

# ANNOTATED LIST OF THE NON-MARINE MOLLUSCA OF BRITAIN AND IRELAND

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## Foreword

The following list is based on the list of Anderson (2005) which has appeared in pdf form on the Conchological Society website in various editions up to 2008. An accumulation of changes to accepted names and the appearance of new species in the fauna require an update of the List which is presented below.

The layout is based on the original (2005) list and notes are incorporated as appendices to explain additions and changes within the list since 2008. Established alien species are included in the list but invasives for which evidence of establishment is unclear have been excluded. Some of the latter may appear as accidental or deliberate introductions which are unable to establish in our climatic and edaphic conditions.

We wish to thank Dr Dietrich Kadolsky for generously providing expert comment on some of our findings and for drawing our attention to the work of Wiese & Haack (2019). Many thanks also to Dr R.C. Preece and Fred Naggs for invaluable advice on the status of various Asiatic and hot-house fauna and to Dr. Tom White for commentary and interpretation of the findings of Aksenova *et al.* (2018).

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**CLASS GASTROPODA CUVIER, 1795**

Superfamily NERITOIDEA Rafinesque, 1815

FAMILY NERITIDAE Rafinesque, 1815

Genus *Theodoxus* Montfort, 1810

Subgenus *Theodoxus* Montfort, 1810

*Theodoxus fluviatilis fluviatilis* (Linnaeus, 1758)

GB IRE

Superfamily CYCLOPHOROIDEA Gray, 1847

FAMILY ACICULIDAE J. E. Gray, 1850

Genus *Acicula* W. Hartmann, 1821

*Acicula fusca* (Montagu, 1803)

GB IRE

Superfamily VIVIPAROIDEA J.E. Gray, 1847

FAMILY VIVIPARIDAE J. E. Gray, 1847

Genus *Cipangopaludina* Hannibal, 1912

*Cipangopaludina chinensis* (J.E. Gray, 1833)<sup>1</sup>

GB

Genus *Viviparus* Montfort, 1810

*Viviparus contectus* (Millet, 1813)

GB

*Viviparus viviparus* (Linnaeus, 1758)

GB IRE

Superfamily LITTORINOIDEA Children, 1834

FAMILY POMATIIDAE Newton, 1891 (1828)  
Pomatiasidae auct. partim

Genus *Pomatias* S. Studer, 1789

*Pomatias elegans* (O. F. Müller, 1774) GB IRE

FAMILY BITHYNIIDAE J. E. Gray, 1857

Genus *Bithynia* Leach, 1818

*Bithynia leachii* (Sheppard, 1823) GB IRE

*Bithynia tentaculata* (Linnaeus, 1758) GB IRE

FAMILY COCHLIOPIDAE Tryon, 1866  
Hydrobiidae auct. partim

Genus *Semisalsa* Radoman, 1974<sup>2</sup>

*Semisalsa stagnorum* (Gmelin, 1791) GB

FAMILY TATEIDAE Thiele, 1825

Genus *Potamopyrgus* Stimpson, 1865

*Potamopyrgus antipodarum* (J. E. Gray, 1843) GB IRE  
*jenkinsi* (E. A. Smith, 1889)

FAMILY HYDROBIIDAE Stimpson, 1865

Genus *Hydrobia* W. Hartmann, 1821

*Hydrobia acuta neglecta* Muus, 1963 GB IRE

Genus *Mercuria* Boeters, 1971  
*Pseudamnicola* Paulucci 1878, partim

*Mercuria anatina* (Poiret, 1801)<sup>3</sup> GB IRE  
*confusa* auct. non (Frauenfeld, 1863)

Genus *Peringia* Paladilhe, 1874  
*Hydrobia* W. Hartmann, 1821 partim

*Peringia ulvae* (Pennant, 1777) GB IRE

Genus ***Ecrobia*** Stimpson, 1865<sup>4</sup>  
*Hydrobia* W. Hartmann, 1821 partim

***Ecrobia ventrosa*** (Montagu, 1803) GB IRE

FAMILY BYTHINELLIDAE Locard, 1893

Genus ***Marstoniopsis*** van Regteren Altena, 1936

***Marstoniopsis insubrica*** (Küster, 1853) GB  
*scholtzi* (A. Schmidt, 1856)

FAMILY TRUNCATELLIDAE J. E. Gray, 1840

Genus ***Truncatella*** Risso, 1826

***Truncatella subcylindrica*** (Linnaeus, 1767) GB IRE

FAMILY ASSIMINEIDAE H. & A. Adams, 1856

Genus ***Assiminea*** Fleming, 1828

Subgenus ***Assiminea*** Fleming, 1828

***Assiminea grayana*** Fleming, 1828 GB IRE

Genus ***Paludinella*** L. Pfeiffer, 1841

Subgenus ***Paludinella*** L. Pfeiffer, 1841

***Paludinella globularis*** (Hanley in Thorpe, 1844)<sup>5</sup> GB  
*littorina* auct.

SUPERFAMILY VALVATOIDEA J. E. Gray, 1840

FAMILY VALVATIDAE J. E. Gray, 1840

Genus ***Valvata*** O. F. Müller, 1773

Subgenus ***Cincinna*** Mörch, 1864

***Valvata piscinalis*** (O. F. Müller, 1774) GB IRE

Subgenus ***Tropidina*** H. & A. Adams, 1854

***Valvata macrostoma*** Mörch, 1864 GB

Subgenus ***Valvata*** O. F. Müller, 1773

*Valvata cristata* O. F. Müller, 1774

GB IRE

INFRAClass PULMONATA CUVIER IN BLAINVILLE, 1814

SUPERFAMILY ACROLOXOIDEA Thiele, 1931

FAMILY ACROLOXIDAE Thiele, 1931

Genus *Acroloxus* H. Beck, 1838

*Acroloxus lacustris* (Linnaeus, 1758)

GB IRE

SUPERFAMILY LYMNAEOIDEA Rafinesque, 1815

FAMILY LYMNAEIDAE Rafinesque, 1815

Genus *Ampullaceana* Servain, 1882<sup>6</sup>

*Lymnaea* Lamarck, 1799 partim

*Ampullaceana balthica* (Linnaeus, 1758)

*peregra* sensu auct. Brit.

*ovata* (Draparnaud, 1805)

GB IRE

Genus *Galba* Schrank, 1803

*Lymnaea* Lamarck, 1799 partim

Subgenus *Galba* Schrank, 1803

*Galba truncatula* (O. F. Müller, 1774)

GB IRE

Genus *Ladislavella* B. Dybowski, 1913

*Stagnicola* auct. partim non Jeffreys, 1830

*Catascopia* Meier-Brook & Bargaes, 2002

*Ladislavella catascopium* (Say, 1817)<sup>7</sup>

GB(E)

Genus *Lymnaea* Lamarck, 1799

Subgenus *Lymnaea* Lamarck, 1799

*Lymnaea stagnalis* (Linnaeus, 1758)

GB IRE

Genus *Myxas* Sowerby, 1822

*Myxas glutinosa* (O. F. Müller, 1774) GB IRE

Genus *Omphiscola* Rafinesque, 1819  
*Lymnaea* Lamarck, 1799 partim

*Omphiscola glabra* (O. F. Müller, 1774) GB IRE

Genus *Radix* Montfort, 1810  
*Lymnaea* Lamarck, 1799 partim

*Radix auricularia* (Linnaeus, 1758) GB IRE

Genus *Stagnicola* Jeffreys, 1830

*Stagnicola fuscus* (C. Pfeiffer, 1821) GB IRE

*Stagnicola palustris* (O. F. Müller, 1774) GB

## SUPERFAMILY PLANORBOIDEA Rafinesque, 1815

FAMILY PHYSIDAE Fitzinger, 1833

Genus *Aplexa* Fleming, 1820

*Aplexa hypnorum* (Linnaeus, 1758) GB IRE

Genus *Physa* Draparnaud, 1801

*Physa fontinalis* (Linnaeus, 1758) GB IRE

Genus *Physella* Haldeman, 1842  
*Physa* Draparnaud auct.

*Physella acuta* (Draparnaud, 1805) GB IRE  
*heterostropha* (Say, 1817)

*Physella gyrina* (Say, 1821) GB IRE

FAMILY PLANORBIDAE Rafinesque, 1815

Genus *Ancylus* O. F. Müller, 1773

*Ancylus fluviatilis* O. F. Müller, 1774 GB IRE

Genus *Anisus* S. Studer, 1820  
Subgenus *Anisus* S. Studer, 1820

<i>Anisus leucostoma</i> (Millet, 1813)	GB IRE
<i>Anisus spirorbis</i> (Linnaeus, 1758) <sup>8</sup>	GB IRE
Subgenus <i>Disculifer</i> C. Boettger, 1944	
<i>Anisus vortex</i> (Linnaeus, 1758)	GB IRE
<i>Anisus vorticulus</i> (Troschel, 1834)	GB
Genus <i>Bathyomphalus</i> Charpentier, 1837	
<i>Bathyomphalus contortus</i> (Linnaeus, 1758)	GB IRE
Genus <i>Ferrissia</i> , Walker, 1903	
Subgenus <i>Petancyclus</i> Iredale, 1843	
<i>Ferrissia californica</i> (Rowell, 1863) <sup>9</sup>	GB IRE
<i>fragilis</i> Tryon, 1863	
<i>wautieri</i> Mirolli, 1960	
Genus <i>Gyraulus</i> Charpentier, 1837	
Subgenus <i>Armiger</i> W. Hartmann, 1843	
<i>Gyraulus crista</i> (Linnaeus, 1758)	GB IRE
Subgenus <i>Gyraulus</i> Charpentier, 1837	
<i>Gyraulus acronicus</i> (A. Férussac, 1807)	GB
<i>Gyraulus albus</i> (O. F. Müller, 1774)	GB IRE
Subgenus <i>Torquis</i> Dall, 1905	
<i>Gyraulus laevis</i> (Alder, 1838)	GB IRE
Genus <i>Hippeutis</i> Charpentier, 1837	
<i>Hippeutis complanatus</i> (Linnaeus, 1758)	GB IRE
Genus <i>Menetus</i> H. & A. Adams, 1855	
Subgenus <i>Dilatata</i> Clessin, 1885	
<i>Menetus dilatatus</i> (Gould, 1841)	GB
Genus <i>Planorbarius</i> Duméril, 1806	
<i>Planorbarius corneus corneus</i> (Linnaeus, 1758)	GB IRE
Genus <i>Planorbis</i> O. F. Müller, 1773	
<i>Planorbis planorbis</i> (Linnaeus, 1758)	GB IRE
<i>Planorbis carinatus</i> O. F. Müller, 1774	GB IRE

Genus *Segmentina* Fleming, 1818

*Segmentina nitida* (O. F. Müller, 1774)

GB

SUPERFAMILY OTINOIDEA H. & A. Adams, 1855

FAMILY OTINIDAE H. & A. Adams, 1855

Genus *Otina* J. E. Gray, 1847

*Otina ovata* (T. Brown, 1827)

GB IRE

SUPERFAMILY ELLOBIOIDEA L. Pfeiffer, 1854 (1822)

FAMILY CARYCHIIDAE Jeffreys, 1830

Genus *Carychium* O. F. Müller, 1773

*Carychium minimum* O. F. Müller, 1774

GB IRE

*Carychium tridentatum* (Risso, 1826)

GB IRE

FAMILY ELLOBIIDAE L. Pfeiffer, 1854 (1822)

Genus *Leucophytia* Winckworth, 1949

*Leucophytia bidentata* (Montagu, 1808)

GB IRE

Genus *Myosotella* Monterosato, 1906<sup>10</sup>

*Ovatella* Bivona, 1832 partim

*Myosotella denticulata* (Montagu, 1803)

GB IRE

*Myosotella myosotis* (Draparnaud, 1801)

GB IRE

SUPERFAMILY ONCHIDIOIDEA Rafinesque, 1815

FAMILY ONCHIDIIDAE Rafinesque, 1815



Genus *Onchidella* J. E. Gray, 1850

*Onchidella celtica* (Cuvier, 1817) GB

SUPERFAMILY SUCCINEOIDEA H. Beck, 1837

FAMILY SUCCINEIDAE H. Beck, 1837

Genus *Oxyloma* Westerlund, 1885

Subgenus *Oxyloma* Westerlund, 1885

*Oxyloma elegans elegans* (Risso, 1826) GB IRE  
*pfeifferi* (Rossmässler, 1835)

*Oxyloma sarsii* (Esmark, 1886) GB IRE  
*elegans* auct. Brit. non (Risso, 1826)  
*sarsi* auct.

Genus *Quickella* C. Boettger, 1939

*Catinella* Odhner, 1950 partim

*Quickella arenaria* (Potiez & Michaud, 1838) GB IRE

Genus *Succinea* Draparnaud, 1801

*Succinea putris* (Linnaeus, 1758) GB IRE

Genus *Succinella* J. Mabile, 1871

*Succinea* Draparnaud, 1801 partim

*Succinella oblonga* (Draparnaud, 1801) GB IRE

SUPERFAMILY PUPILLOIDEA Turton, 1831

FAMILY COCHLICOPIDAE Pilsbry, 1900 (1879)

Genus *Azeca* Fleming, 1828

*Azeca goodalli* (A. Férussac, 1821) GB

Genus *Cochlicopa* A. Férussac 1821

*Cochlicopa* cf. *lubrica* (O. F. Müller, 1774) GB IRE

*Cochlicopa* cf. *lubricella* (Porro, 1838) GB IRE

FAMILY CHONDRINIDAE Steenberg, 1925

Genus *Abida* Turton, 1831

*Abida secale secale* (Draparnaud, 1801) GB

Genus *Granaria* Held, 1838

*Granaria frumentum illyrica* (Rossmässler, 1835)<sup>11</sup> GB

FAMILY LAURIIDAE Steenberg, 1925

Genus *Lauria* J. E. Gray, 1840

Subgenus *Lauria* J. E. Gray, 1840

*Lauria cylindracea* (Da Costa, 1778) GB IRE

*Lauria sempronii* (Charpentier, 1837) GB

Genus *Leiostyla* R. T. Lowe, 1852

Subgenus *Leiostyla* R. T. Lowe, 1852

*Leiostyla anglica* (A. Férussac, 1821) GB IRE

FAMILY PUPILLIDAE Turton, 1831

Genus *Pupilla* Fleming, 1828

Subgenus *Pupilla* Fleming, 1828

*Pupilla muscorum* (Linnaeus, 1758) GB IRE

*Pupilla alpicola* (Charpentier, 1837)<sup>12</sup> GB IRE  
*pratensis* (Clessin, 1871)

FAMILY PYRAMIDULIDAE Kennard & Woodward, 1914

Genus *Pyramidula* Fitzinger, 1833

*Pyramidula umbilicata* (Montagu, 1803)<sup>13</sup> GB IRE  
*pusilla* auct.

FAMILY VALLONIIDAE Morse, 1864

Genus *Acanthinula* H. Beck, 1847

*Acanthinula aculeata* (O. F. Müller, 1774) GB IRE

Genus *Spermodea* Westerlund, 1903

*Spermodea lamellata* (Jeffreys, 1830) GB IRE

Genus *Vallonia* Risso, 1826

*Vallonia costata* (O. F. Müller, 1774) GB IRE

*Vallonia* cf. *excentrica* Sterki, 1893 GB IRE

*Vallonia pulchella* (O. F. Müller, 1774) GB IRE

FAMILY VERTIGINIDAE Fitzinger, 1833

Genus *Columella* Westerlund, 1878

*Columella aspera* Waldén, 1966 GB IRE

*Columella edentula* (Draparnaud, 1805) GB IRE

Genus *Truncatellina* R. T. Lowe, 1852

*Truncatellina callicratis* (Scacchi, 1833) GB

*Truncatellina cylindrica* (A. Férussac, 1807) GB

Genus *Vertigo* O. F. Müller, 1773

Subgenus *Vertigo* O. F. Müller, 1773

*Vertigo alpestris* Alder, 1838 GB

*Vertigo arctica* (Wallenberg, 1858)<sup>14</sup> GB

*Vertigo antivertigo* (Draparnaud, 1801) GB IRE

*Vertigo genesii* (Gredler, 1856) GB

*Vertigo geyeri* Lindholm, 1925 GB IRE

*Vertigo lilljeborgi* (Westerlund, 1871) GB IRE

*Vertigo moulinsiana* (Dupuy, 1849) GB IRE

*Vertigo pusilla* O. F. Müller, 1774 GB IRE

*Vertigo pygmaea* (Draparnaud, 1801) GB IRE

*Vertigo substriata* (Jeffreys, 1833) GB IRE

Subgenus *Vertilla* Moquin-Tandon, 1856

*Vertigo angustior* Jeffreys, 1830 GB IRE

SUPERFAMILY ENOIDEA Woodward, 1903 (1880)

FAMILY ENIDAE Woodward, 1903 (1880)

Genus *Ena* Turton, 1831

*Ena montana* (Draparnaud, 1801) GB

Genus *Merdigera* Held, 1838

*Ena* Turton, 1831 auct.

*Merdigera obscura* (O. F. Müller, 1774) GB IRE

SUPERFAMILY CLAUSILIOIDEA J. E. Gray, 1855

FAMILY CLAUSILIIDAE J. E. Gray, 1855

Genus *Alinda* H. & A. Adams, 1855

*Alinda biplicata biplicata* (Montagu, 1803) GB

Genus *Balea* J. E. Gray, 1824

Subgenus *Balea* J. E. Gray, 1824

*Balea perversa* (Linnaeus, 1758) GB IRE

*Balea heydeni* von Maltzan, 1881<sup>15</sup> GB IRE

Genus *Clausilia* Draparnaud, 1805

Subgenus *Clausilia* Draparnaud, 1805

*Clausilia bidentata bidentata* (Ström, 1765) GB IRE

Subgenus *Andraea* L. Pfeiffer, 1848

*Clausilia dubia dubia* Draparnaud, 1805 GB

*Clausilia dubia suttoni* Westerlund, 1881 GB

Genus *Cochlodina* A. Férussac, 1821

Subgenus *Cochlodina* A. Férussac, 1821

*Cochlodina laminata* (Montagu, 1803) GB IRE

Genus *Macrogastra* W. Hartmann, 1841

Subgenus *Pseudovestia* Nordsieck, 1977

*Macrogastra rolphi* (Turton, 1826) GB

Genus *Papillifera* W. Hartmann, 1842

*Papillifera papillaris* (O.F. Müller, 1774)<sup>16</sup> GB

*bidens* auct. non (Linnaeus, 1758)

SUPERFAMILY ACHATINOIDEA Swainson, 1840

FAMILY FERUSSACIIDAE Bourguignat, 1883

Genus *Cecilioides* A. Férussac, 1814

Subgenus *Cecilioides* A. Férussac, 1814

*Cecilioides acicula* (O. F. Müller, 1774)

GB IRE

SUPERFAMILY TESTACELLOIDEA J. E. Gray, 1840

FAMILY TESTACELLIDAE J. E. Gray, 1840

Genus *Testacella* Cuvier, 1800

Subgenus *Testacella* Cuvier, 1800

*Testacella haliotidea* Draparnaud, 1801

GB IRE

*Testacella maugei* A. Férussac, 1819

GB IRE

*Testacella scutulum* Sowerby, 1820

GB

*Testacella* sp. “*tenuipenis*”<sup>17</sup>

GB IRE

SUPERFAMILY PUNCTOIDEA J. E. Gray, 1840

FAMILY DISCIDAE Thiele, 1931 (1866)

Genus *Discus* Fitzinger, 1833

Subgenus *Gonyodiscus* Fitzinger, 1833

*Discus rotundatus rotundatus* (O. F. Müller, 1774)

GB IRE

FAMILY HELICODISCIDAE H. B. Baker, 1927

Genus *Lucilla* R. T. Lowe, 1852

*Helicodiscus* Morse, 1864 partim

*Hebetodiscus* H. B. Baker, 1929

*Lucilla singleyana* (Pilsbry, 1889) GB

FAMILY PUNCTIDAE Morse, 1864

Genus *Paralaoma* Iredale, 1913

*Paralaoma servilis* (Shuttleworth, 1852) GB

*caputspinulae* (Reeve, 1852)

*micropleuros* (Paget, 1854)

*pusilla* R. T. Lowe, 1831 non Vallot, 1801

Genus *Punctum* Morse, 1864

Subgenus *Punctum* Morse, 1864

*Punctum pygmaeum* (Draparnaud, 1801) GB IRE

SUPERFAMILY GASTRODONTOIDEA Tryon, 1866

FAMILY EUCONULIDAE H. B. Baker, 1928

Genus *Euconulus* Reinhardt, 1883

Subgenus *Euconulus* Reinhardt, 1883

*Euconulus alderi* (J. E. Gray, 1840)<sup>18</sup> GB IRE

*Euconulus fulvus* (O. F. Müller, 1774) GB IRE

FAMILY GASTRODONTIDAE Tryon, 1866

Genus *Zonitoides* Lehmann, 1862

Subgenus *Zonitoides* Lehmann, 1862

*Zonitoides arboreus* (Say, 1817)<sup>19</sup> GB IRE

*Zonitoides excavatus* (Alder, 1830) GB IRE

*Zonitoides nitidus* (O. F. Müller, 1774) GB IRE

FAMILY OXYCHILIDAE P. Hesse, 1927 (1879)

Genus *Aegopinella* Lindholm, 1927

*Aegopinella pura* (Alder, 1830) GB IRE

*Aegopinella nitidula* (Draparnaud, 1805) GB IRE

Genus <i>Daudebardia</i> W. Hartmann, 1821	
<i>Daudebardia rufa</i> (Draparnaud, 1805) <sup>20</sup>	GB
Genus <i>Selenochlamys</i> O. Boettger, 1883	
<i>Selenochlamys ysbryda</i> Rowson & Symondson, 2008 <sup>21</sup>	GB
Genus <i>Nesovitrea</i> C. M. Cooke, 1921	
Subgenus <i>Perpolita</i> H. B. Baker, 1928	
<i>Nesovitrea hammonis</i> (Ström, 1765)	GB IRE
Genus <i>Oxychilus</i> Fitzinger, 1833	
Subgenus <i>Oxychilus</i> Fitzinger, 1833	
<i>Oxychilus alliarius</i> (J. S. Miller, 1822)	GB IRE
<i>Oxychilus cellarius</i> (O. F. Müller, 1774)	GB IRE
<i>Oxychilus draparnaudi</i> (H. Beck, 1837)	GB IRE
<i>Oxychilus navarricus helveticus</i> (Blum, 1881)	GB IRE
FAMILY PRISTILOMATIDAE T. Cockerell, 1891	
Genus <i>Vitrea</i> Fitzinger, 1833	
<i>Vitrea contracta</i> (Westerlund, 1871)	GB IRE
<i>Vitrea crystallina</i> (O. F. Müller, 1774)	GB IRE
<i>Vitrea subrimata</i> (Reinhardt, 1871)	GB
SUPERFAMILY PARMACELLOIDEA P. Fischer, 1856 (1855)	
FAMILY MILACIDAE Ellis, 1926	
Genus <i>Milax</i> J. E. Gray, 1855	
<i>Milax gagates</i> (Draparnaud, 1801)	GB IRE
Genus <i>Tandonia</i> Lessona & Pollonera, 1882	
<i>Milax</i> J. E. Gray, 1855 partim	
<i>Tandonia budapestensis</i> (Hazay, 1880)	GB IRE
<i>Tandonia</i> cf. <i>cristata</i> (Kaleniczenko, 1851) <sup>22</sup>	GB IRE

*Tandonia rustica* (Millet, 1843) GB IRE  
*Tandonia sowerbyi* (A. Férussac, 1823) GB IRE

SUPERFAMILY LIMACOIDEA Lamarck, 1801

FAMILY AGRILIMACIDAE H. Wagner, 1935

Genus *Deroceras* Rafinesque, 1820

Subgenus *Deroceras* Rafinesque, 1820

*Deroceras agreste* (Linnaeus, 1758) GB IRE  
*Deroceras laeve* (O. F. Müller, 1774) GB IRE  
*Deroceras invadens* Reise, Hutchinson, Schunack & Schlitt, 2011<sup>23</sup> GB IRE  
*panormitanum* auct. non (Lesson & Pollonera, 1882)  
*caruanae* (Pollonera, 1891)  
*Deroceras panormitanum* (Lesson & Pollonera, 1882)<sup>24</sup> GB IRE  
*Deroceras reticulatum* (O. F. Müller, 1774) GB IRE

FAMILY BOETTGERILLIDAE Wiktor & I. M. Likharev, 1979

Genus *Boettgerilla* Simroth, 1910

*Boettgerilla pallens* Simroth, 1912 GB IRE

FAMILY LIMACIDAE Lamarck, 1801

Genus *Ambigolimax* Pollonera, 1887<sup>25</sup>

*Lehmannia* Heynemann, 1863 partim

*Ambigolimax nyctelius* (Bourguignat, 1861) GB IRE  
*Ambigolimax valentianus* (A. Férussac, 1822) GB IRE

Genus *Lehmannia* Heynemann, 1863

*Limax* Linnaeus, 1758 partim

*Lehmannia marginata* (O. F. Müller, 1774) GB IRE

Genus *Limacus* Lehmann, 1864

*Limax* Linnaeus, 1758 partim

*Limacus flavus* (Linnaeus, 1758) GB IRE  
*Limacus maculatus* (Kaleniczenko, 1851) GB IRE



*pseudoflavus* (Evans, 1978)

Genus *Limax* Linnaeus, 1758

- Limax cinereoniger* Wolf, 1803 GB IRE  
*Limax* cf. *dacampi* Menegazzi, 1854<sup>26</sup> GB  
*Limax maximus* Linnaeus, 1758 GB IRE

Genus *Malacolimax* Malm, 1868

- Malacolimax tenellus* (O. F. Müller, 1774) GB

FAMILY VITRINIDAE Fitzinger, 1833

Genus *Phenacolimax* Stabile, 1859

- Phenacolimax major* (A. Férussac, 1807) GB

Genus *Semilimax* Stabile, 1859

- Semilimax pyrenaicus* (A. Férussac, 1821) IRE

Genus *Vitrina* Draparnaud, 1801

- Vitrina pellucida* (O. F. Müller, 1774) GB IRE

SUPERFAMILY ARIONOIDEA J.E. Gray, 1840

FAMILY ARIONIDAE J. E. Gray, 1840

Genus *Arion* A. Férussac, 1819

Subgenus *Arion* A. Férussac, 1819

- Arion ater* (Linnaeus, 1758) GB IRE  
*Arion flagellus* Collinge, 1893 GB IRE  
*lusitanicus* auct. Brit. non J. Mabilie, 1868  
*Arion rufus* (Linnaeus, 1758) GB IRE  
*Arion* sp. "Davies"<sup>27</sup> GB  
*Arion vulgaris* Moquin-Tandon, 1855 GB IRE  
*lusitanicus* auct. non J. Mabilie, 1868

Subgenus *Mesarion* P. Hesse, 1926

*Arion fuscus* (O. F. Müller, 1774) GB  
*Arion* cf. *iratii* Garrido, Castillejo & Iglesias, 1995<sup>28</sup> GB  
*Arion subfuscus* (Draparnaud, 1805) GB IRE

Subgenus *Carinarion* P. Hesse, 1926

*Arion circumscriptus circumscriptus* Johnston, 1828 GB IRE  
*Arion circumscriptus silvaticus* Lohmander, 1937 GB IRE  
*Arion fasciatus* (Nilsson 1823) GB IRE

Subgenus *Kobeltia* Seibert, 1873

*Arion distinctus* J. Mabille, 1868 GB IRE  
*hortensis* auct. non A. Férussac, 1819  
*Arion* cf. *fagophilus* de Winter, 1986<sup>29</sup> GB  
*Arion hortensis* A. Férussac, 1819 GB IRE  
*Arion intermedius* Normand, 1852 GB IRE  
*Arion occultus* Anderson, 2004 IRE  
*Arion owenii* Davies, 1979 GB IRE  
*hortensis* auct. non A. Férussac, 1819

Genus *Geomalacus* Allman, 1843

Subgenus *Geomalacus* Allman, 1843

*Geomalacus maculosus* Allman, 1843 IRE

## SUPERFAMILY HELICOIDEA Rafinesque, 1815

FAMILY CAMAENIDAE Pilsbry, 1891<sup>30</sup>

Bradybaenidae Pilsbry, 1934 (1898)

Genus *Fruticicola* Held, 1838

*Fruticicola fruticum* (O. F. Müller, 1774) GB(E)

FAMILY HELICIDAE Rafinesque, 1815

Genus *Arianta* Turton, 1831

*Arianta arbustorum arbustorum* (Linnaeus, 1758) GB IRE

Genus *Cepaea* Held, 1838

Subgenus *Cepaea* Held, 1838

*Cepaea nemoralis nemoralis* (Linnaeus, 1758) GB IRE

*Cepaea hortensis* (O. F. Müller, 1774) GB IRE

Genus *Cornu* Born, 1778

*Helix* Linnaeus, 1758 partim

*Cantareus* Risso, 1826 partim

*Cryptomphalus* Charpentier, 1837

*Cornu aspersum* (O. F. Müller, 1774) GB IRE

Genus *Helicigona* A. Férussac, 1821

*Helicigona lapicida lapicida* (Linnaeus, 1758) GB IRE

Genus *Helix* Linnaeus, 1758

Subgenus *Helix* Linnaeus, 1758

*Helix lucorum* Linnaeus, 1758<sup>31</sup> GB

*Helix pomatia* Linnaeus, 1758 GB

Genus *Theba* Risso, 1826

*Theba pisana pisana* (O. F. Müller, 1774) GB IRE

FAMILY HELICODONTIDAE Kobelt, 1904

Genus *Helicodonta* A. Férussac, 1821

*Helicodonta obvoluta obvoluta* (O. F. Müller, 1774) GB

FAMILY GEOMITRIDAE Boettger, 1909<sup>32</sup>

Genus *Backeljaia* Chueca *et al.*, 2018

*Candidula* auct. partim

*Backeljaia gigaxii* (L. Pfeiffer, 1848) GB IRE

FAMILY HYGROMIIDAE Tryon, 1866

Genus *Ashfordia* J. W. Taylor, 1917

*Ashfordia granulata* (Alder, 1830) GB IRE

Genus *Cernuella* Schlüter, 1838

	Subgenus <i>Cernuella</i> Schlüter, 1838	
<i>Cernuella aginnica</i> (Locard, 1894)		GB
<i>Cernuella virgata</i> (Da Costa, 1778)		GB IRE
	Subgenus <i>Xerocincta</i> Monterosato, 1892	
<i>Cernuella neglecta</i> (Draparnaud, 1805)		GB(E)
	Genus <i>Cochlicella</i> A. Férussac, 1821	
	Subgenus <i>Cochlicella</i> A. Férussac, 1821	
<i>Cochlicella acuta</i> (O. F. Müller, 1774)		GB IRE
	Subgenus <i>Prietocella</i> Schileyko & Menkhorst, 1997	
<i>Cochlicella barbara</i> (Linnaeus, 1758)		GB
	Genus <i>Helicella</i> A. Férussac, 1821	
<i>Helicella itala itala</i> (Linnaeus, 1758)		GB IRE
	Genus <i>Hygromia</i> Risso, 1826	
	Subgenus <i>Hygromia</i> Risso, 1826	
<i>Hygromia cinctella</i> (Draparnaud, 1801)		GB IRE
	Subgenus <i>Riedelia</i> Schileyko, 1972	
<i>Hygromia limbata limbata</i> (Draparnaud, 1805)		GB
	Genus <i>Monacha</i> Fitzinger, 1833	
	Subgenus <i>Monacha</i> Fitzinger, 1833	
<i>Monacha cantiana</i> (Montagu, 1803)		GB
<i>Monacha cartusiana</i> (O. F. Müller, 1774)		GB
<i>Monacha ocellata</i> (Roth, 1839) <sup>33</sup>		GB
	Genus <i>Ponentina</i> P. Hesse, 1921	
<i>Ponentina subvirescens</i> (Bellamy, 1839)		GB
	Genus <i>Pseudotrichia</i> Schileyko, 1970	
	<i>Perforatella</i> Schlüter, 1838 partim	
<i>Pseudotrichia rubiginosa</i> (Rossmässler, 1838)		GB
	Genus <i>Trochoidea</i> Brown, 1827	
	Subgenus <i>Trochoidea</i> Brown, 1827	
<i>Trochoidea elegans</i> (Gmelin, 1791)		GB

Genus *Trochulus* Chemnitz, 1786

*Trichia* W. Hartmann 1840 non de Haan, 1839 [Crustacea Brachyura]

- Trochulus hispidus* (Linnaeus, 1758)<sup>34</sup> GB IRE  
*sericeus* auct. non (Müller, 1774)
- Trochulus striolatus* (C. Pfeiffer, 1828) GB IRE

Genus *Xeroplexa* Monterosato, 1892<sup>35</sup>

*Candidula* auct. partim

- Xeroplexa intersecta* (Poiret, 1801) GB IRE
- Xeroplexa olisippensis* (Servain, 1880)<sup>36</sup> GB

Genus *Zenobiellina* Holyoak, D.T. & Holyoak, G.A., 2018<sup>37</sup>

*Zenobiella* Gude & Woodward, 1921

*Perforatella* Schlüter 1838 partim

- Zenobiellina subrufescens* (J. S. Miller, 1822) GB IRE

**CLASS BIVALVIA LINNAEUS, 1758**

SUPERFAMILY UNIONOIDEA Rafinesque, 1820

FAMILY MARGARITIFERIDAE Henderson, 1929 (1910)

Genus *Margaritifera* Schumacher, 1815

Subgenus *Margaritifera* Schumacher, 1815

- Margaritifera margaritifera* (Linnaeus, 1758) GB IRE

FAMILY UNIONIDAE Rafinesque, 1820

Genus *Anodonta* Lamarck, 1799

Subgenus *Anodonta* Lamarck, 1799

- Anodonta anatina* (Linnaeus, 1758) GB IRE
- Anodonta cygnea* (Linnaeus, 1758) GB IRE

Genus *Pseudanodonta* Bourguignat, 1877

*Pseudanodonta complanata* (Rossmässler, 1835) GB

Genus *Unio* Philipsson, 1788

Subgenus *Unio* Philipsson, 1788

*Unio pictorum* (Linnaeus, 1758) GB

*Unio tumidus* Retzius, 1788 GB

#### SUPERFAMILY CYRENOIDEA J.E. Gray, 1840

FAMILY CYRENIDAE J. E. Gray, 1847<sup>38</sup>

Corbiculidae J. E. Gray, 1847

Genus *Corbicula* von Mühlfeld, 1811

*Corbicula fluminea* (O. F. Müller, 1774) GB

#### SUPERFAMILY DREISSENOIDEA J.E. Gray, 1840

FAMILY DRESSENIDAE J. E. Gray, 1840

Genus *Dreissena* Van Beneden, 1835

Subgenus *Dreissena* Van Beneden, 1835

*Dreissena polymorpha* (Pallas, 1771) GB IRE

*Dreissena rostriformis bugensis* Andrusov, 1897<sup>39</sup> GB

Genus *Mytilopsis* Conrad, 1858

*Mytilopsis leucophaeata* (Conrad, 1831) GB

FAMILY MACTRIDAE Lamarck, 1809

Genus *Rangia* Desmoulins, 1832

*Rangia cuneata* (G.B. Sowerby I, 1832)<sup>40</sup> GB

SUPERFAMILY SPHAERIOIDEA Deshayes, 1855

FAMILY SPHAERIIDAE Deshayes, 1855 (1820)

Genus *Euglesa* Jenyns, 1832<sup>41</sup>  
*Pisidium*, partim

<i>Euglesa casertana</i> (Poli, 1791)	GB IRE
<i>Euglesa conventus</i> (Clessin, 1877)	GB IRE
<i>Euglesa henslowana</i> (Sheppard, 1823)	GB IRE
<i>Euglesa hibernica</i> (Westerlund, 1894)	GB IRE
<i>Euglesa lilljeborgii</i> (Clessin, 1886)	GB IRE
<i>Euglesa milium</i> (Held, 1836)	GB IRE
<i>Euglesa nitida</i> Jenyns, 1832)	GB IRE
<i>Euglesa obtusalis</i> (Lamarck, 1818)	GB IRE
<i>Euglesa personata</i> (Malm, 1855)	GB IRE
<i>Euglesa pseudosphaerium</i> (J. Favre, 1927)	GB IRE
<i>Euglesa pulchella</i> (Jenyns, 1832)	GB IRE
<i>Euglesa subtruncata</i> (Malm, 1855)	GB IRE
<i>Euglesa supina</i> (A. Schmidt, 1851)	GB

Genus *Odhneripisidium* Kuiper, 1962<sup>41</sup>  
*Pisidium*, partim

<i>Odhneripisidium moitessierianum</i> (Paladilhe, 1866)	GB IRE
<i>Odhneripisidium tenuilineatum</i> (Stelfox, 1918)	GB

Genus *Pisidium* C. Pfeiffer, 1821

<i>Pisidium amnicum</i> (O. F. Müller, 1774)	GB IRE
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Genus *Sphaerium* Scopoli, 1777

<i>Sphaerium corneum</i> (Linnaeus, 1758)	GB IRE
<i>Sphaerium lacustre</i> (O. F. Müller, 1774) <sup>42</sup>	GB IRE
<i>Sphaerium nucleus</i> (S. Studer, 1820)	GB IRE
<i>Sphaerium rivicola</i> (Lamarck, 1818)	GB
<i>Sphaerium solidum</i> (Normand, 1844)	GB

*Sphaerium transversum* (Say, 1829)<sup>42</sup>

GB

## HOTHOUSE ALIENS

### CLASS GASTROPODA CUVIER, 1795

SUPERFAMILY CERITHIOIDEA J. Fleming, 1822

FAMILY THIARIDAE Gill, 1871 (1823)

Genus *Melanoides* Olivier, 1804

*Melanoides tuberculata* (O. F. Müller, 1774)

GB IRE

INFRAClass PULMONATA CUVIER IN BLAINVILLE, 1814

SUPERFAMILY LYMNAEOIDEA Rafinesque, 1815

FAMILY LYMNAEIDAE Rafinesque 1815

Genus *Radix* Montfort 1810

*Radix rubiginosa* (Michelin, 1831)

GB IRE

SUPERFAMILY PLANORBOIDEA Rafinesque, 1815

FAMILY PLANORBIDAE Rafinesque, 1815

Genus *Gyraulus* Charpentier, 1837

Subgenus *Gyraulus* Charpentier, 1837

*Gyraulus chinensis* (Dunker, 1848)

GB IRE



Genus *Planorbella* Haldeman, 1843

*Planorbella duryi* (Wetherby, 1879)

GB IRE

SUPERFAMILY PUNCTOIDEA J. E. Gray, 1840

FAMILY HELICODISCIDAE H. B. BAKER, 1927

Genus *Helicodiscus* Morse, 1864

*Helicodiscus parallelus* (Say, 1821)

GB IRE

SUPERFAMILY PUPILLOIDEA Turton, 1831

FAMILY PLEURODISCIDAE Wenz, 1923

Genus *Pleurodiscus* Wenz 1919

*Pleurodiscus balmei* (Potiez & Michaud, 1835)

GB IRE

SUPERFAMILY GASTRODONTOIDEA Tryon, 1866

FAMILY PRISTILOMATIDAE T. Cockerell, 1891

Genus *Hawaiiia* Gude, 1911

*Hawaiiia minuscula* (Binney, 1841)

GB IRE

SUPERFAMILY ACHATINOIDEA Swainson, 1840

FAMILY ACHATINIDAE Swainson, 1840

Genus *Allopeas* H. B. Baker, 1935

*Lamellaxis* Strebel & Pfeffer, 1882 partim

*Allopeas clavulinum* (Potiez & Michaud, 1838)

GB IRE

<i>Allopeas gracile</i> (Hutton, 1834) <sup>43</sup>	GB
Genus <i>Opeas</i> Albers, 1850	
<i>Opeas hannense</i> (Rang 1831)	GB IRE
<i>pumilum</i> (L. Pfeiffer, 1840)	
<i>hannensis</i> auct.	
Genus <i>Rumina</i> Risso, 1826	
<i>Rumina decollata</i> (Linnaeus, 1758)	GB
Genus <i>Subulina</i> H. Beck, 1837	
<i>Subulina octona</i> (Bruguière, 1789)	GB IRE
<i>Subulina striatella</i> (Rang, 1831) <sup>44</sup>	GB

#### SUPERFAMILY HELICARIONOIDEA Bourguignat, 1877

##### FAMILY CHRONIDAE Thiele, 1931

##### Genus *Kaliella* Blanford, 1863

<i>Kaliella barrakporensis</i> (L. Pfeiffer, 1852) <sup>45</sup>	GB
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#### SUPERFAMILY STREPTAXOIDEA J.E. GRAY, 1860

##### FAMILY STREPTAXIDAE J. E. Gray, 1860

##### Genus *Gulella* L. Pfeiffer, 1856

<i>Gulella io</i> Verdcourt, 1974	GB
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##### Genus *Streptostele* Dohrn, 1866

<i>Streptostele musaecola</i> (Morelet, 1860) <sup>46</sup>	GB
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## Notes:

1. *Cipangopaludina chinensis* is native to south-east Asia and is one of several allied species on sale for aquarium or pond use, mostly to control algae. A population appears to have established in ditches at the Pevensey Levels in East Sussex (Rowson, 2019). Being an invasive alien with a history of displacing native fauna elsewhere, the Pevensey population has attracted the attention of the GB Non-native Species Secretariat (Willing & Jones, in press). Whether or not it can be controlled or removed, it is included here.
2. The genus containing this species was formerly *Heleobia* Stimpson, 1865, which has as its type species the South American *H. culminea* (D'Orbigny, 1838). However, Kroll *et al.* (2012) have suggested that *Heleobia* may not be monophyletic with regard to European species such as *H. stagnorum*. In that event a new genus is required. MolluscaBase (2020) have accepted *Semisalsa* Radoman, 1974 although Kadolsky mentions *Eupaludestrina* Mabilie, 1877 as a possible candidate which has date priority. *Semisalsa* is accepted here and by Willing & Rowson (2020), at least until the validity of *Eupaludestrina* is clarified or established.
3. *Mercuria anatina* Poiret. According to Boeters & Falkner (2017), *Amnicola confusa* Frauenfeld, 1863 (= *M. similis* Draparnaud, 1805, used in earlier lists) is considered a Mediterranean species, while *M. anatina* is the correct name for the species of the Netherlands. However, these authors did not refer specifically to GB and Ireland, so there may still a small doubt about the name to be applied there.
4. Davis *et al.* (1989) suggested that the North American *Hydrobia truncata* (Vanatta, 1924), the type species of *Ecrobia*, was introduced from Europe and would then be a synonym of *H. ventrosa* which is representative of *Ventrosia* Radoman, 1977. Davis *et al.* posited that even if the species are accepted as distinct, they are to be considered congeneric and therefore the older name *Ecrobia* has precedence over *Ventrosia*. Haase *et al.* (2010) and later authors have used *Ecrobia* as the valid genus.
5. Kadolsky (2012) showed that the original description of the type species of *Paludinella* was most probably based on small specimens of *Melarhapha neritoides* (Linnaeus, 1758). The type description is therefore incorrect. For specimens of *Paludinella littorina* auctt., non Delle Chiaje, Kadolsky restored the name *Paludinella globularis* and designated the latter as type species of *Paludinella* (Kadolsky, 2012).
6. *Ampullaceana balthica*. A phylogenetic and morphological review of the Palaearctic Lymnaeoidea (Ajksenova *et al.*, 2018) concluded that the former *Radix* Montfort, 1810 was polyphyletic and could be split into several genera, including *Radix* s.s. and *Ampullaceana* Servain, 1881 on the basis of a multilocus molecular data-set for Eurasian species. The genus *Ampullaceana* contains eight species including the very common and widespread *Ampullaceana balthica* (L.), formerly *Radix balthica*. In our area *Radix* now contains only one species, *R. auricularia* (L.). Coincidentally, Aksenova *et al.* (2018) have retained *peregra* (O.F. Müller) but placed it in a separate genus from *balthica* i.e. *Peregriana peregra* (O.F. Müller, 1774), as a synonym of *Radix labiata*, a species so far unrecorded in GB and

Ireland. The name *peregra* is, however, included here as a synonym of *A. balthica* in the sense of British authors, which excludes *labiata* (Rossmässler, 1835).

7. For the sake of completeness, an old record of the N. American stagnicoline species *Ladislavella catascopium* is included. This species was introduced to the British Checklist by Kevan (1943), having established in a warm-water engine-pond at Leith, Midlothian in the mid 20<sup>th</sup> century, and is included in a key by Macan (1969). Kevan used the name *Stagnicola catascopium* (Say, 1817), but Meier-Brook & Barges (2002) argued for a replacement generic name of *Catascopia*. This, however, has been replaced in turn by *Ladislavella* B. Dybowski, 1913 on date priority. Apparently extinct now (pers. comm. of A. Sumner).
8. The occurrence of *Anisus spirorbis* (L.) in Britain and Ireland has not been unequivocally established. Anderson & Norris (2014) examined a population from Brittas Bay, a claimed site for the species in Ireland, but could not distinguish the Brittas population morphometrically from Irish populations of *A. leucostoma*. Rowson (pers. comm.) was similarly unable to differentiate claimed populations of *spirorbis* in Britain. It may be assumed that, at least in GB and Ireland only one morphologically variable species occurs. *Anisus spirorbis* is retained on the list however, to allow for a change in status should future, more detailed, investigations prove otherwise.
9. A genus of small freshwater limpets, *Ferrissia* Walker, 1903, has been the subject of much speculation in Europe regarding origin and nomenclature. It is now accepted that the species found in Europe is native to North America (Vecchioni *et al.*, 2017). This was initially given the name *Ferrissia fragilis* Tryon, 1863. Subsequently it was discovered that the name *fragilis* had been published a few months later than that of *Ferrissia californica* (Rowell, 1863) so the latter name has priority.
10. Martins & Mendes (2013) and Martins (2014) have reported molecular and anatomical studies of the genus *Myosotella* in Europe. It appears that although two species are present, the former preoccupation with shell characters may have led to a misunderstanding of the distinctions which separate them. Examination of the penial papilla of *Myosotella* from across Europe shows that two distinct morphologies occur, one with a contractile papilla covered by a hood-like protective cover corresponding to *Myosotella denticulata* and the other with a leaf-like flap-shaped papilla with an opening near the base of the right margin corresponding to the true *Myosotella myosotis*. Interestingly the modified concept of *M. denticulata* occurs only on the Atlantic coasts of Europe. Description of *Myosotella myosotis* (Draparnaud, 1801) was based on types collected at a Mediterranean locality and the species, as defined by Martins (2014) and Martins & Mendes (2013) has so far only been found on Mediterranean coasts in Europe. Despite these findings Wiese & Haack (2019) have confirmed the observations of Falkner *et al.* (2002) that two distinct taxa with differences in palatal tubercles occur in northern Europe. Anderson (2005) followed Falkner *et al.* (2002) in this respect and recognized two species. Wiese & Haack (2019) correlated the differences in dentition with different height-width ratios and degree of pigmentation of the shells (apparently without intermediate forms) in material they examined. This agrees well

with observations made by the first author (RA) on material collected outside the entrance to Strangford Lough in N. Ireland (*M. denticulata* morphotype) on exposed coasts compared with that collected inside the sheltered lower salinity confines of Strangford Lough (*M. myosotis* morphotype). Provisionally we continue to recognize two species in northern Europe until detailed molecular analysis of these north European morphotypes becomes available.

11. *Granaria frumentum illyrica* is a central European chondrinid discovered by Colville & Norris (2010) on the Isles of Scilly. Its occurrence there is problematical being so far removed from the centre of distribution. Anatomical studies of the group to which it belongs are limited and do not allow the origin of the Scilly shells to be interpreted more fully. Most likely an alien and perhaps not fully established.
12. The review of Nekola *et al.*, (2015) of species assignment in *Pupilla* has demonstrated that morphological assignments based on conchology may not correspond to assignments based on mitochondrial and nuclear DNA sequences. It is clear that *Pupilla pratensis* populations cannot be distinguished from those of *Pupilla alpicola* on molecular criteria although there are differences in shell apertural structures. The latter are considered unreliable for discriminating species because of an observed degree of (?non-genetic) plasticity. The former *Pupilla pratensis* has thus been reduced to synonymy with the more wide-ranging *Pupilla alpicola*.
13. Holyoak *et al.* (2019) argue that the name for a widespread species of *Pyramidula* in Europe, *P. pusilla* (Vallot, 1801), was not validly published and therefore cannot be used. In addition phylogenetic analysis of European *Pyramidula* by Razkin *et al.*, (2016) has demonstrated that *P. pusilla* and *P. umbilicata* are conspecific. Anderson (2005) previously argued that *P. pusilla* and *P. umbilicata* were unlikely to be distinct, for biogeographical reasons, and used the name *P. pusilla* on date priority for the British Isles species. Since the latter name is unavailable the British and Irish taxon becomes *P. umbilicata*.
14. The review of Nekola *et al.* (2018) concluded that *Vertigo modesta* (Say, 1824) (used in previous versions of the checklist, as *Vertigo modesta arctica*) is not in fact closely related genetically to *Vertigo arctica* (Wallenberg, 1858). The latter name now applies in Britain and Ireland.
15. There has been some toing and froing regarding the name for this taxon. *Balea heydeni* von Maltzan was the name used by Gittenberger *et al.* (2006) to distinguish a widespread but previously unrecognized British and Irish species, from the better known but rarer *Balea perversa*. Proschwitz (2010) argued that *Balea sarsii* Philippi, 1847 should be a replacement name for *B. heydeni* but the majority of workers still use *B. heydeni* which has the advantage of stabilizing the nomenclature. We follow the majority here.
16. *Papillifera bidens* (L.), a name used by Anderson (2005), has been shown convincingly by Kadolsky (2012) to refer to a species in a different genus i.e. *Cochlodina incisa* (Küster). The name *Papillifera papillaris* (O.F. Müller) therefore replaces it.

17. *Testacella* sp. “*tenuipenis*”. This name has been applied by Rowson *et al.* (2014a) to a widespread but cryptic taxon in Britain and Ireland. This has historically been confused with *Testacella scutulum*, but has different morphology of the dorsal grooves, surface colouration and, more importantly, is genetically and in the structure of the genitalia, distinct (Rowson *et al.*, 2014b). It is fairly widespread in both Britain and Ireland but its origins are unknown.
18. Horsáková *et al.* (2019) have provided molecular confirmation that *Euconulus fulvus* and *E. alderi* occur in England and Scotland thus ratifying the preliminary conclusions of Anderson (2005). Shell characters distinguishing these species are given by these authors.
19. *Zonitoides arboreus* is a native of North America and has been widely recorded in hothouses of Britain and Ireland. It was included as a hothouse alien by Anderson (2005) but is now being recorded out of doors in one or two places (pers. comm. of M.G. Telfer). Law (2020) very recently reported juveniles from plant pots on an apartment balcony.
20. *Daudebardia rufa*, a semi-slug, was first recorded in the UK from clay pits near Caerphilly in south Wales (Rowson *et al.*, 2016). It is spreading but very localized in occurrence. Native range is central and eastern Europe to north Africa.
21. *Selenochlamys ysbryda* was recently transferred from the Trigochlamydidae to the Oxychilidae following the molecular study of Neiber *et al.* (2020).
22. *Tandonia* cf. *crystata* was confirmed by Rowson *et al.* (2014a) from a few, very scattered locations in Britain and one in Ireland, using DNA analysis. It is a slug species originating from the Black Sea area, and is clearly invasive though its exact provenance and identity are yet to be resolved.
23. *Deroceras invadens* is an invasive alien slug known to previous generations as *Deroceras caruanae* (Pollonera) or, more recently, as *D. panormitanum*, although the latter name is now applied to an allied but distinct species (Reise *et al.*, 2011; see Note 24). Its country of origin is uncertain but likely to be Italy.
24. *Deroceras panormitanum* is very similar externally to *D. invadens* and has been confused with it until recently. It is thought to have originated from Sicily and Malta (Reise *et al.*, 2011). Very local in disturbed places in Britain and Ireland (Rowson *et al.*, 2016).
25. *Ambigolimax* is a slug genus separated from the closely similar *Lehmannia* by its cylindrical or bulbous rather than longer and thinner flagellum; also by small differences in its genetic make-up (Gargominy *et al.*, 2011). This and related genera of slugs requires more research and analysis in order to understand phylogenetic relationships within the group.
26. *Limax* cf. *dacampi*. A large invasive alien slug which is apparently established and breeding on a site near Robin Hood’s Bay in north-east Yorkshire (Rowson *et al.*, 2014a).

27. *Arion* sp. “Davies” is a large roundback slug very close in appearance and habits to the vulgar slug *Arion vulgaris*, but possibly not as pestiferous. It is known from scattered sites, mainly gardens, in the east of England but is not yet fully characterised or differentiated from *Arion vulgaris* (Rowson *et al.*, 2014b).
28. *Arion* cf. *iratii* is a medium-sized roundback slug closely allied to the ubiquitous *Arion subfuscus* but probably originating from Spain and first recognized in Britain and Ireland by Rowson *et al.* (2014a). It is alien but has naturalized and is breeding in conifer plantations of south Wales.
29. *Arion* cf. *fagophilus* belongs to a group of small arionids called the garden slugs (subgenus *Kobeltia*) of which the most widespread is *Arion distinctus* Mabilie. Morphologically *A.* cf. *fagophilus* is closest to *Arion occultus* described from Ireland. Both are invasive and alien and probably originated on the Iberian Peninsula, but their native ranges are unknown (Rowson *et al.*, 2014a).
30. Gittenberger *et al.* (2012) relegated the Bradybaenidae to junior synonymy with the Camaenidae based on the review of Wade *et al.* (2007).
31. *Helix lucorum* is a large invasive snail which originated from the Black Sea region and has spread across parts of western Europe partly because it is an important commercial (food) species. First published for Britain by Whitehead (2014) for Worcestershire but known from Surrey gardens since at least the 1990s (pers. comm. of B. Rowson).
32. *Backeljaia gigaxii*. Transferred from *Candidula* Kobelt, 1871 to become the type species of a new genus *Backeljaia* Chueca *et al.*, 2018.
33. *Monacha ocellata*. This is a Turkish species which became established over a couple of years beside a carpark at Tilbury, south Essex (Anderson *et al.*, 2018). It's inclusion here rests on its breeding ability and degree of naturalization at the site. Its tenure may be fragile however, as there are development plans in process for this area. We have no information about its status post-2018.
34. *Trochulus sericeus* was reduced to synonymy with *T. hispidus* by the review of Pročków (2009). However, MolluscaBase (2020) retains this as a separate species. On balance we favour the view of Pročków (2009), followed also by Welter-Schultes (2012).
35. *Xeroplexa intersecta*. Transferred from *Candidula* Kobelt, 1871 by Chueca *et al.* (2018), to the genus *Xeroplexa* Monterosato, 1892.
36. A small colony of the Iberian (largely Portuguese) species *Xeroplexa olisippensis* has been found by Holyoak & Holyoak (2014) at Kynance Cove, Cornwall. Like *Xeroplexa intersecta* this species was transferred from *Candidula* to *Xeroplexa* by Chueca *et al.* (2018). Distinguishing features from the common *X. intersecta* are a relatively long penial flagellum in *olisippensis*, also a narrower umbilicus although shell characters in *olisippensis* can vary widely.
37. Holyoak & Holyoak (2018) have described a novel genus *Zenobiellina* to

accommodate a new species from northern Spain and the west European *Zenobiella subrufescens* to which it is closely related. It was considered necessary to replace *Zenobiella* as they regard this as a junior synonym of *Monacha* due to a misunderstanding by Gude & Woodward (1921) in describing *Zenobiella* as a valid replacement name for *Zenobia* J.E. Gray, 1821. They propose the new replacement name *Zenobiellina* which has been accepted by MolluscaBase (2020) and is therefore used here.

38. Bouchet & Rocroi (2010) have relegated the Corbiculidae to synonymy with the Cyrenidae Gray, 1847.
39. Aldridge *et al.* (2014) added *Dreissena rostriformis bugensis* to the list of non-marine molluscs of Britain and Ireland from the Wraysbury River, Surrey, collected on 29 September 2014. This invasive species has since consolidated its hold on the aquatic environment around London and looks likely to spread further (NBN, 2020).
40. *Rangia cuneata*. A bivalve species native to the Gulf of Mexico but invasive in Europe and recently reported from a tributary of the River Witham, Lincolnshire (Willing, 2015).
41. *Euglesa/Odhneripisidium*. Lee & O’Foighil’s (2003) phylogenetic review of the subfamily Sphaeriinae has been overlooked until fairly recently but is now generally accepted in Europe as a model for the parsing of genera in the group. The layout here follows that of Gargominy *et al.* (2011) but with *Pisidium conventus* transferred to *Euglesa*.
42. *Sphaerium* not *Musculium*. The formerly recognized genus *Musculium* is accepted as a synonym of *Sphaerium* following the analysis of Lee & O’Foighil (2003).
43. Preece & White (2012) have reported *Allopeas gracile* as an addition to the hot-house fauna of Britain and Ireland from Cambridge Botanic Garden.
44. Raheem *et al.* (2014) reported that the reproductive anatomy of *Subulina striatella* is very similar to that of *S. octona* and questioned the separation of them at a generic level. MolluscaBase (2020) and Horsák *et al.* (2020) have both listed *striatella* under *Subulina* and this is followed here.
45. *Kaliella barrakporensis*. This species was reported by Preece & Naggs (2014) from the Eden Project, Cornwall and is an addition to the recorded hot-house fauna of Britain and Ireland. It is native to south-east Asia, Madagascar and tropical east Africa.
46. *Streptostele musaecola*. A West African species found living in hothouses in 2013 and 2016 in the Glasgow Botanical Gardens, by A. Sumner and T. Walker (Weddle, in press).



## References

- Aksenova, O.V., Bolotov, I.N., Gofarov, M.Y., Kondakov, A.V., Vinarski, M.V., Bespalaya, Y.V., Kolosva, Y.S., palatov, D.M., Sokolova, S.E., Spitsyn, V.N., Tomilova, A.A., Travina, O.V. & Vikhrev, I.V. (2018) Species richness, molecular taxonomy and biogeography of the radicine pond snails (Gastropoda: Lymnaeidae) in the Old World. *Scientific Reports* **8**: 11199.
- Aldridge, D.C., Ho, S. & Froufe, E. (2014) The Ponto-Caspian quagga mussel, *Dreissena rostriformis bugensis* (Andrusov, 1897), invades Great Britain. *Aquatic Invasions* **9** (4): 529-535.
- Anderson, R. & Norris, A. (2014) Separation of *Anisus spirorbis* from *A. leucostoma* in Britain and Ireland. *Mollusc World* **35**: 6-8.
- Anderson, R., Giusti, F., Telfer, M.G., Manganelli, G., Pienkowska, J. & Lesicki, A. (2018) *Monacha ocellata* (Roth, 1839) (Gastropoda: Hygromiidae) established in Essex, an addition to the fauna of Britain and Ireland. *Journal of Conchology* **43** (2): 201-211.
- Boeters, H. D., & Falkner, G. (2017) The genus *Mercuria* Boeters, 1971 in France (Gastropoda: Caenogastropoda: Hydrobiidae). West-European Hydrobiidae, Part 13. *Zoosystema* **39** (2): 227-261.
- Bouchet, P. & Rocroi, J.-P. (2010) Nomenclator of bivalve families; with a classification of bivalve families by R. Bieler, J. G. Carter & E. V. Coan. *Malacologia* **52** (2): 1-184.
- Bouchet et al. (2017)
- Chueca, C.L., Gomez-Moliner, B.J., Madeira, M.J. & Pfenninger, M. (2018) Molecular phylogeny of *Candidula* (Geometridae) land snails inferred from mitochondrial and nuclear markers reveals the polyphyly of the genus. *Molecular Phylogenetics and Evolution* **118**: 357-368.
- Colville, B. & Norris, A. (2010) The discovery of *Granaria frumentum illyrica* (Rossmässler, 1837) on the Isles of Scilly. *Mollusc World* **23**: 5.
- Davis, G. M., McKee, M. and G. Lopez. (1989) The identity of *Hydrobia truncata* (Gastropoda: Hydrobiidae): Comparative anatomy, molecular genetics, ecology. *Proceedings of the Academy of the Natural Sciences of Philadelphia* **140**: 247-266.
- Falkner G., Ripken T.E. J. & Falkner M. 2002 *Mollusques continentaux de France Liste de Référence annotée et Bibliographie*. Patrimoines Naturels, 52, Museum d'Histoire Naturelle, Paris. 350pp.
- Fontanilla, I.K., Naggs, F. & Wade, C.M. (2017) Molecular phylogeny of the Achatinoidea. *Molecular Phylogenetics and Evolution* **114**: 382-385.
- Gargominy, O., Prié, V., Bichain, J.-M., Cucherat, X. & Fontaine, B. (2011) Liste de référence annotée des mollusques continentaux de France. *MalaCo* **7**: 307-382.
- Gittenberger, F., Preece, R.C. & Ripken, T.E.J. (2006) *Balea heydeni* von Maltzan, 1881 (Pulmonata: Clausiliidae) an overlooked but widely distributed European species. *Journal of Conchology* **39** (2): 145-150.

- Gittenberger, E., Hamann, T.D. & Asami, T. (2012) Chiral Speciation in Terrestrial Pulmonate Snails. *PLoS ONE* **7** (4): e34005.
- Gude, G.K. & Woodward, B.B. (1921) On *Helicella* Férussac. *Proceedings of the Malacological Society of London* **14**: 174-190.
- Haase, M., Naser, M.D. & Wilke, T. (2010) *Ecrobia grimmi* in brackish Lake Sawa, Iraq: indirect evidence for long-distance dispersal of hydrobiid gastropods (Caenogastropoda: Rissooidea) by birds. *Journal of Molluscan Studies* **76** (1): 101-105.
- Holyoak, D. T. & Holyoak, G. A. (2014) A review of the genus *Candidula* in Portugal with notes on other populations in Western Europe (Gastropoda, Pulmonata: Hygromiidae). *Journal of Conchology* **41** (6): 629-672.
- Holyoak, D. T. & Holyoak, G. A. (2018) A new genus *Zenobiellina* for *Helix subrufescens* Miller, 1822 (Hygromiidae), with description of a new congeneric species from northern Spain. *Iberus* **36** (2): 133-147.
- Holyoak, D.T., Holyoak, G.T & Mendes, R.M. da Costa (2019) A revised check-list of the land and freshwater Mollusca (Gastropoda and Bivalvia) of mainland Portugal. *Iberus* **37** (1): 113-168.
- Horsák, M., Naggs, F. & Backeljau, T. (2020) *Paropeas achatinaceum* (Pfeiffer, 1846) and other alien subuline and opeatine land snails in European greenhouses (Gastropoda, Achatinidae). *Malacologia* **63** (1): 123–130.
- Horsáková, V., Nekola, J. C., & Horsák, M. (2019) Integrative taxonomic consideration of the Holarctic *Euconulus fulvus* group of land snails (Gastropoda, Stylommatophora). *Systematics and Biodiversity* **18** (2): 142-160.
- Kadolsky, D. (2012) Nomenclatural comments on non-marine molluscs occurring in the British Isles. *Journal of Conchology* **41** (1): 65-90.
- Kevan, D.K.McE. (1943) Study of an introduced North American freshwater mollusk, *Stagnicola catascopium* (Say). *Proceedings of the Royal Society of Edinburgh B* **61**: 430-461.
- Kroll, O., Hershler, R., Albrecht, C., Terrazas, E.M., Fuentealba, C., Wolff, C., & Wilke, T. (2012) The endemic gastropod fauna of Lake Titicaca: correlation between molecular evolution and hydrographic history. *Ecology and Evolution* **2** (7): 1517-1530.
- Law, M. (2020) ‘Lockdown’ balcony snails. *Mollusc World* **53**: 7.
- Lee, T. & O’Foighil, D. (2003) Phylogenetic structure of the Sphaeriinae, a global clade of freshwater bivalve mollusks, inferred from nuclear (ITS1) and mitochondrial (16S) ribosomal gene sequences. *Zoological Journal of the Linnean Society* **137** (2): 245-260.
- Macan, T.T. (1969) *A key to the British fresh- and brackish-water gastropods*. Freshwater Biological Association, Scientific Publication No. 13. Ambleside, Cumbria.
- Martins, A.M. de Frias (2014) Unravelling the taxonomy of *Myosotella* (Gastropoda: Ellobiidae): penial structure is the key. *Congress of the European Malacological Societies 7-11 September 2014, St Catherine’s College, Cambridge*. Conference Programme and Book of Abstracts.

- Martins, A.M. de Frias & Mendes, A.R.M. (2013) Do cosmopolitans speciate? Anatomical diversity of *Myosotella* in Azores. Conference paper: DOI: 10.13140/2.1.3483.4564.
- Meier-Brook, C. & BARGUES, M.D. (2002) *Catascopia*, a new genus name for three Nearctic and one Palearctic stagnicoline species (Gastropoda: Lymnaeidae). *Folia Malacologica* **10** (2): 83-84.
- MolluscaBase eds. (2020) MolluscaBase. *Semisalsa stagnorum* (Gmelin, 1791). Accessed online at: <http://www.molluscabase.org/aphia.php?p=taxdetails&id=153928>
- Neiber, M., Walther, F., & Hausdorf, B. 2020 Phylogenetic relationships of ghost slugs (*Selenochlamys*) and overlooked instances of limacization in Western Palearctic Limacoidei (Gastropoda: Stylommatophora). *Molecular Phylogenetics and Evolution* **151**: 106897.
- NBN (2020) *Dreissena bugensis* Andrusov, 1897 [map]. Accessed online at: <https://species.nbnatlas.org/species/NHMSYS0020475523>.
- Nekola, J.C., Coles, B.F. & Horsák, M. (2015) Species assignment in *Pupilla* (Gastropoda: Pulmonata: Pupillidae): integration of DNA-sequence data and conchology. *Journal of Molluscan Studies* **81**: 196-216.
- Nekola, J.C., Chiba, S., Coles, B.F., Drost, C.A., Proschwitz, T. von & Horsák, M. (2018) A phylogenetic overview of the genus *Vertigo* O.F. Müller, 1773 (Gastropoda: Pulmonata: Pupiliidae: Vertigininae). *Malacologia* **62**: 21-161.
- Preece, R.C. & Naggs, F. (2014) *Kaliella barrakporensis* (Pfeiffer), a new hot-house alien in Britain. *Journal of Conchology* **41** (6): 781-782.
- Preece, R.C. & White, T.S. (2012) Land and freshwater molluscs in the Cambridge Botanic Garden. *Nature in Cambridgeshire* **48**: 53-56.
- Proćków, M. (2009) The genus *Trochulus* Chemnitz, 1786 (Gastropoda: Pulmonata: Hygromiidae) – a taxonomic revision. *Folia Malacologica* **17** (3): 101-176.
- Proschwitz, T. von (2010) Three land snail species new to the Norwegian fauna: *Pupilla pratensis* (Clessin, 1871); *Vertigo ultimathule* von Proschwitz, 2007; and *Balea sarsii* Philippi, 1847 [= *B. heydeni* von Maltzan, 1881.] *Fauna Norvegica* **30**: 13-19.
- Raheem, D.C., Taylor, H., Ablett, J., Preece, R.C., Aravind, N.A. & Naggs, F. (2014) *A Systematic Revision of the Land Snails of the Western Ghats of India*. Tropical Natural History, Supplement 4, November, 2014. Chulalongkorn University, Thailand. Pp. 1-294.
- Razkin, O., Gomez-Moliner, B.J., Vardinoyannis, K., Martínez-Ortí, A. & Madeira, M.J. (2016) Species delimitation for cryptic species complexes: case study of *Pyramidula* (Gastropoda, Pulmonata). *Zoologica Scripta* **46** (1): 55-72.
- Reise, H., Hutchinson, J.M.C., Schunack, S. & Schlitt, B. (2011) *Deroceras panormitanum* and congeners from Malta and Sicily, with a redescription of the widespread pest slug *Deroceras invadens* n. sp. *Folia Malacologica* **19** (4): 201-223.
- Rowson, B. (2019) Non-marine recorder's report 2018. *Mollusc World* **50**: 16-17.
- Rowson, B., Turner, J.A., Anderson, R. & Symondson, W.O.C. (2014a) *Slugs of Britain*

and Ireland. *Understanding and control*. FSC Publications (Aidgap), Telford, UK.

Rowson, B., Anderson, R., Turner, J.A. & Symondson, W.O.C. (2014b) The slugs of Britain and Ireland: undetected and undescribed species increase a well studied, economically important fauna by more than 20%. *PLoS ONE* **9** (3): e91907.

Rowson, B., Owen, C. & Wilkinson, K. (2016) First record of the predatory semi-slug *Daudebardia rufa* (Draparnaud, 1805) from the UK (Eupulmonata: Daudebardiidae). *Journal of Conchology* **42** (3): 119-121.

Rowson, B., Anderson, R., Allen, S., Forman, D., Greig, C. & Abdul Aziz, N.A. (2016) Another wave of invasion? First record of the true Sicilian slug *Deroceras panormitanum* sensu stricto from Ireland, and another from Wales (Eupulmonata: Agriolimacidae). *Journal of Conchology* **42**(3): 123-125.

Vecchioni, L., Marrone, F., Arculeo, M. & Arriza, V. (2017) Are there autochthonous *Ferrissia* (Mollusca: Planorbidae) in the Palaearctic? Molecular evidence of a widespread North American invasion of the Old World. *The European Zoological Journal* **84** (1): 411-419.

Wade, C.M., Hudelot, C., Davison, A., Naggs, F. & Mordan, O. (2007) Molecular phylogeny of the helicoid land snails (Pulmonata: Stylommatophora: Helicoidea), with special emphasis on the Camaenidae. *Journal of molluscan Studies* **73**: 411-415.

Weddle, R. (In press) The Molluscs and Crustaceans of Glasgow Botanic Gardens. *The Glasgow Naturalist* **XX**: XX-XX.

Welter-Schultes, F. (2012) *European non-marine molluscs, a guide for species identification*. Planet Poster Editions, Göttingen, Germany.

Whitehead, P. F. (2014) *Helix pomatia* L., 1758 and *Helix lucorum* L., 1758 (Pulmonata, Helicidae): two closely related terrestrial snails new to Worcestershire. *Worcestershire Record* **36** (April 2014): 11-12.

Wiese, V. & Haack, A. (2019) *Myosotella denticulata* (Montagu 1803), das Bezahnte Mäuseöhrchen, eine für Deutschland neue Küstenschnecke (Gastropoda: Ellobiidae). *Mitteilungen der deutschen malakozoologischen Gesellschaft* **101**: 63-68. [VII. 2019].

Wilke, T., Rolán, E. & Davis, G.M. (2000) The mudsnail genus *Hydrobia* in the northern Atlantic and western Mediterranean: a phylogenetic hypothesis. *Marine Biology* **137** (5-6): 827-833.

Willing, M.J. (2015) Two invasive bivalves, *Rangia cuneata* (G.B. Sowerby I, 1831) and *Mytilopsis leucophaeata* (Conrad, 1831), living in freshwater in Lincolnshire, Eastern England. *Journal of Conchology* **42** (2): 189-192.

Willing, M. J., & Jones, E. (in press) Rapid risk assessment of *Cipangopalundina chinensis*. GB Non-native Species Secretariat, York. Will be available online at: <http://www.nonnativespecies.org/index.cfm?pageid=143>.

Willing, M. J. & Rowson, B. (2020) Discovery of the first recorded live population in the UK of the Lagoon Spire Snail *Semisalsa stagnorum* (Gmelin, 1791) (Gastropoda: Cochliopidae) with notes on its habitat and conservation. *Journal of Conchology* **43** (6): 1-15.

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