

## Six new genera of the tribe Psychodini End. (Diptera, Psychodidae)

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Representatives of the tribe Psychodini Enderlein, 1936 were included by Loew (1845) in the section I — Polyneura because of numerous veins on the wings in contrast to the section II — Oligoneura with genera *Cecidomyia* Meig., *Lestremia* Macq. and etc., where veins on the wings are few. Rohdendorf (1964) wrongly ascribed the priority of the name *Polyneura* to Brauer (1880). Crampston (1926) discussed the consequence of the shape of thoracic sclerites in a study of phylogenetic relationships of Psychodoid Diptera. The centre of his attention was the genera *Psychoda* Latreille, 1796, *Phlebotomus* Rondant & Berté in Rondani, 1841, *Nemopalpus* Macquart in Webb & Berthelot, 1838 and *Bruchomyia* Alexander, 1920 in comparison with thoracic sclerites of other selected genera of Nematocera. Unfortunately, the thoracic sclerites of the genus *Psychoda* Latreille, 1796 of the tribe Psychodini Enderlein, 1936 figured by him belong to the genus *Jungiella* Vaillant, 1972 of the tribus Paramormiini Enderlein, 1936. A pioneer paper about phylogenetic relationships of female genitalia was published by Koch (1929). Quate (1959c) included in his large review to the tribe Psychodini Enderlein, 1936 genera *Lepidopsychoda* Edwards, 1928b, *Trichopsychoda* Tonnoir, 1922a, *Philosepedon* Eaton, 1904, *Threticus* Eaton, 1904, *Eurygarka* Quate, 1959c and *Psychoda* Latreille, 1796. In his classification was first used the shape of labellum. The correct view in the conception of the tribe Psychodini Enderlein, 1936 of Palaearctic area was suggested first by Vaillant (1971). From 420 species of the genus „*Psychoda* Latreille, 1796“ so far described in the world 72 species have been transferred by different authors to the genera *Trichomyia* Curtis, 1839 (2 species), *Alecia* Enderlein, 1936 (4), *Arisemus* Satchell, 1955 (2), *Brunettia* Annandale, 1910 (4), *Eurygarka* Quate, 1959c (1), *Lepiseodina* Enderlein, 1936 (1), *Nemoneura* Tonnoir, 1929 (1), *Pericomia* Walker, 1856 (8), *Philosepedon* Eaton, 1904 (14), *Telmatoscopus* Eaton, 1904 (19), *Threticus* Eaton, 1904 (10), *Trichopsychoda* Tonnoir, 1922a (2), *Thrysanthus* Enderlein, 1936 (1) and some others will be transferred on the basis of a thoroughgoing morphological analysis and taxonomic revision. There are 78 species described only on the basis of females, so that the number of retinaculi is not known and the connection with the tribe Psychodini Enderlein, 1936 is not clear. In the present paper 29 species are omitted from the works of historical value only, with short original descriptions and without figures.

27 names were recognised as synonyms in the past. 20 species from New Guinea, New Zealand, Micronesia, U. S. A. and territory of former Belgian Congo belong to several so far undescribed new genera because of 13 segmented antenna, 4 branched sensory filaments, forked harpagones, wide frons with "T" suture etc. From the Mexican amber Quate (1963) described the male of „*Psychoda usitata*" with one retinaculum. This species must be included in the genus *Psychodocha* gen. n. because of 16 segmented antennae, 3 reduced and separated apical antennal segments of the same size. From the same amber is known a female with 15 segmented antennae, where two apical segments are reduced, separated and of the same size. This species must be kept in the genus *Psychoda* Latreille, 1796 sensu Ježek, 1977. Both the number of antennal segments and a degree of the reduction and the fusion of apical antennal segments are valued as the main diagnostic characters for the separating of the world genera of the tribe Psychodini Enderlein, 1936 in the present paper. For at least 30 000 000 years these characters have remained without either changes or adaptations. Quate (1961a) expressed the hypothesis that the order Diptera as well as the old family Psychodidae originated in Permian times.

#### Tribe *Psychodini* Enderlein

*Psychodini* Enderlein, 1936: 82, partim.

*Psychodina* (subtr.) sensu Enderlein, 1936: 82, partim.

*Psychoda* (gen.) auct., partim; Zetterstedt, 1850: 3702; Abreu, 1930: 108; Sarà, 1952: 12; Tokunaga, 1958: 377; Vaillant, 1960a: 106; Nielsen, 1961: 142; Vaillant, 1961b: 111; Rozkošný, 1971: 141.

*Psychodini* sensu Quate, 1959c: 444, partim.

*Psychodini* sensu Vaillant, 1971: 38; 1972: 50; 1973b: 347; Salamanna, 1974b: 63; 1975a: 201; b: 71; c: 82; Wagner, 1977: 26; 1978b: 69; 1979a: 53; Caspers & Wagner, 1980: 81.

Type of tribe: *Psychoda* Latreille, 1796

Differential diagnosis: The representatives of the tribe *Psychodini* Enderlein, 1936 have the upper part of the pteropleurite entirely delimited by a suture and an additional anterior sclerite of the pteropleurite is missing. Both the tribes *Mormiini* Endrelein, 1936 and *Paramormiini* Enderlein, 1936 are characterized by the presence of an additional anterior sclerite, which is at least partially developed. If it is missing, than the upper part of the pteropleurite is not entirely delimited by the suture. The tribe *Mormiini* Enderlein, 1936 may be diagnosed in contrast to the tribe *Paramormiini* Enderlein, 1936 as follows:  $R_4$  connected with conspicuously prolonged  $R_{2+3}$  basally, Sc long, thin and straight, thinner distad. The species of the tribe *Paramormiini* Enderlein, 1936 have  $R_{2+3}$  connected with  $R_4$  which is at least inconspicuously prolonged basally. Sc short and thick; if it is long, than it is not straight but bent or conspicuously extended distad.

Biology: Polyvoltine species, the larvae of which live mostly in puddly, shallow, semi-fluid conditions, with a high organic content, and often deficient in oxygen. Smart, Jordan & Whittick (1965) have referred to intestinal and urogenital myiasis. Adults of some species are common in light traps. Habitats: The banks of ditches, lowland brooks and streams, branches of rivers, inundated forests, sluices, watersources, marshy meadows, ponds with outflows, forest bogs, dry water reservoirs and canals, damp railway underpasses

and dust heaps, some species occurring in trickling sewage-works, on excrement, cesspools, rubbish pits with rotten potatoes and in hen-roosts.

Distribution\*: All continents, some species are cosmopolitan.

### Psychodocha gen. n.

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Banks, 1894: 331; 1895: 324; Eaton, 1898: 123; Banks, 1901: 274; Kertész, 1902: 300; Eaton, 1904: 57; Hesemann, 1907: 317; Tonnoir, 1919: 14; 1922a: 67; Curran, 1924: 219; Dyar, 1928: 87; Banks, 1932: 227; Barendrecht, 1934: 80; Johannsen, 1934: 25; Tonnoir, 1940: 64; Kloet & Hincks, 1945: 333; Freeman, 1950: 91; Sarà, 1950: 237; Satchell, 1950a: 169; Sarà, 1951a: 5; c: 49; d: 205; 1952: 11; Tokunaga & Komyo, 1955: 206; Quate, 1955: 194; Sarà, 1955a: 11; b: 2; Jung, 1956: 189; Satchell, 1956: 118; Sarà, 1958: 2; Tokunaga, 1958: 389; Sarà, 1959a: 8; Quate, 1959a: 219; b: 461; d: 432; Szabó, 1960a: 213; Quate, 1960b: 24; Vaillant, 1960b: 164; Nielsen, 1961: 145; Quate, 1961b: 437; c: 133; Sarà, 1961: 7; Vaillant, 1961c: 2; Quate, 1962c: 234; d: 55; Sarà, 1962: 70; Quate, 1963a: 116; Vaillant, 1963a: 87; Giljarov, 1964: 658; Nielsen, 1964: 155; Quate, 1964: 284; Vaillant, 1964: 67; Botosaneanu & Vaillant, 1965: 78; Nielsen, 1965a: 150; b: 103; Quate, 1965: 880; Sarà, 1965: 130; Vaillant, 1965: 220; Duckhouse, 1966: 208; Quate, 1966: 314; Salamanna, 1966: 117; Vaillant & Botosaneanu, 1966: 91; Bellier, 1967: 58; Quate & Quate, 1967: 147; Sarà & Salamanna, 1967: 50; 1968: 153; Tanasićuk, 1969: 130; Zuska & Laštovka, 1969: 208; Duckhouse, 1971: 319; Vaillant, 1971: 38; Duckhouse, 1973: 12; Vaillant, 1973b: 371; Salamanna, 1974a: 51; b: 64; 1975a: 202; b: 71; c: 82; Wagner, 1977: 26; 1978a: 286; 1979a: 54; b: 448.

*Threticus* Eaton, 1904: 57, partim.

Type-species: *Psychoda cinerea* Banks, 1894

Diagnosis: 16 segmented antennae; there are small differences in the size of the last three reduced antennal segments.\*\* Segments 13—16 separated from each other, segment 16 ball shaped. Spines on the apical segments missing. Antennal segment 13 without a border distad, sensory filaments big. Index of facet's diameter to the minimal width of frons 1.3—1.8. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  with rather circular swelling. Cerci of males short, straight and club shaped from ventral view, distal narrowed third of the cercus wholly bare.

Biology: Polyvoltine species. The larvae are common in moist, manured soil, in waste pipes, in the trickling effluent of sewage biological filters, on the moist faces of rocks, in moist moss, in hollows of trees. Adults are common both on the periphery of water reservoirs and on the banks of rivers as well as in light traps.

Distribution: 56 species distributed throughout the world. 13 species in Australian area: *Psychodocha arcuata* (Satchell, 1953b) comb. n. — Tasmania; *P. cristata* (Duckhouse, 1966) comb. n. — Australia; *P. dennesi* (Satchell, 1953b) comb. n. — Australia; *P. disaccus* (Duckhouse, 1966) comb. n. — Australia; *P. echinata* (Quate & Quate, 1967) comb. n. — New Guinea; *P. mundula* (Duckhouse, 1966) — Australia; *P. sectiga* (Quate & Quate, 1967) comb. n. — New Guinea; *P. subpennata* (Satchell, 1953b) comb. n. — Australia; *P. spinacia* (Quate & Quate, 1967) comb. n. — New Guinea; *P. squamata* (Satchell, 1953b) comb. n. — Tasmania; *P. squamipleuris* (Satchell, 1953b) comb. n. — Australia; *P. tumorosa* (Quate & Quate, 1967) comb. n. — New Guinea; *P. wilsoni* (Quate & Quate, 1967) comb. n. — New Guinea. 15 species in New-Zealand area:

\* Biogeographic areas in the present paper are taken from Banarescu & Boscaiu [1973].

\*\* As the segment must not be considered a swelling without setae.

*P. brachyptera* (Quate, 1964) comb. n. — Campbell I.; *P. campbellica* (Quate, 1964) comb. n. — Campbell I.; *P. eremita* (Quate, 1964) comb. n. — Campbell I.; *P. formosa* (Satchell, 1954) comb. n. — New Zealand; *P. inaequalis* (Satchell, 1950a) comb. n. — New Zealand; *P. lloydii* (Satchell, 1950a) comb. n. — New Zealand; *P. novaezealandicae* (Satchell, 1950a) comb. n. — New Zealand; *P. penicillata* (Satchell, 1950a) comb. n. — New Zealand; *P. pulchrima* (Satchell, 1954) comb. n. — New Zealand; *P. setistyla* (Satchell, 1950a) comb. n. — New Zealand; *P. simplex* (Satchell, 1954) comb. n. — New Zealand; *P. squamulata* (Satchell, 1950a) comb. n. — New Zealand; *P. triaciculata* (Satchell, 1950a) comb. n. — New Zealand; *P. tridens* (Satchell, 1954) comb. n. — New Zealand; *P. zonata* (Satchell, 1950a) comb. n. — New Zealand. 7 species in Polynesian area: *P. acutilamina* (Quate, 1959b) comb. n. — Micronesia; *P. aponesos* (Quate, 1959b) comb. n. — Micronesia; *P. hemicorcula* (Quate, 1959b) comb. n. — Micronesia; *P. malleopenis* (Satchell, 1953a) comb. n. — Samoa; *P. plaezia* (Quate, 1959b) comb. n. — Micronesia; *P. salicornia* (Quate, 1954) comb. n. — Hawaiian I.; *P. yama* (Quate, 1966) comb. n. — Iriomote I. Ethiopian area with 4 species: *P. angustisternata* (Satchell, 1955) comb. n. — former Belgian Congo; *P. filipennis* (Satchell, 1955) comb. n. — Nigeria; *P. hamatospicula* (Satchell, 1955) comb. n. — former Belgian Congo; *P. scuticopenis* (Satchell, 1955) comb. n. — former Belgian Congo. 3 species in Indo-Malayan area: *P. articuliga* (Quate, 1965) comb. n. — Philippines; *P. delicata* (Quate, 1965) comb. n. — Philippines; *P. indica* (Vaillant, 1965) comb. n. — Nepal. 13 recent species in Holarctic area: *P. bifurcata* (Tokunaga, 1958) comb. n. — Japan; *P. cinerea* (Banks, 1894) comb. n. — U. S. A.; *P. elegans* (Kincaid, 1897) comb. n. — U. S. A.; *P. gemina* (Eaton, 1904) comb. n. — Europe; *P. itoco* (Tokunaga & Komyo, 1954) comb. n. — Japan; *P. longiseta* (Tokunaga & Komyo, 1954) comb. n. — Japan; *P. nigri-ventris* (Tokunaga, 1958) comb. n. — Japan; *P. shikokuensis* (Tokunaga, 1958) comb. n. — Japan; *P. symmetrica* (Vaillant, 1973b) comb. n. — U. S. A.; *P. thrix-* *nax* (Quate, 1955) comb. n. — U. S. A.; *P. tothastica* (Quate, 1955) comb. n. — U. S. A.; *P. trilobata* (Tokunaga, 1958) comb. n. — Japan; *P. umbracola* (Quate, 1955) comb. n. — U. S. A.; in Mexican amber was discovered an extinct species *Psychodocha usitata* (Quate, 1963a) comb. n.

### **Psycha gen. n.**

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Tonnoir, 1922a: 87; Barendrecht, 1934: 81; Tonnoir, 1940: 57; Kloet & Hincks, 1945: 333; Grensted, 1947: 1; Satchell, 1947b: 64; Freeman, 1950: 93; Tokunaga, 1953: 1; Quate, 1955: 207; Tokunaga & Komyo, 1955: 206; Jung, 1956: 188; Satchell, 1956: 119; Tokunaga, 1957: 61; Szabó, 1960a: 213; Nielsen, 1961: 145; Quate, 1962d: 68; Vaillant, 1963d: 109; Giljarov, 1964: 659; Nielsen, 1964: 155; Vaillant, 1964: 62; Szabó, 1965a: 80; b: 619; Sará & Salamanna, 1967: 61; Tanastijčuk, 1969: 132; Rozkošný, 1971: 141; Vaillant, 1971: 42; 1973a: 140; Wagner, 1973: 520; 1977: 27; 1979a: 55; Caspers & Wagner, 1980: 78.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Tonnoir, 1922a: 87; Kloet & Hincks, 1945: 333; Szabó, 1965a: 80; b: 619; Rozkošný, 1971: 141.

Type-species: *Psychoda grisescens* Tonnoir, 1922a

Diagnosis: 16 segmented antennae; there are small differences in the size of the last three reduced antennal segments. Antennal segment 15 separated,

however segment 13 fused with 14. Segment 16 of a drop shape. Spines on the apical segments missing. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 1.0. The lobe of labium with 3 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males long and bent from ventral view, distal third not narrowed and not bare.

Biology: Little known. Polyvoltine species, the larvae of which live and develop in manure. Habitats: moist shaded places with decaying organic material. Adults are sometimes common in light traps.

Distribution: Registered 11 species for the whole world. Neotropical area: *Psycha spathipenis* (Duckhouse, 1968) comb. n. — Brazil; 3 species in Ethiopian area: *P. calva* (Satchell, 1955) comb. n. — former Belgian Congo; *P. congruens* (Satchell, 1955) comb. n. — former Belgian Congo; *P. contortula* (Satchell, 1955) comb. n. — Nigeria; 2 species in Indo-Malayan area: *P. caudata* (Quate, 1962d) comb. n. — Borneo; *P. formosana* (Tokunaga, 1957) comb. n. — Formosa; 5 species in Holarctic area: *P. fungicola* (Tokunaga, 1953a) comb. n. — Japan; *P. griseascens* (Tonnoir, 1922a) comb. n. — Europe; *P. malleola* (Tokunaga & Komyo, 1954) comb. n. — Japan; *P. muscicola* (Vaillant, 1963d) comb. n. — Europe; *P. vaillanti* (Sarà & Salamanna, 1967) comb. n. — Europe.

### **Psychomora gen. n.**

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Tonnoir, 1922a: 86; Del Rosario, 1936b: 568; Enderlein, 1936: 86; Tonnoir, 1940: 22; Kloet & Hincks, 1945: 333; Grensted, 1947: 1; Satchell, 1947a: 63; b: 613; 1948: 46; Freeman, 1950: 93; Laurence, 1953: 281; Sarà, 1953: 2; Quate, 1955: 208; Sarà, 1955a: 1; Jung, 1956: 201; Satchell, 1956: 119; Tokunaga, 1957: 58; Quate, 1959d: 436; 1960a: 148; b: 26; Szabó, 1960a: 213; Nielsen, 1961: 145; Quate, 1962c: 231; d: 68; e: 184; Vaillant, 1963c: 224; Giljarov, 1964: 659; Nielsen, 1964: 155; Botosaneanu & Vaillant, 1965: 79; Nielsen, 1965a: 151; Quate, 1965: 896; Vaillant, 1966: 226; Quate & Quate, 1967: 192; Tanašíček, 1969: 131; Rozkošný, 1971: 141; Vaillant, 1971: 34; Wagner, 1973: 520; 1977: 27; 1978b: 70; 1979a: 55; Caspers & Wagner, 1980: 81.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Tonnoir, 1922a: 86; Rozkošný, 1971: 141.

Type-species: *Psychoda trinodulosa* Tonnoir, 1922a

Diagnosis: 16 segmented antennae; there are small differences in the size of the last three reduced antennal segments. Segments 13—15 fused, segment 16 of a drop shape, separated. Spines on the apical segments missing. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 2.3. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males long and bent from ventral view, distal third not narrowed and not bare.

Biology: Little known, however *Psychomora trinodulosa* (Tonnoir, 1922a) comb. n. has been tolerably well studied. Larvae saprobiont, occurring in excrement and mushrooms, adults are sometimes common near lights at night.

Distribution: 9 species so far registered in the world: 5 species in Australian area: *Psychomora ablucens* (Quate & Quate, 1967) comb. n. — New Guinea; *P. macispina* (Quate & Quate, 1967) comb. n. — New Guinea; *P. neoformosana* (Duckhouse, 1966) comb. n. — Australia; *P. rhipsalis* (Quate & Quate, 1967)

comb. n. — New Guinea; *P. spinipeltata* (Quate & Quate, 1967) comb. n. — New Guinea; 1 species in Neotropical area: *P. plaumanni* (Duckhouse, 1968) comb. n. — Brazil. Indo-Malayan area with 2 species: *P. makati* (Del Rosario 1936b) comb. n. — Philippines; *P. prolarta* (Quate, 1965) comb. n. — Philippines. Holarctic area only with *P. trinodulosa* (Tonnoir, 1922a) comb. n. — Europe, U. S. A.

### **Chodopsycha gen. n.**

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Tonnoir, 1940: 60; Lloyd, 1943: 31; Kloet & Hincks, 1945: 333; Freeman, 1950: 93; Satchell, 1950a: 171; Quate, 1954: 354; Jung, 1956: 203; Tokunaga, 1958: 378; Quate, 1959b: 484; d: 436; Szabó, 1960a: 213; Nielsen, 1961: 145; Quate, 1961b: 437; c: 133; 1962a: 126; c: 232; d: 57; e: 186; Nielsen, 1964: 157; Botosaneanu & Vaillant, 1965: 78; Quate, 1965: 883; 1966: 317; Sarà & Salamanna, 1967: 52; Tanasijčuk, 1969: 132; Vaillant, 1971: 45; Duckhouse, 1973: 12; Salamanna, 1974b: 65; Wagner, 1979a: 55; Caspers & Wagner, 1980: 78; Hackman, 1980: 22.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat), partim; Kloet & Hincks, 1945: 333; Sarà & Salamanna, 1967: 52.

Type-species: *Psychoda lobata* Tonnoir, 1940

Diagnosis: 16 segmented antennae; there are small differences in the size of the last three reduced antennal segments. Segments 13—15 fused, segment 16 of a ball shape, separated. Spines on apical segments missing. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 6.0. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males long and bent from ventral view, distal third not narrowed and not bare.

Biology: Little known. Larvae of *Chodopsycha lobata* (Tonnoir, 1940) comb. n. are saprobiont (Jung, 1956). Vaillant (1971) noted development of larvae in mushrooms.

Distribution: 7 species in the world. The area of New Zealand: *Chodopsycha harrisi* (Satchell, 1950a) comb. n. — New Zealand; in Polynesian area *C. magnipalpus* (Quate, 1959d) comb. n. — Samoa and *C. seorsa* (Quate, 1966) comb. n. — Iriomote I. In Neotropical area *C. divaricata* (Duckhouse, 1968) comb. n. — Brazil and *C. lutea* (Quate, 1962c) comb. n. — Malaya in Indo-Malayan area. In Holarctic area 2 species: *C. lobata* (Tonnoir, 1940) comb. n. — Europe and *C. quatei* (Sarà & Salamanna, 1967) comb. n. — Europe.

### **Psychodula gen. n.**

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Banks, 1894: 331; 1901: 274; Heseman, 1907: 318; Swezey, 1907: 117; Malloch, 1918: 268; Turner, 1923: 545; Johnson, 1925: 45; Johannsen, 1934: 24; Tonnoir, 1934: 78; 1940: 57; Del Rosario, 1936a: 144; Enderlein, 1936: 86; Hardy, 1942: 142; Rapp, 1944: 206; Satchell, 1947a: 651; b: 613; 1948: 46; Rapp & Cooper, 1945: 125; Freeman, 1954: 93; Quate, 1955: 203; Jung, 1956: 202; Quate, 1960a: 148; b: 25; Szabó, 1960a: 213; Nielsen, 1961: 145; Vaillant, 1961c: 2; Sarà, 1962: 68; Vaillant, 1963d: 109; Giljarov, 1964: 659; Nielsen, 1964: 157; Vaillant, 1964: 62; Nielsen, 1965a: 151; Tanasijčuk, 1969: 132; Vaillant, 1971: 44; Wagner, 1973: 520; Salamanna, 1974a: 54; Wagner, 1977: 27; 1978a: 282; 1979a: 55; Caspers & Wagner, 1980: 78.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Vaillant, 1961a: 133.

*Pericomia* auct. (nec *Pericomia* Walker, 1856), partim; Kertész, 1902: 296.

Type-species: *Psychoda minuta* Banks, 1894

Diagnosis: 16 segmented antennae; there are small differences in the size of the last three reduced antennal segments. Segments 13—16 fused, segment 16 of a ball shape. Spines on the apical segments missing. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 1.0. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males long and bent from ventral view, distal third not narrowed and not bare.

Biology: Polyvoltine species. Larvae saprobiont, occurring in decaying vegetable scraps and excrement of different vertebrate animals. Adults are common in light traps.

Distribution: Holarctic area with two species: *Psychodula minuta* (Banks, 1894) comb. n. — Europe, North America and *P. pseudominuta* (Wagner, 1978a) comb. n. — Korea.

### Genus **Psychoda** Latreille

*Psychoda* Latreille, 1796: 152; 1802: 424; Fabricius, 1805: 49; Latreille, 1805: 293; 1809: 251.

*Psychoda* auct. (s. lat.), partim; Meigen, 1818: 106; Macquart, 1826: 168; Haliday, 1833: 148; Macquart, 1834: 165; Lamarck, 1835: 98; Curtis, 1839: 103; Perris, 1840: 346; Westwood, 1840: 520; Walker, 1848: 32; Zetterstedt, 1850: 3701; Meigen, 1851: 81; Walker, 1856: 54; Loew, 1862: 9; Schiner, 1864a: 17; b: 635; Wulp, 1877: 314; Brauer, 1883: 52; Eaton, 1893: 7, 33, 129; Kowarz, 1894: 4; Eaton, 1895a: 489; b: 209, 245<sup>a</sup>; Kincaid, 1897: 143; Eaton, 1898: 120; Kincaid, 1899: 31; Thalhammer, 1899: 46; Banks, 1901: 273; Kertész, 1902: 299; Becker, Bezzi, Bischof, Kertész & Stein, 1903: 164; Speiser, 1906: 717; Bezzi, 1907: 179; Haseman, 1907: 310; Coquillet, 1910: 597; Haseman, 1910: 277; Eaton, 1913: 428; Knab, 1913: 103; Vimmer, 1913: 11; Johnson, 1914: 137; Schmitz, 1917: 43; Malloch, 1918: 266; Tonnoir, 1919: 15; 1921: 296; Feuerborn, 1922a: 23; b: 199; Tonnoir, 1922a: 49; b: 126; Kemper, 1925: 2; Dyar, 1926a: 103; b: 108; c: 148; 1928: 87; Edwards, 1928a: 32; b: 73; Dyar, 1929: 64; Koch, 1929: 4; Tonnoir, 1929: 5; Abreu, 1930: 108; Hövener, 1930: 74; Banks, 1932: 227; Barendrecht, 1934: 80; Curran, 1934: 289; Johannsen, 1934: 27; Tonnoir, 1934: 76; Enderlein, 1935: 248; Del Rosario, 1936a: 87; b: 554; Enderlein, 1936: 85; Mayer, 1938: 399; Leruth, 1939: 90; Tonnoir, 1940: 30; Williams, 1943: 334; Rapp, 1944: 207; Rapp & Cooper, 1945: 125; Rapp, 1946: 176; Williams, 1946: 637; Grensted, 1947: 1; Rapp, 1947: 169; Satchell, 1949: 412; Freeman, 1950: 8; Sarà, 1950: 236; Satchell, 1950a: 147; Fairchild, 1951: 11; Sarà, 1951a: 1; b: 197; c: 49; d: 204; 1952: 1; Laurence, 1953: 281; Sarà, 1953: 26; Tokunaga, 1953: 1; Quate, 1954: 341; Vaillant, 1954: 89; Fairchild, 1955: 184; Quate, 1955: 191; Sarà, 1955a: 11; b: 1; Tokunaga & Komyo, 1955: 205; Jung, 1956: 187; Satchell, 1956: 118; Sarà, 1957: 6; Tokunaga, 1957: 53; Sarà, 1958: 2; Tokunaga, 1958: 359; Vaillant, 1958: 112; Quate, 1959a: 213; b: 436; c: 450; d: 435; Sarà, 1959a: 8; b: 8; Mirouse & Vaillant, 1960: 16; Quate, 1960a: 147; b: 23; Szabó, 1960a: 212; b: 427; Vaillant, 1960a: 107; b: 164; Nielsen, 1961: 142; Quate, 1961a: 168; b: 437; c: 132; Sarà, 1961: 7; Tokunaga, 1961: 454; Vaillant, 1961c: 1; Quate, 1962a: 125; b: 958; c: 229; d: 47; e: 183; Sarà, 1962: 68; Quate, 1963: 116; Smith & Grenstedt, 1963: 155; Vaillant, 1963a: 86; b: 211; c: 224; d: 109; Giljarov, 1964: 659; Nielsen, 1964: 155; Quate, 1964: 280; Vaillant, 1964: 61; Botosaneanu & Vaillant, 1965: 78; Nielsen, 1965a: 150; b: 103; Quate, 1965: 872; Sarà, 1965: 132; Szabó, 1965a: 79; b: 618; Vaillant, 1965: 221; Quate, 1966: 310; Salamanna, 1966: 117; Vaillant, 1966: 225; Vaillant & Botosaneanu, 1966: 91; Bellier, 1967: 57; Krek, 1967: 315; Quate & Quate, 1967: 146; Sarà & Sal-

manna, 1967: 47; 1968: 153; Tanasičuk, 1969: 130; Moriya, Yabe & Harada, 1970: 259; Duckhouse, 1971: 318; Rozkošný, 1971: 141; Vaillant, 1971: 41; Hennig, 1972: 17; Ježek, 1972: 29; Duckhouse, 1973: 11; Halgoš, 1973: 72; Vaillant, 1973a: 139; b: 371; c: 675; Wagner, 1973: 520; Salamanna, 1974a: 51; b: 63; 1975a: 201; b: 71; c: 75; Ježek, 1977: 233; Wagner, 1977: 26; 1978a: 282; b: 70; 1979a: 53; b: 448; Caspers & Wagner, 1980: 78; Hackman, 1980: 22.

*Psychoda* Wagner, 1978b: 70 (lapsus).

*Psicoda* Rondani, 1856: 178 (lapsus).

*Psychoda* (subgenus of genus *Psychoda* auct.), partim; Vaillant, 1960b: 164; Nielsen, 1961: 142; 1965b: 103; Sará & Salamanna, 1967: 47; Rozkošný, 1971: 141; Halgoš, 1973: 72.

*Psychoda* Tokunaga, 1961: 454 (lapsus).

*Psychoda* Latreille, 1796 sensu Ježek, 1977: 233.

*Tipula* auct. (nec *Tipula* Linné, 1758), partim; Linné, 1761: 438; 1767: 977; Degeer, 1776: 422; Fabricius, 1781: 411; 1787: 327; Rossi, 1790: 273; Fabricius, 1794: 251.

*Trichoptera* Meigen, 1803: 261 (Type-species: *Tipula phalaenoides* Linné, 1758); Coquillett, 1910: 616.

*Pericoma* auct. (subgenus of genus *Psychoda* Latreille, 1796 — nec *Pericoma* Walker, 1856 sensu Vaillant, 1971), partim; Curran, 1924: 216.

Type-species: *Tipula phalaenoides* Linné, 1758 (by monotypy).

**Diagnosis:** 15 segmented antennae; there are large differences in the size of the last three apical antennal segments. Apical two antennal segments of the same size, separated, distinctly reduced in comparison with foregoing one. Segment 15 ball shaped. Spines on antennal segment 14 mostly missing. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 1.0—2.5. The lobe of labium with 4—5 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males to a certain extent bent from ventral view, of the same width throughout their length.

**Biology:** Polyvoltine species with saprobiont larvae. Immature stages prefer to live in decaying tissues of lower fungi. Parthenogenesis of some species is not excluded. Adults are common near excrement, moist places, water reservoirs or streams and are attracted by light at night.

**Distribution:** 20 species registered in the world so far. 8 species in Australian area: *Psychoda bitrunculens* Quate & Quate, 1967 — New Guinea; *P. concinna* Quate & Quate, 1967 — New Guinea; *P. erratilis* Quate & Quate, 1967 — New Guinea; *P. floropsis* Quate & Quate, 1967 — New Guinea; *P. hastata* Quate & Quate, 1967 — New Guinea; *P. lamina* Quate & Quate, 1967 — New Guinea; *P. sphelata* Quate & Quate, 1967 — New Guinea. In Polynesian area *P. allodapa* Quate, 1959b — Micronesia; *P. lucubrans* Quate, 1959b — Micronesia; *P. medioris* Quate, 1959b — Micronesia; *P. parsivena* Quate, 1959b — Micronesia; in Indo-Malayan area *P. innotabilis* Quate, 1962d — Borneo; *P. malayica* Quate, 1962c — Malaysia; *P. subquadrilobata* Tokunaga, 1957 — Formosa; *P. umbratica* Quate, 1965 — Philippines. In the Holarctic area occur 4 species: *P. alticola* Vaillant, 1973a — Europe; *P. crassipennis* Tonnoir, 1940 — Europe; *P. phalaenoides* (Linné, 1758) — Europe and North America; *P. uniformata* Haseman, 1907 — Europe and U. S. A.

### **Ypsydocha gen. n.**

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Tonnoir, 1922a: 84; Enderlein, 1936: 86; Tonnoir, 1940: 56; Rapp, 1944: 209; Rapp & Cooper, 1945: 125; Grensted, 1947: 1; Satchell, 1947a: 65; b: 613; 1948: 46; Freeman, 1950: 93; Laurence,

1953: 281; Quate, 1955: 202; Tokunaga & Komyo, 1955: 206; Jung, 1956: 201; Tokunaga, 1958: 360; Quate, 1960a: 147; b: 25; Nielsen, 1961: 144; Vaillant, 1963c: 224; Giljarov, 1964: 659; Nielsen, 1964: 156; Botosaneanu & Vaillant, 1965: 79; Nielsen, 1965a: 151; Sarà & Salamanna, 1967: 68; Tanasijčuk, 1969: 131; Vaillant, 1971: 34; 1973a: 140.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Kloet & Hincks, 1945: 333; Sarà & Salamanna, 1967: 65.

Type-species: *Psychoda setigera* Tonnoir, 1922a

Diagnosis: 15 segmented antennae; there are large differences in the size of the last three apical antennal segments. 13th—15th antennal segments are not separated, reduced upwardly in comparison with foregoing one. Segment 15 ball shaped. Spines on the antennal segment 14 mostly missing. Antennal segment 13 with a conspicuous border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 1.5. The lobe of labium with 3 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males S-shaped from ventral view, somewhat widened basally.

Biology: Immature stages were studied by Satchell (1947a, b; 1948) and Laurence (1953). Jung (1956) characterized the larvae as saprobiont and he has summarized their habitats as follows: wet paddocks, manure and waste tubes of drainage devices. Life cycle 21 days (Satchell, 1947b); larvae were collected by Vaillant (1973a) in mountains 2194 m. above sea level in dung-water. Data about pollination of *Arum maculatum* L. by „*P. setigera* Ton.“ were referred to by Tonnoir (1940) and Grensted (1947). Nielsen (1961) collected adults at light. Both larvae of *Rhabditis* Duj. (Anguillulidae) and mites of family Gamasidae are transferred by mentioned species (Bovien, 1937; Nielsen, 1961). Adults are common on the periphery of ponds, shaded by *Salix*.

Distribution: Monotypic, in Holarctic area — *Ypsydocha setigera* (Tonnoir, 1922a) comb. n. — Europe, U. S. A., Canada.

### Genus **Tinearia** Schellenberg

*Tinearia* Schellenberg, 1803: tab. 40; Ježek, 1977: 234.

*Psychoda* auct. (nec Latreille, 1796 sensu Ježek, 1977), partim; Macquart, 1838: 81; Curtis, 1839: unnumbered; Zetterstedt, 1850: 3702; Meigen, 1851: 81; Walker, 1856: 254; LeConte, 1859: 242; Schiner, 1864a: 17; b: 635; Phillipi, 1865: 631; Wulp, 1877: 314; Hutton, 1881: 13; Eaton, 1893: 130; 1894: 23; Banks, 1894: 330; Kowarz, 1894: 4; Banks, 1895: 324; Eaton, 1895a: 490; Williston, 1896: 283; Strobl, 1898: 203; Kincaid, 1899: 32; Banks, 1901: 274; Grimshaw, 1901: 6; Kincaid, 1901: 193; Kertész, 1902: 299; Becker, Bezzi, Bischof, Kertész & Stein, 1903: 164; Eaton, 1904: 58; Dell, 1905: 293; Fullaway, 1907: 386; Haseman, 1907: 320; Brunetti, 1908: 371; Haseman, 1908: 279; Zuelzer, 1909: 213; Haseman, 1910: 277; Welch, 1912: 411; Eaton, 1913: 428; Vimmer, 1913: 11; Johnson, 1914: 137; Muttkowski, 1915: 112; Malloch, 1918: 267; Schmitz, 1917: 43; Headlec & Beckwith, 1918: 395; Headlec, 1919: 35; Tonnoir, 1919: 15; 1920: 145; 1921: 296; Feuerborn, 1922a: 42; b: 204; Tonnoir, 1922a: 72; Turner, 1923: 545; 1924: 338; Johnson, 1925: 45; Dyar, 1926a: 105; b: 108; Feuerborn, 1927: 249; Edwards, 1928b: 75; Saunders, 1928: 209; Koch, 1929: 1; Abreu, 1930: 31; Hövener, 1930: 74; Banks, 1932: 227; Mukerji, 1931: 441; Johannsen, 1934: 27; Barendrecht, 1934: 80; Tonnoir, 1934: 79; Del Rosario, 1936a: 93; Enderlein, 1936: 86; Williams, 1943: 334; Rapp, 1944: 204; 1945: 28; Rapp & Cooper, 1945: 124; Rapp & Rapp, 1946: 291; Williams, 1946: 637; Satchell, 1947a: 60; b: 611; 1948: 45; Freeman, 1950: 93; Sarà, 1950: 236; Satchell, 1950b: 184; Fairchild, 1951: 13; Sarà, 1951a: 1; b: 197; c: 49; d: 205; Berdén, 1952: 110; Sarà, 1952: 11; Satchell, 1953a: 188;

Quate, 1954: 343; 1955: 218; Sarà, 1955b: 1; Tokunaga & Komyo, 1955: 206; Jung, 1956: 187; Satchell, 1956: 118; Štakelberg, 1956: 37; Sarà, 1957: 6; Tokunaga, 1957: 53; Sarà, 1958: 2; Tokunaga, 1958: 362; Quate, 1959a: 216; b: 469; c: 450; d: 437; Sarà, 1959a: 8; b: 8; Quate, 1960b: 29; Szabó, 1960a: 212; Vaillant, 1960b: 164; Nielsen, 1961: 150; Quate, 1961a: 169; c: 135; Sarà, 1961: 7; Vaillant, 1961c: 2; Quate, 1962a: 125; b: 958; c: 232; e: 185; Sarà, 1962: 70; Vaillant, 1963a: 86; b: 211; Nielsen, 1964: 155; 1965a: 150; b: 105; Quate, 1965: 873; Sarà, 1965: 130; Szabó, 1965a: 79; b: 618; Duckhouse, 1966: 195; Quate, 1966: 313; Salamanna, 1966: 117; Vaillant, 1966: 225; Vaillant & Botosaneanu, 1966: 92; Bellier, 1967: 58; Krek, 1967: 315; Quate & Quate, 1967: 189; Sarà & Salamanna, 1967: 68; 1968: 153; Tanasičuk, 1969: 130; Zuska & Lašťovka, 1969: 208; Moriya, Yabe & Harada, 1970: 259; Duckhouse, 1971: 319; Rozkošný, 1971: 140; Vaillant, 1971: 22; Ježek, 1972: 29; Duckhouse, 1973: 12; Vaillant, 1973a: 139; b: 376; c: 675; Salamanna, 1974a: 51; b: 63; 1975a: 201; b: 69; c: 82; Wagner, 1977: 26; 1978a: 285; 1979a: 53; b: 448; Caspers & Wagner, 1980: 78; Hackman, 1980: 22.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Tonnoir, 1922a: 72; Kloet & Hincks, 1945: 333; Jung, 1956: 188; Vaillant, 1960b: 164; Nielsen, 1961: 142; Szabó, 1965a: 79; b: 618; Sarà & Salamanna, 1967: 47; Rozkošný, 1971: 141; Halgoš, 1973: 72.

*Tipula* auct. (nec *Tipula* Linné, 1758), partim; Scopoli, 1763: 315.

*Trichoptera* auct. (nec Meigen, 1803), partim; Meigen, 1804: 43.

*Pericomia* auct. (nec *Pericomia* Walker, 1856 sensu Vaillant, 1971), partim; Thalhammer, 1899: 16.

Type-species: *Psychoda alternata* Say, 1824 (by subsequent designation)

Diagnosis: 15 segmented antennae; there are large differences in the size of the last three apical antennal segments. 13th—15th antennal segments are not separated, reduced upwardly in comparison with foregoing one. Segment 15 ball shaped. Spines on the antennal segment 14 mostly missing. Antennal segment 13 without a border distad, sensory filaments minute. Index of facet's diameter to the minimal width of frons 0.5—0.9. The lobe of labium with 5 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males S-shaped from ventral view, somewhat widened basally.

Biology: Polyvoltine species. Larvae are common on the biological filters of sewage works, on the banks of their outflows, in the water reservoirs with decaying organic material, in the silt of drifts on the periphery of ponds and on the banks of both streams and rivers. Adults are attracted by light at night.

Distribution: In Australian and Polynesian areas *Tinearia pseudalternata* (Williams, 1946) — Australia, Hawaii I.; in Holarctic area *T. alternicula* (Quate, 1955) — U. S. A. and *T. lativentris* (Berdén, 1952) — Europe, U. S. A.; *T. alternata* (Say, 1824) is cosmopolitan.

### Genus **Logima** Eaton

*Logima* Eaton, 1904: 58.

*Longima* Rapp, 1946: 174 (lapsus).

*Logima* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.); Tonnoir, 1919: 14; 1922a: 63; Sarà & Salamanna, 1967: 62.

*Psychoda* auct. (nec Latreille, 1796), partim; Zetterstedt, 1850: 3708; Schiner, 1864a: 17; b: 635; Wulp, 1877: 314; Eaton, 1893: 130; 1895a: 491; 1898: 122; Strobl, 1898: 203; Kertész, 1902: 299; Becker, Bezzii, Bischof, Kertész & Stein, 1903: 164; Haseman, 1907: 311; Feuerborn, 1922a: 23; Tonnoir, 1922a: 78; Dyar, 1926a: 104; Edwards, 1928b: 75; Koch, 1929: 26; Abreu, 1930: 21; Hövener, 1930: 74; Barendrecht, 1934: 80; Leruth, 1939: 90; Tonnoir, 1940: 53; Kloet & Hincks, 1945: 333; Grensteden, 1947: 2; Satchell,

1949: 414; Freeman, 1950: 91; Satchell, 1950a: 166; Sarà, 1951a: 5; c: 49; 1952: 12; Quate, 1955: 216; Sarà, 1955b: 2; Tokunaga & Komyo, 1955: 206; Satchell, 1956: 118; Jung, 1956: 202; Tokunaga, 1957: 55; Sarà, 1958: 2; Tokunaga, 1958: 368; Sarà, 1959a: 10; Quate, 1959a: 214; b: 467; c: 451; d: 438; 1960b: 27; Szabó, 1960a: 213; Nielsen, 1961: 150; Quate, 1961b: 437; c: 133; Sarà, 1961: 7; Duckhouse, 1962: 428; Quate, 1962b: 958; d: 47; e: 187; Sarà, 1962: 71; Vaillant, 1963a: 87; Giljarov, 1964: 658; Nielsen, 1964: 155; Quate, 1964: 288; Vaillant, 1964: 62; Botosaneanu & Vaillant, 1965: 78; Nielsen, 1965a: 152; b: 104; Quate, 1965: 872; Sarà, 1965: 130; Szabó, 1965a: 79; b: 618; Vaillant, 1966: 226; Vaillant & Botosaneanu, 1966: 92; Bellier, 1967: 58; Krek, 1967: 315; Quate & Quate, 1967: 146; Sarà & Salamanna, 1967: 68; 1968: 154; Tanasijčuk, 1969: 132; Zuska & Laštovka, 1969: 208; Duckhouse, 1971: 317; Rozkošný, 1971: 141; Vaillant, 1971: 42; Ježek, 1972: 29; Duckhouse, 1973: 12; Wagner, 1973: 520; Salamanna, 1974a: 55; b: 65; Salamanna, 1975a: 203; b: 71; c: 86; Wagner, 1977: 27; 1978a: 285; b: 70; 1979a: 56; b: 448; Caspers & Wagner, 1980: 81.

*Psychoda* (subgenus of genus *Psychoda* Latreille, 1796 s. lat.), partim; Tonnoir, 1940: 63; Kloet & Hincks, 1945: 333; Jung, 1956: 188; Nielsen, 1961: 143; Szabó, 1965b: 619; Sarà & Salamanna, 1967: 65; Rozkošný, 1971: 141; Halgoš, 1973: 74.

Type-species: *Psychoda erminea* Eaton, 1893 (by original designation)

Diagnosis: 14 segmented antennae; there are large differences in the size of the last three apical antennal segments. The presence of one or more rather rudimentary spines on the false foregoing segment between 13 and 14. Antennal segment 12 with a neck. Segment 14 rather of an egg-shaped form. Antennal segment 13 without a border distad, sensory filaments large. Index of facet's diameter to the minimal width of frons 1.4—3.0. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males rather long, not straight from ventral view, distal third of the cercus not bare. Cerci sometimes with cut widened part basally.

Biology: Little known, fully known in only a few species. Polyvoltine, larvae saprobiont, some species sometimes with parthenogenetic generations.

Distribution: 20 species in the world. 5 species in Australian area — *Logima albescens* (Quate & Quate, 1967) comb. n. — New Guinea; *L. occulta* (Quate & Quate, 1967) comb. n. — New Guinea; *L. pinguicola* (Quate & Quate, 1967) comb. n. — New Guinea; *L. sibilica* (Quate & Quate, 1967) comb. n. — New Guinea. 1 species in New Zealand area — *L. spatulata* (Satchell, 1950a) comb. n. — New Zealand. 2 species in Polynesian area — *L. adumbrata* (Satchell, 1953a) comb. n. — Samoa I.; *L. cochlearia* (Satchell, 1950b) comb. n. — Fiji I. 7 species in Indo-Malayan area: *L. canlaones* (Quate, 1965) comb. n. — Philippines; *L. fusticola* (Quate, 1965) comb. n. — Philippines; *L. kea* (Quate, 1962d) comb. n. — Borneo; *L. lusca* (Quate, 1965) comb. n. — Philippines; *L. luzonica* (Quate, 1965) comb. n. — Philippines; *L. trunculens* (Quate, 1965) comb. n. — Philippines; *L. uniculata* (Quate, 1965) comb. n. — Philippines. 5 species in Holarctic area — *L. albipennis* (Zetterstedt, 1850) comb. n. — Europe; *L. erminea* (Eaton, 1893) — Europe; *L. satchelli* (Quate, 1955) comb. n. — U. S. A., Europe; *L. sigma* (Kincaid, 1899) comb. n. — U. S. A.; *L. surcoufi* (Tonnoir, 1922a) comb. n. — Europe.

### Genus **Copropsychoda** Vaillant

*Copropsychoda* Vaillant, 1971: 33; Wagner, 1979a: 56.

*Psychoda* auct. (nec Latreille, 1796), partim; Tonnoir, 1940: 54; Grensted, 1947: 1; Free-

man, 1950: 91; Jung, 1956: 208; Tokunaga, 1958: 363; Nielsen, 1961: 144; Giljarov, 1964: 659; Nielsen, 1964: 156; 1965a: 150; Tanasičuk, 1969: 130.  
*Psychoda* (subgenus of genus *Psychoda* auct.), partim; Kloet & Hincks, 1945: 333.  
*Threticus* (subgenus of genus *Psychoda* auct.), partim; Satchell, 1955: 369.  
Type-species: *Psychoda brevicornis* Tonnoir, 1940 (by monotypy)

Diagnosis: 14 segmented antennae; there are large differences in the size of the last three apical antennal segments. The false segment between 13 and 14 missing as well as spines. Antennal segment 12 without a neck. Antennal segment 13 without a border distad, sensory filaments large. Segment 14 of a rather oval form. Index of facet's diameter to the minimal width of frons about 1.0. The lobe of labium with 4 digital projections. The base of  $M_{1+2}$  without circular swelling. Cerci of males long, not straight from ventral view, distal third of the cercus not bare. Cerci without widened part basally.

Biology: Little known, polyvoltine species, larvae saprophyte.

Distribution: In the world 3 species. In Ethiopian area *Copropsychoda de-wulfi* (Satchell, 1955) comb. n. — former Belgian Congo; in Palaearctic part of Holarctic area *C. brevicornis* (Tonnoir, 1940) — Europe and *C. miyatakei* (Tokunaga, 1958) comb. n. — Japan.

### S u m m a r y

A higher taxonomy of the world Psychodini End. is restricted to 10 genera of which 6 are new to science: *Psychodocha*, *Psycha*, *Psychomora*, *Chodopsycha*, *Psychodula* and *Ypsydocha*. Unfortunately, many new proposed genera from 420 known species of the genus *Psychoda* Latreille, 1796 s. lat. of the world are not included. The tribe Psychodini End. is characterized by comparison with both Mormiini End. and Paramormiini End. Synonymy, diagnosis, known geographical distribution, biology, list of the world species of all quoted genera and some new combinations are presented, from which many are established on the basis of literature only.

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