

MATERIALS TO THE KNOWLEDGE OF MOLLUSCS OF WIELKOPOLSKA. II. CHECKLIST

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ABSTRACT: We present the list of molluscs recorded from Wielkopolska (W. Poland) during the last fifty years. It includes the 167 species (47 freshwater snails, 92 terrestrial gastropods, 28 bivalves) recorded from the region between July 1st 1958 and July 1st 2008. The number of localities recorded during the last 50 years is given for each species. The list is based on data from 4,155 localities described in 89 publications and 73 unpublished papers. Most of the information was published in Polish or not published at all, and thus inaccessible to a wider malacological audience.

KEY WORDS: checklist, gastropods, bivalves, Wielkopolska, Poland

INTRODUCTION

With respect to molluscs, Wielkopolska is one of the best studied regions of Poland (for the history of malacology of the region see KORALEWSKA-BATURA et al. 2010). The last 50 years brought 89 publications and 73 unpublished papers (see KORALEWSKA-BATURA et al. 2010, for complete list of references) on gastropods and bivalves of the region, with records of 167 species from 4,155 localities. Despite the abundance of data, only one paper (KORALEWSKA-BATURA

1992) attempted to summarise the information on the richness and distribution of molluscs in Wielkopolska. Since this publication, about 800 new localities have been studied and ten new species found in the region. In this paper we present a complete list of species of land and freshwater gastropods and bivalves recorded from the area between July 1st 1958 and July 1st 2008. We also compare these data with the pre-1958 information on the molluscs of the region.

METHODS

Two nomenclature systems were used in the malacological literature of the region during the last 50 years. The first system was adopted from GÖTTING (1974) and updated by PIECHOCKI (1979), PIECHOCKI & DYDUCH-FALNIOWSKA (1993), JACKIEWICZ (2000) and WIKTOR (2004). The second is the recent nomenclature proposed by the CLECOM Project (BANK et al. 2001, FALKNER et al. 2001), adopted with some minor modifications by the Fauna Europaea (ARAUJO 2008, BANK 2008) and Fauna of Poland (PIECHOCKI & SULIKOWSKA-DROZD 2008). The vast majority of malacological studies from Wielkopolska follows the first (old) nomenclature. The nomenclature adopted here is that of the CLECOM, with some modifications

introduced by PIECHOCKI & SULIKOWSKA-DROZD (2008); when necessary, names from the traditional system are also given (see Table 1).

The number of records made from Wielkopolska during the last 50 years is given for each species. The data should be treated with caution because of the uneven coverage of individual taxa and ecological groups received in the research. For example, malacocoenoses of some aquatic habitats, such as temporary water bodies, are underrepresented, though such habitats are common in the agricultural landscape of the region. On the other hand, in our database deciduous forests gain advantage over coniferous ones (dominant forest type in the region, with relatively

poorly studied malacofauna). Finally, 29 of the studies (listing 514 localities) used to construct our database focus on *Helix pomatia* and describe only localities of this species.

Most studies from the region do not distinguish between three species of *Radix* (*R. labiata*, *R. balthica* and *R. ampla*) and record them under the collective name *Lymnaea* (*Radix*) *peregra*. In some papers, however, the three species are listed from the region as forms of *L. peregra*. In this list we regard all three species as present in Wielkopolska, but we can not give the exact number of records for each of them. Similar problems are encountered when dealing with *Pisi-*

dium ponderosum and *P. globulare*, classified as forms of *P. casertanum* by most of the authors from the region covered by our check-list. Only the first species has been recorded from Wielkopolska so far, but we are not able to specify the number of localities or to determine if the second species is present in the region as well. Another species potentially missing from our list is *Sphearium nucleus*, in the past classified as a form of *S. corneus*. The species has not been reported from Poland so far, but is very likely to occur in the country (PIECHOCKI & SULIKOWSKA-DROZD 2008). Some of the records of *S. corneus* from the region may therefore concern *S. nucleus*.

RESULTS AND DISCUSSION

The total number of mollusc species recorded from the province in its present sense since the first census of molluscs of Wielkopolska (RADONSKI 1892) is 171: 48 freshwater snails (10 families), 95 terrestrial gastropods (including one known as subfossil only, 24 families) and 28 bivalves (3 families).

The pre-1958 records of four species have not been confirmed. These are: *Omphiscola glabra* (Lymnaeidae), *Opeas pumilum* (tropical species, known only from greenhouses; Subulinidae), *Helicella itala* (Hygromiidae) and *Mediterranea inopinata* (Oxychilidae, known as subfossil only). On the other hand, 27 species not recorded previously have been found since 1958. This number includes 15 species of terrestrial gastropods (*Carychium tridentatum*, *Columella aspera*, *Vertigo moulinsiana*, *Lucilla singleyana*, *Oxychilus allarius*, *Aegopinella minor*, *Lehmannia valentiana*, *Deroceras laeve*, *D. sturanyi*, *Arion lusitanicus*, *A. fasciatus*, *A. silvaticus*, *A. intermedius*, *Monacha cartusiana*, *Helicopsis striata*); six freshwater snails (*Melanoides tuberculatus*, *Potamopyrgus antipodarum*, *Catascozia occulta*, *Menetus dilatatus*, *Ferrissia clessiniana*, *Gyraulus rossmaessleri*) and six bivalves (*Pisidium moitessierianum*, *P. tenuilineatum*, *P. hibernicum*, *P. lilljeborgii*, *P. personatum*, *Sinnodonta woodiana*). Moreover, six species with only subfossil records prior to 1958 have been found alive: terrestrial *Macrogaster ventricosa* and *Helicigona lapicida*, freshwater *Gyraulus acronicus* and *G. laevis*, and two bivalves: *Pisidium subtruncatum* and *P. pulchellum*. Most of the "new" species were probably earlier mistaken for other, similar species or are alien, introduced species. Among the "new" species three terrestrial snails (*V. moulinsiana*, *H. lapicida*, *H. striata*), four freshwater snails (*C. occulta*, *G. acronicus*, *G. laevis*, *G. rossmaessleri*) and four bivalves (*P. moitessierianum*, *P. tenuilineatum*, *P. hibernicum*, *P. lilljeborgii*) are generally rare and red-listed in Poland (GŁOWACIŃSKI 2002).

As a result of the corrections and verification the number of molluscs recorded from the region within the last 50 years is 167: 47 freshwater snail species (10

families), 92 terrestrial gastropods (24 families) and 28 bivalves (3 families). These numbers constitute 63% of all mollusc species known from Poland, 87% of freshwater snails, 52% of terrestrial gastropods and 82% of non-marine bivalves.

Out of 44 families known from Poland, seven have not been recorded from Wielkopolska. All of them are families of terrestrial snails, represented in Poland each by one or two species occurring predominantly in the mountains (WIKTOR 2004): Oculidae, Argidae, Pyramidulidae, Chondrinidae, Boettgerillidae, Milacidae and Helicodontidae.

The Planorbidae, with 20 species (95% of planorbid species known from Poland) are the most numerous family of freshwater snails in the region. Among terrestrial snails, the best represented families are the Vertiginidae and the Hygromiidae, with 11 species each (65% and 52% of species known from the country, respectively). The Sphaeriidae, the most speciose family of non-marine bivalves, are represented by 20 species (87% of species known from Poland).

Forty seven species are very rare in the region (recorded from fewer than 15 localities), including 11 freshwater snails, 31 terrestrial gastropods and 5 bivalves. Ten species (all terrestrial) are known from one locality each. On the other hand, only 13 species (5 freshwater and 8 terrestrial gastropods) occur in more than 300 localities.

Helix pomatia seems to be the most frequent mollusc species in the region (recorded from 898 localities; Table 1). This may result from the fact that 29 studies reporting 514 localities pertain only to this species and do not report occurrences of any other terrestrial snails. The second most frequent species (663 records) is *Cochlicopa lubrica*, followed by *Vallonia pulchella* (527 records). The most frequent freshwater snails are *Planorbarius corneus* (507 records), *Planorbis planorbis* (436) and *Bithynia tentaculata* (427). The most frequent bivalve species is *Sphaerium corneum*, recorded from 287 localities.



Table 1. Check-list of mollusc taxa recorded from Wielkopolska prior to 1958 and after that date. The nomenclature follows the CLECOM Project (BANK et al. 2001, FALKNER et al. 2001) with some modifications according to the Fauna of Poland (PIECHOCKI & SULIKOWSKA-DROZD 2008). For species which appear in the literature under different names, the other names are given in square brackets. n. loc. – number of localities after 1958, sf – only subfossil records; gh – tropical species, known only from greenhouses

	n. loc.	before 1958	after 1958
Phylum Mollusca Cuvier, 1795			
Classis Gastropoda Cuvier, 1795			
Subclassis Orthogastropoda Ponder et Lindberg, 1995			
Superordo Neritaemorphi Koken, 1896			
Ordo Neritopsina Cox et Knight, 1960			
Superfamilia Neritoidea Lamarck, 1809			
Familia Neritidae Lamarck, 1809			
Subfamilia Neritinae Lamarck, 1809			
Genus <i>Theodoxus</i> Montfort, 1810			
Subgenus <i>Theodoxus</i> Montfort, 1810			
– <i>Theodoxus (Theodoxus) fluviatilis</i> (Linnaeus, 1758)	50	+	+
Superordo Caenogastropoda Cox, 1960			
Ordo Architaenioglossa Haller, 1890			
Superfamilia Cyclophoroidea J. E. Gray, 1847			
Familia Aciculidae J. E. Gray, 1850			
Genus <i>Platyla</i> Moquin-Tandon, 1856			
– <i>Platyla polita</i> (W. Hartmann, 1840) [<i>Acicula (Platyla) polita</i> (Hartmann, 1840)]	14	+	+
Superfamilia Ampullarioidea J. E. Gray, 1824			
Familia Viviparidae J. E. Gray, 1847 (1833)			
Subfamilia Viviparinae J. E. Gray, 1847 (1833)			
Genus <i>Viviparus</i> Montfort, 1810			
– <i>Viviparus contectus</i> (Millet, 1813)	214	+	+
– <i>Viviparus viviparus</i> (Linnaeus, 1758)	57	+	+
Ordo Neotaenioglossa Haller, 1892			
Superfamilia Cerithioidea A. Féussac, 1822			
Familia Thiaridae Troschel, 1857 (1823)			
Subfamilia Thiarinae Troschel, 1857 (1823)			
Genus <i>Melanoides</i> Olivier, 1804			
– <i>Melanoides tuberculatus</i> (O. F. Müller, 1774)	2	–	+
Superfamilia Rissooidea J. E. Gray, 1847			
Familia Bithyniidae Troschel, 1857			
Genus <i>Bithynia</i> Leach, 1818			
Subgenus <i>Bithynia</i> Leach, 1818			
– <i>Bithynia (Bithynia) tentaculata</i> (Linnaeus, 1758)	427	+	+
Subgenus <i>Codiella</i> Locard, 1894			
– <i>Bithynia (Codiella) leachii</i> (Sheppard, 1823)	66	+	+
Familia Hydrobiidae Troschel, 1857			
Subfamilia Tateinae Thiele, 1925			
Genus <i>Potamopyrgus</i> Stimpson, 1865			
– <i>Potamopyrgus antipodarum</i> (J. E. Gray, 1843)	53	–	+

	n. loc.	before 1958	after 1958
Subfamilia Lithoglyphinae Troschel, 1857			
Genus <i>Lithoglyphus</i> C. Pfeiffer, 1828			
– <i>Lithoglyphus naticoides</i> (C. Pfeiffer, 1828)	5	+	+
Subfamilia Amnicolinae Tryon, 1862			
Genus <i>Marstoniopsis</i> Van Regteren Altena, 1936			
– <i>Marstoniopsis scholtzi</i> (A. Schmidt, 1856)	15	+	+
Superordo Heterobranchia J. E. Gray, 1840			
Ordo Ectobranchia P. Fischer, 1884			
Superfamilia Valvatoidea J. E. Gray, 1840			
Familia Valvatidae J. E. Gray, 1840			
Genus <i>Valvata</i> O. F. Müller, 1773			
Subgenus <i>Valvata</i> O. F. Müller, 1773			
– <i>Valvata (Valvata) cristata</i> O. F. Müller, 1774	185	+	+
Subgenus <i>Tropidina</i> H. et A. Adams, 1854			
– <i>Valvata (Tropidina) macrostoma</i> Mörch, 1864 [<i>Valvata (Cincinnna) pulchella</i> Studer, 1820]	83	+	+
Subgenus <i>Cincinnna</i> Hübner, 1810			
– <i>Valvata (Cincinnna) piscinalis</i> (O. F. Müller, 1774)	174	+	+
Genus <i>Borysthenia</i> Lindholm, 1913			
– <i>Borysthenia naticina</i> (Menke, 1845) [<i>Valvata (Borysthenia) naticina</i> (Menke, 1845)]	6	+	+
Ordo Pulmonata Cuvier in Blainville, 1814			
Subordo Basommatophora Keferstein, 1864			
Superfamilia Acroloxoidea Thiele, 1931			
Familia Acroloxidae Thiele, 1931			
Genus <i>Acroloxus</i> H. Beck, 1838			
– <i>Acroloxus lacustris</i> (Linnaeus, 1758)	116	+	+
Superfamilia Lymnaeoidea Rafinesque, 1815			
Familia Lymnaeidae Rafinesque, 1815			
Subfamilia Lymnaeinae Rafinesque, 1815			
Genus <i>Omphiscola</i> Rafinesque 1819			
– <i>Omphiscola glabra</i> (O. F. Müller 1774)	0	+	–
Genus <i>Galba</i> Schrank, 1803			
– <i>Galba truncatula</i> (O. F. Müller, 1774) [<i>Lymnaea (Galba) truncatula</i> (O. F. Müller, 1774)]	129	+	+
Genus <i>Radix</i> Montfort, 1810			
– <i>Radix auricularia</i> (Linnaeus, 1758)	176	+	+
– <i>Radix labiata</i> (RossmässleR, 1835) [<i>Lymnaea (Radix) peregra</i> (O. F. Müller, 1774)]		+?*	+
– <i>Radix balthica</i> (Linnaeus, 1758) [<i>Lymnaea (Radix) peregra</i> (O. F. Müller, 1774)]	}379	+?*	+
– <i>Radix ampla</i> (W. Hartmann, 1821) [<i>Lymnaea (Radix) peregra</i> (O. F. Müller, 1774)]		+?*	+
Genus <i>Myxas</i> G. B. Sowerby I, 1822			
– <i>Myxas glutinosa</i> (O. F. Müller, 1774) [<i>Lymnaea (Myxas) glutinosa</i> (O. F. Müller, 1774)]	10	+	+
Genus <i>Catascozia</i> Meier-Brook et Bargues 2003			
– <i>Catascozia occulta</i> (Jackiewicz, 1959) [<i>Lymnaea (Stagnicola) occulta</i> (Jackiewicz, 1959)]	21	–	+
Genus <i>Stagnicola</i> Jeffreys, 1830			
– <i>Stagnicola palustris</i> (O. F. Müller, 1774) [<i>Lymnaea (Stagnicola) palustris</i> (O. F. Müller, 1774)]	287	+	+
– <i>Stagnicola corvus</i> (Gmelin, 1791) [<i>Lymnaea (Lymnaea) corvus</i> (Gmelin, 1791)]	228	+	+



	n. loc.	before 1958	after 1958
Genus <i>Lymnaea</i> Lamarck, 1799			
– <i>Lymnaea stagnalis</i> (Linnaeus, 1758)	444	+	+
Superfamilia Planorboidea Rafinesque, 1815			
Familia Physidae Fitzinger, 1833			
Subfamilia Physinae Fitzinger, 1833			
Genus <i>Physa</i> Draparnaud, 1801			
– <i>Physa fontinalis</i> (Linnaeus, 1758)	254	+	+
Genus <i>Physella</i> Haldeman, 1842			
Subgenus <i>Costatella</i> Dall, 1870			
– <i>Physella (Costatella) acuta</i> (Draparnaud 1805) [<i>Physa acuta</i> (Linnaeus, 1758)]	12	+	+
Subfamilia Aplexinae Starobogatov, 1967			
Genus <i>Aplexa</i> Fleming, 1820			
– <i>Aplexa hypnorum</i> (Linnaeus, 1758)	97	+	+
Familia Planorbidae Rafinesque, 1815			
Subfamilia Bulininae P. Fischer et Crosse, 1880			
Genus <i>Planorbarius</i> Duméril, 1806			
– <i>Planorbarius corneus</i> (Linnaeus, 1758)	507	+	+
Genus <i>Menetus</i> H. & A. Adams, 1855			
Subgenus <i>Dilatata</i> Clessin, 1885			
– <i>Menetus (Dilatata) dilatatus</i> (Gould, 1841)	6	–	+
Genus <i>Ferrissia</i> Walker, 1903			
Subgenus <i>Pettanctylus</i> Iredale, 1943			
– <i>Ferrissia (Pettanctylus) clessiniana</i> (Jickeli, 1882) [<i>Ferrissia wautieri</i> (Mirolli, 1960)]	5	–	+
Subfamilia Planorbinae Rafinesque, 1815			
Genus <i>Planorbis</i> O. F. Müller, 1773			
Subgenus <i>Planorbis</i> O. F. Müller, 1773			
– <i>Planorbis (Planorbis) planorbis</i> (Linnaeus, 1758)	436	+	+
– <i>Planorbis (Planorbis) carinatus</i> O .F. Müller, 1774	98	+	+
Genus <i>Anisus</i> S. Studer, 1820			
Subgenus <i>Anisus</i> S. Studer, 1820			
– <i>Anisus (Anisus) spirorbis</i> (Linnaeus, 1758)	147	+	+
– <i>Anisus (Anisus) calculiformis</i> (Sandberger, 1874) [<i>Anisus septemgyratus</i> (Rossmässler, 1835)]	27	+	+
– <i>Anisus (Anisus) leucostoma</i> (Millet, 1813) [<i>Anisus leucostomus</i> (Millet, 1813)]	55	+	+
Subgenus <i>Disculifer</i> C. Boettger, 1944			
– <i>Anisus (Disculifer) vortex</i> (Linnaeus, 1758)	370	+	+
– <i>Anisus (Disculifer) vorticulus</i> (Troschel, 1834)	13	+	+
Genus <i>Bathyomphalus</i> Charpentier, 1837			
– <i>Bathyomphalus contortus</i> (Linnaeus, 1758)	317	+	+
Genus <i>Gyraulus</i> Charpentier, 1837			
Subgenus <i>Gyraulus</i> Charpentier, 1837			
– <i>Gyraulus (Gyraulus) albus</i> (O. F. Müller, 1774)	242	+	+
– <i>Gyraulus (Gyraulus) acronicus</i> (A. Féussac, 1807)	12	sf	+
Subgenus <i>Torquis</i> Dall, 1905			
– <i>Gyraulus (Torquis) laevis</i> (Alder, 1838)	9	sf	+

	n. loc.	before 1958	after 1958
Subgenus <i>Lamorbis</i> Starobogatov, 1967			
– <i>Gyraulus (Lamorbis) riparius</i> (Westerlund, 1865)	7	+	+
– <i>Gyraulus (Lamorbis) rossmaessleri</i> (Auerswald, 1852)	37	–	+
Subgenus <i>Armiger</i> W. Hartmann, 1843			
– <i>Gyraulus (Armiger) crista</i> (Linnaeus, 1758) [<i>Armiger crista</i> (Linnaeus, 1758)]	116	+	+
Genus <i>Hippeutis</i> Charpentier, 1837			
– <i>Hippeutis complanatus</i> (Linnaeus, 1758)	91	+	+
Genus <i>Segmentina</i> Fleming, 1818			
– <i>Segmentina nitida</i> (O. F. Müller, 1774)	248	+	+
Genus <i>Ancylus</i> O. F. Müller, 1773			
– <i>Ancylus fluviatilis</i> O. F. Müller, 1774	15	+	+
Subordo Acteophila Dall, 1885			
Superfamilia Ellobioidea L. Pfeiffer, 1854 (1822)			
Familia Carychiidae Jeffreys, 1830			
Genus <i>Carychium</i> O. F. Müller, 1773			
Subgenus <i>Carychium</i> O. F. Müller, 1773			
– <i>Carychium (Carychium) minimum</i> O. F. Müller, 1774	165	+	+
Subgenus <i>Saraphia</i> Risso, 1826			
– <i>Carychium (Saraphia) tridentatum</i> (Risso, 1826)	82	–	+
Subordo Stylocephata A. Schmidt, 1855			
Superfamilia Succineoidea H. Beck, 1837			
Familia Succineidae H. Beck, 1837			
Subfamilia Succineinae H. Beck, 1837			
Genus <i>Succinea</i> Draparnaud, 1801			
– <i>Succinea putris</i> (Linnaeus, 1758)	422	+	+
Genus <i>Succinella</i> J. Mabille, 1871			
– <i>Succinella oblonga</i> (Draparnaud, 1801)	193	+	+
Genus <i>Oxyloma</i> Westerlund, 1885			
Subgenus <i>Oxyloma</i> Westerlund, 1885			
– <i>Oxyloma (Oxyloma) elegans</i> (Risso, 1826) [<i>Succinea (Oxyloma) elegans</i> Risso, 1826]	251	+	+
– <i>Oxyloma (Oxyloma) sarsii</i> (Esmark, 1886) [<i>Succinea (Oxyloma) sarsii</i> Esmark, 1886]	83	+	+
Superfamilia Cochlicopoidea Pilsbry, 1900 (1879)			
Familia Cochlicopidae Pilsbry, 1900 (1879)			
Genus <i>Cochlicopa</i> A. Féruccac, 1821			
– <i>Cochlicopa lubrica</i> (O. F. Müller, 1774)	663	+	+
– <i>Cochlicopa lubricella</i> (Rossmässler, 1834)	207	+	+
– <i>Cochlicopa nitens</i> (M. von Gallenstein, 1848)	80	+	+
Superfamilia Pupilloidea Turton, 1831			
Familia Valloniidae Morse, 1864			
Subfamilia Valloniinae Morse, 1864			
Genus <i>Vallonia</i> Risso, 1826			
– <i>Vallonia costata</i> (O. F. Müller, 1774)	391	+	+
– <i>Vallonia pulchella</i> (O. F. Müller, 1774)	527	+	+
– <i>Vallonia excentrica</i> Sterki, 1893	51	+	+



	n. loc.	before 1958	after 1958
Subfamilia Acanthinuliniae Steenberg, 1917			
Genus <i>Acanthinula</i> H. Beck, 1847			
– <i>Acanthinula aculeata</i> (O. F. Müller 1774)	68	+	+
Familia Pupillidae Turton, 1831			
Genus <i>Pupilla</i> Fleming, 1828			
Subgenus <i>Pupilla</i> Fleming, 1828			
– <i>Pupilla (Pupilla) muscorum</i> (Linnaeus, 1758)	301	+	+
Familia Vertiginidae Fitzinger, 1833			
Subfamilia Truncatelliniae Steenberg, 1925			
Genus <i>Columella</i> Westerlund, 1878			
– <i>Columella edentula</i> (Draparnaud, 1805)	98	+	+
– <i>Columella aspera</i> Waldén, 1966	5	–	+
Genus <i>Truncatellina</i> R.T. Lowe, 1852			
– <i>Truncatellina cylindrica</i> (A. Féruccac, 1807)	72	+	+
– <i>Truncatellina costulata</i> (Nilsson, 1823)	27	+	+
Subfamilia Vertigininae Fitzinger, 1833			
Genus <i>Vertigo</i> O. F. Müller, 1773			
Subgenus <i>Vertigo</i> O. F. Müller, 1773			
– <i>Vertigo (Vertigo) pusilla</i> O. F. Müller, 1774	109	+	+
– <i>Vertigo (Vertigo) antivertigo</i> (Draparnaud, 1801)	76	+	+
– <i>Vertigo (Vertigo) substriata</i> (Jeffreys, 1833)	41	+	+
– <i>Vertigo (Vertigo) pygmaea</i> (Draparnaud, 1801)	106	+	+
– <i>Vertigo (Vertigo) mouliniana</i> (Dupuy, 1849)	1	–	+
– <i>Vertigo (Vertigo) ronnebyensis</i> (Westerlund, 1871)	2	+	+
Subgenus <i>Vertilla</i> Moquin-Tandon, 1856			
– <i>Vertigo (Vertilla) angustior</i> Jeffreys, 1830	54	+	+
Superfamilia Enoidea B. B. Woodward, 1903 (1880)			
Familia Enidae B. B. Woodward, 1903 (1880)			
Subfamilia Eninae B. B. Woodward, 1903 (1880)			
Tribus Multidentulini Schileyko, 1978			
Genus <i>Merdigera</i> Held, 1838			
– <i>Merdigera obscura</i> (O. F. Müller, 1774) [<i>Ena obscura</i> (O. F. Müller, 1774)]	65	+	+
Tribus Chondrulini Wenz, 1923			
Genus <i>Chondrula</i> H. Beck, 1837			
– <i>Chondrula tridens</i> (O. F. Müller, 1774)	110	+	+
Familia Subulinidae Crosse et Fischer, 1877			
Genus <i>Opeas</i> Albers, 1850			
– <i>Opeas pumilum</i> (C. Pfeiffer, 1940)	0	gh	–
Superfamilia Clausilioidea J. E. Gray, 1855			
Familia Clausiliidae J. E. Gray, 1855			
Subfamilia Alopiinae A. J. Wagner, 1913			
Tribus Cochlodinini Lindholm, 1925 (1923)			
Genus <i>Cochlodina</i> A. Féruccac, 1821			
Subgenus <i>Cochlodina</i> A. Féruccac, 1821			
– <i>Cochlodina (Cochlodina) laminata</i> (Montagu, 1803)	40	+	+

	n. loc.	before 1958	after 1958
Subfamilia Clausiliinae J. E. Gray, 1855			
Tribus Clausiliini J. E. Gray, 1855			
Genus <i>Ruthenica</i> Lindholm, 1924			
– <i>Ruthenica filograna</i> (Rossmässler, 1836)	7	+	+
Genus <i>Macrogaster</i> W. Hartmann, 1841			
Subgenus <i>Macrogaster</i> W. Hartmann, 1841			
– <i>Macrogaster (Macrogaster) ventricosa</i> (Draparnaud, 1801)	1	sf	+
Subgenus <i>Pyrostoma</i> Vest, 1867			
– <i>Macrogaster (Pyrostoma) plicatula</i> (Draparnaud, 1801)	5	+	+
Genus <i>Clausilia</i> Draparnaud, 1805			
Subgenus <i>Clausilia</i> Draparnaud, 1805			
– <i>Clausilia (Clausilia) bidentata</i> (Ström, 1765)	72	+	+
– <i>Clausilia (Clausilia) pumila</i> C. Pfeiffer, 1828	6	+	+
Subfamilia Baleinae A. J. Wagner, 1913			
Genus <i>Laciaria</i> W. Hartmann, 1842			
– <i>Laciaria plicata</i> (Draparnaud, 1801)	9	+	+
Genus <i>Balea</i> J. E. Gray, 1824			
Subgenus <i>Alinda</i> H. et A. Adams, 1855			
– <i>Balea (Alinda) biplicata</i> (Montagu, 1803) [<i>Alinda biplicata</i> (Montagu, 1803)]	3	+	+
Genus <i>Bulgarica</i> O. Boettger, 1877			
Subgenus <i>Strigilecula</i> Kennard et B. B. Woodward, 1923			
– <i>Bulgarica (Strigilecula) cana</i> (Held, 1836)	4	+	+
Superfamilia Achatinoidea Swainson, 1840			
Familia Ferussaciidae Bourguignat, 1883			
Subfamilia Ferussaciinae Bourguignat, 1883			
Genus <i>Cecilioides</i> A. Féruccac, 1814			
Subgenus <i>Cecilioides</i> A. Féruccac, 1814			
– <i>Cecilioides (Cecilioides) acicula</i> (O. F. Müller, 1774)	15	+	+
Superfamilia Punctoidea Morse, 1864			
Familia Punctidae Morse, 1864			
Genus <i>Punctum</i> Morse, 1864			
Subgenus <i>Punctum</i> Morse, 1864			
– <i>Punctum (Punctum) pygmaeum</i> (Draparnaud, 1801)	156	+	+
Familia Helicodiscidae H. B. Baker, 1927			
Genus <i>Lucilla</i> R. T. Lowe, 1852			
– <i>Lucilla singleyana</i> (Pilsbry, 1889) [<i>Helicodiscus singleyanus</i> (Pilsbry, 1889)]	2	–	+
Familia Patulidae Tryon, 1866			
Genus <i>Discus</i> Fitzinger, 1833			
Subgenus <i>Discus</i> Fitzinger, 1833			
– <i>Discus (Discus) ruderatus</i> (W. Hartmann, 1821)	21	+	+
Subgenus <i>Gonyodiscus</i> Fitzinger, 1833			
– <i>Discus (Gonyodiscus) rotundatus</i> (O. F. Müller, 1774)	66	+	+



	n. loc.	before 1958	after 1958
Superfamilia Gastrodontoidea Tryon, 1866			
Familia Euconulidae H. B. Baker, 1928			
Subfamilia Euconuliniae H. B. Baker, 1928			
Genus <i>Euconulus</i> Reinhardt, 1883			
Subgenus <i>Euconulus</i> Reinhardt, 1883			
– <i>Euconulus (Euconulus) fulvus</i> (O. F. Müller, 1774)	248	+	+
– <i>Euconulus (Euconulus) praticola</i> (Reinhardt, 1883) [<i>Euconulus alderi</i> (Gray, 1840)]	4	+	+
Familia Gastrodonidae Tryon, 1866			
Genus <i>Zonitoides</i> Lehmann, 1862			
Subgenus <i>Zonitoides</i> Lehmann, 1862			
– <i>Zonitoides (Zonitoides) nitidus</i> (O. F. Müller, 1774)	510	+	+
Familia Pristilomatidae T. Cockerell, 1891			
Genus <i>Vitre a</i> Fitzinger, 1833			
– <i>Vitre a crystallina</i> (O. F. Müller, 1774)	76	+	+
– <i>Vitre a contracta</i> (Westerlund, 1871)	19	+	+
Familia Oxychilidae P. Hesse, 1927 (1879)			
Subfamilia Oxychilinae P. Hesse, 1927 (1879)			
Genus <i>Oxychilus</i> Fitzinger, 1833			
Subgenus <i>Oxychilus</i> Fitzinger, 1833			
– <i>Oxychilus (Oxychilus) cellarius</i> (O. F. Müller, 1774)	30	+	+
– <i>Oxychilus (Oxychilus) draparnaudi</i> (H. Beck, 1837)	18	+	+
Subgenus <i>Ortizius</i> Forcart, 1957			
– <i>Oxychilus (Ortizius) alliarius</i> (J. S. Miller, 1822)	3	–	+
Genus <i>Mediterranea</i> Clessin, 1880			
– <i>Mediterranea inopinata</i> (Ulicný, 1887) [<i>Oxychilus inopinatus</i> (Ulicný, 1887)]	0	sf	–
Subfamilia Godwiniinae C. M. Cooke, 1921			
Genus <i>Aegopinella</i> Lindholm, 1927			
– <i>Aegopinella pura</i> (Alder, 1830)	88	+	+
– <i>Aegopinella minor</i> (Stabile, 1864)	1	–	+
– <i>Aegopinella nitidula</i> (Draparnaud, 1805)	69	+	+
Genus <i>Nesovitre a</i> C. M. Cooke, 1921			
Subgenus <i>Perpolita</i> H. B. Baker, 1928			
– <i>Nesovitre a (Perpolita) hammonis</i> (Ström, 1765)	407	+	+
– <i>Nesovitre a (Perpolita) petronella</i> (L. Pfeiffer, 1853)	22	+	+
Superfamilia Limacoidea Lamarck, 1801			
Familia Vitrinidae Fitzinger, 1833			
Subfamilia Vitrininae Fitzinger, 1833			
Genus <i>Vitrina</i> Draparnaud, 1801			
– <i>Vitrina pellucida</i> (O. F. Müller, 1774)	492	+	+
Familia Limacidae Lamarck, 1801			
Subfamilia Limicinae Lamarck, 1801			
Genus <i>Limax</i> Linnaeus, 1758			
– <i>Limax maximus</i> Linnaeus, 1758	42	+	+
– <i>Limax cinereoniger</i> Wolf, 1803	36	+	+

	n. loc.	before 1958	after 1958
Genus <i>Limacus</i> Lehmann, 1864			
– <i>Limacus flavus</i> (Linnaeus, 1758)	21	+	+
Genus <i>Malacolimax</i> Malm, 1868			
– <i>Malacolimax tenellus</i> (O. F. Müller, 1774)	36	+	+
Genus <i>Lehmannaia</i> Heynemann, 1863			
– <i>Lehmannaia marginata</i> (O. F. Müller, 1774)	4	+	+
– <i>Lehmannaia valentiana</i> (A. Féruccac, 1822)	1	–	+
Familia Agriolimacidae H. Wagner, 1935			
Subfamilia Agriolimacinae H. Wagner, 1935			
Genus <i>Deroceras</i> Rafinesque, 1820			
Subgenus <i>Deroceras</i> Rafinesque, 1820			
– <i>Deroceras (Deroceras) laeve</i> (O. F. Müller, 1774)	24	–	+
– <i>Deroceras (Deroceras) sturanyi</i> (Simroth, 1894)	4	–	+
– <i>Deroceras (Deroceras) agreste</i> (Linnaeus, 1758)	90	+	+
– <i>Deroceras (Deroceras) reticulatum</i> (O. F. Müller, 1774)	145	+	+
Familia Arionidae J. E. Gray, 1840			
Subfamilia Arioninae J. E. Gray, 1840			
Genus <i>Arion</i> A. Féruccac, 1819			
Subgenus <i>Arion</i> A. Féruccac, 1819			
– <i>Arion (Arion) rufus</i> (Linnaeus, 1758)	30	+	+
– <i>Arion (Arion) lusitanicus</i> J. Mabille, 1868	1	–	+
Subgenus <i>Mesarion</i> P. Hesse, 1926			
– <i>Arion (Mesarion) fuscus</i> (O. F. Müller, 1774) [<i>Arion subfuscus</i> (Draparnaud, 1805)]	179	+	+
Subgenus <i>Carinariion</i> P. Hesse, 1926			
– <i>Arion (Carinariion) circumscriptus</i> Johnston, 1828	64	+	+
– <i>Arion (Carinariion) fasciatus</i> (Nilsson, 1823)	11	–	+
– <i>Arion (Carinariion) silvaticus</i> Lohmander, 1937	1	–	+
Subgenus <i>Kobeltia</i> Seibert, 1873			
– <i>Arion (Kobeltia) distinctus</i> Mabile, 1868 [<i>Arion (Kobeltia) hortensis</i> A. Féruccac, 1819]	11	+	+
– <i>Arion (Kobeltia) intermedius</i> Normand, 1852	3	–	+
Familia Bradybaenidae Pilsbry, 1934 (1898)			
Subfamilia Bradybaeninae Pilsbry, 1934 (1898)			
Genus <i>Fruticicola</i> Held, 1838			
– <i>Fruticicola fruticum</i> (O. F. Müller, 1774) [<i>Bradybaena fruticum</i> (O. F. Müller, 1774)]	98	+	+
Familia Helicidae Rafinesque, 1815			
Subfamilia Ariantinae Mörch, 1864			
Genus <i>Arianta</i> Turton, 1831			
– <i>Arianta arbustorum</i> (Linnaeus, 1758)	55	+	+
Genus <i>Helicigona</i> A. Féruccac, 1821			
– <i>Helicigona lapicida</i> (Linnaeus, 1758)	2	sf	+



	n. loc.	before 1958	after 1958
Subfamilia Helicinae Rafinesque, 1815			
Tribus Helicini Rafinesque, 1815			
Genus <i>Cepaea</i> Held, 1838			
Subgenus <i>Cepaea</i> Held, 1838			
– <i>Cepaea (Cepaea) nemoralis</i> (Linnaeus, 1758)	113	+	+
– <i>Cepaea (Cepaea) hortensis</i> (O. F. Müller, 1774)	151	+	+
Subgenus <i>Austrotachea</i> G. Pfeffer, 1930			
– <i>Cepaea (Austrotachea) vindobonensis</i> (C. Pfeiffer, 1828)	13	+	+
Genus <i>Helix</i> Linnaeus, 1758			
Subgenus <i>Helix</i> Linnaeus, 1758			
– <i>Helix (Helix) pomatia</i> Linnaeus, 1758	898	+	+
Familia Hygromiidae Tryon, 1866			
Subfamilia Monachinae Wenz, 1930 (1904)			
Tribus Monachini Wenz, 1930 (1904)			
Genus <i>Monacha</i> Fitzinger 1833			
Subgenus <i>Monacha</i> Fitzinger 1833			
– <i>Monacha (Monacha) cartusiana</i> (O. F. Müller, 1774)	2	–	+
Tribus Euomphaliini Shileyko, 1978			
Genus <i>Euomphalia</i> Westerlund, 1889			
– <i>Euomphalia strigella</i> (Draparnaud, 1801)	129	+	+
Subfamilia Hygromiinae Tryon, 1866			
Tribus Leptaxini C. Boettger, 1909			
Genus <i>Perforatella</i> Schlüter, 1838			
– <i>Perforatella bidentata</i> (Gmelin, 1791)	146	+	+
Genus <i>Pseudotrichia</i> Likharev, 1949			
– <i>Pseudotrichia rubiginosa</i> (Rossmässler, 1838)	316	+	+
Genus <i>Monachoides</i> Gude et B. B. Woodward, 1921			
– <i>Monachoides incarnatus</i> (O. F. Müller, 1774) [<i>Perforatella incarnata</i> (O. F. Müller, 1774)]	156	+	+
– <i>Monachoides vicinus</i> (Rossmässler, 1842) [<i>Perforatella vicina</i> (Rossmässler, 1842)]	1	+	+
Tribus Trichiini Ložek, 1956			
Genus <i>Trichia</i> W. Hartmann, 1840			
Subgenus <i>Trichia</i> W. Hartmann, 1840			
– <i>Trichia (Trichia) hispida</i> (Linnaeus, 1758)	236	+	+
Subgenus <i>Plicuteria</i> Schileyko, 1978			
– <i>Trichia (Plicuteria) lubomirskii</i> (Ślósarski, 1881)	1	+	+
Genus <i>Helicopsis</i> Fitzinger, 1833			
– <i>Helicopsis striata</i> (O. F. Müller, 1774)	1	–	+
Tribus Helicellini Ihering, 1909			
Genus <i>Candidula</i> Kobelt, 1871			
– <i>Candidula unifasciata</i> (Poiret, 1801)	1	+	+
Genus <i>Helicella</i>			
– <i>Helicella itala</i> (Linnaeus, 1758)	0	+	–
Tribus incerta			
Genus <i>Xerolenta</i> Monterosato, 1892			
– <i>Xerolenta obvia</i> (Menke, 1828) [<i>Helicella obvia</i> (Menke, 1828)]	106	+	+

	n. loc.	before 1958	after 1958
Classis Bivalvia Linnaeus, 1758			
Subclassis Eulamellibranchia Pelseneer, 1889			
Superordo Palaeoheterodonta Newell, 1965			
Ordo Unionoidea Stoliczka, 1870			
Superfamilia Unionoidea Rafinesque, 1820			
Familia Unionidae Rafinesque, 1820			
Subfamilia Unioninae Rafinesque, 1820			
Genus <i>Unio</i> Philipsson, 1788			
– <i>Unio pictorum</i> (Linnaeus, 1758)	90	+	+
– <i>Unio tumidus</i> Philipsson, 1788	114	+	+
– <i>Unio crassus</i> Philipsson, 1788	20	+	+
Subfamilia Anodontinae Rafinesque, 1820			
Genus <i>Anodonta</i> Lamarck, 1799			
– <i>Anodonta anatina</i> (Linnaeus, 1758)	113	+	+
– <i>Anodonta cygnea</i> (Linnaeus, 1758)	68	+	+
Genus <i>Pseudanodonta</i> Bourguignat, 1877			
– <i>Pseudanodonta complanata</i> (Rossmässler, 1835) [<i>Anodonta complanata</i> (Rossmässler, 1835)]	2	+	+
Genus <i>Sinanodonta</i> Modell, 1945			
– <i>Sinanodonta woodiana</i> (Lea, 1834)	8	–	+
Superordo Heterodonta Neumayr, 1883			
Ordo Veneroida H. et A. Adams, 1856			
Superfamilia Sphaerioidae Deshayes, 1855 (1820)			
Familia Sphaeriidae Deshayes, 1855 (1820)			
Subfamilia Sphaeriinae Deshayes, 1855 (1820)			
Genus <i>Sphaerium</i> Scopoli, 1777			
– <i>Sphaerium corneum</i> (Linnaeus, 1758)	287	+	+
– <i>Sphaerium rivicola</i> (Lamarck, 1818)	35	+	+
Genus <i>Musculium</i> Link, 1807			
– <i>Musculium lacustre</i> (O. F. Müller, 1774)	41	+	+
Genus <i>Pisidium</i> C. Pfeiffer, 1821			
– <i>Pisidium amnicum</i> (O. F. Müller, 1774)	93	+	+
– <i>Pisidium casertanum</i> (Poli, 1791)	207	+	+
– <i>Pisidium ponderosum</i> Stelfox, 1918 [<i>Pisidium casertanum</i> var. <i>ponderosa</i> (Stelfox, 1918)]**	30	+	+
– <i>Pisidium personatum</i> Malm, 1855	50	–	+
– <i>Pisidium obtusale</i> (Lamarck, 1818)	102	+	+
– <i>Pisidium henslowanum</i> (Sheppard, 1823)	112	+	+
– <i>Pisidium supinum</i> A. Schmidt, 1851	67	+	+
– <i>Pisidium lilljeborgii</i> Clessin, 1886	3	–	+
– <i>Pisidium hibernicum</i> Westerlund, 1894	31	–	+
– <i>Pisidium nitidum</i> Jenyns, 1832	155	+	+
– <i>Pisidium crassum</i> Stelfox, 1918 [<i>Pisidium nitidum</i> var. <i>crassa</i> Stelfox, 1918]	38	+	+
– <i>Pisidium pseudosphaerium</i> J. Favre, 1927	27	+	+
– <i>Pisidium milium</i> Held, 1836	86	+	+
– <i>Pisidium subtruncatum</i> Malm, 1855	163	sf	+
– <i>Pisidium pulchellum</i> Jenyns, 1832	24	sf	+



	n. loc.	before 1958	after 1958
– <i>Pisidium tenuilineatum</i> Stelfox, 1918	4	–	+
– <i>Pisidium moitessierianum</i> Paladilhe, 1866	11	–	+
Superfamilia Dreissenoidae J. E. Gray, 1840			
Familia Dreissenidae J. E. Gray, 1840			
Genus <i>Dreissena</i> van Beneden, 1835			
– <i>Dreissena polymorpha</i> (Pallas, 1771)	91	+	+

* three species of *Radix* (*R. labiata*, *R. balthica* and *R. ampla*) were determined (usually as forms of *R. peregra*) by only some of the authors from the region; in most of the papers the species occur as "*R. peregra*". It is not possible to estimate the exact number of localities for particular species.

** since *Pisidium ponderosum* was regarded a form of *P. casertanum* by most of the authors, in many of its localities it is probably described as the second mentioned species; the number of localities given in the table is most probably underestimated.

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