

Order **Orthoptera** Olivier, 1789 (2 suborders)<sup>1, 2, 3, 4</sup>

Suborder **Ensifera** Chopard, 1920 (6 superfamilies)<sup>5, 6</sup>

Superfamily **Hagloidea** Handlirsch, 1906 (1 extant family)

Family **Prophalangopsidae** Kirby, 1906 (7 genera, 8 species)

Superfamily **Stenopelmatoidea** Burmeister, 1838 (4 families)

Family **Anostomatidae** Saussure, 1859 (41 genera, 206 species)

Family **Cooloolidae** Rentz, 1980 (1 genus, 4 species)

Family **Gryllacrididae** Blanchard, 1845 (94 genera, 675 species)

Family **Stenopelmatidae** Burmeister, 1838 (6 genera, 28 species)

Superfamily **Tettigonioidae** Krauss, 1902 (1 family)

Family **Tettigoniidae** Krauss, 1902 (1193 genera, 6827 species)

Superfamily **Rhaphidophoroidea** Walker, 1871 (1 family)

Family **Rhaphidophoridae** Walker, 1871 (77 genera, 497 species)

Superfamily **Schizodactyloidea** Blanchard, 1845 (1 family)

Family **Schizodactylidae** Blanchard, 1845 (2 genera, 15 species)

Superfamily **Grylloidea** Laicharting, 1781 (4 families)

Family **Gryllidae** Laicharting, 1781 (597 genera, 4664 species)

Family **Gryllotalpidae** Leach, 1815 (6 genera, 100 species)

Family **Mogoplistidae** Brunner von Wattenwyl, 1873 (30 genera, 365 species)

Family **Myrmecophilidae** Saussure, 1874 (5 genera, 71 species)

Suborder **Caelifera** Ander, 1936 (2 infraorders, 9 superfamilies)<sup>7, 8</sup>

Infraorder **Tridactylidea** (Brullé, 1835) Sharov, 1968 (1 superfamily)<sup>9, 10</sup>

Superfamily **Tridactyloidea** Brullé, 1835 (3 families)

Family **Cylindrachetidae** Bruner, 1916 (3 genera, 16 species)

Family **Ripterygidae** Ander, 1939 (2 genera, 69 species)

Family **Tridactylidae** Brullé, 1835 (10 genera, 132 species)

Infraorder **Acrididea** (MacLeay, 1821) Sharov, 1968 (8 superfamilies)<sup>11</sup>

Superfamily **Tetrigoidea** Serville, 1838 (1 family)

Family **Tetrigidae** Serville, 1838 (221 genera, 1246 species)

Superfamily **Eumastacoidea** Burr, 1899 (8 families)<sup>12</sup>

Family **Chorotypidae** Stål, 1873 (43 genera, 160 species)

1. **BY** Sigfrid Ingrisch (for full address, see **Author address** after **References**). The title of this contribution should be cited as “Order Orthoptera Oliver, 1789. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness”.
2. Unless indicated otherwise, classification and diversity estimates follow the Orthoptera Species File (Eades *et al.* 2011) disregarding fossil taxa and temporary names.
3. Recent Orthoptera currently includes 40 families, 4418 genera and 23855 species, fossil taxa include 38 families, 257 genera and 421 species.
4. Fossil studies of Sharov (1968) and Gorochov (1995a) argue that all Orthoptera are descended from the Upper Carboniferous family Oedischiidae, which resembled modern Ensifera more than Caelifera. This might imply a paraphyletic Ensifera that contains an internally derived Caelifera. However, based on morphological analyses (Kevan 1977) and ribosomal phylogenetic analyses Rowell & Flook (1998), Flook *et al.* (1999) they are considered monophyletic clades. Jost & Shaw (2006) support the status of these two suborders as sister taxa.
5. First author using Ensifera according to Kevan (1977)
6. Although the higher taxa of Ensifera acknowledged as families or superfamilies by different authors were mainly the same, their systematic arrangement and proposed phylogenetic relations largely deviated between authors (Ander 1939, Zeuner 1939, Judd 1948, Ragge 1955, Sharov 1968, Gorochov 1995b,c). Current superfamilial classification of Ensifera is largely based on the phylogenetic studies by Jost & Shaw (2006) received from nuclear ribosomal and mitochondrial ribosomal genes. However, according to Legendre *et al.* (2010) who repeated the analysis, monophyly of Stenopelmatoidea and the proposed phylogenetic relations between the superfamilies are not well supported.
7. Suborder Caelifera first mentioned in Ander (1936) according to Ander (1939).
8. Higher systematics of Caelifera as currently in use is largely based on molecular ribosomal phylogenetic analyses by Flook & Rowell (1998) and Flook *et al.* (1999, 2000).
9. Authorship for first use of Tridactylidea as infraorder according to Kevan (1977).
10. Tridactyloidea are separated from the remaining Caelifera in some analyses of the small subunit nuclear ribosomal gene sequences by Flook & Rowell (1998).
11. Authorship for first use of Acrididea as infraorder according to Kevan (1977).
12. The division of Eumastacoidea into families was proposed by Descamps (1973) who acknowledged eight families in two superfamilies, Eumastacoidea s.str. and Proscopiidea. A molecular phylogenetic analysis by Matt *et al.* (2008) supported the division into (sub)families but found no evidence for a grouping of the Proscopiidae with any of the existing branches of Eumastacoidea. Regarding that evidence Ingrisch & Rentz (2009) use a more traditional classification with only two families in Eumastacoidea: Eumastacidae and Proscopiidae and place the other families as subfamilies under Eumastacidae.

- Family **Episactidae** Burr, 1899 (18 genera, 64 species)  
 Family **Eumastacidae** Burr, 1899 (47 genera, 230 species)  
 Family **Euschmidtidae** Rehn, 1948 (61 genera, 191 species)  
 Family **Mastacidae** Rehn, 1948 (2 genera, 10 species)  
 Family **Morabidae** Rehn, 1948 (42 genera, 123 species)  
 Family **Proscopiidae** Serville, 1838 (32 genera, 214 species)  
 Family **Thericleidae** Burr, 1899 (57 genera, 220 species)  
 Superfamily **Trigonopterygoidea** Walker, 1870 (2 families)  
 Family **Trigonopterygidae** Walker, 1870 (4 genera, 16 species)  
 Family **Xyronotidae** Bolívar, 1909 (2 genera, 4 species)  
 Superfamily **Tanaoceroidea** Rehn, 1948 (1 family)  
 Family **Tanaoceridae** Rehn, 1948 (2 genera, 3 species)  
 Superfamily **Pneumoroidea** Blanchard, 1845 (1 family)  
 Family **Pneumoridae** Blanchard, 1845 (9 genera, 17 species)  
 Superfamily **Pyrgomorphoidea** Brunner von Wattenwyl, 1882 (1 family)  
 Family **Pyrgomorphidae** Brunner von Wattenwyl, 1882 (143 genera, 455 species)  
 Superfamily **Acridoidea** MacLeay, 1821 (11 families)  
 Family **Acrididae** MacLeay, 1821 (1380 genera, 6016 species)  
 Family **Charilaidae** Dirsh, 1953 (4 genera, 5 species)  
 Family **Dericorythidae** Jacobson & Bianchi, 1902-1905 (22 genera, 179 species)  
 Family **Lathiceridae** Dirsh, 1954 (3 genera, 4 species)  
 Family **Lentulidae** Dirsh, 1956 (11 genera, 35 species)  
 Family **Lithidiidae** Dirsh, 1961 (4 genera, 13 species)  
 Family **Ommexechidae** Bolívar, 1884 (13 genera, 33 species)  
 Family **Pamphagidae** Burmeister, 1840 (94 genera, 448 species)  
 Family **Pyrgacrididae** Kevan, 1974 (1 genus, 2 species)  
 Family **Romaleidae** Brunner von Wattenwyl, 1893 (111 genera, 465 species)  
 Family **Tristiridae** Rehn, 1906 (18 genera, 25 species)

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