

Phylum **Phoronida** Hatschek, 1888 (0 class)¹

CLASS (0 order)

Order (0 family)

Family (2 genera, 10 species)

Phoronis Wright, 1856 (7 species)^{2 3}

Phoronopsis Gilchrist, 1907 (3 species)^{2 3}

Cited references

- Emig, C.C. (1985) Phylogenetic systematics in Phoronida (Lophophorata). *Zeitschrift für Zoologische Systematik und Evolutionsforschung*, 23 (3), 184–193.
- Emig, C.C. (2010) Fossil Phoronida and related ichnotaxa. *Carnets de Géologie / Notebooks on Geology*, Note brève / Letter 2010/03 (CG2010_L03), 5 p.
- Emig, C.C., Roldán C. & Viéitez, J. M. (2005) Filo Phoronida. *Fauna Ibérica*, Museo de Ciencias Naturales, CSIC Madrid, 27, 54–56.
- Gilchrist, J.D. (1907) New forms of the Hemichordates from South Africa. *Transactions of the South African Philosophical Society*, 17, 151–176.
- Hatschek, B. (1888) *Lehrbuch der Zoologie*. Gustav Fischer, Jena, 1. Lieferung, 144 pp.
- Wright, T.S. (1856) Description of two tubicolar animals. *Proceedings of the Royal Physical Society of Edinburgh*, 1, 165–167.

Author name and address

Christian C. Emig, BrachNet, 20, Rue Chaix, F – 13007 Marseille France; BrachNet@aliceadsl.fr

-
1. The title of this contribution should be cited as “Phylum Phoronida Hatschek, 1888. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness”.

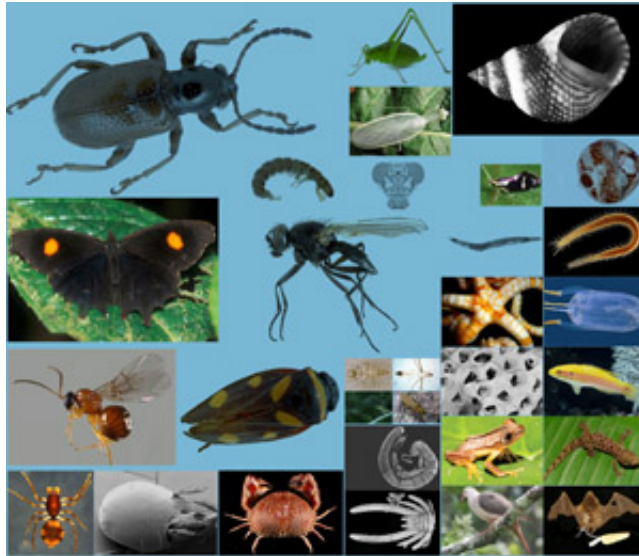
In the hierarchy of the Phoronida, now accepted, no class, order, family have been expressly described and no diagnosis is available. The increase of databases regarding biodiversity tends towards an alteration in classification, because technically the hierarchical fields must be filled. Consequently the tendency is to use the designation family Phoronidae, which has no validity. The proposal of a revision in order to satisfy the Preamble of the ICZN, that is interpreted as requiring the preservation of the hierarchic succession *species* > *genus* > phylum is needed to avoid imbroglia in a group composed of only 10 valid species (Emig, 1985; Emig *et al.*, 2005).

Note: The phoronid larva, which common name is actinotroch, keeps a separate “generic” name considered as a technical term under *Actinotrocha* followed by a “*species*” name which is sometimes still different from the adult species name.

2. See <http://paleopolis.rediris.es/Phoronida/> and <http://www.marinespecies.org/phoronida/>
3. About fossil forms see Emig (2010) and http://paleopolis.rediris.es/Phoronida/SYST/PHORONIDA/Pho_Fossil_EN.html

Special Issue**Free Acrobat Reader**
for viewing PDF files

Animal biodiversity:

An outline of higher-level classification and survey of taxonomic richness**Zootaxa 3148: 1-237 (23 Dec. 2011)**Edited by **ZHI-QIANG ZHANG**ISBN 978-1-86977-849-1 (paperback) [buy this book](#)ISBN 978-1-86977-850-7 (Online edition) [open access](#)*Zootaxa 3148: 1–2 (23 Dec. 2011)***Title & copyright page**[Full article](#) (PDF; 140KB) [open access](#)*Zootaxa 3148: 3–6 (23 Dec. 2011)***Table of contents**[Full article](#) (PDF; 50KB) [open access](#)**Editorial***Zootaxa 3148: 7–12 (23 Dec. 2011)* 44 references**Animal biodiversity: An introduction to higher-level classification and taxonomic richness**

ZHI-QIANG ZHANG

[Full article](#) (PDF; 80KB) [open access](#)**Editorial***Zootaxa 3148: 13–18 (23 Dec. 2011)* 11 references**Phylum Porifera Grant, 1826. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness**

JOHN N.A. HOOPER, ROB W.M. VAN SOEST & ANDRZEJ PISERA

Papers published in
[2001](#), [2002](#),
[2003](#), [2004](#),
[2005](#), [2006](#),
[2007](#), [2008](#),
[2009](#), [2010](#),
[2011](#),List of all papers by [author](#)
and [taxa](#)[Theory & Methods](#)[Featured papers](#)[Highly cited papers](#)[Most accessed papers](#)[Corrigenda](#)[Special offer](#)**Species counts**1,552,319 Animalia
1,242,040 Arthropoda
1,020,007 Insecta
387,100 Coleoptera
159,294 Diptera
157,424 Lepidoptera
113,894 Chelicerata
112,201 Arachnida
66,914 Crustacea
54,617 Acari
43,579 Araneae
24,783 Nematoda
24,276 Orthoptera
19,606 Trilobita
11,885 Myriapoda
.....

[Full article](#) (PDF; 80KB) [open access](#)

Editorial

Zootaxa **3148**: 19–23 (23 Dec. 2011) 28 references

Class Anthozoa Ehrenberg, 1834. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ANDREA L. CROWTHER

[Full article](#) (PDF; 70KB) [open access](#)

Editorial

Zootaxa **3148**: 24–25 (23 Dec. 2011) 12 references

Phylum Xenacoelomorpha Philippe, et al., 2011. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

SETH TYLER & STEPHEN SCHILLING

[Full article](#) (PDF; 40KB) [open access](#)

Editorial

Zootaxa **3148**: 26–38 (23 Dec. 2011) 1 reference

Pisces. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

WILLIAM N. ESCHMEYER & JON D. FONG

[Full article](#) (PDF; 130KB) [open access](#)

Editorial

Zootaxa **3148**: 39–55 (23 Dec. 2011) 233 references

Class Amphibia Gray, 182. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

DAVID C. BLACKBURN & DAVID B. WAKE

[Full article](#) (PDF; 310KB) [open access](#)

Editorial

Zootaxa **3148**: 56–60 (23 Dec. 2011) 1 reference

Class Mammalia Linnaeus, 1758. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

D.E. WILSON & D.M. REEDER

[Full article](#) (PDF; 60KB) [open access](#)

Editorial

Zootaxa **3148**: 61–62 (23 Dec. 2011) 16 references

Order Testudines Batsch, 1788. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

UWE FRITZ

[Full article](#) (PDF; 40KB) [open access](#)

Editorial

Zootaxa **3148**: 63–95 (23 Dec. 2011) 385 references

Phylum Nematoda Cobb 1932. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

MIKE HODDA

[Full article](#) (PDF; 340KB) [open access](#)

Editorial

Zootaxa **3148**: 96–97 (23 Dec. 2011) 10 references

Phylum Tardigrada Doyère, 1840. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ROBERTO GUIDETTI & ROBERTO BERTOLANI

[Full article](#) (PDF; 40KB) [open access](#)

A second volume on **Animal Biodiversity** is planned for 2012 to fill the gaps in this volume. We invite specialists of these taxa not covered in this volume to [join us](#).

All contributions published for open access at Zootaxa's cost.

Editorial

Zootaxa **3148**: 98–98 (23 Dec. 2011) 6 references

Phylum Onychophora Grube, 1853. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

GEORG MAYER & IVO DE SENA OLIVEIRA

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 99–103 (23 Dec. 2011) 48 references

Phylum Arthropoda von Siebold, 1848 In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ZHI-QIANG ZHANG

[Full article](#) (PDF; 90KB) [open access](#)

Editorial

Zootaxa **3148**: 104–109 (23 Dec. 2011) 18 references

Class Trilobita Walch, 1771. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

JONATHAN M. ADRAIN

[Full article](#) (PDF; 90KB) [open access](#)

Editorial

Zootaxa **3148**: 110–111 (23 Dec. 2011) 21 references

Class Pycnogonida Latreille, 1810. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ROGER BAMBER

[Full article](#) (PDF; 40KB) [open access](#)

Editorial

Zootaxa **3148**: 112–114 (23 Dec. 2011) 15 references

Order Opiliones Sundevall, 1833. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ADRIANO B. KURY

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 115–117 (23 Dec. 2011) 8 references

Order Scorpiones C.L. Koch, 1850. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 118–118 (23 Dec. 2011) 3 references

Order Solifugae Sundevall, 1833. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 20KB) [open access](#)

Editorial

Zootaxa **3148**: 119–120 (23 Dec. 2011) 6 references

Order Pseudoscorpiones de Geer, 1778. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

MARK HARVEY

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 121–121 (23 Dec. 2011) 15 references

Order Palpigradi Thorell, 1888. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 122–122 (23 Dec. 2011) 4 references

Order Ricinulei Thorell, 1876. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 20KB) [open access](#)

Editorial

Zootaxa **3148**: 123–128 (23 Dec. 2011) 44 references

Superorder Parasitiformes Reuter, 1909. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

FRÉDÉRIC BEAULIEU, Ashley P.G. Dowling, Hans Klompen, Gilberto J. de Moraes & David Evans Walter

[Full article](#) (PDF; 90KB) [open access](#)

Editorial

Zootaxa **3148**: 129–138 (23 Dec. 2011) 110 references

Order Trombidiformes Reuter, 1909. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ZHI-QIANG ZHANG, QING-HAI FAN, VLADIMIR PESIC, HARRY SMIT, ANDRE V.

BOCHKOV, A. A. KHAUSTOV, ANNE BAKER, ANDREAS WOHLTMANN, TINGHUAN WEN, JAMES W. AMRINE, P. BERON, JIANZHEN LIN, GRZEGORZ GABRYS & ROBERT HUSBAND

[Full article](#) (PDF; 150KB) [open access](#)

Editorial

Zootaxa **3148**: 139–140 (23 Dec. 2011) 7 references

Suborder Endeostigmata Reuter, 1909. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

DAVID EVANS WALTER, SAMUEL BOLTON, MATTI UUSITALO & ZHI-QIANG ZHANG

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 141–148 (23 Dec. 2011) 15 references

Suborder Oribatida van der Hammen, 1968. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

HEINRICH SCHATZ, Valerie M. Behan-Pelletier, Barry M. OConnor & Roy A. Norton

[Full article](#) (PDF; 100KB) [open access](#)

Editorial

Zootaxa **3148**: 149–153 (23 Dec. 2011) 10 references

Order Araneae Clerck, 1757. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

JASON A. DUNLOP & DAVID PENNEY

[Full article](#) (PDF; 70KB) [open access](#)

Editorial

Zootaxa **3148**: 154–154 (23 Dec. 2011) 4 references

Order Amblypygi Thorell, 1883. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 155–155 (23 Dec. 2011) 5 references

Order Thelyphonida Latreille, 1804. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 20KB) [open access](#)

Editorial

Zootaxa **3148**: 156–156 (23 Dec. 2011) 3 references

Order Schizomida Petrunkevitch, 1945. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LORENZO PRENDINI

[Full article](#) (PDF; 20KB) [open access](#)

Editorial

Zootaxa **3148**: 157–158 (23 Dec. 2011) 8 references

Class Chilopoda, Class Symphyla and Class Pauropoda. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ALESSANDRO MINELLI

[Full article](#) (PDF; 40KB) [open access](#)

Editorial

Zootaxa **3148**: 159–164 (23 Dec. 2011) 16 references

Class Diplopoda de Blainville in Gervais, 1844. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

WILLIAM SHEAR

[Full article](#) (PDF; 90KB) [open access](#)

Editorial

Zootaxa **3148**: 165–191 (23 Dec. 2011) 66 references

Subphylum Crustacea Brünnich, 1772. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

SHANE T. AHYONG, JAMES K. LOWRY, MIGUEL ALONSO, ROGER N. BAMBER, GEOFFREY A. BOXSHALL, PETER CASTRO, SARAH GERKEN, GORDAN S. KARAMAN, JOSEPH W. GOY, DIANA S. JONES, KENNETH MELAND, D. CHRISTOPHER ROGERS & JÖRUNDUR SVAVARSSON

[Full article](#) (PDF; 350KB) [open access](#)

Editorial

Zootaxa **3148**: 192–194 (23 Dec. 2011) 34 references

Class Collembola Lubbock, 1870. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

FRANS JANSSENS & KENNETH A. CHRISTIANSEN

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 195–197 (23 Dec. 2011) 20 references

Order Orthoptera Oliver, 1789. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

SIGFRID INGRISCH

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 198–198 (23 Dec. 2011) 3 references

Order Phasmida Leach, 1815. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-

level classification and survey of taxonomic richness

PAUL D. BROCK & JUDITH MARSHALL

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 199–200 (23 Dec. 2011) 7 references

Order Blattodea Brunner von Wattenwyl, 1882. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

GEORGE W. BECCALONI & PAUL EGGLETON

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 201–202 (23 Dec. 2011) 10 references

Order Thysanoptera Haliday, 1836. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

LAURENCE A. MOUND

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 203–208 (23 Dec. 2011) 13 references

Order Coleoptera Linnaeus, 1758. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

S. A. SLIPINSKI, R. A. B. LESCHEN, AND J. F. LAWRENCE

[Full article](#) (PDF; 90KB) [open access](#)

Editorial

Zootaxa **3148**: 209–211 (23 Dec. 2011) 16 references

Order Trichoptera Kirby, 1813. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

RALPH W. HOLZENTHAL, JOHN C. MORSE & KARL M. KJER

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 212–221 (23 Dec. 2011) 61 references

Order Lepidoptera Linnaeus, 1758. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

ERIK J. VAN NIEUKERKEN, LAURI KAILA, IAN J. KITCHING, NIELS P. KRISTENSEN, DAVID C. LEES, JOËL MINET, CHARLES MITTER, MARKO MUTANEN, JEROME C. REGIER, THOMAS J. SIMONSEN, NIKLAS WAHLBERG, SHEN-HORN YEN, REZA ZAHIRI, DAVID ADAMSKI, JOAQUIN BAIXERAS, DANIEL BARTSCH, BENGT Å. BENGTSSON, JOHN W. BROWN, SIBYL RAE BUCHELI, DONALD R. DAVIS, JURATE DE PRINS, WILLY DE PRINS, MARC E. EPSTEIN, PATRICIA GENTILI-POOLE, CEES GIELIS, PETER HÄTTENSCHWILER, AXEL HAUSMANN, JEREMY D. HOLLOWAY, AXEL KALLIES, OLE KARSHOLT, AKITO Y. KAWAHARA, SJAAK (J.C.) KOSTER, MIKHAIL V. KOZLOV, J. DONALD LAFONTAINE, GERARDO LAMAS, JEAN-FRANÇOIS LANDRY, SANGMI LEE, MATTHIAS NUSS, KYU-TEK PARK, CARLA PENZ, JADRANKA ROTA, ALEXANDER SCHINTLMEISTER, B. CHRISTIAN SCHMIDT, JAE-CHEON SOHN, M. ALMA SOLIS, GERHARD M. TARMANN, ANDREW D. WARREN, SUSAN WELLER, ROMAN V. YAKOVLEV, VADIM V. ZOLOTUHIN, ANDREAS ZWICK

[Full article](#) (PDF; 170KB) [open access](#)

Editorial

Zootaxa **3148**: 222–229 (23 Dec. 2011) 31 references

Order Diptera Linnaeus, 1758. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

THOMAS PAPE, VLADIMIR BLAGODEROV & MIKHAIL B. MOSTOVSKI

[Full article](#) (PDF; 110KB) [open access](#)

Editorial

Zootaxa **3148**: 230–230 (23 Dec. 2011) 5 references

Phylum Phoronida Hatschek, 1888. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

CHRISTIAN C. EMIG

[Full article](#) (PDF; 30KB) [open access](#)

Editorial

Zootaxa **3148**: 231–233 (23 Dec. 2011) 29 references

Phylum Rotifera Cuvier, 1817. In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

H. SEGERS

[Full article](#) (PDF; 50KB) [open access](#)

Editorial

Zootaxa **3148**: 234–237 (23 Dec. 2011) 33 references

Phylum Acanthocephala Kohlreuther, 1771 In: Zhang, Z.-Q. (Ed.) Animal biodiversity: An outline of higher-level classification and survey of taxonomic richness

SCOTT MONKS & DENNIS J. RICHARDSON

[Full article](#) (PDF; 80KB) [open access](#)