



Six kingdoms (Cavalier-Smith)

Table 1. The six kingdoms of life and the 34 microbial phyla (based on Cavalier-Smith 1998, 2002*a*, 2003*a,b*).

empire PROKARYOTA (Cavalier-Smith 2002*b*)

kingdom Bacteria

subkingdom Negibacteria (phyla Eobacteria, Sphingobacteria, Spirochaetae, Proteobacteria, Planctobacteria, Cyanobacteria)

subkingdom Unibacteria (phyla Posibacteria, Archaeobacteria)

empire EUKARYOTA (Cavalier-Smith 1998)

kingdom Protozoa (Cavalier-Smith 2002*a*, 2003*a*)

subkingdom Sarcomastigota (phyla Amoebozoa, Choanozoa)

subkingdom Biciliata

infrakingdom Rhizaria (phyla Cercozoa, Foraminifera, Radiozoa)

infrakingdom Excavata (phyla Loukozoa, Percolozoa, Euglenozoa, Metamonada; the latter now includes Parabasalia and Anaeromonadea; Cavalier-Smith 2003*a,b*)

infrakingdom Alveolata (phyla Myxozoa (Cavalier-Smith & Chao 2004), Ciliophora)

Biciliata incertae sedis: phylum Apusozoa (may be sister to Excavata); phylum Heliozoa^b

kingdom Animalia (Myxozoa and 21 other^a phyla) (Cavalier-Smith 1998; Cavalier-Smith & Chao 2003*c*)

kingdom Fungi (phyla Archemycota, Microsporidia, Ascomycota, Basidiomycota) (Cavalier-Smith 2000*b*)

kingdom Plantae

subkingdom Biliphyta (phyla Glaucophyta, Rhodophyta)

subkingdom Viridaplantae (Chlorophyta, Bryophyta^a, Tracheophyta^a)

kingdom Chromista

subkingdom Cryptista (phylum Cryptista: cryptophytes, goniomonads, katablepharids)

subkingdom Chromobiota

infrakingdom Heterokonta (phyla Ochrophyta, Pseudofungi, Opalozoa (comprising subphyla Opalinata, Sagenista)

infrakingdom Haptista (phylum Haptophyta)

^a No microbial members. All 34 phyla that contain microbes are listed.

^b Although centrohelid Heliozoa might be Chromista, they probably belong in Protozoa (Biciliata) (Cavalier-Smith & Chao 2003*a*).

Multilinear evolution (Cavalier-Smith)

Only six kingdoms of life T. Cavalier-Smith 1253

