURLA (1951a), BURLA and GLOOR (1952), CHUNG and RHO (1959), COLLIN (1952), DUDA (1924, 1934), HSU (1949), KIM (1962), KUROKAWA and HIHARA (1976), MALOGOLWEN (1953), NATER (1953), NEUBATS (1886), OKADA (1953a, 1954d, 1955a, 1956, 1959, 1961b), PARSHAD and DUGGAL (1966), VON ROSER (1840), STROBL (1894), TAKADA (1960), VILLENUEVE (1921), WATABE (1977).

Figures: BEPPU et al. (1977), BURLA (1951a), DUDA (1924a, 1924c, 1934), HSU (1949), KIM (1962), NATER (1953), OKADA (1955a, 1956, 1968a), PAPP (1973), TAKADA (1960), THROCKMORTON (1962), WATABE (1977).

Keys: BEPPU et al. (1977), BURLA (1951a), DUDA (1924a, 1924c, 1934), ENDERLIN (1936), FONSECA (1965), FRYDENBERG (1956a), GREPA and RAY-CHAUDHURI (1970), HACKMAN (1954), LASTOVKA and MÁČA (1977), LEE (1964c), MONGOLS (1964), OKADA (1956), PAPP (1973), STÄKELBERG (1970), STURTEVANT (1942), TAKIDA (1971).

Development: BURLA (1951a), KIMURA et al. (1979), OKADA (1963a, 1968a).

Biology: BÄCHLI (1969, 1979), BEPPU (1976), BEPPU and TODA (1976), BURLA (1949, 1951a, 1961), BURLA and BÄCHLI (1968), COB (1959), COLLIN (1952), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1975), HACKMAN (1965), HACKMAN and MEINANDER (1978), HADORN et al. (1952), HERBERT (1955), ISHIHARA (1965a, 1955b), KANEKO (1969), KANEKO and TOKUMITSU (1969, 1969), KANEKO et al. (1969, 1968), KERIC and MARINKOVIĆ (1979), KIMURA (1979a, 1979b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977, 1978), KÖNIG (1965), KÜHLHORN (1978), LEE (1962), LEVET and SOBELS (1951), LUMME et al. (1978, 1979), MINAMI et al. (1979), MOMMA (1965b), OKADA (1954d, 1956, 1968a), PAPP (1979), PARSHAD and DUGGAL (1960), SATO et al. (1962), SCHMID (1968), SHORROCKS (1977), SHORROCKS and WOOD (1973), SOBELS et al. (1954), SUZUKI (1955), TAKADA (1954, 1957, 1958, 1960), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1956b, 1957a, 1962b, 1964), WATABE (1977, 1979), WHEELER and THROCKMORTON (1960), ZUSKA and LASTOVKA (1969).

Distribution: AUSTRIA: BASDEN (1961), STROBE (1894). — CZECHOSLOVAKIA: ARADI (1959), LASTOVKA and MÁČA (1977), SOÓS (1945), ZUSKA and LASTOVKA (1969). — DENMARK: BASDEN (1956), FRYDENBERG (1956a). — FINLAND: HACKMAN (1954, 1963, 1971), HACKMAN and MEINANDER (1979), LUMME et al. (1978, 1979). — FRANCE: HADORN et al. (1952). — GERMAN FEDERAL REPUBLIC: HERPING (1955), KÖNIG (1965), KÜHLHORN (1978), VON ROSER (1840). — GREAT BRITAIN: BASDEN (1952), COLLIN (1952), FONSECA (1965), SHORROCKS (1977). — HUNGARY: ARADI (1959), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973), SOÓS (1945). — ITALY: NODDI (1979). — NETHERLANDS: LEVET and SOBELS (1951), SOBELS et al. (1954). — NORWAY: ROCHA PÉREZ and TSACAS (1980). — ROMANIA: ARADI (1959), SOÓS (1945). — SPAIN: BURLA and GAGOR (1952), HADORN et al. (1952), MONTELS (1964). — SWEDEN: BASDEN (1956). — SWITZERLAND: BÄCHLI (1966, 1972b, 1972c, 1973a, 1973b, 1974b, 1974c, 1975a, 1975b, 1977, 1979), BURLA (1948, 1949, 1951a, 1951b, 1961), BURLA and BÄCHLI (1968), NATER (1953), SCHMID (1968). — TURKEY: unpublished. — USSR: ARADI (1959), HACKMAN (1954, 1957), SOÓS (1945), PAPP (1979), STÄKELBERG (1980, 1970). — YUGOSLAVIA: BASDEN (1961), COB (1959), KERIC and MARINKOVIĆ (1979). — IRAN: unpublished. — MONGOLIA: OKADA (1973c). — N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959), KIM (1962), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978), BEPPU and TODA (1976), ISHIHARA (1955a, 1955b), KANEKO (1960, 1965), KANEKO and SHIMA (1962), KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1968, 1969), KANEKO et al. (1966, 1968, 1969), KIMURA (1979a, 1979b, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977, 1978), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965a, 1965b), OKADA (1954d, 1955a, 1956, 1959, 1968a), SATO et al. (1962), SHIMA (1960), SUZUKI (1955), TAKADA (1954, 1957, 1958, 1960, 1968), TAKADA and OKADA (1960), TODA (1973a, 1973b, 1973c, 1974, 1977), TOYOFUKU (1957, 1958a), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1956b, 1957a, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1977, 1979), WATABE and BEPPU (1977).

Recorded also in North America and India.

Drosophila throckmortoni OKADA, 1973

Other names used: *D. ruficeps* LOEW (misident.), *D. lebanonensis*.

General features of adults: KUROKAWA and HIHARA (1976), OKADA (1953b, 1956, 1961b, 1973b).

Figures: BEPPU et al. (1977), OKADA (1955b, 1956, 1968a, 1973b).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956).

Development: OKADA (1963a, 1968a).

Biology: BEPPU and TODA (1976), KIMURA and TODA (1976), KIMURA et al. (1977), OKADA (1956, 1962, 1968a), TODA (1973a, 1974, 1977).

Distribution:

S. KOREA: LEE (1962, 1964c, 1966b), PAIK (1958), TAKADA and LEE (1958). — JAPAN: BEPPU and TODA (1976), KIMURA and TODA (1976), KIMURA et al. (1977), OKADA (1956, 1962, 1968a, 1973b), TODA (1973a, 1974, 1977).

Drosophila transversa FALLÉN, 1923

Other names used: *D. transversa* var. *lata* ZETTERSTEDT (syn.), *D. transversa subquinaris* SPENCER.

General features of adults: BECKER (1902), BURLA (1951a), DE CASTRO (1953), CZERNY (1903a), DUDA (1924c, 1935), FALLÉN (1923), GOURLEAU (1965), HENNIG (1955), HERING (1940), HSU (1949), MACQUART (1855), MALOGOLEWIKIN (1953), MIEGON (1830), NATER (1953), NICHOLS (1886), OKADA (1956, 1961b), PATTERSON (1943), SÉGUY (1934b), SPENCER (1942), STROBE (1893b), STURTEVANT (1921), VILLENUEVE (1911), WAHLGREN (1927), WALKER (1853), WHEELER (1960a), ZETTERSTEDT (1838, 1847, 1855).

Figures: BURLA (1951a), DUDA (1924a, 1924c, 1935), HSU (1949), MONGOLS (1964), MORSE (1976a), NATER (1953), PAPP (1973), PATTERSON (1943), STÄKELBERG (1970), THROCKMORTON (1962), WHEELER (1960a).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), LASTOVKA and MÁČA (1977), MONGOLS (1964), PAPP (1973), PATTERSON (1943), SCHERER (1864), SÉGUY (1934a, 1934b), SHORROCKS (1972), STÄKELBERG (1970), STURTEVANT (1921, 1942), WAHLGREN (1927).

Development: BURLA (1951a), DUDA (1934), HENNIG (1952).

Biology: AZARJAN (1968), BÄCHLI (1979), BASDEN (1952, 1954b), BASDEN and HÄRNDEN (1956), BAUMANN (1977), BRITTON (1857), BUNYANOVICH (1922), BURLA (1949, 1951a), BURLA (1979), BUXTON (1969), CANNARIELLO (1943), CHARLES-WORTH and SHORROCKS (1980), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), DUDA (1934, 1935), EIFELDER (1957), FRYDENBERG (1956a), GOTTEAU (1865), HACKMAN (1954, 1965), HACKMAN and MEINANDER (1979), HERBERT (1955), KÖNIG (1965), KRAHER (1917), KRÖHNER (1910, 1935), KÜHLHORN (1978), LEVET and SOBELS (1951), LUMME et al. (1978, 1979), MAYR (1935), DE MEIJERE (1939a, 1947), NASWATY (1959), PAPP (1976, 1979), RADDATZ (1873), RIBEL (1921), SCHULZE (1912), SÉGUY (1934b), SHORROCKS (1972, 1975, 1977), SHORROCKS and WOOD (1973), SMITH (1959), SOBELS et al. (1954), STORA (1957).

Distribution:

AUSTRIA: BASDEN (1961), STROBE (1889, 1894, 1901, 1910), THALER (1977), TIEF (1888). — CZECHOSLOVAKIA: ARADI (1959), ERANCSIK (1910), CZERNY (1966), DOSKOČIL (1962), LASTOVKA and MÁČA (1977), MARTINIK (1974b), STROBE

(1901), VIMMER (1943). — DENMARK: FRYDENBERG (1956a), ZETTERSTEDT (1847). — FINLAND: FREY (1917a, 1950), HACKMAN (1954, 1968, 1971), HACKMAN and MEINANDER (1979), LUMME et al. (1978, 1979), STORÅ (1956, 1967), ZETTERSTEDT (1847, 1960). — FRANCE: BONNAMOUCÉ (1926), GOUREAU (1863), HADORN et al. (1952), REEL (1921), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: KANG (1936), KRÄMER (1917), NICHOLS (1956), RADDAZ (1873), TIMOFFEY-RASSOVSKY and TIMOFFEY-RASSOVSKY (1914a). — GERMAN FEDERAL REPUBLIC: BAUMANN (1973), BROTHEN (1987), HOPFELDER (1957), HUICING (1955), KONG (1965), KRÖBER (1910, 1935), KÜHNHORN (1975), NASSRATY (1959), ZETTERSTEDT (1847). — GREAT BRITAIN: AUDCENT (1950), BASDEN (1952, 1954b), BUXTON (1960), CHARLESWORTH and SHORROCKS (1900), CURTIS (1938), FONSECA (1965), HALDAY (1833), HENDERSON (1911), SHORROCKS (1972, 1975, 1977), SHORROCKS and WOOD (1973), SMITH (1950), THORCKMORTON (1965), WALKER (1849, 1855), YARBRO (1913). — HUNGARY: ARADI (1959), BASDEN (1961), DELY-DRASKOVITS (1976), DELY-DRASKOVITS and BAROS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1972, 1976), SOOS (1945), THALHAMMER (1890). — IRELAND: ROCHA PITE and TSACAS (1979). — ITALY: BEZZI (1892b), CASANELLI (1941), POKORSY (1857). — NETHERLANDS: DE MELHEKE (1929, 1939a), STROBL and SOBELS (1951), SOBELS et al. (1954), STURTEVANT (1921). — NORWAY: BASDEN and HANSDIN (1960). — POLAND: KARL (1964). — ROMANIA: ARADI (1959), STROBL (1897), THALHAMMER (1890). — SPAIN: HADORN et al. (1952), MONCLUS (1964). — SWEDEN: FALLEN (1923), RINGDAHL (1931, 1951, 1959), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1855, 1960). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1973c, 1974c, 1975a, 1975b, 1977, 1979), BURLA (1948, 1949, 1951a, 1961), HSU (1949), NÄTER (1953). — TURKEY: unpublished. — USSR: AZARJAN (1962), BALKASCHINA and ROMASCHOFF (1935), BASDEN (1956), BOBER (1897), EVESHKIN (1854), FROLOVA (1920), GREYSYD and SIMONENKO (1970), HACKMAN (1954, 1957), PAPP (1979), STÄKELBERG (1930, 1970). — YUGOSLAVIA: ARADI (1959), STROBL (1900a), KEKIC and MARINKOVIC (1979). — MONGOLIA: OKADA (1973c).
Recorded also in North America.

Drosophila triauraria BOCK and WHEELER, 1972

Other name used: *D. auraria* BOCK.

General features of adults: BOCK and WHEELER (1972), KIM (1962), KUROKAWA (1956, 1962, 1967b), OKADA (1953b, 1954c).

Figures: BEPTU et al. (1977), BOCK and WHEELER (1972), KIM (1962), OKADA (1954c, 1955b).

Keys: BEPTU et al. (1977), TAKADA (1971).

Development: BOCK and WHEELER (1972).

Biology: KANEKO and TOKUMITSU (1969), KIMURA and TODA (1976), MINAMI (1979), MINAMI et al. (1979), TODA (1973b, 1975c, 1974, 1977), WAKAHAMA (1966).

Distribution:

K. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1960a), CHUNG and RHO (1959), KIM (1962, 1965), KUROKAWA (1962, 1965, 1967a), LEE (1964c, 1965). — JAPAN: BOCK and WHEELER (1972), KANEKO (1965), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1968), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976b), KIMURA and TODA (1974), KUROKAWA (1956, 1960, 1962, 1963, 1967a, 1967b), MINAMI (1979), MINAMI et al. (1979), OKADA (1954c, 1964b), TAKADA (1965), TAKADA and OKADA (1960), TODA (1973b, 1973c, 1974, 1977), TOYOTOKU and KIMURA (1966, 1961), WAKAHAMA (1966), WAKAHAMA et al. (1963).
Recorded also on the Ryukyu Islands.

Drosophila trilineata CHUNG, 1960

Other name used: *D. trivittata* STROBL (misident.).

General features of adults: CHUNG (1960b), OKADA (1967).

Figures: CHUNG (1960b).

Keys: LEE (1964c), OKADA (1967).

Biology: CHUNG (1960b).

Distribution:

S. KOREA: CHUNG (1958, 1960b), LEE (1964c, 1966b).

Drosophila tristis FALLÉN, 1823

Other names used: *D. spurca* ZETTERSTEDT (syn.), *D. tinctipennis* STROBL (syn.), *D. obscura* var. *tristis*.

General features of adults: BASDEN (1958), BECKER (1902), BURLA (1951a), CAIN et al. (1952), EGORN (1862), FALLÉN (1823), FERRE-MALA (1949), FRYDENBERG (1955), HALDAY (1833), MACQUART (1833), MICHEN (1830), MONCLUS (1964), MORIWAKI et al. (1952), NÄTER (1953), OLDENBERG (1914), OKADA (1953b), POMINI (1940), SCHMID (1864), SÉDUY (1934b), STROBL (1901), ZETTERSTEDT (1847).

Figures: BURLA (1951a), DUDA (1924a), DYSON-HUDSON (1954), MORER (1976a, 1976c), PAPP (1973), POMINI (1940), ROCHA PITE (1975a), SHORROCKS (1972).

Keys: BASDEN (1954b), BURLA (1951a), DUDA (1924a, 1924c), DYSON-HUDSON (1954), FONSECA (1965), FRYDENBERG (1956a), HACKMAN (1954), MONCLUS (1964), OKADA (1956), PAPP (1973), POMINI (1940), ROCHA PITE (1975a), SÉDUY (1934a, 1934b), SHORROCKS (1972).

Biology: BASDEN (1953, 1954b), EGORN et al. (1975), BURLA (1949, 1951a), BUZZATI-TRAVERSO and SCROSSIROLI (1955), COLLIN (1911), FRYDENBERG (1956a), HADORN et al. (1952), HERZING (1955), KALIN (1873), ROCHA PITE and DA COSTA NICOLAU (1978), SCHMID (1868), SHORROCKS (1975), SOBELS et al. (1954), SMART (1945).

Distribution:

AUSTRIA: BASDEN (1961), MAINX et al. (1953), STROBL (1901). — CZECHOSLOVAKIA: BASDEN (1961), STROBL (1901). — DENMARK: BASDEN (1956), FRYDENBERG (1956a), ZETTERSTEDT (1847). — FRANCE: HADORN et al. (1952), ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: BADDATY (1978). — GERMAN FEDERAL REPUBLIC: HERZING (1955), KRÖBER (1910, 1935). — GREAT BRITAIN: AUDCENT (1950), BASDEN (1952, 1953, 1954a, 1954b), BASDEN and GOODEY (1955), EGORN et al. (1975), CAIN et al. (1952), COLLIN (1911), CURTIS (1853), DYSON-HUDSON (1954), FONSECA (1965), HALDAY (1833), SHORROCKS (1969, 1970, 1975, 1977), SMART (1945), SMITH (1959, 1960), WALKER (1849, 1853). — HUNGARY: ARADI (1959), PAPP (1973). — IRELAND: ROCHA PITE and TSACAS (1979). — ITALY: BUZZATI-TRAVERSO (1942), MAINX et al. (1953), POMINI (1940). — NETHERLANDS: LEVER and SOBELS (1951), SOBELS et al. (1954). — PORTUGAL: ROCHA PITE (1975a, 1975b, 1977b), ROCHA PITE and DA COSTA NICOLAU (1978). — ROMANIA: THALHAMMER (1890). — SPAIN: HADORN et al. (1952), MONCLUS (1964). — SWEDEN: BASDEN (1960), FALLEN (1823), WAHLGREN (1927), ZETTERSTEDT (1847). — SWITZERLAND: BÄCHLI (1972b, 1972c, 1973a, 1974b, 1974c, 1975a, 1975b), BURLA (1948, 1949, 1951a), LAKOYAAARA et al. (1972a, 1972c), NÄTER (1953), SCHMID (1968). — TURKEY: unpublished. — USSR: unpublished. — YUGOSLAVIA: KEKIC and MARINKOVIC (1978, 1979). — IRAN: unpublished.

***Drosophila tricittata* STROBL, 1893**

Other names used: *D. tricittata* var. *ussurica* DUDA, *Drosophila* sp. II.

General features of adults: BASDEN (1957b, 1961), CHUNG (1960b), DUDA (1921, 1924c, 1935), HERNING (1958), OKADA (1956, 1961b), OLDENBERG (1914), STROBL (1893b).

Figures: DUDA (1935), OKADA (1956, 1967).

Keys: BEPPU et al. (1977), DUDA (1924a, 1924c, 1935), KANG and LEE (1964), OKADA (1956, 1967), PAPP (1973), STAKELBERG (1970), TAKADA (1971).

Biology: COE (1950), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), KANEKO and TOKUMITSU (1969), KANO et al. (1960), KIMURA (1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956), OLDENBERG (1914), PAPP (1970), TODA (1973a).

Distribution:

AUSTRIA: DUDA (1935), STROBL (1893b, 1894). — CZECHOSLOVAKIA: unpublished. — HUNGARY: DELY-DRASKOVITS and BABOS (1975), DELY-DRASKOVITS and PAPP (1973), PAPP (1973), SOÓS (1945). — ROMANIA: ARADI (1959), DUDA (1924c, 1935), OLDENBERG (1914), SOÓS (1945). — SWEDEN: unpublished. — USSR: DUDA (1935), FROLOWA (1926), HACKMAN (1957), PAPP (1979), STAKELBERG (1930, 1970). — YUGOSLAVIA: COE (1959). — S. KOREA: KANG and LEE (1964), KANG et al. (1960, 1960), LEE (1962b). — JAPAN: KANEKO (1960), KANEKO and SHIRA (1962), KANEKO and TOKUMITSU (1965, 1969), KAWANISHI et al. (1975), KIMURA (1976b, 1980a, 1980b), KIMURA and TODA (1976), KIMURA et al. (1977), MIYAMA et al. (1970), MOMMA (1957, 1965a, 1965b), OKADA (1956, 1967), TAKADA (1968), TODA (1973a), WAKAHAMA (1964), WAKAHAMA et al. (1963).

Recorded also on the Ryukyu Islands and in Taiwan.

***Drosophila tsigana* BURLA and GLOOR, 1952**

General features of adults: BURLA and GLOOR (1952), NATER (1953).

Figures: BURLA and GLOOR (1952), NATER (1953).

Keys: ROCHA PÉREZ (1975a).

Biology: HADORN et al. (1952).

Distribution:

FRANCE: BURLA and GLOOR (1952), HADORN et al. (1952), NATER (1953), ROCHA PÉREZ and TSAGAS (1979). — PORTUGAL: BURLA and GLOOR (1952), HADORN et al. (1952), ROCHA PÉREZ (1972).

***Drosophila unimaculata* STROBL, 1893**

General features of adults: BASDEN (1961), BURLA (1951a), CZERNY (1903a), DUDA (1924c, 1935), HSU (1949), NAZAR (1963), OLDENBERG (1914), STROBL (1893b).

Figures: BASDEN (1961), DUDA (1924b, 1935), HSU (1949), NATER (1953), PAPP (1973).

Keys: BURLA (1951a), DUDA (1924a, 1924c, 1935), FONSECA (1965), PAPP (1973).

Development: BURLA (1951a).

Biology: BURLA (1951a), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), DUDA (1924c), HERTING (1955), SCHMID (1968), TESCHNER (1961, 1962).

Distribution:

AUSTRIA: BASDEN (1961), DUDA (1935), STROBL (1893b, 1894, 1910). — CZECHOSLOVAKIA: ARADI (1959), SOÓS (1945). — GERMAN FEDERAL REPUBLIC: DUDA (1935), HERTING (1955), OLDENBERG (1914), TESCHNER (1961, 1962). — GREAT BRITAIN: FONSECA (1965). — HUNGARY: DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973), SOÓS (1945). — POLAND: DUDA (1924c, 1935). — ROMANIA: ARADI (1959), DUDA (1935), OLDENBERG (1914), PAPP (1973), SOÓS (1945). — SWITZERLAND: BÄCHLI (1972c, 1975b), BURLA (1948, 1951a), DUDA (1935), HSU (1949), NATER (1953), OLDENBERG (1914), SCHMID (1968). — YUGOSLAVIA: unpublished.

***Drosophila unipunctata* DUDA, 1924**

Other name used: *Drosophila* sp. like *unipunctata*.

General features of adults: BOCK and WHEELER (1972), DUDA (1924b, 1931), OKADA (1953b, 1954c, 1956, 1959, 1961b).

Figures: DUDA (1924a), OKADA (1954c, 1956).

Keys: DUDA (1924a), OKADA (1956).

Biology: OKADA (1956), SAITO et al. (1962).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: OKADA (1954c, 1956, 1959), SAITO et al. (1962).
Recorded also in Taiwan and India.

***Drosophila unispina* OKADA, 1956**

Other names used: *D. transversa* FALLEN (misident.), *D. transversa* type C, *D. transversa* type III.

General features of adults: CHUNG and RHO (1959), KIM (1962), LEE (1964c), OKADA (1953b, 1955a, 1955b, 1956, 1961b), TAKADA (1952), WAKAHAMA (1956a).

Figures: BEPPU et al. (1977), KIM (1962), OKADA (1955a, 1956, 1968a), WAKAHAMA (1956a).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: OKADA (1963a, 1968a).

Biology: BEPPU (1976), BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1960), KANEKO and TOKUMITSU (1963, 1969), KANG et al. (1960), KATO (1954), KATO and HORI (1952), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MIYAMA et al. (1979), NOZAWA (1956), OKADA (1954d), SUZUKI (1955), TAKADA (1954, 1957, 1958), TODA (1973a, 1973b, 1973c, 1974, 1977), WAKAHAMA (1956b, 1957a, 1961, 1962b, 1964), WATABE (1979).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1964a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959, 1960, 1964a), KIM (1962, 1963), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976, 1978),

BEPPU and TODA (1976), ISHIHARA (1955a), KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1963, 1969), KANEKO et al. (1969), KATO (1954), KURO and HORI (1952, 1954), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MIKUNO (1952), MOMMA (1957, 1965a), NOZAWA (1956), OKADA (1954d, 1955a, 1956, 1968a), SHIMA (1967), SUZUKI (1955), TAKADA (1952, 1954, 1957, 1958, 1968), TAKADA and OKADA (1960), TAKADA et al. (1953), TODA (1973a, 1973b, 1973c, 1974, 1977), TOKUMITSU et al. (1967), TOYOFUKU (1957), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1956a, 1956b, 1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963), WATABE (1979), WATABE and BEPPU (1977).

Drosophila virilis STURTEVANT, 1916

General features of adults: DE CASTRO (1953), CHINO (1966), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA (1972), KUROKAWA and HAHARA (1976), NAYER (1963), OKADA (1953b, 1955a, 1956, 1961b), PATTERSON (1943), PENG (1937), STURTEVANT (1916, 1921), WATABE and HIGUCHI (1979).

Figures: BEPPU et al. (1977), CHINO (1966), HSU (1949), KIKKAWA and PENG (1938), KIM (1962), KUROKAWA (1972), MALOGOLOVSKIN (1953), MAYER (1935), NAYER (1963), OKADA (1955a, 1956, 1968a), PATTERSON (1943), PATTERSON and STONE (1952), PENG (1937), STURTEVANT (1921), THEROCKMORTON (1962), WATABE and HIGUCHI (1979).

Keys: BEPPU et al. (1977), DUDA (1927), KIKKAWA and PENG (1938), LEE (1964c), MONCLÉS (1976), OKADA (1956), PATTERSON (1943), PATTERSON and MALLINLAD (1944), PENG (1937), STURTEVANT (1918, 1921), TAKADA (1971).

Development: HENNING (1959), KIKKAWA and PENG (1938), MAYER (1935), OKADA (1963a, 1968a), PATTERSON (1943).

Biology: HACHIYA (1954), HUNTER (1966), KANEKO (1960), KANEKO et al. (1966), KIKKAWA and PENG (1938), KIMURA and TODA (1976), NOZAWA (1956), OHMORI et al. (1960), OKADA (1956, 1962), PATTERSON (1942), SAITO et al. (1962), SPIETH (1979), STURTEVANT (1921), TAKADA (1964, 1967, 1968), TAKADA and TOYOFUKU (1960), TAN et al. (1949), TODA (1973a), WAKAHAMA (1957a, 1961, 1962b, 1964).

Distribution:

NETHERLANDS: LAKOVAARA and HOEKKALA (1979). — SPAIN: MONCLÉS (1976). — TURKEY: ROCHA PITÉ and TSACAS (1980). — USSR: KIKKAWA and PENG (1938), LAKOVAARA and HOEKKALA (1979), WHEELER and HAMILTON (1972). — MALDEIRA: unpublished. — CANARY IS.: MONCLÉS (1976). — CHINA: KIKKAWA and PENG (1938), PATTERSON and GRIFFIN (1944), PATTERSON and STONE (1952), PENG (1937), TAN et al. (1949), WARTER (1944). — N. KOREA: KIKKAWA and PENG (1938), OKADA (1974b). — S. KOREA: CHUNG (1935, 1959), KANG et al. (1969, 1964a), KIKKAWA and PENG (1938), KIM (1962), LEE (1962, 1964c, 1966b), OKADA (1956), PARK (1953), TAKADA and LEE (1958). — JAPAN: HACHIYA (1954), KANEKO (1960, 1968), KANEKO and SHIMA (1962), KANEKO and FURUMITSU (1965, 1969), KANEKO et al. (1966, 1968), KAWANISHI and WATANABE (1977), KIKKAWA and PENG (1938), KIMURA and TODA (1976), MOMMA (1954, 1957, 1962a), NOZAWA (1956), OHMORI et al. (1960), OKADA (1955a, 1956, 1962, 1968a), PATTERSON and STONE (1952), SAITO et al. (1962), SHIMA (1960), TAKADA (1952, 1954, 1957, 1958, 1968, 1971), TAKADA and OKADA (1960), TAKAHASHI and KANEKO (1969), TODA (1973a), TOYOFUKU (1957), TOYOFUKU and KIMURA (1960, 1961), TSUNO (1973), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WARTER (1944).

Recorded also in America.

Drosophila yakushimana OKADA, 1967

General features of adults: OKADA (1967).

Figures: OKADA (1967).

Key: OKADA (1967).

Distribution:

JAPAN: OKADA (1967).

Gitona MEIGEN, 1830

Gitona beckeri DUDA, 1924

General features of adults: DUDA (1934).

Figures: DUDA (1924a, 1934).

Keys: DUDA (1924a, 1934), McALPINE (1968).

Distribution:

CHINA: DUDA (1924a, 1934).

Gitona canariensis DUDA, 1934

General features of adults: DUDA (1934), SÉGUY (1941).

Key: DUDA (1934).

Distribution:

CANARY IS.: DUDA (1934), FREY (1936), MONCLÉS (1976), TSACAS and DESMIER DE CHENON (1976)

Gitona distans BEZZI, 1924

General features of adults: BASDEN (1966), BEZZI (1924a).

Figures: BEZZI (1924a).

Biology: BEZZI (1924a).

Distribution:

CYPRUS: BEZZI (1924a).

Recorded also in Pakistan.

***Gitona distigma* MEIGEN, 1830**

General features of adults: BEZZI (1924a), COLLIN (1902a), DUDA (1934), LANGHOFFER (1897), LÖRW (1864), MACQUART (1835), MEIGEN (1830), NEUBAUS (1886), OKADA (1973c), OLDENEERG (1914), SÉGUY (1933a, 1934a, 1934b).

Figures: BEZZI (1924a), DUDA (1924a, 1934), FRAUNFELD (1868b), LLOY (1895), OKADA (1973c), PAPP (1973), SÉGUY (1934b), ŠTAKELBERG (1970).

Keys: DUDA (1924a, 1934), ENDERLEIN (1936), LAŠTOVKA and MÁČA (1977), PAPP (1973), SÉGUY (1934a, 1934b), ŠTAKELBERG (1970).

Biology: BRATER (1883), DOSKOČIL (1962), DUDA (1934), KALTENBACH (1874), KNAB (1914), LANGHOFFER (1897), SCHOLTZ (1848/50), SÉGUY (1933b, 1934a, 1934b, 1951), STURTEVANT (1921), TIEF (1888), WHEELER (1952), ŽUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: ARADI (1959), BASDEN (1961), SCHINER (1864), STROBL (1894), TIEF (1888). — CZECHOSLOVAKIA: CIZÍEK (1906, 1910), DOSKOČIL (1962), LAŠTOVKA and MÁČA (1977), VIMMER (1913), ŽUSKA and LAŠTOVKA (1969). — FRANCE: MACQUART (1835), MEIGEN (1830), SÉGUY (1934b). — GERMAN DEMOCRATIC REPUBLIC: DUDA (1934), NEUBAUS (1886), OLDENEERG (1914). — GERMAN FEDERAL REPUBLIC: unpublished. — HUNGARY: ARADI (1959), PAPP (1973), Soos (1943), THALHAMMER (1899). — ITALY: BEZZI (1924a), LLOY (1895), OLDENEERG (1914). — POLAND: SCHOLTZ (1848/50). — ROMANIA: ARADI (1959). — SPAIN: CZERNY and STROBL (1909). — SWITZERLAND: unpublished. — USSR: DUDA (1934), ŠTAKELBERG (1970). — YUGOSLAVIA: COE (1959), LANGHOFFER (1897), STROBL (1898a, 1900a), THALHAMMER (1899). — CHINA: SÉGUY (1934a, 1934b). — MONGOLIA: OKADA (1973c).

***Gitona microchaeta* SÉGUY, 1941**

General features of adults: SÉGUY (1941).

Distribution:

MOROCCO: SÉGUY (1941), TSACAS and DESMIER DE CHENON (1976).

Hypselothyrea* DE MEIJERE, 1906**Hypselothyrea breviscutellata* DUDA, 1928**

General features of adults: DUDA (1928), GUPTA (1974b), OKADA (1956, 1961b).

Figures: DUDA (1928), OKADA (1956).

Keys: DUDA (1928), OKADA (1956).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956).

Recorded also in Taiwan.

Leucophenga* MIK, 1886**Leucophenga angusta* OKADA, 1956**

Other names used: *L. nigricentris* MACQUART (misident.), *L. nigripalpis* DUDA (misident.), *L. guttiventris* DE MEIJERE (misident.), *Leucophenga* sp.

General features of adults: BOCK (1979), BOHART and GRESSITT (1951), LIN and WHEELER (1972), OKADA (1956, 1966a, 1970), WHEELER and TAKADA (1964).

Figures: LIN and WHEELER (1972), OKADA (1956, 1966a, 1970), WHEELER and TAKADA (1964).

Keys: BEPTIC et al. (1977), BOCK (1979), OKADA (1956, 1970), WHEELER and TAKADA (1964).

Biology: BOHART and GRESSITT (1951), OKADA (1956), WAKAHAMA (1962b, 1965).

Distribution:

JAPAN: KAWANISHI (1978), LIN and WHEELER (1972), OKADA (1956, 1965, 1966a), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966).

Recorded also in South Asia, Australia and on some Pacific Islands.

***Leucophenga atrinervis* OKADA, 1968**

Other names used: *L. nigrinervis* DUDA (misident.), *Leucophenga* sp.

General features of adults: OKADA (1968c).

Figures: OKADA (1968a, 1968c).

Development: OKADA (1968a, 1968a).

Biology: OKADA (1968a).

Distribution:

JAPAN: OKADA (1968a, 1968c).

***Leucophenga bellula* BERGROTH, 1894**

Other names used: *L. guttiventris* DE MEIJERE (syn.), *L. maculiventris* DE MEIJERE (syn.).

General features of adults: BERGROTH (1894), BOCK (1979), BURLA (1954a), DUDA (1923, 1939), GUPTA (1970), LIN and WHEELER (1972), MALLOCH (1923a), DE MEIJERE (1908, 1911b, 1912b), OKADA (1956, 1966a, 1970, 1971e).

Figures: BOCK (1979), DUDA (1924a), DE MEIJERE (1908), OKADA (1956, 1966a, 1970).

Keys: BOCK (1979), DUDA (1924a, 1939), DE MEJERE (1908), OKADA (1956, 1966a, 1970), SINGH and GUPTA (1974).
Biology: OKADA (1956).

Distribution:
JAPAN: KAWANISHI (1978), OKADA (1956, 1966a, 1970).
Recorded mainly in South Asia and Australia.

Leucophenga conetta OKADA, 1956

General features of adults: KANG et al. (1955a), KIM (1962), OKADA (1956, 1968c).

Figures: KIM (1962), OKADA (1956, 1968c).

Keys: LEE (1964c), OKADA (1956).

Biology: OKADA (1956), WAKAHAMA (1962b, 1964).

Distribution:
S. KOREA: KANG et al. (1958, 1959), KIM (1962), LEE (1962, 1964c, 1966b), PAK (1958), TAKADA and LER (1965). —
JAPAN: KAWANISHI (1978), OKADA (1956, 1966b, 1968c), WAKAHAMA (1962a, 1962b, 1962c, 1964, 1966).
Recorded also on the Ryukyu Islands.

Leucophenga interrupta DUDA, 1923

General features of adults: DUDA (1924b), LIN and WHEELER (1972), OKADA (1956), SINGH and GUPTA (1974).

Figures: DUDA (1924a), LIN and WHEELER (1972), OKADA (1956), SINGH and GUPTA (1974).

Keys: DUDA (1924a, 1939), OKADA (1956), SINGH and GUPTA (1974).

Biology: OKADA (1954, 1956).

Distribution:
JAPAN: OKADA (1954d, 1956, 1964).
Recorded mainly in South Asia.

Leucophenga lacteosa TAKADA and WAKAHAMA, 1967

General features of adults: TAKADA and WAKAHAMA (1967).

Figures: TAKADA and WAKAHAMA (1967).

Distribution:
JAPAN: OKADA (1968c).
Recorded also on the Ryukyu Islands.

Leucophenga maculata DUFOUR, 1839

Other name used: *Leucophenga* sp. from Hokkaido.

General features of adults: BASDEN (1957b), DUDA (1923, 1924c, 1934), DUFOUR (1839), KIM (1962), KUROKAWA and HIRARA (1976), LAMM (1914), LIN and WHEELER (1972), DE MEJERE (1911b), MEK (1886a), OKADA (1956), OLDENBERG (1914), SEGUY (1934a, 1934b), SHARP (1900), STROBL (1893b, 1894), TAKADA and WAKAHAMA (1967), WAHLBERG (1927), ZETTERSTEDT (1847, 1860).

Figures: BEFFU et al. (1977), DUDA (1934), DUFOUR (1839, 1845), HENNIG (1952, 1958), KIM (1962), LAŠTOVKA and MÁČA (1977), LIN and WHEELER (1972), OKADA (1956), PAPP (1973), SEGUY (1934b).

Keys: BEFFU et al. (1977), DUDA (1924a, 1934, 1939), STROBL (1893b, 1894), FONSECA (1965), LAŠTOVKA and MÁČA (1977), LER (1964c), OKADA (1956), PAPP (1973), SCHINER (1864), SEGUY (1934a, 1934b), STAKELBERG (1970), TAKADA (1971), WAHLBERG (1927).

Development: DUDA (1934), DUFOUR (1839, 1840, 1845, 1846), HENNIG (1952), MAYER (1935), OKADA (1965a).

Biology: BRAUER (1883), BUXTON (1960), CANZANELLI (1941), COLYER and HAMMOND (1951), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), DUFOUR (1839, 1840, 1845), KANEKO and TOKUTSUKU (1969), KIMURA (1978a, 1978b), KIMURA and TODA (1976), KIMURA et al. (1977), KIRCHBERG (1960), MÁČA (1975), MAYER (1935), MIYAKI et al. (1979), MOMMA (1957), OKADA (1954d, 1962), OLDENBERG (1922), RINGDAHL (1949), SCHMID (1968), SCHULZE (1912), SEGUY (1934a, 1934b), TODA (1975a, 1977).

Distribution:
AUSTRALIA: BASDEN (1961), MEK (1886a), RINGDAHL (1957), STROBL (1894, 1901), TIEP (1888). — CZECHOSLOVAKIA: ARADI (1959), LAŠTOVKA and MÁČA (1977), MÁČA (1978), VIMMER (1913). — FRANCE: DUFOUR (1839, 1840, 1845), SEGUY (1934a, 1934b), ZETTERSTEDT (1847). — GERMAN DEMOCRATIC REPUBLIC: KIRCHBERG (1960), OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: KRÖBER (1910, 1935), OLDENBERG (1922). — GREAT BRITAIN: AUPICHT (1959), BUXTON (1960), FONSECA (1965), SHARP (1900). — HUNGARY: ARADI (1959), DELY-DRASKOVITS and BABOS (1976), DELY-DRASKOVITS and PAPP (1973), PAPP (1973). — ITALY: BEZZI (1892b), CANZANELLI (1941), OLDENBERG (1914), POKORNY (1887), SCHNEIDER (1964). — POLAND: BIEDIŃSKI (1969). — ROMANIA: ARADI (1959), OLDENBERG (1914), THALHAMMER (1899). — SPAIN: HACKMAN (1969a). — SWEDEN: RINGDAHL (1949), WAHLBERG (1927), ZETTERSTEDT (1860). — SWITZERLAND: BACHLI (1972c, 1973a, 1973b, 1974c, 1975a, 1975b, 1979), HURLA (1951a), SCHMID (1968). — TURKEY: unpublished. — USSR: STAKELBERG (1970). — YUGOSLAVIA: BASDEN (1961), COE (1959), STROBL (1894, 1898a, 1900a). — S. KOREA: KANG et al. (1958, 1959, 1964a), KIM (1962), LER (1962, 1964c, 1966b), PAK (1968), TAKADA and LER (1965). — JAPAN: KANEKO (1969), KANEKO and TAKADA (1960), KANEKO and TOKUTSUKU (1969, 1960), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MIYAKI et al. (1979), MOMMA (1957, 1965a), OKADA (1954d, 1956, 1962), TAKADA (1968), TODA (1975a, 1977), WAKAHAMA (1962a, 1964, 1966).
Recorded also in Taiwan.

Leucophenga orientalis LIN and WHEELER, 1972

Other name used: *L. magnipalpis* DUDA (misident.).

General features of adults: KUROKAWA and HIRARA (1976), KIM (1962), LIN and WHEELER (1972), OKADA (1956, 1961a, 1970, 1971c), WAKAHAMA (1956a).

Figures: KIM (1962), LIN and WHEELER (1972), OKADA (1956, 1970), WAKAHAMA (1956a).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956, 1970), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), KIMURA (1976a), MOMMA (1957), WAKAHAMA (1962b, 1964).

Distribution:

S. KOREA: CHUNG (1960a), KANG et al. (1958, 1959), KIM (1962, 1963), LEE (1964c, 1966b), PAIK (1958), TAKADA and LEE (1965). — JAPAN: KANEKO and TOKUMITSU (1969), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a), LIN and WHEELER (1972), MOMMA (1957, 1965a), OKADA (1956, 1966b), TAKADA (1965), WAKAHAMA (1956a, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1965).

Recorded also on the Ryukyu and Bonin Islands and in Taiwan.

Leucophenga ornata WHEELER, 1959

Other name used: *L. ornaticornis* DE MEIJERE (syn.).

General features of adults: BASDEN (1957b), BOCK (1979), KIM (1962), KUROKAWA and HIRAHARA (1976), LIN and WHEELER (1972), DE MEIJERE (1914), OKADA (1953a, 1956, 1961a, 1968c).

Figures: BOCK (1979), DUDA (1924a), KIM (1962), DE MEIJERE (1914), OKADA (1956, 1968c).

Keys: BOCK (1979), DUDA (1924a), LEE (1964c), DE MEIJERE (1914), OKADA (1956, 1966a).

Biology: BEPPU (1976), KIMURA (1976a), OKADA (1956, 1964), WAKAHAMA (1961, 1962b, 1964).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1964c, 1966b), PAIK (1958), TAKADA and LEE (1958). — JAPAN: BEPPU (1976), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a), LIN and WHEELER (1972), OKADA (1956, 1966b, 1968c), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964).
Recorded mainly in South Asia and Australia.

Leucophenga quadripunctata DE MEIJERE, 1908

General features of adults: BOCK (1979), DE MEIJERE (1908), OKADA (1956), TAKADA and MOMMA (1975).

Figures: BOCK (1979), DUDA (1924a), DE MEIJERE (1908), OKADA (1956).

Keys: BOCK (1979), DUDA (1924a, 1930), DE MEIJERE (1908), OKADA (1956).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: OKADA (1956).

Recorded mainly in South Asia and Australia.

Leucophenga quinquemaculata STROBL, 1893

Other name used: *L. quinquemaculata* var. *marginalis* OLDENBERG.

General features of adults: BASDEN (1961), DUDA (1934), OKADA (1956), OLDENBERG (1914), STROBL (1893b), TAKADA and LEE (1958), WHEELER (1952).

Figures: DUDA (1924a, 1934), PAPP (1973).

Keys: DUDA (1924a, 1934, 1939), ENDERLEIN (1936), PAPP (1973), STAKELBERG (1970).

Biology: PAPP (1979).

Distribution:

AUSTRIA: DUDA (1934), STROBL (1893b, 1894). — FINLAND: FREY (1929). — ITALY: OLDENBERG (1914). — POLAND: DUDA (1934). — SWEDEN: unpublished. — SWITZERLAND: BÄCHLI (1975b). — USSR: PAPP (1979), STAKELBERG (1970).

Leucophenga quinquemaculipennis OKADA, 1956

Other names used: *Leucophenga* sp., *L. quinquemaculata* STROBL (lapsus).

General features of adults: KIM (1962), OKADA (1956, 1968c), TAKADA (1960), TAKADA and LEE (1958).

Figures: KIM (1962), OKADA (1968a, 1968c), TAKADA (1960).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956), TAKADA (1971).

Development: OKADA (1968a).

Biology: BEPPU (1976), KANEKO and TOKUMITSU (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965b), OKADA (1954d), SUZUKI (1955), TAKADA (1960), TODA (1973a, 1973b, 1977).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG and RHO (1959), KANG et al. (1959), KIM (1962), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: BEPPU (1976), BEPPU and TODA (1976), KANEKO and TOKUMITSU (1969), KANEKO et al. (1969), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MOMMA (1957, 1965b), OKADA (1954d, 1956, 1968a, 1968c), SUZUKI (1955), TAKADA (1960, 1968), TODA (1973a, 1973b, 1977), WAKAHAMA (1964), WAKAHAMA et al. (1964).

Leucophenga saigusai OKADA, 1968

General features of adults: OKADA (1968c).

Figures: OKADA (1968c).

Distribution:

JAPAN: OKADA (1968c).

Leucophenga sorii KANG, LEE and BAHNG, 1965

General features of adults: KANG et al. (1965a).

Figures: BEPPU et al. (1977), KANG et al. (1965a).

Key: BEPPU et al. (1977).

Biology: KANG et al. (1965).

Distribution:

S. KOREA: KANG et al. (1965a), LEE (1966b). — JAPAN: BEPPU et al. (1977).

***Leucophenga stackelbergi* DUDA, 1934**

General features of adults: DUDA (1934).

Key: DUDA (1934).

Distribution:

USSR: DUDA (1934).

***Leucophenga stenomaculipennis* OKADA, 1968**

General features of adults: OKADA (1968c).

Figures: OKADA (1968c).

Biology: KIMURA (1976b), TODA (1974).

Distribution:

JAPAN: KIMURA (1976b), OKADA (1968c), TODA (1974).

***Leucophenga subpollinosa* DE MELJERE, 1914**

General features of adults: BÄCHLI (1971, 1973b), BOCK (1979), DUDA (1926a), GUPTA (1974b), LIN and WHEELER (1972), DE MELJERE (1914), OKADA (1956, 1966a), WHEELER and TAKADA (1964).

Figures: BÄCHLI (1971), BOCK (1979), DUDA (1924a), GUPTA (1974b), OKADA (1956).

Keys: BÄCHLI (1971), BOCK (1979), DUDA (1924, 1939), DE MELJERE (1914), OKADA (1956, 1966), SINGH and GUPTA (1974), WHEELER and TAKADA (1964).

Biology: LACHAISE (1975).

Distribution:

JAPAN: OKADA (1956).

Recorded mainly in Old World tropics and Australia.

Liodrosophila* DUDA, 1922**Liodrosophila aerea* OKADA, 1956**Other names used: *Parameiodrosophila* sp., *L. rugulosa* DE MELJERE (misident.).

General features of adults: KUROKAWA and HIBARA (1976), OKADA (1953a, 1955b, 1956, 1961a, 1965, 1968d, 1974a), OKADA and CHUNG (1960).

Figures: OKADA (1956, 1965, 1968a, 1968d, 1974a).

Keys: BEFFU et al. (1977), OKADA (1965, 1974a), TAKADA (1971).

Development: OKADA (1963a, 1968a).

Biology: OKADA (1956).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: KANEKO and SHIMA (1962), KAWANISHI (1975), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), OKADA (1956, 1966b, 1968a, 1974a), WAKAHAMA (1962a, 1964, 1966).

Recorded also in Southeast Asia.

***Liodrosophila bicolor* OKADA, 1956**

General features of adults: OKADA (1956, 1965, 1968d, 1974a).

Figures: OKADA (1956, 1965, 1968d, 1974a).

Keys: OKADA (1965, 1974a).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956).

Recorded also on the Ryukyu Islands.

***Liodrosophila castanea* OKADA and CHUNG, 1960**

General features of adults: OKADA (1974a), OKADA and CHUNG (1960).

Figures: LEE (1964c), OKADA (1974a), OKADA and CHUNG (1960).

Keys: LEE (1964c), OKADA (1974a).

Development: LEE (1964c).

Biology: OKADA and CHUNG (1960).

Distribution:

S. KOREA: CHUNG (1959), LEE (1964c, 1966b), OKADA and CHUNG (1960).

***Liodrosophila nitida* DUDA, 1922**

General features of adults: DUDA (1922, 1926a), OKADA (1964, 1966a, 1974a).

Figures: DUDA (1926a), OKADA (1964, 1966a, 1974a).

Keys: DUDA (1922), OKADA (1966a, 1974a).

Distribution:

JAPAN: OKADA (1974a).

Recorded mainly in Southeast Asia.

Microdrosophila* MALLOCH, 1921**Microdrosophila congesta* ZETTERSTEDT, 1847**

General features of adults: BASSIN (1857L), BOHART and GRESSITT (1951), DUDA (1923, 1924c, 1926a, 1927, 1934), OKADA (1960b), WAHLGREN (1927), ZETTERSTEDT (1847).

Figures: DUDA (1924a, 1934), LAŠTOVKA and MÁČA (1927).

Keys: BOHART and GRESSITT (1951), DUDA (1924a, 1924c, 1926a, 1927, 1934), ENDERLEIN (1936), LAŠTOVKA and MÁČA (1927), WAHLGREN (1927).

Biology: BOHART and GRESSITT (1951), SCHMID (1968).

Distribution:

AUSTRIA: unpublished. — POLAND: DUDA (1924c, 1934). — SWEDEN: DUDA (1924c), WAHLGREN (1927), ZETTERSTEDT (1847). — SWITZERLAND: SCHMID (1968). — USSR: STAKELBERG (1930).

Recorded also in Southeast Asia.

Comment:

Records outside of Europe may refer to other species.

***Microdrosophila cristata* OKADA, 1960**

General features of adults: KUROKAWA and HIRARA (1976), LEE and LEE (1967), OKADA (1960b, 1961a, 1966a, 1968b, 1968c).

Figures: BEPPU et al. (1977), LEE and LEE (1967), OKADA (1960b, 1968a, 1968b, 1968c).

Keys: BEPPU et al. (1977), OKADA (1960b), TAKADA (1971).

Development: OKADA (1968a).

Biology: KANEKO and TOKUMITSU (1969).

Distribution:

S. KOREA: LEE and LEE (1967). — JAPAN: KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KAWANISHI et al. (1975), OKADA (1960b, 1968a).

Recorded also in Taiwan.

***Microdrosophila fuscata* OKADA, 1960**

General features of adults: OKADA (1960b, 1968b), LEE and LEE (1967).

Figures: OKADA (1960b, 1968b).

Keys: LEE (1964c), OKADA (1960b).

Biology: OKADA (1960b).

Distribution:

S. KOREA: LEE (1964a, 1964c, 1966b). — JAPAN: KAWANISHI (1978), OKADA (1960b, 1966b).

***Microdrosophila latifrons* OKADA, 1965**

General features of adults: LEE and LEE (1967), OKADA (1965).

Figures: LEE and LEE (1967), OKADA (1965).

Key: OKADA (1965).

Distribution:

S. KOREA: LEE and LEE (1967).

Recorded also on the Ryukyu Islands.

***Microdrosophila maculata* OKADA, 1960**

General features of adults: OKADA (1960b, 1961a, 1966a, 1968b, 1968c).

Figures: OKADA (1960b, 1968b, 1968c).

Key: OKADA (1960b).

Biology: OKADA (1960).

Distribution:

JAPAN: OKADA (1960b).

***Microdrosophila matsudairai* OKADA, 1960**

General features of adults: LEE and LEE (1967), OKADA (1960b, 1968a, 1968b, 1968c).

Figures: LEE (1964a), OKADA (1960b, 1968a, 1968b).

Keys: LEE (1964c), OKADA (1960b, 1965).

Development: LEE (1964a), OKADA (1965a).

Biology: OKADA (1960b, 1968a).

Distribution:

S. KOREA: LEE (1964a, 1964c, 1966b). — JAPAN: KAWANISHI (1978), OKADA (1960b, 1968a).

Recorded also on the Ryukyu Islands.

***Microdrosophila nigripalpis* OKADA, 1966**

General features of adults: OKADA (1966a, 1968b, 1968c).

Figures: OKADA (1966a, 1968b, 1968c).

Key: OKADA (1966a).

Distribution:

JAPAN: OKADA (1968c).

Recorded also in Nepal.

***Microdrosophila pleurolineata* WHEELER and TAKADA, 1964**

General features of adults: OKADA (1965, 1968b, 1968c), WHEELER and TAKADA (1964).

Figures: OKADA (1965, 1968b, 1968c), TAKADA (1966), WHEELER and TAKADA (1964).

Keys: OKADA (1965), WHEELER and TAKADA (1964).

Distribution:

JAPAN: OKADA (1977b).

Recorded also in Southeast Asia and Micronesia.

***Microdrosophila pseudopleurolineata* OKADA, 1968**

General features of adults: OKADA (1968c).

Figures: OKADA (1968c).

Biology: OKADA (1968c).

Distribution:

JAPAN: OKADA (1968c).

Recorded also on the Ryukyu Islands.

***Microdrosophila purpurata* OKADA, 1956**

General features of adults: KUROKAWA and HIHARA (1978), OKADA (1956, 1960b, 1961a, 1968a, 1968b, 1968c).

Figures: OKADA (1956, 1968a, 1968b, 1968c).

Keys: LEE (1964c), OKADA (1956, 1960b).

Development: OKADA (1968a).

Biology: LEE (1962), OKADA (1956, 1968a).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1960a), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN:

KAWANISHI (1978), KAWANISHI et al. (1975), OKADA (1956, 1966b, 1968a), WAKAHAMA (1966).

Recorded also in India.

***Microdrosophila urashimae* OKADA, 1960**Other name used: *M. congesta* ZETTERSTEDT (misident.).

General features of adults: OKADA (1956, 1960b, 1961a, 1968b), OKADA and KUROKAWA (1957).

Figures: OKADA (1956, 1968a, 1968b), OKADA and KUROKAWA (1957).

Keys: LEE (1964c), OKADA (1956, 1960b).

Development: OKADA (1956, 1968a, 1968a).

Biology: OKADA (1956, 1968a), OKADA and KUROKAWA (1957).

Distribution:

S. KOREA: LEE (1964a, 1964c, 1966b). — JAPAN: OKADA (1956, 1960b, 1966b, 1968a), OKADA and KUROKAWA (1957).

Recorded also in Taiwan.

***Microdrosophila zetterstedti* WHEELER, 1959**Other name used: *M. nigriventris* ZETTERSTEDT (syn.).

General features of adults: BARDEN (1961), DUDA (1984), OKADA (1960b), ZETTERSTEDT (1847).

Figures: BARDEN (1961), DUDA (1964).

Keys: DUDA (1984), HACKMAN (1954), STÄKELBERG (1970), ZETTERSTEDT (1847).

Distribution:

AUSTRIA: BARDEN (1961). — FINLAND: HACKMAN (1954). — NORWAY: unpublished. — SWEDEN: ZETTERSTEDT

(1847). — USSR: DUDA (1984), STÄKELBERG (1970).

Mycodrosophila* OLDENBERG, 1914**Mycodrosophila atrithorax* OKADA, 1968**

General features of adults: OKADA (1968d).

Figures: OKADA (1968d).

Distribution:

JAPAN: OKADA (1968d).

***Mycodrosophila basalis* OKADA, 1956**

General features of adults: OKADA (1956).

Figures: OKADA (1956).

Keys: LEE (1964c), OKADA (1956).

Biology: LEE (1964), OKADA (1956).

Distribution:

S. KOREA: CHUNG (1958), KANG et al. (1959), LEE (1962, 1964c, 1966b), TAKADA and LEE (1958). — JAPAN: OKADA

(1956).

***Mycodrosophila biceps* KANG, LEE and BAHNG, 1966**

General features of adults: KANG et al. (1966), OKADA (1968d).
 Figures: KANG et al. (1966), OKADA (1968d).
 Biology: KANG et al. (1966).
 Distribution:
 S. KOREA: KANG et al. (1966), LEE (1966b). — JAPAN: OKADA (1968d).

***Mycodrosophila bifidulata* TAKADA, 1968**

General features of adults: TAKADA (1968).
 Figures: TAKADA (1968).
 Keys: BEPPU et al. (1977), TAKADA (1971).
 Biology: KIMURA (1976a), KIMURA and TODA (1976), TAKADA (1968).
 Distribution:
 JAPAN: KIMURA (1976a), KIMURA and TODA (1976), TAKADA (1968).

***Mycodrosophila erecta* OKADA, 1968**

Other name used: *Mycodrosophila* sp. from Kirishimayama.
 General features of adults: LIN and TING (1971), OKADA (1956, 1968d).
 Figures: OKADA (1956, 1968d).
 Key: OKADA (1956).
 Biology: OKADA (1956).
 Distribution:
 S. KOREA: KANG et al. (1959). — JAPAN: OKADA (1956, 1968d).
 Recorded also on the Ryukyu Islands.

***Mycodrosophila gratiosa* DE MEIJERE, 1911**

Other names used: *M. fructicosta* LAMB (syn.), *M. biroi* DUDA (syn.), *M. splendida* OKADA (syn.).
 General features of adults: BURLA (1954a), DUDA (1923, 1939), GUPTA (1974b), LAMB (1914), MALLOCH (1933), DE MEIJERE (1911b), OKADA (1956, 1961a, 1965, 1971c), WHEELER and TAKADA (1964).
 Figures: BURLA (1954a), GUPTA (1974b), LAMB (1914), OKADA (1956, 1968a, 1971c), WHEELER and TAKADA (1964).
 Keys: BEPPU et al. (1977), BURLA (1954a), DUDA (1924a), LEE (1964c), MALLOCH (1934b), DE MEIJERE (1911b), WHEELER and TAKADA (1964).
 Development: OKADA (1963a, 1968a).
 Biology: BURLA (1954a), OKADA (1956, 1968a), TODA (1976), WAKAHAMA (1961, 1962b, 1964).
 Distribution:
 S. KOREA: CHUNG (1959), KANG et al. (1959), KIM (1963), LEE (1964c, 1966b). — JAPAN: OKADA (1956, 1966b, 1968a), WAKAHAMA (1961, 1962a, 1962b, 1962c, 1964, 1966).
 Recorded mainly in Old World tropics.

***Mycodrosophila japonica* OKADA, 1956**

Other name used: *Mycodrosophila* sp. I.
 General features of adults: OKADA (1956, 1961a, 1968d).
 Figures: OKADA (1956, 1968d).
 Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956), TAKADA (1971).
 Biology: KIMURA (1976b), MOMMA (1957, 1965b), OKADA (1956), SUZUKI (1955).
 Distribution:
 S. KOREA: KANG et al. (1959), LEE (1959, 1964c, 1966b). — JAPAN: KIMURA (1976b), MOMMA (1957, 1965b), OKADA (1956, 1966b, 1968d), SUZUKI (1955), WAKAHAMA (1964).

***Mycodrosophila koreana* LEE and TAKADA, 1959**

Other name used: *Mycodrosophila* sp.
 General features of adults: KANG et al. (1964a, 1965a), KIM (1962), LEE and TAKADA (1959).
 Figures: KIM (1962), LEE (1964c), LEE and TAKADA (1959).
 Key: LEE (1964c).
 Development: LEE (1964c).
 Biology: LEE (1962, 1964c), LEE and TAKADA (1959).
 Distribution:
 S. KOREA: KIM (1962, 1963), LEE (1962, 1964c, 1966b), LEE and TAKADA (1959), TAKADA and LEE (1958). — JAPAN: LEE and TAKADA (1959).

***Mycodrosophila nigropteroptera* KANG, LEE and BAHNG, 1965**

General features of adults: KANG et al. (1965a, 1966).
 Figures: KANG et al. (1965a).
 Biology: KANG et al. (1965a).
 Distribution:
 S. KOREA: KANG et al. (1965a), LEE (1966b).

***Mycodrosophila palmata* OKADA, 1956**

General features of adults: LEE and TAKADA (1959), OKADA (1956).

Figures: OKADA (1956).

Key: OKADA (1956).

Biology: OKADA (1956).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: OKADA (1956).

***Mycodrosophila planipalpis* KANG, LEE and BAHNG, 1966**

General features of adults: KANG et al. (1966), OKADA (1968d).

Figures: KANG et al. (1966), OKADA (1968d).

Biology: KANG et al. (1966).

Distribution:

S. KOREA: KANG et al. (1966), LEE (1966b). — JAPAN: OKADA (1968d).

***Mycodrosophila poccitogastra* LOEW, 1874**Other names used: *M. johni* POKORNY (syn.), *Mycodrosophila* sp. II.

General features of adults: BARDEN (1957b), DUDA (1934, 1939), HENNING (1958), LEE and TAKADA (1959), LOEW (1874), OKADA (1953a, 1956, 1961a), OLDENBERG (1914), POKORNY (1896), SÉGY (1934b).

Figures: DUDA (1934a, 1934), OKADA (1956, 1968a), PAPP (1973).

Keys: BEPPU et al. (1977), DUDA (1934a, 1934), ENDERLEIN (1936), LAŠTOVKA and MÁČA (1977), LEE (1964c), OKADA (1956), PAPP (1973), SÉGY (1934b), STAKELBERG (1970), TAKADA (1971).

Development: OKADA (1968a).

Biology: COE (1959), KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI et al. (1979), MOMMA (1957, 1965b), OKADA (1954d, 1956, 1968a), STURTEVANT (1921), SUZUKI (1955).

Distribution:

AUSTRIA: unpublished. — CZECHOSLOVAKIA: unpublished. — HUNGARY: ARADI (1959), PAPP (1973). — ROMANIA: ARADI (1959), DUDA (1934), OLDENBERG (1914). — USSR: STAKELBERG (1970). — YUGOSLAVIA: ARADI (1959), COE (1959), POKORNY (1896), TRALHAMMER (1899). — IRAN: DUDA (1934), LOEW (1874). — S. KOREA: CHUNG (1958), KAZO et al. (1958, 1959, 1964a, 1966), LEE (1964c, 1966b), PAIK (1968). JAPAN: KIMURA (1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MOMMA (1957, 1965b), OKADA (1954d, 1956, 1966b, 1968a), SUZUKI (1955), TAKADA (1968), WAKAHAMA (1962a, 1964, 1966).

***Mycodrosophila setipalpis* OKADA, 1956**

General features of adults: OKADA (1956, 1961a).

Figures: OKADA (1956).

Key: OKADA (1956).

Biology: OKADA (1956).

Distribution:

JAPAN: OKADA (1956).

***Mycodrosophila shikokuana* OKADA, 1956**

General features of adults: OKADA (1956, 1968d).

Figures: BEPPU et al. (1977), OKADA (1956, 1968d), TAKADA (1960).

Keys: BEPPU et al. (1977), LEE (1964c), OKADA (1956), TAKADA (1971).

Biology: KIMURA (1976b), OKADA (1956), TAKADA (1960).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1964c, 1966b). — JAPAN: KIMURA (1976b), MOMMA (1965a), OKADA (1956, 1968d), TAKADA (1960), WAKAHAMA (1964).

***Mycodrosophila takachihonis* OKADA, 1956**

General features of adults: OKADA (1956, 1961a, 1968d).

Figures: BEPPU et al. (1977), OKADA (1956, 1968d), TAKADA (1960).

Keys: BEPPU et al. (1977), OKADA (1956), TAKADA (1971).

Biology: OKADA (1956), TAKADA (1960).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: OKADA (1956, 1964, 1968d), TAKADA (1960), WAKAHAMA (1964). Recorded also on the Ryukyu Islands.

Nesiodrosophila* WHEELER and TAKADA, 1964**Nesiodrosophila magnidentata* LEE, 1964**

General features of adults: LEE (1964a, 1964c).

Figures: LEE (1964a, 1964c).

Key: LEE (1964c).

Distribution:

S. KOREA: LEE (1964a, 1964c, 1966b).

***Nesiodrosophila quelpartiensis* KANG, LEE and BAHNG, 1967**

General features of adults: KANG et al. (1967).

Figures: KANG et al. (1967).

Distribution:

S. KOREA: KANG et al. (1967).

***Nesiodrosophila varidentata* OKADA and CHUNG, 1960**

General features of adults: LEE (1964a, 1964c), OKADA (1966a), OKADA and CHUNG (1960), TAKADA et al. (1979), WAKAHAMA et al. (1963).

Figures: BEPPU et al. (1977), LEE (1964c), OKADA (1966a), OKADA and CHUNG (1960).

Keys: BEPPU et al. (1977), LEE (1964), OKADA (1966a), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), OKADA and CHUNG (1960).

Distribution:

S. KOREA: LEE (1964c, 1966b), OKADA and CHUNG (1960). — JAPAN: KANEKO and TOKUMITSU (1969), KAWANISHI et al. (1975), WAKAHAMA (1964), WAKAHAMA et al. (1964).

Recorded also in Nepal.

***Nesiodrosophila sufflava* TAKADA, BEPPU and TODA, 1979**Other name used: *Drosophila* sp. 8.

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Biology: MINAMI et al. (1979).

Distribution:

JAPAN: MINAMI et al. (1979), TAKADA et al. (1979).

***Nesiodrosophila surukella* OKADA, 1965**Other name used: *N. clypeonigra* OKADA (syn.).

General features of adults: OKADA (1965, 1968d).

Figures: OKADA (1965, 1968d).

Distribution:

JAPAN: KAWANISHI et al. (1975), OKADA (1968d).

Recorded also on the Ryukyu Islands.

Paraleucophenga* HENDEL, 1914**Paraleucophenga argentosa* OKADA, 1956**

General features of adults: KIM (1962), KUROKAWA and HIHARA (1976), OKADA (1956, 1968c).

Figures: KIM (1962), OKADA (1956, 1968c).

Keys: LEE (1964c), OKADA (1956).

Biology: OKADA (1956), WAKAHAMA (1962b, 1964).

Distribution:

S. KOREA: CHUNG and RHO (1960), KANG et al. (1968, 1969), KIM (1962), LEE (1962, 1964c, 1966b), PAIK (1958), TAKADA and LEE (1958). — JAPAN: OKADA (1956), WAKAHAMA (1962a, 1962b, 1962c, 1964).

Paramycodrosophila* DUDA, 1924**Paramycodrosophila nakamurai* OKADA, 1973**

General features of adults: OKADA (1973a).

Figures: OKADA (1973a).

Distribution:

JAPAN: OKADA (1973a).

Scaptomyza* HARDY, 1849**Scaptomyza acuta* NISHIHARU, 1979**

General features of adults: NISHIHARU (1979).

Figures: NISHIHARU (1979).

Distribution:

JAPAN: NISHIHARU (1979).

***Scaptomyza ampliata* TAKADA, BEPPU and TODA, 1979**

General features of adults: TAKADA et al. (1979).

Figures: TAKADA et al. (1979).

Distribution:

JAPAN: TAKADA et al. (1979).

***Scaptomyza atlantica* HACKMAN, 1955**Other names used: *S. inama* var. *tetrasticha* BECKER (misident.), *S. tetrasticha* BECKER (misident.).

General features of adults: BASDEN (1961), FREY (1936), HACKMAN (1955).

Figures: BASDEN (1961), HACKMAN (1955).

Key: HACKMAN (1959).

Biology: FREY (1936).

Distribution:

AZORES: HACKMAN (1955). — CANARY IS.: BASDEN (1961), FREY (1936), HACKMAN (1955, 1958).

***Scaptomyza carinata* OKADA, 1973**

General features of adults: OKADA (1973c).

Figures: OKADA (1973c).

Distribution:

MONGOLIA: OKADA (1973c).

***Scaptomyza choi* KANG, LEE and BAHNG, 1965**

General features of adults: KANG et al. (1965b).

Figures: KANG et al. (1965b).

Biology: KANG et al. (1965b).

Distribution:

S. KOREA: KANG et al. (1965b), LEE (1966b).

***Scaptomyza clavata* OKADA, 1973**

General features of adults: OKADA (1973b).

Figures: OKADA (1973b).

Distribution:

JAPAN: KAWANISHI et al. (1975), OKADA (1973b).

***Scaptomyza consimilis* HACKMAN, 1955**Other names used: *S. monticola* OKADA (syn.), *Scaptomyza* sp.

General features of adults: HACKMAN (1955), KUROKAWA and HIRARA (1976), OKADA (1956, 1961a), SINGH (1976), WAKAHAMA (1956a).

Figures: BEPPU et al. (1977), HACKMAN (1955), OKADA (1956), STAKELBERG (1970), WAKAHAMA (1956a).

Keys: BEPPU et al. (1977), HACKMAN (1955, 1959), OKADA (1956), STAKELBERG (1970), TAKADA (1971).

Biology: HACKMAN (1955), KANEKO and TOKUMITSU (1969), KANEKO et al. (1960), KIMURA (1970a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MORIYA (1957, 1965a), OKADA (1956), TAKADA (1965), WAKAHAMA (1956a, 1964, 1966), WAKAHAMA et al. (1963).

Distribution:

FINLAND: HACKMAN (1955). — USSR: HACKMAN (1955, 1957), STAKELBERG (1970). — JAPAN: KANEKO and TAKADA (1966), KANEKO and TOKUMITSU (1969, 1969), KANEKO et al. (1960, 1969), KIMURA (1970a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1979), MINAMI et al. (1979), MORIYA (1957, 1965a), OKADA (1956), TAKADA (1965), WAKAHAMA (1956a, 1964, 1966), WAKAHAMA et al. (1963).

***Scaptomyza elmoi* TAKADA, 1970**Other names used: *S. pallida* ZETTERSTEDT (misident.), *S. disticha* DUDA (misident.).

General features of adults: HARDY (1965), NISHIHARU (1977), OKADA (1956), OKADA and KUROKAWA (1957), TAKADA (1970).

Figures: HARDY (1965), NISHIHARU (1977), OKADA (1956), OKADA and KUROKAWA (1957), TAKADA (1970).

Keys: HARDY (1965), OKADA (1956).

Biology: NISHIHARU (1977).

Distribution:

JAPAN: KAWANISHI (1978), NISHIHARU (1977), OKADA (1956), OKADA and KUROKAWA (1957), TAKADA (1970).

Recorded also in Hawaii and Taiwan.

***Scaptomyza flava* FALLÉN, 1923**Other names used: *S. flavola* MEIGEN (syn.), *S. apicalis* HALIDAY (syn.), *S. montana* WHEELER (syn.), *S. grammium* FALLÉN (misident.), *S. grammium* var. *flava* FALLÉN, *S. pisi*, *S. apicalis* var. *flava* FALLÉN.

General features of adults: BASDEN (1957a), BECKER (1902, 1908b), DE CASTRO (1953), COQUILLETT (1900), DUDA (1921, 1940), FALLÉN (1823), FRYDENBERG (1956a), GERCKE (1882), GOURAU (1951), HACKMAN (1959, 1960, 1969a), HARDY (1940), HEBBER (1852), HENDDEL (1928), HERRING (1927a), HSU (1949), KJELLANDER (1948), MÁCA (1972a), MALLOCH (1915), MEIGEN (1830), DE MEJERE (1908, 1911a, 1950), NEUBAUS (1886), OKADA (1956), OLDENBERG (1914), RICHARDS and HERFORD (1930), SNOY (1934a, 1934b), STEIN (1963), WAHLGREN (1927), WALKER (1853), WHEELER (1949c, 1952), ZETTERSTEDT (1847).

Figures: CARPENTER (1911), CHITTENDEN (1902), COQUILLETT (1895), DUDA (1921), FREY (1951), GODAN (1957), GOURAU (1851), HACKMAN (1955, 1959), HEBBER (1852), HENDDEL (1928), HERRING (1927a), HSU (1949), KRÄGER (1958), MÁCA (1972a), MORSE (1976c), PAPP (1973), SNOY (1934b), STAKELBERG (1970), STEIN (1963), WHEELER and TAKADA (1966).

Keys: BASDEN (1954), BECKER (1908b), COLLIN (1953), DUDA (1924a, 1924c, 1926a, 1934), FONSECA (1965), HACKMAN (1955, 1959), MÁCA (1972a), PAPP (1973), SCHNER (1864), SÉGUY (1934a, 1934b), STÄHLBERG (1970), WAHLEGER (1927), WHEELER (1952), ZOERNER (1911).

Development: CARPENTER (1911), CHITTENDEN (1902), FREY (1951), GODAN (1957), HENDEL (1928), HENNIG (1952), HERRING (1927a), KOELLANDER (1948), KRÄMER (1958), MÁCA (1972a), MAYER (1935), DE MELIERE (1911a), SVEIN (1963).

Biology: BASDEN (1954b, 1956, 1957a), BEUTHEN (1857), BEZZI (1918), BUHR (1933, 1937, 1941a, 1941b, 1954, 1960), CARSON (1971), CHITTENDEN (1902), COLLIN (1953), COQUILLETT (1895), DUDA (1934), FREY (1951), FROST (1924), GRONLÉN (1926), GERCKE (1922), GODAN (1957), GOTTRAU (1851), GÜNTHER (1949), HACKMAN (1955), HARDY (1949), HERRING (1925), HENDEL (1928), HENNIG (1952), HERRING (1927a), HERRING (1929, 1927a, 1928, 1931, 1935/37, 1957), KOELLANDER (1948), KOZLOVSKY and RENES (1932), KRÄMER (1958), KRÖBER (1910, 1935), KÜHLHORN (1978), LEWIS (1966), LUKKANENI (1915), MÁCA (1972a), MAYER (1935), DE MELIERE (1911a, 1950), NUNBERG (1947, 1948), RICHARDS and HERFORD (1930), SCHNER (1864), SÉGUY (1934a, 1934b), STARY (1930), SVEIN (1963), TINNSU (1951), WHEELER (1952), VAN DER WULF and DE MELIERE (1898), ZOERNER (1911), ZAVREL (1967).

Distribution: ALBANIA: unpublished. -- AUSTRIA: BASDEN (1961), HERRING (1852), STROBL (1898b, 1901, 1910), THALER (1977). -- BULGARIA: BUHR (1941a). -- CZECHOSLOVAKIA: ARADI (1959), BASDEN (1961), ČIŽEK (1910), DOSKOČIL (1962), MÁCA (1972a, 1975), MARTINEK (1974b), SOOS (1945), STARY (1930), STROBL (1901), VIMMER (1913), ZAVREL (1967). -- DENMARK: FRYDENBERG (1956a), HERRING (1925), ZETTERSTEDT (1847). -- FINLAND: BASDEN (1954), HERRING (1925), HACKMAN (1955), THIRST (1951), ZETTERSTEDT (1847). -- FRANCE: BUHR (1941a, 1954), GOTTRAU (1851). -- GERMAN DEMOCRATIC REPUBLIC: BASDEN (1961), BUHR (1933, 1937, 1941b, 1954, 1960), GODAN (1957), KRÄMER (1917), NEUBAU (1886), OLDENBERG (1914), RADDATZ (1873), STEIN (1963), ZOERNER (1911). -- GERMAN FEDERAL REPUBLIC: BEUTHEN (1857), BUHR (1954), DAHL (1896), ERY (1951), GERCKE (1882), GODAN (1957), HERRING (1928), KRÄMER (1958), KRÖBER (1910, 1935), KÜHLHORN (1978), OLDENBERG (1914), STERN (1963). -- GREAT BRITAIN: APOSTOL (1950), BASDEN (1952, 1954b, 1957a), COLLIN (1953), CUTLER (1833), EDWARDS and COLLIN (1932), FONSECA (1965), GENTHART (1904, 1916), HANDBORN (1911), LEWIS (1966), RICHARDS and HERFORD (1930), WALKER (1949, 1953). -- HUNGARY: ARADI (1959), PAPP (1973), SOOS (1943, 1945). -- IRELAND: DIS 27: 81. -- ITALY: BEZZI (1918), ZANGHERI (1950, 1969). -- NETHERLANDS: DE MELIERE (1911a, 1950). -- NORWAY: GRONLÉN (1926). -- POLAND: KARL (1936), NUNBERG (1947, 1948). -- ROMANIA: ARADI (1959), SOOS (1945), THALHAMMER (1901). -- SPAIN: ČERNÝ and STROBL (1909), HACKMAN (1969a). -- SWEDEN: BASDEN (1956), BRINCK and WINGSTRAND (1951), DUDA (1921), FALLÉN (1928), KOELLANDER (1943), LYNNBERG (1965), RINGDAHL (1941, 1951), WAHLEGER (1927), ZETTERSTEDT (1847, 1849).

SWITZERLAND: BÄCHLI (1975a, 1975b, 1976b, 1977), CALLOU (1880), GÜNTHER (1949). -- USSR: BOBER (1937), HACKMAN (1955, 1957), SOOS (1945), STÄHLBERG (1930, 1970). -- YUGOSLAVIA: BUHR (1941a), COLI (1959), SOOS (1945), STROBL (1925a, 1925b, 1926a). -- AZORES: FREY (1945), HACKMAN (1969). -- MADEIRA: BECKER (1908c), FREY (1949), HACKMAN (1969). -- CANARY IS.: BECKER (1908b), FREY (1936), HACKMAN (1958). -- MOROCCO: KOZLOVSKY and RENES (1932). -- AFGHANISTAN: HACKMAN (1969b). -- MONGOLIA: HACKMAN (1968b), OKADA (1973c).

Recorded mainly as holarctic species.

Comment:

Some records may refer to other *Scaptomyza* species.

Scaptomyza grahani HACKMAN, 1959

General features of adults: HACKMAN (1959), OKADA (1973b).

Figures: HACKMAN (1959).

Key: HACKMAN (1959).

Distribution:

CHINA: HACKMAN (1959).

Scaptomyza graninum FALLÉN, 1923

Other names used: *S. incana* MEIGEN (syn.), *S. rufipes* MEIGEN (syn.), *S. amoena* MEIGEN (syn.), *S. fascipennis* ZETTERSTEDT (syn.), *S. sordida* ZETTERSTEDT (syn.), *S. tetrasticha* BECKER (syn.), *S. graninum* var. *semitricornis* DUDA, *S. borealis* WHEELER (syn.), *S. norica* HACKMAN (syn.), *S. pallida* ZETTERSTEDT (incident.).

General features of adults: BASDEN (1957b), BECKER (1908b), DE CASTRO (1953), COLLIN (1953), DUDA (1921, 1935), FALLÉN (1923), HACKMAN (1955, 1959), HENDEL (1928), KANO et al. (1965b), KIM (1962), KUROKAWA and HIHARA (1974), LIN and TING (1971), MÁCA (1972a), MACQUART (1835), MALLOCH (1915, 1923b), MEIGEN (1830, 1838), NÄTER (1950), NEUBAU (1886), OKADA (1926, 1961a), OLDENBERG (1914), PARSHAD and DUGGAL (1966), SÉGUY (1934a, 1934b), STROBL (1892a, 1910), WALKER (1853), WHEELER (1952), WHEELER and THROCKMORTON (1960), ZETTERSTEDT (1838, 1847).

Figures: BEPPE et al. (1977), DUDA (1921, 1935), HACKMAN (1955), HENNIG (1950), KIM (1962), LAŠTOVKA and MÁCA (1977), MÁCA (1972a), MORSE (1976a, 1976c), NÄTER (1950), OKADA (1956, 1968a), PAPP (1973), STÄHLBERG (1970), WHEELER and TAKADA (1966).

Keys: BASDEN (1954b), BECKER (1908b), BEPPE et al. (1977), COLLIN (1953), DUDA (1920a, 1934, 1935), FONSECA (1965), FREY (1945), HACKMAN (1955, 1959), HENDEL (1928), LAŠTOVKA and MÁCA (1977), LEH (1904c), MÁCA (1972a), OKADA (1956), PAPP (1973), RICHARDS and HERFORD (1930), SCHNER (1864), SÉGUY (1934a, 1934b), STÄHLBERG (1970), STURTEVANT (1931), TAKADA (1971), WHEELER (1952).

Development: MÁCA (1972a), OKADA (1963a, 1968a), VIMMER (1931).

Biology: BÄCHLI (1977), BASDEN (1954b, 1956), BEZZI (1918), BRUSCHER (1881), BUHR (1933, 1937, 1941a, 1941b, 1954, 1960), BUNTON (1960), COLLIN (1953), COLYER and HAMMOND (1951), COQUILLETT (1895), FALCOZ (1927), FREY (1951, 1954), FRIEND (1927), GRONLÉN (1926), GÜNTHER (1949), HACKMAN (1955, 1969b), HADORN et al. (1952), HARDY (1949), HENDEL (1928), HENNIG (1953), HERRING (1927a, 1927b, 1931, 1935/37, 1957), KANEKO and TOKUMITSU (1969), KAWANISHI et al. (1975), KIMURA (1976a), KIMURA and TODA (1976), KÜHLHORN (1978), LEWIS and TAYLOR (1964), LINDROTH (1931), LINDROTH et al. (1973), MÁCA (1972a), MAYER (1935), MINAMI et al. (1970), NASWATY (1959), NUNBERG (1948), OKADA (1956, 1968a), OKADA and SASAKAWA (1964), PARSHAD and DUGGAL (1966), PROTIV (1952), RICHARDS and HERFORD (1930), ROCHA PITE (1979), SAITO et al. (1962), SCIMID (1968), SÉGUY (1934a, 1934b, 1950), SEIDL (1957), STARY (1950), TAKADA (1958), VIMMER (1931), WAKAHARA (1962b, 1964), WALKER (1853), ZAVREL (1967), ZUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: ARADI (1959), BASDEN (1961), HACKMAN (1955), STROBL (1886, 1894, 1901), THALER (1977), TIEF (1888). -- CZECHOSLOVAKIA: ARADI (1959), BRANČIŠK (1910), ČIŽEK (1906), DALLA TORRE (1878), DOSKOČIL (1962), DOSKOČIL and HURKA (1962), LAŠTOVKA and MÁCA (1977), MÁCA (1972a, 1975), MARTINEK (1974a, 1974b), SEIDL (1957), ŠKURVÁLY et al. (1959), STARY (1930), STROBL (1901), VIMMER (1913, 1931), ZAVREL (1967), ZUSKA and LAŠTOVKA (1969). -- DENMARK: FRYDENBERG (1956a), ZETTERSTEDT (1847). -- FINLAND: BASDEN (1956), FREY (1917, 1929, 1950), HACKMAN (1955), ZETTERSTEDT (1847, 1854). -- FRANCE: BUHR (1941a), FALCOZ (1927), HADORN et al. (1952), KUNTZE (1913). -- GERMAN DEMOCRATIC REPUBLIC: BUHR (1933, 1937, 1941b, 1954, 1960), NEUBAU (1886), KRÄMER (1917), RAD-

DATZ (1875). — GERMAN FEDERAL REPUBLIC: BEUTHIN (1887), FISCHER (1936), KRÖBER (1910, 1935), KÜHLBORN (1978), MEIGEN (1838), NASWATY (1959), VON ROSEK (1940), ZETTERSTEDT (1847). — GREAT BRITAIN: AUDCOTT (1960), BASDEN (1952, 1964b), BENTON (1960), COLLIN (1911, 1953), CURTIS (1893), EDWARDS (1934), EDWARDS and COLLIN (1953), FONSECA (1965), FRIED (1927), GRIMSHAW (1905, 1906, 1907, 1916), HALDAY (1883), HENDERSON (1911), LEWIS and TAYLOR (1964), RICHLER and HOFFMANN (1930), WALKER (1849, 1853), WHEELER and TAKADA (1966), YEBBY (1913). — HUNGARY: ARADI (1959), PAPP (1973), SOOS (1943), THALHAMMER (1899). — ICELAND: LINDROTH (1911), LINDROTH et al. (1973), NIELSEN et al. (1934). — IRELAND: DIS 27: 81. — ITALY: BEZZI (1891, 1892a, 1892b, 1925), BEZZI and DE BERNARDI (1907), KOCH (1972), OLDENBERG (1914), ZANGHERI (1950, 1960). — NETHERLANDS: MCGILLAVRY (1914), DE MEIJERE (1916b, 1935). — NORWAY: BASDEN (1956), GRANLIEN (1926), ZETTERSTEDT (1847). — POLAND: BRCKER (1908b), BOBEK (1890), BRISCHKE (1881), KARL (1936), NUNBERG (1948). — PORTUGAL: ROCHA PIRE (1972, 1975a, 1979). — ROMANIA: ARADI (1959), DRAGHIA (1972), STROBL (1897), THALHAMMER (1899). — SPAIN: CRENKY and STROBL (1909), HACKMAN (1969a), STROBL (1909b, 1906). — SWEDEN: FALLEN (1823), LYNEBERG (1965), RINGDÄLL (1951), ZETTERSTEDT (1838, 1847). — SWITZERLAND: BÄCHLI (1972c, 1973a, 1973b, 1974c, 1975a, 1975b, 1977, 1979), GUNTHARD (1949), SCHMID (1968). — USSR: ARADI (1959), BOBEK (1897), DUDA (1935), EYERSMANN (1894), HACKMAN (1965, 1969), ŠTAKELBERG (1930, 1970). — YUGOSLAVIA: ARADI (1959), BUER (1941a), COE (1959), STROBL (1898a, 1900a, 1904). — AZORES: FREY (1945). — MADEIRA: BECKER (1908c), FREY (1949). — CANARY IS.: BECKER (1908d), FREY (1936), FREY (1937b), MONCLÚS (1976), SÉGUY (1934a, 1934b). — TUNISIA: BECKER (1907a). — LIBYA: BEZZI (1924b). — LEBANON: PIPKIN (1952). — IRAN: unpublished. — AFGHANISTAN: HACKMAN (1969b). — S. KOREA: CHUNG (1958), CHUNG and HEO (1960), KIM (1962, 1965), LEE (1964c, 1966b). — JAPAN: KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KAWANISHI (1978), KAWANISHI et al. (1975), KIMURA (1976a), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1957, 1965a), OKADA (1956, 1968a), SAITO et al. (1962), TAKADA (1968, 1968), WAKAHAMA (1962a, 1962b, 1962c, 1964), WAKAHAMA et al. (1963).

Recorded mainly as holarctic species.

Comment:

Some records may refer to other *Scaptomyza* species.

Scaptomyza griseola ZETTERSTEDT, 1847

Other names used: *S. griseana* DUDA (syn.), *S. griseana* DUDA (lapsus).

General features of adults: DUDA (1921, 1935), HACKMAN (1965), MÁCA (1972a), OLDENBERG (1914), ZETTERSTEDT (1847).

Figures: HACKMAN (1955), MÁCA (1972a), PAPP (1973), ŠTAKELBERG (1970).

Keys: BASDEN (1954b), COLLIN (1953), DUDA (1924a, 1924c, 1934), FONSECA (1965), HACKMAN (1955, 1959), MÁCA (1972a), PAPP (1973), SCHNER (1864), ZETTERSTEDT (1847).

Development: MAYER (1935).

Biology: BEUTHIN (1887), HACKMAN (1955), KRÖBER (1910), MÁCA (1972a), MAYER (1935).

Distribution:

? AUSTRIA: STROBL (1880, 1894, 1901, 1910). — CZECHOSLOVAKIA: MÁCA (1972a), PAPP (1973), VIMMER (1913). — FINLAND: HACKMAN (1955). — ? GERMAN DEMOCRATIC REPUBLIC: KRAMER (1917), OLDENBERG (1914). — ? GERMAN FEDERAL REPUBLIC: BEUTHIN (1887), KRÖBER (1910). — GREAT BRITAIN: BASDEN (1954b), COLLIN (1953), FONSECA (1965). — HUNGARY: THALHAMMER (1899). — NORWAY: unpublished. — ? POLAND: BOBEK (1890), KARL (1936). — ? ROMANIA: STROBL (1897), THALHAMMER (1899, 1901). — ? SPAIN: STROBL (1909b, 1906). — SWEDEN: ZETTERSTEDT (1847, 1860). — USSR: HACKMAN (1955, 1957), ŠTAKELBERG (1970). — ? YUGOSLAVIA: STROBL (1894, 1898a, 1900a, 1904).

Comment:

Some records may refer to other *Scaptomyza* species.

Scaptomyza impunctata FREY, 1945

Other names used: *S. gracilis* (misident.), *S. clavigera* FREY (syn.).

General features of adults: FREY (1945), HACKMAN (1955), SÉGUY (1934a, 1934b, 1936).

Figures: FREY (1945), HACKMAN (1955).

Keys: FREY (1945, 1954), HACKMAN (1959), SÉGUY (1934a, 1934b).

Distribution:

AZORES: FREY (1945, 1954), HACKMAN (1960), SÉGUY (1936).

Scaptomyza okadae HACKMAN, 1959

Other names used: *S. wipunctum* ZETTERSTEDT (misident.), *Scaptomyza* sp.

General features of adults: HACKMAN (1959), OKADA (1956, 1961a).

Figures: HACKMAN (1959), OKADA (1956).

Keys: BEPPU et al. (1977), HACKMAN (1959), OKADA (1956), TAKADA (1971).

Biology: KANKO and TOKUMITSU (1969), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MOMMA (1965b), SUZUKI (1955).

Distribution:

USSR: HACKMAN (1955, 1959). — JAPAN: KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1968, 1969), KIMURA (1976a), KIMURA and TODA (1976), KIMURA et al. (1977), MOMMA (1957, 1965b), OKADA (1956), SUZUKI (1955), TAKADA (1968), WAKAHAMA (1964), WAKAHAMA et al. (1963).

Scaptomyza pallida ZETTERSTEDT, 1847

Other names used: *S. ditricha* DUDA (syn.), *S. graminum* FALLEN (misident.).

General features of adults: BASDEN (1957b), BOCK (1977a), DUDA (1921, 1934, 1949), FREY (1921), GUPTA (1970), HARRISON (1959), HERING (1927a), HST (1949), KIM (1962), KIYOKAWA and HIRAHARA (1976), LEE (1966a), MÁCA (1972a), NATER (1953), NISHIHARA (1977), OKADA (1956, 1961a, 1963a), OKADA and KIYOKAWA (1957), PARSHAD and DUGGAL (1966), PATTERSON (1943), SÉGUY (1934a, 1934b), ŠTAKELBERG (1945), TAKADA (1970), WÄHLGREN (1927), WHEELER and TAKADA (1964), ZETTERSTEDT (1847).

Figures: BOCK (1977), DUDA (1921, 1934), FREY (1945), GUPTA (1970), HACKMAN (1955), HARRISON (1959), HERING (1927a), HST (1949), KIM (1962), MÁCA (1972a), MALLOCH (1934a), NATER (1953), NISHIHARA (1977), OKADA (1956, 1968a),

OKADA and KUROKAWA (1957), PAPP (1973), PATTERSON (1943), SEGUY (1934b), TAKADA (1970), THROCKMORTON (1962, 1966), WHEELER and TAKADA (1964, 1966).

Keys: BASDEN (1954b), BEPPU et al. (1977), BOCK (1977), COLLIN (1953), DUDA (1924a, 1924c, 1927, 1934), ENDERLEIN (1936), FONSERCA (1956), HACKMAN (1959), HARRISON (1959), LAŠTOVKA and MÁČA (1977), LEE (1964c, 1971), HACKMAN (1972a), MALLOCH (1934a), MALLOCH and MCATER (1924), OKADA (1956, 1966a), PAPP (1973), SEGUY (1934a, 1934b), STÄCKELBERG (1970), TAKADA (1971), WAHLGREN (1927), WHEELER (1949b), WHEELER and TAKADA (1964), ZETTERSTEDT (1847).

Development: HENNIO (1952), MÁČA (1972a), OKADA (1968a).

Biology: ARADI and MIHÁLYI (1971), BÄCHLI (1977, 1979), BASDEN (1954b), BECKER (1956), CARSON (1971), COLLIN (1953), DELLY-DRASKOVITS and BABOS (1976), DELLY-DRASKOVITS and PAPP (1973), HACKMAN (1955, 1959, 1971), HACKMAN and MERXANDER (1979), HARRIS (1968), HENNIO (1953), HEIRING (1927a, 1957), KANEKO and TOKUMITSU (1965), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), KÖNIG (1965), KÜHLHORN (1964, 1978, 1979), IRACH (1927), LEE (1962, 1964c), LEWIS and TAYLOR (1964), LENDROPH et al. (1973), LUMME et al. (1979), MÁČA (1972a), MALLOCH and MCATER (1924), MINAMI et al. (1979), MOMMA (1965b), NASWATY (1959), NISHIHARA (1977), OKADA (1956, 1962, 1968a), OKADA and KUROKAWA (1957), PAPP (1976, 1978), PARSHAD and DUGGAL (1966), POND (1956), ROCHA PITE (1979), SABATHI (1974), SCHATZMANN (1977), SCHMID (1963), SEGUY (1934a, 1934b), SKUHRAVY et al. (1959), STÄCKER (1945), TAKADA (1955), TAKADA and TOYOFUKU (1960), TODA (1976), TODA and KIMURA (1978), WAKAHAMA (1957a, 1961, 1964, 1966), ŽUSKA and LAŠTOVKA (1969).

Distribution:

AUSTRIA: BASDEN (1961), THALER (1977). — BELGIUM: unpublished. — CZECHOSLOVAKIA: ARADI (1959), DOSKOČIL (1962), DOSKOČIL and HŮRKA (1962), LAŠTOVKA and MÁČA (1977), MÁČA (1972a, 1975), MARTINEK (1973, 1974b), SKUHRAVY et al. (1959), ŽUSKA and LAŠTOVKA (1960). — DENMARK: FRYDENBERG (1966a). — FINLAND: BASDEN (1956), FREY (1924, 1926), HACKMAN (1955, 1971), HACKMAN and MERXANDER (1979), LUMME et al. (1978, 1979). — FRANCE: ROCHA PITE and TSACAS (1979). — GERMAN DEMOCRATIC REPUBLIC: HEIRING (1927a). — GERMAN FEDERAL REPUBLIC: KÖNIG (1965), KRÖBER (1935), KÜHLHORN (1964, 1978, 1979), NASWATY (1959). — GREAT BRITAIN: AUDICHT (1950), BASDEN (1952, 1953, 1954b), COLLIN (1953), EDWARDS (1934), FONSERCA (1955), LEWIS and TAYLOR (1964), SMITH (1960), YERBURY (1913). — GREECE: DIS 37: 135–136. — HUNGARY: ARADI (1959), ARADI and MIHÁLYI (1971), BASDEN (1971), DELLY-DRASKOVITS and BABOS (1976), DELLY-DRASKOVITS and PAPP (1973), PAPP (1975, 1978). — ICELAND: LENDROPH (1931), LENDROPH et al. (1973), NIELSEN et al. (1954). — IRELAND: BASDEN (1960). — ITALY: BASDEN (1961), NIZIO (1979), SIBROE (1910), ZANGHERI (1969). — NETHERLANDS: DE MELDER (1939b). — NORWAY: BASDEN (1956), ZETTERSTEDT (1855). — POLAND: KARL (1946). — PORTUGAL: ROCHA PITE (1972, 1975b, 1977b, 1979). — ROMANIA: ARADI (1959). — SPAIN: BASDEN (1961), HACKMAN (1969a), OTTE (1968). — SWEDEN: BASDEN (1956), LYNEBORO (1965), RINGDAHL (1941), WAHLGREN (1927), ZETTERSTEDT (1847, 1860). — SWITZERLAND: BÄBLER (1910), BÄCHLI (1972b, 1972c, 1973a, 1973c, 1974b, 1974c, 1975a, 1975b, 1977, 1979), BURLA (1951a), NATER (1953), SCHATZMANN (1977), SCHMID (1968). — TURKEY: unpublished. — USSR: ARADI (1959), HACKMAN (1955, 1957), PAPP (1970), STÄCKELBERG (1950, 1970). — YUGOSLAVIA: ARADI (1959), BASDEN (1961), ČOŽ (1958). — AZORES: FREY (1945), HACKMAN (1960), SEGUY (1936). — MADEIRA: FREY (1949). — CANARY IS.: BECKER (1908b), FREY (1936, 1958), HACKMAN (1958), MONCLUS (1976). — TUNISIA: BIEZI (1922), PAPP (1978). — ISRAEL: unpublished. — AFGHANISTAN: HACKMAN (1969b). — MONGOLIA: HACKMAN (1968b), OKADA (1973c). — N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958, 1960a), CHUNG and RHO (1959, 1960), KANG et al. (1958, 1959, 1964a), KIM (1962), LEE (1962, 1964c, 1966a, 1966b), PAIK (1958), TAKADA (1970), TAKADA and LEE (1958). — JAPAN: KANEKO (1960), KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1965, 1969), KANEKO et al. (1968, 1969), KAWANISHI (1978), KAWANISHI and WATANABE (1977), KAWANISHI et al. (1975), KIMURA (1976a, 1976b), KIMURA and TODA (1976), KIMURA et al. (1977), MINAMI (1976), MINAMI et al. (1978), MOMMA (1957, 1965, 1965b), NISHIHARA (1977), OKADA (1958, 1966b, 1968a), OKADA and KUROKAWA (1957), SATTO et al. (1962), TAKADA (1957, 1958, 1968, 1970), TAKADA and OKADA (1960), TAKADA and TOYOFUKU (1960), TODA and KIMURA (1975), TOYOFUKU and KIMURA (1960, 1961), WAKAHAMA (1957a, 1961, 1962a, 1962b, 1962c, 1964, 1966), WAKAHAMA et al. (1963).

Recorded as virtually cosmopolitan species.

Scaptomyza polygonia OKADA, 1956

Other name used: *Scaptomyza* sp. VII

General features of adults: KIM (1962), OKADA (1956), TAKADA (1959).

Figures: KIM (1962), OKADA (1956), TAKADA (1959).

Keys: BEPPU et al. (1977), HACKMAN (1959), OKADA (1956), TAKADA (1971).

Biology: KANEKO and TOKUMITSU (1969), KANEKO et al. (1966), KIMURA (1976a), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1965b), OKADA (1956), SUZUKI (1955), TAKADA (1958).

Distribution:

N. KOREA: OKADA (1974b). — S. KOREA: CHUNG (1958), KIM (1962), LEE (1966b). — JAPAN: KANEKO and SHIMA (1962), KANEKO and TOKUMITSU (1969), KANEKO et al. (1966, 1968), KAWANISHI et al. (1975), KIMURA (1976a), KIMURA and TODA (1976), MINAMI et al. (1979), MOMMA (1957, 1963, 1965b), OKADA (1956, 1965), SUZUKI (1955), TAKADA (1958, 1959, 1965), WAKAHAMA (1964, 1966).
Recorded also on the Ryukyu Islands.

Scaptomyza subsplendens DUDA, 1935

General features of adults: DUDA (1935), HACKMAN (1959), OKADA (1966a).

Keys: DUDA (1934), HACKMAN (1955, 1959).

Distribution:

USSR: DUDA (1935).

Scaptomyza teinoptera HACKMAN, 1955

General features of adults: HACKMAN (1955), TAKADA et al. (1979).

Figures: STÄCKELBERG (1970), WHEELER and TAKADA (1966).

Keys: HACKMAN (1955, 1959), STÄCKELBERG (1970).

Biology: HACKMAN (1955).

Distribution:

FINLAND: HACKMAN (1955), LUMME et al. (1978). — USSR: HACKMAN (1955, 1957), STÄCKELBERG (1970).

Recorded also in North America.

***Scaptomyza trochanterata* COLLIN, 1953**

General features of adults: COLLIN (1953), HACKMAN (1959), OKADA (1973c), WHEELER and TAKADA (1966).

Figures: HACKMAN (1955, 1959), WHEELER and TAKADA (1966).

Keys: BASDEN (1954), COLLIN (1953), FONSECA (1965), HACKMAN (1955, 1959).

Distribution: FINLAND: BASDEN (1959), HACKMAN (1955), LUMME et al. (1978). GREAT BRITAIN: BASDEN (1954b), COLLIN (1953), FONSECA (1965).
Recorded also in North America.***Scaptomyza unipunctum* ZETTERSTEDT, 1847**Other names used: *S. unipunctum bocharensis* HACKMAN, *Scaptomyza* sp.

General features of adults: BASDEN (1957b), CZERNY (1963b), DUDA (1927, 1935), HACKMAN (1959), ZETTERSTEDT (1847).

Figures: DUDA (1935), HACKMAN (1955, 1959), OKADA (1973c), WHEELER and TAKADA (1966).

Keys: DUDA (1934), FREY (1945), HACKMAN (1955, 1959), STÄKELBERG (1970).

Distribution: FINLAND: DUDA (1935), FREY (1929), HACKMAN (1955). — SWEDEN: ZETTERSTEDT (1847). — USSR: DUDA (1935), HACKMAN (1957, 1959), STÄKELBERG (1930, 1970). — MONGOLIA: HACKMAN (1968b), OKADA (1973c).
Recorded also in North America.***Soederbomia* HENDEL, 1938*****Soederbomia flava* HENDEL, 1938**

General features of adults: HENDEL (1938).

Distribution:

CHINA: HENDEL (1938).

Stegana* MEIGEN, 1830**Stegana coleoptera* SCOPOLI, 1763**Other names used: *S. hypoleuca* MEIGEN (syn.), *S. annulata* HALIDAY (syn.), *S. coleoptera* var. *nigrithorax* STROBL, *Stegana* sp.

General features of adults: BASDEN (1957b), DUDA (1934), HALIDAY (1833), HENNIG (1952), MACQUAET (1835), MALLOCH (1924d), MEIGEN (1830), MIK (1898), NEUBAUER (1886), OLDENBERG (1914), SCOPOLI (1763), SÉGUY (1934a, 1934b), STROBL (1898b, 1910), TAKADA (1965), WAHLGREN (1927), WHEELER (1954), ZETTERSTEDT (1838, 1847, 1860).

Figures: DUDA (1934), HENNIG (1952), MORGE (1956), PAPP (1973), STÄKELBERG (1970).

Keys: BEPPU et al. (1977), DUDA (1924a, 1925, 1927, 1934), FONSECA (1965), LAŠOVKA and MÁČA (1977), MALLOCH (1924c), MALLOCH and MCATES (1924), PAPP (1973), SCHNORR (1864), SÉGUY (1934a, 1934b), STÄKELBERG (1970), STREYEVANT (1921), TAKADA (1971), WAHLGREN (1927), WHEELER (1952).

Development: HENNIG (1952), MORGE (1956), OKADA (1968a).

Biology: KIMURA (1976b), MORGE (1956), PERRIS (1877), SCHMID (1968), SÉGUY (1934a, 1934b), STORÁ (1957), TESKEY (1970).

Distribution:

AUSTRIA: BASDEN (1961), DUDA (1934), OLDENBERG (1914), STROBL (1898b, 1910). — CZECHOSLOVAKIA: LAŠOVKA and MÁČA (1977). — DENMARK: unpublished. — FINLAND: STORÁ (1957). — FRANCE: PERRIS (1877), SÉGUY (1934a, 1934b). — GERMAN DEMOCRATIC REPUBLIC: MORGE (1956), NEUBAUER (1886), OLDENBERG (1914). — GERMAN FEDERAL REPUBLIC: DUDA (1934), MEIGEN (1830), OLDENBERG (1914), ZETTERSTEDT (1838). — GREAT BRITAIN: AUBOYN (1950), FONSECA (1965), HALIDAY (1833). — HUNGARY: ARADI (1959), PAPP (1973), SOCS (1943, 1945). — NETHERLANDS: DE MEIJERE (1923, 1930b), VAN DER WYLF and DE MEIJERE (1888). — POLAND: DUDA (1934), KARL (1936). — ROMANIA: ARADI (1959), DUDA (1934), OLDENBERG (1914). — SWEDEN: BASDEN (1956), RINGDAHL (1949, 1951), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1852, 1855, 1860). — SWITZERLAND: BÄCHLI (1972b, 1973a, 1973c, 1975a, 1975b), SCHMID (1968). — USSR: STÄKELBERG (1930, 1970). — YUGOSLAVIA: SCOPOLI (1763). — JAPAN: KIMURA (1976b).
Recorded also in North America.

Comment:

Some European records may refer to *S. mehadiæ* DUDA or *S. stroblii* MIK.***Stegana ctenaria* NISHIHARU, 1979**

General features of adults: NISHIHARU (1979).

Figures: NISHIHARU (1979).

Distribution:

JAPAN: NISHIHARU (1979).

Stegana excavata* OKADA, 1971 = *S. nigrithorax* Strobl cf. *Lašovka & Máča 1962: 27

General features of adults: OKADA (1971c).

Figures: OKADA (1971c).

Key: OKADA (1971c).

Distribution:

S. KOREA: OKADA (1971c). — JAPAN: OKADA (1971c).

Stegana furta LINNÉ, 1767

Other names used: *S. curripennis* FALLÉN (syn.), *S. nigra* MEIGEN (syn.).

General features of adults: BADEN (1956), DUDA (1934), FALLÉN (1823), FREY (1921), HENNIG (1958), LINNÉ (1767), LLOY (1895), MEIGEN (1830), NEUBAUS (1886), OKADA (1956, 1971c), OLDENBERG (1914), SÉGUY (1934b), WAHLGREN (1927), ZETTERSTEDT (1838, 1847).

Figures: DUDA (1924a, 1934), FREY (1921), LLOY (1895), MEIGEN (1830), PAPP (1973), SÉGUY (1934b).

Keys: DUDA (1924a, 1927, 1934), ENDELLEIN (1936), FONSSCA (1965), LAŠTOVKA and MÁČA (1977), MALLOCH (1924c), OKADA (1971c), PAPP (1973), SCHNER (1864), SÉGUY (1934b), STAKELBERG (1970), WAHLGREN (1927).

Biology: BARR (1914), JUDICH and NITSCH (1895), ZETTERSTEDT (1947).

Distribution:

AUSTRIA: ARADI (1959), BADEN (1961), STROBL (1880, 1894, 1898b, 1910), TIEF (1888). — CZECHOSLOVAKIA: ARADI (1959), LAŠTOVKA and MÁČA (1977), MARTINEK (1973). — DENMARK: ZETTERSTEDT (1847). — FINLAND: FREY (1917, 1921), ZETTERSTEDT (1847, 1860). — FRANCE: MAQUART (1835), SÉGUY (1934b). — GERMAN DEMOCRATIC REPUBLIC: BARR (1914), KARL (1936), KRAMER (1917), NEUBAUS (1886), OLDENBERG (1914), RADDATZ (1873), SÉGUY (1934b), ZETTERSTEDT (1835). — GERMAN FEDERAL REPUBLIC: BEUTH (1887), ROBER (1910, 1936). — GREAT BRITAIN: COLLIN (1911), FONSSCA (1965). — HUNGARY: ARADI (1959), PAPP (1973), SOÓS (1943), TRALHAMMER (1899). — ITALY: LLOY (1895). — NETHERLANDS: DE MEIJERE (1916b, 1928, 1930b), VAN DER WOLF and DE MEIJERE (1898). — NORWAY: ZETTERSTEDT (1847). — POLAND: KARL (1936). — ROMANIA: ARADI (1959), TRALHAMMER (1899). — SWEDEN: BADEN (1956), FALLÉN (1823), LINNÉ (1767), POPPIUS et al. (1916), RINGDAHL (1951), WAHLGREN (1927), ZETTERSTEDT (1838, 1847, 1849, 1852, 1855, 1860). — SWITZERLAND: BÄCHLI (1974c). — USSR: DUDA (1934), STAKELBERG (1980, 1970). — YUGOSLAVIA: STROBL (1888a, 1900a, 1910).

Stegana longifibula TAKADA, 1968

Other name used: *S. colcostrata* SCOPOLI (misident.).

General features of adults: OKADA (1971c), TAKADA (1968).

Figures: OKADA (1971c), TAKADA (1968).

Keys: BEPPU et al. (1977), OKADA (1971c), TAKADA (1968, 1971).

Distribution:

JAPAN: OKADA (1956, 1971c), TAKADA (1968).

Stegana mehadiae DUDA, 1924

General features of adults: DUDA (1934), OKADA (1956).

Keys: DUDA (1924a, 1925, 1934), PAPP (1973).

Distribution:

CZECHOSLOVAKIA: unpublished. — FINLAND: DUDA (1934). — ROMANIA: ARADI (1959), DUDA (1924), SOÓS (1945). — USSR: DUDA (1934).

Stegana nigrifrons DE MEIJERE, 1911

Other names used: *S. colcostrata* SCOPOLI (misident.), *Stegana* sp.

General features of adults: DUDA (1926a, 1930), DE MEIJERE (1911b), OKADA (1953a, 1956, 1966a, 1971c).

Figures: DUDA (1924a), DE MEIJERE (1911b), OKADA (1956, 1966a, 1971c).

Keys: DUDA (1924a), DE MEIJERE (1911b), OKADA (1956, 1966a, 1971c).

Biology: DE MEIJERE (1911b).

Distribution:

JAPAN: OKADA (1953a, 1956, 1971c).

Recorded mainly in South Asia.

Stegana nigripennis HENDEL, 1914

Other names used: *S. poeciloptera* DUDA (syn.), *L. kanoi* OKADA (syn.).

General features of adults: DUDA (1926b), HENDEL (1914), OKADA (1956, 1971c).

Figures: OKADA (1956).

Keys: OKADA (1956, 1971c).

Biology: OKADA (1956).

Distribution:

S. KOREA: KANG et al. (1959), LEE (1966b). — JAPAN: OKADA (1956, 1965c, 1971c).

Recorded also on the Ryukyu Islands and in Taiwan.

Stegana sibirica DUDA, 1934

General features of adults: DUDA (1934), OKADA (1956).

Key: DUDA (1934).

Distribution:

USSR: DUDA (1934).

Stegana stroblii MIK, 1898

Other name used: *S. colcostrata* SCOPOLI (misident.).

General features of adults: BADEN (1954b), MIK (1898), OLDENBERG (1914), RINGDAHL (1949), SÉGUY (1934b), WAHLBERG (1927).

Figures: HRNNIG (1958).

Keys: DUDA (1924a, 1925, 1934), PAPP (1973), SÉGUY (1934a, 1934b), WAHLGREN (1927).

Biology: BADEN (1954b), RINGDAHL (1949).

Distribution:

AUSTRIA: unpublished. — CZECHOSLOVAKIA: unpublished. — DENMARK: MEIGEN (1850), MIK (1898), ZETTERSTEDT (1947). — FINLAND: FREY (1929). — FRANCE: SÉGUY (1934b). — GERMAN FEDERAL REPUBLIC: DUDA (1924a, 1925, 1934), OLDENBERG (1922). — GREAT BRITAIN: BADEN (1954b). — HUNGARY: ARADI (1959), PAPP (1973). — ROMANIA: ARADI (1959), BADEN (1961), DUDA (1934), MIK (1898), OLDENBERG (1914), PAPP (1973), Soós (1945). — SWEDEN: RINGDAHL (1949), SÉGUY (1934b), WAHLGREN (1927). — USSR: STAKELBERG (1930).

Stegana taba OKADA, 1971

Other name used: *Protostegana* sp. from Taba.

General features of adults: OKADA (1956, 1971c).

Figures: OKADA (1956, 1971c).

Key: OKADA (1971c).

Distribution:

S. KOREA: KANG et al. (1959). — JAPAN: OKADA (1956, 1971c).

Stegana unidentata TAKADA, 1968

General features of adults: OKADA (1971c), TAKADA (1968).

Figures: OKADA (1971c), TAKADA (1968).

Keys: BEPPU et al. (1977), OKADA (1971c), TAKADA (1968, 1971).

Biology: KIMURA (1976b).

Distribution:

JAPAN: KIMURA (1976b), OKADA (1971c), TAKADA (1968).

Zaprionus COQUILLET, 1901

Zaprionus sp.

Other name used: *Z. vittiger* (misid.).

Distribution:

CANARY IS.: MONCÓIS (1976).

Summary

The literature on the Palearctic species of Drosophilidae was critically analysed. For each species quotations are given to the following subjects: descriptions, illustrations, keys, development, biology and distribution.

Zusammenfassung

Die Literatur über die paläarktischen Arten der Drosophilidae wurde kritisch analysiert. Für jede Art sind Zitate zu folgenden Stichworten gegeben: Beschreibungen, Abbildungen, Bestimmungsschlüssel, Entwicklung, Biologie und Verbreitung.

Резюме

Критически анализируется литература о палеарктических видах Drosophilidae. Для каждого вида приводятся цитаты по следующим ключевым словам: описания, рисунки, определительные таблицы, развитие, биология и распространение.

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