

Appendix II. Fossil Diptera of Australasia and Oceania

By Neal L. Evenhuis

The record of fossil Diptera in these regions is poor. All known fossils are from Australia and New Zealand. In contrast to the known Diptera fossils (excluding amber inclusions) of the northern temperate regions, which are primarily from the Oligocene, the record of fossils of the true Diptera from the Australian fauna dates as far back as the Triassic (Kovalev 1983), and the Protodiptera (which may or may not be true Diptera) originate even earlier (from the Permian).

The majority of fossil taxonomy of these regions in the last 35 years has been done by E.F. Riek. However, recent studies by Jell & Duncan (1986) have added considerably to our knowledge of Australian fossil Diptera.

There has been no attempt here to review the

taxonomic status of the names recorded below, although a new combination in the extant genus *Australosymmerus* is recorded here on the authority of L. Matile (*in litt.*). Although members of the Protodiptera possess four wings, the genera are listed here because of their presumed link with the Diptera. *Robinjohnia tillyardi* Martynova, a former member of the Protodiptera, has been referred to the Nannochoristidae of the Mecoptera (Riek 1968). In addition to the fossil taxa listed below, fossils of unnamed taxa of Chironomidae, Culicidae, Dixidae, Simuliidae, and a possible muscoid are known from the Australian Tertiary.

The format here follows that in the main catalog text with the addition of the geological horizon in parentheses after the type locality.

ORDER PROTODIPTERA

Family PERMOTANYDERIDAE

Genus PERMOTANYDERUS Riek

PERMOTANYDERUS Riek, 1953: 75. Type species: *Permotanyderus ableptus* Riek, 1953, orig. des. *ableptus* Riek, 1953: 75. Australia (NSW) (Permian).

Genus CHORISTOTANYDERUS Riek

CHORISTOTANYDERUS Riek, 1953: 76. Type species: *Choristotanyderus nanus* Riek, 1953, orig. des. *nanus* Riek, 1953: 76. Australia (NSW) (Permian).

Family PERMOTIPULIDAE

Genus PERMOTIPULA Tillyard

PERMOTIPULA Tillyard, 1929: 778. Type species: *Permotipula patricia* Tillyard, 1929, mon. *patricia* Tillyard, 1929: 779. Australia (NSW) (Permian).

ORDER DIPTERA**Suborder NEMATOCERA****Family TIPULIDAE****Genus PROTOLIMNOPHILA Riek**

PROTOLIMNOPHILA Riek, 1954b: 58. Type species: *Protolimnophila superba* Riek, 1954, orig. des. *superba* Riek, 1954b: 58. Australia (Qld) (Tertiary).

Family DITOMYIIDAE**Genus AUSTRALOSYMMERUS Freeman**

CENTROCNEMIS Philippi, 1865: 619. Type species: *Centrocnemis stigmatica* Philippi, 1865, mon. [Preocc. Signoret, 1852.]

AUSTRALOMYIA Freeman, 1951b: 7 (n. n. for *Centrocnemis*). [Preocc. Schmid, 1950.]

AUSTRALOSYMMERUS Freeman, 1954b: 39 (n. n. for *Australomyia*).

imperfectus Riek, 1954b: 59 (*Centrocnemis*). Australia (Qld) (Tertiary). **N. comb.** (L. Matile, *in litt.*).

Family MYCETOPHILIDAE**Subfamily SCIOPHILINAE****Genus ANEURA Marshall**

ANEURA Marshall, 1896b: 287. Type species: *Aneura boletinoides* Marshall, 1896, mon.

apicalis Riek, 1954b: 60. Australia (Qld) (Tertiary).

Genus PROTOTASMANINA Riek

PROTOTASMANINA Riek, 1954b: 60. Type species: *Prototasmanina nana* Riek, 1954, orig. des. *nana* Riek, 1954b: 60. Australia (Qld) (Tertiary).

Subfamily MYCETOPHILINAE**Genus PSEUDALYSIINIA Tonnoir**

PSEUDALYSIINIA Tonnoir, 1929b: 608. Type species: *Pseudalysiinia mimicans* Tonnoir, 1929, orig. des.

fragmenta Jell & Duncan, 1986: 179. Australia (Vic) (Lower Cretaceous).

Family CROSAPHIDIDAE**Genus CROSAPHIS Evans**

CROSAPHIS Evans, 1971: 146. Type species: *Crosaphis anomala* Evans, 1971, orig. des.

anomala Evans, 1971: 147. Australia (Qld) (Triassic).

Family BIBIONIDAE**Genus DILOPHUS Meigen**

PHILIA Meigen, 1800: 20. Suppressed by I.C.Z.N., 1963b: 339.

DILOPHUS Meigen, 1803: 264. Type species: *Tipula febrilis* Linnaeus, 1758, des. Latreille, 1810: 442.
campbelli Harris, 1983: 98. NZ (NZ) (Eocene).

Family CHAOBORIDAE**Genus CHIRONOMAPTERA Ping**

CHIRONOMAPTERA Ping, 1928: 33. Type species: *Samarura gregaria* Grabau, 1923, orig. des.
collessi Jell & Duncan, 1986: 172. Australia (Vic) (Lower Cretaceous).

Suborder BRACHYCERA**Family RHAGIONIDAE****Genus ATHERIMORPHA White**

ATHERIMORPHA White, 1914b: 41. Type species: *Atherimorpha vernalis* White, 1914, mon.
festuca Jell & Duncan, 1986: 181. Australia (Vic) (Lower Cretaceous).