



**FORMER INVESTIGATIONS OF THE FAUNA OF SNAILS (MOLLUSCA,
GASTROPODA) IN BOSNIA & HERZEGOVINA**

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S y n o p s i s

The short history of investigations of freshwater and land gastropods (Mollusca, Gastropoda) from Bosnia & Herzegovina are presented. The list of known taxa of this group of animals (331 species and subspecies, belonging to 134 genera and 47 families, respectively, from this region are given.

Key words: snails, Mollusca, Gastropoda, taxonomy, Bosnia & Herzegovina

S i n o p s i s

**DOSADAŠNJA ISTRAŽIVANJA FAUNE PUŽEVA (MOLLUSCA, GASTROPODA) BOSNE
I HERCEGOVINE**

Prezentiran je kratak pregled dosadašnjih istraživanja faune slatkovodnih i kopnenih puževa Bosne i Hercegovine. Dat je pregled do sada poznatih taksona ove grupe životinja (330 vrsta i podvrsta iz 134 radova odnosno 47 familija, sa teritorije Bosne & Hercegovine.

Ključne riječi: puževi, Mollusca, Gastropoda, taksonomija, Bosna i Hercegovina

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INTRODUCTION

The specific geographical position, relief, climate, geomorphology and geological history of Bosnia & Herzegovina (mentioned in present borders) made it possible to develop one very rich fauna of land and freshwater gastropods (*Mollusca, Gastropoda*) in this part of Balkan peninsula.

The first data about the snails from Bosnia & Herzegovina belongs to the second half of 19th century (Boettger, 1885, 1888; Brancsik, 1888, 1889; Pfeiffer, 1868), when the Museum „Zemaljski muzej Bosne i Hercegovine“ has been established in Sarajevo, including its Department of the Natural History. Many known scientists have worked in this Department; one of them was VIKTOR A P F E L B E C K (1859-1934), biologist from Sarajevo, the great entomologist and collector of various biological materials. He has engaged numerous collaborators amateurs of different professions to collect various biological material over Bosnia & Herzegovina for him, according his very detailed instructions (F. Wagner, A. Hensch, A. Penther, Paganetti, Mustajbeg Kurbegović, Dobias, etc.). The Gastropods, collected on this way, he sent to known European malacologists for determination and study. By this way, it was created in this Museum one very rich collection of land and freshwater Gastropods from Bosnia & Herzegovina and other regions of Balkan.

Later, other numerous investigations of this group of animals have been realized in the 20th century also (Bole, 1961; Kuščer, 1933; Pinter, 1972; Nordsieck, 1969, 1970, 1971, 1974; Radoman, 1967, 1973, 1974, 1975, 1983; Schütt, 1959, Wagner, 1901, 1907, 1912, 1913, 1914; Wiktor, 1987, Etc.).

The numerous taxa of *Gastropoda*, new for the science, have been discovered and described from the area of Bosnia & Herzegovina, among them also:

Agardhiella formosa (L. Pfeiffer, 1848); *Balea biplicata bosnina* Brancsik, 1889; *Bythinella kapelana* Radoman, 1976; *Bythinella magna* Radoman, 1976; *Bythinella samecana* Clessin, 1911; *Caecilioides spelaea* A. J. Wagner, 1914; *Chilostoma pouzolzi bosniensis* (Kobelt, 1871); *Chilostoma moellendorffi* (Kobelt, 1871); *Chondrina spelta anodon* Nordsieck, 1970; *Chondrina spelta bosnica* Nordsieck, 1970; *Chondrina spelta sutjeskae* Nordsieck, 1970; *Cochlostoma septemspirale bosniacum* (Boettger, 1885); *Cochlostoma gracile gracillima* (Wagner, 1901); *Cochlostoma roseoli* (A. J. Wagner, 1901); *Cochlostoma mostarensis* (A. J. Wagner, 1906); *Delima giselae* A. J. Wagner, 1914; *Delima binotata hercegovinae* (Möllendorff, 1873); *Delima semirugata blaui* Möllendorff, 1883; *Helicodonta obvoluta* (O. F. Müller, 1774); *Graziana vrbasensis* Radoman, 1975; *Herilla bosniensis bosniensis* (L. Pfeifer, 1868); *Herilla bosniensis brancsiki* Nordsieck, 1971; *Herilla bosniensis brandisi* (Brancsik, 1888); *Herilla durmitoris pseudalopia* (A. J. Wagner, 1913); *Herilla illyrica medoroides* (A. J. Wagner, 1913); *Herilla pavlovici hiltrudae* Nordsieck, 1971; *Herilla pavlovici pavlovici* (A. J. Wagner, 1914); *Herilla pavlovici trescavicensis* (A. J. Wagner, 1913); *Herilla ziegleri ljubicicensis* (A. J. Wagner, 1913); *Herilla ziegleri neglecta* (Brancsik, 1888); *Herilla ziegleri perfecta* (A. J. Wagner, 1913); *Herilla ziegleri zabuljensis* (A. J. Wagner, 1912); *Herilla ziegleri ziegleri* (Küster, 1847); *Iglica absoloni* (A. J. Wagner, 1914); *Islamia valvataeformis* (Möllendorff, 1873); *Islamia bosniaca* Radoman, 1973; *Lanzaia vjetreniae* Kušcer, 1933; *Limax bielzi* Scibert, 1873; *Medora albescens livnoensis* Nordsieck, 1970; *Medora albescens troglavensis* (A. J. Wagner, 1912); *Medora albescens unae* Nordsieck, 1974; *Medora dalmatina latecostata* Nordsieck, 1970; *Medora dalmatina matulici* (Sturany, 1901);

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Medora dalmatina schuetti Nordsieck, 1970; *Medora dalmatina vultur* (Brancsik, 1906); *Narentiana vjeternicae* Radoman, 1973; *Orientalina curta mostarensis* Radoman, 1973; *Orientalina curta pivensis* (Radoman, 1973); *Orientalina bosniaca* Radoman, 1973; *Oxylilus absoloni* (A. J. Wagner, 1914); *Oxylilus nautiliformis* (A. J. Wagner, 1914); *Paladilhiopsis brandisi* (Clessin, 1911); *Paraegopis mauritii mauritii* (Westerlund, 1886); *Petasina filicina bosnensis* (Möllendorff, 1873); *Plagigeyeria mostarensis* (Kušcer, 1933); *Plagigeyeria plagiostoma* (A. J. Wagner, 1914); *Pseudamnicola troglobia* Bole, 1961; *Sarajana apfelbecki apfelbecki* (Brancsik, 1888); *Sarajana apfelbecki driniana* Radoman, 1975; *Sarajana apfelbecki erythropama* (Schütt, 1959); *Sarajana apfelbecki travnickensis* Radoman, 1975; *Tandonia bosnensis* Wiktor, 1986; *Vitrella illyrica* (A. J. Wagner, 1907); *Vitrella kiliensi* Pinter, 1972; *Vitraea spelaea* (A. J. Wagner, 1914); *Vitrella sturanyi* (A. J. Wagner, 1907); *Vinodolia hadouphylax* Schütt, 1959; *Zospeum troglobalcanicum* (Absolon, 1916).

LIST OF TAXA OF BOSNIA & HERZEGOVINA

Class GASTROPODA Order ARCHITAENIOGLOSSA Superfamily AMPULARIOIDEA Family VIVIPARIDAE Genus VIVIPARUS Montfort, 1810 <i>Viviparus contectus</i> (Millet, 1813) <i>Viviparus viviparus</i> (Linnaeus, 1758) Superfamily CYCLOPHOROIDEA Family ACICULIDAE Woodward, 154 Genus PLATYLA Moquin-Tandon, 1856 <i>Platyula banatica</i> (Rossmässler, 1842) <i>Platyula gracilis</i> (Clessin, 1877) <i>Platyula perpusila</i> (Reinhardt, 1880) <i>Platyula polita</i> (Hartmann, 1840) <i>Platyula wilhelmi</i> (A. J. Wagner, 1910) Genus RENEA Nevill, 1880 <i>Renea spectabilis</i> (Rossmässler, 1839) Family COCHLOSTOMATIDAE Kobelt, 1902 Genus COCHLOSTOMA Jan, 1830 Subgenus COCHLOSTOMA Jan, 1830 <i>Cochlostoma (Cochlostoma) septemspirale bosniacum</i> (O. Boettger, 1885) <i>Cochlostoma (Cochlostoma) cinerascens</i> (Rossmässler, 1837) <i>Cochlostoma (Cochlostoma) elegans oostoma</i> (Westerlund, 1883) <i>Cochlostoma (Cochlostoma) elegans imoschiense</i> (A. J. Wagner, 1906) <i>Cochlostoma (Cochlostoma) mostarensis</i> (A. J. Wagner, 1906)	<i>Cochlostoma (Cochlostoma) scalarinum</i> (Villa & Villa, 1841) Subgenus HOLCOPOMA Kobelt & Möllendorff, 1899 <i>Cochlostoma (Holcopoma) roseoli</i> (A. J. Wagner, 1901) Subgenus TURRITUS Westerlund, 1883 <i>Cochlostoma (Turritus) dalmatinum</i> (Pfeiffer, 1862) <i>Cochlostoma (Turritus) gracile gracile</i> (Pfeiffer, 1849) <i>Cochlostoma (Turritus) gracile croaticum</i> Pfeiffer, 1871 <i>Cochlostoma (Turritus) gracile gracillima</i> (A. J. Wagner, 1901) <i>Cochlostoma (Turritus) gracile martensianum</i> (Möllendorff, 1873) <i>Cochlostoma (Turritus) sturanii scalariniforme</i> (A. J. Wagner, 1906) <i>Cochlostoma (Turritus) sturanii sturanii</i> A. J. Wagner, 1897 Order NEOTAENIOGLOSSA Superfamily CERITHOIDEA Family MELANOPSIDAE Genus FAGOTIA Bourguignat, 1877 Subgenus FAGOTIA Bourguignat, 1877 <i>Fagotia (Fagotia) esperi</i> (Férussac, 1823) Superfamily LITTORINOIDEA Family POMATIASIDAE Genus POMATIAS Studer, 1789 <i>Pomatias elegans</i> (O. F. Müller, 1774) <i>Pomatias rivulare</i> (Eichwald, 1829)
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- Superfamily RISSOOIDEA**
- Family BITHYNIIDAE**
- Genus BITHYNIA Leach, 1818**
- Subgenus BITHYNIA Leach, 1818**
- Bithynia (Bithynia) tentaculata* (Linnaeus, 1758)
- Bythinia (Bithynia) mostarensis* Möllendorff, 1873
- Subgenus CODIELLA Locard, 1894**
- Bithynia (Codiella) leachi* (Scheppard, 1823)
- Family EMMERICIIDAE**
- Genus EMMERICIA Brusina, 1870**
- Emmericia narentana* Bourguignat, 1880
- Emmericia patula* (Brumati, 1838)
- Emmericia ventricosa* Brusina, 1870
- Family HYDROBIIDAE**
- Genus ADRIOHYDROBIA Radoman, 1973**
- Adriohydrobia gagatinella* (Küster, 1852)
- Genus BELGRANDIELLA A. J. Wagner, 1928**
- Belgrandiella saxatilis* (Reynies, 1844)
- Belgrandiella substricta* (Kuščer, 1932)
- Genus BYTHINELLA Moquin-Tandon, 1855**
- Bythinella kapelana* Radoman, 1976
- Bythinella magna* Radoman, 1976
- Bythinella samecana* Clessin, 1911
- Bythinella opaca opaca* (M. v. Galenstein, 1848)
- Genus CILGIA Schütt, 1968**
- Cilgia dalmatica* (Schütt, 1961)
- Genus GRAZIANA Radoman, 1975**
- Graziana lacheineri glinensis* Radoman, 1975
- Graziana lacheineri lacheineri* (Küster, 1853)
- Graziana vrbaensis* Radoman, 1975
- Genus HAUFFENIA Pollonera, 1898**
- Hauffenia edlaueri* (Schütt, 1961)
- Genus IGLICA A. J. Wagner, 1927**
- Subgenus IGLICA A. J. Wagner, 1927**
- Iglica (Iglica) absoloni* (A. J. Wagner, 1914)
- Genus ISLAMIA Radoman, 1973**
- Islamia valvataeformis* (Möllendorff, 1873)
- Islamia bosniaca* Radoman, 1973
- Genus LANZAIA Brusina, 1906**
- Lanzaia vjetrenicae* Kuščer, 1933
- Genus Lithhabitella Boeters, 1970**
- Lithhabitella chilodia* (Westerlund, 1886)
- Genus LITHOGLYPHUS Hartmann, 1821**
- Lithoglyphus fuscus* (C. Pfeiffer, 1828)
- Lithoglyphus naticoides* (C. Pfeiffer, 1828)
- Genus MARSTONIOPSIS Alten, 1936**
- Marstoniopsis vrbsi* Bole & Velkovrh, 1987
- Genus NARENTIANA Radoman, 1973**
- Subgenus ZAVALIA Radoman, 1973**
- Narentiana (Zavalia) vjetrenicae* Radoman, 1973
- Genus ORIENTALINA Radoman, 1978**
- Orientalina bosniaca* (Radoman, 1973)
- Orientalina curta mostarensis* Radoman, 1973
- Orientalina curta pivenensis** (Radoman, 1973)
- Genus PALADILHIOPSIS Pavlovic, 1913**
- Paladilhiopsis brandisi* (Clessin, 1911)
- Paladilhiopsis solida* Schütt, 1970
- Genus PLAGIGEYERIA Tomlin, 1930**
- Plagigeyeria mostarensis* mostarensis Kuščer, 1933
- Plagigeyeria mostarensis ovalis* Kuščer, 1933
- Plagigeyeria plagiostoma* (Wagner, 1914)
- Plagigeyeria robusta* Schütt, 1959
- Plagigeyeria tribunicae* Schütt, 1963
- Genus PSEUDAMNICILA Pauluci, 1878**
- Subgenus PSEUDAMNICILA Pauluci, 1878**
- Pseudamnicola troglobie* Bole, 1961
- Genus SADLERIANA Clessin, 1890**
- Sadleriana sadleriana* (Frauenfeld, 1863)
- Sadleriana fluminensis* (Küster, 1852)
- Sadleriana virescens* (Küster, 1852)
- Genus SARAJANA Radoman, 1975**
- Sarajana apfelbecki apfelbecki* (Brancsik, 1888)
- Sarajana apfelbecki driniana* Radoman, 1975
- Sarajana apfelbecki erythropama* (Schütt, 1959)
- Sarajana apfelbecki travnicensis* Radoman, 1975
- Genus SAXURINATOR Schütt, 1960**
- Saxurinator brandti* Schütt, 1968
- Saxurinator montenegrinus* (Schütt, 1959)
- Saxurinator sketi* (Bole, 1960)
- Genus VINODOLIA Radoman, 1973**
- Vinodolia (Anagastina) hadouphylax* (Schütt, 1959)
- Family PYRGULIDAE**
- Genus PYRGULA Cristofor & Jan, 1832**
- Pyrgula annulata* (Linnaeus, 1767)
- Order ECTOBRANCHIA**
- Superfamily VALVATOIDEA**
- Family VALVATIDAE**
- Genus VALVATA O. F. Müller, 1774**
- Subgenus VALVATA O. F. Müller, 1774**
- Valvata (Valvata) cristata* (O. F. Müller, 1774)
- Subgenus CINCINNA Hübert, 1810**
- Valvata (Cincinnna) piscinalis* (O. F. Müller, 1774)
- Valvata (Cincinnna) pulchella* Studer, 1820
- Order PULMONATA**
- Suborder ACTEOPHILA**
- Superfamily ELLOBIOIDEA**
- Family CARYCHIDAE**
- Genus CARYCHIUM O. F. Müller, 1774**
- Subgenus CARYCHIUM O. F. Müller, 1774**

Carychium (Carychium) minimum O. F.
Müller, 1774

Subgenus SAROPHIA Risso, 1826

Carychium (Sarophia) tridentatum (Risso,
1826)

Genus ZOSPEUM Bourguignat, 1856

Zospeum trogloalcanicum (Absolon, 1916)

Suborder BASSOMMATOPHORA
Superfamily ACROLOXOIDEA

Family ACROLOXIDAE

Genus ACROLOXUS Beck, 1837

Acroloxus velkovrhi (Bole, 1965)

Superfamily LYMNAEOIDEA

Family LIMNAEIDAE

Genus GALBA Schrank, 1803

Galba truncatula (O. F. Müller, 1774)

Genus LYMNAEA Lamarck, 1799

Lymnaea stagnalis (Linnaeus, 1758)

Genus RADIX Montfort, 1810

Radix auricularia (Linnaeus, 1758)

Radix ovata (Draparnaud, 1805)

Radix peregra (O. F. Müller, 1774)

Genus STAGNICOLA Jeffreys, 1830

Stagnicola palustris (O. F. Müller, 1774)

Superfamily PLANORBOIDEA

Familia PHYSIDAE

Genus APLEXA Fleming, 1820

Aplexa hypnorum (Linnaeus, 1758)

Genus PHYSA Draparnaud, 1801

Physa fontinalis (Linnaeus, 1758)

Genus PHYSELLA Haldeman, 1843

Physella acuta (Draparnaud, 1805)

Family PLANORBIDAE

Genus ANCYLUS O. F. Müller, 1774

Ancylus fluviatilis O. F. Müller, 1774

Genus ANISUS Studer, 1820

Subgenus ANISUS Studer, 1820

Anisus (Anisus) spirorbis (Linnaeus, 1758)

Subgenus DISCULIFER, C. Boettger, 1914

Anisus (Disculifer) vortex (Linnaeus, 1758)

Genus GYRAULUS Charpentier, 1837

Gyraulus albus (O. F. Müller, 1774)

Gyraulus laevis (Alder, 1838)

Genus PLANORBARIUS Froriep, 1806

Planorbarius corneus (Linnaeus, 1758)

Genus PLANORBIS O. F. Müller, 1774

Planorbis planorbis (Linnaeus, 1758)

Planorbis carinatus O. F. Müller, 1774

Genus SEGMENTINA Fleming, 1818

Segmentina nitida (O. F. Müller, 1774)

Suborder STYLOMMAТОPHORA

Superfamily ACHATINOIDEA

Family FERUSSACIIDAE

Genus CECILIOIDES A. Féruccac, 1814

Subgenus CECILIOIDES A. Féruccac, 1814

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

Cecilioides (Cecilioides) spelaea A. J. Wagner, 1914

Familia SUBULINIDAE

Genus RUMINA Risso, 1826

Rumina decollata (Linnaeus, 1758)

Superfamily CLAUSILIOIDEA

Familia CLAUSILIIDAE

Genus AGATHYLLA H. & A. Adams, 1855

Subgenus AGATHYLLA H. & A. Adams, 1855

Agathylla (Agathylla) regularis (L. Pfeifer, 1861)

Agathylla (Agathylla) exarata exarata (Rossmässler, 1835)

Agathylla (Agathylla) exarata mostarensis Brancsik, 1890

Agathylla (Agathylla) sulcosa (A. J. Wagner, 1829)

Subgenus AGATHYLLINA Nordsieck, 1969

Agathylla (Agathyllina) lamelosa Schubert & Wagner, 1829

Agathylla (Agathyllina) narentana (A. Schmidt, 1868)

Genus BALEA Gray, 1824

Subgenus ALINDA H. & A. Adams, 1855

Balea (Alinda) biplicata biplicata (Montagu, 1803)

Balea (Alinda) biplicata bosnina Brancsik, 1889

Genus BULGARICA O. Boettger, 1877

Subgenus STRIGILECULA Kennard & Woodward, 1923

Bulgarica (Strigilecula) vetusta striolata (Bielz, 1861)

Bulgarica (Strigilecula) vetusta vetusta (Rossmässler, 1836)

Genus CHARPENTIERIA

Charpentieria stigmatica (Rossmässler, 1836)

Genus CLAUSILIA Draparnaud, 1805

Subgenus ANDREA L. Pfeiffer, 1848

Clausilia (Andrea) dubia transsilvanica A. Schmidt, 1857

Clausilia (Andrea) pumila pumila Rosmässler, 1836

Genus COCHLODINA A. Féruccac, 1828

Subgenus COCHLODINA A. Féruccac, 1828

Cochlodina (Cochlodina) laminata laminata (Montagu, 1803)

Cochlodina (Cochlodina) laminata nana (Möllendorff, 1873)

Genus DELIMA Hartmann, 1842

Subgenus DELIMA Hartman, 1842

Delima (Delima) binotata binotata (Rossmässler, 1836)

Delima (Delima) binotata hercegovinae (Möllendorff, 1873)

Delima (Delima) binotata satura Rossmässler, 1836

Delima (Delima) binotata saturella Nordsieck, 1969

Delima (Delima) conspurcata (Rossmässler, 1836)

Delima (Delima) helenae (Küster, 1875)

Delima (Delima) latilabris (A. J. Wagner, 1829)

Subgenus SEMIRUGATA O. Boettger, 1877

Delima (Semirugata) giselae A. J. Wagner, 1914

Delima (Semirugata) semirugata blaui Möllendorff, 1883

Delima (Semirugata) semirugata semirugata (Rossmässler, 1836)

Delima (Semirugata) vidovichii (L. Pfeiffer, 1846)

Genus HERILLA H. & A. Adams, 1855

Herilla bosniensis bosniensis (L. Pfeifer, 1868)

Herilla bosniensis brancsiki Nordsieck, 1971

Herilla bosniensis brandisi (Brancsik, 1888)

Herilla bosniensis exornata (A. J. Wagner, 1913)

Herilla bosniensis ibarensis (A. J. Wagner, 1919)

Herilla bosniensis gastron (A. J. Wagner, 1913)

Herilla durmitoris pseudalopia (A. J. Wagner, 1913)

Herilla illyrica illyrica (Möllendorff, 1899)

Herilla illyrica medorooides (A. J. Wagner, 1913)

Herilla pavlovici hiltrudae Nordsieck, 1971

Herilla pavlovici pavlovici (A. J. Wagner, 1914)

Herilla pavlovici trescavicensis (A. J. Wagner, 1913)

Herilla ziegleri accedens (Möllendorff, 1873)

Herilla ziegleri dacica (Pfeiffer, 1848)

Herilla ziegleri limana Boettger, 1909

Herilla ziegleri ljubicicensis (A. J. Wagner, 1913)

Herilla ziegleri neglecta (Brancsik, 1888)

Herilla ziegleri perfecta (A. J. Wagner, 1913)

Herilla ziegleri tarensis (Pavlovic, 1912)

Herilla ziegleri zabuljensis (A. J. Wagner, 1912)

Herilla ziegleri ziegleri (Küster, 1847)

Genus LACINIARIA Hartman, 1844

Laciniaria plicata plicata (Draparnaud, 1805;)

Genus MEDORA H.&A. Adams, 1855

Medora albescens brusinae (Brusina, 1866)

Medora albescens graciliformis (L. Pfeiffer, 1866)

Medora albescens livnoensis Nordsieck, 1970

Medora albescens pliculosa (Westerlund, 1884)

Medora albescens troglavensis (A. J. Wagner, 1912)

Medora albescens unae Nordsieck, 1974

Medora almissana almissana (Küster, 1847)

Medora contracta contracta (Rossmässler, 1842)

Medora contracta seriola (Westerlund, 1884)

Medora dalmatina dalmatina (Rossmässler, 1835)

Medora dalmatina ingrossata (A. Schmidt, 1868)

Medora dalmatina latecostata Nordsieck, 1970

Medora dalmatina matulici (Sturany, 1901)

Medora dalmatina schuetti Nordsieck, 1970

Medora dalmatina vultur (Brancsik, 1906)

Genus MACROGASTRA Hartmann, 1841

Subgenus MACROGASTRA Hartmann, 1841

Macrogaster (Macrogaster) ventricosa (Draparnaud, 1801)

Subgenus PYROSTOMA Vest, 1867

Macrogaster (Pyrostoma) densestriata (Rossmässler, 1836)

Macrogaster (Pyrostoma) plicatula (Draparnaud, 1801)

Genus STRIGIODELIMA A. J. Wagner, 1924

Strigodelima conspersa (Pfeiffer, 1848)

Genus RUTHENICA Lindholm, 1924

Ruthenica filograna filograna (Rossmässler, 1836)

Superfamily COCHLICOPOIDEA

Family AZECIDAE

Genus HYPNOPHILA Bourguignat, 1858

Hypnophila pupaeformis (Cantraine, 1836)

Familia COCHLICOPIDAE

Genus COCHLICOPA Férussac, 1821

Cochlicopa lubrica (O. F. Müller, 1774)

Superfamily ENIDOIDEA

Family ENIDAE

Genus CHONDRULA Beck, 1837

Chondrula quinquedentata (Rossmässler, 1837)

Chondrula tridens (O. F. Müller, 1774)

Genus ENA Turton, 1831

Ena concolor (Westerlund, 1887)

Ena montana (Draparnaud, 1801)

Ena subtilis subtilis (Rossmässler, 1837)

Genus IMPARIETULA Lindholm, 1925

Imparietula seductilis (Rossmässler, 1837)

Genus MERDIGERA Held, 1838*Merdigera obscura* (O. F. Müller, 1774)**Genus NAPAEOPSIS Sturany & Wagner, 1914***Napaeopsis cefalonicus* (Mousson, 1859)**Genus ZEBRINA Held, 1837***Zebrina detrita* (O. F. Müller, 1774)**Superfamily GASTRODONTOIDEA****Family EUCONULIDAE****Genus EUCONULUS Reinhardt, 1883****Subgenus EUCONULUS Reinhardt, 1883***Euconulus (Euconulus) fulvus* (O. F. Müller, 1774)**Family GASTRODONTIDAE****Genus ZONITOIDES Lehmann, 1862****Subgenus ZONITOIDES Lehmann, 1862***Zonitoides nitidus* (O. F. Müller, 1774)**Family OXYCHILIDAE****Genus AEGOPINELLA Lindholm, 1927***Aegopinella nitens* Michaud, 1831*Aegopinella minor* (Stabile, 1864)**Genus CARPATHICA A. J. Wagner, 1895****Subgenus ILLYRICA A. J. Wagner, 1895***Carpatica (Illyrica) stussineri* A. J. Wagner, 1895**Genus DAUDEBARDIA Hartmann, 1821****Subgenus DAUDEBARDIA Hartmann, 1821***Daudebardia (Daudebardia) rufa* (Draparnaud, 1805)**Genus MEDITERANEA Clessin, 1880***Mediteranea inopinata* (Ulicny, 1887)*Mediteranea serbica* Riedel, 1969*Mediteranea planospiroides* (Riedel, 1969)**Genus MORLINA A. J. Wagner, 1914***Morlina glaber* (Rossmässler, 1835)**Genus OXYCHILUS Fitzinger, 1833***Oxychilus absoloni* (A. J. Wagner, 1914)*Oxychilus draparnaudi* (Beck, 1837)*Oxychilus nautiliformis* (A. J. Wagner, 1914)**Family PRISTOLOMATIDAE****Genus VITREA Fitzinger, 1833***Vitre a botterii* (L. Pfeiffer, 1853)*Vitre a contracta* (Westerlund, 1871)*Vitre a crystallina* (O. F. Müller, 1774)*Vitre a diaphana diaphana* (Studer, 1820)*Vitre a diaphana erjaveci* (Brusina, 1870)*Vitre a illyrica* (A. J. Wagner, 1907)*Vitre a kiliensis* Pinter, 1972*Vitre a kutschigi* (Walderdorff, 1864)*Vitraea spelaea* (A. J. Wagner, 1914)*Vitraea sturanyi* (A. J. Wagner, 1907)*Vitraea subrimata* (Reinhardt, 1871)**Superfamily HELICOIDEA****Family ARIONIDAE****Genus ARION A. Féru sacc, 1819***Arion rufus* (Linnaeus, 1758)*Arion silvaticus* Lohmander, 1937*Arion circumscriptus* Johnston, 1828*Arion fasciatus* (Nilsson, 1822)*Arion subfuscus* (Draparnaud, 1805)**Family BRADIBAENIDAE****Genus FRUTICICOLA Held, 1838***Fruticicola fruticum* (O. F. Müller, 1774)**Family HELICIDAE****Genus ARIANTA Turton, 1831***Arianta arbustorum* (Linnaeus, 1758)**Genus CEPAEA Held, 1937****Subgenus CEPAEA Held, 1937***Cepaea (Cepaea) nemoralis* (Linnaeus, 1758)*Cepaea (Cepaea) hortensis* (O. F. Müller, 1774)**Subgenus AUSTROTACHEA G. Pfeiffer, 1930***Cepaea (Austrotachea) vindobonensis* (Férussac, 1821)**Genus EOBANIA Hesse, 1913***Eobania vermiculata* (O. F. Müller, 1774)**Genus CHILOSTOMA Fitzinger, 1833****Subgenus CATTANIA Brusina, 1901***Chilostoma (Cattania) inflata* (Kobelt, 1875)**Subgenus DINARICA Kobelt, 1902***Chilostoma (Dinarica) serbica serbica* (Kobelt, 1872)*Chilostoma (Dinarica) pouzolzi bosniensis* (Kobelt, 1871)*Chilostoma (Dinarica) pouzolzi montenegrina* (Rossmässler, 1836)*Chilostoma (Dinarica) pouzolzi pouzolzi* (Deshayes, 1830)**Subgenus LIBURNICA Kobelt, 1904***Chilostoma (Liburnica) denudata**(Rossmässler, 1836)**Chilostoma (Liburnica) pentheri* (Studer, 1891)*Chilostoma (Liburnica) setosa* (Férussac, 1822)**Subgenus JOSEPHINELLA F. Haas, 1936***Chilostoma (Josephinella) moellendorffii**(Kobelt, 1871)**Chilostoma (Josephinella) trizona trizona* (Rossmässler, 1835)**Genus FAUSTINA Kobelt, 1904***Faustina faustina associata* (Rossmässler, 1835)**Genus HELIX Linnaeus, 1758***Helix dormitoris dormitoris* (Kobelt, 1898)*Helix pomatia pomatia* Linnaeus, 1758*Helix secerunda* Rossmässler, 1847*Helix vladica* (Kobelt, 1898)**Genus THEBA Risso, 1826***Theba pisana pisana* (O. F. Müller, 1774)

- Family HELICODONTIDAE**
- Genus HELICODONTA A. Féruccac, 1821**
Helicodonta obvoluta obvoluta (O. F. Müller, 1774)
Helicodonta obvoluta bosniaca Boettger, 1885
- Family HYGROMIIDAE**
- Genus CERNUELLA Schlüter, 1838**
Subgenus CERNUELLA Schlüter, 1838
Cernuella (Cernuella) virgata variabilis (Draparnaud, 1801)
- Genus EUOMPHALIA Westerlund, 1889**
Euomphalia strigella (Draparnaud, 1801)
- Genus MONACHA Fitzinger, 1833**
Subgenus MONACHA Fitzinger, 1833
Monacha (Monacha) cartusiana (O. F. Müller, 1774)
Monacha (Monacha) frequens (Mousson, 1859)
Monacha (Monacha) kusmici (Clessin, 1887)
- Genus MONACHOIDES Gude & Woodward, 1921**
Monachoides incarnata (O. F. Müller, 1774)
Monachoides vicina (Rossmässler, 1842)
- Genus PETASINA Beck, 1847**
Subgenus FILICINELLA Polinski, 1929
Petasina (Filicinella) filicina bosnensis (Möllendorff, 1873)
- Genus TRICHIA Hartmann, 1840**
Subgenus TRICHIA Hartmann, 1840
Trichia (Trichia) erjaveci (Brusina, 1870)
Trichia (Trichia) hispida (Linnaeus, 1758)
Trichia (Trichia) sericea (Draparnaud, 1801)
- Genus SEMIFRUTICOLA A. J. Wagner, 1914**
Semifruticicola costulata costulata (Brancik, 1897)
Semifruticicola costulata serbica (A. J. Wagner, 1914)
- Genus XEROCAMPYLAEA Kobelt, 1871**
Xerocampylaea zelabori (Pfeiffer, 1853)
- Genus XEROLENTA Monterosato, 1892**
Xerolenta obvia (Menke, 1828)
- Genus URTICICOLA Lindholm, 1927**
Urticicola umbrosa (Pfeiffer, 1828)
- Superfamily LIMACOIDEA**
- Family AGRIOLIMACIDAE**
- Genus DEROCELAS Rafinesque, 1820**
Subgenus DEROCELAS Rafinesque, 1820
Deroceras (Deroceras) agreste (Linnaeus, 1758)
Deroceras (Deroceras) laeve (O. F. Müller, 1774)
Deroceras (Deroceras) sturanyi (Simroth, 1894)
Deroceras (Deroceras) turicum (Simroth, 1894)
- Family LIMACIDAE**
- Genus LIMAX Linnaeus, 1758**
Limax bielzi Siebert, 1873
- Genus MALACOLIMAX Malm, 1868**
Malacolimax kostali Babor, 1900
Malacolimax mrazekii (Simroth, 1904)
Malacolimax tenellus (O. F. Müller, 1774)
- Genus LEHMANNIA Heynemann, 1862**
Lehmannia marginata (O. F. Müller, 1774)
- Family VITRINIDAE**
- Genus EUCOBRESIA H. B. Baker, 1929**
Eucobresia diaphana (Draparnaud, 1805)
- Genus OLIGOLIMAX P. Fischer, 1878**
Oligolimax annularis (Studer, 1820)
- Genus SEMILIMACELLA Soos, 1917**
Semilimacella carniolica (O. Boettger, 1884)
Semilimacella bonellii reitteri (O. Boettger, 1880)
- Genus VITRINA Draparnaud, 1801**
Vitrina pellucida (O. F. Müller, 1774)
- Genus VITRINOBRACHIUM Künkel, 1929**
Vitrinobrachium breve (Féruccac 1821)
- Superfamily PARAMACELLOIDEA**
- Family MILACIDAE**
- Genus TANDONIA Lessona & Pollonera, 1882**
Tandonia bosnensis Wiktor, 1986
Tandonia cavicola (Simroth, 1916)
Tandonia reuleauxi (Clessin, 1887)
Tandonia robici (Simroth, 1885)
Tandonia sowerbyi (Féruccac, 1823)
- Superfamily PUNCTOIDEA**
- Family PATULIDAE**
- Genus DISCUS Fitzinger, 1833**
Subgenus GONIODISCUS Fitzinger, 1833
Discus (Goniodiscus) perspectivus (Megerle von Mühlfeldt, 1816)
- Family PUNCTIDAE**
- Genus PUNCTUM Morse, 1864**
Subgenus PUNCTUM Morse, 1864
Punctum (Punctum) pygmaeum (Draparnaud, 1801)
- Superfamily PUPILLOIDEA**
- Family GNIDAE**
- Genus AGARDHIELLA P. Hesse, 1923**
Agardhiella formosa (L. Pfeiffer, 1848)
Agardhiella truncatella (L. Pfeiffer, 1841)
Agardhiella parreysii (L. Pfeiffer 1842)
- Family CHONDRINIDAE**
- Genus ABIDA Turton, 1831**
Abida secale (Draparnaud, 1801)

Genus CHONDRINA Reichenbach, 1828

- Chondrina avenacea* (Bruguiere, 1792)
Chondrina clienta (Westerlund, 1883)
Chondrina spelta anodon Nordsieck, 1970
Chondrina spelta bosnica Nordsieck, 1970
Chondrina spelta serbica Nordsieck, 1970
Chondrina spelta spelta (Beck, 1837)
Chondrina spelta sutjeskae Nordsieck, 1970

Genus GRANARIA Held, 1838

- Granaria frumentum* (Draparnaud, 1801)
Granaria illyrica (Rossmässler, 1837)

Family ORCULIDAE

- Genus PAGODULINA Clessin, 1876**
Pagodulina subdola gracilior Pilsbry, 1926
Pagodulina kaeufeli Klemm, 1939
Genus SPHYRADIUM Charpentier, 1837
Sphyradium dolium (Bruguiere, 1792)

Family PUPILLIDAE

- Genus PUPILLA Fleming, 1828**
Subgenus PUPILLA Fleming, 1828
Pupilla (Pupilla) muscorum (Linnaeus, 1758)
Pupilla (Pupilla) sterri (Voith, 1838)

Family PUNCTIDAE

- Genus PUNCTUM Morse, 1864**
Punctum pygmaeum (Draparnaud, 1801)

Family PYRAMIDULIDAE

- Genus PYRAMIDULA Fitzinger, 1833**
Pyramidula rupestris (Draparnaud, 1801)

Family VALLONIDAE

- Genus ACANTHINULA Beck, 1847**
Acanthinula aculeata (O.F. Müller, 1774)
Genus GITTERNBERGIA Giusti & Manganelli 1985
Gittenbergia sororcula (Benoit, 1857)
Genus VALLONIA Risso, 182
Vallonia costata (F.O. Müller, 1774)
Vallonia enniensis (Gredler, 1856)
Vallonia excentrica Sterki, 1892
Vallonia pulchella (O.F. Müller, 1774)

Family VERTIGINIDAE

- Genus COLUMELLA Westerlund, 1878**
Columella edentula (Draparnaud, 1805)
Genus SPELAEOCONCHA Sturany, 1901
Spelaeoconcha paganetti *paganetti* Sturanyi, 1912
Spelaeoconcha paganetti polymorpha A. J. Wagner, 1914
Genus TRUNCATELLINA R. T. Lowe, 1852
Truncatellina claustralidis (Gredler, 1856)
Truncatellina cylindrica (Férussac, 1807)
Truncatellina micula (Mouss., 1876)
Truncatellina monodon (Held, 1837)

Genus VERTIGO O. F. Müller, 1774

- Subgenus Vertigo O. F. Müller, 1774**
Vertigo (Vertigo) angustior Jeffreys, 1830
Vertigo (Vertigo) pusilla O. F. Müller, 1774
Vertigo (Vertigo) pygmaea (Draparnaud, 1801)

Superfamily SUCCINEOIDEA**Family SUCCINEIDAE**

- Genus OXYLOMA Westerlund, 1885**
Subgenus OXYLOMA Westerlund, 1885
Oxyloma (Oxyloma) elegans (Risso, 1826)
Genus SUCCINELLA Mabille, 1871
Succinella oblonga Draparnaud, 1801

Superfamily TESTACELOIDEA**Family OLEACINIDAE**

- Genus POIRETIA Fischer, 1883**
Poiretia cornea (Brumati, 1838)

Family TESTACELLIDAE

- Genus TASTACELLA Cuvier, 1800**
Subgenus TASTACELLA Cuvier, 1800
Testacella (Testacella) scutulum Sowerby, 1823
Testacella (Testacella) haliotides Draparnaud, 1801

Superfamily ZONITOIDEA**Family ZONITIDAE**

- Genus AEGIOPIS Fitzinger, 1833**
Aegopis acies (Férussac, 1832)
Aegopis croaticus (Férussac, 1832)
Aegopis tenerimus (Branesik, 1890)
Aegopis verticillus (Férussac, 1819)
Genus PARAEGIOPIS Hesse, 1910
Paraegopis albanicus (Rossmässler, 1836)
Paraegopis mauritii mauritii (Westerlund, 1886)
Genus SPELAEOPATULA A. J. Wagner 1922
Spelaeopatula candida (A. J. Wagner, 1909)

Superorder NERITAEMORPHI**Order NERITOPSINA****Superfamily NERITOIDEA****Family NERITIDAE**

- Genus THEODOXUS Montfort, 1810**
Subgenus NERITAEA Roth, 1855
Theodoxus (Neritaea) subterralicis Schütt, 1963
Subgenus THEODOXUS Montfort, 1810
Theodoxus (Theodoxus) danubialis danubialis (C. Pfeiffer, 1828)

Theodoxus (Theodoxus) danubialis stragulatus
C. Pfeiffer, 1828)

Theodoxus (Theodoxus) fluviatilis (Linnaeus,
1758)

CONCLUSIONS

Based on the specific various ecological and other conditions, biodiversity of freshwater and land gastropods (Mollusca, Gastropoda) in Bosnia and Herzegovina is very high and specific. According the literature and our investigations of this fauna, we mentioned here 330 species and subspecies, belonging to 134 genera and 47 families. Among them, numerous taxa have been discovered and described as new for the science, just from Bosnia & Herzegovina (many of them are endemic, as well as Dinaric and other elements). We suppose that the further more detailed investigation in this region will elevate the number of known taxa of gastropods from Bosnia & Herzegovina

LITERATURE

- B o e t t g e r, O. 1885. Beitrag zur Kenntnis der Schneckenfauna von Central-Bosnien , sowie des südlichen Dalmatiens und Westmontenegros. I. Zur Fauna von Nemila in Centralbosnien. II. Zur Fauna von Südwestmontenegro nächst Badua und nächst Spizza-Sutomore, sowie von Spizza in Süd-Dalmatien selbst. - Jahrbuch. dtsch. Mal. Ges. 12: 53-71.
- B o e t t g e r, O. 1888. Aufzählung der von Herrn Edmund Reitter in Wien im Frühjahr 1880 in dem westlichen Montenegro, in Süd-Dalmatien und in Süd-Croatien gesammelten Mollusken. -Ber. Offenb. Ver. Nat. 19/21: 100-115.
- B o l e, J. 1961. Nove Hidrobide (Gastropoda) iz podzemeljskih voda zahodnega Balkana. - Biol. Vestnik, Ljubljana, 9: 59-69.
- B o l e, J., V e l k o v r h, F. 1986. Mollusca from continental subterranean habitats. In: Botosaneanu eds.:Stygofauna Mundi, A Faunistic, Distributional and Ecological Synthesis of the World Fauna inhabiting Subterranean Waters (including the Marine interstitial). Leiden, E.J. Brill/Dr. W. Backhuys, pp. 177-207.
- B r a n c s i k, K. 1888. Nachträge zur Conchylien-Fauna Bosniens. - Nachrichtabl. D. malakozool. Ges. Frankfurt, 20: 161-169.
- B r a n c s i k, K., 1889. Consignatio systematicaierum in itinere bosnensi anno 1888 per me collectarum , novaque data ad faunam molluscarum Bosniae ac Hercegovinae. – Jh. Naturw. Ver. Trencsén, 11/12: 68-76, pl. 2.
- B r a n c s i k, K. 1890. Consignatio systematicaierum in itinere bosnensi anno 1888 per me collectarum, novaque data ad faunam molluscarum Bosniae ac Hercegovinae. -- Jh. Naturw. Ver. Trencsén, 11-12: 68-76.
- B r a n c s i k, K. 1906. Sechs Wochen durch Dalmatien, Herzegovina und Bosnien. - Jh. Naturw. Ver. Trencsén, 27-28: 136-193..

KARAMAN B.J.: Former Investigations of the Fauna of Snails (Mollusca, Gastropoda)

Jaeckel, S., Klemm, W., Meisse, W. 1958. Die Land und Süßwasser-Mollusken der nördlichen Balkanhalbinsel. - Abh. Ber. staatl. Mus. Tierkunde, Dresden, 23 (2): 141-205.

INTERNET: www.Faueur.org

Kuščer, Lj. 1933. Prispevek k poznavanju podzemskih gastropodov Dalmacije in Hercegovine. - Prir. istr. Kralj. Jug., JAZU Zagreb, 18: 59-67.

Möllendorff, O. 1871. Exursionsberichte aus Bosnien. - Nachrissblatt der deutschen Malakozoologischen Gesellschaft 4: 67-70.

Möllendorff, O. 1873. Beiträge zur Fauna Bosniens. - Dissert. philosoph.-Rostochiensis,- Görlitz. H. Tzsaschel, pp. 1-73.

Nordsieck, H. 1969. Zur Anatomie und Systematik der Clausilien, V. Genitalsystem und Systematik des Cochlodina. - Arch. Moll., 99 (3/4): 107-132.

Nordsieck, H. 1969. Zur Anatomie und Systematik der Clausilien, VII. Dinarische Clausiliidae, I. Das Genus Delima. - Arch. Moll., 99 (5-6): 267-284.

Nordsieck, H. 1970. Die Chondrina-Arten der dinarischen Länder. - Arch. Moll., 100 (5-6): 243-261.

Nordsieck, H. 1970. Zur Anatomie und Systematik der Clausilien, VIII. Dinarische Clausiliidae, I. Das Genus Medora. - Arch. Moll., 100: 23-75.

Nordsieck, H. 1971. Zur Anatomie und Systematik der Clausilien, IX. Dinarische Clausiliidae, III. Das Genus Herilla. - Arch. Moll., 101 (1-4): 39-88.

Nordsieck, H. 1971. Zur Anatomie und Systematik der Clausilien. X. Zur Kenntnis des Genus Cristataria Vest. 1867, I. - Arch. Moll., 101: 237-261, pls. 14-16.

Nordsieck, H. 1974. Zur Anatomie und Systematik der Clausilien. XV. Neue Clausilien der Balkan-Halbinsel (mit taxonomischer Revision einiger Gruppen der Alopiinae und Baleinae). - Arch. Moll., 104: 123-170.

Pinter, L. 1972. Die Gattung Vitrea Fitzinger, 1833 in den Balkanländern (Gastropoda: Zonitidae). - Ann. Zool., 29 (8): 209-315.

Pinter, L. 1982. Die Typen in der Mollskensammlung des Ungarischen Naturwissenschaftlichen Museums zu Budapest. - Miscellana zoologica Hungarica, 1: 53-62.

Pfeiffer, L. 1870. Diagnosen neuer Landschnecken.- Malakozoologische Blätter, pp. 141-145.

Radoman, P. 1967. Speciation of the genus Emmericia (Gastropoda) in the Adriatic area. - Basteria, 31: 27-43.

Radoman, P. 1973. New classification of fresh and brackish water Prosobranchia from the Balkans and Asia Minor. - Prirodnački muzej Beograd, Posebna Izdanja, 32: 1-30.

Radoman, P. 1973. Contribution à la connaissance des Gasteropodes des eaux douces de Bosnie et d'Herzegovine. - Bull. Mus. Hist. nat. Marseille, 33: 227-237.

Radoman, P. 1974. Ein Beitrag zur Kenntnis der Höhlenfauna Bosniens. - Arch. Moll., Frankfurt, 104: 81-84.

- R a d o m a n, P. 1975. Specijacija u okviru roda Belgrandiella i njemu srodnih rodova na Balkanskom poluostrvu. - Glasnik Prirod. muzeja Beograd, B 30: 29-69.
- R a d o m a n, P. 1983. Hydrobioidea a Superfamily of Prosobranchia (Gastropoda).I. Sistematics. Serbian Academy of Sciences and arts, Monographs, vol. DXLVII, Depatrment of Sciences, Belgrade, 57: 1-256.
- S c h ü t t, H. 1959. Zur Höhlenschneckenfauna Montenegros. - Arch. Moll., 88: 185-190.
- W a g n e r, A. J. 1901. Neue Formen und Fundorte des Genus Pomatias Studer. –Annalen des k. Naturhistor. Hoffmuseums Wien, 16: 63-72.
- W a g n e r, A. J. 1907. Zur Kenntnis der Molluskenfauna Oesterreich und Ungarns sowie der angrenzenden Balkanländer. - Nachr. Bl. dtsh. Malak. Ges., 39 (3): 101-115.
- W a g n e r, A. J. 1912. Beschreibungen neuer Land- und Süßwasserschnecken aus Südösterreichs, Kroatien und Bosnien. - Vern. zool. bot. Ges. Wien, 62: 246-260.
- W a g n e r, A. J. 1914. Höhlenschnecken aus Süddalmatien und der Herzegowina.- Sitz. Ber. Kais. Akad. Wiss. mathem.-nat. Kl., Wien, 123 (1): 33-48.
- W i k t o r, A. 1987. Milacidae (Gastropoda, Pulmonata) – Systematic monograph. – Ann. Zool., Warszawa, 41: 153-319.

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