

CORRECTION

# Correction: A Higher Level Classification of All Living Organisms

Michael A. Ruggiero, Dennis P. Gordon, Thomas M. Orrell, Nicolas Bailly, Thierry Bourgoin, Richard C. Brusca, Thomas Cavalier-Smith, Michael D. Guiry, Paul M. Kirk

There are a number of errors in Tables 1 and 2. Please see the corrected Tables 1 and 2 here. The S1 Table Supporting Information file incorrectly spells "Pseudanabaenales" and is also corrected here.



**OPEN ACCESS**

**Citation:** Ruggiero MA, Gordon DP, Orrell TM, Bailly N, Bourgoin T, Brusca RC, et al. (2015) Correction: A Higher Level Classification of All Living Organisms. PLoS ONE 10(6): e0130114. doi:10.1371/journal.pone.0130114

**Published:** June 11, 2015

**Copyright:** © 2015 Ruggiero et al. This is an open access article distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Table 1. List of ranks used in the hierarchy with the number of taxa per rank**

Rank	Number of Taxa
Superkingdom	2
<b>Kingdom</b>	<b>7</b>
Subkingdom	11
Infrakingdom	8
Superphylum	6
<b>Phylum</b>	<b>96</b>
Subphylum	60
Infraphylum	4
Superclass	12
<b>Class</b>	<b>352</b>
Subclass	145
Infraclass	23
Superorder	52
<b>Order</b>	<b>1,468</b>

Main ranks are in bold type; unnamed taxa are not counted.

doi:10.1371/journal.pone.0130114.t001

Table 2. Proposed hierarchical classification from superkingdom to order.

<b>SUPERKINGDOM PROKARYOTA</b>		
<b>KINGDOM ARCHAEA [= ARCHAEBACTERIA]</b>		
Phylum Crenarchaeota		
	Class "Aigarchaeota"	Order N.N. ("Ca. <i>Caldiarchaeum</i> ")
	Class "Korarchaeota"	Order N.N. ("Ca. <i>Korarchaeum</i> ")
	Class "Thaumarchaeota"	Order Cenarchaeales
		Class Thermoprotei [= Crenarchaeota]
		Order Acidilobales
		Order Desulfurococcales
		Order Fervidicoccales
		Order Sulfolobales
		Order Thermoproteales
Phylum Euryarchaeota		
	Class Archaeoglobi	Order Archaeoglobales
	Class Halobacteria	Order Halobacteriales
	Class Methanobacteria	Order Methanobacteriales
	Class Methanococci	Order Methanococcales
	Class "Methanomicrobia"	Order Methanocellales
		Order Methanomicrobiales
		Order Methanosarcinales
	Class Methanopyri	Order Methanopyrales
	Class "Nanohaloarchaea"	Order N.N. (e.g., "Ca. <i>Nanosalinarum</i> ")
	Class Thermococci	Order Thermococcales
	Class Thermoplasmata	Order Thermoplasmatales
<b>KINGDOM BACTERIA [= EUBACTERIA]</b>		
<b>SUBKINGDOM NEGIBACTERIA</b>		
Phylum Acidobacteria		
	Class N.N. ( <i>Bryobacter</i> )	
	Class Acidobacteria	

(Continued)

Table 2. (Continued)

		Order Acidobacteriales
	Class Holophagae	
		Order Acanthopleuribacterales
		Order Holophagales
Phylum Aquificae		
	Class Aquificae	
		Order Aquificales
Phylum Armatimonadetes		
	Class Armatimonadia	
		Order Armatimonadales
	Class Chthonomonadetes	
		Order Chthonomonadales
	Class Fimbriimonadia	
		Order Fimbriimonadales
Phylum Bacteroidetes		
	Class Bacteroidia	
		Order Bacteroidales
	Class Cytophagia	
		Order Cytophagales
	Class Flavobacteria	
		Order Flavobacteriales
	Class Sphingobacteria	
		Order Sphingobacteriales
Phylum Caldiserica		
	Class Caldiserica	
		Order Caldisericales
Phylum Chlamydiae		
	Class Chlamydiae	
		Order Chlamydiales
Phylum Chlorobi		
	Class Chlorobea	
		Order Chlorobiales
	Class Ignavibacteria	
		Order Ignavibacteriales
Phylum Chrysiogenetes		
	Class Chrysiogenetes	
		Order Chrysiogenales
Phylum Cyanobacteria [= Cyanophyta]		
		Class Cyanophyceae [= Phycobacteria]
		Order Chroococcales
		Order Nostocales
		Order Oscillatoriales
		Order Pseudanabaenales

(Continued)

Table 2. (Continued)

		Order Synechococcales
		Class Gloeobacteria [= Gloeobacterophyceae]
		Order Gloeobacterales
Phylum Deferribacteres		
	Class Deferribacteres	
		Order Deferribacterales
Phylum Deinococcus-Thermus [= Hadobacteria]		
	Class Deinococci	
		Order Deinococcales
		Order Thermales
Phylum Dictyoglomi		
	Class Dictyoglomia	
		Order Dictyoglomales
Phylum Elusimicrobia		
	Class Elusimicrobia	
		Order Elusimicrobiales
Phylum Fibrobacteres		
	Class Fibrobacteria	
		Order Fibrobacterales
Phylum Fusobacteria		
	Class Fusobacteriia	
		Order Fusobacteriales
Phylum Gemmatimonadetes		
	Class Gemmatimonadetes	
		Order Gemmatimonadales
Phylum Lentisphaerae		
	Class Lentisphaeria	
		Order Lentisphaerales
		Order Victivallales
	Class Oligosphaeria	
		Order Oligosphaerales
Phylum Nitrospira		
	Class "Nitrospira"	
		Order "Nitrospirales"
Phylum Planctomycetes		
	Class Phycisphaerae	
		Order Phycisphaerales
	Class Planctomycea	
		Order Planctomycetales
Phylum Proteobacteria		

(Continued)

Table 2. (Continued)

Class Alphaproteobacteria
Order N.N. (e.g., <i>Breoghania</i> )
Order Caulobacterales
Order Kiloniellales
Order Kordiimonadales
Order Magnetococcales
Order "Parvularculales"
Order Rhizobiales
Order Rhodobacterales
Order Rhodospirillales
Order Rickettsiales
Order Sneathiellales
Order Sphingomonadales
Class Betaproteobacteria
Order N.N. ( <i>Chitinivorax</i> )
Order Burkholderiales
Order Hydrogenophilales
Order Methylophilales
Order Neisseriales
Order Nitrosomonadales
Order "Procabacteriales"
Order Rhodocyclales
Class Deltaproteobacteria
Order N.N. (e.g., <i>Deferrisoma</i> )
Order Bdellovibrionales
Order Desulfarculales
Order Desulfobacterales
Order Desulfovibrionales
Order Desulfurellales
Order Desulfuromonadales
Order Myxococcales
Order Syntrophobacterales
Class Epsilonproteobacteria
Order Campylobacterales
Order Nautiliales
Class Gammaproteobacteria
Order N.N. (e.g., <i>Alkalimonas</i> )
Order Acidithiobacillales
Order Aeromonadales
Order Alteromonadales
Order Cardiobacterales
Order Chromatiales
Order "Enterobacteriales"
Order Legionellales
Order Methylococcales
Order Oceanospirillales
Order Orbales
Order Pasteurellales

(Continued)

Table 2. (Continued)

		Order Pseudomonadales
		Order "Salinisphaerales"
		Order Thiotrichales
		Order "Vibrionales"
		Order Xanthomonadales
	Class Zetaproteobacteria	
		Order Mariprofundales
Phylum Spirochaetae		
	Class "Spirochaetes"	
		Order Spirochaetales
Phylum Synergistetes		
	Class Synergistia	
		Order Synergistales
Phylum Thermodesulfobacteria		
	Class Thermodesulfobacteria	
		Order Thermodesulfobacteriales
Phylum Thermotogae		
	Class Thermotogae	
		Order Thermotogales
Phylum Verrucomicrobia		
	Class Opitutae	
		Order Opitiales
		Order Puniceococcales
	Class Verrucomicrobiae	
		Order Verrucomicrobiales
SUBKINGDOM POSIBACTERIA		
Phylum Actinobacteria		
	Class Actinobacteria	
		Order Acidimicrobiales
		Order Actinomycetales
		Order Bifidobacteriales
		Order Coriobacteriales
		Order Euzebyales
		Order Gaiellales
		Order Nitriliruptorales
		Order Rubrobacteriales
		Order Solirubrobacteriales
		Order Thermoleophilales
Phylum Chloroflexi [= Chlorobacteria]		
	Class Anaerolineae	
		Order Anaerolineales
	Class Caldilineae	
		Order Caldilineales

(Continued)

Table 2. (Continued)

	Class Chloroflexia	Order Chloroflexales
		Order Herpetosiphonales
	Class Dehalococcoidia	Order Dehalococcoidales
	Class Ktedonobacteria	Order Ktedonobacterales
		Order Thermogemmatisporales
	Class Thermomicrobia	Order Sphaerobacterales
		Order Thermomicrobiales
Phylum Firmicutes		
	Class Bacilli	Order Bacillales
		Order Lactobacillales
	Class Clostridia	Order Clostridiales
		Order Halanaerobiales
		Order Natranaerobiales
		Order Thermoanaerobacterales
	Class Erysipelotrichia	Order Erysipelotrichales
	Class Negativicutes	Order Selenomonadales
	Class Thermolithobacteria	Order Thermolithobacterales
Phylum Tenericutes		
	Class Mollicutes	Order Acholeplasmatales
		Order Anaeroplasmatales
		Order Entomoplasmatales
		Order Haloplasmatales
		Order Mycoplasmatales
<b>SUPERKINGDOM EUKARYOTA</b>		
<b>KINGDOM PROTOZOA</b>		
<b>SUBKINGDOM EOZOA</b>		
<b>INFRAKINGDOM EUGLENOZOA</b>		
Phylum Euglenozoa		
Subphylum N.N.		
	Class Diplonemea	Order Diplonemida

(Continued)

Table 2. (Continued)

	Class Kinetoplastea	
		Order Bodonida
		Order Prokinetoplastida
		Order Trypanosomatida
	Subphylum Euglenoida	
	Class N. N.	
		Order Petalomonadida
		Order Ploetitiida
	Class Euglenophyceae	
		Order Euglenida
		Order Eutreptiida
	Class Peranemea	
		Order Heteronemida
		Order Peranemida
		Order Rhabdomonadida
	Subphylum Symbiontida	
	Class Postgaardea	
		Order Postgaardida
INFRAKINGDOM EXCAVATA		
	Phylum Loukozoa	
	Subphylum Eolouka	
	Class Jakobea	
		Order Jakobida
	Class Tsukubea	
		Order Tsukubamonadida
	Subphylum Neolouka	
	Class Malawimonadea	
		Order Malawimonadida
	Phylum Metamonada	
	Class Anaeromonadea	
		Order Oxymonadida
		Order Trimastigida
	Class Carpomonadea	
		Order Carpediemonadida
		Order Chilomastigida
		Order Dysnectida
	Class Eopharyngea	
		Order Diplomonadida
		Order Retortamonadida
	Class Trichomonadea	
		Order Cristamonadida
		Order Spirotrichonymphida
		Order Trichomonadida

(Continued)



Table 2. (Continued)

		Order Tritrichomonadida
	Class Trichonymphea	
		Order Lophomonadida
		Order Trichonymphida
	Phylum Percolozoa	
	Subphylum Pharyngomonada	
	Class Pharyngomonadea	
		Order Pharyngomonadida
	Subphylum Tetramitia	
	Class Heterolobosea	
		Order Acrasida
		Order Schizopyrenida
	Class Lyromonadea	
		Order Lyromonadida
	Class Percolatea	
		Order Percolomonadida
		Order Pseudociliatida
	SUBKINGDOM SARCOMASTIGOTA	
	Phylum Amoebozoa	
	Subphylum Conosa	
	Class Archamoebae	
		Order Mastigamoebida
		Order Pelobiontida
		Order Rhizomastigida
	Class Dictyostelea	
		Order Dictyostelida
		Class Myxogastrea [= Myxomycetes]
		Subclass Exosporeae
		Order Ceratiomyxida
		Subclass Myxogastria
		Superorder Collumelidia
		Order Echinosteliida
		Order Fuscisporida
		Superorder Lucisporidia
		Order Liceida
		Order Trichiida
	Class Protostelea	
		Order Protostelida
	Class Varioseae	
		Order Artodiscida
		Order Holomastigida
		Order Phalansteriida
		Order Varipodida

(Continued)

Table 2. (Continued)

Subphylum Lobosa	
	Class Discosea
	Subclass Flabellinia
	Order Dactylopodida
	Order Himatismenida
	Order Pellitida
	Order Stygamoebida
	Order Trichosida
	Order Vanellida
	Subclass Longamoebia
	Order Dermamoebida
	Order Centramoebida
	Order Thecamoebida
	Class Tubulinea [= Lobosea]
	Order Arcellinida
	Order Echinamoebida
	Order Euamoebida
	Order Leptomyxida
	Order Nolandida
Phylum Choanozoa [with Microsporidia, Animalia, and Fungi constitutes "Supergroup Opisthokonta"]	
Subphylum Choanofila	
	Class Choanoflagellata
	Order Acanthoecida
	Order Craspedida
	Class Corallochytra
	Order Corallochytrida
	Class Filasterea
	Order Ministeriida
	Class Ichthyosporea
	Order Dermocystida
	Order Eccrinida
Subphylum Paramyria	
	Class Aphelidea
	Order Aphelidida
	Class Cristidiscoidea
	Order Fonticulida
	Order Nucleariida
	Class Rozellidea
	Order Rozellida
Phylum Microsporidia [with Choanozoa, Animalia, and Fungi constitutes "Supergroup Opisthokonta"]	
	Class Disporea
	Order N.N. (e.g., <i>Nosema</i> )
	Class Metchnikovellea
	Order Metchnikovellida

(Continued)

Table 2. (Continued)

		Class Minisporea [= Microsporea]
		Order Minisporida [= Minisporea]
	Class	
	Pleistophorea	
		Order Pleistophorida
Phylum Sulcozoa		
	Subphylum Apusozoa	
		Class Breviatea
		Order Breviatida
		Class Thecomonadea
		Order Apusomonadida
	Subphylum Varisulca	
		Class Diphyllatea
		Order Diphylleida
		Class
		Glissodiscea
		Order Mantamonadida
		Order Planomonadida
		Class
		Hilomonadea
		Order Rigifilida
<b>KINGDOM CHROMISTA</b>		
	<b>SUBKINGDOM</b>	
	<b>HACROBIA</b>	
	Phylum	
	N.N.	
		Class Endohelea
		Order Heliomonadida
		Order Microhelida
		Class
		Picomonadea
		Order Picomonadida
		Class Telonemea
		Order Telonemida
Phylum Cryptista		
	Subphylum	
	Palpitia	
		Class Palpitea
		Order Palpitida
	Subphylum Rollomonadia	
		Class Cryptophyceae
		Order Cryptomonadales
		Order Pyrenomonadales
		Order Tetragonidiales
		Class Goniomonadea
		Order Goniomonadida
		Class
		Leucocryptea
		Order Kathablepharida

(Continued)

Table 2. (Continued)

Phylum Haptophyta	
	Class Coccolithophyceae [= Prymnesiophyceae]
	Order Coccolithales
	Order Coccochaerales
	Order Isochrysidales
	Order Phaeocystales
	Order Prymnesiales
	Order Syracosphaerales
	Order Zygodiscales
	Class Pavlovophyceae
	Order Pavlovales
Phylum Heliozoa	
	Class Centrohelea
	Order Acanthocystida
	Order Pterocystida
SUBKINGDOM HAROSA [= "Supergroup SAR"]	
INFRAKINGDOM HALVARIA	
Superphylum Alveolata	
Phylum Ciliophora	
Subphylum Intramacronucleata	
	Class Armophorea
	Order Armophorida
	Order Clevelandellida
	Class Colpodea
	Order Bryometopida
	Order Bryophryida
	Order Bursariomorpha
	Order Colpodida
	Order Cyrtolophosidida
	Order Sorogenida
	Class Litostomatea
	Subclass Haptoria
	Order Cyclotrichiida
	Order Haptorida
	Order Pleurostomatida
	Subclass Trichostomatia
	Order Entodiniomorpha
	Order Macropodiniida
	Order Vestibuliferida
	Class Spirotrichea
	Subclass Choreotrichia

(Continued)

Table 2. (Continued)

	Order Tintinnida
	Subclass Hypotrichia
	Order Euplotida
	Order Kitiichida
	Subclass Licnophoria
	Order Licnophorida
	Subclass Oligotrichia
	Order Strombidiida
	Subclass Protocruziida
	Order Phacodiniida
	Order Protocruziida
	Subclass Stichotrichia
	Order Sporadotrichida
	Order Stichotrichida
	Order Urostylida
Class	
Nassophorea	
	Order Colpodidiida
	Order Microthoracida
	Order Nassulida
	Order Synhymeniida
Class	
Oligohymenophorea	
	Subclass Apostomatia
	Order Apostomatida
	Order Astomatophorida
	Order Pilisuctorida
Subclass	
Astomatia	
	Order Astomatida
	Subclass Hymenostomatia
	Order Ophyroglenida
	Order Tetrahymenida
Subclass	
Peniculia	
	Order Peniculida
	Order Urocentrida
Subclass	
Peritrichia	
	Order Mobilida
	Order Sessilida
	Subclass Scuticociliatia
	Order Philasterida
	Order Pleuronematida
	Order Thigmotrichida
Class	
Phyllopharyngea	
	Subclass Chonotrichia
	Order Cryptogemmida
	Order Exogemmiida

(Continued)

Table 2. (Continued)

	Subclass Cyrtophoria
	Order Chlamyodontida
	Order Dysteriida
	Subclass Rhynchodia
	Order Hypocomatida
	Order Rhynchodida
	Subclass Suctoria
	Order Endogenida
	Order Evaginogenida
	Order Exogenida
	Class Plagiopylea
	Order Odontostomatida
	Order Plagiopylida
	Class Prostomatea
	Order Prorodontida
	Order Prostomatida
	Subphylum Postciliodesmatophora
	Class Heterotrichea
	Order Heterotrichida
	Class Karyorelictea
	Order Loxodida
	Order Protoheterotrichida
	Order Protostomatida
	Phylum Miozoa
	Subphylum Myzozoa
	Infraphylum Apicomplexa
	Superclass Apicomonada
	Class Apicomonadea
	Order Chromerida
	Order Colpodellida
	Order Voromonadida
	Superclass Sporozoa
	Class N. N.
	Order Blastogregarinida
	Class Coccidiomorpha
	Subclass Coccidia
	Order Adeleida
	Order Eimeriida
	Order Ixorheida
	Subclass Coelotrophia
	Order Coelotrophiida [= Protococcidiida]

(Continued)

Table 2. (Continued)

	Subclass Hematozoa	
		Superorder Aconoidia
		Order Nephromycida
		Order Piroplasmida
		Superorder Haemosporidia
		Order Haemosporida
	Class Gregarinomorpha	
		Subclass Cryptogregarina
		Order Cryptogregarida ( <i>Cryptosporidium</i> )
		Subclass Histogregarina
		Order Histogregarida
		Subclass Orthogregarina
		Order Arthroregarida
		Order Vermigregarida
	Class Paragregaria	
		Order Archigregarinida
		Order Stenophorida
		Order Velocida
	Infraphylum Dinozoa	
	Superclass Dinoflagellata	
	Class Dinophyceae	
	Subclass N.N.	
		Order Actiniscales
		Order Blastodinales
		Order Coccidinales
		Order Dinamoebales
		Order Lophodinales
		Order Pyrocystales
		Order Thoracosphaerales
		Subclass Dinophysoidia
		Order Dinophysidales
		Order Nannoceratopsales
		Subclass Gonyaulacoidia
		Order Gonyaulacales
		Order Gymnodiniales
		Subclass Peridinoidia
		Order Peridiniales
		Order Procentrales
	Subclass Suessioidia	
		Order Suessiales
	Class Ellobiopsea	
		Order Ellobiopsida
	Class Noctiluca	

(Continued)

Table 2. (Continued)

	Order Noctilucida
Class Oxyrrhea	Order Acrocoelida
	Order Oxyrrhida
Class Syndinea	Order Rastrimonadida
	Order Syndinida
Superclass Perkinsozoa	
Class Myzomonadea	Order Algovorida
Class Perkinsea	Order Perkinsida
	Order Phagodinida
Class Squirmidea	Order Squirmida
Subphylum Protalveolata	
Class Colponemea	Order Colponemida
Superphylum Heterokonta [= "Supergroup Stramenopiles"]	
Phylum Bigyra	
Class Bikosea	Order Anoecida
	Order Bicoecida
	Order Borokida
	Order Pseudodendromonadida
	Order Rictida
Class Blastocystea	Order Blastocystida
Class Nanomonadea	Order Uniciliatida
Class Opalineae	Order Opalinida
	Order Proteromonadida
Class Labyrinthulea	Order Labyrinthulida
	Order Thraustochytriida
	Class Placididea [= Placidiophyceae]
	Order Placidiida
Phylum Ochrophyta [= Heterokontophyta p.p.]	
	Class Bacillariophyceae [= Diatomeae]
	Subclass Bacillariophycidae
	Order Achnanthes
	Order Bacillariales
	Order Cymbellales

(Continued)



Table 2. (Continued)

	Order Dictyoneidales
	Order Eunotiales
	Order Lyrellales
	Order Mastogloiales
	Order Naviculales
	Order Rhopalodiales
	Order Surirellales
	Order Thalassiophysales
	Subclass Coscinodiscophycidae
	Order Anaulales
	Order Arachnoidiscales
	Order Asterolamprales
	Order Aulacoseirales
	Order Biddulphiales
	Order Chaetocerotales
	Order Chrysanthemodiscales
	Order Corethrales
	Order Coscinodiscales
	Order Cymatosirales
	Order Ethmodiscales
	Order Hemiaulales
	Order Leptocylindrales
	Order Lithodesmiales
	Order Melosirales
	Order Orthoseirales
	Order Paraliales
	Order Rhizosoleniales
	Order Stictocyclales
	Order Stictodiscales
	Order Thalassiosirales
	Order Triceratales
	Subclass Fragilariophycidae
	Order Ardissonales
	Order Climacospheniales
	Order Cyclophorales
	Order Fragiliales
	Order Licmophorales
	Order Protoraphidales
	Order Rhabdonematales
	Order Rhaphoneidales
	Order Striatellales
	Order Tabellariales
	Order Thalassionematales
	Order Toxariales
Class	
Bolidophyceae	
	Order Parmales [= Bolidomonadales]

(Continued)

Table 2. (Continued)

Class	
Chrysomerothyceae	Order Chrysomeriales
Class Chrysothyceae	Order Chloramoebales
	Order Chromulinales
	Order Chrysothrales
	Order Heterogloeales
	Order Hibberdiales
	Order Hydrurales
	Order Ochromonadales
	Order Paraphysomonadida
	Order Synurales
	Order Thallochrysidales
Class Eustigmatophyceae	Order Eustigmatales
Class Dictyochophyceae [= Hypogyrystea]	Order Dictyochaetales
	Order Olisthodiscales
	Order Pedinellales
	Order Pelagomonadales
	Order Sarcinochrysidales
Class	
Phaeophyceae	Subclass Dictyophycidae
	Order Dictyotales
	Order Onslowiales
	Order Sphaelariales
	Order Syringodermatales
	Subclass Discosporangiophycidae
	Order Discosporangiales
	Subclass Fucophycidae
	Order Ascoseirales
	Order Asterocladales
	Order Desmarestiales
	Order Ectocarpales
	Order Fucales
	Order Laminariales
	Order Nemodermatales
	Order Phaeosiphoniellales
	Order Ralfsiales
	Order Scytothamniales
	Order Sporochneales
	Order Tilopteridales [= Cutleriales]
	Subclass Ishigeophycidae
	Order Ishigeales
Class Phaeothamniophyceae [= Aurophyceae]	Order Aurearenales

(Continued)

Table 2. (Continued)

	Order Phaeothamniales
	Class Picophagophyceae [= Picophagea]
	Order Picophagales
	Order Synchronomales
	Class Pinguioiphyceae
	Order Pinguiochrysidales
	Class Raphidophyceae
	Order Actinophryida
	Order Commatiida
	Order Raphidomonadales
	Class Schizocladiphyceae
	Order Schizocladiales
	Class Xanthophyceae
	Order Mischococcales
	Order Pleurochloridellales
	Order Tribonematales
	Order Vaucheriales
	Phylum Pseudofungi [= Oomycota]
	Class Bigyromonadea
	Order Developayellida
	Class Hyphochytrea
	Order Hyphochytriida
	Order Pirsoniida
	Class Oomycetes
	Subclass Eogamia
	Order Anisopidiales
	Order Haptoglossales
	Order Lagenismatales
	Order Olpidiopsidales
	Order Rozellopsidales
	Subclass Peronosporidae
	Order Peronosporales
	Order Pythiales
	Order Rhipidiales
	Subclass Saprolegniidae
	Order Albuginales
	Order Leptomitales
	Order Salligenidiales
	Order Saprolegniales
INFRAKINGDOM RHIZARIA	
Phylum Cercozoa	
Subphylum Endomyxa	
	Class Ascetosporea
	Order Claustrosporida

(Continued)

Table 2. (Continued)

	Order Haplosporida
	Order Paradinida
	Order Paramyxida
Class Gromiidea	
	Order Gromiida
	Order Reticulosida
Class Phytomyxea	
	Order Phagomyxida
	Order Plasmodiophorida
Class Vampyrellidea	
	Order Vampyrellida
Subphylum Monadofilosa	
Class Imbricatea	
Subclass Placonuda	
	Order Discocelida
	Order Discomonadida
	Order Euglyphida
	Order Marimonadida
	Order Variglissida
Subclass Placoperla	
	Order Perlofilida
	Order Rotosphaerida
	Order Spongomonadida
	Order Thaumatomonadida
	Order Zoelucasida
Class Metromonadea	
	Order Metopiida
	Order Metromonadida
Class Sarcomonadea	
	Order Cercomonadida
	Order Glissomonadida
	Order Pansomonadida
	Order Pseudosporida
	Order Sainouroida
Class Thecofilosea	
Subclass Eothecia	
	Order Cryomonadida
	Order Ebriida
	Order Matazida
	Order Ventricleftida
	Subclass Phaeodaria
	Order Eodarida
	Order Opaloconchida

(Continued)

Table 2. (Continued)

	Subclass	
	Tectosia	
		Order Tectofilosida
Subphylum Reticulofilosa		
	Class	
	Chlorarachnea	Order Chlorarachnida
	Class	
	Granofilosea	Order Cryptofilida
		Order Desmothoracida
		Order Leucodictyida
		Order Limnofilida
	Class	
	Skiomonadea	Order Tremulida
Phylum Retaria		
Subphylum Foraminifera		
	Class Monothalamea	
		Order Allogromiida
		Order Astrorhizida
		Order Psamminida
		Order Stannomida
	Class Globothalamea	
		Order Carterinida
		Order Globeriginida
		Order Lagenida
		Order Lituolida
		Order Lofusiida
		Order Robertinida
		Order Rotaliida
		Order Testulariida
		Order Trochamminida
	Class Tubothalamea	
		Order Miliolida
		Order Spirillinida
Subphylum Radiozoa		
	Superclass Polycystinia	
	Class Polycystinea	
		Order Collodarida
		Order Nassellaria
		Order Spumellaria
	Superclass Spasmaria	
	Class Acantharea	
		Order Arthracanthida
		Order Chaunacanthida
		Order Holacanthida

(Continued)

Table 2. (Continued)

		Order Symphyacanthida
	Class Sticholonchea	
		Order Taxopodida
<b>KINGDOM FUNGI</b>		
	SUBKINGDOM DIKARYA [= NEOMYCOTA]	
	Phylum Ascomycota	
	Subphylum Pezizomycotina	
	Class Archaeorhizomycetes	
		Order Archaeorhizomycetales
		Order Lahmiales
		Order Triblidiales
	Class Arthoniomycetes	
		Order Arthoniales
	Class Dothideomycetes	
	Subclass N.N.	
		Order Acrospermales
		Order Botryosphaeriales
		Order Hysteriales
		Order Jahnulales
		Order Koralionastetales
		Order Patellariales
		Order Trypetheliales
		Subclass Dothideomycetidae
		Order Capnodiales
		Order Dothideales
		Order Microthyriales
		Order Myriangiales
		Subclass Meliolomycetidae
		Order Meliolales
		Subclass Pleosporomycetidae
		Order Mytilinidiales
		Order Pleosporales
	Class Eurotiomycetes	
		Subclass Chaetothyriomycetidae
		Order Chaetothyriales
		Order Pyrenulales
		Order Verrucariales
		Subclass Eurotiomycetidae
		Order Arachnomycetales
		Order Ascosphaerales
		Order Coryneliales
		Order Eurotiales
		Order Onygenales

(Continued)

Table 2. (Continued)

	Subclass Mycocaliciomycetidae
	Order Mycocaliciales
Class	
Laboulbeniomycetes	
	Order Laboulbeniales
	Order Pyxidiophorales
Class Lecanoromycetes	
Subclass	
N.N.	
	Order Candelariales
	Order Umbilicariales
	Subclass Acarosporomycetidae
	Order Acarosporales
	Subclass Lecanoromycetidae
	Order Lecanorales
	Order Lecideales
	Order Peltigerales
	Order Rhizocarpales
	Order Teloschistales
	Subclass Ostropomycetidae
	Order Agyriales
	Order Baeomycetales
	Order Ostropales
	Order Pertusariales
Class	
Leotiomyces	
	Order Cyttariales
	Order Erysiphales
	Order Geoglossales
	Order Helotiales
	Order Leotiales
	Order Mediolariales
	Order Rhytismatales
	Order Thelebolales
Class Lichinomycetes	
	Order Eremithallales
	Order Lichinales
Class Orbiliomycetes	
	Order Orbiliales
Class	
Pezizomycetes	
	Order Pezizales
Class Sordariomycetes	
Subclass	
N.N.	
	Order Phyllachorales
	Order Trichosphaeriales
	Subclass Hypocreomycetidae
	Order Coronophorales

(Continued)

Table 2. (Continued)

	Order Hypocreales
	Order Melanosporales
	Order Microascales
	Subclass Sordariomycetidae
	Order Boliniales
	Order Calosphaeriales
	Order Chaetosphaeriales
	Order Coniochaetales
	Order Diaporthales
	Order Ophiostomatales
	Order Sordariales
	Subclass Spathulosporomycetidae
	Order Lulworthiales
	Subclass Xylariomycetidae
	Order Xylariales
Subphylum Saccharomycotina	
Class Saccharomycetes	Order Saccharomycetales
Subphylum Taphrinomycotina	
Class Neoelectomycetes	Order Neoelectales
	Class Pneumocystidomycetes
	Order Pneumocystidales
	Class Schizosaccharomycetes
	Order Schizosaccharomycetales
Class Taphrinomycetes	Order Taphrinales
Phylum Basidiomycota	
Class Entorrhizomycetes	Order Entorrhizales
	Order Wallemiales
Subphylum Agaricomycotina	
Class Agaricomycetes	Subclass N.N.
	Order Auriculariales
	Order Cantharellales
	Order Corticiales
	Order Gloeophyllales
	Order Hymenochaetales
	Order Polyporales
	Order Russulales
	Order Sebaciniales
	Order Thelephorales
	Order Trechisporales
	Subclass Agaricomycetidae
	Order Agaricales
	Order Atheliales
	Order Boletales

(Continued)



Table 2. (Continued)

	Subclass Phallomycetidae
	Order Geastrales
	Order Gomphales
	Order Hysterangiales
	Order Phallales
Class	
Dacrymycetes	Order Dacrymycetales
Class Tremellomycetes	
	Order Cystofilobasidiales
	Order Filobasidiales
	Order Tremellales
Subphylum Pucciniomycotina	
Class	
Agaricostilbomycetes	Order Agaricostilbales
	Order Spiculogloeales
Class Atractiellomycetes	Order Atractiellales
Class Classiculomycetes	Order Classiculales
	Class Cryptomycocolacomycetes
	Order Cryptomycocolacales
Class	
Cystobasidiomycetes	Order Cystobasidiales
	Order Erythrobasidiales
	Order Naohideales
Class Microbotryomycetes	Order Hetrogastridiales
	Order Leucosporidiales
	Order Microbotryales
	Order Sporidiobolales
Class	
Mixiomycetes	Order Mixiales
Class Pucciniomycetes	Order Helicobasidiales
	Order Pachnocybales
	Order Platygloeales
	Order Pucciniales
	Order Septobasidiales
Subphylum Ustilaginomycotina	
Class N.	
N.	Order Malasseziales
Class Exobasidiomycetes	Order Ceraceosorales
	Order Doassansiales

(Continued)

Table 2. (Continued)

	Order Entylomatales
	Order Exobasidiales
	Order Georfischeriales
	Order Microstromatales
	Order Tilletiales
	Class Ustilaginomycetes
	Order Urocystidales
	Order Ustilaginales
SUBKINGDOM EOMYCOTA	
Phylum Chytridiomycota	
	Class Blastocladiomycetes [= Allomycetes]
	Order Blastocladales
	Class Chytridiomycetes
	Order Chytridiales
	Order Lobulomycetales
	Order Neocallimastigales
	Order Olpidiales
	Order Rhizophlyctidales
	Order Rhizophydiales
	Order Spizellomycetales
	Class Monoblepharidomycetes
	Order Monoblepharidales
Phylum Glomeromycota	
	Class Glomeromycetes [= Glomomycetes]
	Order Archaeosporales
	Order Diversisporales
	Order Glomerales
	Order Paraglomerales
Phylum Zygomycota	
Subphylum N.N.	
	Class N. N.
	Order Basidiobolales
Subphylum Entomophthoromycotina	
	Class N. N.
	Order Entomophthorales
Subphylum Kickxellomycotina	
	Class N. N.
	Order Asellariales
	Order Dimargaritales
	Order Harpellales
	Order Kickxellales
Subphylum Mortierellomycotina	
	Class N. N.

(Continued)

Table 2. (Continued)

		Order Mortierellales
	Subphylum Mucoromycotina	
	Class N. N.	
		Order Endogonales
		Order Mucorales
	Subphylum Zoopagomycotina	
	Class N. N.	
		Order Zoopagales
<b>KINGDOM PLANTAE</b>		
<b>SUBKINGDOM BILIPHYTA</b>		
	Phylum Glaucophyta	
		Class Glaucophyceae
		Order Glaucocystales
	Phylum Rhodophyta	
	Subphylum Cyanidiophytina	
		Class Cyanidiophyceae
		Order Cyanidiales
	Subphylum Eurhodophytina	
		Class Bangiophyceae
		Order Bangiales
		Order Goniotrichales
		Class Florideophyceae
		Subclass N.N.
		Order Rhodachlyales
		Subclass Ahnfeltiophycidae
		Order Ahnfeltiales
		Order Pihelliales
		Subclass Corallinophycidae
		Order Corallinales
		Order Rhodogorgonales
		Order Sporolithales
		Subclass Hildenbrandiophyceae
		Order Hildenbrandiales
		Subclass Nemaliophycidae
		Order Acrochaetiales
		Order Balbianiales
		Order Balliales
		Order Batrachospermales
		Order Colaconematales
		Order Entwisleiales
		Order Nemaliales

(Continued)

Table 2. (Continued)

	Order Palmariales
	Order Thoreales
	Subclass Rhodmeniophycidae
	Order Acrosymphytales
	Order Bonnemaisoniales
	Order Ceramiales
	Order Gelidiales
	Order Gigartinales
	Order Gracilariales
	Order Halymeniales
	Order Nemastomatales
	Order Peyssonneliales
	Order Plocamiales
	Order Rhodymeniales
	Order Sebdeniales
	Subphylum Metarhodophytina
	Class Compsopogonophyceae
	Order Compsopogonales
	Order Erythropeltidales
	Order Rhodochaetales
	Subphylum Rhodellophytina
	Class Porphyridiophyceae
	Order Porphyridiales
	Class Rhodellophyceae
	Order Dixoniellales
	Order Glaucosphaerales
	Order Rhodellales
	Class
	Stylonematophyceae
	Order Rufusiales
	Order Stylonematales
SUBKINGDOM VIRIDIPLANTAE	
INFRAKINGDOM	
CHLOROPHYTA	
Phylum	
Chlorophyta	
Subphylum Chlorophytina	
	Class Chlorodendrophyceae
	Order Chlorodendrales
	Class Chlorophyceae
	Order N.N. (e.g., Chlorangiopsidaceae)
	Order Chaetopeltidales
	Order Chaetophorales
	Order Chlamydomonadales [= Volvocales]
	Order Oedogoniales
	Order Sphaeropleales
	Class Pedinophyceae
	Order Marsupiomonadales
	Order Pedinomonadales

(Continued)

Table 2. (Continued)

	Order Scourfieldiales
Class Trebouxiophyceae	Order Chlorellales
	Order Microthamniales
	Order Phyllosporaales
	Order Prasiolales
	Order Trebouxiiales
Class Ulvophyceae	Order Bryopsidales
	Order Cladophorales
	Order Dasycladales
	Order Oltmansiellopsidales
	Order Scotinosphaerales
	Order Trentepohliales
	Order Ulotrichales
	Order Ulvales
Subphylum Prasinophytina	
Class Mamiellophyceae	Order Dolichomastigales
	Order Mamiellales
	Order Monomastigales
Class Nephrophyceae [= Nephroselmidophyceae]	Order Nephroselmidales
Class Pyramimonadophyceae	Order Palmophyllales
	Order Prasinococcales
	Order Pseudoscourfieldiales
	Order Pyramimonadales
INFRAKINGDOM STREPTOPHYTA	
Superphylum Charophyta	
Phylum Charophyta	
Class Charophyceae	Order Charales
Class Chlorokybophyceae	Order Chlorokybales
Class Coleochaetophyceae	Order Chaetosphaeriales
	Order Coleochaetales
Class Conjugatophyceae [= Zygnematophyceae]	Order Desmidiiales
	Order Zygnematales
Class Klebsormidiophyceae	Order Klebsormidiales

(Continued)

Table 2. (Continued)

	Class Mesostigmatophyceae
	Order Mesostigmatales
Superphylum Embryophyta	
Phylum Anthocerotophyta	
	Class Anthocerotopsida
	Subclass Anthocerotidae
	Order Anthocerotales
	Subclass Dendrocerotidae
	Order Dendrocerotales
	Order Phymatocerales
	Subclass Notothylatidae
	Order Notothyladales
	Class Leiosporocerotopsida
	Order Leiosporocerotales
Phylum Bryophyta	
	Class Andreaeobryopsida
	Order Andreaeobryales
	Class Andreaeopsida
	Order Andreaeales
	Class Bryopsida
	Subclass Bryidae
	Order Bartramiales
	Order Bryales
	Order Hedwigiales
	Order Hookeriales
	Order Hypnales
	Order Hypnodendrales
	Order Orthotrichales
	Order Ptychomniales
	Order Rhizogoniales
	Order Splachnales
	Subclass Buxbaumiidae
	Order Buxbaumiales
	Subclass Dicranidae
	Order Archidiales
	Order Bryoxiphiales
	Order Dicranales
	Order Grimmiales
	Order Pottiales
	Order Scouleriales
	Subclass Diphysciidae
	Order Diphysciales
	Subclass Funariidae
	Order Encalyptales

(Continued)

Table 2. (Continued)

	Order Funariales
	Order Gigaspermales
Subclass	
Timmidae	Order Timmiales
Class Oedipodiopsida	Order Oedipodiales
Class Polytrichopsida	Order Polytrichales
Class	
Sphagnopsida	Order Ambuchananiales
	Order Sphagnales
Class	
Takakiopsida	Order Takakiales
Class Tetrarhizopsida	Order Tetrarhizales
Class Haplomitriopsida	Order Haplomitriales
Class Jungermanniopsida	Order Calobryales
	Order Treubiales
Subclass Jungermanniidae	
Order Jungermanniales	
Order Porellales	
Order Ptilidiales	
Subclass Metzgeriidae	
Order Metzgeriales	
Order Pleuroziales	
Subclass Pelliidae	
Order Fossombroniales	
Order Pallaviciniales	
Order Pelliiales	
Class Marchantiopsida	Order Blasiales
	Order Lunulariales
	Order Marchantiales
	Order Neohodgsoniales
	Order Sphaerocarpaceales
Phylum Tracheophyta	
Subphylum Lycopodiophytina	
Class Lycopodiopsida	Order Isoetales
	Order Lycopodiales
	Order Selaginellales
Subphylum Polypodiophytina	
Class Polypodiopsida	

(Continued)

Table 2. (Continued)

	Subclass Equisetidae
	Order Equisetales
	Subclass Marattiidae
	Order Marattiales
	Subclass Ophioglossidae [= Psilotidae]
	Order Ophioglossales
	Order Psilotales
	Subclass Polypodiidae
	Order Cyatheaales
	Order Gleicheniales
	Order Hymenophyllales
	Order Osmundales
	Order Polypodiales
	Order Salviniiales
	Order Schizaeales
	Subphylum Spermatophytina
	Superclass "Angiospermae"
	Class Magnoliopsida
	Superorder N.N.
	Order N.N. (e.g., Icacinaceae)
	Superorder Amborellanae
	Order Amborellales
	Superorder Asteranae
	Order Apiales
	Order Aquifoliales
	Order Asterales
	Order Boraginales
	Order Bruniales
	Order Cornales
	Order Dipsacales
	Order Ericales
	Order Escalloniales
	Order Garryales
	Order Gentianales
	Order Lamiales
	Order Paracryphiales
	Order Solanales
	Superorder Austrobaileyanae
	Order Austrobaileyales
	Superorder Berberidopsidanae
	Order Berberidopsidales
	Superorder Buxanae
	Order Buxales
	Superorder Caryophyllanae
	Order Caryophyllales
	Superorder Ceratophyllanae

(Continued)



Table 2. (Continued)

Order Ceratophyllales
Superorder Dilleniaceae
Order Dilleniaceae
Superorder Liliales [= Monocotyledones]
Order Acorales
Order Alismatales
Order Arecales
Order Asparagales
Order Commelinales
Order Dasypogonales
Order Dioscoreales
Order Liliales
Order Pandanales
Order Petrosaviales
Order Poales
Order Zingiberales
Superorder Magnoliales
Order Canellales
Order Chloranthales
Order Laurales
Order Magnoliales
Order Piperales
Superorder Myrothamnaceae
Order Gunnerales
Superorder Nymphaeales
Order Nymphaeales
Superorder Proteales
Order Proteales
Superorder Ranunculales
Order Ranunculales
Superorder Rosales
Order Brassicales
Order Celastrales
Order Crossosomatales
Order Cucurbitales
Order Fabales
Order Fagales
Order Geraniales
Order Huerteales
Order Malpighiales
Order Malvales
Order Myrtales
Order Oxalidales
Order Picramniales
Order Rosales
Order Sapindales
Order Vitales
Order Zygophyllales

(Continued)

Table 2. (Continued)

	Superorder Santalanae
	Order Santalales
	Superorder Saxifraganae
	Order Saxifragales
	Superorder Trochodendrae
	Order Trochodendrales
	Superclass "Gymnospermae"
	Class
	Cycadopsida
	Subclass
	Cycadidae
	Order Cycadales
	Class
	Ginkgoopsida
	Subclass Ginkgooidae
	Order Ginkgoales
	Class Gnetopsida
	Subclass
	Gnetidae
	Order Gnetales
	Class Pinopsida
	Subclass Pinidae
	Order Pinales
<b>KINGDOM ANIMALIA</b>	
SUBKINGDOM	
N.N.	
Phylum Cnidaria	
Subphylum Anthozoa	
Class Anthozoa	
	Subclass Hexacorallia
	Order Actinaria
	Order Antipatharia
	Order Ceriantharia
	Order Corallimorpharia
	Order Scleractinia
	Order Zoantharia [= Zoanthidea]
	Subclass Octocorallia
	Order Alcyonacea
	Order Helioporacea
	Order Pennatulacea
Subphylum Medusozoa	
Class Cubozoa	
	Order Carybdeida
	Order Chiropoda
Class Hydrozoa	
	Subclass Hydroidolina
	Order Anthoathecata
	Order Gonoproxima
	Order Leptothecata

(Continued)

Table 2. (Continued)

		Order Siphonophorae
	Subclass Trachylina	
		Order Actinulida
		Order Limnomedusae
		Order Narcomedusae
		Order Trachymedusae
	Class Polypodiozoa	
		Order Polypodiidea
	Class Scyphozoa	
		Order Coronatae
		Order Rhizostomeae
		Order Semaestomeae
	Class Staurozoa	
		Order Stauromedusae
	Subphylum Myxozoa	
	Class Malacosporea	
		Order Malacovalvulida
	Class Myxosporea	
		Order Bivalvulida
		Order Multivalvulida
	Phylum Ctenophora	
	Class Nuda	
		Order Beroida
	Class Tentaculata	
		Order Cambojiida
		Order Cestida
		Order Cryptobiferida
		Order Cydippida
		Order Ganeshida
		Order Lobata
		Order Platyctenida
		Order Thalassocalycida
	Phylum Placozoa	
		Class Placozoa ( <i>Trichoplax</i> )
	Phylum Porifera	
	Class Calcarea	
		Order Baerida
		Order Clathrinida
		Order Leucosolenida
		Order Lithonida
		Order Murrayonida

(Continued)

Table 2. (Continued)

	Class Demospongiae	
		Order Agelasida
		Order Astrophorida
		Order Chondrosida
		Order Dendroceratida
		Order Dictyoceratida
		Order Hadromerida
		Order Halichondrida
		Order Haplosclerida
		Order Lithistida
		Order Poecilosclerida
		Order Spirophorida
		Order Verongida
	Class Hexactinellida	
		Order Amphidiscosida
		Order Aulocalycoida
		Order Fieldingida
		Order Hexactinosida
		Order Lychniscosida
		Order Lyssacinosida
	Class Homoscleromorpha	
		Order Homosclerophorida
SUBKINGDOM		
BILATERIA		
INFRAKINGDOM PROTOSTOMIA		
Superphylum N.		
N.		
Phylum Chaetognatha	Class Sagittoidea	
		Order Aphragmophora
		Order Phragmophora
Phylum Orthonectida		Order Plasmodigenea
Phylum Rhombozoa		Order Dicyemida
		Order Heterocyemida
Superphylum Ecdysozoa		
Phylum Arthropoda	Class Arachnida	
Subphylum Chelicerata		Superorder N.N.
		Order Amblypygi
		Order Araneae
		Order Opiliones
		Order Palpigradi
		Order Pseudoscorpiones

(Continued)

Table 2. (Continued)

	Order Ricinulei
	Order Schizomida
	Order Scorpiones
	Order Solifugae
	Order Uropygi
	Superorder Acariformes
	Order Sarcoptiformes
	Order Trombidiformes
	Superorder Parasitiformes
	Order Holothyrida
	Order Ixodida
	Order Mesostigmata
	Order Opilioacarida
	Class Merostomata
	Order Xiphosura
	Class Pycnogonida
	Order Pantopoda
	Subphylum Crustacea
	Class Branchiopoda
	Order Anostraca
	Order Diplostraca
	Order Laevicaudata
	Order Notostraca
	Class Cephalocarida
	Order Brachypoda
	Class Malacostraca
	Subclass Eumalacostraca
	Superorder Eucarida
	Order Amphionidacea
	Order Decapoda
	Order Euphausiacea
	Superorder Peracarida
	Order Amphipoda
	Order Bochsusea
	Order Cumacea
	Order Isopoda
	Order Lophogastrida
	Order Mictacea
	Order Mysida
	Order Spelaeogriphacea
	Order Tanaidacea
	Order Thermosbaenacea
	Superorder Syncarida
	Order Anaspidacea

(Continued)

Table 2. (Continued)

	Order Bathynellacea
	Subclass Hoplocarida
	Order Stomatopoda
	Subclass Phyllocarida
	Order Leptostraca
Class	
Maxillopoda	
	Subclass
	Branchiura
	Order Arguloida
	Subclass
	Copepoda
	Infraclass Necopepoda
	Superorder Gymnoplea
	Order Calanoida
	Superorder Podoplea
	Order Cyclopoida
	Order Gelyelloida
	Order Harpacticoida
	Order Misophrioida
	Order Monstrilloida
	Order Mormonilloida
	Order Siphonostomatoida
	Infraclass Progymnoplea
	Order Platycopioida
	Subclass Mystacocarida
	Order Mystacocaridida
	Subclass Pentastomida
	Order Cephalobaenida
	Order Porocephalida
	Subclass Tantulocarida (e.g., Basipodellidae)
	Subclass Thecostraca
	Infraclass Ascothoracida
	Order Dendrogastrida
	Order Laurida
	Infraclass Cirripedia
	Superorder Acrothoracica
	Order Cryptophialida
	Order Lithoglyptida
	Superorder Rhizocephala
	Order Akentronida
	Order Kentronida
	Superorder Thoracica
	Order Ibliformes
	Order Lepadiformes
	Order Scalpelliformes
	Order Sessilia
	Infraclass Facetotecta ( <i>Hansenocaris</i> )
Class Ostracoda	

(Continued)

Table 2. (Continued)

	Order Halocyprida
	Order Myodocopida
	Order Paleocopida
	Order Platycopida
	Order Podocopida
Class Remipedia	
	Order Nectiopoda
Subphylum Hexapoda	
Class Collembola	
	Order Entomobryomorpha
	Order Neelipleona
	Order Poduromorpha
	Order Symphyleona
Class Diplura	
	Order N.N. (e.g., <i>Japygidae</i> )
Class Insecta	
	Subclass Archaeognatha
	Order Archaeognatha
	Subclass Dicondylia
	Order Zygentoma
	Subclass Pterygota
	Infraclass Neoptera
	Superorder Holometabola
	Order Coleoptera
	Order Diptera
	Order Hymenoptera
	Order Lepidoptera
	Order Mecoptera
	Order Siphonaptera
	Order Strepsiptera
	Order Trichoptera
	Superorder Neuropterida
	Order Megaloptera
	Order Neuroptera
	Order Raphidioptera
	Superorder Paraneoptera
	Order Hemiptera
	Order Psocodea
	Order Thysanoptera
	Superorder Polyneoptera
	Order Blattodea
	Order Dermaptera
	Order Embioptera
	Order Grylloblattodea
	Order Mantodea

(Continued)

Table 2. (Continued)

	Order Mantophasmatodea
	Order Orthoptera
	Order Phasmida
	Order Plecoptera
	Order Zoraptera
	Infraclass Palaeoptera
	Order Ephemeroptera
	Order Odonata
Class	
Protura	
	Order Acerentomata
	Order Eosentomata
	Order Sinentomata
Subphylum	Myriapoda
Class	Chilopoda
	Order Craterostigmomorpha
	Order Geophilomorpha
	Order Lithobiomorpha
	Order Scolopendromorpha
	Order Scutigermomorpha
Class	Diplopoda
	Subclass Chilognatha
	Infraclass Helminthomorpha
	Superorder N.N.
	Order Platydesmida
	Order Polyzoniida
	Order Siphonocryptida
	Order Siphonophorida
	Superorder Juliformia
	Order Julida
	Order Spirobolida
	Order Spirostreptida
	Superorder Nematophora
	Order Callipodida
	Order Chordeumatida
	Order Stemmiulida
	Order Siphoniulida
	Superorder Merochaeta
	Order Polydesmida
	Infraclass Pentazonia
	Order Glomerida
	Order Glomeridesmida
	Order Sphaerotheriida
Subclass	Penicillata
	Order Polyxenida
Class	Paupoda
	Order Hexamerocerata

(Continued)



Table 2. (Continued)

	Order Tetramerocerata
	Class Symphyla (e.g., Scolopendrellidae)
Phylum Kinorhyncha	
	Order Cyclorhagida
	Order Homalorhagida
Phylum Loricifera	
	Order Nanaloricida
Phylum Nematoda	
	Class Chromadorea
	Subclass Chromadoria
	Order Chromadorida
	Order Desmodorida
	Order Desmoscolecida
	Order Selachinematida
	Subclass Plectia
	Superorder Monhysterica
	Order Monhysterida
	Superorder Plectica
	Order Benthimermithida
	Order Leptolaimida
	Order Plectida
	Superorder Rhabditica
	Order Diplogasterida
	Order Drilonematida
	Order Panagrolaimida
	Order Rhabditida
	Order Spirurida
	Superorder Teratocephalica
	Order Teratocephalida
	Class Dorylaimea
	Subclass Bathyodontia
	Order Bathyodontida
	Order Mermithida
	Order Mononchida
	Subclass Dorylaimia
	Order Dorylaimida
	Subclass Trichocephalia
	Order Dioctophymatida
	Order Marimermithida
	Order Muspiceida
	Order Trichocephalida
	Class Enoplea
	Subclass Enoplia
	Order Alaimida
	Order Enoplida

(Continued)

Table 2. (Continued)

		Order Ironida
		Order Rhaptothyreida
		Order Trifusiida
		Order Tripyloidida
		Subclass Oncholaimia
		Order Oncholaimida
	Subclass	
	Triplonchia	
		Order Triplonchida
		Order Tripylida
Phylum Nematomorpha		
		Order Gordioidea
		Order Nectonematoidea
Phylum Onychophora		
	Class Udeonycophora	
		Order Euonycophora
Phylum Priapula [= Priapulida]		
	Class N.N. (e.g., Priapulidae)	
Phylum Tardigrada		
	Class Eutardigrada	
		Order Apochela
		Order Parachela
	Class Heterotardigrada	
		Order Arthrotardigrada
		Order Echiniscoidea
Superphylum Spiralia [= Lophotrochozoa]		
Phylum Acanthocephala		
	Class Archiacanthocephala	
		Order Apororhynchida
		Order Gigantorhynchida
		Order Moniliformida
		Order Oligacanthorhynchida
	Class Eoacanthocephala	
		Order Gyracanthocephala
		Order Neoechinorhynchida
	Class Palaeacanthocephala	
		Order Echinorhynchida
		Order Heteramorphida
		Order Polymorphida
	Class Polyacanthocephala	
		Order Polyacanthorhynchida
Phylum Annelida		
	Class N. N.	
		Order Myzostomida

(Continued)

Table 2. (Continued)

	Class Clitellata	
	Subclass N.N.	Order Branchiobdellida
	Subclass Hirudinea	Order Acanthobdellida
		Order Arhynchobdellida
		Order Rhynchobdellida
	Subclass Oligochaeta	Superorder N.N.
		Order N.N. ( <i>Jennaria</i> )
		Order Enchytraeida
		Order Haplotaxida
		Order Lumbriculida
		Order Tubificida
		Superorder Metagynophora
		Order Moniligastrida
		Order Opisthophora
	Class Polychaeta	
	Subclass N.N.	Order N.N. (e.g., Nerillidae)
	Subclass Echiura	Order Echiuroinea
		Order Heteromyota
		Order Xenopneusta
	Subclass Errantia	Order Amphinomida
		Order Eunicida
		Order Phyllodocida
	Subclass Sedentaria	Infraclass Canalipalpata
		Order Sabellida
		Order Spionida
		Order Terebellida
		Infraclass Scolecida (e.g., Arenicolidae)
Phylum Brachiopoda	Class Craniata	Order Craniida
	Class Lingulata	Order Lingulida
	Class Rhynchonellata	Order Rhynchonellida
		Order Terebratulida
		Order Thecideida
Phylum Bryozoa		

(Continued)

Table 2. (Continued)

	Class Gymnolaemata	
		Order Cheilostomata
		Order Ctenostomata
	Class Phylactolaemata	
		Order Plumatellida
	Class Stenolaemata	
		Order Cyclostomata
Phylum Cycliophora		
	Class Eucycliophora	
		Order Symbiida
Phylum Entoprocta		
		Order Coloniales
		Order Solitaria
Phylum Gastrotricha		
		Order Chaetonotida
		Order Macrodasyida
Phylum Gnathostomulida		
		Order Bursovaginoidea
		Order Filospermoidea
Phylum Micrognathozoa		
	Class Micrognathozoa	
		Order Limnognathida
Phylum Mollusca		
	Class Bivalvia	
		Subclass Autobranchia
		Superorder Heteroconchia
		Order Carditida
		Order Lucinida
		Order Myida
		Order Pholadomyida
		Order Trigoniida
		Order Unionida
		Order Veneroidea
		Superorder Pteriomorpha
		Order Arcida
		Order Limida
		Order Mytilida
		Order Ostreida
		Order Pectinida
		Order Pteriida
		Subclass Protobranchia
		Order Nuculanida
		Order Nuculida
		Order Solemyoidea

(Continued)

Table 2. (Continued)

Class	
Caudofoveata	Order Chaetodermatida
Class	
Cephalopoda	
Subclass	
Coleoidea	Superorder Decabrachia
	Order Sepiida
	Order Sepiolida
	Order Spirulida
	Order Teuthida
	Superorder Octobrachia
	Order Octopoda
	Order Vampyromorphida
	Subclass Nautiloidea
	Order Nautilida
Class	
Gastropoda	
	Subclass Caenogastropoda
	Order Littorinimorpha
	Order Neogastropoda
	Subclass Cocculiniformia (e.g., Cocculinidae)
	Subclass Heterobranchia
	Order Acochlidioidea
	Order Anaspidea
	Order Cephalaspidea
	Order Gymnosomata
	Order Hygrophila
	Order Nudibranchia
	Order Pleurobranchomorpha
	Order Runcinacea
	Order Sacoglossa
	Order Stylommatophora
	Order Systellommatophora
	Order Thecosomata
	Order Umbraculida
	Subclass Neomphalina
	Order N.N. (e.g., Neomphalidae)
	Subclass Neritimorpha
	Order Cycloneritimorpha
	Subclass Patellogastropoda
	Order N.N. (e.g., Patellidae)
	Subclass Vetigastropoda
	Order N.N. (e.g., Ataphridae)
Class Monoplacophora	Order Tryblidiida
Class Polyplacophora	Order Chitonida

(Continued)

Table 2. (Continued)

		Order Lepidopleurida
	Class Scaphopoda	
		Order Dentaliida
		Order Gadilida
	Class Solenogastres	
		Superorder Aplotelementaria
		Order Cavibelonia
		Order Sterrofustia
		Superorder Pachytegmentaria
		Order Neomeniamorpha
		Order Pholidoskepia
Phylum Nemertea		
	Class Anopla	
		Order N.N. (e.g., Gorgonorhynchidae)
	Class Enopla	
		Order Monostilifera
		Order Polystilifera
		Class Paleonemertea (e.g., Carinomidae)
Phylum Phoronida		
	Class N.N. (e.g., Phoronis)	
Phylum Platyhelminthes		
Subphylum Catenulidea		
		Order Catenulida
Subphylum Rhabditophora		
	Class Macrostromorpha	
		Order Haplopharyngida
		Order Macrostromida
	Class Neophora	
		Subclass Eulecithophora
		Infraclass Adiaphanida
		Order Fecampiida
		Order Prolecithophora
		Order Tricladida
		Infraclass Rhabdocoela
		Order Dalytyphloplanida
		Order Endoaxonemata
		Order Kalyptorhynchia
		Subclass Neodermata
		Infraclass Cestoda
		Order Amphilinidea
		Order Bothriocephalidea
		Order Caryophyllidea

(Continued)

Table 2. (Continued)

	Order Cyclophyllidea
	Order Diphyllidea
	Order Diphyllbothriidea
	Order Gyrocotyliidea
	Order Lecanicephalidea
	Order Litobothriidea
	Order Proteocephalidea
	Order Pseudophyllidea
	Order Rhinebothriidea
	Order Spathebothriidea
	Order Tetrabothriidea
	Order Tetraphyllidea
	Order Trypanorhyncha
	Infraclass Monogenea
	Order Capsalidea
	Order Chimaericolidea
	Order Dactylogyriidea
	Order Dicybothriidea
	Order Gyrodactylidea
	Order Mazocraeidea
	Order Monocotyliidea
	Order Montchadskyellidea
	Order Polystomatidea
	Infraclass Trematoda
	Order Aspidogastriida
	Order Diplostomida
	Order Plagiorchiida
	Order Stichocotylida
	Class Polycladidea
	Order Lecithoepitheliata
	Order Polycladida
	Subclass Proseriata
	Order Proseriata
Phylum Rotifera	
	Class Eurotatoria
	Subclass Bdelloidea (e.g., Adinetidae)
	Subclass Monogonta
	Order Collothecaceae
	Order Flosculariaceae
	Order Ploima
	Class Pararotatoria
	Order Seisonacea
Phylum Sipuncula	
	Class Phascolosomatidea

(Continued)

Table 2. (Continued)

	Order Aspidosiphoniformes
	Order Phascolosomatiformes
Class	
Sipunculidea	
	Order Golfingiiformes
	Order Sipunculiformes
INFRAKINGDOM	
DEUTEROSTOMIA	
Phylum Chordata	
Subphylum Cephalochordata	
	Order Amphioxiformes
Subphylum Urochordata	
Class Appendicularia	
	Order Copelata
Class Ascidiacea	
	Order Enterogona
	Order Pleurogona
Class Thaliacea	
	Order Doliolida
	Order Pyrosomida
	Order Salpida
Subphylum Vertebrata [= Craniata]	
Infraphylum Agnatha	
Class	
Cephalaspidomorphi	
	Order Petromyzontiformes
Class	
Myxini	
	Order Myxiniformes
Infraphylum Gnathostomata	
Superclass Actinopterygii	
Class	
Chondrostei	
	Order Acipenseriformes
Class Cladistei	
	Order Polypteriformes
Class Holosteii	
	Order Amiiformes
	Order Lepisosteiformes
Class Teleostei	
	Order Acanthuriformes
	Order Albuliformes
	Order Alepocephaliformes
	Order Anabantiformes
	Order Anguilliformes
	Order Argentiniformes
	Order Ateleopodiformes
	Order Atheriniformes
	Order Aulopiformes

(Continued)



Table 2. (Continued)

Order Batrachoidiformes
Order Beloniformes
Order Beryciformes
Order Blenniiformes
Order Carangiformes
Order Centrarchiformes
Order Characiformes
Order Cichliformes
Order Cirrhitiformes
Order Clupeiformes
Order Cypriniformes
Order Cyprinodontiformes
Order Elopiformes
Order Ehippiformes
Order Esociformes
Order Gadiformes
Order Galaxiiformes
Order Gobiiformes
Order Gonorynchiformes
Order Gymnotiformes
Order Hidontiformes
Order Holocentriformes
Order Istiophoriformes
Order Kurtiformes
Order Labriformes
Order Lampridiformes
Order Lepidogalaxiiformes
Order Lobotiformes
Order Lophiiformes
Order Mugiliformes
Order Myctophiformes
Order Notacanthiformes
Order Ophidiiformes
Order Osmeriformes
Order Osteoglossiformes
Order Pempheriformes
Order Perciformes
Order Percopsiformes
Order Pholidichthyiformes
Order Pleuronectiformes
Order Polymixiiformes
Order Salmoniformes
Order Scombriformes
Order Siluriformes
Order Spariformes
Order Stomiatiformes
Order Stylephoriformes
Order Synbranchiformes

(Continued)

Table 2. (Continued)

	Order Syngnathiformes
	Order Terapontiformes
	Order Tetraodontiformes
	Order Uranoscopiformes
	Order Zeiformes
Superclass	
Chondrichthyes	
Class Elasmobranchii	
	Order Carcharhiniformes
	Order Heterodontiformes
	Order Hexanchiformes
	Order Lamniformes
	Order Myliobatiformes
	Order Orectolobiformes
	Order Pristiformes
	Order Pristiophoriformes
	Order Rajiformes
	Order Squaliformes
	Order Squatiniformes
	Order Torpediniformes
Class	
Holocephali	
	Order Chimaeriformes
Superclass Sarcopterygii	
Class	
Coelacanthi	
	Order Coelacanthiformes
Class	
Dipnoi	
	Order Ceratodontiformes
	Order Lepidosirenoformes
Superclass Tetrapoda	
Class Amphibia	
	Order Anura
	Order Caudata
	Order Gymnophiona
Class Mammalia	
	Subclass Prototheria
	Order Monotremata
Subclass Theria	
	Infraclass Eutheria [= Placentalia]
	Order Afrosoricida
	Order Artiodactyla
	Order Carnivora
	Order Cetacea
	Order Chiroptera
	Order Cingulata
	Order Dermoptera
	Order Erinaceomorpha

(Continued)

Table 2. (Continued)

	Order Hyracoidea
	Order Lagomorpha
	Order Macroscelidea
	Order Perissodactyla
	Order Pholidota
	Order Pilosa
	Order Primates
	Order Proboscidea
	Order Rodentia
	Order Scandentia
	Order Sirenia
	Order Soricomorpha
	Order Tubulidentata
	Infraclass Metatheria [= Marsupialia]
	Order Dasyuromorpha
	Order Didelphimorpha
	Order Diprotodontia
	Order Microbiotheria
	Order Notoryctemorphia
	Order Paucituberculata
	Order Peramelemorphia
	Class Reptilia
	Subclass Aves
	Infraclass Neognathae
	Superorder Galloanseri
	Order Anseriformes
	Order Galliformes
	Superorder Neoaves
	Order Accipitriformes
	Order Apodiformes
	Order Bucerotiformes
	Order Caprimulgiformes
	Order Cariamiformes
	Order Charadriiformes
	Order Ciconiiformes
	Order Coliiformes
	Order Columbiformes
	Order Coraciiformes
	Order Cuculiformes
	Order Eurypygiformes
	Order Falconiformes
	Order Gaviiformes
	Order Gruiformes
	Order Leptosomiformes
	Order Mesitornithiformes
	Order Musophagiformes
	Order Opisthocomiformes
	Order Otidiformes

(Continued)

Table 2. (Continued)

	Order Passeriformes
	Order Pelecaniformes
	Order Phaethontiformes
	Order Phoenicopteriformes
	Order Piciformes
	Order Podicipediformes
	Order Procellariiformes
	Order Psittaciformes
	Order Pteroclidiformes
	Order Sphenisciformes
	Order Strigiformes
	Order Suliformes
	Order Trogoniformes
	Infraclass Paleognathae
	Order Apterygiformes
	Order Casuariiformes
	Order Rheiformes
	Order Struthioniformes
	Order Tinamiformes
	Subclass Crocodylomorpha
	Order Crocodylia
	Subclass Rhynchocephalia
	Order Sphenodontida
	Subclass Squamata
	Order Anguimorpha
	Order Gekkota
	Order Inguania
	Order Lacertoidea
	Order Scincoidea
	Order Serpentes
	Subclass Testudinata
	Order Testudines
Phylum Echinodermata	
Subphylum Asterozoa	
Class Asteroidea	
	Order Brisingida
	Order Forcipulatida
	Order Notomyotida
	Order Paxillosida
	Order Peripoda
	Order Spinulosida
	Order Valvatida
	Order Velatida
Class Ophiuroidea	
	Order Euryalida
	Order Ophiurida

(Continued)

Table 2. (Continued)

Subphylum Crinozoa	
	Class Crinoidea
	Order Comatulida
	Order Cyrtocrinida
	Order Hyocrinida
	Order Isocrinida
Subphylum Echinozoa	
	Class Echinoidea
	Subclass Cidaroida
	Order Cidaroida
	Subclass Euechinoidea
	Infraclass N.N.
	Order Echinothurioida
	Infraclass Acroechinoidea
	Order Aspidodiadematoidea
	Order Diadematoidea
	Order Micropygoidea
	Order Pedinoidea
	Infraclass Carinacea
	Order Arbacioidea
	Order Camarodonta
	Order Salenioidea
	Order Stomopneustoida
	Infraclass Irregularia
	Order Cassiduloida
	Order Clypeasteroida
	Order Echinolampadoida
	Order Holasteroida
	Order Spatangoida
	Class Holothuroidea
	Order N.N. ( <i>Thyone</i> )
	Order Apodida
	Order Aspidochirotida
	Order Dendrochirotida
	Order Elasipodida
	Order Molpadida
Phylum Hemichordata	
	Class Enteropneusta (e.g., Harrimaniidae)
	Class Pterobranchia
	Subclass Cephalodiscida ( <i>Cephalodiscus</i> )
	Subclass Graptolithina
	Order Rhabdopleurida
Phylum Xenacoelomorpha	
Subphylum Acoelomorpha	
	Class Acoela (e.g., Diopisthoporidae)

(Continued)

**Table 2.** (Continued)

	Class Nemertodermatida (e.g., Nemertodermatidae)
Subphylum Xenoturbellida	
	Class N.N. (Xenoturbellidae)

Names below rank of infrakingdom are arranged alphabetically within each parent rank, except for taxa that are not named (N.N.). Brackets indicate synonyms. Quoted names are not validly published but in common use.

doi:10.1371/journal.pone.0130114.t002

## Supporting Information

**S1 Table. Proposed hierarchical classification from superkingdom to order.**  
(XLSX)

## Reference

1. Ruggiero MA, Gordon DP, Orrell TM, Bailly N, Bourgoin T, Brusca RC, et al. (2015) A Higher Level Classification of All Living Organisms. PLoS ONE 10(4): e0119248. doi: [10.1371/journal.pone.0119248](https://doi.org/10.1371/journal.pone.0119248) PMID: [25923521](https://pubmed.ncbi.nlm.nih.gov/25923521/)