

TAXONOMIC PART

Order SCORPIONES C. L. Koch, 1850 (1837)

Scorpiones C. L. Koch, 1850: 86 (see Notes).

REFERENCES (SELECTED)

Scorpiides: C. L. Koch, 1837c: 36.

Scorpionides: Gervais, 1844b: 7; Laurie, 1896: 121.

Scorpiones: Peters, 1861b: 507; Thorell, 1876a: 1; Thorell, 1876b: 76; Karsch, 1879a: 6; Simon, 1879: 79; Becker, 1880: 134; Scudder, 1885: 738; Kraepelin, 1899: 1; Pocock, 1900d: 5; Pocock, 1902b: 1; Hewitt, 1913a: 146; Petrunkevitch, 1913: 30; Birula, 1917b: 1; Lawrence, 1928: 269; Werner, 1934a (title page); Franganillo, 1936: 156; Caporiacco, 1938: 252; Caporiacco, 1948: 608; Petrunkevitch, 1949: 125; Petrunkevitch, 1953: 5; Bücherl, 1969: 766; Levy & Amitai, 1980 (title page); Cekalovic, 1983: 43; Francke, 1985: 1; Haradon, 1985: 19; Fet, 1989b: 73; Sissom, 1990a: 64.

Scorpionidea Lankester, 1885: 379; Pocock, 1889d: 110.

Scorpionida: Banks, 1900a: 423; Banks, 1902a: 68; Comstock, 1912: 21; Chamberlin, 1916: 178; Chamberlin, 1920: 35; Cox, 1921: 12; Franganillo, 1934: 166; Hewitt, 1935: 465; Gertsch, 1939: 17; Chamberlin & Ivie, 1938: 101; Petrunkevitch, 1955: P50, P67; Gertsch & Soleglad, 1966: 1; Díaz Nájera, 1970: 112; Stahnke, 1972: 121; Stahnke, 1974a: 339; Soleglad, 1976b: 251; Lamoral, 1979: 497; Lamoral, 1980a: 439; Couzijn, 1981: 4; Tikader & Bastawade, 1983: 1; Kjellesvig-Waering, 1986: 38; El-Hennawy, 1992: 95; Stockwell, 1992: 407; Selden, 1993: 302.

Scorpioniformes: Starobogatov, 1990: 15.

GEOLOGICAL OCCURRENCE: Silurian to present.

DISTRIBUTION: Presently, all continents except Antarctica (mainly subtropical and tropical regions); absent from New Zealand. Fossil record: North America, South America, Europe, Asia.

NOTES

1. The scope of the order varies (see Introduction) since some authors (mainly paleontologists) suggested to elevate it to class level and divide it into two or even three orders. All extant scorpions belong to the same order.
2. Currently, two names are equally often used for the order: Scorpiones and Scorpionida. Although the Code does not regulate order-group names, it would be advisable to practice a single name usage. The name Scorpiones ought to be favored since it is a proper Latin word, whereas Scorpionida is a corrupted spelling of the family name Scorpionides (= Scorpionidae) Latreille, 1802 (H. D. Cameron, pers. comm.). Priority of the authorship of the order name (which also is not regulated by the Code) is unclear; it was most commonly ascribed to Latreille, but also to Leach (1814), Ehrenberg (1829), Sundevall (1833), and C. L. Koch (1837c). As far as we could establish, Latreille (1802, 1806, 1825) always used the name Scorpionides explicitly with the rank of a family ("famille") at the time when strict definitions of order and family were not yet followed. We consider C. L. Koch (1850) the first author of the order name Scorpiones, and quote date (1837) for the first recognition of the order rank, also by C. L. Koch (1837c: 36; as Scorpiides).
3. In this Catalog, the system of the order is arranged so as to start with the single extant superfamily, Scorpionoidea. Such listing is purely for the convenience, and does not bear any particular taxonomic meaning. The superfamily Scorpionoidea includes 16 extant families and one extinct family (Palaeopisthacanthidae). All fossil taxa are preceded by † sign. Listing of all subordinate taxa is alphabetical.

Suborder **NEOSCORPIONINA** Thorell & Lindström, 1885

Neoscorpia Thorell & Lindström, 1885: 25.

REFERENCES

Neoscorpia: Scudder, 1885: 740; Scudder, 1886: 28.

Neoscorpionina: Kjellesvig-Waering, 1986: 231; Sissom, 1990a: 137.

GEOLOGICAL OCCURRENCE: Carboniferous to present; all continents except Antarctica.

NOTES: See Starobogatov (1990), Selden (1993), and Jeram (1994b) for alternative classifications.

Infraorder **ORTHOSTERNINA** Pocock, 1911

Orthosterni Pocock, 1911: 10.

REFERENCES

Orthosternina: Kjellesvig-Waering, 1986: 231; Sissom, 1990a: 144.

Orthosterni: Selden, 1993: 303; Jeram, 1994b: 286.

GEOLOGICAL OCCURRENCE: Carboniferous to present; all continents except Antarctica.

Superfamily **SCORPIONOIDEA** Latreille, 1802

Scorpionoidea Latreille, 1802: 46 (as family Scorpionides).

SYNONYMS

Buthoidea C. L. Koch, 1837 (as family Buthides).

Bothriuroidea Simon, 1880b: 392 (as family Bothriuridae).

Chactoidea Pocock, 1893b: 306 (as subfamily Chactini).

REFERENCES

Buthoidea: Simon, 1879: 92; Birula, 1917a: 164; Mello-Leitão, 1945: 239; Selden, 1993: 303.

Scorpionoidea: Birula, 1917a: 161; Mello-Leitão, 1945: 25; Petrunkevitch, 1955: P73; Kjellesvig-Waering, 1986: 232; Sissom, 1990a: 144; Nenilin & Fet, 1992: 22, 23; Selden, 1993: 303 (part).

Chactoidea: Birula, 1917a: 162; Mello-Leitão, 1945: 36; Nenilin & Fet, 1992: 23.

Bothriuroidea: Mello-Leitão, 1945: 133.

GEOLOGICAL OCCURRENCE: Carboniferous (Pennsylvanian) to present; all continents except Antarctica.

NOTES

1. Numerous attempts to group extant scorpions in superfamily units were nullified when Kjellesvig-Waering (1986) placed all modern families in Scorpionoidea. Lamoral (1980: 440) used, as evolutionary lineage names, "Buthoids", "Chaeriloids" and "Diplocentroids" but did not formally designate superfamilies. These lineages correspond to trichobothrial types A, B and C of Vachon (1974).
2. Petrunkevitch (1955: P73) used the name Scorpionoidea as a superfamily but ascribed its authorship to Leach (1815). He wrote: "The name Scorpionides was proposed by Latreille as name for an order. Leach was the first to use it as a *family* name, with *Scorpio* Linné as a type. . .". In fact, Latreille (1802: 46) was the first to use the name Scorpionides for a family-rank taxon, but the first author to explicitly give scorpions an order rank was C. L. Koch (1837c).
3. Lourenço (1996e: 45) used a superfamily name "Protoscorpionoidea" in which he included Ischnuridae and Heteroscorpionidae; this name is a *nomen nudum* since it is not based on an available family name.