Order Thysanoptera Haliday, 1836

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The world fauna of the insect Order Thysanoptera continues to be poorly sampled, with the tropical and subtropical areas of the southern continents inadequately surveyed (Mound 2014), and an almost complete lack of knowledge of the thrips fauna of New Guinea. In Australia, the number of described thrips species has increased from 400 to over 800 in 10 years, published largely in Zootaxa (Mound 2011a; Mound & Masumoto, 2005 & 2009; Mound & Tree, 2011). The number of described thrips species worldwide has increased 1.3% between 2011 (Mound 2011b) and 2013, and the other geographic areas responsible for this descriptive activity are China and South America. However, these numbers do not reflect the numbers of employed or experienced taxonomists, with the major international collections in Frankfurt, London, San Francisco and Washington no longer employing any thrips specialists.

Thysanoptera is considered sister-group to Hemiptera within the Paraneoptera (Grimaldi & Engel, 2005). These insects, the thrips, are generally classified into two Suborders (Terebrantia and Tubulifera) and 14 Families, of which five families are known only from fossils (ThripsWiki 2013). The nine families of recent thrips include 774 genera and 5938 species, whereas fossil thrips taxa are represented by 57 genera and 153 species distributed across 12 families. A different classification has been advocated by palaeontologists, with an Order Thripida comprising two Suborders, Lophioneurina and Thripina (=Thysanoptera) with two Infraorders, Thripomorpha and Phloeothripomorpha (Zherikin 2002). From a neontological perspective, Bhatti (1988) proposed a classification recognising the suborders Terebrantia and Tubulifera as separate Orders, and then provided a catalogue of Family-group names in the Terebrantia (Bhatti, 1990) and in the Tubulifera (Bhatti, 1992b). Subsequently, within the Terebrantia Bhatti (2006) treated Aeolothripidae, Heterothripidae, Merothripidae and Thripidae each as a different superfamily, and in each of these superfamilies included eight families, two families, two families, and nine families respectively. However, among these 21 families, 11 were monogeneric, with 230 genera retained in the Thripidae. Within the Tubulifera Bhatti (1992a) recognised nine families, to which five further families were added subsequently (Bhatti 1998a; 1998b), with the result that of the 14 families, 10 were monogeneric, and more than 400 genera retained in the Phlaeothripidae. Molecular data from five genes (Buckman et al. 2013) provided no support for the recognition of such a large number of families, but supported a sister relationship between the suborders Terebrantia and Tubulifera.

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Suborder Terebrantia Haliday, 1836

Family Aeolothripidae Uzel, 1895 (29 genera, 206 species: †6/11)
Family Fauriellidae Priesner, 1949 (4 genera, 5 species)
†Family Hemithripidae Bagnall, 1923 (1 genus, 9 species)
Family Heterothripidae Bagnall, 1912 (7 genera, 84 species: †3/4)
†Family Keratothripidae Sharov, 1972 (1 genus, 1 species)
†Family Liasothripidae Priesner, 1949 (1 genus, 1 species)
Family Melanthripidae Bagnall, 1923 (12 genera, 24 species: †9/18)
Family Mornadothripidae Nel, Azar & Nel, 2007 (1 genus, 1 species)
Family Stenurothripidae Bagnall, 1923 (12 genera, 24 species: †9/18)
Family Thripidae Stevens 1829
Subfamily Dendrothripinae Priesner, 1925 (15 genera, 98 species: †4/6)
Subfamily Panchaetothripinae, Bagnall, 1912 (40 genera, 141 species: †2/5)
Subfamily Sericothripinae Karny, 1921 (3 genera, 152 species)
Subfamily Thripinae Stephens, 1829 (247 genera, 1718 species: †13/64)
†Family Triassothripidae Grimaldi & Shmakov, 2004 (2 genera, 2 species)
Family Uzelothripidae Bagnall, 1923 (1 genus, 1 species)

Cited references