CATALOGUE OF PALAEARCTIC DIPTERA VOLUME 3
CERATOPOGONIDAE - MYCETOPHILIDAE. Á. SOÓS & L. PAPP
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AKADÉMIAI KIADÓ

Family **Ditomyiidae**

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Yellowish brown flies usually with brown markings. Head with well-developed haired eyes and 3 ocelli. Antennae 2 + 15-segmented, flagellar segments cylindrical, frequently compressed laterally and dentate. Palpi 4-segmented. Mesonotum usually with 3 longitudinal dark bands. Costa ending at tip or slightly beyond tip of *R;* radial fork of *R* well developed; basal part of R_s oblique to R_1; stem and branches of M_{1+2} very weak, basal portion of *M* absent and first basal cell united with second one; *M-Cu* present. Wings covered with macro- and microtrichia. Legs long and slender, tibial spurs well developed (1:2:2).

Larvae white with somewhat swollen thoracic segments and constricted integumental areas. Head capsule heavily sclerotized; mandible well developed with distinct teeth. Prothorax and abdominal segments 1–8 with circular spiracles.

Immature stages living in bracket fungi or in moist rotten wood (KRIVOSHEINA and MAMAEV, 1967). Wood-boring larvae produce their tunnels usually near surface of wood of deciduous trees. The Palaearctic species of *Ditomyia* develop in fruit-bodies of *Polyporus, Polystichus, Capinus* and *Lenzites.*

The family consists of 9 genera and about 80 species distributed mainly in the southern hemisphere. In the Palaearctic Region there are 3 genera with 15 species.

The first ditomyiid species *Ditomyia fasciata* and *Symmerus annulatus* were described by MEIGEN (1818, 1830) under the generic name *Mycetobia.* These species were included in the subfamily Mycetobiinae of the family Mycetophilidae for a long time. After detailed examination of the morphology of adults and larvae EDWARDS (1916) transferred *Mycetobia* to the family Anisopodidae and referred *Ditomyia* and *Symmerus* to the subfamily Ditomyiinae of the family Mycetophilidae (EDWARDS, 1921). HENNIG (1948) and ROHDENDORF (1964) considered the subfamilies Ditomyiinae and Mycetobiinae as separate families. Modern revisions of Ditomyiidae were published by SAIGUSA (1973), MUNROE (1974), ZAITZEV (1978).

References: SAIGUSA, 1973; MUNROE, 1974 (genera *Symmerus* and *Australosymmerus*); ZAITZEV, 1978 (key).

Asioditomyia SAIGUSA, 1973

SAIGUSA, 1973: Sieboldia, **4**(3): 195.

Type-species: *Ditomyia japonica* SASAKAWA, 1963: Akitu, **11:** 16 (orig. des.).

japonica (SASAKAWA, 1963): Akitu, **11:** 16 (*Ditomyia*). Type-locality: Honshu, Mt. Odaigahara, Nara Pref. (Japan).—Distr.: USSR: FE (Primorskiy kray); Asia: Japan (Honshu, Kyushu).

Ditomyia WINNERTZ, 1846

WINNERTZ, 1846: Stettin. ent. Ztg, **7:** 14.

Type-species: *Ditomyia trifasciata* WINNERTZ, 1846: l.c.: 15 (mon.) [= *fasciata* (MEIGEN, 1818)].

carinata ZAITZEV, 1980: Zool. Zh., **59**(12): 1893 (*Ditomyia*). Type-locality: Sokoltschi, Primorskiy kray (USSR).—Distr.: USSR: FE (S Primorye).

claripennis SAIGUSA, 1973: Sieboldia, **4**(3): 193 (*Ditomyia*). Type-locality: Aizankei, Mts Daisetsuzan, Hokkaido (Japan).—Distr.: Asia: Japan (Hokkaido).

fasciata (MEIGEN, 1818): Syst. Beschr., **1:** 230 (*Mycetobia*). Type-locality: not given ("Sammlung des Hrn Baumhauer").—Distr.: Europe: from GB to CS and from D to I; USSR: SET (Crimea, Caucasus); Asia: Iran.

trifasciata WINNERTZ, 1846: Stettin. ent. Ztg, **7:** 15 (*Ditomyia*). Type-locality: not given.

macroptera WINNERTZ, 1852: Stettin. ent. Ztg, **13:** 54 (*Ditomyia*). Type-locality: not given.—Distr.: Europe: D, DDR; USSR: FE (Sakhalin).

spinifera ZAITZEV, 1978: Ent. Obozr., **57**(3): 674 (*Ditomyia*). Type-locality: Ishtii-Chem, Tuva ASSR (USSR).—Distr.: USSR: WS.

Symmerus WALKER, 1848

WALKER, 1848: List Dipt. Brit. Mus., **1:** 88.
Type-species: *Symmerus ferrugineus* WALKER, 1848: l.c.: 88 (mon.) [= *annulata* (MEIGEN, 1830)].

Plesiastina WINNERTZ, 1852: Stettin. ent. Ztg, **13:** 55. Type-species: *Mycetobia annulata* MEIGEN, 1830: Syst. Beschr., **6:** 294 (des. COQUILLETT, 1910: Proc. U.S. natn. Mus., **37:** 562).

akikoae SAIGUSA, 1973: Sieboldia, **4**(3): 180 (*Symmerus*). Type-localities: Honshu, Kanayama, Sudama, Yamanashi Pref. (Japan).—Distr.: Asia: Japan (Honshu).

annulatus (MEIGEN, 1830): Syst. Beschr., **6:** 294 (*Mycetobia*). Type-locality: not given.—Distr.: Europe: A, B, CS, D, DDR, DK, F, GB, I, IRE, NL, PL, SF; USSR: CET (Est, La), SET (Rs, Uk, Crimea, Caucasus), WS (nr Krasnojarks).

ferrugineus WALKER, 1848: List Dipt. Brit. Mus., **1:** 88 (*Symmerus*). Type-locality: "England".

flavus (ZETTERSTEDT, 1851): Dipt. Scand., **9:** 3447 (*Ceroplatus*). Type-locality: Esperöd, Scania (Sweden).

apicalis (WINNERTZ, 1852): Stettin. ent. Ztg, **13:** 56 (*Plesiastina*). Type-locality: not given.

vittata (WALKER, 1856): Ins. Brit., Dipt., **3:** 64 (*Ditomyia*). Type-locality: "England".

pallida (GIGLIO-TOS, 1890): Boll. Mus. Zool. Anat. comp. R. Univ. Torino, **5** (No 84): 2 (*Ditomyia*). Type-locality: Torino, Racconigi (Italy).

antennalis OKADA, 1936: Insecta matsum., **11:** 58 (*Symmerus*). Type-locality: Sapporo, Hokkaido (Japan).—Distr.: Asia: Japan (Hokkaido, Honshu, Kyushu, ?Shikoku).

brevicornis OKADA, 1939: J. Fac. Agric. Hokkaido (imp.) Univ., **42:** 287 (*Symmerus*). Type-locality: Sapporo, Hokkaido (Japan).—Distr.: USSR: FE

(Khabarovskiy kray, Primorskiy kray, Kuril Is.); Asia: Japan (Hokkaido, Honshu, Kyushu).

brevicornis yamatoensis SAIGUSA, 1973: Sieboldia, 4(3): 187 (*Symmerus*). Type-localities: Kanayama, Sudama, Yamanashi Pref., Honshu (Japan).—Distr.: Asia: Japan (Honshu, Kyushu).

elongatus SAIGUSA, 1973: Sieboldia, 4(3): 187 (*Symmerus*). Type-locality: Katazawa-Toge, Mt. Senjo-dake, Akaishi Range, Yamanashi Pref. Honshu (Japan).—Distr.: Japan (Honshu).

fuscicaudatus SAIGUSA, 1973: Sieboldia, 4(3): 189 (*Symmerus*). Type-locality: Katazawa-Toge, Mt. Senjo-dake, Akaishi Mts, Honshu (Japan).—Distr.: USSR: FE (Kuril Is.); Asia: Japan (Honshu).

latus OSTROVERKHOVA, 1979: Fungus-gnats (Diptera, Mycetophiloidea) of Siberia: 32 (*Symmerus*). Type-locality: Sikhote-Alinsky zapovednik (USSR).—Distr.: USSR: FE.

nobilis LACKSCHEWITZ, 1937: Arb. NatForschVer. Riga, 21: 1 (*Symmerus*). Type-locality: Embute [= vic. Liepaja] Latvian SSR (USSR).—Distr.: Europe: D; USSR: CET (By, La), SET (Uk).

Family Keroplatidae

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Flies of large or moderate size, legs long. Head small. Antennae relatively short, usually thickened and flattened. Mesonotum arched, mesopleura bare. Tibia with rows of short setae, apical spurs present at t_3, absent at t_1. Wings broad but often, especially in females, considerably shorter than body. Wings with only one crossvein (*m*). M_{3+4} and *Cu* divergent. Wing membrane bare, without macrotrichia.

Larvae of *Cerotelion* and *Keroplatus* have been studied in detail. These are large light-coloured larvae with rather small poorly sclerotized square-shaped head capsule. Antennae resembling large light-coloured oval plates at anterolateral parts of head. Mandibles massive, elongate, almost rectangular, with large denticles at apex. Body 12-segmented, bare or with weak rows of spines ventrally. Body convex dorsally, flat ventrally. Posterior segment with four conical lobes; two lobes directed laterally, two again posteriorad. Tracheal system apneustic. Larvae necrophagous or predaceous.

Larvae developing in decaying vegetable matter, attacked by fungi; on or in fruit-bodies and in mycelia of various hard fungi. Larvae aggregating in shaded localities, usually at underside of fallen logs and on hard fungi. Larvae with very delicate soft integument. Aggregates of larvae usually covered with a thin, transparent layer, secreted by the larval salivary glands. The layer protects the larvae from loss of water.

The adults inhabit chiefly wet shady forests.

A peculiar group of Diptera, so far poorly studied in all Regions. It is treated either as an independent family (STACKELBERG, 1969; PAPAVERO, 1978; MATILE, 1981, etc.) or as the subfamily of Mycetophilidae (MATILE, 1980, etc.). The systematics of the family is not worked out satisfactorily. The revision of the family with the description of some new species undertaken by EDWARDS (1929) was long ignored by the specialists.

More than 50 species of the family are known from North America, about 120 species from South America, and some 50 species are listed both in the Afrotropical and Oriental Regions (LAFFON, 1965; PAPAVERO, 1978; MATILE, 1980; COLLESS and LIEPA, 1973).