Appendix II. Fossil Diptera of Australasia and Oceania

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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 muscid 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


Genus CHORISTOTANYDERUS Riek


Family PERMOTIPULIDAE

Genus PERMOTIPULA Tillyard

ORDER DIPTERA

Suborder NEMATOCERA

Family TIPULIDAE

Genus PROTOLIMNOPHILA Riek


Family DITOMYIIDAE

Genus AUSTRALOSYMMERUS Freeman

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


AUSTRALOSYMMERUS Freeman, 1954b: 59 (n. n. for Australomyia).


Family MYCETOPHILIDAE

Subfamily SCIOPHILINAE

Genus ANEUR A Marshall


Genus PROTOSYMACININA Riek


Subfamily MYCETOPHILINAE

Genus PSEUDALYSIINIA Tonnoir


Family CROSAPHIDIDAE

Genus CROSAPHIS Evans

Family BIBIONIDAE

Genus DILOPHUS Meigen

campbelli Harris, 1983: 98. NZ (NZ) (Eocene).

Family CHAOBORIDAE

Genus CHIRONOMAPTERA Ping

CHIRONOMAPTERA Ping, 1928: 33. Type species: Samarrara gregaria Grabau, 1923, orig. des.

Suborder BRACHYCERA

Family RHAGIONIDAE

Genus ATERIMORPHA White

ATERIMORPHA White, 1914b: 41. Type species: Atherimorpha vernalis White, 1914, mon.