

## THE LAND SNAILS OF SOUTH CAROLINA

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This paper lists all of the records for South Carolina in the collection of the author. As in previous papers in this series, only the counties are given as this is usually sufficient for plotting distribution.

*HELICELLA VENTRICOSA* (Draparnaud). Charleston.

*HELIX ASPERSA* Müller. Charleston.

*POLYGYRA CEREOLUS* (Mühlfeld). Charleston, Georgetown, Horry.

*POLYGYRA SEPTEMVOLVA* (Say). Georgetown.

Although the presence or absence of an internal lamina is not a reliable character for the separation of *P. cereolus* and *P. septemvolva* there are other characters which can be used. *P. septemvolva* differs from *P. cereolus* in its larger central hole of the umbilicus and in its smaller caliber whorls. *P. septemvolva* prefers wetter habitats, but the two species sometimes occur together. *P. septemvolva* occurs from Georgetown, South Carolina to Moss Point, Mississippi. *P. cereolus* ranges from Horry Co., South Carolina to southern Texas. In view of the extreme variation in size, shape, angulation of the periphery, and sculpture to be found in many large lots, the recognition of subspecies seems hardly worthwhile.

*POLYGYRA POSTELLIANA* (Bland). Charleston.

*POLYGYRA PUSTULA* (Férussac). Beaufort, Dorchester.

*POLYGYRA PUSTULOIDES* (Bland). Beaufort, Clarendon, Edgefield, Georgetown, Jasper, McCormick, Saluda.

*STENOTREMA BARBIGERUM* (Redfield). Edgefield, McCormick.

*STENOTREMA BARBATUM* (Clapp). Calhoun, Chester, Chesterfield, Kershaw, Newberry, Sumter.

*STENOTREMA STENOTREMA STENOTREMA* (Pfeiffer). Abbeville, Greenwood, McCormick.

*STENOTREMA MAGNIFUMOSUM* (Pilsbry). Oconee.

*STENOTREMA PILULA* (Pilsbry). Greenville.

*MESODON THYROIDUS* (Say). Abbeville, Aiken, Anderson, Bamberg, Calhoun, Chero-

kee, Chester, Chesterfield, Darlington, Dillon, Edgefield, Fairfield, Florence, Greenville, Greenwood, Horry, Kershaw, Laurens, Lexington, Marion, Newberry, Oconee, Richland, Saluda, Spartanburg, Union, York.

*MESODON NORMALIS* (Pilsbry). Greenville, Oconee.

*MESODON CHRISTYI* (Bland). Greenville.

*MESODON APPRESSUS* (Say). Greenville, Spartanburg.

*MESODON PERIGRAPTUS* (Pilsbry). Abbeville, Aiken, Beaufort, Berkeley, Chester, Chesterfield, Darlington, Edgefield, Fairfield, Georgetown, Greenville, Greenwood, Horry, Jasper, Laurens, Lee, McCormick, Oconee, Richland, Saluda, York.

*MESODON RUGELI* (Shuttleworth). Oconee.

*MESODON INFLECTUS* (Say). Abbeville, Aiken, Anderson, Chester, Fairfield, Greenville, Greenwood, Laurens, McCormick, Newberry, Richland, Saluda, Union, York.

*TRIODOPSIS TRIDENTATA* (Say). Greenville, Greenwood.

*TRIODOPSIS JUXTIDENS* (Pilsbry). Aiken, Chester, Darlington, Edgefield, Greenville, McCormick, Newberry, Richland.

*TRIODOPSIS FALLAX FALLAX* (Say). Aiken, Chester, Chesterfield, Fairfield, Kershaw, Lexington, Newberry, Richland, Saluda, Spartanburg, Sumter, York.

*TRIODOPSIS FALLAX AFFINIS* Hubricht. Abbeville, Allendale, Anderson, Calhoun, Cherokee, Edgefield, Greenville, Greenwood, Laurens, Lexington, McCormick, Newberry, Richland, Saluda, Spartanburg, Union, York.

*TRIODOPSIS ALABAMENSIS* (Pilsbry). Abbeville, Anderson, McCormick; Oconee, Saluda.

*TRIODOPSIS VANNOSTRANDI* (Bland). Aiken, Bamberg, Barnwell, Berkeley, Calhoun, Edgefield, Lexington, McCormick, Orangeburg, Richland, Sumter.

*TRIODOPSIS HOPETONENSIS* (Shuttleworth). Aiken, Bamberg, Beaufort, Berkeley, Charleston, Clarendon, Colleton, Darlington, Dorchester, Florence, Georgetown, Hampton, Horry, Jasper, Orangeburg, Richland, Sumter, Williamsburg.

*TRIODOPSIS MESSANA* Hubricht. Berkeley,

Darlington, Dillon, Florence, Lee, Marion, Marlboro.

*Triodopsis fallax* and its relatives can be divided into two groups. One group contains *T. messana*, *T. obsoleta*, and *T. soelneri*. The members of each group may hybridize with each other, but members of one group will not hybridize in nature with members of the other. Members of both groups may hybridize with the ancestral *T. fallax*. The main barriers to hybridization are geographical and ecological.

*Triodopsis fallax fallax* (Say) is restricted to the Piedmont except in the northern part of its range where it also occurs on the Coastal Plain. It is a species of roadsides and clearings. I never found it in deep woods. It is a common urban snail.

*Triodopsis fallax affinis* Hubricht is almost exclusively an urban snail. The few places where I found it away from towns were in the vicinity of trash which had been dumped near the roadside. It is a population resulting from hybridization between *T. fallax fallax* and *T. alabamensis*. Despite its hybrid origin it is remarkably uniform, which would indicate that it is being strongly selected to fit its peculiar habitat.

*Triodopsis alabamensis* (Pilsbry) is a woodland species which rarely occurs as an urban snail. Its range is southwest of that of *T. fallax fallax* with little if any overlap.

*Triodopsis vannostrandii* (Bland) is a species of the Coastal Plain where it occupies dryer habitats than *T. hopetonensis*. It sometimes occurs as an urban snail. In southeastern Alabama it is found in the same area as *T. alabamensis* but is always found in wetter habitats at lower elevations.

*Triodopsis hopetonensis* (Shuttleworth) is the most widely distributed species on the Coastal Plain. It is found in places which are a little wetter than where *T. vannostrandii* occurs, but not as wet as the places where *T. obsoleta* is found. It is a common urban snail. In Alabama, Mississippi, and east Tennessee, where it has been widely introduced, it is almost exclusively an urban snail. The few times that I found it away from towns it was always in the vicinity of dumps.

*Triodopsis messana* Hubricht is a species of the Coastal Plain. Its range is north of that of *T. vannostrandii* and it is found in much the same habitat. It is a common urban snail, and is sometimes found associated with *T. hopetonensis*.

*Triodopsis obsoleta* (Pilsbry) is restricted to Pleistocene land. It likes wetter habitats than *T. hopetonensis*. It was found associated with *T. hopetonensis* at only one place, but in several towns it was found on one vacant lot while *T. hopetonensis* was found on another across the street. On the Delmarva Peninsula, where

*T. obsoleta* occurs, and may have been introduced, it has hybridized with *T. fallax fallax* and has produced *T. hopetonensis*-like and *T. messana*-like forms.

*Triodopsis soelneri* (J.B. Henderson) is a species of swamps but has been found in pine woods in the vicinity of dumps.

TRIODOPSIS DENOTATA (Férussac). Berkeley, Darlington.

TRIODOPSIS CAROLINIENSIS (Lea). Chester.

TRIODOPSIS ALBOLABRIS (Say). Lexington, Oconee.

TRIODOPSIS MAJOR (Binney). Abbeville, Aiken, Barnwell, Calhoun, Chester, Chesterfield, Darlington, Jasper, Lexington, McCormick, Orangeburg, Richland, Saluda.

RUMINA DECOLLATA (Linné). Aiken, Beaufort, Lexington, Richland.

OPEAS PYRGULA Schmacker & Boettger. Charleston.

GULELLA BICOLOR (Hutton). Charleston.

EUGLANDINA ROSEA (Férussac). Beaufort, Berkeley, Charleston, Colleton, Dorchester, Horry, Williamsburg.

HAPLOTREMA CONCAVUM (Say). Aiken, Bamberg, Beaufort, Berkeley, Calhoun, Chester, Darlington, Edgefield, Greenville, Horry, Jasper, Laurens, Newberry, Richland, Williamsburg.

EUCONULUS CHERSINUS CHERSINUS (Say). Beaufort, Berkeley, Charleston, Colleton, Georgetown, Jasper, McCormick, Orangeburg, Saluda, Sumter.

EUCONULUS DENTATUS (Sterki). Edgefield.

GUPPYA STERKII (Dall). Aiken.

GLYPHYALINIA CUMBERLANDIANA (Clapp). Greenville.

GLYPHYALINIA RHOADSI (Pilsbry). Abbeville, Aiken, Barnwell, Charleston, Clarendon, Colleton, Edgefield, McCormick, Orangeburg, Saluda.

GLYPHYALINIA INDENTATA (Say). Aiken, Barnwell, Beaufort, Berkeley, Calhoun, Charleston, Chester, Colleton, Edgefield, Greenville, Horry, Jasper, Laurens, Lexington, McCormick, Newberry, Richland, Saluda, York.

GLYPHYALINIA CAROLINIENSIS (Cockerell). Oconee.

GLYPHYALINIA SOLIDA (H.B. Baker). Charleston, Clarendon, Colleton, Darlington, Greenville, Horry, Jasper, Lexington, Sumter.

- MESOMPHIX PERLAEVIS Pilsbry. Greenville.
- MESOMPHIX GLOBOSUS MacMillan. Aiken, Bamberg, Barnwell, Berkeley, Calhoun, Clarendon, Edgefield, Jasper, McCormick, Newberry, Williamsburg.
- MESOMPHIX PILSBRYI (Clapp). Chester, Darlington, Edgefield, Greenville, Greenwood, McCormick, Richland.
- HAWAIIA MINUSCULA MINUSCULA (Binney). Aiken, Beaufort, Berkeley, Calhoun, Charleston, Chester, Colleton, Dorchester, Edgefield, Georgetown, Richland, Williamsburg.
- GASTRODONTA INTERNA INTERNA (Say). Greenville, Oconee.
- VENTRIDENS GULARIS (Say). Abbeville, Aiken, Calhoun, Chester, Edgefield, Greenville, Greenwood, Laurens, McCormick, Newberry, Richland, Saluda, York.
- VENTRIDENS CERINOIDEUS (Anthony). Bamberg, Beaufort, Berkeley, Charleston, Chesterfield, Clarendon, Colleton, Georgetown, Hampton, Horry, Jasper, Lexington, Marion, Orangeburg, Richland, Sumter, Williamsburg.
- VENTRIDENS PILSBRYI Hubricht. Oconee.
- VENTRIDENS INTERTEXTUS (Binney). Aiken, Anderson, Bamberg, Berkeley, Cherokee, Chester, Dillon, Edgefield, Greenville, Greenwood, Horry, Lexington, McCormick, Newberry, Oconee, Orangeburg, Richland, Saluda, Sumter.
- VENTRIDENS ELLIOTTI (Redfield). Greenville, Oconee.
- ZONITOIDES ARBOREUS (Say). Aiken, Anderson, Beaufort, Berkeley, Charleston, Chester, Chesterfield, Colleton, Dorchester, Edgefield, Greenville, Horry, Jasper, Laurens, Lexington, McCormick, Orangeburg, Richland, Saluda, Sumter, Williamsburg.
- ZONITOIDES PATULOIDES (Pilsbry). Greenville.
- STRIATURA MERIDIONALIS (Pilsbry & Ferriss). Aiken, Beaufort, Berkeley, Greenville, Laurens, McCormick, Union.
- ANGUISPIRA STRONGYLODES (Pfeiffer). Abbeville, Calhoun, Edgefield, Fairfield, Greenwood, Laurens, Lexington, Richland, Sumter.
- ANGUISPIRA FERGUSONI (Bland). Horry, Richland.
- DISCUS PATULUS PATULUS (Deshayes). Chester, Saluda, York.
- HELICODISCUS FIMBRIATUS (Wetherby). Oconee.
- HELICODISCUS SALUDENSIS (Morrisson). Greenville.
- HELICODISCUS NOTIUS NOTIUS Hubricht. Anderson, Charleston, Edgefield, Greenwood, Laurens, McCormick, Saluda, Williamsburg.
- HELICODISCUS PARALLELUS (Say). Aiken, Barnwell, Beaufort, Berkeley, Charleston, Colleton, Darlington, Edgefield, Georgetown, Jasper, Lexington, Orangeburg, Richland, Saluda, Sumter, Williamsburg.
- PUNCTUM MINUTISSIMUM (Lea). Abbeville, Aiken, Beaufort, Berkeley, Calhoun, Charleston, Greenville.
- PHILOMYCUS CAROLINIANUS (Bosc). Abbeville, Bamberg, Berkeley, Darlington, Dillon, Edgefield, Horry, Laurens, Newberry, Oconee, Saluda.
- PHILOMYCUS VENUSTUS Hubricht. Greenville.
- PALLIFERA MUTABILIS Hubricht. Abbeville, Darlington, Horry, Newberry, Saluda.
- PALLIFERA MEGAPHALLICA Grimm. Calhoun, Jasper, McCormick, Richland, York.
- SUCCINEA WILSONI Lea. Charleston.
- SUCCINEA CONCORDIALIS Gould. Charleston.
- SUCCINEA INDIANA Pilsbry. McCormick.
- SUCCINEA CAMPESTRIS (Say). Charleston, Horry.
- CATINELLA VERMETA (Say). Colleton, Greenville, Hampton, Horry.
- CATINELLA OKLAHOMARUM (Webb). Abbeville, Bamberg.
- CATINELLA HUBRICHTI Grimm. Colleton.
- CATINELLA PUGILATOR Hubricht. Charleston.
- STROBILOPS LABYRINTHICA (Say). Laurens, McCormick, Union.
- STROBILOPS TEXASIANA Pilsbry. Abbeville, Aiken, Charleston, McCormick.
- STROBILOPS AENEA Pilsbry. Bamberg, Chester, Colleton, Hampton, Horry, Jasper, McCormick, Saluda, Sumter.
- GASTROCOPTA CONTRACTA (Say). Berkeley, Jasper, McCormick, Richland, Williamsburg.

- GASTROCOPTA PENTODON (Say). Aiken, Beaufort, Chester.
- GASTROCOPTA TAPPANIANA (C. B. Adams). Aiken, Bamberg, Beaufort, Berkeley, Horry, Jasper, Laurens, Orangeburg.
- GASTROCOPTA RUPICOLA (Say). Beaufort, Berkeley, Charleston, Williamsburg.
- GASTROCOPTA PROCERA PROCERA (Gould). Edgefield.
- PUPOIDES ALBILABRIS (C. B. Adams). Charleston, Edgefield, Horry, McCormick.
- VERTIGO MILIUM (Gould). Bamberg, Beaufort, Charleston, Colleton, Georgetown, Hampton, Jasper.
- VERTIGO OSCARIANA Sterki. Aiken, Beaufort, Colleton, Hampton.
- VERTIGO ORALIS Sterki. Bamberg, Beaufort, Colleton, Hampton, Orangeburg.
- VERTIGO OVATA OVATA (Say). Bamberg, Beaufort, Colleton, Georgetown, Horry, Orangeburg, Williamsburg.
- VERTIGO TESKEYAE Hubricht. Williamsburg.
- PUPISOMA DIOSCORICOLA (C. B. Adams). Bamberg, Beaufort, Charleston, Colleton, Jasper.
- PUPISOMA MINUS Pilsbry. Bamberg, Beaufort, Jasper.
- PUPISOMA MACNEILLI (Clapp). Charleston, Jasper.
- CIONELLA MORSEANA Doherty. Greenville.
- CARYCHIUM EXILE H. C. Lea. Chester, Edgefield, Laurens.
- CARYCHIUM FLORIDANUM G.H. Clapp. Aiken, Beaufort, Berkeley, Calhoun, Charleston, Colleton, Jasper, Orangeburg.
- CARYCHIUM CLAPPI Hubricht. Aiken, Greenville.
- CARYCHIUM EXIGUUM (Say). Georgetown.
- POMATIOPSIS LAPIDARIA (Say). Bamberg.