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#### Number 64: 15 September 1978

On the relationships, classification, aedeagal morphology and zoogeography of the genera of Pygiopsyllidae (Insecta : Siphonaptera). *D. K. Mardon*

##### Abstract

The classification of the siphonapteran family Pygiopsyllidae into subfamilies and genera is discussed, with an argument to support the weighting of genitalic characters in devising classifications of fleas. Among such characters the aedeagus is stressed as a most useful source of information on phylogenetic relationships. Methods of study of aedeagal characters and their interpretation in terms of relationships are described in detail, together with notes on previously published descriptions of pygiopsyllid aedeagi and on the specialized terminology used. The characters of each genus are discussed, with emphasis on those considered of greatest value in indicating relationships and with a detailed, comparative study of aedeagal characters. For many taxa these characters are described in detail for the first time. Conclusions concerning the phylogenetic relationships among pygiopsyllid genera are given, and a suitably revised classification is proposed. Finally, the zoogeographical distribution of the genera and newly proposed higher taxa is discussed.

#### Number 65: 15 September 1978

Systematics of the spider subfamily Hexathelinae (Dipluridae : Mygalomorphae : Arachnida). *Robert J. Raven*

##### Abstract

Two new genera, *Plesiothele* and *Bymainiella*, are erected to receive all the Australian species of the subfamily Hexathelinae, which now comprises four genera, including *Hexathele* with 20 species from New Zealand, and *Scotinoecus* with two species from South America. *Plesiothele* is a monotypic Tasmanian genus, type-species *Hexathele fentoni* Hickman, 1936. *Bymainiella* comprises 12 new species: *B. boycei*, *B. boydi*, *B. brindabella*, *B. cannoni*, *B. grayi*, *B. lugubris*, *B. monteithi*, *B. montisbossi*, *B. otwayensis*, *B. polesoni*, *B. tubrabucca* and *B. variabilis*; also *B. montana* (Hickman, 1927), and *B. terraereginae* (Raven, 1976), the latter being the type-species. The type-species of *Scotinoecus*, *S. cinereopilosus*, is redescribed, and keys to the genera of the subfamily Hexathelinae, and to the *Bymainiella* species, are given. Two new indices are introduced to overcome the problem of bilateral variability. *Bymainiella* is believed to be the sister group of *Scotinoecus*.