

1999

Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species

Brian F. Coles

Gerald E. Walsh

Follow this and additional works at: <http://scholarworks.uark.edu/jaas>

 Part of the [Zoology Commons](#)

Recommended Citation

Coles, Brian F. and Walsh, Gerald E. (1999) "Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species," *Journal of the Arkansas Academy of Science*: Vol. 53 , Article 7.

Available at: <http://scholarworks.uark.edu/jaas/vol53/iss1/7>

This article is available for use under the Creative Commons license: Attribution-NoDerivatives 4.0 International (CC BY-ND 4.0). Users are able to read, download, copy, print, distribute, search, link to the full texts of these articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.

This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of the Arkansas Academy of Science by an authorized editor of ScholarWorks@UARK. For more information, please contact scholar@uark.edu.

A Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species

Brian F. Coles*
4202 Scottie Smith Drive
Jefferson, AR 72079

Gerald E. Walsh
9 Yocum Road
Rogers, AR 72756

*Corresponding Author

Abstract

A revised list of of Arkansas terrestrial mollusks is presented, based on the authors' collections, incorporating data from the scientific literature and taking into account recent changes in taxonomy and species concepts. 144 species are recorded for Arkansas, of which 127 represent the autochthonous fauna of the state. The biogeographical position of Arkansas is reflected in its land mollusks, i.e., approximately 40% of Arkansas species are also widely distributed in the United States east of the Rocky Mountains, 12% are more widely distributed to the north, 11% are typical of the Gulf Coastal Plain, 14% form a "Mid Western" assemblage and 18% are endemic to the Ouachita-Ozark regions of Arkansas, Oklahoma and Missouri. The remaining 5% are species for which the geographic distribution is unclear. Diversity of Arkansas land mollusks is apparently due to the conjunction of these geographical zones within the state. Taxonomic problems exist for the genera *Mesomphix* and *Paravitrea* (family Zonitidae) and *Succinea* (family Succineidae) in Arkansas.

Introduction

Distribution of the land mollusks of the United States is poorly understood, especially in Arkansas. The most recent summary of Arkansas mollusks is that of Gordon (1980) who listed all mollusks, terrestrial and freshwater, then known from the state. His list of terrestrial mollusks is based primarily on that of Hubricht (1972). However, more recent data for land mollusks can be abstracted from Hubricht (1985). Hubricht's (1985) data are based primarily on his enormous collecting experience. However, he excluded species in the earlier literature (i.e., pre-Pilsbry, 1940-1948) that appeared to be outside of their main range and those species that appear to be alien introductions. He also revised his identification of some forms between his 1972 and 1985 publications. The later publication also reflects changes in taxonomy. We present an updated list of Arkansas land mollusks with comments on species that cause identification or taxonomic problems or are of restricted distribution.

Materials and Methods

The list of Arkansas land mollusks is based primarily on the authors' collections during 1995-1998. Collections were made at over 300 sites in all Arkansas counties except Craighead and Sebastian counties. Collection sites included all major habitat types within the state. These include margins of bayous, streams, and major rivers, bottomland wood-

land and headwaters swamp in the Delta and Gulf Coastal Plain, prairies (notably the black soil prairies of southwestern Arkansas), and a wide range of woodland sites (bluffs, gullies, boulder talus) throughout Crowley's Ridge, and the Ouachita and Ozark mountains. In general, localities were under federal or state ownership, i.e., national forests and parks, state parks, and state natural areas. Collections were also made in lands managed by The Nature Conservancy and Arkansas Natural Heritage Commission.

Identification was made by reference to Pilsbry (1940-1948), Emberton (1988, 1991, 1995), Burch (1980), and the collections in the Field Museum of Natural History, Chicago, and the Academy of Natural Sciences, Philadelphia. For the family Succineidae (genera *Oxyloma*, *Succinea* and *Catinella*), where examination of genital anatomy is critical for accurate identification, specimens were drowned overnight in water and preserved in 70% ethanol for subsequent dissection. Voucher material is at present in the authors' possession and will be deposited in the University Museum, University of Arkansas at Fayetteville, and the Field Museum of Natural History, Chicago.

In the list of Arkansas land mollusks that follows, we have incorporated Emberton's (1995) taxonomic revision of the family Polygyridae and names given by the American Fisheries Society (1988). Otherwise, we have followed the arrangement of Hubricht (1985). Notes on problems of species identification are given. Records from Pilsbry (1940-1948) and Hubricht (1962, 1985) are included in the list.

A Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species

Results and Discussion

Some problems of taxonomy must be addressed before an analysis of the biogeographical relationships of Arkansas terrestrial mollusks can be made:

1. Most *Carychium* sp. in the state are referable to *Carychium exile*. Smaller and less striate forms that seem to be *Carychium mexicanum* occur with *C. exile* in southwestern Arkansas. The problem of species recognition in *Carychium* is discussed by Burch and Van Devender (1980).

2. *Cochlicopa lubrica sensu stricto* (*Cionella lubrica* of Gordon (1980) has not been seen in the state. Since it was not the practice to distinguish between species of *Cochlicopa* in the past, we assume that Gordon's record refers to *Cochlicopa morseana*. Hubricht does not record *C. lubrica* for Arkansas.

3. *Gastrocopta mclungi* was described as [sub]fossil from upper Pleistocene deposits in Phillips County, Kansas. (Hanna and Johnston, 1913). Pilsbry (1948) regarded *G. mclungi* as a variation of *Gastrocopta procera sterkiiana*, but it is clear that he was referring to material from the southwestern United States (possibly subfossil), i.e., west of Arkansas. Judging from his illustrations and comments, and from our examination of material in the Academy of Natural Sciences, Philadelphia, the southwestern form of "*mclungi*" belongs to the *Gastrocopta procera/sterkiiana* aggregate. Hubricht (1985) gives *Gastrocopta sterkiiana* specific status but essentially follows Pilsbry's views. In addition to his comments, Pilsbry (1948) illustrated but did not otherwise mention *G. mclungi* from Rogers, Benton County, Arkansas. Examination of Pilsbry's specimen, which is the only one in the Academy's collection, confirmed its identity with our form and that it is a form distinct from both *G. procera* and *G. sterkiiana*. Figures of the type specimen of *G. mclungi* (Hanna and Johnston, 1913) are not sufficiently detailed to establish whether *G. mclungi sensu* Hannah and Johnston is the same as the living Arkansas form. We have not examined the type specimen.

4. Hubricht (1985) states that at least two species are included in the *Columella simplex* aggregate. Two forms appear to be distinguishable in Arkansas: a smaller form and a larger, more cylindrical form, the latter with strong, regular striation. The larger form may be that described as *Columella edentata* var. *turritella* (see Pilsbry, 1948).

5. Hubricht (1985) records only *Oxyloma salleanum* for Arkansas, and this species certainly occurs in the state. However, several populations of *Oxyloma* are referable to *Oxyloma retusa* both in their shell form and genital morphology, notably in the long, spirally twisted vas deferens of *O. retusa* as illustrated by Pilsbry (1948) and confirmed by the authors' dissection of specimens from Arkansas and Joliet, Illinois.

6. Hubricht (1985) includes *Succinea ovalis*, *S. indiana*, *S.*

grosvenori, *S. unicolor*, *S. forsheyi* and *S. luteola* for Arkansas. Identification of *Succinea* species in Arkansas presents considerable problems. We have found specimens from southeastern Arkansas that resemble *S. unicolor* in size, color, rather squat shell form and deep suture and that have male genitalia varying in exertion of the penis from the penis sheath and the extent to which the penis-epiphallus forms a loop free of the penis sheath. Other specimens from southwestern Arkansas have similar (and variable) genitalia but appear to resemble *S. indiana* in shell form. However, the habitat, lake margins, disagrees with that given for *S. indiana* by Hubricht (1985). Nevertheless, Hubricht (1985) records *S. indiana* and *S. unicolor* from Arkansas. There is an apparent resemblance of some specimens to *S. aurea* but the exact identity of this species is unclear (Hubricht, 1985). Hubricht (1967, 1972) also records *S. witteri* for Arkansas (and thus is recorded by Gordon, 1980), but as he does not record it in his later study (Hubricht, 1985), we assume that he regarded this as a misidentification of *S. forsheyi*. *Succinea concordialis* (listed by Gordon, 1980) presumably refers to *S. forsheyi* (see synonymy in Hubricht, 1985). We have confirmed the identity of Arkansas *S. forsheyi* by anatomical studies. Other species of *Succinea* listed for Arkansas by Hubricht (1985), *S. luteola*, and *S. grosvenori*, have not been confirmed to be living in the state in recent studies, although *S. luteola* has been found in river drift (shells of undetermined age and origin found near rivers). Our specimens of *S. ovalis* consistently agree in both shell and genital morphology with description of the species (Pilsbry, 1948).

7. *Catinella texana* and *Catinella vermeta* (listed by Gordon, 1980) are given as synonyms by Hubricht (1985). Our dissections of *Catinella* confirm that *C. texana* and *C. vermeta* can be ascribed to a single variable species, *C. avara*. Notably, genital morphology of *C. avara* is variable and, in Arkansas specimens, the relative size of the penis to the penial appendix (the basis for identification of *C. texana*) increases with age of the animal.

8. *Anguispira kochi* is recorded for Arkansas by Pilsbry (1948) but is not included for the state by Hubricht (1985).

9. Hubricht (1985) regards Arkansas *Discus* of the *Discus patulus* group as *D. nigrimontanus*, stating that *D. nigrimontanus* and *D. patulus* hybridize in the Ozark mountains, but he gives little evidence for this view. Specimens labeled "*Discus nigrimontanus*" from Mount Magazine, Logan County, in the Hubricht collection at the Field Museum of Natural History are identical in range of form to those that we have seen from the same and other sites during the present study. Other forms in the Hubricht collection labeled "*Discus nigrimontanus*" from western North Carolina agree in form with the generally accepted view of *nigrimontanus*. Arkansas *Discus* species are variable in the angularity of the shell periphery, openness of the umbilicus and height of the shell, but such variation appears to be within that of *D. pat-*

ulus. In the absence of convincing contradictory evidence, we regard Arkansas *Discus* as *patulus*.

10. Hubricht (1972) listed *Helicodiscus jacksoni* for Arkansas, and, thus, it is included in Gordon (1980). However, Hubricht (1985) lists *H. jacksoni* as a synonym of *Hawaiia alachuana*, and *H. jacksoni* is not included in our list.

11. Specimens of *Punctum* that are clearly *P. minutissimum* or *P. vitreum* occur in the state. Others are not readily separable into either form, bearing the lamellar sculpture of *P. vitreum* but lacking the distinction between major and minor riblets.

12. European slugs of the families Limacidae, Milacidae, and Arionidae are presumed introductions. Gordon (1980) listed *Lehmannia poirieri*, presumably having taken it from Hubricht (1972). This is a synonym for *L. valentiana*, which is given in our list.

13. *Glyphyalinia indentata* appears to be an aggregate of species that differ anatomically but with little or no shell differences (Hubricht, 1985). The group has not been dissected adequately for separation of the species.

14. The specific identities of Arkansas *Mesomphix* (*Omphalina*) forms *cupreus*, *cupreus ozarkensis* and *capnodes* are uncertain. Hubricht (1985) regards *Mesomphix cupreus ozarkensis* as *M. capnodes*. Pilsbry (1946) records *M. cupreus* for the state with *M. cupreus ozarkensis* as a possible subspecies. All mature specimens of Arkansas *Mesomphix* (*Omphalina*) collected by the authors are *M. friabilis*. Nevertheless, we have provisionally retained *M. cupreus* as an Arkansas species. We therefore list *M. cupreus*, *M. friabilis*, *M. capnodes* and *Mesomphix* (*Mesomphix*) *globosus* for the state.

15. Pilsbry's separation of Arkansas *Paravitrea* (sections *Paravitrea* and *Parmavitrea*) into *significans* and *simpsoni* does not seem to accommodate well all Arkansas specimens. Forms similar to the *Paravitrea capsella* species aggregate (Hubricht, 1985) occur in the state, some of which have a resemblance in their shells to *P. lacteodens*. The localized occurrence of *Paravitrea petrophila* in Arkansas and the southern Appalachian Mountains (Hubricht, 1985) is anomalous. This presents the only instance of a species endemic to both of these regions. Revision of Arkansas *Paravitrea* spp. requires preserved material from throughout the southeastern United States.

16. *Ventridens demissus* is separable into two forms: *V. demissus sensu stricto*, recorded from Jefferson County by Hubricht (1985), and forms from further west that are referred to as *Ventridens brittsi*. In the western Ouachita Mountains, *V. brittsi* is represented by a large form reminiscent of *Ventridens acerra*. Although strikingly different from shells further east within the Ouachita Mountains, this is regarded as a large form of the (sub)species *brittsi* (Pilsbry, 1946).

17. Details of the *Neohelix albolabris*/*Neohelix alleni* complex are discussed by Emberton (1988).

18. Records of *Xolotrema obstricta* (listed by Gordon, 1980) are referable to *Xolotrema occidentalis*. Our collections of *X. occidentalis* display a range of shell form from that of the acutely keeled *X. obstricta* to bluntly keeled forms similar to *Xolotrema fosteri*. Although all of these bear the characteristic coarse shell ribbing and reduced apertural dentition of *X. occidentalis* (Pilsbry, 1940), none correspond exactly in form to that of the types in the Academy of Natural Sciences, Philadelphia. Material from near the type locality of *X. occidentalis* (i.e., Independence County, Arkansas) has been dissected by Emberton (1988) and closely resembles *X. fosteri* in genital anatomy. However, this material also does not agree in form with the type material, being similar in shell shape to *X. fosteri*. We have never seen live adults of the acutely keeled forms and they have never been dissected. Emberton points out the need to investigate this problem, but preserved material is not available. Because of the general similarity in shell shape of *X. obstricta* of the southern Appalachians to some of the acutely keeled *X. occidentalis*, the Arkansas record of Gordon (1980) is regarded as an error of identification.

19. *Stenotrema caddoense* is referred to as a subspecies of *Stenotrema unciferum* by Pilsbry (1940) and Hubricht (1985). However, Emberton (1995) lists *Stenotrema caddoense* as a separate species.

20. *Polygyra triodontoides* is recorded for Arkansas by Pilsbry (1940) but not by Hubricht (1985). The form is not included in Emberton (1995), but because of the close similarity of its shell to that of *Linisa texasiana*, presumably, it belongs to the genus *Linisa*.

21. Examination of Hubricht's *Millerelix lithica* from Arkansas and our specimens of *Millerelix dorfeuilliana* from throughout the state does not lead to the conviction that *M. lithica* is a species distinct from *M. dorfeuilliana*. It possibly represents one extreme of a cline. *Millerelix dorfeuilliana* is very variable (Branson, 1970) in shape and development of the parietal tooth and in size and placement of the upper lip tooth (separating characters of *M. lithica*). Additionally, a species of *Millerelix* distinct from all other Polygyrini of the United States has recently been found in the state by the authors.

22. *Millerelix deltoidea* and *M. simpsoni* are regarded as forms of *M. jacksoni* by Pilsbry (1940) but as separate species by Hubricht (1985) and Emberton (1995).

23. *Inflectarius edentatus* is regarded as a form of *Inflectarius inflectus* by Pilsbry (1940) and Hubricht (1985) but as a separate species by Emberton (1995).

The above considerations were used in compiling our list of terrestrial mollusks of Arkansas. Gordon (1980) lists 107 terrestrial species of Gastropoda for Arkansas, Hubricht (1985) lists 96 and we list 144. Of the 144 species given in Table 1, nine have been recorded only from river drift or as subfossil and may not, therefore, be living in the state. Of

A Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species

the remaining 135, 109 were found living in the state by the authors, four species were seen as dead (but recent) shells and 22 were not seen in the state by the authors (Table 1). Of the 135 species noted above, five represent alien slug introductions and three are apparent adventive populations. Thus, the Arkansas autochthonous fauna, as presently understood, consists of 127 species.

The increase of 48 species compared with the most recent summary (Hubricht, 1985) includes 22 additional native species, the remainder being forms listed in earlier literature or apparently introduced aliens not included by Hubricht. Of these, three represent species in the process of description by the authors; one, *Neohelix albolabris bogani*, was not described until 1988 (Emberton, 1988). Most of the remaining 18 species not recorded previously for the state are minute forms that have been overlooked. Of these, *Vertigo gouldi*, and *V. meramecensis* represent records that are significant extensions of the ranges presented by Hubricht (1985).

Using Hubricht's (1985) distributions of land mollusks for the eastern United States (i.e., east of the Rocky Mountains), the Arkansas forms appear to group into five broad categories, viz:

1. A group of species of generally widespread occurrence in the eastern United States of which some forms are absent from, or of restricted distribution in the Atlantic and Gulf Coastal plains (approximately 40%).

2. Species of general distribution in the northern tier of states extending south into the Appalachian, Cumberland and Ozark Mountains (approximately 12%).

3. A group of species that are widespread in the Gulf Coastal Plain and absent or of restricted distribution further north (approximately 11%).

4. Species that show a mid-western distribution, i.e., those that occur in a broad band from Louisiana and Texas (east of the Edwards Plateau) to the western Great Lakes (approximately 14%).

5. Species endemic to the Ozark/Ouachita Mountains (approximately 18%).

6. The remaining 5% are species for which the geographical distribution is unclear.

Thus, the diversity of Arkansas land Mollusks is apparently due to the conjunction of these biogeographical zones within the state.

Regarding the endemic land mollusks, the mountains of western Arkansas and adjacent regions of Oklahoma and Missouri have long been known to be an area of considerable endemicism (Pilsbry and Ferriss, 1906; Pilsbry, 1940; Gordon, 1980). Endemic species include forms that occur in both the Ouachita and Ozark Mountains, forms that are restricted to either the Ouachita or Ozark Mountains, and a group of five species endemic to Arkansas. The area around the White and Buffalo Rivers contains the largest concentration of Arkansas endemics.

The survival of these localized forms and, particularly, that of species apparently restricted to the state, is of some concern. Of the five state endemics, *Inflectarius magazinensis* is afforded federal protection on the basis of a single extended site on Mount Magazine. Similarly, one site for *Patena clenchi* is protected within Mount Nebo State Park, Yell County. However, all populations of *Millerelix peregrina* and *Xolotrema occidentalis* known to the authors are outside of protected sites such as state or national parks. *Paravitrea aulacogyra* is still known from only a single specimen. (Pilsbry, 1946).

ACKNOWLEDGMENTS.—We are grateful to the staff of the Arkansas Game and Fish Commission, the Ozark Saint Francis and Ouachita National Forests, the Nature Conservancy and private land owners who have given permission to collect snails on their lands. In particular, we wish to acknowledge the assistance of Gregg Butts of the Arkansas State Parks, Douglas Zollner of the Arkansas Field Office of the Nature Conservancy, Cindy Osborne of the Arkansas Natural Heritage Commission, George Oviatt of the Buffalo National River, John Slapcinsky of the Field Museum of Natural History, Chicago, and Gary Rosenberg of the Academy of Natural Sciences, Philadelphia.

Table 1. Arkansas terrestrial Mollusca. ¹Not seen alive by the authors, ²apparently alien introduction, ³Arkansas records appear to represent adventive populations, ⁴Arkansas records are from river drift, ⁵subfossil.

Family Helicinidae

Helicina orbiculata (Say, 1818)

Family Pomatiopsidae

Pomatiopsis lapidaria (Say, 1817)

Family Carychiidae

Carychium mexicanum Pilsbry, 1891

C. exile I. Lea, 1842

Family Cochlicopidae

Cochlicopa morseana (Doherty, 1878)

Family Valloniidae

Vallonia perspectiva Sterki, 1892

V. parvula Sterki, 1893

Family Pupillidae

Pupoides albilabris (C.B. Adams, 1821)

Gastrocopta armifera (Say, 1821)

G. contracta (Say, 1822)

G. holzingeri (Sterki, 1889)

G. pentodon (Say, 1821)

- G. tappaniana* (C.B. Adams, 1842)
G. corticaria (Say, 1816)
G. procera (Gould, 1840)
G. sterkiana (Pilsbry, 1912)
G. rupicola (Say, 1821)^{1,3}
Gastrocopta sp. nov. [?] cf. *mcclungi*
 Hanna and Johnston, 1913
G. cristata (Pilsbry and Vanatta, 1900)⁴
G. pellucida (Pfeiffer, 1841)⁴
Vertigo milium (Gould, 1840)
V. oscariana Sterki, 1890
V. rugulosa Sterki, 1890
V. oralis Sterki, 1898
V. teskeyae Hubricht, 1961
V. ovata (Say, 1822)
V. tridentata Wolf, 1870
V. gouldi (A. Binney, 1843)
V. meramecensis Van Devender, 1979
Columella simplex (Gould, 1841)
- Family Strobilopsidae
Strobilops labyrinthicus (Say, 1817)
S. texasianus Pilsbry and Ferriss, 1906
S. aeneus Pilsbry, 1926
- Family Succineidae
Oxyloma retusum (I. Lea, 1834)
O. salleanum (Pfeiffer, 1849)
Succinea ovalis Say, 1817
S. indiana Pilsbry, 1905
S. grosvenori I. Lea, 1857
S. unicolor Tryon, 1866
S. forsheyi I. Lea, 1864
S. luteola Gould, 1848
Catinella avara (Say, 1824)
C. oklahomarum (Webb, 1953)
C. wandae (Webb, 1953)¹
- Family Philomycidae
Philomycus carolinianus (Bosc, 1802)
Megapallifera mutabilis (Hubricht, 1951)
M. ragsdalei (Webb, 1950)¹
Pallifera marmorea Pilsbry, 1948
- Family Discidae
Anguispira alternata (Say, 1816)
A. strongyloides (Pfeiffer, 1854)
A. kochi (Pfeiffer, 1821)¹
Discus cronkhitei (Newcomb, 1865)^{1,5}
D. patulus (Deshayes, 1830)
- Family Helicodiscidae
Helicodiscus tridens (Morrison, 1935)⁴
H. eigenmanni Pilsbry, 1900⁴
H. notius Hubricht, 1962
H. parallelus (Say, 1817)
H. roundyi (Morrison, 1935)⁴
H. singleyanus (Pilsbry, 1890)
- H. inermis* H.B. Baker, 1929⁴
H. nummus (Vanatta, 1899)⁴
- Family Punctidae
Punctum minutissimum (I. Lea, 1841)
P. vitreum H.B. Baker, 1930
- Family Limacidae
Limax flavus (Linnaeus, 1758)²
L. maximus Linnaeus, 1758²
Deroceras laeve (Müller, 1774)²
Lehmannia valentiana (Férussac, 1821)^{1,2}
- Family Milacidae
Milax gagates (Draparnaud, 1801)^{1,2}
- Family Arionidae
Arion subfuscus (Draparnaud, 1805)²
- Family Zonitidae
Nesovitrea electrina (Gould, 1841)¹
Glyphyalinia wheatleyi (Bland, 1833)
G. roemeri (Pilsbry and Ferriss, 1906)⁴
G. indentata (Say, 1823)
G. solida (H.B. Baker, 1930)
G. laticola Hubricht, 1966
G. umbilicata (Cockerell, 1893)
G. lewisiana (Clapp, 1908)¹
Mesomphix globosus (MacMillan, 1940)
M. friabilis (W.B. Binney, 1857)
M. cupreus (Rafinesque, 1831)¹
M. capnodes (W.G. Binney, 1857)
Paravitrea multidentata (A. Binney, 1840)
P. significans (Bland, 1866)
P. simpsoni (Pilsbry, 1899)
P. petrophila (Bland, 1883)
P. aulacogyra (Pilsbry and Ferriss, 1906)¹
Paravitrea sp. nov. [?] cf. *lacteodens*
Hawaiiia minuscula (A. Binney, 1840)
H. alachuana (Dall, 1885)
Ventridens demissus (A. Binney, 1843)
V. brittsi (Pilsbry, 1892)
V. ligera (Say, 1821)
Zonitoides arboreus (Say, 1816)
Striatura meridionalis (Pilsbry and Ferriss, 1906)
- Family Helicarionidae
Euconulus chersinus trochulus (Say, 1821)
E. dentatus (Sterki, 1893)
Guppya sterkii (Dall, 1888)
- Family Haplotrematidae
Haplotrema concavum (Say, 1821)
- Family Bulimulidae
Rabdotus dealbatus (Say, 1821)
- Family Polygyridae
Webbhelix multilineata (Say, 1821)
Neohelix divesta (Gould, 1848)
N. albolabris bogani Emberton, 1988
N. alleni (Sampson, 1883)

A Revised List of Arkansas Terrestrial Mollusks with Notes on the Geographic Distribution of Species

- Xolotrema fosteri* (F.C. Baker, 1932)
X. caroliniensis (I. Lea, 1834)¹
X. occidentalis (Pilsbry and Ferriss, 1907)
X. denotata (Férussac, 1821)
Triodopsis cragini Call, 1886
T. vultosa (Gould, 1848)¹
T. hopetonensis (Shuttleworth, 1852)
T. neglecta (Pilsbry, 1899)
Allogona profunda (Say, 1821)¹
Euchemotrema fraternum imperforatum
(Pilsbry, 1900)
E. leai aliciae (Pilsbry, 1893)
Stenotrema pilsbryi (Ferriss, 1900)
S. labrosum (Bland, 1862)
S. stenotrema (Pfeiffer, 1842)
S. unciferum (Pilsbry, 1900)
S. caddoense (Archer, 1935)¹
S. blandianum (Pilsbry, 1903)¹
Linisa texasiana (Moricand, 1833)
L. triodontoides (Bland, 1861)¹
Praticolella berlandieriana (Moricand, 1833)^{1,3}
- Millerelix dorfeuilliana* (I. Lea, 1838)
M. lithica (Hubricht, 1961)
M. jacksoni (Bland, 1866)
M. deltoidea (Simpson, 1899)¹
M. simpsoni (Pilsbry and Ferriss, 1907)¹
M. peregrina (Rehder, 1932)
Millerelix. sp. nov.
Daedalochila leporina (Gould, 1848)
Patera binneyana (Pilsbry, 1899)
P. clenchi (Rehder, 1932)
P. indianorum (Pilsbry, 1899)
P. kiowaensis (Simpson, 1888)
P. roemeri (Pfeiffer, 1848)^{1,3}
P. perigrapta (Pilsbry, 1894)
Inflectarius magazinensis (Pilsbry and Ferriss, 1907)
I. inflectus (Say, 1821)
I. edentatus (Sampson, 1889)
Mesodon elevatus (Say, 1821)
M. zaletus (A. Binney, 1837)
M. clausus (Say, 1821)
M. thyroidus (Say, 1816)

Literature Cited

- American Fisheries Society.** 1988. Common and Scientific Names of Aquatic Invertebrates from the United States and Canada: Mollusks. American Fisheries Society Special Publication 16, 277 pp. Bethesda, MD.
- Burch, J. B. and A. S. Van Devender.** 1980. Identification of eastern North American land snails: the Prosobranchia, Opisthobranchia and Pulmonata (Actophila). Walkeriana 1:33-80. Museum of Zoology and Department of Ecology and Evolutionary Biology, University of Michigan, Ann Arbor.
- Branson, B. A.** 1970. Shell variability in *Polygyra dorfeuilliana*. Nautilus 83:120-133.
- Emberton, K. C.** 1988. The genitalic, allozymic, and conchological evolution of the eastern North American Triodopsinae (Gastropoda: Pulmonata: Polygyridae). Malacologia 28:159-273.
- Emberton, K. C.** 1991. The genitalic, allozymic, and conchological evolution of the tribe Mesodontini (Pulmonata: Stylommatophora: Polygyridae). Malacologia 33:71-178.
- Emberton, K. C.** 1995. What shells do not tell: 145 million years of evolution in North America's polygyrid land snails, with a revision and conservation priorities. Malacologia 37:69-110.
- Gordon, M. E.** 1980. Recent mollusks of Arkansas with annotations to systematics and zoogeography. Proc. Arkansas Acad. Sci. 34:58-62.
- Hanna, G. D. and E. C. Johnston.** 1913. A Pleistocene molluscan fauna from Phillips County, Kansas. Kansas Univ. Sci. Bull. 7:111-121.
- Hubricht, L.** 1962. Drift land shells from the Red River, Arkansas. Sterkiana 8:33-34.
- Hubricht, L.** 1967. Some land snail records from Oklahoma and Arkansas. Nautilus 81:65-67.
- Hubricht, L.** 1972. The land snails of Arkansas. Sterkiana 46:15-17.
- Hubricht, L.** 1985. The Distributions of the Native Land Mollusks of the Eastern United States. Fieldiana, NS (Zoology), No. 24. Field Museum of Natural History, Chicago. 191 pp.
- Pilsbry, H. A.** 1940-1948. The Land Mollusca of North America (North of Mexico). Vol. 1, Part 2 (1940), 994+ix pp.; Vol. 2, Part 1 (1946), 520 pp.; Vol. 2, Part 2 (1948), 1113 pp. The Academy of Natural Sciences of Philadelphia.
- Pilsbry, H. A. and J. H. Ferriss.** 1906. Mollusca of the Ozarkian fauna. Proc. Acad. Nat. Sci. Philadelphia. December, pp. 529-567.