

NOTES ON THE FAUNA OF THE CHIPOLA FORMATION - XLIII
ADDITIONS TO THE MOLLUSCAN FAUNA SINCE 1947

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In the fifty years since Gardner's monumental study (1926-1947, U.S. Geological Survey Professional Paper 142) of the Alum Bluff molluscan fauna, a large number of species, both new and previously described, have been added to the fauna of the Chipola Formation. These, for the most part, have been published in Tulane Studies in Geology and Paleontology, either in generic monographs or in the series entitled "Notes on the fauna of the Chipola Formation." As a conclusion to this series and to the journal as a whole, a final compilation seems in order.

GASTROPODA

TROCHIDAE

- Calliostoma sextoni* Schmelz, 1993
Calliostoma cuspidatum Schmelz, 1993

TURBINIDAE

- Turbo (Halopsephus?) chipolanus* Schmelz, 1995
Turbo (Taenearurbo) pactilis Schmelz, 1995

MODULIDAE

- Modulus(?) imitatus* Schmelz, 1991

NERITOPSIDAE

- Neritopsis vokesorum* R. Hoerle, 1972

CERITHIIDAE

- Cerithium louisae* Schmelz, 1997
Cerithium (Thericium) peregrinum S. Hoerle, 1972
Cerithium (Thericium) vokesorum S. Hoerle, 1972
Hemicerithium akriton S. Hoerle, 1972
Hemicerithium craticulum S. Hoerle, 1972
Hemicerithium pagodum S. Hoerle, 1972
Tenuicerithium absonum S. Hoerle, 1972
Tenuicerithium ascensum S. Hoerle, 1972
Cerithiopsis inopinus S. Hoerle, 1972
Bittium serenum S. Hoerle, 1972
Alabina (Caloosalba) turbatrix S. Hoerle, 1972

POTAMIDIDAE

- Potamides suprasulcatus* (Gabb, 1873)
Terebralia dentilabris (Gabb, 1873)

EPITONIIDAE

- Cirsotrema (Cirsotremopsis) dalli* Rehder, 1945
Scalina gardnerae Olsson, 1967

HIPPONICIDAE

- Rothpletzia floridana* H. Vokes, 1982

CALYPTRAEIDAE

- Calyptraea (Trochita) ornata* Basterot, 1825
Calyptraea (Trochita) costaria Grateloup, 1827
Crepipatella apprimus E. Vokes, 1975
Cheilea equestris (Linné, 1758)
Cheilea uncinata (Reeve, 1858)

CYPRAEIDAE

- Cypraeorbis emilyae* Dolin, 1991
Cypraeorbis hertleini Ingram, 1948 [+ *C. apalachicolae* Ingram, 1948]
Cypraeorbis ballista (Dall, 1915)
Zoila willcoxi (Dall, 1915) [+ *C. alumensis* Ingram, 1948]
Zoila arlettae Dolin, 1991
Trona calhouensis Dolin, 1991
Talparia (Talparia) domininensis (Gabb, 1873)
Talparia (Talparia) mariaelizabethae Dolin, 1991
Mauritia (Mauritia) campbelliana (Pilsbry, 1922)
Lyncina theresae Dolin, 1991
Erronea (Ajusta) tumulus (Heilprin, 1886)
Erronea (Ajusta) spurcoides (Gabb, 1873)
Erronea (Ajusta) shirleyae Dolin, 1991
Bistolida praelatior Dolin, 1991

OVULIDAE

- Simnia (Neosimnia) cristata* Dolin, 1991
Simnia (Neosimnia) puella Dolin, 1991
Simnia (Spiculata) terminatincta Dolin, 1991
Simnia (Simnialena) oryzagrana Dolin, 1991

TRIVIDAE

- Trivia juliae* Dolin, 1991
Trivia capillata Dolin, 1991
Dolichupis clypeus Dolin, 1991
Niveria (Niveria) carlottae Dolin, 1991

CASSIDAE

- Cassis delta* Parker, 1948

TONNIDAE

- Eudolium (Galeodolium) subfasciatum* Sacco, 1890

CYMATIIDAE

- Cymatium (Gutturium) ritteri* Schmelz, 1989

BURSIDAE

- Bursa (Bufonariella) chipolana* Schmelz, 1997
 [for *Bursa (Tutufa) pelouatensis* of Vokes, 1973, not of Cossmann and Peyrot, 1923]

MURICIDAE

- Haustellum gilli* (Maury, 1910) [= *Murex dasus* Gardner, 1947]
Chicoreus (Chicoreus) dujardinoides (E. Vokes, 1963)
Chicoreus (Chicoreus) lepidotus (E. Vokes, 1963)
Chicoreus (Chicoreus) elusivus E. Vokes, 1974
Chicoreus (Siratus) juliagardnerae E. Vokes, 1970 [n.n. for *Murex gardnerae* Vokes, 1963, non *Alectrion gardnerae* Dall, 1915 = *Chicoreus (Phyllonotus) trophoniformis* (Heilprin, 1887)]
Chicoreus (Siratus) sextoni E. Vokes, 1990
Chicoreus (Phyllonotus) infrequens E. Vokes, 1967
Chicoreus (Phyllonotus) louisae E. Vokes, 1990
Pterynotus (Pterynotus) hoerlei E. Vokes, 1970
Pterynotus (Pterynotus) praepatagiatus E. Vokes, 1992
Poirieria (Panamurex) mauryae E. Vokes, 1970
Dermomurex (Dermomurex) matercula E. Vokes, 1975
Dermomurex (Trialatella) farleyensis E. Vokes, 1975
Dermomurex (Takia) curviductus E. Vokes, 1975
Calotrophon phagon (Gardner, 1947) [originally cited from Oak Grove Fm. only]
Muricopsis (Muricopsis) shirleyae E. Vokes,

1994

- Muricopsis (Muricopsis) sp. cf. praepauxillus* (Maury, 1917)
Muricopsis (Risomurex) crassicosta (Benoist, 1873)
Murexsul nanissimus E. Vokes, 1994
Murexiella (Murexiella) parvula E. Vokes, 1994
Murexiella (Subptynotus) textilis (Gabb, 1873)
Homalocantha calhounensis (E. Vokes, 1968)
Favartia (Pygmaeptyrus) drezi (E. Vokes and D'Attilio, 1980)
Urosalpinx xustris Gardner, 1947 [originally cited from Oak Grove Fm. only]
Lindapterys vokesae Petuch, 1987 [for "*Ranella*" *poppelacki* of Vokes, 1987, not of Hörnes, 1853]
Concholepas drezi E. Vokes, 1972
Typhis (Rugotyphis) keenae Gertman, 1969
Typhis (Typhinellus) chipolanus Gertman, 1969
Pterotyphis (Pterotyphis) calhounensis Gertman, 1969
Pterotyphis (Tripterotyphis) vokesae Gertman, 1969

COLUMBELLIDAE

- Parametaria (Parametaria) bella* Schmelz, 1995

DOLICHOLATIRIIDAE

- Dolicholaturus exilis* (Gabb, 1873)

TURBINELLIDAE

- Turbinella dodonia* (Gardner, 1944) [originally cited from Oak Grove Fm. only]
Turbinella dalli E. Vokes, 1964

VASIDAE

- Vasum chipolense* E. Vokes, 1966
Vasum haitense (Sowerby, 1850) [Gardner as *Vasum aff. engonatum* Dall, 1890, which is a synonym]
Vasum tribulosum E. Vokes, 1970
Vasum elongatum E. Vokes, 1970

VOLUTIDAE

- Lyria (Lyria) limata* S. Hoerle and E. Vokes, 1978
Falsilyria anoptos S. Hoerle and E. Vokes, 1978

MARGINELLIDAE

Prunum liparum leptochilus Roth, 1973 [n.n. for *Marginella lipara lepta* Gardner, 1938, non Bartsch, 1915]

OLIVIDAE

Oliva (Oliva) waltoniana calhounensis Drez, 1981
Oliva (Oliva?) blowi Drez, 1981
Oliva (Oliva?) vokesorum Drez, 1981
Oliva (Omogymna) farleyensis Drez, 1997
Olivella (Callianax) johnsoni Olsson, 1956

CANCELLARIDAE

Charcolleria distinguenda Petit, 1970
Trigonostoma xiphion Petit and Schmelz, 1991
Trigonostoma serilium Petit and Schmelz, 1991
Trigonostoma nexum Petit and Schmelz, 1991
Trigonostoma ritteri Petit and Schmelz, 1991
Trigonostoma proteus Petit and Schmelz, 1991
Axelella firma Petit and Schmelz, 1991
Axelella axiologa Petit and Schmelz, 1991

CONIDAE

Conus gardnerae S. Hoerle, 1976 [n.n. for *C. corrugatus* Gardner, 1937, non Sowerby, 1870]
Conus aneuretos S. Hoerle, 1976
Conus ambonos S. Hoerle, 1976
Conus cracens S. Hoerle, 1976
Conus tapetus S. Hoerle, 1976
Conus erugatus S. Hoerle, 1976
Conus aquoreus S. Hoerle, 1976
Conus praecipuus S. Hoerle, 1976
Conus vegrandis S. Hoerle, 1976
Conus tricoloratus S. Hoerle, 1976
Conus rapunculus S. Hoerle, 1976
Conus sextoni S. Hoerle, 1976

TURRIDAE

Glyphostoma locklini Olsson, 1964

PELECYPODA

MANZANELLIDAE

Nucinella chipolana H. Vokes, 1985

MYTILIDAE

Perna caura H. Vokes, 1986
Musculus (Planimodiola) disinflatus H. Vokes,

1986

Musculus (Ryenella) lateralis praelateralis H. Vokes, 1986
Gregariella arcaforma H. Vokes, 1986
Lithophaga antillarum (d'Orbigny, 1842)
Lithophaga (Diberus) bisulcata (d'Orbigny, 1842)
Modiolus ducatelii Conrad, 1840
Botula fusca (Gmelin, 1791)

PECTINIDAE

Pecten (Pecten) kathrinepalmerae [sic] Tucker, 1930

LIMIDAE

Lima cf. caribaea d'Orbigny, 1842
Ctenoides (Ctenoides) floridana (Olsson and Harbison, 1953)
Ctenoides (Ctenoides) cf. scabra (Born, 1780)
Limaria (Limaria) chipolana H. Vokes, 1973

OSTREIDAE

Lopha frondicula H. Vokes, 1977

MILTHIDAE

Eomiltha scolaroi H. Vokes, 1969

SPORTELLIDAE

Basterotia (Basterotia) ambona H. Vokes, 1981
Basterotia (Basterotella) miocenica H. Vokes, 1981

ASTARTIDAE

Astarte (Ashtarotha) pansyrta H. Vokes, 1981

CARDIIDAE

Acrosterigma (Vasticardium) hoerleorum H. Vokes, 1977 [for *Cardium inconspicuum* of Gardner, 1926, not of Guppy, 1886]
Trachycardium mollyni H. Vokes, 1982
Trigoniocardia (Trigoniocardia) decidua H. Vokes, 1977
Fragum tunicula H. Vokes, 1977 [for *Cardium aliculum* of Gardner, 1926, not of Dall, 1900]
Papyridea miocica H. Vokes, 1977
Papyridea multicosstula H. Vokes, 1977

TELLINIDAE

Arcopagia (Johnsonella) fausta (Pultney, 1799)

DRESSENIDAE

Mytilopsis ermiocenicus H. Vokes, 1985

TRAPEZIIDAE

Coralliophaga deliquiradia H. Vokes, 1989

VENERIDAE

Chione (Chione) oulotricha Gardner, 1936

PETRICOLIDAE

Petricola (Petroxenica) hoerleae H. Vokes, 1976

GASTROCHAENIDAE

Gastrochaena (Spengleria) emilyiana H. Vokes, 1976

HIATELLIDAE

Panoepa chipolana H. Vokes, 1985

TEREDINIDAE

Kuphus incrassatus (Gabb, 1873)

CEPHALOPODA

Aturia curvilineata Miller and Thompson, 1937
[Jung has put in synonymy with *A. cubaensis* Lea]

The following is a list of those papers devoted solely to the fauna of the Chipola Formation and/or the Alum Bluff Group. Other species have been described in monographs of various taxa, e.g., *Cenozoic Muricidae of the western Atlantic*.

An Overview of the Chipola Formation, Northwestern Florida

Emily H. Vokes, 1989, v. 22(1): 13-24.

Cerithiidae and Potamididae (Mollusca: Gastropoda) from the Chipola Formation of Northwestern Florida

Shirley E. Hoerle, 1972, v. 10(1): 1-22.

The genus *Conus* (Mollusca:Gastropoda) from the Alum Bluff Group of Northwestern Florida

Shirley E. Hoerle, 1976, v. 12(1): 1-30.

Cardiidae (Mollusca:Bivalvia) from the Chipola Formation, Calhoun County, Florida

Harold E. Vokes, 1977, v. 13(4): 143-189.

Olivinae (Mollusca:Gastropoda) from the Alum Bluff Group of Northwestern Florida

Paul E. Drez, 1981, v. 16(3): 105-122.

Mytilidae (Mollusca:Bivalvia) from the Chipola Formation, Lower Miocene, Florida

Harold E. Vokes, 1986, v. 19(4): 159-174.

Cypraeoidea and Lamellarioidea (Mollusca: Gastropoda), from the Chipola Formation (Late Early Miocene) of Northwestern Florida

Luc Dolin, 1991, v. 24 (1-2): 1-60.

The Genus *Phalium* (Gastropoda:Cassidae) from the Alum Bluff Group of Northwestern Florida

Gary W. Schmelz, 1996, v. 29(2): 45-52.

NOTES ON THE FAUNA OF THE CHIPOLA FORMATION

- I. A new species of *Eomiltha* (Mollusca: Bivalvia)
Harold E. Vokes, 1969, v. 7(3): 126-130.
- II. *Chicoreus (Siratus) juliagardnerae*, new name for *Murex gardnerae* Vokes non Dall, with observations on the species
Emily H. Vokes, 1970, v. 8(2): 51-52.
- III. Two new species of *Vasum* (Mollusca: Gastropoda), with comments on *Vasum haitense* (Sowerby)
Emily H. Vokes, 1970, v. 8(2): 88-89.
- IV. A new species of *Neritopsis* (Mollusca: Gastropoda)
Robert C. Hoerle, 1972, v. 10(1): 23-24.
- V. *Symbianguia*, a new rhizangid coral
John W. Wells, 1972, v. 10(1): 25-27.
- VI. On the occurrence of *Pterynotus pinnatus* (Gastropoda:Muricidae) and the problems of dispersal
Emily H. Vokes, 1972, v. 10(1): 29-30.
- VII. On the occurrence of the genus *Concho-*

- lepas* (Gastropoda:Thaididae), with the description of a new species
Emily H. Vokes, 1972, v. 10(1): 31-33.
- VIII. On the presence of *Arcopagia* (*Johnsonella*) *fausta* (Pulteney) with observations on that species
Harold E. Vokes, 1972, v. 10(1): 34-40.
- IX. On the presence of *Kuphus incrassatus* Gabb
Harold E. Vokes, 1972, v. 10(1): 41-46.
- X. On the occurrence of the volutid subgenus *Enaeta*
Jean M. Cate, 1972, v. 10(1): 47-50.
- XI. Helium-Uranium dating studies of corals
Michael L. Bender, 1972, v. 10(1): 51-52.
- XII. Supplementary bibliography
Robert C. Hoerle, 1972, v. 10(1): 53-57.
- XIII. The Family Limidae (Mollusca: Bivalvia)
Harold E. Vokes, 1973, v. 10(2): 87-96.
- XIV. On the occurrence of *Bursa* (Mollusca: Gastropoda), with comments on the genus
Emily H. Vokes, 1973, v. 10(2): 97-101.
- XV. On the occurrence of "*Ranella*" *poppelacki* Hörnes, a gastropod of uncertain affinities
Emily H. Vokes, 1974, v. 11(2): 96-98.
- XVI. On the color pattern of *Globularia fischeri* (Mollusca:Gastropoda)
Emily H. Vokes, 1974, v. 11(2): 99-100.
- XVII. On the presence of *Clementia* (*Ēgesta*) *grayi* Dall
Harold E. Vokes, 1974, v. 11(2): 101-102.
- XVIII. Some new or otherwise interesting members of the Calyptraeidae (Mollusca:Gastropoda)
Emily H. Vokes, 1975, v. 11(3): 163-172.
- XIX. On the presence of *Gastrochaena* (*Splengleria*) (Mollusca:Bivalvia)
Harold E. Vokes, 1976, v. 12(3): 161-162.
- XX. A second species of *Petricola* (*Petricoxenica*) (Mollusca:Bivalvia)
Harold E. Vokes, 1976, v. 12(3): 163-165.
- XXI. A new species of the genus *Lopha* (Mollusca:Bivalvia)
Harold E. Vokes, 1977, v. 13(4): 190-191.
- XXII. On the occurrence of *Dolicholatirus* (Mollusca:Gastropoda)
Emily H. Vokes, 1977, v. 13(4): 195-198.
- XXIII. On the occurrence of the genus *Basterotia* (Mollusca:Bivalvia)
Harold E. Vokes, 1981, v. 16(4): 157-164.
- XXIV. The genus *Astarte* (Mollusca: Bivalvia)
Harold E. Vokes, 1981, v. 16(4): 165-167.
- XXV. On the occurrence of the genus *Rothpletzia* Simonelli (Mollusca: Gastropoda)
Harold E. Vokes, 1982, v. 17(2): 51-54.
- XXVI. A new species of *Trachycardium* from Tenmile Creek
Harold E. Vokes, 1982, v. 17(2): 55-56.
- XXVII. On the occurrence of the bivalve genus *Nucella* Wood
Harold E. Vokes, 1985, v. 18(4): 161-163.
- XXVIII. On the occurrence of the non-marine genus *Mytilopsis* (Mollusca: Bivalvia)
Harold E. Vokes, 1985, v. 18(4): 163-165.
- XXIX. A new species of *Panopea* (Mollusca: Bivalvia)
Harold E. Vokes, 1985, v. 18(4): 165-168.
- XXX. On the presence of *Eudolium* (*Galeodolium*) *subfasciatum* Sacco (Gastropoda:Tonnidae)
Emily H. Vokes, 1986, v. 19(4): 177-180.
- XXXI. On the occurrence of the genus *Corallio-phaga* (Mollusca:Bivalvia)
Harold E. Vokes, 1989, v. 22(4): 127-130.
- XXXII. A new species of the genus *Cymatium* (Mollusca:Gastropoda)
Gary W. Schmelz, 1989, v. 22(4): 137-139.
- XXXIII. Variations on a theme – the color pattern in *Smaragdia chipolana* (Gastropoda: Neritidae)
Emily H. Vokes, 1990, v. 23(4): 130-131.
- XXXIV. New species of Cancellarioidea (Mollusca:Gastropoda)

- Richard E. Petit and Gary W. Schmelz,
1991, v. 24(3): 61-69.
- XXXV. A new species of the genus *Modulus*
(Mollusca:Gastropoda)
Gary W. Schmelz, 1991, v. 24(4): 101-103.
- XXXVI. Two new species of the genus *Callio-*
stoma (Gastropoda:Trochidae)
Gary W. Schmelz, 1993, v. 26(1): 41-45.
- XXXVII. Variation in the shell morphology
of *Calliostoma ceramicum* (Gastropoda:
Trochidae)
Gary W. Schmelz, 1993, v. 26(1): 46-47.
- XXXVIII. Two new species of the genus *Turbo*
(Gastropoda:Turbinidae)
Gary W. Schmelz, 1995, v. 28(4): 113-115.
- XXXIX. A new species of the genus *Para-*
metaria (Gastropoda:Columbellidae)
Gary W. Schmelz, 1995, v. 28(4): 116-118.
- XL. A new species of the genus *Cerithium*
(Mollusca:Gastropoda)
Gary W. Schmelz, 1997, v. 29(4): 153-155.
- XLI. A reexamination of *Bursa* (Mollusca:
Gastropoda) from the Chipola Formation,
with the description of a new species
Gary Schmelz, 1997, v. 30(2): 105-108.
- XLII. A new species of *Oliva* (*Omygymna*)
(Gastropoda: Olividae)
Paul E. DRrez, 1997, v. 30(3): 187-189