FIELDIANA

Zoology

NEW SERIES, NO. 24

The Distributions of the Native Land Mollusks of the Eastern United States

Leslie Hubricht

June 28, 1985
Publication 1359

PUBLISHED BY FIELD MUSEUM OF NATURAL HISTORY

Information for Contributors to Fieldiana

General: *Fieldiana* is primarily a journal for Field Museum staff members and research associates, although manuscripts from nonaffiliated authors may be considered as space permits. The Journal carries a page charge of $65 per printed page or fraction thereof. Contributions from staff, research associates, and invited authors will be considered for publication regardless of ability to pay page charges, but the full charge is mandatory for nonaffiliated authors of unsolicited manuscripts. Payment of at least 50% of page charges qualifies a paper for expedited processing, which reduces the publication time.

Manuscripts should be submitted to Dr. Timothy Plowman, Scientific Editor, *Fieldiana*, Field Museum of Natural History, Chicago, Illinois 60605-2496, USA. Three complete copies of the text (including title page and abstract) and of the illustrations should be submitted (one original copy plus two review copies which may be machine copies). No manuscripts will be considered for publication or submitted to reviewers before all materials are complete and in the hands of the Scientific Editor.

Text: Manuscripts must be typewritten double-spaced on standard-weight, 8½- by 11-inch paper with wide margins on all four sides. For papers longer than 100 manuscript pages, authors are requested to submit a "Table of Contents," a "List of Illustrations," and a "List of Tables." In most cases, the text should be preceded by an "Abstract" and should conclude with "Acknowledgments" (if any) and "Literature Cited." All measurements should be in the metric system. The format and style of headings should follow those of recent issues of *Fieldiana*. For more detailed style information, see *The Chicago Manual of Style* (13th ed.), published by The University of Chicago Press, and also recent issues of *Fieldiana*.

In "Literature Cited," authors are encouraged to give journal and book titles in full. Where abbreviations are desirable (e.g., in citation of synonymies), authors *consistently* should follow *Botanico-Periodicum-Huntianum* and *TL-2 Taxonomic Literature* by F. A. Stafleu & R. S. Cowan (1976 *et seq.*) (botanical papers) or *Serial Sources for the Biosis Data Base* (1983) published by the BioSciences Information Service.

References should be typed in the following form:

Croat, T. B. 1978. Flora of Barro Colorado Island. Stanford University Press, Stanford, Calif., 943 pp.

Grubb, P. J., J. R. Lloyd, and T. D. Pennington. 1963. A comparison of montane and lowland rain forest in Ecuador. I. The forest structure, physiognomy, and floristics. Journal of Ecology, **51:** 567–601.

Langdon, E. J. M. 1979. Yagé among the Siona: Cultural patterns in visions, pp. 63–80. *In* Browman, D. L., and R. A. Schwarz, eds., Spirits, Shamans, and Stars. Mouton Publishers, The Hague, Netherlands.

Murra, J. 1946. The historic tribes of Ecuador, pp. 785–821. *In* Steward, J. H., ed., Handbook of South American Indians. Vol. 2. The Andean Civilizations. Bulletin 143, Bureau of American Ethnology, Smithsonian Institution, Washington, D.C.

Stolze, R. G. 1981. Ferns and fern allies of Guatemala. Part II. Polypodiaceae. Fieldiana: Botany, n.s., **6:** 1–522.

Illustrations: Illustrations are referred to in the text as "figures" (not as "plates"). Figures must be accompanied by some indication of scale, normally a reference bar. Statements in figure captions alone, such as "× 0.8," are not acceptable. Captions should be typed double-spaced and consecutively. See recent issues of *Fieldiana* for details of style.

Figures as submitted should, whenever practicable, be 8½ by 11 inches (22 × 28 cm) and may not exceed 11½ by 16½ inches (30 × 42 cm). Illustrations should be mounted on boards in the arrangement you wish to obtain in the printed work. This original set should be suitable for transmission to the printer as follows: Pen and ink drawings may be originals (preferred) or photostats; shaded drawings should be originals, but within the size limitation; and photostats should be high-quality, glossy, black and white prints. All illustrations should be marked on the reverse with author's name, figure number(s), and "top." Original illustrations will be returned to the author upon publication unless otherwise specified. Authors who wish to publish figures that require costly special paper or color reproduction must make prior arrangements with the Scientific Editor.

Page Proofs: *Fieldiana* employs a two-step correction system. Each author will normally receive a copy of the edited manuscript on which deletions, additions, and changes can be made and queries answered. Only one set of page proofs will be sent. All desired corrections of type must be made on the single set of page proofs. Changes in page proofs (as opposed to corrections) are very expensive. Author-generated changes in page proofs can only be made if the author agrees in advance to pay for them.

FIELDIANA

Zoology
NEW SERIES, NO. 24

The Distributions of the Native Land Mollusks of the Eastern United States

Leslie Hubricht

4026 35th Street
Meridian, Mississippi 39305

Accepted for publication April 18, 1984
June 28, 1985
Publication 1359

PUBLISHED BY FIELD MUSEUM OF NATURAL HISTORY

Library of Congress Catalog Card Number: 84-63120
ISSN 0015-0754
PRINTED IN THE UNITED STATES OF AMERICA

Table of Contents

List of Maps

The Distributions of the Native Land Mollusks of the Eastern United States

Abstract

Distribution maps of the 523 native species and subspecies of land mollusks from the eastern United States are presented, based upon the monograph of Pilsbry (1939–1948), collections by the author throughout this region, examination of materials in major museum collections, and identifications performed by the author for other workers.

Systematic and nomenclatural changes since the publication of Pilsbry's *Land Mollusca of North America (North of Mexico)* are documented. Notes on habitat preferences and significant patterns of variation are included.

Introduction

This work consists of maps showing the known distributions of all the recognized species of native land snails found east of a line comprising the western borders of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and that part of Texas lying east of the Pecos River. A native species is here defined as one which was not introduced through the agency of man. Thus, any species for which there is evidence for its presence in pre-Columbian times is considered native and included in this survey. Species known only from the Pleistocene are included, but Pliocene taxa are not. Mexican species recorded from the United States only in beach drift from southern Texas are listed, but their distributions are not mapped.

Acknowledgments

I am grateful to the many curators who over the years have aided my study of materials in collections under their charge; to the many fellow students and collectors who have sent me material for identification and shared knowledge of various taxa; and to Alan Solem, Field Museum of Natural History, for his editorial help during the publication process. My thanks to Tanisse Bezin for the arduous task of preparing and mounting the original maps for publication.

Materials and Methods

The maps are based primarily upon the data presented in H. A. Pilsbry's *Land Mollusca of North America (North of Mexico),* Academy of Natural Sciences of Philadelphia, Monographs, No. 3, volumes 1 and 2, published in four parts between 1939 and 1948 (hereafter abbreviated as LMNA), and material in the collection of the author. The latter amounts to about 43,000 lots with perhaps 500,000 specimens. This material has been accumulated over 55 years of collecting activity throughout most of this region. Over the last 20 years, land mollusks from the eastern United States in the collections of the National Museum of Natural History (Washington, D.C.), Academy of Natural Sciences of Philadelphia, Museum of Comparative Zoology (Harvard), Field Museum of Natural History, University of Michigan Museum

of Zoology, and Carnegie Museum (Pittsburgh) have been studied to verify published records. Material that I have identified for others is incorporated, and records from local lists that fill in county records within an area known to be inhabited by a species have been utilized. In numerous places, however, suggested synonymies that I consider to be incorrect are indicated by "[ ]" as being erroneous. Reported range extensions that seem doubtful, and for which I have been unable to consult the specimens on which they are based, also have not been recorded.

This is thus a record of distributions that I have been able to confirm directly or that have been extracted from comprehensive monographic data. The scale of the maps is such that a county is the basic distributional unit. Three symbols are used to indicate the nature of the record:

1. Where a species is known to be living in a county, the county has been blacked in
2. Where a species is known only as a fossil, an "×" has been placed in the county
3. Where a species is known only from river drift, an "O" has been placed in the county

The last category is subject to the greatest degree of error. The fact that specimens were taken from creek or river drift rarely is recorded on either the museum label or in published reports, yet dead shells can be transported considerable distances by flood waters. It is not always possible to recognize drift material by examination of museum specimens as contrasted with dead shells collected in situ.

The order of families basically follows that of Zilch's *Euthyneura* section of the *Handbuch der Palaeozoologie,* published in 1959 and 1960. Generic order within families is a compromise between Zilch and Pilsbry's LMNA; species order within genera follows Pilsbry and/or my opinion as to species relationships.

Limited use has been made of subspecific categories. None of the many "forms" and "varieties" of such taxa as *Liguus fasciatus* is listed, and subspecies based originally on size alone are not recognized. Usually these have been found to intergrade completely when adequate material is available. Only such subspecies as show a rather sharp differentiation from each other are mapped separately. Where supposed subspecies have been found to occur sympatrically without intergradation, probable speciation is indicated. The evidence for changes in rank for taxa on which I have not published previously will be published elsewhere. This distributional paper was deemed an inappropriate place to present justification of such taxonomic decisions.

The list of species provides a reference to LMNA, and then to subsequent literature in which taxonomic changes have been suggested. If such nomenclatural or rank changes are not valid in my opinion, I have enclosed them in "[ ]". For species described subsequent to LMNA, or not recorded in that monograph, the original description and subsequent faunistic records are provided.

Some remarks on variation have been included, when necessary, and habitat notes indicate the more usual places in which a species occurs. No attempt has been made to list all the known habitats, but only the preferred ones.

Since many species reach their limits of distribution on the fringes of the area covered by this report, notes on extralimital distributions have been provided where appropriate.

Recommendations for Future Work

Much faunistic and revisionary work remains to be done on the land mollusks of the eastern United States. The recorded distributions for such widely distributed species as *Zonitoides arboreus* (Say) (map 321), *Discus cronkhitei* (Newcomb) (map 171), or *Carychium exiguum* (Say) (map 17) demonstrate that the records are not uniformly complete. Some states will have most counties filled in, while others show only a few records. Ranges that end at a state line are almost certain indicators of differential collecting effort. Michigan is probably the best collected state, and it is doubtful that further collecting there would add any significant range extensions, especially for the larger species. Other states in which collecting effort has been intensive are Alabama, Maryland, Illinois, Kansas, and Oklahoma. The states most in need of faunistic surveys are North and South Dakota, Minnesota, Wisconsin, Iowa, and Nebraska. Indiana, Pennsylvania, and all the New England states have scattered records. Western Tennessee and southern Georgia also are very poorly known. There thus exists a set of challenges to local naturalists of these areas—to extend known ranges and fill in (or confirm) distributional gaps.

It is equally evident that knowledge of different families is uneven. Particularly in the northern United States, records are sparse for several fam-

ilies. This is in part the result of comparatively little collecting effort in these areas in recent years, in part reflecting the effects of deforestation, and in part patchy distributions caused by postglacial colonization. It also reflects difficulty in making identifications for many species. Specific comments follow.

Philomycidae

Most collectors of land snails ignore slugs. Furthermore, the slug collections in several institutions have been neglected. Specimens have been allowed to dry out, which prevents meaningful study. In former years, specimens were killed by drowning and then preserved without fixation. Many such specimens are practically unidentifiable. Thus, records for the Philomycidae are based primarily on the collections of the author.

Succineidae

While some species can be identified from the shell only, most species must be dissected for positive identification. Most museum sets consist of shells only and thus cannot be identified with accuracy. Older records for such species as *Succinea* "*grosvenori*" and "*avara*" are worthless.

Zonitidae

In many instances, it is necessary to dissect specimens of the *indentata* group of *Glyphyalinia,* the "*capsella*" group of *Paravitrea,* and the *vulgata* group of *Mesomphix* for positive identification. In the absence of any anatomical material, many museum records cannot be used.

Pupillidae

Especially in *Vertigo,* there is a very high incidence of mixed lots and misidentifications in museum collections. Time has not been available for me to sort out and reidentify this very extensive material, so that the records for this family are based primarily on my own collections and Pilsbry's monograph.

It is intended that this volume be a working document—that new records be added to the maps, and taxonomic changes inserted as knowledge advances.

List of Taxa

Class GASTROPODA
Subclass PROSOBRANCHIATA
Order ARCHAEOGASTROPODA
Superfamily NERITACEA
Family HELICINIDAE

Helicina orbiculata (Say, 1818) Map 2

Helicina orbiculata (Say), Pilsbry, 1948, LMNA, **2:** 1082.
Helicina orbiculata tropica Pfeiffer, Pilsbry, 1948, LMNA, **2:** 1084.

HABITAT—A calciphile. Prefers sunny situations, roadsides, and glades. It sometimes occurs in woods, but is not as abundant in such habitats. In Texas and Florida, it is sometimes semiarboreal.

VARIATION—In the western part of its range, Texas to Missouri, the lip is usually much thickened (*H. o. tropica*); however, I have found colonies with thin lips in central Texas and colonies with thickened lips in central Kentucky.

Helicina clappi Pilsbry, 1909 Map 3

Helicina clappi Pilsbry, Pilsbry, 1948, LMNA, **2:** 1080.

HABITAT—A calciphile. Semiarboreal. Climbs about on shrubbery and the trunks of trees in wet weather, but may be found on the ground.

VARIATION—The shell is whitish or pale yellow, frequently with reddish brown bands or flecking on the upper surface.

Helicina chrysocheila Binney, 1851

Helicina chrysocheila Binney, Pilsbry, 1948, LMNA, **2:** 1081.

HABITAT—Widely distributed in eastern Mexico, but in the United States is known only from beach drift in southern Texas.

Helicina fragilis elata Shuttleworth, 1852

Helicina fragilis elata Shuttleworth, Hubricht, 1960, Nautilus, **74:** 83.

REMARKS—Another Mexican species known only from beach drift in southern Texas.

Hendersonia occulta (Say, 1831) Map 1

Hendersonia occulta (Say), Pilsbry, 1948, LMNA, **2:** 1087.

HABITAT—A calciphile. In the unglaciated area in southwestern Wisconsin and northeastern Iowa,

this species is usually found on floodplains; but in the southern Appalachians, it is found on river bluffs, talus slopes, in ravines, and on mountainsides. In dry weather it is found in leaf litter; in wet weather it is found crawling on leaves, logs, and rocks. What is probably the largest colony in existence is near the northern end of Shenandoah National Park. This colony is at least 15 miles long and extends from near the base of the mountain to well above the Skyline Drive.

VARIATION—The shell is usually reddish brown, but may be pale yellow. There is no difference between specimens from the unglaciated area and the southern Appalachians, despite the long separation of these populations.

Lucidella tantilla (Pilsbry, 1902) Map 4

Lucidella tantilla (Pilsbry), Pilsbry, 1948, LMNA, **2:** 1085.

HABITAT—Found in hammocks crawling on leaves, logs, and trunks of trees in wet weather. Also found in eastern Cuba.

Lucidella lirata (Pfeiffer, 1847)

Lucidella lirata (Pfeiffer), Hubricht, 1960, Nautilus, **74:** 83.

REMARKS—A widely distributed Central American species occasionally found in beach drift in southern Texas.

Order MESOGASTROPODA
Suborder TAENIOGLOSSA
Superfamily LITTORINACEA
Family POMATIASIDAE

Chondropoma dentatum (Say, 1825) Map 5

Chondropoma dentatum (Say), Pilsbry, 1948, LMNA, **2:** 1076.

HABITAT—A calciphile. Found crawling on rocks and tree trunks in wet weather, frequently in pairs, the larger female pursued by the smaller male.

Superfamily RISSOACEA
Family POMATIOPSIDAE

Pomatiopsis lapidaria (Say, 1817) Map 11

Cyclostoma lapidaria Say, 1817, J. Acad. Nat. Sci., Philadelphia, **1:** 13.
Pomatiopsis lapidaria (Say), Binney, 1865, Land & Freshwater Shells North America, **III:** 93.
Pomatiopsis hinkleyi Pilsbry, 1896, Nautilus, **10:** 37.
Pomatiopsis scalaris F. C. Baker, 1927, Nautilus, **40:** 119.
Pomatiopsis praelonga Brooks & MacMillan, 1940, Nautilus, **53:** 96.

HABITAT—A calciphile. This species has often been referred to as amphibious or even aquatic. But, having collected it at more than 300 localities, it is my opinion that, were it not for its aquatic affinities, it would have been accepted as a land snail without question. Found crawling on damp mud on floodplains, but usually above the normal high-water line; also on talus slopes, in ravines, and on mountainsides. During winter floods it may be washed into streams, where it may live for some time. During warmer weather it may climb up on plants and tree trunks to escape the water. It can close its operculum tightly enough to survive 24 hours in alcohol.

VARIATION—In dry habitats it may have a more slender, thicker shell; in very wet habitats it may have a more obese, thinner shell. This difference is rather insignificant, although it has been the basis for two specific names.

Pomatiopsis cincinnatiensis (I. Lea, 1840) Map 12

Cyclostoma cincinnatiensis I. Lea, 1840, Proc. Amer. Phil. Soc., **1:** 289.
Pomatiopsis cincinnatiensis (I. Lea), Walker, 1918, Misc. Pub. Mus. Zool. Univ. Mich., **6:** 148.

HABITAT—A calciphile. Found on shaded, muddy stream banks, usually a foot or more above the normal low-water line. It occurs closer to the stream than *P. lapidaria* normally does, but there is overlap, and the two species sometimes occur together. The distribution records for this species are somewhat scattered, but this is probably due to poor collecting, rather than to rarity. Because of its peculiar habitat, one must look especially for it.

Family TRUNCATELLIDAE

Truncatella pulchella Pfeiffer, 1839 Map 6

Truncatella bilabiata Pfeiffer, Pilsbry, 1948, LMNA, **2:** 1069.
Truncatella pulchella Pfeiffer, Torre, 1960, Nautilus, **73:** 83.

HABITAT—The most abundant species of the genus in southern Florida. Found in and under seaweed in the strand at or above high-tide line, usually in rocky places. I have never found it on sandy beaches. A common West Indian species.

VARIATION—An extremely variable species, ranging from nearly smooth, with only traces of the costae in the sutures, to strongly costate.

Truncatella floridana Hubricht, 1983 Map 7

Truncatella floridana Hubricht, 1983, Gastropodia, **2:** 19.

HABITAT—This species is sometimes found in the high-tide strand where the dead seaweed is lapped by the sea at high tide, but it is also found in the storm-strand, which may be 100 ft or more back from the high-tide strand, and is the debris washed in by severe storms. This debris has the salt leached out by rains and dries out during dry weather. *Truncatella floridana* is the only species which can survive in this habitat.

Truncatella scalaris clathrus Lowe, 1830 Map 8

Truncatella clathrus Lowe, Pilsbry, 1948, LMNA, **2:** 1069.
Truncatella scalaris clathrus Lowe, Torre, 1960, Nautilus, **73:** 86.

HABITAT—Found in the strand associated with *T. pulchella* and *T. subcylindrica.* Common on the Florida Keys. The only places on the Florida mainland where I have found it are at Flamingo, in the Everglades National Park, and on the Rickenbacher Causeway, in Miami. A West Indian species.

VARIATION—Unlike *T. pulchella* and *T. subcylindrica,* this species in Florida usually shows little variation in the development of the costae. On Little Torch Key, there is a colony in which some shells are smooth, but show dark streaks on the shell where the costae should be.

Truncatella regina Hubricht, 1983 Map 9

Truncatella regina Hubricht, 1983, Gastropodia, **2:** 18.

HABITAT—Found associated with *T. pulchella, T. subcylindrica,* and *T. scalaris clathrus* on the Florida Keys.

Truncatella subcylindrica (Linné, 1767) Map 10

Truncatella pulchella Pfeiffer, Pilsbry, 1948, LMNA, **2:** 1070.
Truncatella caribaeensis "Sowerby" Reeve, Torre, 1960, Nautilus **73:** 84.
Truncatella subcylindrica (Linnaeus), Hubricht, 1983, Gastropodia, **2:** 19.

HABITAT—Usually found with *T. pulchella,* but sometimes occurs alone.

VARIATION—This species, like *T. pulchella,* shows great variation in the development of the costae, but the variation in the number of the costae is not as great. A common West Indian species.

Subclass PULMONATA
Superorder SYSTELLOMMATOPHORA
Order SOLEOLIFERA
Superfamily VERONICELLACEA
Family VERONICELLIDAE

Veronicella floridana (Leidy, 1851) Map 13

Veronicella floridana (Leidy), Pilsbry, 1948, LMNA, **2:** 1063.

HABITAT—Found in a variety of habitats in Florida; in hammocks, along roadsides and railroads, and in gardens in urban areas, wherever there is adequate cover. I have never seen it in large numbers. It is native to Florida and introduced into Louisiana. Common in Cuba.

Superorder BASOMMATOPHORA
Superfamily ELLOBIACEA
Family CARYCHIIDAE

Carychium clappi Hubricht, 1959 Map 15

Carychium costatum Hubricht, 1951, Nautilus, **65:** 59 [not *C. costatum* Freyer, 1856].
Carychium clappi Hubricht, 1959, Nautilus, **73:** 36.

HABITAT—Usually found in deep pockets of leaves on wooded hillsides and talus slopes, where leaves have blown up against the side of a log or in "tree graves."

Carychium exile exile H. C. Lea, 1842 Map 20

Carychium exile H. C. Lea, Pilsbry, 1948, LMNA, **2:** 1058.

HABITAT—Found in much the same habitat as *C. clappi,* but the two species are rarely found together.

Carychium exile canadense Clapp, 1906 Map 21

Carychium exile canadense Clapp, Pilsbry, 1948, LMNA, **2:** 1059.
Carychium canadense Clapp, Leonard, Frye, & Johnson, 1971, Ill. State Geol. Surv., Circ. **461:** 11.

HABITAT—Found in the same habitat as *C. exile.*

Carychium mexicanum Pilsbry, 1891 Map 14

Carychium floridanum G. H. Clapp, Pilsbry, 1948, LMNA, **2:** 1056.
Carychium exile mexicanum Pilsbry, Pilsbry, 1948, LMNA, **2:** 1060.
Carychium mexicanum Pilsbry, Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Found in wetter habitats than *C. exile,* although they are sometimes found together. In Florida it is usually found in swamps. Common in eastern Mexico.

Carychium stygium Call, 1897 Map 16

Carychium stygium Call, Pilsbry, 1948, LMNA, **2:** 1054.

HABITAT—Known only from the total darkness of caves, where it feeds on the guano of the cave cricket.

Carychium exiguum (Say, 1822) Map 17

Carychium exiguum (Say), Pilsbry, 1948, LMNA, **2:** 1052.
Carychium perexiguum F. C. Baker, 1938, Nautilus, **51:** 128; Taylor, 1960, U.S. Geol. Surv., Prof. Paper, **337:** 51.
[*Carychium exile* H. C. Lea, Branson, 1961, Proc. Okla. Acad. Sci., **41:** 61.]

HABITAT—Usually found in wetter situations than *C. exile,* although they are sometimes found together.

Carychium riparium Hubricht, 1978 Map 19

Carychium riparium Hubricht, 1978, Malacol. Rev., **10:** 50.

HABITAT—Found in leaf litter on the floodplains of streams. It is probably more widely distributed than the records on the map would indicate.

Carychium nannodes Clapp, 1905 Map 18

Carychium nannodes Clapp, Pilsbry, 1948, LMNA, **2:** 1055.

HABITAT—Found in the same habitat as *C. clappi,* with which it is frequently found. It is sometimes found with *C. exile,* but not nearly as often as with *C. clappi.*

Superorder STYLOMMATOPHORA
Order ORTHURETHRA
Superfamily COCHLICOPACEA
Family COCHLICOPIDAE

The following treatment uses contemporary European nomenclature and cites a standard field guide for illustrations and further data.

Cochlicopa morseana (Doherty, 1878) Map 25

Cionella lubrica morseana Doherty, Pilsbry, 1948, LMNA, **2:** 1049.
Cionella morseana Doherty, Hubricht, 1961, Sterkiana, **3:** 12.

HABITAT—A secretive species; found in moist upland woods. In dry weather and in the winter, it is found on the ground under pockets of deep leaves, its aperture closed with a white epiphragm. During wet weather it crawls about in the leaf litter. It is rarely found on the surface of the leaves.

Cochlicopa lubrica (Müller, 1774) Map 24

Cionella lubrica (Müller), Pilsbry, 1948, LMNA, **2:** 1047.

HABITAT—Found in meadows and along roadsides, a species of moderately wet grassy situations. I have never found it in woods. In northern New York, it is found in concrete culverts. A Holarctic species.

Cochlicopa lubricella (Porro, 1838) Map 22

Bulimus lubricus var. *lubricella* Porro, 1838, Malacologia terrestre e fluviale della Provincia Comasca, pp. 53–54.
Cionella lubrica form *exigua* (Menke), Hubricht, 1962, Sterkiana, **7:** 1.
Cochlicopa lubricella (Porro), Kerney & Cameron, 1979, Field Guide to the Land Snails of Britain and North-west Europe, Collins, London, p. 62, pl. 1, fig. 10.

HABITAT—Found in the same habitat as *C. lubrica* and frequently found with it. A Holarctic species.

Cochlicopa nitens (Gallenstein, 1848) Map 23

Bulimus nitens Gallenstein, 1848, Systematisches Verzeichniss der in der Provinz Kärnten bisher entdeckten Land- & Süsswasser-Conchylien, mit Angabe der wichtigsten Fundorte, nebst einer kurzen Anleitung für angehende Conchylien-Sammler, p. 10.
Cochlicopa nitens (Gallenstein), Kerney & Cameron, 1979, Field Guide to the Land Snails of Britain and North-west Europe, Collins, London, p. 62, p. 1, fig. 12.

HABITAT—Usually found in wetter habitats than those of *C. lubrica,* but sometimes found with it. Also found in central and eastern Europe.

Superfamily PUPILLACEA
Family VALLONIIDAE

Vallonia pulchella (Müller, 1774) Map 26

Vallonia pulchella (Müller), Pilsbry, 1948, LMNA, **2:** 1023.

HABITAT—A species of grassy places, roadsides, meadows, and lawns. Common in concrete culverts in northern New York.

VARIATION—This and other species of *Vallonia* occur in two forms: one with a round umbilicus and one with an eccentric umbilicus. The form with the round umbilicus is usually larger than the form with the eccentric umbilicus. A Holarctic species.

Vallonia excentrica Sterki, 1893 Map 30

Vallonia excentrica Sterki, Pilsbry, 1948, LMNA, **2:** 1025.
Vallonia pulchella form *excentrica* Sterki, Hubricht, 1950, Nautilus, **64:** 35.

HABITAT—Found in the same habitat as *V. pulchella* and frequently found with it. A Holarctic species.

Vallonia costata (Müller, 1774) Map 27

Vallonia costata (Müller), Pilsbry, 1948, LMNA, **2:** 1026.

HABITAT—Found in the same habitat as *V. pulchella* and *V. excentrica* and frequently found with them. A Holarctic species.

Vallonia gracilicosta Reinhardt, 1883 Map 31

Vallonia gracilicosta Reinhardt, Pilsbry, 1948, LMNA, **2:** 1028.
Vallonia albula Sterki, Pilsbry, 1948, LMNA, **2:** 1031.

HABITAT—Most records for this species in the eastern United States are of Pleistocene fossils. I have never collected it alive. Common in the western United States, except for the coastal states.

Vallonia parvula Sterki, 1893 Map 28

Vallonia parvula Sterki, Pilsbry, 1948, LMNA, **2:** 1027.

HABITAT—Found in grassy situations, but in dryer habitats than those of *V. pulchella.*

Vallonia cyclophorella Sterki, 1892 Map 29

Vallonia cyclophorella Sterki, Pilsbry, 1948, LMNA, **2:** 1035.

HABITAT—The only lot of this species which I collected alive was found under leaf litter in an aspen grove at high elevations in the Wasatch Mountains of Utah. Common in mountain areas of the western United States.

Vallonia perspectiva Sterki, 1892 Map 33

Vallonia perspectiva Sterki, Pilsbry, 1948, LMNA, **2:** 1033.

HABITAT—A calciphile. A species of wooded talus slopes and along railroads; also western United States and Mexico.

Planogyra asteriscus (Morse, 1857) Map 32

Planogyra asteriscus (Morse), Pilsbry, 1948, LMNA, **2:** 1038.

HABITAT—A species of wet places. Found in swamps and about the edges of marshes.

Zoogenetes harpa (Say, 1824) Map 34

Zoogenetes harpa (Say), Pilsbry, 1948, LMNA, **2:** 1043.

HABITAT—A species of low wet places; in leaf litter and moss near the margins of lakes and swamps.

Family PUPILLIDAE
Subfamily PUPILLINAE

Pupilla blandi Morse, 1865 Map 37

Pupilla blandi Morse, Pilsbry, 1948, LMNA, **2:** 929.

HABITAT—Most or all of the records from east of the Rocky Mountains are either Pleistocene fossils or river drift (probably washed from Pleistocene deposits). Common in the Rocky Mountain region from Alberta to New Mexico.

Pupilla muscorum muscorum (Linné, 1758) Map 35

Pupilla muscorum (Linné), Pilsbry, 1948, LMNA, **2:** 933.
[*Pupilla muscorum sinistra* Franzen, Bequaert, & Miller, 1973, Moll. Arid Southwest, p. 80.]

HABITAT—A calciphile. A species of grassy roadsides and meadows. Found in concrete culverts in northern New York. A Holarctic species.

Pupilla muscorum sinistra Franzen, 1946 Map 36

Pupilla muscorum sinistra Franzen, Pilsbry, 1948, LMNA, **2:** 935.
Pupilla sinistra Franzen, Tuthill, Laird, & Frye, 1964, Proc. North Dakota Acad. Sci., **18:** 145.

HABITAT—Known only as a Pleistocene fossil.

Pupoides albilabris (C. B. Adams, 1821) Map 38

Pupoides albilabris (C. B. Adams), Pilsbry, 1948, LMNA, **2**: 921.
[*Pupoides modicus* (Gould), Bequaert & Miller, 1973, Moll. Arid Southwest, p. 177.]

HABITAT—A species of bare ground, roadsides, old quarries, glades, and waste ground, usually in calcareous areas. Found crawling on the ground or up the stems of plants in wet weather.

VARIATION—Apparently due to some diseased condition, one sometimes finds specimens with fewer whorls than normal. Such specimens have been confused with *P. modicus.*

Pupoides modicus (Gould, 1848) Map 40

Pupoides modicus (Gould), Pilsbry, 1948, LMNA, **2**: 923.

HABITAT—Found in much the same habitats as *P. albilabris,* but restricted to peninsular Florida and the Bahamas.

Pupoides hordaceus (Gabb, 1866) Map 39

Pupoides hordaceus (Gabb), Pilsbry, 1948, LMNA, **2**: 924.

REMARKS—All records from east of its main range in the Rocky Mountains are either Pleistocene fossils or river drift (probably washed from Pleistocene deposits).

Pupoides inornatus Vanatta, 1915 Map 41

Pupoides inornatus Vanatta, Pilsbry, 1948, LMNA, **2**: 926.

REMARKS—All, or most, of the records from east of its main range in the Rocky Mountains are either Pleistocene fossils or river drift (probably washed from Pleistocene deposits).

Subfamily GASTROCOPTINAE

Gastrocopta armifera (Say, 1821) Map 44

Gastrocopta armifera (Say), Pilsbry, 1948, LMNA, **2**: 874.

HABITAT—A calciphile. Usually found in sunny situations, roadsides, along railroads, in cedar glades. Sometimes found in open woods.

Gastrocopta abbreviata (Sterki, 1909) Map 50

Gastrocopta armifera abbreviata (Sterki), Pilsbry, 1948, LMNA, **2**: 877.
Gastrocopta abbreviata (Sterki), Hubricht, 1972, Nautilus, **85**: 74.

HABITAT—A calciphile. Found in the same habitat as *G. armifera,* with which it is sometimes found.

Gastrocopta similis (Sterki, 1909) Map 43

Gastrocopta armifera form *similis* (Sterki), Pilsbry, 1948, LMNA, **2**: 877.
Gastrocopta armifera form *affinis* (Sterki), Pilsbry, 1948, LMNA, **2**: 877.
Gastrocopta similis (Sterki), Hubricht, 1972, Nautilus, **85**: 75.

HABITAT—A calciphile. Found in the same habitat as *G. armifera,* with which it is sometimes found.

Gastrocopta ruidosensis (Cockerell, 1909) Map 51

Gastrocopta armifera ruidosensis (Cockerell), Pilsbry, 1948, LMNA, **2**: 877.
Gastrocopta proarmifera Leonard, Pilsbry, 1948, LMNA, **2**: 878; Hubricht, 1972, Nautilus, **85**: 76.
Gastrocopta tridentata (Leonard), Pilsbry, 1948, LMNA, **2**: 880; Hubricht, 1972, Nautilus, **85**: 76.
Gastrocopta ruidosensis (Cockerell), Hubricht, 1972, Nautilus, **85**: 75.

HABITAT—In our area it is known only as a Pleistocene fossil or as river drift which was washed from Pleistocene deposits. A western species.

Gastrocopta clappi (Sterki, 1909) Map 64

Gastrocopta armifera clappi (Sterki), Pilsbry, 1948, LMNA, **2**: 878.
Gastrocopta clappi (Sterki), Hubricht, 1962, Sterkiana, **7**: 1.

HABITAT—A calciphile. Found in the same habitat as *G. armifera,* with which it is sometimes found.

Gastrocopta contracta (Say, 1822) Map 42

Gastrocopta contracta (Say), Pilsbry, 1948, LMNA, **2**: 880.
Gastrocopta contracta climeana (Vanatta), Pilsbry, 1948, LMNA, **2**: 881; Hubricht, 1965, Sterkiana, **17**: 4.

HABITAT—This species is found in so many habitats that it seems impossible to pinpoint its requirements. It is found in low, wet places, as well as places which are quite dry. It is also found in sunny roadsides and along railroads and in leaf litter in deep woods. It appears to be a calciphile.

Gastrocopta holzingeri (Sterki, 1889) Map 48

Gastrocopta holzingeri (Sterki), Pilsbry, 1948, LMNA, **2:** 883.
Gastrocopta holzingeri agna (Pilsbry & Vanatta), Pilsbry, 1948, LMNA, **2:** 884; Branson, 1961, Proc. Okla. Acad. Sci., **41:** 56.

HABITAT—A calciphile. Usually found on talus slopes in semishady situations.

Gastrocopta venusta Leonard, 1972 Map 63

Gastrocopta venusta Leonard, 1972, Nautilus, **85:** 80.

HABITAT—Known only as Pleistocene fossils.

Gastrocopta falcis Leonard, 1946 Map 59

Gastrocopta falcis Leonard, Pilsbry, 1948, LMNA, **2:** 885.

HABITAT—Known only as a Pleistocene fossil.

Gastrocopta pentodon (Say, 1821) Map 61

Gastrocopta pentodon (Say), Pilsbry, 1948, LMNA, **2:** 886.
Gastrocopta carnegiei (Sterki), Pilsbry, 1948, LMNA, **2:** 890; Hubricht, 1968, Sterkiana, **32:** 6.
[*Gastrocopta tappaniana* (C. B. Adams), Bequaert & Miller, 1973, Moll. Arid Southwest, p. 88.]

HABITAT—A calciphile. Usually found in upland woods in rather dry situations, but is sometimes found in low, wet places in company with *G. tappaniana.*

VARIATION—The number of teeth in the aperture varies from 5 to 9, with 5 or 6 being the most frequent number. In *G. tappaniana* 7 and 8 are the most usual numbers of teeth. However, the real difference between *G. pentodon* and *G. tappaniana* is in the larger size of the latter. *Gastrocopta tappaniana* normally has a larger shell, having about twice the volume of *G. pentodon.*

Gastrocopta tappaniana (C. B. Adams, 1842) Map 57

Gastrocopta tappaniana (C. B. Adams), Pilsbry, 1948, LMNA, **2:** 889.

HABITAT—A calciphile. Usually found in wet places, margins of ponds, floodplains of streams, and marshes. In the southeastern United States, it is found on the undersides of palmetto leaves. Often found in the company of *Vertigo ovata.*

Gastrocopta corticaria (Say, 1816) Map 53

Gastrocopta corticaria (Say), Pilsbry, 1948, LMNA, **2:** 894.

HABITAT—A calciphile. Found crawling on logs and tree trunks in wet weather. Rarely found in large numbers.

Gastrocopta rupicola (Say, 1821) Map 45

Gastrocopta rupicola (Say), Pilsbry, 1948, LMNA, **2:** 905.
Gastrocopta rupicola matecumbensis Pilsbry, 1948, LMNA, **2:** 906; Cheatum & Fullington, 1973, Dallas Mus. Nat. Hist., Bull. **1:** 22.

HABITAT—Found under old ties along railroads, on roadsides, about logs in woods, and on the undersides of palmetto leaves in swamps.

Gastrocopta procera (Gould, 1840) Map 46

Gastrocopta procera (Gould), Pilsbry, 1948, LMNA, **2:** 907.
[*Gastrocopta procera sterkiana* Pilsbry, 1948, LMNA, **2:** 908; Cheatum & Fullington, 1973, Dallas Mus. Nat. Hist., Bull. **1:** 19.]
Gastrocopta procera mcclungi (Hanna & Johnston), Pilsbry, 1948, LMNA, **2:** 910; Cheatum & Fullington, 1973, Dallas Mus. Nat. Hist., Bull. **1:** 19.

HABITAT—A calciphile. Usually found on rather dry ground with sparse vegetation. Frequently found with *Pupoides albilabris.*

Gastrocopta sterkiana Pilsbry, 1912 Map 60

Gastrocopta procera sterkiana Pilsbry, 1948, LMNA, **2:** 908; Hubricht, 1978, Malacol. Rev., **10:** 50.

HABITAT—Found in drier habitats than those of *G. procera.*

Gastrocopta riparia Hubricht, 1978 Map 52

Gastrocopta procera form *riparia* Pilsbry, 1948, LMNA, **2:** 908; Hubricht, 1978, Malacol. Rev., **10:** 50.

HABITAT—Usually found in wetter habitats than those of *G. procera*; low woods, in urban areas, and along railroads.

Gastrocopta riograndensis (Pilsbry & Vanatta, 1892) Map 62

Gastrocopta riograndensis (Pilsbry & Vanatta), Pilsbry, 1948, LMNA, **2:** 911.

HABITAT—Known only from river drift in Texas. A Mexican species.

Gastrocopta servilis (Gould, 1843) Map 58

Pupa servilis Gould, 1843, Boston J. Nat. Hist., **4:** 356.
Gastrocopta servilis (Gould), Pilsbry, 1916, Man. Conch., (2), **24:** 70; Hubricht, 1978, Malacol. Rev., **10:** 50.

HABITAT—A calciphile. Usually found in open, grassy places, along railroads, dumps, and lawns. A Neotropical species that has been widely dispersed by commerce.

Gastrocopta cristata (Pilsbry & Vanatta, 1900) Map 47

Gastrocopta cristata (Pilsbry & Vanatta), Pilsbry, 1948, LMNA, **2:** 911.

HABITAT—A calciphile. Most records are from river drift or fossils. It is a species of grassy places, often where it is quite dry. The species has been introduced into eastern Maryland. Its main range is Texas and Oklahoma west to Arizona.

Gastrocopta chauliodonta Taylor, 1954 Map 56

Gastrocopta chauliodonta Taylor, 1954, Univ. Mich. Mus. Zool., Occas. Pap., **557:** 12.

HABITAT—Known only as Pleistocene fossils.

Gastrocopta scaevoscala Taylor, 1960 Map 55

Gastrocopta scaevoscala Taylor, 1960, U.S. Geol. Surv., Prof. Paper, **337:** 70.

HABITAT—Known only as Pleistocene and Pliocene fossils.

Gastrocopta paracristata Franzen & Leonard, 1947 Map 54

Gastrocopta paracristata Franzen & Leonard, 1947, Univ. Kansas Sci. Bull., **31:** 346.

HABITAT—Known only as Pleistocene and Pliocene fossils.

Gastrocopta pellucida (Pfeiffer, 1841) Map 49

Gastrocopta pellucida hordeacella (Pilsbry), Pilsbry, 1948, LMNA, **2:** 913.
Gastrocopta pellucida (Pfeiffer), Branson, 1961, Proc. Okla. Acad. Sci., **41:** 59.

HABITAT—Usually found in open, grassy places or in open woods; often in dry, sandy places. In Florida it is sometimes found on the undersides of palmetto leaves.

Subfamily VERTIGININAE

Vertigo milium (Gould, 1840) Map 65

Vertigo milium (Gould), Pilsbry, 1948, LMNA, **2:** 944.

HABITAT—Usually found in wet places in company with *V. ovata,* but sometimes found crawling on the leaves in upland woods in wet weather. Also found on the undersides of palmetto leaves.

Vertigo oscariana (Sterki, 1890) Map 66

Vertigo oscariana (Sterki), Pilsbry, 1948, LMNA, **2:** 946.

HABITAT—Usually found in leaf litter in ravines and on talus slopes. Also found on the undersides of palmetto leaves.

Vertigo rugosula Sterki, 1890 Map 68

Vertigo rugosula Sterki, Pilsbry, 1948, LMNA, **2:** 948.
Vertigo wheeleri Pilsbry, Pilsbry, 1948, LMNA, **2:** 979; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—A species of grassy roadsides and cedar glades; often in rather dry situations.

Vertigo oralis Sterki, 1898 Map 70

Vertigo rugosula oralis Sterki, Pilsbry, 1948, LMNA, **2:** 950.
Vertigo oralis Sterki, Hubricht, 1964, Sterkiana, **16:** 10.

HABITAT—Usually found in low, wet woods, either crawling on the ground or on logs, and on the undersides of palmetto leaves.

Vertigo alabamensis Clapp, 1915 Map 93

Vertigo alabamensis Clapp, Pilsbry, 1948, LMNA, **2:** 950.

HABITAT—Found under rotting leaves in a ravine.

Vertigo conecuhensis Clapp, 1915 Map 94

Vertigo alabamensis conecuhensis Clapp, Pilsbry, 1948, LMNA, **2:** 951.

HABITAT—Found in leaf litter on wooded hillsides.

Vertigo clappi Brooks & Hunt, 1936 Map 82

Vertigo clappi Brooks & Hunt, Pilsbry, 1948, LMNA, **2:** 951.

HABITAT—Found in leaf litter and moss on wooded hillsides.

Vertigo morsei Sterki, 1894 Map 77

Vertigo morsei Sterki, Pilsbry, 1948, LMNA, **2:** 952.

HABITAT—Found in wet places, margins of ponds, and marshes.

Vertigo teskeyae Hubricht, 1961 Map 72

Vertigo teskeyae Hubricht, 1961, Nautilus, **75:** 62.

HABITAT—An inhabitant of wet places, margins of ponds, and swamps. Often found associated with *V. ovata.*

Vertigo ovata Say, 1822 Map 67

Vertigo ovata Say, Pilsbry, 1948, LMNA, **2:** 952.
Vertigo ovata diaboli Pilsbry, Pilsbry, 1948, LMNA, **2:** 953.
[*Vertigo teskeyae* Hubricht, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 92.]

HABITAT—Usually found in wet places near ponds and in swamps. It is also found on the undersides of palmetto leaves.

Vertigo binneyana Sterki, 1890 Map 86

Vertigo binneyana Sterki, Pilsbry, 1948, LMNA, **2:** 955.

HABITAT—Known only from river drift in our area. A species of the western United States and Canada.

Vertigo elatior Sterki, 1894 Map 69

Vertigo elatior Sterki, Pilsbry, 1948, LMNA, **2:** 956.

HABITAT—The only specimens of this species which I have collected alive were found in wet woods.

Vertigo ventricosa (Morse, 1865) Map 71

Vertigo ventricosa (Morse), Pilsbry, 1948, LMNA, **2:** 957.

HABITAT—Found in marshes and low wet woods; also in upland woods in leaf litter.

Vertigo pygmaea (Draparnaud, 1801) Map 78

Vertigo pygmaea (Draparnaud), Pilsbry, 1948, LMNA, **2:** 961.

HABITAT—A calciphile. Found in low, grassy places. Common in concrete culverts in northern New York and Ohio. A Holarctic species.

Vertigo tridentata Wolf, 1870 Map 73

Vertigo tridentata Wolf, Pilsbry, 1948, LMNA, **2:** 965.

HABITAT—Found crawling on herbs in low, sunny places. I found it abundant on mint near a spring at Fern Glen, Missouri. It did not occur on any other species of plant.

Vertigo perryi Sterki, 1905 Map 87

Vertigo perryi Sterki, Pilsbry, 1948, LMNA, **2:** 966.

HABITAT—This species was collected at Duxbury, Massachusetts, in the vicinity of cranberry bogs.

Vertigo alpestris oughtoni Pilsbry, 1948 Map 85

Vertigo alpestris oughtoni Pilsbry, 1948, LMNA, **2:** 968.

HABITAT—Known only as a Pleistocene fossil in the United States. A Canadian species.

Vertigo parvula Sterki, 1890 Map 81

Vertigo parvula Sterki, Pilsbry, 1948, LMNA, **2:** 969.

HABITAT—Found in leaf litter in upland woods and crawling on logs in wet weather.

Vertigo nylanderi Sterki, 1909 Map 79

Vertigo nylanderi Sterki, Pilsbry, 1948, LMNA, **2:** 970.

HABITAT—I have never collected this primarily Canadian species.

Vertigo gouldi (A. Binney, 1843) Map 75

Vertigo gouldi (A. Binney), Pilsbry, 1948, LMNA, **2:** 971.

HABITAT—Found in leaf litter in upland woods.

Vertigo paradoxa Sterki, 1900 Map 80

Vertigo gouldi paradoxa Sterki, Pilsbry, 1948, LMNA, **2:** 972.

HABITAT—Similar to that of *V. gouldi* and sometimes found with it.

Vertigo hubrichti Pilsbry, 1934 Map 74

Vertigo gouldi hubrichti Pilsbry, Pilsbry, 1948, LMNA, **2:** 973.
Vertigo hubrichti Pilsbry, Leonard & Frye, 1960, Ill. State Geol. Surv., Circ. **304:** 9.

HABITAT—Known only as a Pleistocene fossil.

Vertigo hannai Pilsbry, 1919 Map 83

Vertigo hannai Pilsbry, 1919, Man. Conch., (2)**25:** 114.
Vertigo gouldi hannai Pilsbry, Pilsbry, 1948, LMNA, **2:** 976.

HABITAT—Known only as a Pleistocene fossil.

Vertigo meramecensis Van Devender, 1979 Map 88

Vertigo meramecensis Van Devender, 1979, Nautilus, **93:** 71.

HABITAT—Found living among lichens on a cliff.

Vertigo brierensis Leonard, 1972 Map 89

Vertigo brierensis Leonard, 1972, Nautilus, **85:** 79.

HABITAT—Known only as a Pleistocene fossil.

Vertigo occulta Leonard, 1972 Map 90

Vertigo occulta Leonard, 1972, Nautilus, **85:** 78.

HABITAT—Known only as a Pleistocene fossil.

Vertigo arthuri von Martens, 1884 Map 91

Vertigo arthuri von Martens, Pilsbry, 1948, LMNA, **2:** 977.

HABITAT—Known only from river drift.

Vertigo concinnula Cockerell, 1897 Map 92

Vertigo concinnula Cockerell, Pilsbry, 1948, LMNA, **2:** 978.

HABITAT—I have never collected this species of the western United States.

Vertigo hebardi Vanatta, 1912 Map 95

Vertigo hebardi Vanatta, Pilsbry, 1948, LMNA, **2:** 980.

HABITAT—I have never collected this species, but it is probably arboreal. All of the museum material that I have seen was collected dead.

Vertigo bollesiana (Morse, 1865) Map 84

Vertigo bollesiana (Morse), Pilsbry, 1948, LMNA, **2:** 981.

HABITAT—Found in leaf litter on wooded hillsides and in marshes.

Vertigo modesta modesta (Say, 1824) Map 76

Vertigo modesta (Say), Pilsbry, 1948, LMNA, **2:** 982.

HABITAT—All of the definite records I have seen are of Pleistocene fossils, but it has been reported from the New England states. A primarily Canadian species.

Columella columella alticola (Ingersoll, 1875) Map 96

Columella alticola (Ingersoll), Pilsbry, 1948, LMNA, **2:** 1003.
Columella columella alticola (Ingersoll), Bequaert & Miller, 1973, Moll. Arid Southwest, p. 190.

HABITAT—In our area it is known only as a Pleistocene fossil.

Columella simplex (Gould, 1841) Map 97

Pupa simplex Gould, 1841, Boston J. Nat. Hist., **3:** 403.
[*Columella edentula* (Draparnaud), Pilsbry, 1948, LMNA, **2:** 1002.]
Columella simplex (Gould), Hubricht, 1971, Sterkiana, **42:** 45.

HABITAT—Found in leaf litter in moist woods, talus slopes, and ravines.

REMARKS—This is at least two species, probably three.

Columella hasta (Hanna, 1911) Map 100

Columella hasta (Hanna), Pilsbry, 1948, LMNA, **2:** 1005.

HABITAT—Known only as a Pleistocene fossil.

REMARKS—This is possibly only an aberrant specimen of *Gastrocopta armifera.*

Subfamily NESOPUPINAE

Pupisoma dioscoricola (C. B. Adams, 1845) Map 98

Pupisoma dioscoricola (C. B. Adams), Pilsbry, 1948, LMNA, **2:** 1007.

HABITAT—An arboreal species. Most frequently found on the undersides of palmetto leaves, but also on orange and magnolia leaves.

REMARKS—The slime of species of this genus is much more adhesive than that of other land snails. They are not as likely to be dislodged by storms as other arboreal species would be. A widely distributed Neotropical species.

Pupisoma macneilli (Clapp, 1918) Map 99

Pupisoma macneilli (Clapp), Pilsbry, 1948, LMNA, **2:** 1010.
Pupisoma minus Pilsbry, Pilsbry, 1948, LMNA, **2:** 1008.

HABITAT—An arboreal species. Usually found crawling on the trunks of ironwood and other smooth-barked trees in wet weather. Rarely found on the undersides of palmetto leaves.

Bothriopupa variolosa (Gould, 1848) Map 101

Bothriopupa variolosa (Gould), Pilsbry, 1948, LMNA, **2:** 1011.

HABITAT—Unknown. I have never collected this species. Also reported from Yucatan.

Sterkia eyriesi rhoadsi (Pilsbry, 1899) Map 102

Sterkia eyriesi rhoadsi (Pilsbry), Pilsbry, 1948, LMNA, **2:** 1016.

HABITAT—The only specimen which I have collected was found crawling on a log after a shower.

REMARKS—When this form is better known, it may prove to be specifically distinct from *S. eyriesi,* a widely distributed Neotropical species.

Family STROBILOPSIDAE

Strobilops labyrinthica (Say, 1817) Map 103

Strobilops labyrinthica (Say), Pilsbry, 1948, LMNA, **2:** 854.
[*Strobilops labyrinthica texasiana* Pilsbry & Ferriss, Branson, 1961, Proc. La. Acad. Sci., **24:** 29.]

HABITAT—Found crawling on logs in wet weather and in leaf litter in dry weather.

Strobilops texasiana Pilsbry & Ferriss, 1906 Map 104

Strobilops texasiana Pilsbry & Ferriss, Pilsbry, 1948, LMNA, **2:** 856.
Strobilops texasiana floridana Pilsbry, Pilsbry, 1948, LMNA, **2:** 858.
Strobilops labyrinthica form *parietalis* Pilsbry, Pilsbry, 1948, LMNA, **2:** 856.
Strobilops aenea spiralis Pilsbry, Pilsbry, 1948, LMNA, **2:** 865.
Strobilops parietalis Pilsbry, Hubricht, 1971, Sterkiana, **42:** 45.
Strobilops lonsdalei Ho & Leonard, 1961, Nautilus, **75:** 43.

HABITAT—Often found in wetter habitats than those of *S. labyrinthica.* I have never found the two species together.

Strobilops sparsicostata F. C. Baker, 1938. Map 107

Strobilops sparsicostata F. C. Baker, 1938, Nautilus, **51:** 127.

HABITAT—Known only as a Pleistocene or Pliocene fossil.

Strobilops affinis Pilsbry, 1893 Map 106

Strobilops affinis Pilsbry, Pilsbry, 1948, LMNA, **2:** 860.

HABITAT—Found in the same habitat as *S. labyrinthica.*

Strobilops aenea Pilsbry, 1926 Map 105

Strobilops aenea Pilsbry, Pilsbry, 1948, LMNA, **2:** 862.

HABITAT—Found in the same habitat as *S. labyrinthica,* with which it frequently occurs. It is found on the Atlantic Coastal Plain, where *S. labyrinthica* does not occur.

Strobilops hubbardi A. D. Brown, 1861 Map 109

Strobilops hubbardi A. D. Brown, Pilsbry, 1948, LMNA, **2:** 865.

HABITAT—Found in low woods crawling on logs in wet weather.

Order MESURETHRA
Superfamily CLAUSILIACEA
Family CERIONIDAE

Cerion incanum (A. Binney, 1851) Map 108

Cerion incanum (A. Binney), Pilsbry, 1946, LMNA, **2:** 162.

HABITAT—Usually found attached to grass stems, shrubs, and tree trunks near the beach, but there is a thriving colony in the very center of Big Pine Key.

Order SIGMURETHRA
Suborder AULACOPODA
Superfamily SUCCINEACEA
Family SUCCINEIDAE

Oxyloma groenlandica (Möller, 1841) Map 111

Oxyloma groenlandica (Möller), Pilsbry, 1948, LMNA, **2:** 776.
Oxyloma verrilli (Bland), Pilsbry, 1948, LMNA, **2:** 777; Harris & Hubricht, 1982, Can. J. Zool., **60:** 1608.

HABITAT—In the United States, it is known only from below Chittenango Falls, New York. Recorded from Iceland, Greenland, and Canada.

Oxyloma retusa (I. Lea, 1834) Map 110

Oxyloma retusa (I. Lea), Pilsbry, 1948, LMNA, **2:** 785.
Oxyloma decampi (Tryon), Pilsbry, 1948, LMNA, **2:** 779; Grimm, 1971, Sterkiana, **41:** 56.
Oxyloma decampi gouldi Pilsbry, Pilsbry, 1948, LMNA, **2:** 782.

HABITAT—Found in low, wet places in marshes and the margins of ponds, crawling on the mud or on plants such as cattails.

Oxyloma peoriensis (Wolf, in Walker, 1892) Map 112

Oyxloma decampi peoriensis (Walker), Pilsbry, 1948, LMNA, **2:** 784.
Oxyloma deprimida Franzen, 1973, Nautilus, **87:** 66; Hubricht, 1983, Gastropodia, **2:** 16.

HABITAT—Crawling on cattails in wet weather; aestivating and laying eggs in the sheaths.

Oxyloma effusa (Pfeiffer, 1853) Map 113

Oxyloma effusa (Pfeiffer), Pilsbry, 1948, LMNA, **2:** 788.

HABITAT—Found on the undersides of *Sagittaria* leaves, crawling on plants, and sometimes on the ground.

Oxyloma subeffusa Pilsbry, 1948 Map 115

Oxyloma effusa subeffusa Pilsbry, 1948, LMNA, **2:** 790.
Oxyloma subeffusa Pilsbry, Grimm, 1971, Sterkiana, **41:** 55.

HABITAT—Found crawling on the mud near ponds, rivers, and marshes.

REMARKS—The shell of this species does not appear separable from that of *O. salleana* and may represent introductions of that species. It needs to be compared anatomically.

Oxyloma salleana (Pfeiffer, 1849) Map 114

Oxyloma salleana (Pfeiffer), Pilsbry, 1948, LMNA, **2:** 792.

HABITAT—Similar to that of *O. retusa.*

Oxyloma haydeni (W. G. Binney, 1858) Map 116

Oxyloma haydeni (W. G. Binney), Pilsbry, 1948, LMNA, **2:** 797.

HABITAT—Similar to that of *O. retusa.* A western species.

Succinea barberi (Marshall, 1926) Map 133

Lymnaea barberi Marshall, 1926, Proc. U.S. Nat. Mus., **68**(11): 1.
Oxyloma sanibelensis (Rehder), Pilsbry, 1948, LMNA, **2:** 793.
Oxyloma barberi (Marshall), Taylor, 1966, Malacologia, **4:** 114.
Succinea barberi (Marshall), Hubricht, 1968, Nautilus, **82:** 68.

HABITAT—Found on the dead leaves of grasses growing in the water.

Succinea paralia Hubricht, 1983 Map 124

Succinea paralia Hubricht, 1983, Gastropodia, **2:** 15.

HABITAT—Found in brackish marshes, crawling on the mud and herbs in wet weather.

Succinea wilsoni I. Lea, 1864 Map 127

Succinea wilsoni I. Lea, Pilsbry, 1948, LMNA, **2:** 823.
Succinea pronophobus Pilsbry, 1948, LMNA, **2:** 809; Grimm, 1971, Sterkiana, **41:** 56.
Succinea bayardi Vanatta, Pilsbry, 1948, LMNA, **2:** 814; Grimm, 1975, Nautilus, **89:** 39.
Succinea crisfieldi Jackson, 1958, Md. Natur. **28:** 17; Grimm, 1975, Nautilus, **89:** 39.
Succinea pyrites Hubricht, 1960, Nautilus, **73:** 113; Grimm, 1975, Nautilus, **89:** 39.
?[*Succinea forsheyi* I. Lea, 1862, Proc. Acad. Nat. Sci., Phila., p. 109; Hubricht, 1974, Malacol. Rev., **7:** 33.]

HABITAT—Found in brackish marshes, usually on the ground, but sometimes climbing on stems of plants.

REMARKS—F. W. Grimm examined the holotype of *S. wilsoni* and concluded that it was the same as *S. pronophobus.* I examined this holotype and concluded that it was the same as *S. forsheyi.* It will probably be necessary to re-collect it and study the animal to be sure of its identity. I once tried to find it at Darien, Georgia, the type locality, but was not successful.

Succinea ovalis Say, 1817 Map 118

Succinea ovalis Say, Pilsbry, 1948, LMNA, **2:** 801.
Succinea ovalis optima Pilsbry, Pilsbry, 1948, LMNA, **2:** 805.

HABITAT—Commonly found in the vicinity of water, but also found on wooded hillsides and, in the southern Appalachians, on mountaintops, where it is found on *Veratrum* plants.

Succinea chittenangoensis Pilsbry, 1908 Map 125

Succinea ovalis chittenangoensis Pilsbry, Pilsbry, 1948, LMNA, **2:** 807.
Succinea ovalis pleistocenica F. C. Baker, Pilsbry, 1948, LMNA, **2:** 808.
Succinea chittenangoensis Pilsbry, Hubricht, 1972, Sterkiana, **45:** 33.
Succinea ovalis form *chittenangoensis* Pilsbry, Solem, 1976, Nautilus, **90:** 108.

HABITAT—Known from a ravine below a waterfall in New York and on mountaintops farther south.

Succinea campestris Say, 1817 Map 126

Succinea campestris Say, Pilsbry, 1948, LMNA, **2:** 826.

HABITAT—Usually found on the dunes along the beaches, climbing or aestivating on the grasses.

Succinea floridana Pilsbry, 1905 Map 132

Succinea luteola floridana Pilsbry, Pilsbry, 1948, LMNA, **2:** 831.

HABITAT—A calciphile. Found crawling on the ground, where the vegetation is sparse in sunny situations, usually near the coast, where the water is somewhat brackish.

Succinea luteola Gould, 1848 Map 123

Succinea luteola Gould, Pilsbry, 1948, LMNA, **2:** 828.

HABITAT—A calciphile. Found crawling on bare ground after rains. Prefers full sun.

Succinea urbana Hubricht, 1961 Map 131

Succinea urbana Hubricht, 1961, Nautilus, **75:** 33.

HABITAT—A calciphile. Found crawling on the ground or on the stems of plants in wet weather. Aestivates on the stems of grasses in dry weather.

Succinea indiana Pilsbry, 1905 Map 117

Succinea indiana Pilsbry, 1905, Nautilus, **19:** 28; Hubricht, 1962, Nautilus, **75:** 123.
[*Succinea aurea* Lea, Pilsbry, 1948, LMNA, **2:** 815.]
Succinea vaginacontorta Lee, 1951, Univ. Mich. Mus. Zool., Occas. Pap., **533:** 2; Hubricht, 1962, Nautilus, **75:** 123.

HABITAT—Usually found in rather dry, sunny situations on bare ground.

REMARKS—Because *S. indiana* must be dissected for identification, there are not enough records to determine its true range.

Succinea unicolor Tryon, 1866 Map 120

Succinea unicolor Tryon, Pilsbry, 1948, LMNA, **2:** 817.
[*Succinea concordialis* Gould, Hubricht, 1963, Nautilus, **76:** 135.]

HABITAT—Found in marshy places, usually near lakes or along streams. It prefers sunny situations.

Succinea forsheyi I. Lea, 1864 Map 119

Succinea forsheyi I. Lea, 1864, Proc. Acad. Nat. Sci., Phila., p. 109; Hubricht, 1974, Malacol. Rev., **7:** 33.
[*Succinea concordialis* Gould, Pilsbry, 1948, LMNA, **2:** 833.]
[*Succinea unicolor* Tryon, Hubricht, 1963, Nautilus, **76:** 135.]
Succinea witteri Shimek, Hubricht, 1963, Nautilus, **76:** 136; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Usually found on the banks of small creeks and on gravel bars.

Succinea grosvenori I. Lea, 1857 Map 122

Succinea grosvenori I. Lea, Pilsbry, 1948, LMNA, **2:** 819.
Succinea (Desmosuccinea) pseudavara Webb, 1954, Gastropodia, **1:** 18; Hubricht, 1963, Nautilus, **76:** 135.
[*Succinea bakeri* Hubricht, Browne & Bruder, 1968, Bull. Amer. Paleontol., **54:** 141.]

HABITAT—Usually found in sunny situations, where the vegetation is sparse, and the ground remains damp after rains.

REMARKS—*Succinea grosvenori* has been used in the past as a catchall for any succineid which could not be as readily identified as some other species. As a result most published records could not be used. The species can be identified only from a study of the genitalia. Thus, records are widely scattered, and the true range of the species is not known.

Succinea bakeri Hubricht, 1963 Map 129

Succinea bakeri Hubricht, 1963, Nautilus, **76:** 136.

HABITAT—Known only as a Pleistocene fossil.

Succinea greeri Tryon, 1866 Map 121

Succinea greeri Tryon, 1866, Amer. J. Conchol., **2:** 232; Hubricht, 1963, Nautilus, **76:** 136.

HABITAT—One of our most xerophilous land snails. Found on loess banks with a southern exposure, on bare ground in full sun, and in Oklahoma on the bare face of a cliff with a southern exposure. Because of its confusion with *S. grosvenori,* its true range is not known.

Succinea solastra Hubricht, 1961 Map 130

Succinea solastra Hubricht, 1961, Nautilus, **75:** 30.

HABITAT—Found crawling on bare ground after rains, frequently in the company of *S. luteola.*

Succinea putris (Linné, 1758) Map 128

Succinea pennsylvanica Pilsbry, 1948, LMNA, **2:** 809.
Succinea putris (Linné), Grimm, 1977, Bull. Amer. Malacol. Union, **1976:** 53.

HABITAT—Common in marshes, skunk cabbage

swamps, and along roadsides, wherever there is sufficient moisture. A very common species within its range. I found no other species of Succineidae with it. It appears to crowd out all other species. A European-Asian species.

Catinella avara (Say, 1824) Map 134

Succinea avara Say, Pilsbry, 1948, LMNA, **2:** 837 (in part).
Succinia vermeta Say, 1829, New Harmony Disseminator, **2:** 230.
Quickella oklahomarum loculosa Webb, 1954, Gastropodia, **1:** 20.
Quickella vermeta (Say), Hubricht, 1958, Nautilus, **72:** 60.
Catinella vermeta (Say), Grimm, 1960, Nautilus, **74:** 12.
Catinella texana Hubricht, 1961, Nautilus, **75:** 61.
Catinella avara (Say), Burch, 1962, How To Know the Land Snails. Wm. C. Brown Co., Dubuque, Iowa, p. 67 (in part).
[*Quickella wandae* Webb, Branson, 1963, Proc. Okla. Acad. Sci., **43:** 80.]
Catinella parallela Franzen, 1979, Nautilus, **93:** 63.
Catinella waccamawensis Franzen, 1981, Nautilus, **95:** 116.
Catinella protracta Franzen, 1983, Nautilus, **97:** 138.

HABITAT—Usually found on wet ground in low, wet places, floodplains, margins of ponds, marshes, and swamps in both shady and sunny situations.

Catinella gelida (F. C. Baker, 1927) Map 140

Succinea grosvenori gelida F. C. Baker, Pilsbry, 1948, LMNA, **2:** 823.
Catinella gelida (F. C. Baker), Hubricht, 1963, Nautilus, **76:** 137.

HABITAT—Known only as a Pleistocene fossil.

Catinella exile (Leonard, 1972) Map 142

Succinea exile Leonard, 1972, Nautilus, **85:** 82.

HABITAT—Known only as a Pleistocene fossil.

Catinella oklahomarum (Webb, 1953) Map 135

Quickella oklahomarum Webb, 1953, J. Tenn. Acad. Sci., **28:** 220.
Catinella pinicola Grimm, 1960, Nautilus, **74:** 11; Grimm, 1968, Nautilus **81:** 84.
[*Catinella vagans* (Pilsbry), Branson, 1963, Proc. Okla. Acad. Sci., **43:** 79.]

HABITAT—Usually found in the leaf litter of wooded hillsides or in pine woods on the coastal plain. Usually on acid soil. I have never found it abundant.

Catinella aprica Hubricht, 1968 Map 141

Catinella aprica Hubricht, 1968, Nautilus, **82:** 68.

HABITAT—A calciphile. Found crawling on the ground litter after rains, where there are calcareous rocks and full sun.

Catinella wandae (Webb, 1953) Map 137

Quickella wandae Webb, 1953, J. Tenn. Acad. Sci., **28:** 216.

HABITAT—Found in the leaf litter on well-drained wooded slopes in deciduous forest.

Catinella vagans (Pilsbry, 1900) Map 139

Quickella vagans (Pilsbry), Pilsbry, 1948, LMNA, **2:** 843.
Catinella vagans (Pilsbry), Hubricht, 1978, Malacol. Rev., **10:** 50.

HABITAT—Found crawling on the mud around the margins of ponds.

Catinella pugilator Hubricht, 1961 Map 138

Catinella pugilator Hubricht, 1961, Nautilus, **75:** 61.

HABITAT—Found on the ground near the margins of brackish or freshwater marshes in weedy places.

Catinella hubrichti Grimm, 1960 Map 136

Catinella hubrichti Grimm, 1960, Nautilus, **74:** 9.

HABITAT—Climbing on plants in brackish marshes.

Superfamily ARIONACEA
Family PHILOMYCIDAE

Philomycus carolinianus (Bosc, 1802) Map 143

Philomycus carolinianus (Bosc), Pilsbry, 1948, LMNA, **2:** 753.
Eumelus nebulosus Rafinesque, Pilsbry, 1948, LMNA, **2:** 770; Hubricht, 1952, Nautilus, **66:** 46.
Eumelus lividus Rafinesque, Pilsbry, 1948, LMNA, **2:** 770; Hubricht, 1952, Nautilus, **66:** 47.
Philomycus quadrilus Rafinesque, Pilsbry, 1948, LMNA, **2:** 770; Hubricht, 1952, Nautilus, **66:** 46.
Philomycus batchi Branson, 1968, Nautilus, **81:** 129; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Found in floodplain woods over most of its range, but becomes an upland species in the mountains. It does not occur much above 2,000 ft. To be looked for under the loose bark of logs and crawling on the trunks of smooth-barked trees at night and during wet weather.

Philomycus togatus (Gould, 1841) Map 144

Limax togata Gould, Gould, 1841, Invert. of Mass., p. 3.
Philomycus carolinianus collinus Hubricht, 1951, Nautilus, **65:** 21.
Philomycus carolinianus togatus (Gould), Hubricht, 1956, Nautilus, **70:** 16.
Philomycus togatus (Gould), Hubricht, 1968, Sterkiana, **32:** 5.

HABITAT—An upland species found on wooded hillsides and ravines, under loose bark of logs, and crawling on the trunks of smooth-barked trees at night and in wet weather.

Philomycus flexuolaris Rafinesque, 1820 Map 148

Philomycus carolinianus flexuolaris Rafinesque, Pilsbry, 1948, LMNA, **2:** 756.
Philomycus flexuolaris Rafinesque, Hubricht, 1951, Nautilus, **65:** 21.

HABITAT—Found in upland woods up to more than 5,000 ft in the Smoky Mountains. Occurring in much the same habitat as *P. togatus*.

Philomycus virginicus Hubricht, 1953 Map 146

Philomycus virginicus Hubricht, 1953, Nautilus, **66:** 80.

HABITAT—Found in the same habitat as *P. togatus*.

Philomycus venustus Hubricht, 1953 Map 145

Philomycus venustus Hubricht, 1953, Nautilus, **66:** 79.
Philomycus bisdosus Branson, 1968, Nautilus, **81:** 127; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Found in the same habitat as *P. flexuolaris* and frequently found with it.

Philomycus sellatus Hubricht, 1972 Map 147

Philomycus sellatus Hubricht, 1972, Nautilus, **86:** 17.

HABITAT—Found in the same habitat as *P. togatus*.

Megapallifera wetherbyi (W. G. Binney, 1874) Map 155

Pallifera wetherbyi W. G. Binney, Pilsbry, 1948, LMNA, **2:** 769.
Eumelus wetherbyi (W. G. Binney), Webb, 1951, Nautilus, **65:** 35.
Megapallifera wetherbyi (W. G. Binney), Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—Found on rocks and on the trunks of smooth-barked trees at night and in wet weather. A species of river bluffs and ravines.

Megapallifera ragsdalei (Webb, 1951) Map 157

Eumelus wetherbyi ragsdalei Webb, 1950, Trans. Amer. Microscop. Soc., **69:** 56.
Pallifera ragsdalei (Webb), Hubricht, 1956, Nautilus, **69:** 126.
[*Pallifera mutabilis* Hubricht, Branson, 1962, Trans. Kan. Acad. Sci., **65:** 114.]
Megapallifera ragsdalei (Webb), Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—Found in rock slides, cliffs, and the mouths of caves. Sometimes found on smooth-barked trees.

Megapallifera mutabilis (Hubricht, 1951) Map 150

[*Eumelus lividus* Rafinesque, Webb, 1950, Trans. Amer. Microscop. Soc., **69:** 56.]
Pallifera mutabilis Hubricht, 1951, Nautilus, **65:** 57.
Megapallifera mutabilis Hubricht, Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—Usually found in upland woods, crawling on the trunks of smooth-barked trees at night and in wet weather. It is also an urban slug, found in lawns and on shade trees. In Montgomery, Alabama, I found it in an old cemetery feeding on the lichens growing on the tombstones.

Pallifera dorsalis (A. Binney, 1842) Map 149

Pallifera dorsalis (A. Binney), Pilsbry, 1948, LMNA, **2:** 760.
Pallifera ohioensis (Sterki), Pilsbry, 1948, LMNA, **2:** 763.

HABITAT—Found in leaf litter in upland woods.

Pallifera varia Hubricht, 1953 Map 154

Pallifera varia Hubricht, 1953, Nautilus, **66:** 78.

HABITAT—Found crawling on the ground in wet weather in upland woods.

Pallifera hemphilli (W. G. Binney, 1885) Map 153

Pallifera hemphilli (W. G. Binney), Pilsbry, 1948, LMNA, **2:** 765.

HABITAT—Found crawling on the ground in wet weather in the spruce-fir forests at elevations above 5,000 ft.

Pallifera marmorea Pilsbry, 1948 Map 152

Pallifera hemphilli marmorea Pilsbry, 1948, LMNA, **2:** 766.
Pallifera marmorea Pilsbry, Hubricht, 1956, Nautilus, **69:** 125.

Pallifera tornescalis Branson, 1968, Southwest. Natur., **13:** 457; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Found in pockets of damp leaves in upland woods.

Pallifera secreta (Cockerell, 1900) Map 151

Philomycus secretus Cockerell, Pilsbry, 1948, LMNA, **2:** 767.
Pallifera secreta (Cockerell), Hubricht, 1951, Nautilus, **64:** 102.
Pallifera hemphilli secreta (Cockerell), Beetle, 1977, Sterkiana, **49:** 28.

HABITAT—Found in deep pockets of wet leaves in upland woods; up to 5,000 ft in the mountains.

Pallifera fosteri F. C. Baker, 1939 Map 156

Pallifera fosteri F. C. Baker, Pilsbry, 1948, LMNA, **2:** 768.
Pallifera fosteri oughtoni Webb, 1952, Gastropodia, **1:** 6.
Pallifera megaphallica Grimm, 1961, Nautilus, **74:** 104; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—An adaptable species found in a variety of habitats; in floodplain as well as upland woods, in leaf litter and about logs, from near sea level to above 5,000 ft. It has been found associated with *P. hemphilli.*

Family DISCIDAE

Anguispira alternata (Say, 1816) Map 158

Anguispira alternata (Say), Pilsbry, 1948, LMNA, **2:** 568.
Anguispira clarki Vanatta, Pilsbry, 1948, LMNA, **2:** 585; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—A species with a wide habitat tolerance. Found in woods about logs, hollow trees, and rocks; in weedy roadsides and along railroads; in urban areas in vacant lots and gardens.

VARIATION—There is considerable variation in the degree of angulation of the periphery. This angulation is most pronounced in the region about the northern end of the range of *A. mordax* and appears to be the result of introgression from that species.

Anguispira jessica Kutchka, 1938 Map 165

Anguispira alternata jessica Kutchka, Pilsbry, 1948, LMNA, **2:** 577.
Anguispira jessica Kutchka, Hubricht, 1965, Sterkiana, **17:** 3.

HABITAT—Usually found at high elevations in the mountains, but is sometimes found at low elevations.

Anguispira fergusoni (Bland, 1861) Map 162

Anguispira alternata fergusoni (Bland), Pilsbry, 1948, LMNA, **2:** 575.
Anguispira fergusoni (Bland), Jeffries, 1952, Nautilus, **65:** 127.

HABITAT—A species of the Atlantic Coastal Plain which has moved up the floodplains of the larger rivers into the Piedmont area. Usually found about logs, hollow trees, and in the leaf litter in deciduous woods. Also a common urban snail.

Anguispira knoxensis (Pilsbry, 1901) Map 164

Anguispira alternata knoxensis (Pilsbry), Pilsbry, 1948, LMNA, **2:** 584.
[*Anguispira rugoderma* Hubricht, Pilsbry, 1948, LMNA, **2:** 585.]
Anguispira knoxensis (Pilsbry), Hubricht, 1954, Nautilus, **67:** 92.

HABITAT—Found in the same habitat as *A. alternata.*

Anguispira rugoderma Hubricht, 1938 Map 163

Anguispira rugoderma Hubricht, 1938, Nautilus, **51:** 131.
Anguispira alternata rugoderma Hubricht, MacMillan, 1940, Ann. Carnegie Mus., **27:** 390.

HABITAT—Found about old logs on the north side of Pine Mountain, Kentucky.

Anguispira strongylodes (Pfeiffer, 1854) Map 159

Anguispira alternata strongylodes (Pfeiffer), Pilsbry, 1948, LMNA, **2:** 577.
Anguispira alternata crassa Walker, Pilsbry, 1948, LMNA, **2:** 579.
Anguispira alternata macneilli Walker, Pilsbry, 1948, LMNA, **2:** 576; Hubricht, 1974, Malacol. Rev., **7:** 33.
Anguispira crassa Walker, Hubricht, 1953, Nautilus, **66:** 125.
Anguispira strongylodes (Pfeiffer), Hubricht, 1960, Nautilus, **74:** 82.
Anguispira macneilli Walker, Hubricht, 1965, Sterkiana, **17:** 3.

HABITAT—Found in much the same habitats as *A. alternata* and sometimes found with it.

VARIATION—The shells are rather coarsely striate in the northern part of its range, where the range overlaps that of *A. alternata*; but in the southern part of the range, the striae become weaker (*macneilli*).

Anguispira mordax (Shuttleworth, 1852) Map 160

Anguispira alternata mordax (Shuttleworth), Pilsbry, 1948, LMNA, **2:** 581.
Anguispira alternata lawae Pilsbry, Pilsbry, 1948, LMNA, **2:** 578.
Anguispira alternata paucicostata Kutchka, Pilsbry, 1948, LMNA, **2:** 581.
Anguispira alternata smithi Walker, Pilsbry, 1948, LMNA, **2:** 583.
Anguispira cumberlandiana columba (Clapp), Pilsbry, 1948, LMNA, **2:** 588.
Anguispira smithi Walker, Hubricht, 1965, Sterkiana, **17:** 3.
Anguispira columba (Clapp), Hubricht, 1965, Sterkiana, **17:** 3.
Anguispira mordax (Shuttleworth), Hubricht, 1968, Sterkiana, **32:** 5.
Anguispira paucicostata Kutchka, Hubricht, 1972, Sterkiana, **45:** 33.
Anguispira mordax paucicostata Kutchka, Hubricht, 1973, Sterkiana, **49:** 15.

HABITAT—Found in the same habitats as *A. alternata* and *A. strongylodes,* with which it hybridizes.

VARIATION—*Anguispira mordax* apparently occurs pure only in the mountains of North Carolina. West of the mountains, it hybridizes with *A. alternata* in the northern part of its range and with *A. strongylodes* in the southern part. Through introgression with *A. alternata,* it produced the form *angulata* of that species. In the southern part of its range through hybridization with *A. strongylodes,* it produced *A. smithi* and *A. columba.* There has been very little introgression into *A. strongylodes.* Hybrid colonies have remained local, with very little spread of genes into the surrounding populations. *Anguispira lawae* appears to be a population of *A. mordax* with a small amount of *A. alternata* in it.

Anguispira cumberlandiana (I. Lea, 1840) Map 166

Anguispira cumberlandiana (I. Lea), Pilsbry, 1948, LMNA, **2:** 586.

HABITAT—A calciphile. Found climbing on rocky ledges and cliffs at night and in wet weather.

Anguispira alabama (Clapp, 1920) Map 167

Anguispira cumberlandiana alabama (Clapp), Pilsbry, 1948, LMNA, **2:** 588.

HABITAT—Found in the same habitat as *A. cumberlandiana,* but never found with it.

Anguispira picta (Clapp, 1920) Map 168

Anguispira cumberlandiana picta (Clapp), Pilsbry, 1948, LMNA, **2:** 589.
Anguispira picta (Clapp), Hubricht, 1972, Sterkiana, **45:** 33.

HABITAT—Found in the same habitat as *A. cumberlandiana,* but never found with it.

Anguispira kochi (Pfeiffer, 1845) Map 161

Anguispira kochi (Pfeiffer), Pilsbry, 1948, LMNA, **2:** 594.
Anguispira kochi strontiana (Clapp), Pilsbry, 1948, LMNA, **2:** 594.
Anguispira kochi roseoapicata (Clapp), Pilsbry, 1948, LMNA, **2:** 594.

HABITAT—Usually found on river bluffs, crawling about on the ground in wet weather, or under the leaves in dry weather. Also found in ravines and upland woods, sometimes in rather dry situations.

Discus cronkhitei (Newcomb, 1865) Map 171

Discus cronkhitei (Newcomb), Pilsbry, 1948, LMNA, **2:** 600.
[*Discus cronkhitei catskillensis* (Pilsbry), Branson, 1964, Proc. Okla. Acad. Sci., **44:** 33.]

HABITAT—A species of low, wet places; meadows, roadsides, and margins of marshes. A frequent urban snail.

Discus catskillensis (Pilsbry, 1898) Map 172

Discus cronkhitei catskillensis (Pilsbry), Pilsbry, 1948, LMNA, **2:** 605.
Discus catskillensis (Pilsbry), Muchmore, 1959, Nautilus, **72:** 86.

HABITAT—Usually found in upland woods, in leaf litter, about logs, etc. Occasionally found in low ground with *D. cronkhitei.*

Discus macclintocki (F. C. Baker, 1928) Map 173

Discus macclintocki (F. C. Baker), Pilsbry, 1948, LMNA, **2:** 606.
Discus macclintocki angulata (F. C. Baker), Pilsbry, 1948, LMNA, **2:** 607.

HABITAT—The only known locality where this species is found alive is at the mouth of a cave, where a blast of cold air provides a Pleistocene habitat. All other records are of Pleistocene fossils.

Discus patulus (Deshayes, 1830) Map 174

Discus patulus (Deshayes), Pilsbry, 1948, LMNA, **2:** 608.

Discus bryantwalkeri (Pilsbry), Pilsbry, 1948, LMNA, **2:** 611; Hubricht, 1963, Nautilus, **77:** 62.
Discus patulus brooksi Kutchka, Pilsbry, 1948, LMNA, **2:** 610; Hubricht, 1963, Nautilus, **77:** 62.

HABITAT—Usually found under logs in upland woods, but sometimes found in deep pockets of moist leaves.

Discus nigrimontanus (Pilsbry, 1924) Map 170

Discus bryanti nigrimontanus (Pilsbry), Pilsbry, 1948, LMNA, **2:** 613.
Discus patulus form *edentulus* Pilsbry, 1948, LMNA, **2:** 610.
Discus patulus edentulus Hubricht, 1963, Nautilus, **77:** 63.
Discus nigrimontanus (Pilsbry), Hubricht, 1963, Nautilus, **77:** 63.

HABITAT—Usually found in rocky upland woods, where the leaf litter is rather thin.

REMARKS—*Discus nigrimontanus* sometimes hybridizes with *D. patulus*. Some of these hybrids reached the mountains of western Arkansas during the Pleistocene, producing *edentulus*. These have become quite uniform and are very common there.

Discus bryanti (Harper, 1881) Map 175

Discus bryanti (Harper), Pilsbry, 1948, LMNA, **2:** 612.

HABITAT—Found in leaf litter in rocky upland woods.

Discus clappi (Pilsbry, 1924) Map 176

Discus clappi (Pilsbry), Pilsbry, 1948, LMNA, **2:** 615.

HABITAT—A calciphile. Found in leaf litter on rocky wooded hillsides. In Franklin County, Tennessee, found under bark fallen from a dead tree.

Discus shimeki (Pilsbry, 1890) Map 169

Discus shimeki (Pilsbry), Pilsbry, 1948, LMNA, **2:** 617.

HABITAT—With the exception of one record from South Dakota, all of our records are for Pleistocene fossils. In South Dakota it was found "on the underside of moist boulders at the bottom of a large pile along the edge of the flats of Spearfish Creek" (H. B. Baker). A species of western North America.

Family HELICODISCIDAE

Polygyriscus virginianus (P. R. Burch, 1947) Map 177

Polygyra virginiana P. R. Burch, Pilsbry, 1948, LMNA, **2:** 1097.
Polygyriscus virginianus (P. R. Burch), Solem, 1957, Fieldiana: Zool., **41:** 9; Solem, 1975, Nautilus, **89**(3): 80.

HABITAT—A calciphile. A burrowing species. The series which I collected was found deep down in a rock pile.

Helicodiscus multidens Hubricht, 1962 Map 197

Helicodiscus multidens Hubricht, 1962, Nautilus, **75:** 102.
Helicodiscus enneodon Hubricht, 1965, Nautilus, **79:** 6; Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—A calciphile. Found under rocks and leaf litter on river bluffs; also in caves.

Helicodiscus diadema Grimm, 1967 Map 189

Helicodiscus diadema Grimm, 1967, Nautilus, **80:** 119.

HABITAT—A calciphile. Found in limestone rubble at the base of a hill.

Helicodiscus lirellus Hubricht, 1975 Map 190

Helicodiscus lirellus Hubricht, 1975, Nautilus, **89:** 10.

HABITAT—A calciphile. Found in limestone rubble at the base of a hill.

Helicodiscus triodus Hubricht, 1958 Map 191

Helicodiscus triodus Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 75.

HABITAT—A calciphile. Found under leaves and in limestone rubble on wooded hillsides; also in caves.

Helicodiscus tridens (Morrison, 1935) Map 182

Pilsbryna tridens Morrison, Pilsbry, 1946, LMNA, **2:** 393.
Helicodiscus tridens (Morrison), Hubricht, 1964, Nautilus, **78:** 28.

HABITAT—All of the material I have seen is either Pleistocene fossils or river drift. Some of the latter appears to be Recent. It should be looked for around the roots of grasses.

Helicodiscus fimbriatus Wetherby, 1881 Map 192

Helicodiscus fimbriatus Wetherby, Pilsbry, 1948, LMNA, **2:** 628.

HABITAT—Found in leaf litter and under rocks on wooded hillsides.

Helicodiscus bonamicus Hubricht, 1978 Map 193

Helicodiscus bonamicus Hubricht, 1978, Malacol. Rev., **10:** 49.

HABITAT—Found in leaf litter on a wooded hillside.

Helicodiscus hexodon Hubricht, 1966 Map 194

Helicodiscus hexodon Hubricht, 1966, Nautilus, **80:** 55.

HABITAT—Found in leaf litter in low woods.

Helicodiscus saludensis (Morrison, 1937) Map 195

Clappiella saludensis Morrison, Pilsbry, 1946, LMNA, **2:** 433.
Helicodiscus saludensis (Morrison), Hubricht, 1962, Nautilus, **75:** 105.

HABITAT—Found under leaf litter in an oak-pine woods.

Helicodiscus aldrichianus (Clapp, 1907) Map 196

Clappiella aldrichiana (Clapp), Pilsbry, 1946, LMNA, **2:** 431.
Helicodiscus aldrichiana (Clapp), Hubricht, 1964, Nautilus, **78:** 28.

HABITAT—A burrowing species. Found on the undersides of stones, in chert rubble, and in deep pockets of leaves.

Helicodiscus eigenmanni eigenmanni Pilsbry, 1900 Map 180

Helicodiscus eigenmanni Pilsbry, Pilsbry, 1948, LMNA, **2:** 630.
[*Helicodiscus eigenmanni arizonensis* Pilsbry & Ferriss, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 86.]

HABITAT—A calciphile. Found under leaf litter in ravines and on river bluffs; also a common cave snail. Common in western United States and Mexico.

Helicodiscus notius notius Hubricht, 1962 Map 178

Helicodiscus notius Hubricht, 1962, Nautilus, **75:** 104.

HABITAT—Found in leaf litter on wooded hillsides and ravines. Occasionally found in caves. Usually found in dryer habitats than those of *H. parallelus.*

Helicodiscus notius specus Hubricht, 1962 Map 184

Helicodiscus notius specus Hubricht, 1962, Nautilus, **75:** 105.

HABITAT—Known only from the total darkness of caves, where it feeds on cave cricket guano.

Helicodiscus shimeki Hubricht, 1962 Map 186

Helicodiscus shimeki Hubricht, 1962, Nautilus, **75:** 103.

HABITAT—Found in leaf litter in upland woods, often on very acid soil.

Helicodiscus parallelus (Say, 1817) Map 185

Helicodiscus parallelus (Say), Pilsbry, 1948, LMNA, **2:** 625.
[*Helicodiscus multidens* Hubricht, Branson, 1964, Proc. Okla. Acad. Sci., **44:** 34.]
[*Helicodiscus eigenmanni* Pilsbry, Branson, 1964, Proc. Okla. Acad. Sci., **44:** 34.]
[*Helicodiscus notius* Hubricht, Branson, 1964, Proc. Okla. Acad. Sci., **44:** 34.]
[*Helicodiscus diadema* Grimm, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 86.]
[*Helicodiscus triodus* Hubricht, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 86.]
[*Helicodiscus saludensis* Morrison, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 86.]

HABITAT—Found on floodplains, as well as upland woods, in leaf litter, under trash on roadsides, under old ties along railroads, and on vacant lots in urban areas. Unlike *H. notius,* I have never found *H. parallelus* living in a cave.

Helicodiscus roundyi (Morrison, 1935) Map 181

Paravitrea (?) *roundyi* Morrison, Pilsbry, 1946, LMNA, **2:** 387.
Helicodiscus roundyi (Morrison), Hubricht, 1963, Sterkiana, **9:** 23.

HABITAT—Known only as a Pleistocene fossil or from river drift.

Helicodiscus barri Hubricht, 1962 Map 198

Helicodiscus barri Hubricht, 1962, Nautilus, **75:** 105.

HABITAT—Known only from the total darkness of caves, where it feeds on the guano of the cave cricket.

Helicodiscus hadenoecus Hubricht, 1962 Map 183

Helicodiscus hadenoecus Hubricht, 1962, Nautilus, **75:** 106.

HABITAT—Usually found in the total darkness of caves, where it feeds on the guano of the cave cricket, but has also been found burrowing in soil and deep in rock slides.

Helicodiscus punctatellus Morrison, 1942 Map 199

Helicodiscus punctatellus Morrison, Pilsbry, 1948, LMNA, **2:** 640.

HABITAT—Known only from dead but recent shells from a cave and Pleistocene fossils from a talus deposit.

Helicodiscus singleyanus (Pilsbry, 1890) Map 179

Helicodiscus singleyanus (Pilsbry), Pilsbry, 1948, LMNA, **2:** 636.
[*Helicodiscus singleyanus inermis* H. B. Baker, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 87.]
[*Helicodiscus intermedius* Morrison, Bequaert & Miller, 1973, Moll. Arid Southwest, p. 87.]

HABITAT—A species of open, grassy places, roadsides, along railroads, and meadows.

Helicodiscus inermis H. B. Baker, 1929 Map 187

Helicodiscus singleyanus inermis H. B. Baker, Pilsbry, 1948, LMNA, **2:** 637.
Helicodiscus inermis H. B. Baker, Hubricht, 1968, Nautilus, **82:** 68.
Helicodiscus intermedius Morrison, Pilsbry, 1948, LMNA, **2:** 638; Hubricht, 1962, Nautilus, **82:** 68.

HABITAT—Found in open, grassy situations, roadsides, along railroads, meadows, and old fields; also in caves.

Helicodiscus nummus (Vanatta, 1899) Map 188

Helicodiscus nummus (Vanatta), Pilsbry, 1948, LMNA, **2:** 639.

HABITAT—Known only from river drift or as fossils.

Family PUNCTIDAE

Punctum minutissimum (I. Lea, 1841) Map 200

Punctum minutissimum (I. Lea), Pilsbry, 1948, LMNA, **2:** 644.

HABITAT—Found in deep pockets of leaf litter, where leaves have blown up against logs or into depressions in the ground.

Punctum parvulum Leonard, 1972 Map 208

Punctum parvulum Leonard, 1972, Nautilus, **85:** 84.

HABITAT—Known only as a Pleistocene fossil.

Punctum blandianum Pilsbry, 1900 Map 207

Punctum blandianum Pilsbry, Pilsbry, 1948, LMNA, **2:** 645.

HABITAT—Found in the same habitat as *P. minutissimum.*

Punctum vitreum H. B. Baker, 1930 Map 201

Punctum vitreum H. B. Baker, Pilsbry, 1948, LMNA, **2:** 649.

HABITAT—Found in the same habitat as *P. minutissimum,* but is not as common.

Punctum smithi Morrison, 1935 Map 204

Punctum smithi Morrison, Pilsbry, 1948, LMNA, **2:** 654.
Punctum lamellatum Hubricht, 1951, Nautilus, **65:** 58; Hubricht, 1974, Malacol. Rev., **7:** 33.

HABITAT—Found in the same habitat as *P. minutissimum* and usually found with it.

Superfamily LIMACACEA
Family LIMACIDAE
Subfamily LIMACINAE

Deroceras laeve (Müller, 1774) Map 202

Deroceras laeve (Müller), Pilsbry, 1948, LMNA, **2:** 539.
Philomycus oxyurus Rafinesque, Pilsbry, 1948, LMNA, **2:** 770; Hubricht, 1952, Nautilus, **66:** 46.
Philomycus fuscus Rafinesque, Pilsbry, 1948, LMNA, **2:** 770; Hubricht, 1952, Nautilus, **66:** 46.

HABITAT—A species of open ground, meadows, roadsides, and clearings. Common in urban areas. I have never found it in deep woods. A Holarctic species.

REMARKS—Believed by some to be an introduced species, but the presence of its plates in Pleistocene deposits establishes it as native. It is quite probable that European strains have been introduced into urban areas.

Deroceras aenigma Leonard, 1950 Map 203

Deroceras aenigma Leonard, 1950, Kan. Univ. Paleontol. Contrib., **8:** 38.

HABITAT—Known only as Pliocene and Pleistocene fossils.

Family ZONITIDAE
Subfamily ZONITINAE

Nesovitrea electrina (Gould, 1841) Map 205

Retinella electrina (Gould), Pilsbry, 1946, LMNA, **2:** 256.
Nesovitrea electrina (Gould), Zilch, 1959, Handb. Paläozool., **6**(2): 246.
Nesovitrea hammonis electrina (Gould), Bequaert & Miller, 1973, Moll. Arid Southwest, p. 145.

HABITAT—A species of low, wet ground; floodplains, meadows, and margins of ponds and marshes.

Nesovitrea binneyana (Morse, 1864) Map 206

Retinella binneyana (Morse), Pilsbry, 1946, LMNA, **2:** 259.
Nesovitrea binneyana (Morse), Hubricht, 1962, Sterkiana, **7:** 4.

HABITAT—Found in leaf litter in upland woods.

Nesovitrea dalliana (Pilsbry & Simpson, 1888) Map 209

Retinella dalliana (Pilsbry & Simpson), Pilsbry, 1946, LMNA, **2:** 262.
Nesovitrea dalliana (Pilsbry & Simpson), Hubricht, 1964, Sterkiana, **16:** 7

HABITAT—A calciphile. Found under leaf litter, logs, and rocks; usually in low, wet places, margins of swamps, etc.

Nesovitrea suzannae Pratt, 1978 Map 210

Nesovitrea suzannae Pratt, 1978, Nautilus, **92:** 19.

HABITAT—Found in leaf litter in live-oak woods.

Glyphyalinia virginica (Morrison, 1937) Map 211

Retinella virginica Morrison, Pilsbry, 1946, LMNA, **2:** 265.
Glyphyalinia virginica (Morrison), Hubricht, 1971, Sterkiana, **42:** 42.

HABITAT—Found in pockets of deep leaf litter on mountainsides.

REMARKS—Mature shells of this species are extremely fragile. Picking them up, unless extreme care is used, will cause them to break.

Glyphyalinia cumberlandiana (Clapp, 1919) Map 215

Retinella cumberlandiana (Clapp), Pilsbry, 1946, LMNA, **2:** 269.
Retinella cumberlandiana roanensis H. B. Baker, Pilsbry, 1946, LMNA, **2:** 271; Hubricht, 1965, Nautilus, **78:** 133.
Glyphyalinia cumberlandiana (Clapp), Hubricht, 1964, Sterkiana, **16:** 7.
Glyphyalinia roanensis (H. B. Baker), Hubricht, 1965, Nautilus, **78:** 133; Hubricht, 1976, Nautilus, **90:** 105.

HABITAT—A calciphile. Found in leaf litter in ravines, sinks, and hillsides, usually in rocky places.

Glyphyalinia wheatleyi (Bland, 1883) Map 213

Retinella wheatleyi (Bland), Pilsbry, 1946, LMNA, **2:** 272.
Retinella burringtoni (Pilsbry), Pilsbry, 1946, LMNA, **2:** 266.
Retinella circumstriata (Taylor), Pilsbry, 1946, LMNA, **2:** 271.
Glyphyalinia circumstriata (Taylor), Hubricht, 1963, Sterkiana, **10:** 2.
Glyphyalinia wheatleyi (Bland), Hubricht, 1964, Sterkiana, **13:** 12.
Retinella zikmundi Branson, 1964, Proc. Okla. Acad. Sci., **44:** 27; Hubricht, 1967, Nautilus, **81:** 66.
Glyphyalinia burringtoni (Pilsbry), Zilch, 1959, Handb. Paläozool., **6**(2): 253; Hubricht, 1976, Nautilus, **90:** 105.

HABITAT—Found in moist leaf litter on wooded hillsides, in ravines, etc.

Glyphyalinia vanattai (Pilsbry & Walker, 1902) Map 212

Retinella vanattai (Pilsbry & Walker), Pilsbry, 1946, LMNA, **2:** 273.
Glyphyalinia vanattai (Pilsbry & Walker), Hubricht, 1970, Sterkiana, **39:** 13.

HABITAT—Found in moist leaf litter in ravines and on wooded mountainsides.

Glyphyalinia clingmani (Dall, 1890) Map 216

Retinella clingmani (Dall), Pilsbry, 1946, LMNA, **2:** 275.
Retinella approxima (Walker & Pilsbry), Pilsbry, 1946, LMNA, **2:** 276; Hubricht, 1974, Malacol. Rev., **7:** 34.
Glyphyalinia clingmani (Dall), Hubricht, 1970, Sterkiana, **39:** 13.

HABITAT—Found under logs and rocks and under moist leaf litter at high elevations in the Black Mountains.

Glyphyalinia roemeri (Pilsbry & Ferriss, 1906) Map 224

Retinella roemeri (Pilsbry & Ferriss), Pilsbry, 1946, LMNA, **2:** 277.
Glyphyalinia roemeri (Pilsbry & Ferriss), Zilch, 1959, Handb. Paläozool., **6**(2): 253.

HABITAT—Found under rocks and in moist

leaves on wooded talus slopes, in ravines, and in caves.

Glyphyalinia lewisiana (Clapp, 1908) Map 214

Retinella lewisiana (Clapp), Pilsbry, 1946, LMNA, **2:** 279.
Glyphyalinia lewisiana (Clapp), Hubricht, 1962, Sterkiana, **18:** 3.

HABITAT—A calciphile. A burrowing species, usually found on the undersides of stones.

Glyphyalinia specus Hubricht, 1965 Map 217

Glyphyalinia specus Hubricht, 1965, Nautilus, **79:** 5.

HABITAT—Known only from the total darkness of caves, where it feeds on cave cricket guano.

Glyphyalinia raderi (Dall, 1898) Map 218

Retinella raderi (Dall), Pilsbry, 1946, LMNA, **2:** 281.
Glyphyalinia raderi (Dall), Grimm, 1971, Sterkiana, **41:** 53.

HABITAT—A calciphile. Probably a burrower. The few specimens which have been collected were found amongst rocks.

Glyphyalinia floridana (Morrison, 1937) Map 219

Retinella floridana Morrison, Pilsbry, 1946, LMNA, **2:** 283.

HABITAT—Known only as a fossil.

Glyphyalinia pentadelphia (Pilsbry, 1900) Map 220

Retinella pentadelphia (Pilsbry), Pilsbry, 1946, LMNA, **2:** 284.
Glyphyalinia pentadelphia (Pilsbry), Hubricht, 1973, Sterkiana, **49:** 13.

HABITAT—Found in pockets of moist leaves in upland woods.

Glyphyalinia rhoadsi (Pilsbry, 1899) Map 223

Retinella rhoadsi (Pilsbry), Pilsbry, 1946, LMNA, **2:** 286.
Retinella rhoadsi austrina H. B. Baker, Pilsbry, 1946, LMNA, **2:** 287.
Glyphyalinia rhoadsi (Pilsbry), Zilch, 1959, Handb. Paläozool., **6**(2): 253.
Glyphyalinia rhoadsi austrina (H. B. Baker), Beetle, 1973, Sterkiana, **49:** 29.

HABITAT—Found in leaf litter in upland woods.

Glyphyalinia indentata (Authors) Map 222

Retinella indentata (Say), Pilsbry, 1946, LMNA, **2:** 288.
Retinella indentata paucilirata (Morelet), Pilsbry, 1946, LMNA, **2:** 291; Hubricht, 1965, Nautilus, **78:** 133.
Glyphyalinia indentata (Say), Zilch, 1959, Handb. Paläozool., **6**(2): 253.

HABITAT—Found in a variety of habitats, most commonly in leaf litter in woods, but also along roadsides and railroads, meadows, and urban areas.

REMARKS—What has been called *Glyphyalinia indentata* (Say, 1823) is a series of anatomical species, with little or no shell differences. Until specimens from the vicinity of Philadelphia, Pennsylvania, the type locality, have been dissected, it will not be possible to identify the true *G. indentata* and to describe the others.

Glyphyalinia ocoae Hubricht, 1978 Map 221

Glyphyalinia ocoae Hubricht, 1978, Malacol. Rev., **10:** 39.

HABITAT—Found in leaf litter on wooded hillsides and in ravines.

Glyphyalinia caroliniensis (Cockerell, 1890) Map 227

Retinella caroliniensis (Cockerell), Pilsbry, 1946, LMNA, **2:** 292.
Glyphyalinia caroliniensis (Cockerell), Hubricht, 1968, Sterkiana, **32:** 3.

HABITAT—Usually found under moist leaf litter on river bluffs, but sometimes found on mountainsides.

Glyphyalinia cryptomphala (Clapp, 1915) Map 226

Retinella cryptomphala (Clapp), Pilsbry, 1946, LMNA, **2:** 295.
Glyphyalinia cryptomphala (Clapp), Hubricht, 1964, Sterkiana, **16:** 7.

HABITAT—Usually found in moist leaf litter on river bluffs and ravines. Sometimes found in caves.

Glyphyalinia solida (H. B. Baker, 1930) Map 225

Retinella cryptomphala solida H. B. Baker, Pilsbry, 1946, LMNA, **2:** 298.
Glyphyalinia solida (H. B. Baker), Hubricht, 1965, Nautilus, **78:** 134.

HABITAT—Usually found in moist leaf litter on wooded hillsides and ravines.

Glyphyalinia pecki Hubricht, 1966 Map 228

Glyphyalinia pecki Hubricht, 1966, Nautilus, **80:** 55.

HABITAT—Known only from the total darkness of caves.

Glyphyalinia rimula Hubricht, 1968 Map 229

Glyphyalinia rimula Hubricht, 1968, Nautilus, **82:** 63.

HABITAT—Usually found in moist leaf litter on wooded hillsides and ravines; also in kudzu banks. Sometimes found in caves.

Glyphyalinia latebricola Hubricht, 1968 Map 232

Glyphyalinia latebricola Hubricht, 1968, Nautilus, **82:** 64.

HABITAT—Found on the undersides of stones on a rocky wooded hillside.

Glyphyalinia luticola Hubricht, 1966 Map 230

Glyphyalinia luticola Hubricht, 1966, Nautilus, **80:** 54.

HABITAT—Found crawling on the muddy ground in wet weather in floodplain woods. Also found in waste ground in urban areas.

Glyphyalinia umbilicata (Singley, in Cockerell) Map 231

Zonites indentatus var. *umbilicatus* 1893, Singley, *in* Cockerell, Brit. Natur., **3:** 81.
Glyphyalinia umbilicata (Singley), Hubricht, 1976, Nautilus, **90:** 105.

HABITAT—Usually found under logs and leaf litter in the woods bordering streams. Also found on waste ground in urban areas.

Glyphyalinia praecox (H. B. Baker, 1930) Map 235

Retinella praecox H. B. Baker, Pilsbry, 1946, LMNA, **2:** 299.
Glyphyalinia praecox (H. B. Baker), Hubricht, 1964, Sterkiana, **16:** 7.

HABITAT—Found under leaf litter on talus slopes or on floodplains.

Glyphyalinia junaluskana (Clench & Banks, 1932) Map 233

Retinella sculptilis junaluskana Clench & Banks, Pilsbry, 1946, LMNA, **2:** 304.
Glyphyalinia junaluskana (Clench & Banks), Hubricht, 1962, Nautilus, **75:** 125.

HABITAT—Found in moist leaf litter in deciduous woods on mountainsides.

Glyphyalinia picea Hubricht, 1976 Map 234

Glyphyalinia picea Hubricht, 1976, Malacol. Rev., **9:** 127.

HABITAT—Usually found in moist leaf litter on wooded hillsides.

Glyphyalinia sculptilis (Bland, 1858) Map 236

Retinella sculptilis (Bland), Pilsbry, 1946, LMNA, **2:** 300.
Retinella sculptilis subdola H. B. Baker, Pilsbry, 1946, LMNA, **2:** 303; Hubricht, 1965, Nautilus **78:** 134.
Glyphyalinia sculptilis (Bland), Zilch, 1959, Handb. Paläozool., **6**(2): 253.

HABITAT—Usually found under moist leaf litter in upland woods.

Mesomphix inornatus (Say, 1821) Map 237

Mesomphix inornatus (Say), Pilsbry, 1946, LMNA, **2:** 307.

HABITAT—Found about logs and in leaf litter in upland woods. A common species within its range.

Mesomphix andrewsae (Pilsbry, 1895) Map 241

Mesomphix andrewsae (Pilsbry), Pilsbry, 1946, LMNA, **2:** 310.
Mesomphix andrewsae montivagus (Pilsbry), 1946, LMNA, **2:** 312.

HABITAT—Found in moist leaf litter on mountainsides.

Mesomphix subplanus (A. Binney, 1842) Map 242

Mesomphix subplanus (A. Binney), Pilsbry, 1946, LMNA, **2:** 312.
Mesomphix subplanus planus Banks, Pilsbry, 1946, LMNA, **2:** 315.

HABITAT—Found about logs and in moist leaf litter, from about 2,000 ft to the summits of the mountains.

REMARKS—*Mesomphix s. planus* represents one extreme of variation. Some other mountaintop populations are intermediate between it and typical *M. subplanus.*

Mesomphix rugeli (W. G. Binney, 1879) Map 243

Mesomphix rugeli (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 318.
Mesomphix rugeli oxycoccus (Vanatta), Pilsbry, 1946, LMNA, **2:** 318.

HABITAT—Found under leaf litter on wooded hillsides or on mountains.

Mesomphix globosus (MacMillan, 1940) Map 240

Mesomphix pilsbryi globosus (MacMillan), Pilsbry, 1946, LMNA, **2:** 343; Hubricht, 1962, Nautilus, **76:** 6.

Mesomphix ruidus Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 74; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—Usually found in leaf litter on low ground, floodplains, and swamps.

Mesomphix latior (Pilsbry, 1900) Map 245

Mesomphix latior (Pilsbry), Pilsbry, 1946, LMNA, **2:** 321.
Mesomphix latior monticola Pilsbry, Pilsbry, 1946, LMNA, **2:** 322; Hubricht, 1962, Nautilus, **76:** 5.

HABITAT—Found under leaf litter on wooded hillsides.

Mesomphix perlaevis (Pilsbry, 1900) Map 238

Mesomphix perlaevis (Pilsbry), Pilsbry, 1946, LMNA, **2:** 319.

HABITAT—Found in the same habitats as *M. latior,* but I have never found them together.

Mesomphix vulgatus H. B. Baker, 1933 Map 246

Mesomphix vulgatus H. B. Baker, Pilsbry, 1946, LMNA, **2:** 324.
Mesomphix derochetus Hubricht, 1962, Nautilus, **76:** 4; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—Found under leaf litter on wooded hillsides, ravines, and sinks.

Mesomphix anurus Hubricht, 1962 Map 247

Mesomphix anurus Hubricht, 1962, Nautilus, **76:** 2.

HABITAT—Found in the same habitats as *M. vulgatus,* but I have never found them together.

Mesomphix friabilis (W. G. Binney, 1857) Map 239

Mesomphix friabilis (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 328.

HABITAT—Usually found on floodplains under leaf litter, but sometimes found on river bluffs and in ravines.

Mesomphix cupreus (Rafinesque, 1831) Map 244

Mesomphix cupreus (Rafinesque), Pilsbry, 1946, LMNA, **2:** 333.
Mesomphix cupreus politus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 338.

HABITAT—Found under leaf litter in upland woods.

Mesomphix capnodes (W. G. Binney, 1857) Map 250

Mesomphix capnodes (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 339.
Mesomphix cupreus ozarkensis (Pilsbry & Ferriss), Pilsbry, 1946, LMNA, **2:** 337; Hubricht, 1962, Sterkiana, **8:** 2.
Mesomphix cupreus miktus Pilsbry, 1946, LMNA, **2:** 339; Hubricht, 1965, Nautilus, **78:** 134.

HABITAT—A calciphile. Usually found under leaf litter in upland woods.

Mesomphix pilsbryi (Clapp, 1904) Map 248

Mesomphix pilsbryi (Clapp), Pilsbry, 1946, LMNA, **2:** 342.

HABITAT—Found on floodplains, as well as in upland woods, under leaf litter. Also found in waste ground and gardens in urban areas.

Vitrinizonites latissimus (Lewis, 1875) Map 249

Vitrinizonites latissimus (Lewis), Pilsbry, 1946, LMNA, **2:** 345.
Vitrinizonites uvidermis Pilsbry, Pilsbry, 1946, LMNA, **2:** 347; Hubricht, 1961, Nautilus, **74:** 166.

HABITAT—Found under leaf litter or crawling on the ground in wet weather. Usually found above 2,000 ft in the mountains, but may occur below 1,000 ft in the outlying hills.

Paravitrea multidentata (A. Binney, 1840) Map 251

Paravitrea multidentata (A. Binney), Pilsbry, 1946, LMNA, **2:** 352.

HABITAT—Found in pockets of deep, moist leaf litter on wooded hillsides and in ravines.

REMARKS—This species may have either radial rows of small teeth or oblique lamellae, with the former being more common. Shells from the northern part of the range (north of Pennsylvania) have the periphery rounded. South of Pennsylvania the shells have an angulate periphery. I have not seen enough material from Pennsylvania to determine whether these two forms intergrade or remain distinct.

Paravitrea lamellidens (Pilsbry, 1898) Map 254

Paravitrea lamellidens (Pilsbry), Pilsbry, 1946, LMNA, **2:** 358.

HABITAT—Found in the same habitats as *P. multidentata,* but also occurs at higher elevations.

Paravitrea clappi (Pilsbry, 1898) Map 255

Paravitrea clappi (Pilsbry), Pilsbry, 1946, LMNA, **2:** 359.

HABITAT—Found in moist leaf litter, usually above 5,000 ft.

Paravitrea variabilis H. B. Baker, 1929 Map 256

Paravitrea variabilis H. B. Baker, Pilsbry, 1946, LMNA, **2:** 363.

HABITAT—Found in the same habitats as *P. multidentata,* but I have never found the two species together.

Paravitrea umbilicaris (Ancey, 1887) Map 257

Paravitrea walkeri (Pilsbry), Pilsbry, 1946, LMNA, **2:** 362; Hubricht, 1976, Nautilus, **90:** 106.
Paravitrea umbilicaris (Ancey), Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—Found in the same habitats as *P. multilineata,* but does not occur with it.

REMARKS—This species has a character which I have not seen in any other species of *Paravitrea* and which is not mentioned in any description that I have seen. On the base next to the umbilicus, there is a spiral lamella which is about ½ whorl long. In the lamellate form of the species, this spiral lamella is well developed; in the dentate form, it is well developed only near the rows of teeth, becoming obsolete between.

Paravitrea andrewsae (W. G. Binney, 1879) Map 258

Paravitrea andrewsae (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 367.

HABITAT—Found in moist leaf litter on wooded mountainsides.

Paravitrea dentilla Hubricht, 1978 Map 259

Paravitrea dentilla Hubricht, 1978, Malacol. Rev., **10:** 41.

HABITAT—Found in leaf litter on river bluffs.

Paravitrea varidens Hubricht, 1978 Map 262

Paravitrea varidens Hubricht, 1978, Malacol. Rev., **10:** 43.

HABITAT—Found in leaf litter on wooded mountainsides. On the summit of Roan Mountain, it was found in a bramble patch.

Paravitrea mira Hubricht, 1975 Map 263

Paravitrea mira Hubricht, 1975, Nautilus, **89:** 1.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea ternaria Hubricht, 1978 Map 264

Paravitrea ternaria Hubricht, 1978, Malacol. Rev., **10:** 41.

HABITAT—Found in the same habitats as *P. mira.*

Paravitrea tridens Pilsbry, 1946 Map 265

Paravitrea capsella tridens Pilsbry, 1946, LMNA, **2:** 375.
Paravitrea tridens Pilsbry, Hubricht, 1965, Nautilus, **78:** 134.

HABITAT—Found in moist leaf litter on wooded hillsides.

Paravitrea reesei Morrison, 1937 Map 266

Paravitrea reesei Morrison, Pilsbry, 1946, LMNA, **2:** 373.

HABITAT—Found under moist leaf litter or rocks on river bluffs or ravines.

Paravitrea amicalola Hubricht, 1976 Map 267

Paravitrea amicalola Hubricht, 1976, Malacol. Rev., **9:** 129.

HABITAT—Found in pockets of deep, moist leaf litter on wooded hillsides.

Paravitrea septadens Hubricht, 1978 Map 268

Paravitrea septadens Hubricht, 1978, Malacol. Rev., **10:** 39.

HABITAT—Found in the same habitat as *P. multidentata* and usually found with it.

Paravitrea subtilis Hubricht, 1978 Map 269

Paravitrea subtilis Hubricht, 1978, Malacol. Rev., **10:** 40.

HABITAT—Found in leaf litter on wooded hillsides and in ravines.

Paravitrea bidens Hubricht, 1963 Map 270

Paravitrea bidens Hubricht, 1963, Nautilus, **76:** 140.

HABITAT—Found in pockets of deep, wet leaves on wooded hillsides.

REMARKS—This species becomes mature in midwinter and dies off during the forepart of April.

Paravitrea seradens Hubricht, 1972 Map 271

Paravitrea seradens Hubricht, 1972, Nautilus, **86:** 16.

HABITAT—Found in moist leaf litter on wooded hillsides and in ravines.

Paravitrea toma Hubricht, 1975 Map 272

Paravitrea toma Hubricht, 1975, Nautilus, **89:** 2.

HABITAT—Found in the same habitat as *P. seradens.*

Paravitrea lacteodens (Pilsbry, 1903) Map 273

Paravitrea capsella lacteodens (Pilsbry), Pilsbry, 1946, LMNA, **2:** 376.

HABITAT—Unknown, but probably in leaf litter on a mountainside.

Paravitrea significans (Bland, 1866) Map 252

Paravitrea significans (Bland), Pilsbry, 1946, LMNA, **2:** 380.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea calcicola H. B. Baker, 1931 Map 274

Paravitrea calcicola H. B. Baker, Pilsbry, 1946, LMNA, **2:** 378.

HABITAT—A calciphile. Found under moist leaf litter on rocky wooded hillsides and in ravines.

Paravitrea conecuhensis (Clapp, 1917) Map 253

Paravitrea conecuhensis (Clapp), Pilsbry, 1946, LMNA, **2:** 384.

HABITAT—A calciphile. Found under moist leaf litter on wooded floodplains and talus slopes.

Paravitrea placentula (Shuttleworth, 1852) Map 275

Paravitrea placentula (Shuttleworth), Pilsbry, 1946, LMNA, **2:** 369.
Paravitrea placentula lithodora Pilsbry, 1946, LMNA, **2:** 371; Hubricht, 1968, Sterkiana, **32:** 4.
Paravitrea lithodora Pilsbry, Branson & Batch, 1968, Sterkiana, **32:** 13.

HABITAT—Found under leaf litter on wooded hillsides and in ravines.

Paravitrea pilsbryana (Clapp, 1919) Map 277

Paravitrea pilsbryana (Clapp), Pilsbry, 1946, LMNA, **2:** 379.

HABITAT—A calciphile. Found under moist leaf litter on rocky wooded hillsides and in ravines.

Paravitrea capsella (Authors) Map 260

Paravitrea capsella (Gould), Pilsbry, 1946, LMNA, **2:** 374 (in part).

[*Paravitrea placentula* (Shuttleworth), Hubricht, 1974, Malacol. Rev., **7:** 34.]

REMARKS—What has been called *P. capsella* by Pilsbry and others is not that species, but a complex of anatomically distinct species with little or no shell differences. It will be necessary to re-collect all of the lots that have been labeled *P. capsella* and dissect them to make a positive identification.

Paravitrea tiara Hubricht, 1978 Map 278

Paravitrea tiara Hubricht, 1978, Malacol. Rev., **10:** 44.

HABITAT—Found in leaf litter on wooded hillsides.

Paravitrea alethia Hubricht, 1978 Map 279

Paravitrea alethia Hubricht, 1978, Malacol. Rev., **10:** 44.

HABITAT—Found in leaf litter in a wooded ravine.

Paravitrea bellona Hubricht, 1978 Map 280

Paravitrea bellona Hubricht, 1978, Malacol. Rev., **10:** 46.

HABITAT—Found in leaf litter on wooded river bluffs and in ravines.

Paravitrea ceres Hubricht, 1978 Map 281

Paravitrea ceres Hubricht, 1978, Malacol. Rev., **10:** 46.

HABITAT—Found in leaf litter on a wooded hillside.

Paravitrea diana Hubricht, 1983 Map 282

Paravitrea diana Hubricht, 1983, Gastropodia **2:** 14.

HABITAT—Found in leaf litter on a wooded hillside.

Paravitrea hera Hubricht, 1983 Map 283

Paravitrea hera Hubricht, 1983, Gastropodia, **2:** 15.

HABITAT—Found in leaf litter on river bluffs.

Paravitrea blarina Hubricht, 1963 Map 276

Paravitrea blarina Hubricht, 1963, Nautilus, **76:** 141.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea tantilla Hubricht, 1963 Map 284

Paravitrea tantilla Hubricht, 1963, Nautilus, **76:** 141.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea metallacta Hubricht, 1963 Map 285

Paravitrea metallacta Hubricht, 1963, Nautilus, **76:** 142.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea lapilla Hubricht, 1965 Map 286

Paravitrea lapilla Hubricht, 1965, Nautilus, **79:** 5.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea pontis H. B. Baker, 1928 Map 287

Paravitrea pontis H. B. Baker, Pilsbry, 1946, LMNA, **2:** 381.
Paravitrea grimmi Hubricht, 1968, Nautilus, **82:** 66.

HABITAT—A calciphile. Found under leaf litter on wooded hillsides and in ravines.

Paravitrea simpsoni (Pilsbry, 1889) Map 288

Paravitrea simpsoni (Pilsbry), Pilsbry, 1946, LMNA, **2:** 383.

HABITAT—A calciphile. Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea petrophila (Bland, 1883) Map 261

Paravitrea petrophila (Bland), Pilsbry, 1946, LMNA, **2:** 385.
Paravitrea smithi (Walker), Pilsbry, 1946, LMNA, **2:** 384; Hubricht, 1976, Nautilus, **90:** 106.

HABITAT—Found under moist leaf litter on wooded hillsides and in ravines.

Paravitrea aulacogyra (Pilsbry & Ferriss, 1906) Map 291

Paravitrea aulacogyra (Pilsbry & Ferriss), Pilsbry, 1946, LMNA, **2:** 387.

REMARKS—To the best of my knowledge, this species is known only from the original collection, a single dead shell. The large size (8 mm diameter) and the few whorls (5½) distinguish it from any other species of *Paravitrea.* This large size and few whorls suggest that it may not belong in that genus. Until living, mature specimens are collected and dissected, its status will be in doubt.

Pilsbryna aurea H. B. Baker, 1929 Map 292

Pilsbryna aurea H. B. Baker, Pilsbry, 1946, LMNA, **2:** 389.
Paravitrea (*Pilsbryna*) *aurea* (H. B. Baker), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 52.

HABITAT—Found in pockets of deep, wet leaves on wooded hillsides.

Pilsbryna castanea H. B. Baker, 1931 Map 293

Pilsbryna castanea H. B. Baker, Pilsbry, 1946, LMNA, **2:** 391.
Paravitrea (*Pilsbryna*) *castanea* (H. B. Baker), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 52.

HABITAT—Found in the same habitat as *P. aurea.*

Hawaiia minuscula (A. Binney, 1840) Map 289

Hawaiia minuscula (A. Binney), Pilsbry, 1946, LMNA, **2:** 420.
[*Hawaiia minuscula alachuana* (Dall), Bequaert & Miller, 1973, Moll. Arid Southwest, p. 145.]

HABITAT—A species of bare ground. I have never found it in leaf litter. Found crawling on the bare ground on floodplains, meadows, roadsides, along railroads, and on waste ground in urban areas.

Hawaiia alachuana (Dall, 1885) Map 290

Hawaiia minuscula alachuana (Dall), Pilsbry, 1946, LMNA, **2:** 424.
Helicodiscus jacksoni Hubricht, 1962, Nautilus, **75:** 106.
Helicodiscus alachuana (Dall, 1885), Hubricht, 1978, Malacol. Rev., **10:** 48.

HABITAT—A calciphile. Found in leaf litter in deciduous woods.

Gastrodonta interna interna (Say, 1822) Map 295

Gastrodonta interna (Say), Pilsbry, 1946, LMNA, **2:** 428.

HABITAT—Found in and about rotting logs or in deep pockets of wet leaf litter.

Gastrodonta interna fonticula Wurtz, 1948 Map 294

Gastrodonta fonticula Wurtz, 1948, Nautilus, **61:** 86.
Gastrodonta interna fonticula Wurtz, Beetle, 1973, Sterkiana, **49:** 30.

HABITAT—Found in the same habitat as the typical subspecies.

REMARKS—The diameter of the umbilicus varies considerably in *G. i. interna.* It may be essentially closed to distinctly open. In specimens from Lauderdale County, Mississippi, the umbilicus is

intermediate between typical *interna* and *fonticula*. There is no intergradation, however, between *interna* and *fonticula* in the area where their ranges join. The range of *fonticula* appears to be distinct from that of typical *interna*.

Ventridens collisella (Pilsbry, 1896) Map 305

Ventridens collisella (Pilsbry), Pilsbry, 1946, LMNA, **2:** 450.
Zonitoides (*Ventridens*) *collisella* (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—A calciphile. Found in leaf litter on wooded hillsides and in ravines. Found only at low elevations, usually below 1,000 ft.

Ventridens decussatus (Walker & Pilsbry, 1902) Map 297

Ventridens gularis decussatus (Walker & Pilsbry), Pilsbry, 1946, LMNA, **2:** 448.
Ventridens decussatus (Walker & Pilsbry), Hubricht, 1964, Malacologia, **1:** 420.
Zonitoides (*Ventridens*) *decussatus* (Walker & Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found at higher elevations in leaf litter in oak woods, usually above 3,000 ft.

Ventridens pilsbryi Hubricht, 1964 Map 296

Ventridens pilsbryi Hubricht, 1964, Malacologia, **1:** 418.
Zonitoides (Ventridens) pilsbryi (Hubricht), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—A species of wooded hillsides and in ravines, where it is found under leaf litter and around logs. Usually found on limestone, but also occurs on sandstone.

Ventridens theloides (Walker & Pilsbry, 1902) Map 306

Ventridens gularis theloides (Walker & Pilsbry), Pilsbry, 1946, LMNA, **2:** 447.
Ventridens gularis form *nodus* Pilsbry, 1946, LMNA, **2:** 447.
Ventridens theloides (Walker & Pilsbry), Hubricht, 1964, Malacologia, **1:** 420.
Ventridens nodus Pilsbry, Branson & Batch, 1971, Sterkiana, **43:** 6.
Zonitoides (Ventridens) theloides (Walker & Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in the same habitat as *V. pilsbryi,* but rarely found with it.

Ventridens monodon Hubricht, 1964 Map 298

Ventridens monodon Hubricht, 1964, Malacologia, **1:** 420.
Zonitoides (Ventridens) monodon (Hubricht), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—A calciphile. Found in leaf litter on wooded hillsides and in ravines.

Ventridens lawae (W. G. Binney, 1892) Map 310

Ventridens lawae (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 453.
Ventridens lawae cumberlandicus Pilsbry, 1946, LMNA, **2:** 455; Hubricht, 1964, Malacologia, **1:** 422.
Zonitoides (Ventridens) lawae (W. G. Binney), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in the same habitat as *V. pilsbryi,* but rarely found with it.

Ventridens coelaxis (Pilsbry, 1899) Map 299

Ventridens coelaxis (Pilsbry), Pilsbry, 1946, LMNA, **2:** 456.
Zonitoides (Ventridens) coelaxis (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in leaf litter on mountainsides, usually at higher elevations.

Ventridens lasmodon (Phillips, 1841) Map 302

Ventridens lasmodon (Phillips), Pilsbry, 1946, LMNA, **2:** 457.
Zonitoides (Ventridens) lasmodon (Phillips), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 22.

HABITAT—Found in the same habitats as *V. pilsbryi,* but rarely found with it.

Ventridens gularis (Say, 1822) Map 300

Ventridens gularis (Say), Pilsbry, 1946, LMNA, **2:** 443.
Ventridens suppressus magnidens Pilsbry, 1946, LMNA, **2:** 442; Hubricht, 1964, Malacologia, **1:** 424.
[*Ventridens gularis cerinoideus* (Anthony), Grimm, 1971, Sterkiana, **41:** 54.]
Zonitoides (Ventridens) gularis (Say), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in leaf litter on wooded hillsides and in ravines; also on floodplains and on roadsides.

Ventridens cerinoideus (Anthony, 1865) Map 301

Ventridens cerinoideus (Anthony), Pilsbry, 1946, LMNA, **2:** 451.

Ventridens gularis cerinoideus (Anthony), Grimm, 1971, Sterkiana, **41:** 54.
Zonitoides (Ventridens) cerinoideus (Anthony), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—A species of the Atlantic Coastal Plain. Found under litter in swamps and marshes, floodplains, and on roadsides.

Ventridens suppressus (Say, 1829) Map 307

Ventridens suppressus (Say), Pilsbry, 1946, LMNA, **2:** 438.
Ventridens suppressus divisidens Pilsbry, 1946, LMNA, **2:** 442; Hubricht, 1964, Malacologia, **1:** 424.
Zonitoides (Ventridens) suppressus (Say), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in leaf litter in upland woods, often in rocky places.

Ventridens virginicus (Vanatta, 1936) Map 308

Ventridens suppressus virginicus (Vanatta), Pilsbry, 1946, LMNA, **2:** 440.
Ventridens virginicus (Vanatta), Hubricht, 1964, Malacologia, **1:** 425.
Zonitoides (Ventridens) virginicus Vanatta, Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 21.

HABITAT—Found in the same habitats as *V. suppressus,* but not found with it.

Ventridens demissus (A. Binney, 1843) Map 309

Ventridens demissus (A. Binney), Pilsbry, 1946, LMNA, **2:** 459.
Zonitoides (Ventricallus) demissus (Binney), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 19.

HABITAT—Found in leaf litter on wooded hillsides, in ravines, and on floodplains. Also a frequent urban snail.

Ventridens arcellus Hubricht, 1976 Map 311

Ventridens arcellus Hubricht, 1976, Malacol. Rev., **9:** 129.
Zonitoides (Ventricallus) arcellus (Hubricht), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—Found at higher elevations (above 3,000 ft) in the mountains. Usually found in litter or crawling about in wet weather.

Ventridens brittsi (Pilsbry, 1892) Map 313

Ventridens demissus brittsi (Pilsbry), Pilsbry, 1946, LMNA, **2:** 460.
Ventridens brittsi (Pilsbry), Dundee, 1955, Nautilus, **69:** 17.
Zonitoides (Ventricallus) demissus ssp? *brittsi* (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 19.

HABITAT—Found on mountainsides and in ravines, under rocks and logs, and in leaf litter.

Ventridens percallosus (Pilsbry, 1898) Map 303

Ventridens percallosus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 465.
Zonitoides (Ventricallus) percallosus (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—Found in the same habitats as *V. demissus.*

Ventridens acerra (Lewis, 1870) Map 315

Ventridens acerra (Lewis), Pilsbry, 1946, LMNA, **2:** 463 (in part).
Zonitoides (Ventricallus) acerra (Lewis), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—Found in leaf litter on wooded hillsides and in ravines, usually in rocky places. A species of lower elevations, below 2,000 ft.

Ventridens ligera (Say, 1821) Map 312

Ventridens ligera (Say), Pilsbry, 1946, LMNA, **2:** 465.
Zonitoides (Ventricallus) ligerus (Say), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—A species of wet, weedy, open ground; meadows, roadsides, railroads, etc., but sometimes found in low woods.

Ventridens intertextus (A. Binney, 1841) Map 316

Ventridens intertextus (A. Binney), Pilsbry, 1946, LMNA, **2:** 468.
Zonitoides (Ventricallus) intertextus (Binney), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—Found under leaf litter in woods, often where the soil is quite acid.

Ventridens eutropis Pilsbry, 1946 Map 304

Ventridens intertextus eutropis Pilsbry, 1946, LMNA, **2:** 470.
Ventridens eutropis Pilsbry, Hubricht, 1965, Nautilus, **78:** 135.
Zonitoides (Ventricallus) eutropis (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—Found under leaf litter in upland oak woods.

Ventridens volusiae (Pilsbry, 1900) Map 314

Ventridens intertextus volusiae (Pilsbry), Pilsbry, 1946, LMNA, **2:** 471.
Ventridens volusiae (Pilsbry), Hubricht, 1965, Nautilus, **78:** 135.
Zonitoides (Ventricallus) volusiae (Pilsbry), Riedel, 1980, Genera Zonitidarum, Backhuys, Rotterdam, p. 20.

HABITAT—A calciphile. Found in litter in rather wet places in the St. Johns River drainage.

Zonitoides elliotti (Redfield, 1856) Map 317

Ventridens elliotti (Redfield), Pilsbry, 1946, LMNA, **2:** 471.
Zonitoides elliotti (Redfield), MacMillan, 1949, Ann. Carnegie Mus., **31:** 179.

HABITAT—Found in leaf litter and about rotting logs on mountainsides and in ravines.

REMARKS—Placed in the genus *Ventridens* by Pilsbry because of its size and thickness and the presence of a basal callus on its peristome. In its shape it resembles *Zonitoides patuloides,* which also has a thin basal callus on its peristome.

Zonitoides patuloides (Pilsbry, 1895) Map 318

Zonitoides patuloides (Pilsbry), Pilsbry, 1946, LMNA, **2:** 485.

HABITAT—Found in pockets of deep, moist leaves on mountainsides and in ravines.

Zonitoides limatulus (W. G. Binney, 1840) Map 319

Zonitoides limatulus (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 484.

HABITAT—Found in floodplain woods, crawling on muddy ground in wet weather.

Zonitoides lateumbilicatus (Pilsbry, 1895) Map 320

Zonitoides lateumbilicatus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 486.

HABITAT—A calciphile. Found in leaf litter on wooded hillsides and in ravines in eastern Kentucky. In northeastern Alabama it is found in places which are unusually cool, such as northern hillsides near large springs.

Zonitoides nitidus (Müller, 1774) Map 322

Zonitoides nitidus (Müller), Pilsbry, 1946, LMNA, **2:** 476.

HABITAT—A species of low ground. Found about logs and litter on floodplains, marshes, and wet roadsides. A Holarctic species.

Zonitoides arboreus (Say, 1816) Map 321

Zonitoides arboreus (Say), Pilsbry, 1946, LMNA, **2:** 480.

HABITAT—Usually found on rotting logs and in floodplains, as well as upland woods. It is also found on roadsides and along railroads and is a common urban snail.

Zonitoides kirbyi Fullington, 1974 Map 326

Zonitoides kirbyi Fullington, 1974, Nautilus, **88:** 91.

HABITAT—Originally described from a cave, but has since been found to be an epigean species also. Found under logs, along railroads, and about the mouths of caves.

Striatura milium (Morse, 1859) Map 324

Striatura milium (Morse), Pilsbry, 1946, LMNA, **2:** 495.

HABITAT—Found in moist leaf litter, usually in upland woods.

Striatura meridionalis (Pilsbry & Ferriss, 1906) Map 323

Striatura meridionalis (Pilsbry & Ferriss), Pilsbry, 1946, LMNA, **2:** 493.

HABITAT—Found in moist leaf litter on wooded hillsides and in ravines. Occasionally found on floodplains.

Striatura exigua (Stimpson, 1847) Map 325

Striatura exigua (Stimpson), Pilsbry, 1946, LMNA, **2:** 490.

HABITAT—Found in swampy woods in the north, but in moist leaf litter in the Appalachian Mountains.

Striatura ferrea Morse, 1864 Map 327

Striatura ferrea Morse, Pilsbry, 1946, LMNA, **2:** 497.

HABITAT—Found in leaf litter in upland woods.

Family VITRINIDAE

Vitrina limpida Gould, 1850 Map 330

Vitrina limpida Gould, Pilsbry, 1946, LMNA, **2:** 497.
Vitrina angelicae limpida Gould, Forcart, 1955, Arch. Molluskenk., **84:** 155.

HABITAT—A species of open, grassy places; meadows, roadsides, etc. It becomes mature in early winter and dies off in March.

Vitrina alaskana Dall, 1905 Map 329

Vitrina alaskana Dall, Pilsbry, 1946, LMNA, **2:** 503.

HABITAT—Found both in woodland and grassy situations. Common in western United States and Canada.

Superfamily ARIOPHANTACEA
Family HELICARIONIDAE

Euconulus fulvus (Müller, 1774) Map 331

Euconulus fulvus (Müller), Pilsbry, 1946, LMNA, **2:** 235 (in part).

HABITAT—Found in moist leaf litter on wooded hillsides and in ravines. A Holarctic species.

Euconulus chersinus (Say, 1821) Map 328

Euconulus chersinus (Say), Pilsbry, 1946, LMNA, **2:** 239 (in part).

HABITAT—Found in moist leaf litter on wooded hillsides and in ravines.

Euconulus polygyratus (Pilsbry, 1899) Map 335

Euconulus chersinus polygyratus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 240.
Euconulus polygyratus (Pilsbry), Grimm, 1971, Sterkiana, **41:** 53.

HABITAT—Found in much the same habitats as *E. fulvus.*

Euconulus trochulus (Reinhardt, 1883) Map 332

Euconulus chersinus trochulus (Reinhardt), Pilsbry, 1946, LMNA, **2:** 241.
Euconulus trochulus (Reinhardt), Hubricht, 1983, Gastropodia, **2:** 13.

HABITAT—Found in the same habitats as *E. chersinus.*

Euconulus dentatus (Sterki, 1893) Map 333

Euconulus chersinus dentatus (Sterki), Pilsbry, 1946, LMNA, **2:** 242.
Euconulus dentatus (Sterki), Hubricht, 1965, Nautilus, **79:** 5.

HABITAT—Found in leaf litter, but usually in dryer situations than those of *E. chersinus* and *E. trochulus.*

REMARKS—Because *E. dentatus* becomes mature in winter and dies off in April, it is not collected as often as *E. chersinus* and *E. trochulus.*

Dryachloa dauca Thompson & Lee, 1981 Map 337

Dryachloa dauca Thompson & Lee, 1981, Malacol. Rev., **13:** 37.

HABITAT—Found in lawns and along roadsides. Possibly an introduced species.

Guppya gundlachi (Pfeiffer, 1840) Map 338

Guppya gundlachi (Pfeiffer), Pilsbry, 1946, LMNA, **2:** 244.
Guppya miamiensis Pilsbry, Pilsbry, 1946, LMNA, **2:** 244; Hubricht, 1976, Nautilus, **90:** 105.

HABITAT—Found in leaf litter in swamps and other wet places and on the undersides of palmetto leaves. Common in Central America and the West Indies.

Guppya sterkii (Dall, 1888) Map 334

Guppya sterkii (Dall), Pilsbry, 1946, LMNA, **2:** 245.

HABITAT—Found in moist leaf litter on wooded hillsides and in ravines.

Suborder HOLOPODOPES
Superfamily RHYTIDACEA
Family HAPLOTREMATIDAE

Haplotrema concavum (Say, 1821) Map 336

Haplotrema concavum (Say), Pilsbry, 1946, LMNA, **2:** 208.
[*Haplotrema kendeighi* Webb, Branson, 1964, Proc. Okla. Acad. Sci., **44:** 29.]

HABITAT—Usually found in leaf litter in upland woods.

REMARKS—Reputed to be a carnivorous snail, but I have found it feeding on dead shells more often than on living ones. This suggests that it is more interested in the lime than in food.

Haplotrema kendeighi Webb, 1951 Map 339

Haplotrema concavum kendeighi Webb, 1951, Trans. Kan. Acad. Sci., **54:** 78.
Haplotrema kendeighi Webb, Hubricht, 1956, Nautilus, **69:** 126.

HABITAT—Found on mountainsides in leaf litter or crawling on the ground in wet weather. Usually found at higher elevations (above 2,000 ft), frequently in company with *H. concavum.*

Superfamily OLEACINACEA
Family OLEACINIDAE

Euglandina rosea (Férussac, 1818) Map 340

Euglandina rosea (Férussac), Pilsbry, 1946, LMNA, **2:** 194.
Euglandina rosea bullata Gould, Pilsbry, 1946, LMNA, **2:** 194.

HABITAT—Found in a variety of habitats; in woods, roadsides, the edges of marshes, and waste ground and gardens in urban areas.

REMARKS—Shells from peninsular Florida are more slender than those from other parts of its range. In Florida there is a race in which the shell is quite small. This small shell size appears to be genetic, as this race lays a smaller, more elongated egg.

Euglandina texasiana (Pfeiffer, 1857) Map 341

Euglandina texasiana (Pfeiffer), Pilsbry, 1946, LMNA, **2:** 195.

HABITAT—A calciphile. Found in rather low places, where it is damp and there is cover. Also found climbing on the sides of buildings in urban areas in wet weather. Found in Mexico as far south as San Luis Potosí.

Euglandina singleyana (W. G. Binney, 1892) Map 342

Euglandina singleyana (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 197.

HABITAT—A calciphile. Usually found under and near rocks on stream bluffs. Also found in concrete culverts.

Varicella gracillima (Pfeiffer, 1839) Map 343

Varicella gracillima floridana Pilsbry, Pilsbry, 1946, LMNA, **2:** 200.
Varicella gracillima (Pfeiffer), Hubricht, 1983, Gastropodia, **2:** 13.

HABITAT—A calciphile. Found in leaf litter or under rocks, usually in hammocks, but sometimes under sea grape above the beaches. Climbs up the trunks of trees in wet weather. Common in western Cuba.

Family SAGDIDAE
Subfamily SAGDINAE

Lacteoluna selenina (Gould, 1848) Map 344

Lacteoluna selenina (Gould), Pilsbry, 1940, LMNA, **1:** 981.

HABITAT—A calciphile. Found on the undersides of rocks, logs, old palm fronds, and other litter; in hammocks or other woodlands. The shells are usually heavily coated with fine, dead plant material arranged to give the shell a carinated appearance. Common in the West Indies.

Subfamily THYSANOPHORINAE

Thysanophora horni (Gabb, 1866) Map 345

Thysanophora horni (Gabb), Pilsbry, 1940, LMNA, **1:** 986.

HABITAT—Found under logs, dead palm fronds, and trash; usually in woods, but also in rather open scrubland. Common in Arizona, New Mexico, and Mexico.

Thysanophora plagioptycha (Shuttleworth, 1854) Map 346

Thysanophora plagioptycha (Shuttleworth), Pilsbry, 1940, LMNA, **1:** 989.

HABITAT—Found on the undersides of palm leaves, either living or dead on the ground; also under stones. Usually in rather wet places. Common in West Indies and Central America.

Hojeda inaguensis (Weinland, 1880) Map 347

Hojeda inaguensis (Weinland), Pilsbry, 1940, LMNA, **1:** 983.

HABITAT—Found in moist leaf litter in hammocks. Also found in the Bahamas.

Superfamily ACHATINACEA
Family ACHATINIDAE
Subfamily SUBULININAE

Lamellaxis mexicanum (Pfeiffer, 1866)

Lamellaxis mexicanum (Pfeiffer), Hubricht, 1960, Nautilus, **74:** 82.

HABITAT—A Mexican species known from beach drift in southern Texas.

Beckianum beckianum (Pfeiffer, 1846)

Synopeas beckianum (Pfeiffer), Hubricht, 1960, Nautilus, **74:** 82.
Beckianum beckianum (Pfeiffer), Baker, 1961, Nautilus, **75:** 84.

HABITAT—Known from beach drift in southern Texas. Ranges throughout most of Neotropica.

Superfamily BULIMULACEA
Family UROCOPTIDAE
Subfamily UROCOPTINAE

Cochlodinella poeyana (Orbigny, 1841) Map 348

Cochlodinella poeyana (Orbigny), Pilsbry, 1946, LMNA, **2:** 105.

HABITAT—A calciphile. Found under stones, usually in sunny situations, but also in hammocks. The main range of this species is in western Cuba.

Subfamily MICROCERAMINAE

Microceramus pontificus (Gould, 1848) Map 349

Microceramus pontificus (Gould), Pilsbry, 1946, LMNA, **2:** 109.
Microceramus floridanus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 110; Hubricht, 1977, Malacol. Rev., **10:** 37.

HABITAT—A calciphile. Found under stones, usually in hammocks, climbing up the trunks of trees in wet weather, but also along railroads and in dumps.

Microceramus texanus (Pilsbry, 1898) Map 350

Microceramus texanus (Pilsbry), Pilsbry, 1946, LMNA, **2:** 110.

HABITAT—Found on or around rocks, usually on wooded bluffs along streams.

Subfamily HOLOSPIRINAE

Holospira goldfussi (Menke, 1847) Map 351

Holospira goldfussi (Menke), Pilsbry, 1946, LMNA, **2:** 115.
Holospira goldfussi anacachensis Bartsch, Pilsbry, 1946, LMNA, **2:** 117.

HABITAT—A calciphile. Found on or near rocks in the hill country above the Balcones Escarpment.

Holospira montivaga Pilsbry, 1946

Holospira montivaga Pilsbry, 1946, LMNA, **2:** 123.

HABITAT—Known from beach drift in southern Texas; main range in Guadaloupe Mountains of New Mexico.

Metastoma roemeri (Pfeiffer, 1848) Map 352

Holospira roemeri (Pfeiffer), Pilsbry, 1946, LMNA, **2:** 114.
Holospira roemeri brevissima Pilsbry, 1950, Nautilus, **64:** 56.
Metastoma roemeri (Pfeiffer), Thompson, 1971, Bull. Fla. State Mus., Biol. Sci., **15:** 300.
Metastoma roemeri brevissima (Pilsbry), Cheatum & Fullington, 1973, Dallas Mus. Nat. Hist., Bull. **1:** 43.

HABITAT—A calciphile. Found on or near rocks and ledges on stream bluffs, mountainsides, and in ravines. Also found in New Mexico.

Family BULIMULIDAE
Subfamily BULIMULINAE

Rabdotus alternatus (Say, 1830) Map 354

Bulimulus alternatus mariae (Albers), Pilsbry, 1946, LMNA, **2:** 14.
Bulimulus alternatus (Say), Hubricht, 1960, Nautilus, **74:** 68.
Rabdotus alternatus alternatus (Say), Pratt, 1969, Amer. Malacol. Union, Ann. Rep., **1969:** 47.
Rabdotus alternatus hesperius (Pilsbry & Ferriss), Pratt, 1969, Amer. Malacol. Union, Ann. Rep., **1969:** 47.

HABITAT—A semiarboreal species. Found on shrubs, fenceposts, etc., in upland scrub. Also found in concrete culverts. Common in eastern Mexico.

Rabdotus mooreanus (Pfeiffer, 1868) Map 353

Bulimulus dealbatus mooreanus (Pfeiffer), Pilsbry, 1946, LMNA, **2:** 12.
Bulimulus dealbatus jonesi Clench, Pilsbry, 1946, LMNA, **2:** 10; Hubricht, 1962, Nautilus, **75:** 166.
Bulimulus schiedeanus pecosensis Pilsbry & Ferriss, Pilsbry, 1946, LMNA, **2:** 17.
Bulimulus mooreanus (Pfeiffer), Hubricht, 1960, Nautilus, **74:** 69.
Bulimulus mooreanus pecosensis Pilsbry & Ferriss, Hubricht, 1960, Nautilus, **74:** 69.
Rabdotus mooreanus (Pfeiffer), Pratt, 1969, Amer. Malacol. Union, Ann. Rep., **1969:** 47.
Rabdotus mooreanus jonesi (Clench), Pratt, 1974, Bull. Amer. Malacol. Union, **1973:** 25.

HABITAT—A semiarboreal species. Found on grasses and shrubs, usually in open country.

Rabdotus dealbatus dealbatus (Say, 1821) Map 355

Bulimulus dealbatus (Say), Pilsbry, 1946, LMNA, **2:** 7.
Bulimulus dealbatus ozarkensis Pilsbry & Ferriss, Pilsbry, 1946, LMNA, **2:** 10; Branson, 1962, Proc. Okla. Acad. Sci., **42:** 75.
Rabdotus dealbatus dealbatus (Say), Pratt, 1969, Amer. Malacol. Union, Ann. Rep., **1969:** 47.

HABITAT—A calciphile. Found crawling on the ground or on low vegetation in wet weather. Found in concrete culverts in Texas.

Rabdotus dealbatus ragsdalei (Pilsbry, 1890) Map 356

Bulimulus dealbatus ragsdalei (Pilsbry), Pilsbry, 1946, LMNA, **2:** 11.
Rabdotus dealbatus ragsdalei (Pilsbry), Pratt, 1969, Amer. Malacol. Union, Ann. Rep., **1969:** 47.

HABITAT—Found in the same habitats as the typical subspecies, but in a drier region.

Drymaeus dominicus (Reeve, 1850) Map 357

Drymaeus dominicus (Reeve), Pilsbry, 1946, LMNA, **2:** 24.

HABITAT—An arboreal species. Found on the outer twigs of trees or on the undersides of palm fronds.

Drymaeus dormani (W. G. Binney, 1857) Map 358

Drymaeus dormani (W. G. Binney), Pilsbry, 1946, LMNA, **2:** 23.

HABITAT—Found in the same habitat as *D. dominicus,* but I have never seen them together.

Drymaeus multilineatus (Say, 1825) Map 359

Drymaeus multilineatus (Say), Pilsbry, 1946, LMNA, **2:** 26.

HABITAT—Found on the twigs of trees and shrubs, rarely more than 6 ft above the ground. Also found on brick walls and the sides of houses. Reported from Central America, Mexico, and northern South America.

Subfamily ORTHALICINAE

Orthalicus floridensis Pilsbry, 1899 Map 360

Orthalicus floridensis Pilsbry, Pilsbry, 1946, LMNA, **2:** 35.

HABITAT—An arboreal species. Found on the larger branches of smooth-barked trees.

Orthalicus reses (Say, 1830) Map 361

Orthalicus reses (Say), Pilsbry, 1946, LMNA, **2:** 32.
Orthalicus reses nesodryas Pilsbry, 1946, LMNA, **2:** 33.

HABITAT—Found in the same habitat as *O. floridensis.*

Liguus fasciatus (Müller, 1774) Map 362

Liguus fasciatus (Müller), Pilsbry, 1946, LMNA, **2:** 53–101. (No attempt will be made here to list all of the "subspecies" and color varieties reviewed by Pilsbry.)

HABITAT—An arboreal species. Found on the trunks and larger limbs of smooth-barked trees in the hammocks. Also lives in Cuba.

Superfamily POLYGYRACEA
Family POLYGYRIDAE
Subfamily POLYGYRINAE

Polygyra cereolus (Muhlfeld, 1818) Map 363

Polygyra cereolus (Muhlfeld), Pilsbry, 1940, LMNA, **1:** 582.
Polygyra cereolus floridana Hemphill, Pilsbry, 1940, LMNA, **1:** 586; Hubricht, 1976, Nautilus, **90:** 105.
Polygyra septemvolva volvoxis (Pfeiffer), Pilsbry, 1940, LMNA, **1:** 590; Hubricht, 1976, Nautilus, **90:** 105.
Polygyra septemvolva febigeri (Bland), Pilsbry, 1940, LMNA, **1:** 591; Hubricht, 1976, Nautilus, **90:** 105.
[*Polygyra septemvolva* (Say), Hubricht, 1953, Nautilus, **66:** 116.]

HABITAT—Found in low ground in sunny situations. In peninsular Florida it is generally distributed, but elsewhere it is confined to coastal regions, above the high strand and on the margins of salt marshes. In Lauderdale County, Mississippi, it is found in an area where the well water is salty.

Polygyra septemvolva Say, 1818 Map 365

Polygyra septemvolva Say, Pilsbry, 1940, LMNA, **1:** 587.

HABITAT—Usually found in wetter habitats than those of *P. cereolus,* but sometimes found with it.

Polygyra uvulifera (Shuttleworth, 1852) Map 364

Polygyra uvulifera (Shuttleworth), Pilsbry, 1940, LMNA, **1:** 593.
Polygyra uvulifera striata Pilsbry, 1940, LMNA, **1:** 596.
Polygyra uvulifera margueritae Pilsbry, Pilsbry, 1940, LMNA, **1:** 597.
Polygyra uvulifera bicornuta Pilsbry, Pilsbry, 1940, LMNA, **1:** 597.

HABITAT—Found in grassy places, usually in sunny situations; also in lawns in urban areas, climbing the grass stems in wet weather, and in the litter in dry weather.

Polygyra auriculata Say, 1818 Map 366

Polygyra auriculata Say, Pilsbry, 1940, LMNA, **1:** 598.
Daedalochila auriculata (Say), Zilch, 1959, Handb. Paläozool., **6**(2): 579.

HABITAT—Found in wet, weedy places, usually in sunny situations, but sometimes in swamps.

Polygyra auriformis (Bland, 1859) Map 367

Polygyra auriformis (Bland), Pilsbry, 1940, LMNA, **1:** 599.

HABITAT—Found in rather wet, grassy places, usually in sunny situations.

Polygyra postelliana (Bland, 1828) Map 368

Polygyra postelliana (Bland), Pilsbry, 1940, LMNA, **1:** 601.
Polygyra postelliana carolina Pilsbry, 1940, LMNA, **1:** 603; Hubricht, 1953, Nautilus, **66:** 116.
Polygyra postelliana espiloca (Bland), Pilsbry, 1940, LMNA, **1:** 604.

HABITAT—Found in much the same habitats as *P. auriformis,* but is also a common urban snail.

Polygyra subclausa Pilsbry, 1899 Map 369

Polygyra postelliana subclausa Pilsbry, Pilsbry, 1940, LMNA, **1:** 605.

HABITAT—Found in open, grassy situations, usually near water.

Polygyra peninsulae Pilsbry, 1940 Map 370

Polygyra postelliana peninsulae Pilsbry, 1940, LMNA, **1:** 605.

HABITAT—Found in wet, weedy, usually sunny situations.

Polygyra hausmani Jackson, 1948 Map 371

Polygyra postelliana hausmani Jackson, 1948, Nautilus, **62:** 41.

HABITAT—Found in sunny, grassy places along roadsides and railroads.

Polygyra delecta Hubricht, 1976 Map 372

Polygyra delecta Hubricht, Hubricht, 1976, Malacol. Rev., **9:** 126.

HABITAT—Found in wet, weedy places, usually in sunny situations.

Polygyra avara Say, 1818 Map 374

Polygyra avara Say, Pilsbry, 1940, LMNA, **1:** 605.

HABITAT—Found in low, wet places, the margins of lakes and streams, etc.

Polygyra oppilata (Morelet, 1849)

Polygyra oppilata (Morelet), Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.

HABITAT—A Mexican species that has been collected from beach drift in southern Texas.

Polygyra implicata (von Martens, 1865)

Polygyra implicata (von Martens), Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.

HABITAT—A Mexican species that has been collected from beach drift in southern Texas.

Polygyra rhoadsi Pilsbry, 1899

Polygyra rhoadsi Pilsbry, Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.

HABITAT—A Mexican species that has been found in beach drift in southern Texas.

Polygyra ariadnae (Pfeiffer, 1848)

Polygyra ariadnae (Pfeiffer), Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.

HABITAT—A Mexican species that has been found in beach drift in southern Texas.

Polygyra texasiana (Moricand, 1833) Map 373

Polygyra texasiana (Moricand), Pilsbry, 1940, LMNA, **1:** 617.
[*Polygyra triodontoides* (Bland), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 67.]
[*Polygyra tamaulipasensis* Lea, Branson, 1962, Proc. Okla. Acad. Sci., **42:** 67.]
[*Polygyra scintilla* Pilsbry & Hubricht, Branson, 1962, Proc. Okla. Acad. Sci., **42:** 67.]
[*Polygyra polita* Pilsbry & Hinkley, Branson, 1962, Proc. Okla. Acad. Sci., **42:** 67.]
Polygyra rexroadensis Taylor, 1960, U.S. Geol. Surv., Prof. Paper, **337:** 82; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—Usually found on low ground under litter. May be found both in woodland or in prairie.

REMARKS—There are two clines of variation in this species. Along the Texas coast, the species is radially striate above and below; in the central part of its range, the base becomes smooth, and only the upper part is striate. In the western part of its range, it is smooth above and below, and the lip teeth are close together. Eastward these teeth become gradually further part. In the eastern part of its range, it may be confused with *P. triodontoides,* but the teeth do not become as far apart as those in that species.

Polygyra triodontoides (Bland, 1861) Map 375

Polygyra triodontoides (Bland), Pilsbry, 1940, LMNA, **1:** 616.

HABITAT—Found in the litter in low, wet ground near ponds and lakes and along rivers.

Polygyra polita Pilsbry & Hinkley, 1907 Map 376

Polygyra polita Pilsbry & Hinkley, 1907, Nautilus, **21:** 38.
Polygyra scintilla Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.

HABITAT—Common in parts of Mexico. At the only known locality within the United States, it is found in an open, grassy place along a railroad.

Polygyra tamaulipasensis (I. Lea, 1857) Map 377

Helix tamaulipasensis I. Lea, 1857, Proc. Acad. Nat. Sci., Philadelphia, **1857:** 102.
Polygyra texasiana texasensis Pilsbry, Pilsbry, 1940, LMNA, **1:** 619 (in part).
Polygyra texasensis Pilsbry, Pilsbry & Hubricht, 1956, Nautilus, **69:** 94.
Polygyra texasiana tamaulipasensis I. Lea, Pilsbry & Hubricht, 1956, Nautilus, **69:** 95.
Polygyra tamaulipasensis (I. Lea), Hubricht, 1961, Nautilus, **75:** 27.

HABITAT—A calciphile. Found in rock piles and under fallen yucca on high ground in semiarid situations.

Polygyra pustula (Férussac, 1822) Map 380

Polygyra pustula (Férussac), Pilsbry, 1940, LMNA, **1:** 608.
Daedalochila pustula (Férussac), Zilch, 1959, Handb. Paläozool. **6**(2): 580.
Lobosculum pustula (Férussac), Pilsbry, 1930, Proc. Acad. Nat. Sci., Philadelphia, **82:** 320.

HABITAT—Usually found in sandy woods, under logs and dead palm fronds, and in leaf litter.

Polygyra pustuloides (Bland, 1851) Map 379

Polygyra pustuloides (Bland), Pilsbry, 1940, LMNA, **1:** 610.

HABITAT—A calciphile. Usually found in rocky woods, about logs and rocks, and in leaf litter.

Polygyra leporina (Gould, 1848) Map 378

Polygyra leporina (Gould), Pilsbry, 1940, LMNA, **1:** 611.

HABITAT—A species of low, wet places; in floodplain woods, meadows, near springs, etc.

Polygyra plicata (Say, 1821) Map 381

Polygyra plicata Say, Pilsbry, 1940, LMNA, **1:** 626.

HABITAT—A calciphile. Found in leaf litter on dry, wooded hillsides and in cedar glades.

Polygyra troostiana (I. Lea, 1839) Map 382

Polygyra troostiana I. Lea, Pilsbry, 1940, LMNA, **1:** 630.

HABITAT—A calciphile. Found in the same habitats as *P. plicata,* but never found with it.

Polygyra fatigiata (Say, 1820) Map 383

Polygyra fatigiata Say, Pilsbry, 1940, LMNA, **1:** 628.
Polygyra fatigiata internuntia Pilsbry, 1940, LMNA, **1:** 629.

HABITAT—A calciphile. Usually found crawling on bare ground in open, sunny situations after rains.

Polygyra peregrina Rehder, 1932 Map 384

Polygyra peregrina Rehder, Pilsbry, 1940, LMNA, **1:** 631.

HABITAT—A calciphile. Found in rocky, sunny situations and crawling about in wet weather on cliffs and rocks.

Polygyra jacksoni (Bland, 1866) Map 385

Polygyra jacksoni (Bland), Pilsbry, 1940, LMNA, **1:** 631.

HABITAT—Found on wooded hillsides under stones.

Polygyra deltoidea (Simpson, 1889) Map 386

Polygyra jacksoni deltoidea (Simpson), Pilsbry, 1940, LMNA, **1:** 632.
Polygyra deltoidea (Simpson), Branson, 1962, Sterkiana, **7:** 5.
[*Polygyra jacksoni simpsoni* (Pilsbry), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 69.]

HABITAT—A calciphile. Found in the same habitat as *P. jacksoni,* but not found with it.

Polygyra simpsoni (Pilsbry & Ferriss, 1907) Map 387

Polygyra jacksoni simpsoni Pilsbry & Ferriss, Pilsbry, 1940, LMNA, **1:** 633.

HABITAT—A calciphile. Found in the same habitat as *P. jacksoni* and *P. deltoidea,* but never found with them.

Polygyra hippocrepis (Pfeiffer, 1848) Map 388

Polygyra hippocrepis (Pfeiffer), Pilsbry, 1940, LMNA, **1**: 638.
Daedalochila hippocrepis (Pfeiffer), Zilch, 1960, Handb. Paläozool., **6**(2): 580.

HABITAT—A calciphile. Found under rocks on rocky, wooded hillsides.

Polygyra mooreana (W. G. Binney, 1857) Map 389

Polygyra mooreana (W. G. Binney), Pilsbry, 1940, LMNA, **1**: 622.

HABITAT—Found under leaf litter, rocks, and logs from river bluffs to hilltops, usually in wooded areas.

Polygyra tholus (W. G. Binney, 1857) Map 390

Polygyra tholus (W. G. Binney), Pilsbry, 1940, LMNA, **1**: 624.

HABITAT—Known only from river drift and beach drift.

Polygyra gracilis Hubricht, 1961 Map 391

Polygyra gracilis Hubricht, 1961, Nautilus, **75**: 26.

HABITAT—Found in leaf litter on stream bluffs, in ravines, and on floodplains.

Polygyra lithica Hubricht, 1961 Map 392

Polygyra lithica Hubricht, 1961, Nautilus, **75**: 28.

HABITAT—A calciphile. Found under logs, rocks, and leaf litter in dry, upland woods.

Polygyra dorfeuilliana (I. Lea, 1838) Map 393

Polygyra dorfeuilliana I. Lea, Pilsbry, 1940, LMNA, **1**: 634.
Polygyra dorfeuilliana sampsoni Wetherby, Pilsbry, 1940, LMNA, **1**: 636.

HABITAT—Found in the same habitat as *P. lithica* but never found with it.

Stenotrema spinosum (I. Lea, 1830) Map 394

Stenotrema spinosum (I. Lea), Pilsbry, 1940, LMNA, **1**: 643.

HABITAT—A calciphile. Usually found about rotting logs in rocky woods.

Stenotrema edgarianum (I. Lea, 1841) Map 395

Stenotrema edgarianum (I. Lea), Pilsbry, 1940, LMNA, **1**: 644.

HABITAT—Found on logs and in leaf litter on wooded hillsides. Never found in numbers.

Stenotrema barbigerum (Redfield, 1856) Map 396

Stenotrema barbigerum (Redfield), Pilsbry, 1940, LMNA, **1**: 645.

HABITAT—Found on logs on wooded hillsides and in ravines.

Stenotrema edvardsi (Bland, 1856) Map 397

Stenotrema edvardsi (Bland), Pilsbry, 1940, LMNA, **1**: 646.

HABITAT—Found on logs and in leaf litter in rocky woods.

Stenotrema waldense Archer, 1938 Map 398

Stenotrema waldense Archer, Pilsbry, 1940, LMNA, **1**: 648.

HABITAT—A calciphile. The two places where I found it alive were near stone walls along a road.

Stenotrema pilsbryi (Ferriss, 1900) Map 399

Stenotrema pilsbryi (Ferriss), Pilsbry, 1940, LMNA, **1**: 650.

HABITAT—Found crawling on a rock slide on a wooded mountainside in wet weather.

Stenotrema labrosum (Bland, 1862) Map 400

Stenotrema labrosum (Bland), Pilsbry, 1940, LMNA, **1**: 650.
Stenotrema glassi Branson, 1964, Nautilus, **66**: 100; Hubricht, 1974, Malacol. Rev., **7**: 34.
Stenotrema abaddona Branson, 1964, Nautilus, **77**: 103; Hubricht, 1967, Nautilus, **81**: 65.

HABITAT—Found under leaf litter, rocks, and logs on wooded hillsides or in ravines.

Stenotrema altispira (Pilsbry, 1894) Map 401

Stenotrema altispira (Pilsbry), Pilsbry, 1940, LMNA, **1**: 652.

HABITAT—Found about logs and in leaf litter at higher elevations in the mountains.

Stenotrema depilatum (Pilsbry, 1895) Map 402

Stenotrema depilatum (Pilsbry), Pilsbry, 1940, LMNA, **1**: 654.
Stenotrema altispira depilatum (Pilsbry), Archer, 1948, Geol. Surv. Ala., Mus. Paper, **28**: 33.

HABITAT—Found in the same habitat as *S. altispira* and sometimes found with it.

Stenotrema florida Pilsbry, 1940 Map 403

Stenotrema florida Pilsbry, 1940, LMNA, **1:** 655.

HABITAT—Found under and about logs and in leaf litter on wooded stream bluffs and floodplains.

Stenotrema calvescens Hubricht, 1961 Map 404

Stenotrema calvescens Hubricht, 1961, Nautilus, **75:** 28.

HABITAT—Found in open, grassy places, clearings, roadsides, and along railroads.

Stenotrema barbatum (Clapp, 1904) Map 405

Stenotrema hirsutum barbatum (Clapp), Pilsbry, 1940, LMNA, **1:** 665.
Stenotrema barbatum (Clapp), Archer, 1948, Geol. Surv. Ala., Mus. Paper, **28:** 30.

HABITAT—Usually found under logs and leaf litter in floodplain woods, but becomes an upland species in West Virginia and Pennsylvania.

Stenotrema angellum Hubricht, 1958 Map 407

Stenotrema angellum Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 70.

HABITAT—Found under logs and leaf litter on wooded hillsides and in ravines.

Stenotrema stenotrema (Pfeiffer, 1819) Map 406

Stenotrema stenotrema (Pfeiffer), Pilsbry, 1940, LMNA, **1:** 655.
Stenotrema stenotrema voluminosum Clench & Banks, Archer, 1948, Geol. Surv. Ala., Mus. Paper, **28:** 37.

HABITAT—Found in a variety of habitats. Usually found in leaf litter on wooded hillsides and in ravines, but may be found along roadsides, in old pastures, and in clearings.

Stenotrema magnifumosum (Pilsbry, 1920) Map 408

Stenotrema magnifumosum (Pilsbry), Pilsbry, 1940, LMNA, **1:** 660.

HABITAT—Found in leaf litter on mountainsides from about 1,000 to 4,500 ft.

Stenotrema simile Grimm, 1971 Map 409

Stenotrema simile Grimm, 1971, Nautilus, **85:** 12.

HABITAT—Found under logs and leaf litter on rocky wooded hillsides.

Stenotrema pilula (Pilsbry, 1900) Map 410

Stenotrema pilula (Pilsbry), Pilsbry, 1940, LMNA, **1:** 661.

HABITAT—Found under logs and in leaf litter on rather dry, wooded hillsides.

Stenotrema morosum Hubricht, 1978 Map 411

Stenotrema morosum Hubricht, 1978, Malacol. Rev., **10:** 37.

HABITAT—Known only as a Pleistocene to Recent fossil within a cave.

Stenotrema hirsutum (Say, 1817) Map 413

Stenotrema hirsutum (Say), Pilsbry, 1940, LMNA, **1:** 662.
Stenotrema burringtoni Grimm, 1971, Nautilus, **85:** 14; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—Found under logs and in leaf litter in rather dry upland woods.

Stenotrema exodon (Pilsbry, 1900) Map 412

Stenotrema exodon (Pilsbry), Pilsbry, 1940, LMNA, **1:** 666.

HABITAT—A calciphile. Found on and about rocks on wooded hillsides.

Stenotrema turbinella (Clench & Archer, 1933) Map 414

Stenotrema exodon turbinella (Clench & Archer), Pilsbry, 1940, LMNA, **1:** 668.
Stenotrema turbinella (Clench & Archer), Hubricht, 1965, Sterkiana, **17:** 1.

HABITAT—A calciphile. Found in leaf litter and on logs on wooded hillsides and in ravines.

Stenotrema deceptum (Clapp, 1905) Map 415

Stenotrema deceptum (Clapp), Pilsbry, 1940, LMNA, **1:** 668.

HABITAT—A calciphile. Found in leaf litter and about logs on wooded hillsides and in ravines.

Stenotrema blandianum (Pilsbry, 1903) Map 416

Stenotrema blandianum (Pilsbry), Pilsbry, 1940, LMNA, **1:** 669.

HABITAT—Found under and about rocks on river bluffs and in ravines.

Stenotrema unciferum (Pilsbry, 1900) Map 417

Stenotrema unciferum (Pilsbry), Pilsbry, 1940, LMNA, **1:** 670.
Stenotrema unciferum caddoensis (Archer), Pilsbry, 1940, LMNA, **1:** 671.
Stenotrema caddoensis (Archer), Archer, 1948, Geol. Surv. Ala., Mus. Paper, **28:** 47; Hubricht, 1972, Sterkiana, **46:** 15.

HABITAT—Found on and around logs on wooded mountainsides.

Stenotrema brevipila (Clapp, 1907) Map 418

Stenotrema brevipila (Clapp), Pilsbry, 1940, LMNA, **1:** 672.

HABITAT—Found in rocky places on and under rocks and in leaf litter.

Stenotrema cohuttense (Clapp, 1914) Map 419

Stenotrema cohuttense (Clapp), Pilsbry, 1940, LMNA, **1:** 673.

HABITAT—Found in leaf litter on wooded hillsides and in ravines.

Stenotrema maxillatum (Gould, 1848) Map 420

Stenotrema maxillatum (Gould), Pilsbry, 1940, LMNA, **1:** 674.

HABITAT—Found in leaf litter and about rocks and logs on wooded hillsides and in ravines.

Stenotrema leai leai (A. Binney) Map 426

Stenotrema monodon (Rackett), Pilsbry, 1940, LMNA, **1:** 676.
Stenotrema leai (A. Binney), Pilsbry, 1948, LMNA, **2:** 1099.

HABITAT—A species of low, wet places, marshes and swamps, floodplains, meadows, and roadsides.

Stenotrema leai aliciae (Pilsbry, 1893) Map 427

Stenotrema monodon aliciae (Pilsbry), Pilsbry, 1940, LMNA, **1:** 676.
Stenotrema leai aliciae (Pilsbry), Hubricht, 1956, Nautilus, **69:** 125.
[*Stenotrema fraternum imperforatum* (Pilsbry & Ferriss), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 71.]

HABITAT—Usually found in meadows, along roadsides, and near springs, but also found in floodplain woods.

Stenotrema leai cheatumi Fullington, 1974 Map 421

Stenotrema leai cheatumi Fullington, 1974, Nautilus, **88:** 92.

HABITAT—Found under logs and dead palmetto fronds in a palmetto swamp. Known only from the type locality.

Stenotrema wichitorum Branson, 1972 Map 422

Stenotrema wichitorum Branson, 1972, Southwest. Natur., **16:** 311.

HABITAT—Known only from the Wichita Mountains of Oklahoma.

Stenotrema hubrichti Pilsbry, 1940 Map 423

Stenotrema hubrichti Pilsbry, 1940, LMNA, **1:** 687.

HABITAT—Found in crevices of shaded cliffs, often more than 20 ft above the ground.

Stenotrema fraternum fraternum (Say, 1824) Map 428

Stenotrema fraternum (Say), Pilsbry, 1940, LMNA, **1:** 681.
Stenotrema fraternum cavum (Pilsbry & Vanatta), Pilsbry, 1940, LMNA, **1:** 684.

HABITAT—Usually found about logs and in leaf litter in upland woods.

Stenotrema fraternum montanum Archer, 1939 Map 424

Stenotrema fraternum montanum Archer, Pilsbry, 1940, LMNA, **1:** 685.
Stenotrema fraternum fasciatum Pilsbry, 1940, LMNA, **1:** 686.
Stenotrema fasciatum Pilsbry, Archer, 1948, Geol. Surv. Ala., Mus. Paper, **28:** 56.

HABITAT—Found on logs, in leaf litter, and under stones on mountainsides and in ravines.

Stenotrema fraternum imperforatum (Pilsbry, 1900) Map 425

Stenotrema fraternum imperforatum (Pilsbry), Pilsbry, 1940, LMNA, **1:** 686.

HABITAT—Found under logs and rocks on wooded hillsides and in ravines.

Praticolella griseola (Pfeiffer, 1841) Map 429

Praticolella griseola (Pfeiffer), Pilsbry, 1940, LMNA, **1:** 690.
Praticolella campi Clapp & Ferriss, Pilsbry, 1940, LMNA, **1:** 693; Hubricht, 1983, Veliger, **25:** 244.

HABITAT—Found in open weedy places near the coast or where there is some salt in the soil, aestivating on the stems of plants. A common Central American species.

Praticolella pachyloma (Menke, in Pfeiffer) Map 430

Praticolella berlandieriana pachyloma (Menke), Pilsbry, 1940, LMNA, **1:** 697.
Praticolella pachyloma (Menke), Pilsbry & Hubricht, 1956, Nautilus, **69:** 96.

HABITAT—Found in either open or wooded

places, usually in sandy soil, hiding under litter or burrowing in the sand in dry weather.

Praticolella candida Hubricht, 1983 Map 431

Praticolella candida Hubricht, 1983, Veliger, **25:** 246.

HABITAT—Found in open, grassy places, aestivating on the stems of plants. A frequent urban snail.

Praticolella berlandieriana (Moricand, 1833) Map 432

Praticolella berlandieriana (Moricand), Pilsbry, 1940, LMNA, **1:** 694.

HABITAT—Usually found in woods near streams, but also found in open places. It aestivates on the stems of plants.

Praticolella trimatris Hubricht, 1983 Map 433

Praticolella trimatris Hubricht, 1983, Veliger, **25:** 248.

HABITAT—Usually found in open, low, wet places. A common urban snail.

Praticolella taeniata Pilsbry, 1940 Map 434

Praticolella berlandieriana taeniata Pilsbry, 1940, LMNA, **1:** 696.
[*Praticolella berlandieriana campi* Clapp & Ferriss, Hubricht, 1961, Nautilus **75:** 29.]
Praticolella taeniata Pilsbry, 1940, Hubricht, 1983, Veliger, **25:** 248.

HABITAT—Usually found in open, grassy places. An abundant urban snail, where it is found in lawns and vacant lots. Aestivates on the stems of grasses. Also in Tamaulipas and Nuevo Leon, Mexico.

Praticolella jejuna (Say, 1821) Map 435

Praticolella jejuna (Say), Pilsbry, 1940, LMNA, **1:** 697.

HABITAT—Found under logs and leaf litter in upland woods, both pine and hardwoods, and sometimes in tropical hammocks. Also found along roadsides and railroads. Usually found where other species of land snails are scarce.

Praticolella bakeri Vanatta, 1915 Map 436

Praticolella bakeri Vanatta, Pilsbry, 1940, LMNA, **1:** 699.

HABITAT—Found under logs on sandy soil in open pine woods and along railroads and roadsides.

Praticolella lawae (Lewis, 1874) Map 437

Praticolella lawae (Lewis), Pilsbry, 1940, LMNA, **1:** 699.
Praticolella lawae tallulahensis (Pilsbry), Pilsbry, 1940, LMNA, **1:** 700.

HABITAT—A species of open pine woods, clearings, and glades, usually on sandy soil.

Praticolella mobiliana (I. Lea, 1841) Map 438

Praticolella mobiliana (I. Lea), Pilsbry, 1940, LMNA, **1:** 701.
Praticolella mobiliana floridana Vanatta, Pilsbry, 1940, LMNA, **1:** 702.

HABITAT—A species of open pine woods on sandy soil.

Mesodon rugeli (Shuttleworth, 1852) Map 461

Mesodon rugeli (Shuttleworth), Pilsbry, 1940, LMNA, **1:** 767.

HABITAT—Found under and about logs and rocks and in leaf litter in upland woods.

Mesodon inflectus (Say, 1821) Map 439

Mesodon inflectus (Say), Pilsbry, 1940, LMNA, **1:** 770.
Mesodon inflectus mobilensis (Clapp), Pilsbry, 1940, LMNA, **1:** 775; Hubricht, 1965, Sterkiana, **17:** 2.
[*Mesodon inflectus edentatus* (Sampson), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 66.]

HABITAT—A common species, found in a variety of habitats. Found under logs, rocks, and leaf litter in woods; under old ties along railroads and on roadsides; under trash in waste ground and gardens in urban areas.

REMARKS—*Mesodon inflectus* and *M. rugeli* will hybridize and there is some introgression, so that the outer tooth of *M. inflectus* is often a little wider and slightly immersed within the range of *M. rugeli.* Whereas outside the range of *M. rugeli,* the outer and basal teeth are nearly the same.

Mesodon approximans (Clapp, 1905) Map 440

Mesodon inflectus approximans (Clapp), Pilsbry, 1940, LMNA, **1:** 774.
Mesodon approximans (Clapp), Hubricht, 1965, Sterkiana, **17:** 2.

HABITAT—Found under rocks and logs on wooded hillsides and in ravines; also under trash on waste ground in urban areas.

Mesodon smithi (Clapp, 1905) Map 441

Mesodon smithi (Clapp), Pilsbry, 1940, LMNA, **1:** 769.

HABITAT—A calciphile. Found under logs and rocks on wooded hillsides and in ravines.

Mesodon edentatus (Sampson, 1889) Map 442

Mesodon inflectus edentatus (Sampson), Pilsbry, 1940, LMNA, **1:** 776.
Mesodon edentatus (Sampson), Hubricht, 1949, Nautilus, **62:** 99.

HABITAT—A calciphile. Found under rocks and logs on wooded hillsides and in ravines.

Mesodon magazinensis (Pilsbry & Ferriss, 1893) Map 443

Mesodon magazinensis (Pilsbry & Ferriss), Pilsbry, 1940, LMNA, **1:** 777.

HABITAT—Found on and around the rock slides on the north side of Magazine Mountain, Arkansas.

Mesodon subpalliatus (Pilsbry, 1893) Map 444

Mesodon subpalliatus (Pilsbry), Pilsbry, 1940, LMNA, **1:** 760.
Mesodon verus Hubricht, 1954, Nautilus, **68:** 65; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—Found in leaf litter and around logs and rocks in the mountains above 2,000 ft.

Mesodon appressus (Say, 1821) Map 446

Mesodon appressus (Say), Pilsbry, 1940, LMNA, **1:** 749.

HABITAT—Usually found in rocky places, river bluffs and roadsides, but also found in urban areas.

Mesodon laevior Hubricht, 1968 Map 471

Mesodon appressus form *laevior* Pilsbry, 1940, LMNA, **1:** 753.
Mesodon laevior Pilsbry, Hubricht, 1968, Nautilus, **82:** 25.

HABITAT—Usually found in rocky places, but also about logs, on river bluffs, and in ravines. A common urban snail, which has been widely introduced into cities and towns.

Mesodon sargentianus (Johnson & Pilsbry, 1892) Map 445

Mesodon sargentianus (Johnson & Pilsbry), Pilsbry, 1940, LMNA, **1:** 753.
[*Triodopsis obstricta occidentalis* Pilsbry, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 210.]

HABITAT—A calciphile. Most common about the mouths of caves, but also found about rocks in cool ravines and northern hillsides.

Mesodon perigraptus (Pilsbry, 1894) Map 462

Mesodon perigraptus (Pilsbry), Pilsbry, 1940, LMNA, **1:** 755.

HABITAT—Found on and about logs and in leaf litter in upland woods. Also occurs as an urban snail.

Mesodon panselenus Hubricht, 1976 Map 447

Mesodon panselenus Hubricht, 1976, Malacol. Rev., **9:** 127.

HABITAT—Found under rocks and logs on wooded floodplains, hillsides, and ravines.

Mesodon wetherbyi (Bland, 1873) Map 448

Mesodon wetherbyi (Bland), Pilsbry, 1940, LMNA, **1:** 757.

HABITAT—Found under logs and in moist leaf litter on wooded hillsides and in ravines.

Mesodon jonesianus (Archer, 1938) Map 452

Mesodon jonesianus (Archer), Pilsbry, 1940, LMNA, **1:** 759.

HABITAT—Found crawling on the leaf litter in wet weather in the beech woods at about 5,000 ft elevation. I never found it in the leaf litter in dry weather, so it may burrow into the ground at such times.

Mesodon sayanus (Pilsbry, 1906) Map 467

Mesodon sayanus (Pilsbry), Pilsbry, 1940, LMNA, **1:** 762.

HABITAT—Usually found in moist leaf litter or near logs on wooded hillsides.

Mesodon chilhoweensis (Lewis, 1870) Map 450

Mesodon chilhoweensis (Lewis), Pilsbry, 1940, LMNA, **1:** 764.

HABITAT—Found under leaf litter or in rock piles or crawling on the ground or on the boles of trees in wet weather.

REMARKS—This species is rarely found in numbers. Where it occurs, one frequently finds broken shells on the ground. Other large *Mesodon* may be present in greater numbers, but one does not find as many of their broken shells. The shell of *M. chilhoweensis* is thinner and more easily broken by birds, so that more members of this species are killed in this way. This is probably the reason it is not more common than it is.

Mesodon indianorum (Pilsbry, 1899) Map 451

Mesodon indianorum (Pilsbry), Pilsbry, 1940, LMNA, **1:** 739.
[*Mesodon indianorum lioderma* (Pilsbry), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 64.]
[*Mesodon binneyanus* (Pilsbry), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 64.]

HABITAT—Usually found in leaf litter in rather dry upland woods.

Mesodon binneyanus (Pilsbry, 1899) Map 453

Mesodon binneyanus (Pilsbry), Pilsbry, 1940, LMNA, **1:** 742.
Mesodon binneyanus chastatensis (Pilsbry & Ferriss), Pilsbry, 1940, LMNA, **1:** 743.

HABITAT—Usually found in leaf litter on wooded hillsides and in ravines.

Mesodon clenchi (Rehder, 1932) Map 454

Mesodon clenchi (Rehder), Pilsbry, 1940, LMNA, **1:** 743.

HABITAT—Found in dry, rocky places with a southern exposure.

Mesodon kiowaensis (Simpson, 1888) Map 455

Mesodon kiowaensis (Simpson), Pilsbry, 1940, LMNA, **1:** 744.

HABITAT—Found under rocks and leaf litter in dry upland woods with a southern exposure.

Mesodon roemeri (Pfeiffer, 1848) Map 474

Mesodon roemeri (Pfeiffer), Pilsbry, 1940, LMNA, **1:** 745.

HABITAT—Found under rocks, leaf litter, and logs on wooded slopes near streams.

Mesodon leatherwoodi Pratt, 1971 Map 456

Mesodon leatherwoodi Pratt, 1971, Veliger, **13:** 342.

HABITAT—Found in rocky, shaded places; active at night.

Mesodon ferrissi (Pilsbry, 1897) Map 457

Mesodon ferrissi (Pilsbry), Pilsbry, 1940, LMNA, **1:** 736.
Mesodon ferrissi sericius (Pilsbry), Pilsbry, 1940, LMNA, **1:** 738.

HABITAT—Found at elevations above 2,000 ft under rock ledges, in rock piles, and about logs; active at night.

Mesodon orestes Hubricht, 1975 Map 459

Mesodon orestes Hubricht, 1975, Nautilus, **89:** 1.

HABITAT—Found in crevices in rock ledges or crawling on the ground in wet weather. Lives at high elevations in the Plott Balsam Mountains.

Mesodon wheatleyi (Bland, 1860) Map 460

Mesodon wheatleyi (Bland), Pilsbry, 1940, LMNA, **1:** 734.

HABITAT—Found under rocks, logs, and in leaf litter from about 2,000 ft to the summits of the mountains.

Mesodon clingmanicus (Pilsbry, 1904) Map 463

Mesodon wheatleyi clingmanicus (Pilsbry), Pilsbry, 1940, LMNA, **1:** 736.

HABITAT—Found from about 2,000 ft to the summits of the mountains under rocks, logs, and in leaf litter.

REMARKS—There are two distinct anatomies found in *M. clingmanicus* without any detectable shell differences. One has a rather short, stout penis, and the other has a long, slender one. Both types appear to have the same ranges. They are probably two species, but there is not enough anatomical material available to clarify this problem.

Mesodon christyi (Bland, 1860) Map 464

Mesodon christyi (Bland), Pilsbry, 1940, LMNA, **1:** 733.

HABITAT—Usually found in leaf litter in upland oak woods.

Mesodon archeri Pilsbry, 1940 Map 479

Mesodon archeri Pilsbry, Pilsbry, 1940, LMNA, **1:** 732.

HABITAT—Found in leaf litter and under rock ledges in a ravine.

Mesodon clarki (I. Lea, 1858) Map 468

Mesodon clarki (I. Lea), Pilsbry, 1940, LMNA, **1:** 730.
Mesodon clarki nantahala (Clench & Banks), Pilsbry, 1940, LMNA, **1:** 731.

HABITAT—Found under leaf litter, or crawling about during wet weather, on mountainsides.

Mesodon elevatus (Say, 1821) Map 470

Mesodon elevatus (Say), Pilsbry, 1940, LMNA, **1:** 727.

HABITAT—A species of river bluffs, where it is found crawling on the ground in wet weather.

Mesodon pennsylvanicus (Green, 1827) Map 472

Mesodon pennsylvanicus (Green), Pilsbry, 1940, LMNA, **1:** 726.

HABITAT—Usually found on wooded hillsides or in ravines, under leaf litter or under stones. Also found on grassy roadsides.

Mesodon zaletus (A. Binney, 1837) Map 449

Mesodon zaletus (A. Binney), Pilsbry, 1940, LMNA, **1:** 722.
Mesodon zaletus ozarkensis Pilsbry & Ferriss, Pilsbry, 1940, LMNA, **1:** 725; Branson, 1962, Proc. Okla. Acad. Sci., **42:** 63.

HABITAT—Most common on river bluffs, but also found in ravines and on mountainsides. Found up to about 5,000 ft elevation.

Mesodon normalis (Pilsbry, 1900) Map 475

Mesodon andrewsae normalis (Pilsbry), Pilsbry, 1940, LMNA, **1:** 720.
Mesodon normalis (Pilsbry), Hubricht, 1956, Nautilus, **69:** 140.

HABITAT—A species of noncalcareous soils. Found crawling on the ground in wet weather, in ravines, and on mountainsides up to about 5,000 ft elevation.

REMARKS—Despite its large size, *Mesodon normalis* is an annual species. Specimens which are born in the spring become mature the following spring, lay their eggs then, and die during the early summer. Those born in the fall become mature the following fall, lay eggs then and again the following spring, and also die during early summer. I never saw a living mature snail during August.

Mesodon andrewsae W. G. Binney, 1879 Map 469

Mesodon andrewsae W. G. Binney, Pilsbry, 1940, LMNA, **1:** 717.
Mesodon andrewsae intermedius (Walker), Pilsbry, 1940, LMNA, **1:** 719.
Mesodon andrewsae altivaga (Pilsbry), Pilsbry, 1940, LMNA, **1:** 721.

HABITAT—Found crawling on the ground at high elevations in the southern Appalachians.

REMARKS—There are six forms of this species on Clingmans Dome in the Smokies. There is the widespread olive-green shelled form, a form with a reddish band above the periphery, and a form which is all red. These three color forms may have a parietal tooth, or it may be absent. I have not seen this variation at any other locality.

Mesodon downieanus (Bland, 1861) Map 476

Mesodon downieanus (Bland), Pilsbry, 1940, LMNA, **1:** 716.
[*Mesodon mitchellianus downieanus* (Bland), Hubricht, 1950, Nautilus, **64:** 7.]

HABITAT—Usually found in leaf litter on the summits of flat-topped mountains, where the soil is somewhat acid.

Mesodon kalmianus Hubricht, 1965 Map 477

Mesodon kalmianus Hubricht, 1965, Nautilus, **79:** 4.

HABITAT—Usually found in open, grassy places, meadows, and roadsides, but also in kudzu banks.

Mesodon mitchellianus (I. Lea, 1839) Map 473

Mesodon mitchellianus (I. Lea), Pilsbry, 1940, LMNA, **1:** 715.
Mesodon mitchellianus downieanus (Bland), Hubricht, 1950, Nautilus, **64:** 7.
Mesodon burringtoni Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 71; Hubricht, 1974, Malacol. Rev., **7:** 34.

HABITAT—A species of meadows, roadsides, and floodplains. Found crawling on the ground in wet weather or under litter when it is dry.

Mesodon sanus (Clench & Archer, 1933) Map 478

Mesodon sanus (Clench & Archer), Pilsbry, 1940, LMNA, **1:** 714.

HABITAT—A calciphile. Found in leaf litter on wooded hillsides and in ravines.

Mesodon clausus clausus (Say, 1821) Map 458

Mesodon clausus (Say), Pilsbry, 1940, LMNA, **1:** 712.

HABITAT—A calciphile. Usually found in low, open, weedy places, meadows, roadsides, and along railroads. Sometimes found in woods.

Mesodon clausus trossulus Hubricht Map 465

Mesodon clausus trossulus Hubricht, 1966, Nautilus, **80:** 53.

HABITAT—A calciphile. Found crawling about after rains on wooded hillsides.

Mesodon thyroidus (Say, 1816) Map 466

Mesodon thyroidus (Say), Pilsbry, 1940, LMNA, **1:** 706.
Mesodon thyroidus sanctisimonis (Pilsbry), Pilsbry, 1940, LMNA, **1:** 712.

HABITAT—Found in a wide variety of habitats.

Usually found in floodplain woods under leaf litter, but also found on hillsides and in ravines, on roadsides and along railroads, in meadows and marshes, and in waste ground and in gardens in urban areas.

Subfamily TRIODOPSINAE

Triodopsis fulciden Hubricht, 1952 Map 480

Triodopsis fulciden Hubricht, 1952, Nautilus, **65:** 81.

HABITAT—Found in leaf litter and about logs in upland oak woods.

Triodopsis rugosa Brooks & MacMillan, 1940 Map 481

Triodopsis rugosa Brooks & MacMillan, Pilsbry, 1940, LMNA, **1:** 802.
[*Triodopsis rugosa anteridon* Pilsbry, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 161.]

HABITAT—Found in leaf litter and about logs in ravines and on wooded hillsides.

Triodopsis anteridon Pilsbry, 1940 Map 482

Triodopsis rugosa anteridon Pilsbry, 1940, LMNA, **1:** 803.
Triodopsis anteridon Pilsbry, Grimm, 1975, Bull. Amer. Malacol. Union, **1974:** 24.

HABITAT—Found in leaf litter and about logs on wooded hillsides and in ravines.

Triodopsis fraudulenta (Pilsbry, 1894) Map 483

Triodopsis fraudulenta (Pilsbry), Pilsbry, 1940, LMNA, **1:** 804.
[*Triodopsis picea* Hubricht, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 181.]

HABITAT—Found in leaf litter and about logs on wooded hillsides and in ravines; also on roadsides and in old pastures.

Triodopsis vulgata Pilsbry, 1940 Map 488

Triodopsis fraudulenta vulgata Pilsbry, 1940, LMNA, **1:** 805.
Triodopsis vulgata Pilsbry, Hubricht, 1954, Nautilus, **67:** 91.
Triodopsis neglecta vulgata Pilsbry, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 175.
[*Triodopsis hopetonensis claibornensis* Lutz, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 175.]

HABITAT—Found in leaf litter and about logs in ravines and on wooded hillsides.

Triodopsis pendula Hubricht, 1952 Map 484

Triodopsis pendula Hubricht, 1952, Nautilus, **65:** 82.

HABITAT—Found in leaf litter and about logs in upland oak woods.

Triodopsis picea Hubricht, 1958 Map 485

Triodopsis picea Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 73.

HABITAT—Found in rocky woods, in leaf litter, and about rocks and logs, usually at higher elevations.

Triodopsis neglecta (Pilsbry, 1899) Map 486

Triodopsis neglecta (Pilsbry), Pilsbry, 1940, LMNA, **1:** 807.

HABITAT—Usually found on river bluffs and in ravines, under stones and logs, and in leaf litter.

Triodopsis claibornensis Lutz, 1950 Map 487

Triodopsis hopetonensis claibornensis Lutz, 1950, Nautilus, **63:** 121.
Triodopsis claibornensis Lutz, Hubricht, 1973, Sterkiana, **49:** 13.

HABITAT—Found in leaf litter in rocky woods and on roadsides.

Triodopsis juxtidens (Pilsbry, 1894) Map 492

Triodopsis tridentata juxtidens (Pilsbry), Pilsbry, 1940, LMNA, **1:** 798.
Triodopsis juxtidens (Pilsbry), Hubricht, 1953, Nautilus, **66:** 117.
Triodopsis juxtidens stenomphala Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 169.

HABITAT—Found under leaf litter, logs, and rocks on wooded hillsides and in ravines. Also found along roadsides, in pastures, and on waste ground in urban areas.

Triodopsis discoidea (Pilsbry, 1904) Map 489

Triodopsis tridentata discoidea (Pilsbry), Pilsbry, 1940, LMNA, **1:** 799.
Triodopsis juxtidens discoidea (Pilsbry), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 171.

HABITAT—Found under rocks, logs, and leaf litter on river bluffs.

Triodopsis tridentata (Say, 1816) Map 510

Triodopsis tridentata (Say), Pilsbry, 1940, LMNA, **1:** 792.
Triodopsis tridentata edentilabris (Pilsbry), Pilsbry, 1940, LMNA, **1:** 797; Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 151.

HABITAT—Found in a variety of habitats, but usually found in upland woods in leaf litter and under logs and rocks; also along roadsides, railroads, and old pastures; and on waste ground in urban areas.

Triodopsis tennesseensis (Walker & Pilsbry, 1902) Map 490

Triodopsis tridentata tennesseensis (Walker), Pilsbry, 1940, LMNA, **1:** 797.
Triodopsis tennesseensis (Walker), Hubricht, 1950, Nautilus, **64:** 8.

HABITAT—Found under leaf litter and logs on wooded hillsides and in ravines.

Triodopsis complanata (Pilsbry, 1898) Map 496

Triodopsis tridentata complanata (Pilsbry), Pilsbry, 1940, LMNA, **1:** 801.
Triodopsis complanata (Pilsbry), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 157.
[*Triodopsis tridentata tennesseensis* (Walker), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 157.]

HABITAT—Found in leaf litter and about logs on the bluffs along the south side of the Cumberland River in the vicinity of Lake Cumberland.

Triodopsis burchi Hubricht, 1950 Map 497

Triodopsis tennesseensis burchi Hubricht, 1950, Nautilus, **64:** 8.
Triodopsis burchi Hubricht, Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 72.

HABITAT—Found in leaf litter and under logs in upland oak woods, in ravines, and on mountainsides.

Triodopsis platysayoides (Brooks, 1933) Map 498

Triodopsis platysayoides (Brooks), Pilsbry, 1940, LMNA, **1:** 801.
Triodopsis complanata platysayoides (Brooks), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 159.

HABITAT—Found in deep, moist leaf litter just below the summit escarpment (sandstone). Known only from the type locality.

Triodopsis henriettae (Mazyck, 1877) Map 499

Triodopsis vultuosa henriettae (Mazyck), Pilsbry, 1940, LMNA, **1:** 821.
Triodopsis henriettae (Mazyck), Cheatum & Fullington, 1971, Dallas Mus. Nat. Hist., Bull., **1**(1): 45.

HABITAT—Found in leaf litter and under logs in dry upland woods.

Triodopsis vultuosa (Gould, 1848) Map 494

Triodopsis vultuosa (Gould), Pilsbry, 1940, LMNA, **1:** 818.
Triodopsis vultuosa copei (Wetherby), Pilsbry, 1940, LMNA, **1:** 820; Branson, 1962, Proc. Okla. Acad. Sci., **42:** 73.
Polygyra latispira Pilsbry, Pilsbry, 1940, LMNA, **1:** 622; Hubricht, 1976, Nautilus, **90:** 105.
Triodopsis copei (Wetherby), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 199.
[*Triodopsis vultuosa henriettae* (Mazyck), Branson, 1962, Proc. Okla. Acad. Sci., **42:** 73.]

HABITAT—Found in similar habitats to *T. henriettae.*

Triodopsis cragini Call, 1886 Map 512

Triodopsis cragini Call, Pilsbry, 1940, LMNA, **1:** 821.
Triodopsis vultuosa cragini Call, Branson, 1962, Proc. Okla. Acad. Sci., **42:** 72.
Triodopsis copei cragini Call, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 201.

HABITAT—Found in leaf litter and about logs in dry upland woods.

Triodopsis fallax (Say, 1825) Map 513

Triodopsis fallax (Say), Pilsbry, 1940, LMNA, **1:** 809.

HABITAT—A species of open ground. I have never found it in the woods. Found in clearings, along roadsides, and railroads, and on waste ground in urban areas.

Triodopsis messana Hubricht, 1952 Map 502

Triodopsis messana Hubricht, 1952, Nautilus, **65:** 80.
Triodopsis fallax messana Hubricht, Grimm, 1975, Bull. Amer. Malacol. Union, **1974:** 26.

HABITAT—Found on the Atlantic Coastal Plain in usually open situations, roadsides, along railroads, and on waste ground in urban areas.

Triodopsis obsoleta (Pilsbry, 1894) Map 503

Triodopsis hopetonensis obsoleta (Pilsbry), Pilsbry, 1940, LMNA, **1:** 814.
Triodopsis hopetonensis chincoteagensis Pilsbry, 1940, LMNA, **1:** 813; Hubricht, 1953, Nautilus, **66:** 121.
Triodopsis obsoleta (Pilsbry), Hubricht, 1952, Nautilus, **65:** 80.
Triodopsis fallax obsoleta (Pilsbry), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 187.
[*Triodopsis palustris* Hubricht, Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 187.]

HABITAT—A species of the Atlantic Coastal Plain, where it is restricted to Pleistocene land. Found on low, wet ground and in swamps. A common urban snail.

Triodopsis soelneri (J. B. Henderson, 1907) Map 505

Triodopsis soelneri (J. B. Henderson), Pilsbry, 1940, LMNA, **1:** 814.

HABITAT—Found about logs and under litter in swamps, but also occurs under trash in pine woods.

REMARKS—Typically this species is without teeth on the lip, but shells from pine woods have a small but distinct tooth in the outer lip. It is probable that this tooth and the ability to survive in the pine woods is due to introgression from *T. messana.*

Triodopsis affinis Hubricht, 1954 Map 506

Triodopsis fallax affinis Hubricht, 1954, Nautilus, **68:** 28.

HABITAT—An urban snail. Found on vacant lots and in gardens in urban areas and where trash had been dumped near the roadside in rural areas.

REMARKS—*Triodopsis affinis* is a population resulting from hybridization between *T. 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. It probably originated in some town in western South Carolina, where the ranges of *T. fallax* and *T. alabamensis* join, and has since been spread by commerce through the towns in the Piedmont of North and South Carolina.

Triodopsis alabamensis (Pilsbry, 1902) Map 491

Triodopsis vannostrandi alabamensis (Pilsbry), Pilsbry, 1940, LMNA, **1:** 818.
Triodopsis fallax alabamensis (Pilsbry), Hubricht, 1954, Nautilus, **68:** 29.
Triodopsis alabamensis (Pilsbry), Hubricht, 1964, Sterkiana, **16:** 6.

HABITAT—Found in leaf litter and about logs in upland woods, either pine or oak. Rarely found as an urban snail.

Triodopsis vannostrandi (Bland, 1875) Map 495

Triodopsis vannostrandi (Bland), Pilsbry, 1940, LMNA, **1:** 815.
Triodopsis vannostrandi goniosoma (Pilsbry), Pilsbry, 1940, LMNA, **1:** 817; Hubricht, 1953, Nautilus, **66:** 118.
Triodopsis fallax vannostrandi (Bland), Grimm, 1975, Bull. Amer. Malacol. Union, **1974:** 26.

HABITAT—A species of the Atlantic Coastal Plain. Found in the dryer woods, in both pine and oak, under leaf litter and about logs. Also found along roadsides and railroads and in urban areas on waste ground.

Triodopsis hopetonensis (Shuttleworth, 1852) Map 511

Triodopsis hopetonensis (Shuttleworth), Pilsbry, 1940, LMNA, **1:** 811.
Triodopsis fallax hopetonensis (Shuttleworth), Beetle, 1973, Sterkiana, **49:** 31.

HABITAT—Found in moderately wet places in either woodland or open ground. A very common urban snail. Widely introduced into Alabama, Mississippi, and eastern Tennessee, where it occurs as an urban snail or in roadside dumps.

Triodopsis palustris Hubricht, 1958 Map 508

Triodopsis palustris Hubricht, 1958, Trans. Ky. Acad. Sci., **19:** 74.

HABITAT—Found about logs and in leaf litter in low, wet, floodplain woods.

Triodopsis denotata (Férussac, 1821) Map 493

Triodopsis notata (Deshayes), Pilsbry, 1940, LMNA, **1:** 824.
Triodopsis denotata (Férussac), Pilsbry, 1948, LMNA, **2:** 1100.
Xolotrema denotata (Férussac), Webb, 1952, Gastropodia, **1:** 8.
Triodopsis obstricta denotata (Férussac), Vagvolgyi, 1948, Bull. Mus. Comp. Zool., **136:** 206.

HABITAT—Found on or about logs usually on wooded hillsides, but sometimes on floodplains.

Triodopsis obstricta (Say, 1821) Map 507

Triodopsis obstricta (Say), Pilsbry, 1940, LMNA, **1:** 827.
[*Triodopsis caroliniensis* (Lea), Vagvolgyi, 1968, Bull. Mus. Comp. Zool., **136:** 209.]

HABITAT—A calciphile. Usually found on rocky river bluffs near logs.

Triodopsis occidentalis (Pilsbry & Ferriss, 1907) Map 509

Triodopsis obstricta occidentalis (Pilsbry & Ferriss), Pilsbry, 1940, LMNA, **1:** 829.
Triodopsis occidentalis (Pilsbry & Ferriss), Hubricht, 1972, Sterkiana, **45:** 33.

HABITAT—A calciphile. Found under rocks on rocky wooded hillsides and in ravines.

Triodopsis caroliniensis (I. Lea, 1834) Map 522

Triodopsis caroliniensis (I. Lea), Pilsbry, 1940, LMNA, **1:** 829.

HABITAT—Found about logs on wooded floodplains and hillsides.

Triodopsis fosteri (F. C. Baker, 1932) Map 504

Triodopsis fosteri (F. C. Baker), Pilsbry, 1940, LMNA, **1:** 831.
Triodopsis fosteri hubrichti (F. C. Baker), Pilsbry, 1940, LMNA, **1:** 833.
Xolotrema fosteri (F. C. Baker), Webb, 1952, Gastropodia, **1:** 8.
Triodopsis hubrichti (F. C. Baker), Leonard & Frye, 1960, Ill. State Geol. Surv., Circ., **304:** 9.

HABITAT—Found in a variety of habitats; under leaf litter, logs, and rocks; on floodplains, hillsides, and in ravines; on roadsides and along railroads; and in urban gardens and waste ground.

Triodopsis albolabris (Say, 1816) Map 500

Triodopsis albolabris (Say), Pilsbry, 1940, LMNA, **1:** 835.
Xolotrema albolabris albolabris (Say), Webb, 1952, Gastropodia, **1:** 8.

HABITAT—Found on wooded hillsides and in ravines, under logs and rocks, in leaf litter, and along roadsides and railroads; and on waste ground in urban areas.

Triodopsis alleni (Wetherby, in Sampson, 1883) Map 516

Triodopsis albolabris alleni ('Wetherby' Sampson), Pilsbry, 1940, LMNA, **1:** 840.
Triodopsis albolabris fuscolabris (Pilsbry), Pilsbry, 1940, LMNA, **1:** 842.
Xolotrema albolabris alleni ('Wetherby' Sampson), Webb, 1952, Gastropodia, **1:** 8.
Triodopsis alleni (Wetherby), Hubricht, 1965, Sterkiana, **17:** 2.

HABITAT—Found in the same habitats as *T. albolabris,* but not found with it.

Triodopsis major (A. Binney, 1837) Map 501

Triodopsis albolabris major (A. Binney), Pilsbry, 1940, LMNA, **1:** 843.
Xolotrema albolabris major (A. Binney), Webb, 1952, Gastropodia, **1:** 8.
Triodopsis major (A. Binney), Hubricht, 1965, Sterkiana, **17:** 2.

HABITAT—Found in the same habitats as *T. albolabris,* but not found with it.

Triodopsis dentifera (A. Binney, 1837) Map 514

Triodopsis dentifera (A. Binney), Pilsbry, 1940, LMNA, **1:** 844.

HABITAT—Found under leaf litter and about logs and rocks on wooded mountainsides, often where the soil is quite acid.

Triodopsis multilineata (Say, 1821) Map 515

Triodopsis multilineata (Say), Pilsbry, 1940, LMNA, **1:** 847.
Xolotrema multilineata (Say), Webb, 1952, Gastropodia, **1:** 7.
Xolotrema chadwicki (Ferriss), Webb, 1952, Gastropodia, **1:** 7.
Triodopsis altonensis (F. C. Baker), Leonard & Frye, 1960, Ill. State Geol. Surv., Circ., **304:** 9.
Triodopsis algonquinensis (Nason), Leonard & Frye, 1960, Ill. State Geol. Surv., Circ., **304:** 9.

HABITAT—Found in low, wet places, in marshes, floodplains, meadows, and margins of lakes and ponds, under litter and drift.

Triodopsis divesta (Gould, 1851) Map 517

Triodopsis divesta (Gould), Pilsbry, 1940, LMNA, **1:** 851.

HABITAT—Found on rocky wooded hillsides under rocks, logs, and leaf litter.

Triodopsis lioderma (Pilsbry, 1902) Map 518

Mesodon indianorum lioderma (Pilsbry), Pilsbry, 1940, LMNA, **1:** 741.
Triodopsis lioderma (Pilsbry), Hubricht, 1967, Nautilus, **81:** 65.

HABITAT—Found under stones on river bluffs.

Allogona profunda (Say, 1821) Map 519

Allogona profunda (Say), Pilsbry, 1940, LMNA, **1:** 877.
Allogona profunda strontiana (Clapp), Pilsbry, 1940, LMNA, **1:** 880.

HABITAT—Found under leaf litter on wooded floodplains, hillsides, and in ravines.

Superfamily HELICACEA
Family OREOHELICIDAE

Oreohelix strigosa cooperi (W. G. Binney, 1858) Map 520

Oreohelix strigosa cooperi (W. G. Binney), Pilsbry, 1939, LMNA, **1:** 443.

HABITAT—Found in forest above 3,700 ft. Other subspecies in various parts of the western United States and Canada.

Family HELMINTHOGLYPTIDAE
Subfamily CEPOLIINAE

Cepolis varians (Menke, 1829) Map 521

Cepolis varians (Menke), Pilsbry, 1939, LMNA, **1:** 28.

HABITAT—An arboreal species. Found on the outer twigs of trees near the beach on the Florida Keys. Now nearly extinct. Common in the Bahamas.

Family HELICIDAE

Cepaea hortensis (Müller, 1774) Map 523

Cepaea hortensis (Müller), Pilsbry, 1939, LMNA, **1:** 6.

HABITAT—A calciphile. Found on the offshore islands along the New England Coast. Introduced into urban areas. Main distribution in western and central Europe.

Papers from Which Distribution Records Were Obtained

ALEXANDER, R. C. 1947. Report on the land mollusks of Cape May, N.J. Nautilus, **60:** 97–100, **61:** 4–6.

———. 1952. Checklist of New Jersey land snails. Nautilus, **66:** 54–59.

ALLEN, D., AND E. P. CHEATUM. 1961. A Pleistocene molluscan fauna from near Byers, Clay Co., Texas. J. Graduate Res. Centre, **29:** 137–169.

ALLEN, J. F. 1954. Notes on the molluscan fauna of Galesville, Maryland. Nautilus, **67:** 108–112.

———. 1954. Notes on the gastropods collected in the vicinity of Crisfield, Maryland. Nautilus, **67:** 92–94.

ARCHER, A. F. 1948. Land snails of the genus *Stenotrema* in the Alabama region. Mus. Pap. Ala. Mus. Nat. Hist., No. **28:** 1–85.

BEASLEY, C. W., AND R. W. FULLINGTON. 1978. Gastropods of Taylor County, Texas. Sterkiana, **69:** 1–2.

BEETLE, D. E. 1967. Mollusks of the Outer Banks, N.C. Nautilus, **81:** 61–65.

———. 1972. Kudzu vine and an associated land snail fauna. Bull. Amer. Malacol. Union, **1971:** 6–7.

———. 1972. A note on land snails associated with Kudzu vine. Nautilus, **86:** 18–19.

———. 1973. A checklist of the land and freshwater mollusks of Virginia. Sterkiana, **49:** 21–35.

———. 1977. Mollusks of Badlands National Monument, S.D. Bull. Amer. Malacol. Union, **1976:** 49–50.

BERRY, E. G., AND B. B. MILLER. 1966. A new Pleistocene fauna and a new species of *Biomphalaria* (Basommatophora: Planerbidae) from southwestern Kansas, U.S.A. Malacologia, **4:** 261–267.

BICKEL, D. 1967. Preliminary checklist of Recent and Pleistocene Mollusca of Kentucky. Sterkiana, **28:** 7–20.

———. 1968. Correction for preliminary checklist of Recent and Pleistocene Mollusca of Kentucky. Sterkiana, **31:** 14.

———. 1968. Checklist of the Mollusca of Tennessee. Sterkiana, **31:** 15–39.

BLAKESLEE, C. 1947. Some Mollusca of Ilion Gorge, Herkimer County, New York. Nautilus, **60:** 78–81.

BOGAN, A. A., C. C. CONEY, AND W. A. TARPLEY. 1982. Distribution of the Polygyridae (Mollusca; Pulmonata) in Tennessee. J. Tenn. Acad. Sci., **57:** 16–22.

BRANSON, B. A. 1959. Oklahoma gastropods: Range extensions, a faunal addition, and a nomenclatural change. Proc. Okla. Acad. Sci., **37:** 30–32.

———. 1959. The Recent Gastropoda of Oklahoma. Part 1, Historical review, general comments and higher taxonomic categories. Proc. Okla. Acad. Sci., **39:** 21–37.

———. 1959. Notes on Oklahoma snails (Gastropoda), with new records. Southwest. Natur., **3:** 224–226.

———. 1959. Notes on Oklahoma slugs, with additions to the previously known fauna. Southwest. Natur., **4:** 143–147.

———. 1960. Gastropods of the Rob and Bessie Welder Wildlife Foundation Refuge, San Patricio County, Texas. Southwest. Natur., **5:** 143–159.

———. 1961. The Recent Gastropoda of Oklahoma, III. Terrestrial species: Pupillidae, Carychiidae, Strobilopsidae and Oligyridae. Proc. Okla. Acad. Sci., **41:** 45–69.

———. 1961. Notes on some gastropods from northern Louisiana. Proc. La. Acad. Sci., **24:** 24–30.

———. 1962. Some distribution records for Louisiana, Arkansas, and Missouri Gastropoda. Sterkiana, **7:** 5–6.

———. 1962. The Recent Gastropoda of Oklahoma, part IV. Terrestrial species, families Polygyridae and Bulimulidae. Proc. Okla. Acad. Sci., **42:** 60–80.

———. 1962. The slugs (Gastropoda: Pulmonata) of Oklahoma and Kansas with new records. Trans. Kan. Acad. Sci., **65:** 110–119.

———. 1963. New mollusk records from Oklahoma and their zoogeographical significance. Trans. Kan. Acad. Sci., **66:** 501–512.

———. 1963. The Recent Gastropoda of Oklahoma, V. Terrestrial species, Valloniidae, Achatinidae and Succineidae. Proc. Okla. Acad. Sci., **43:** 73–87.

———. 1963. Additions to and distributional annotations on the Kansas gastropod fauna. Trans. Kan. Acad. Sci., **66:** 72–75.

———. 1964. Records and two new species, *Stenotrema abaddona* and *S. glassi,* from Oklahoma. Nautilus, **77:** 100–105.

———. 1964. The Recent Gastropoda of Oklahoma, VI. Terrestrial families, Endodontidae and Haplotrematidae. Revisions and *Retinella zikmundi* sp. nov. Proc. Okla. Acad. Sci., **44:** 25–41.

———. 1968. Two new slugs (Pulmonata; Philomycidae: *Philomycus*) from Kentucky and Virginia. Nautilus, **81:** 127–133.

———. 1969. Snail records from various southern, eastern and middle states. Sterkiana, **35:** 1–4.

———. 1970. An ecological study of the valley-forest gastropods in a mixed mesophytic situation of northern Kentucky. Veliger, **12:** 333–350.

———. 1971. Locality records for Oklahoma Mollusca. Sterkiana, **41:** 35–40.

———. 1972. Mollusca of the Wichita, Arbuckle, and Black Mesa Uplifts of Oklahoma, and description of *Stenotrema wichitorum,* new species. Southwest. Natur., **16:** 307–320.

———. 1975. The Recent Gastropoda of Oklahoma, Part VII. The Zonitidae. Sterkiana, **52:** 28–44.

Branson, B. A., and D. L. Batch. 1968. Land snails from Pine and Big Black Mountains, Kentucky. Sterkiana, **32:** 6–17.

———. 1971. Annotated distribution records for Kentucky Mollusca. Sterkiana, **43:** 1–9.

Branson, B. A., J. Taylor, and C. Taylor. 1962. A Pleistocene local fauna from Caddo and Canadian Counties, Oklahoma. Okla. Geol. Notes, **22:** 280–295.

Branson, B. A., and I. E. Wallen. 1959. Some further records of snail distribution by counties in Oklahoma. Proc. Okla. Acad. Sci., **36:** 34–37.

Bretet, R., and E. C. Carswell. 1952. A rich locality in the New York City area. Nautilus, **65:** 100–102.

Briscoe, M. S. 1963. A survey of land and freshwater snails in Jefferson County, West Virginia. Sterkiana, **9:** 41–48.

Browne, R. G., and P. M. Bruder. 1963. Pleistocene Mollusca from the loesses of Kentucky. Sterkiana, **11:** 53–57.

———. 1968. Wisconsin molluscan faunas from Henderson County, Kentucky. Bull. Amer. Paleontol., **54:** 187–275.

Browne, R. G., and D. MacDonald. 1960. Wisconsin molluscan faunas from Jefferson County, Kentucky. Bull. Amer. Paleontol., **41:** 165–183.

Burch, J. B. 1952. A preliminary list of the Mollusca of Hanover County, Virginia. Nautilus, **66:** 60–63.

———. 1954. The landsnails of Henrico County, Virginia. Nautilus, **68:** 30–33.

———. 1955. The land snails of Hanover, Henrico, and Chesterfield counties, Virginia. Va. J. Sci., N.S. **6:** 154–162.

———. 1955. Some ecological factors of the soil affecting land snails in Virginia. Nautilus, **69:** 62–69.

———. 1956–1957. Distribution of land snails in plant associations in eastern Virginia. Nautilus, **70:** 60–64, 102–105.

———. 1969. Land mollusks of the southern Appalachians, pp. 247–264. *In* The Distributional History of the Biota of the Southern Appalachians. Part 1: Invertebrates. Monograph 1. Virginia Polytechnical Institute, Research Division, Blacksburg.

Burch, P. R. 1950. Mollusks, pp. 129–137. *In* The James River Basin—Past, Present, and Future. Virginia Academy of Science, Williamsburg.

Burch, P. R., and L. Hubricht. 1951. *Mesodon andrewsae normalis* (Pils.) in Virginia (Pulmonata: Polygyridae). Va. J. Sci., N.S. **2:** 60–61.

Bushey, C. J. 1950. Land snails from Clifty Falls State Park, Jefferson County, and from Versailles State Park, Ripley County, Indiana. Nautilus, **64:** 54–55.

———. 1950. Land snails from Grant County, Indiana. Nautilus, **63:** 119–121.

Camp, M. J. 1973. Pleistocene lacustrine deposits and molluscan paleontology of western Ohio, eastern Indiana, and southern Michigan. Sterkiana, **52:** 1–27.

———. 1974. Pleistocene Mollusca of three southeastern Michigan marl deposits. Sterkiana, **56:** 21–64.

Camp, M. J., and A. L. Ginder. 1978. Pleistocene Mollusca of the Sunbeam Prairie lacustrine deposit, Darke Co., Ohio. Ohio J. Sci., **78:** 111–118.

Cheatum, E. 1976. Molluscan fauna of the Gore Pit site in Comanche County, Oklahoma. Plains Anthropol., **21:** 279–282.

Cheatum, E., and D. Allen. Pleistocene land and freshwater mollusks from north Texas. Sterkiana, **18:** 1–17.

Cheatum, E., and R. W. Fullington. 1971. The aquatic and land Mollusca of Texas. Part One. The Recent and Pleistocene members of the gastropod family Polygyridae in Texas. Dallas Mus. Nat. Hist., Bull. **1:** i–vi, 1–74.

———. 1973. The aquatic and land Mollusca of Texas. Part Two. The Recent and Pleistocene members of the Pupillidae and Urocoptidae (Gastropoda) of Texas. Dallas Mus. Nat. Hist., Bull. **1:** i–iii, 1–67.

Clark, A. L. 1961. Pleistocene molluscan faunas of the Castalia deposit, Erie County, Ohio. Sterkiana, **3:** 19–39.

Clark, C. F. 1962. Records of Gastropods collected in western Ohio. Sterkiana, **6:** 15–22.

Clench, W. J. 1954. *Mesodon thyroidus* (Say) in Florida. Nautilus, **68:** 23–24.

Coney, C. C., W. A. Tarpey, J. C. Warden, and J. W. Nagel. 1982. Ecological studies of land snails in the Hiwassee River basin of Tennessee, U.S.A. Malacol. Rev., **15:** 69–106.

Conklin, J. E. 1957. Larger land snails of Sleepy Hollow, Kentucky. Nautilus, **71:** 10–11.

Conklin, J. E., and B. M. Conklin. 1961. Fossil land snails from the loess at Vicksburg, Mississippi. Trans. Ky. Acad. Sci., **22:** 11–15.

Cornejo, J. 1961. Pleistocene molluscan faunas of the Souder Lake Deposit, Franklin County, Ohio. Sterkiana, **4:** 35–49.

Couri, C. C. 1973. A new Pleistocene faunule from Meade County, Kansas. Sterkiana, **51:** 1–9.

Cvancara, A. M., J. B. Van Alstine, and W. E. Fennar. 1973. Land snails of North Dakota, a preliminary report. Proc. N.D. Acad. Sci., **26:** 43–50.

Dawley, C. 1955. Minnesota land snails. Nautilus, **69:** 56–62.

Dexter, R. W. 1955. Extension of known range of the slug *Pallifera fosteri* F. C. Baker. Nautilus, **69:** 35–36.

Dundee, D. S. 1955. Additional localities for land Mollusca in Oklahoma. Nautilus, **69:** 16–18.

———. 1957. Aspects of the biology of *Pomatiopsis lapidaria* (Say). Misc. Pub. Mus. Zool. Univ. Mich., no. **100:** 1–37.

Dundee, D. S., and H. A. Dundee. 1958. Extensions of known ranges of 4 mollusks. Nautilus, **72:** 51–53.

Dundee, D. S., and P. Watt. 1961. Louisiana land snails with new records. Nautilus, **75:** 79–83.

EINSOHN, B. 1981. New records of land Mollusca in New York City. Nautilus, **95:** 82–83.

FRANZEN, D. S. 1971. Anatomy and geographic distribution of the succineid gastropod, *Succinea vaginacontorta* Lee. Nautilus, **84:** 131–142.

FREED, S. 1957. Land and fresh water mollusks of Union County, New Jersey. Nautilus, **70:** 135–136.

FREST, T. J., AND L. P. FAY. 1981. *Vertigo maramecensis* (Pulmonata: Pupillidae) from the Niagran Escarpment, Iowa. Nautilus, **95:** 33–37.

FREST, T. J., AND R. S. RHODES II. 1981. *Oreohelix strigosa cooperi* (Binney) in the midwest Pleistocene. Nautilus, **95:** 47–55.

FULLINGTON, R. W., AND W. L. PRATT, JR. 1974. The aquatic and land Mollusca of Texas. Part Three. The Helicinidae, Carychiidae, Achatinidae, Bradybaenidae, Bulimulidae, Cionellidae, Haplotrematidae, Helicidae, Oreohelicidae, Spiraxidae, Streptaxidae, Strobilopsidae, Thysanophoridae, and Valloniidae (Gastropoda) in Texas. Dallas Mus. Nat. Hist., Bull., **1:** i–iv, 1–48.

GETZ, L. L. 1962. Localities for New Hampshire land mollusks. Nautilus, **76:** 25–28.

GRIMM, F. W. 1959. Land snails of Carroll County, Maryland. Nautilus, **72:** 122–127.

———. 1959. Land snails from Maryland and Virginia. Nautilus, **73:** 21–22.

———. 1961. *Pallifera fosteri,* with *P. megaphallica,* new. Nautilus, **74:** 102–105.

———. 1961. Land snails from the upper Patuxent Estuary margin (Maryland). Nautilus, **74:** 106–109.

———. 1961. Land snails from Maryland coastal plain. Nautilus, **74:** 160–161.

———. 1963. *Triodopsis fosteri* in Ohio. Nautilus, **77:** 72.

———. 1964. *Striatura meridionalis* in Michigan. Nautilus, **77:** 108.

———. 1971. Annotated checklist of the land snails of Maryland and the District of Columbia. Sterkiana, **41:** 51–57.

———. 1975. A review of *Succinea wilsoni* a coastal marsh snail of eastern North America. Nautilus, **89:** 39–43.

———. 1975. Speciation within the *Triodopsis fallax* group (Pulmonata: Polygyridae)—A preliminary report. Bull. Amer. Malacol. Union, **1975:** 23–29.

GUILDAY, J. E., H. W. HAMILTON, E. ANDERSON, AND P. W. PARMALEE. 1978. The Baker Bluff Cave deposit, Tennessee, and the late Pleistocene faunal gradient. Bull. Carnegie Mus. Nat. Hist., **11:** 1–67 (Table 1, Mollusca, pp. 11–12).

HEILMAN, R. A. 1951. The mollusks of Dauphin County, Pennsylvania. Nautilus, **64:** 100–101.

———. 1952. The mollusks of Berks County, Pennsylvania. Nautilus, **65:** 103–104.

———. 1958. Mollusks of Lebanon Co., Pennsylvania. Nautilus, **72:** 58–60.

HUBRICHT, L. 1950. The invertebrate fauna of Ozark caves. Nat. Speleol. Soc. Bull., **12:** 16–17.

———. 1950. The distribution of *Triodopsis soelneri* (J. B. Henderson) in North Carolina. Nautilus, **64:** 67.

———. 1950. The Polygyridae of Pittsylvania County, Virginia. Nautilus, **64:** 6–9.

———. 1950. *Mesodon andrewsae normalis* (Pils.) in Kentucky. Nautilus, **63:** 106.

———. 1950. Notes on *Pallifera.* Nautilus, **63:** 106.

———. 1951. The Limacidae and Philomycidae of Pittsylvania County, Virginia. Nautilus, **65:** 20–22.

———. 1951. *Pallifera secreta* (Cockerell). Nautilus, **64:** 102–103.

———. 1952. The land snails of Pittsylvania County, Virginia. Nautilus, **66:** 10–13.

———. 1953. The Zonitidae of Pittsylvania County, Virginia. Nautilus, **67:** 22–24.

———. 1953. Land snails of the Southern Atlantic coastal plain. Nautilus, **66:** 114–125.

———. 1954. The snails from two Indian shellmounds near Clarksville, Virginia. Nautilus, **67:** 90–92.

———. 1956. Land snails of Shenandoah National Park. Nautilus, **70:** 15–16.

———. 1956. Land snails from Louisiana. Nautilus, **69:** 124–126.

———. 1956. *Haplotrema kendeighi* Webb. Nautilus, **69:** 126–128.

———. 1960. Distribution records of land snails in the southeastern United States. Sterkiana, **2:** 9–12.

———. 1960. *Pomatiopsis lapidaria* on the southern Atlantic coastal plain, with remarks on the status of *P. praelonga* and *P. hinkley.* Nautilus, **74:** 33–34.

———. 1960. The cave snail, *Carychium stygium* Call. Trans. Ky. Acad. Sci., **21:** 35–38.

———. 1960. The genus *Bulimulus* in southern Texas. Nautilus, **74:** 68–70.

———. 1960. Beach drift land snails from southern Texas (exclusive of Polygyridae). Nautilus, **74:** 82–83.

———. 1960. *Hendersonia occulta* fossil in Mississippi. Nautilus, **74:** 83.

———. 1961. Land snails from the loess of Mississippi. Sterkiana, **3:** 11–14.

———. 1962. Land snails from the Pleistocene of southern Texas. Sterkiana, **7:** 1–3.

———. 1962. Land snails from the loess in the vicinity of New Harmony, Posey County, Indiana. Sterkiana, **7:** 3–4.

———. 1962. *Mesomphix vulgatus* and its allies. Nautilus, **76:** 1–7.

———. 1962. Pleistocene land snails from southern Mississippi and adjacent Louisiana. Sterkiana, **8:** 1–11.

———. 1962. Drift land shells from the Red River, Arkansas. Sterkiana, **8:** 33–34.

———. 1963. Some Succineidae, with a new species. Nautilus, **76:** 135–138.

———. 1963. *Triodopsis hopetonensis* (Shuttleworth) in the Gulf States. Nautilus, **76:** 152.

———. 1963. Some land snail records from Louisiana. Sterkiana, **10:** 1–3.

———. 1963. The range of *Succinea ovalis.* Nautilus, **77:** 30–31.

———. 1964. Some Pleistocene land snail records from Missouri and Illinois. Sterkiana, **13:** 7–17.

———. 1964. Land snails from the caves of Kentucky, Tennessee, and Alabama. Nat. Speleol. Soc. Bull., **26**: 33–36.

———. 1964. The bidentate species of *Ventridens* (Stylommatophora: Zonitidae). Malacologia, **1**: 417–426.

———. 1964. *Strobilops aenea* west of the Mississippi River. Nautilus, **78**: 27–28.

———. 1964. Pleistocene land snails from the talus of Kentucky and Tennessee. Sterkiana, **16**: 3–4.

———. 1964. The land snails of Georgia. Sterkiana, **16**: 5–10.

———. 1965. The land snails of Alabama. Sterkiana, **17**: 1–5.

———. 1965. Pleistocene land snails from Muddy Creek, Mississippi. Sterkiana, **16**: 6.

———. 1965. Notes on Zonitidae. Nautilus, **78**: 133–135.

———. 1966. Some land snail records from Arkansas and Oklahoma. Nautilus, **79**: 117–118.

———. 1967. Some land snail records from Oklahoma and Arkansas. Nautilus, **81**: 65–67.

———. 1968. The land snails of Mammoth Cave National Park, Kentucky. Nautilus, **82**: 24–28.

———. 1968. The land snails of Kentucky. Sterkiana, **32**: 1–6.

———. 1970. The land snails of North Carolina. Sterkiana, **39**: 11–15.

———. 1971. The land snails of South Carolina. Sterkiana, **41**: 42–44.

———. 1971. The land snails of Virginia. Sterkiana, **42**: 41–45.

———. 1972. Land snail records from Missouri. Sterkiana, **45**: 34–35.

———. 1972. Some river drift land snails from Oklahoma. Sterkiana, **45**: 36.

———. 1972. The land snails of Arkansas. Sterkiana, **46**: 15–17.

———. 1973. The land snails of Tennessee. Sterkiana, **49**: 11–17.

———. 1973. The land snails of Mississippi. Sterkiana, **67**: 1–4.

———. 1983. The genus *Praticolella* in Texas (Polygyridae: Pulmonata). Veliger, **25**: 244–250.

———. 1983. Five new land snails from the southeastern United States, with notes on other species. Gastropodia, **2**: 13–19.

IDEKER, J. 1979. The associated gastropod fauna of the Santa Ana National Wildlife Refuge with notes on a colony of the snail, *Helicina orbiculata*. Southwest. Natur., **24**: 687–689.

KAPLAN, M. F., AND W. L. MINKLEY. 1960. Land snails from the Doe Run Creek Area, Meade County, Kentucky. Nautilus, **74**: 62–65.

LEONARD, A. B. 1959. Handbook of gastropods in Kansas. Univ. Kan. Mus. Nat. Hist., Publ. No. **20**: 1–224.

LEONARD, A. B., J. C. FRYE, AND W. H. JOHNSON. 1971. Illinoian and Kansan Molluscan faunas of Illinois. Ill. State Geol. Surv., Circ. **461**: 1–23.

LEVI, L. R., AND H. W. LEVI. 1950. New records of land snails from Wisconsin. Nautilus, **63**: 131–138.

LUTZ, L. 1950. A list of the land Mollusca of Claiborne County, Tennessee with description of a new subspecies of *Triodopsis*. Nautilus, **63**: 99–105, 121–123.

MACMILLAN, G. K. 1950. The land snails of West Virginia. Ann. Carnegie Mus., **31**: 89–238.

MICKELSON, E. H. 1953. A preliminary survey of the land mollusks of Alachua County, Florida. Nautilus, **67**: 33–35, 48–53.

MILES, C. B., AND R. L. REEDER. 1969. A preliminary report on the distribution of land snails in northern Missouri. Amer. Malacol. Union, Ann. Rep., **1969**: 40–42.

MILLER, B. B. 1966. Five Illinoian Molluscan faunas from the southern Great Plains. Malacologia, **4**: 173–260.

MUCHMORE, W. B. 1959. Land snails of E. N. Huych Preserve, New York. Nautilus, **72**: 85–89.

MURPHY, J. L. 1971. Molluscan remains from four archeological sites in northeastern Ohio. Sterkiana, **43**: 21–25.

NAVE, F. R. 1969. Pleistocene Mollusca of southwestern Ohio. Sterkiana, **34**: 1–48.

NECK, R. W. 1977. New county records of land snails of Texas. Sterkiana, **65**: 5–6.

PILSBRY, H. A., AND L. HUBRICHT. 1956. Beach drift Polygyridae from southern Texas. Nautilus, **69**: 93–96.

PRATT, W. L., JR. 1974. A revision of the mainland species of the bulimulid land snail genus *Rabdotus*. Bull. Amer. Malacol. Union, **1973**: 24–25.

RAWLS, H. C. 1955. The occurrence of *Polygyra texasiana* (Moricand) in Alabama. Nautilus, **68**: 77–79.

REEDER, R. L., AND C. D. MILES. 1976. Land snails from northern Missouri. Sterkiana, **61**: 15–18.

REHDER, H. A. 1949. Some land and freshwater mollusks from the coastal region of Virginia and North and South Carolina. Nautilus, **62**: 121–136.

REIGLE, N. J. 1963. Northern records of *Gastrocopta procera*. Nautilus, **77**: 16–18.

———. 1964. The distribution of the genus *Ventridens* (Mollusca, Gastropoda) in Michigan. Amer. Midl. Natur., **72**: 507–508.

ROBERTSON, I. C. S., AND C. L. BLAKESLEE. 1948. The Mollusca of the Niagara frontier region and adjacent territory. Bull. Buffalo Soc. Nat. Hist., **19**: 1–191.

ROSCOE, E. J. 1954. Terrestrial gastropods from the Black Hills, Lawrence County, South Dakota. Proc. Utah Acad. Sci. Arts Lett., **31**: 67–72.

ROY, E. C., JR. 1963. Checklist of Pleistocene and living Mollusca of Wisconsin. Sterkiana, **10**: 5–21.

———. 1964. Pleistocene non-marine Mollusca of northeastern Wisconsin. Sterkiana, **15**: 5–77.

TAFT, C. 1961. The shell-bearing land snails of Ohio. Ohio Biol. Surv., Bull. **1**: i–xii, 1–108.

TAYLOR, D. W. 1954. A new Pleistocene fauna and a new species of fossil snail from the high plains. Occas. Pap. Mus. Zool. Univ. Mich., **577**: 1–16.

———. 1955. A new Pleistocene fauna from Harper County, Oklahoma. Okla. Geol. Surv., Circ. **37**: 1–23.

———. 1960. Late Cenozoic molluscan faunas from

the High Plains. U.S. Geol. Surv., Prof. Paper, **337:** i–iv, 1–94.

———. 1966. Summary of North American Blancan nonmarine mollusks. Malacologia, **4:** 1–172.

TAYLOR, R. W., C. L. COUNTS III, AND S. L. STRYKER. 1977. The land snails of Carter Caves State Park, Carter County, Kentucky. Sterkiana, **65:** 37–38.

TESKEY, M. C. 1954. The mollusks of Brown County, Wisconsin. Nautilus, **68:** 24–28.

———. 1955. The mollusks of Warm Springs, Georgia. Nautilus, **69:** 69–71.

TUCKER, J. K., AND R. S. FUNK. 1977. *Succinea witteri* Shimek (Gastropoda: Succineidae) in Illinois. Nat. Hist. Misc. (Chicago), No. **198:** 1–7.

TUCKER, J. K., R. S. FUNK, AND D. MOLL. 1977. Distributional records of polygyrid snails in Illinois with an addition to the state fauna. Trans. Ill. State Acad. Sci., **70:** 86–90.

TUTHILL, S. J. 1962. A checklist of North Dakota Pleistocene and Recent Mollusca. Sterkiana, **8:** 12–18.

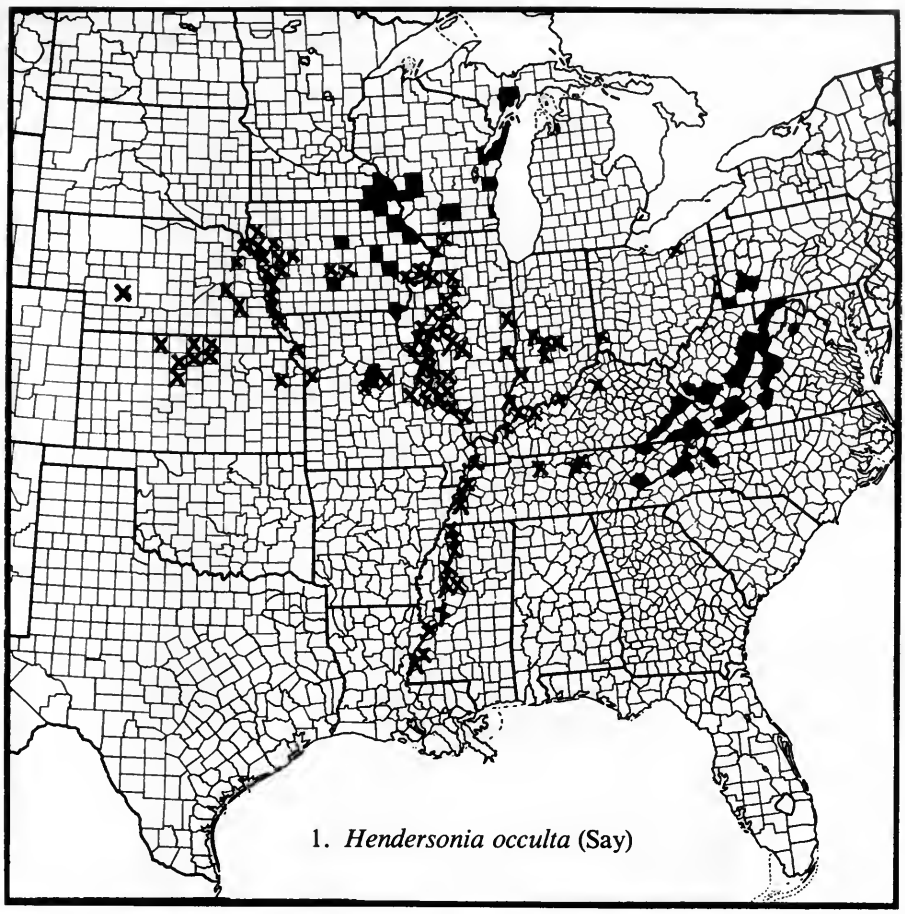
WAYNE, W. J. 1959. Stratigraphic distribution of Pleistocene land snails in Indiana. Sterkiana, **1:** 9–18.

WILSON, D. 1960. Land snails from central south Florida. Nautilus, **73:** 137–139.

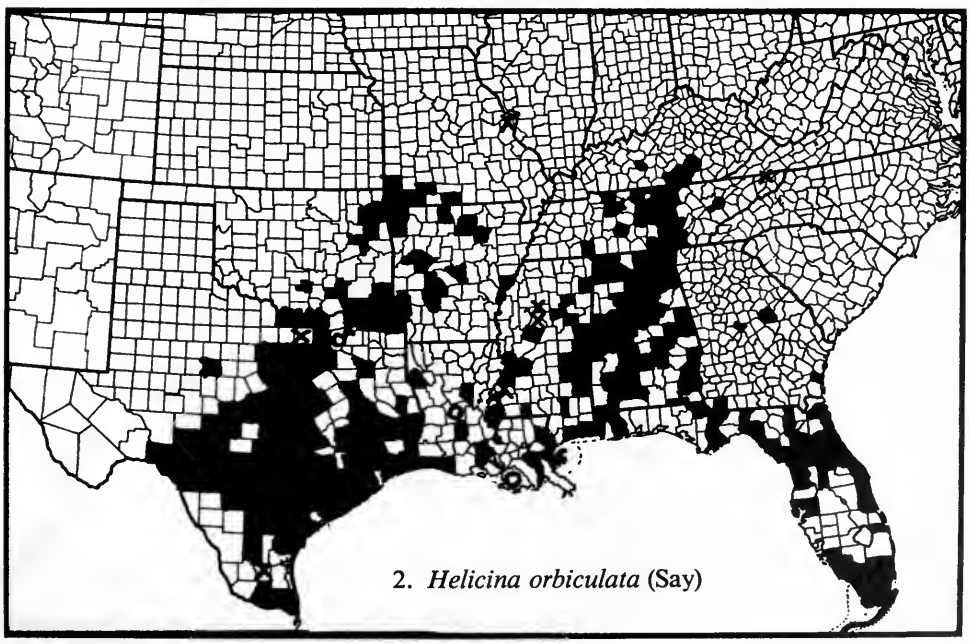
WURTZ, C. B. 1948. Some land snails from West Virginia and description of a new species. Nautilus, **61:** 80–89.

———. 1948. Some snail records from south-eastern Ohio. Nautilus, **62:** 91–93.

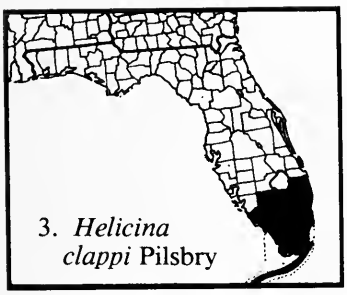
WURZINGER, K-H. 1975. The land snails of New York State. Preliminary report. Sterkiana, **57:** 33–39.

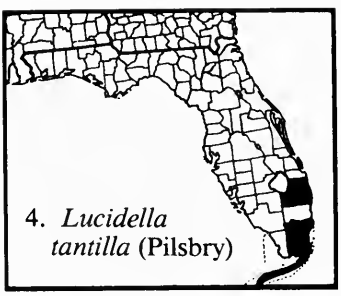


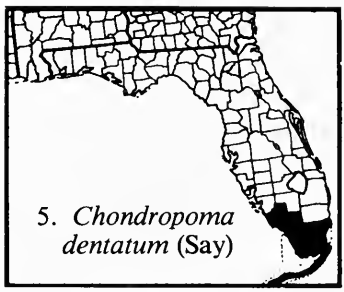
1. *Hendersonia occulta* (Say)

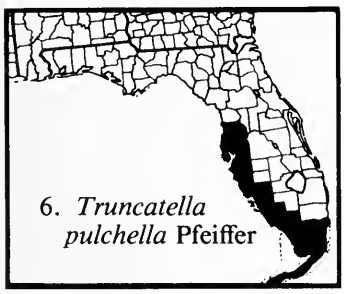


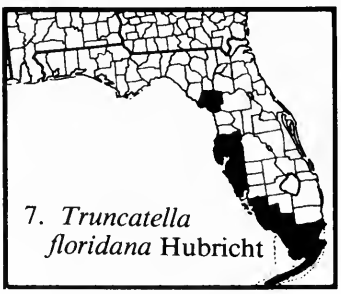
2. *Helicina orbiculata* (Say)

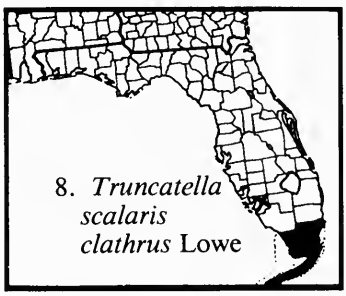

3. *Helicina clappi* Pilsbry

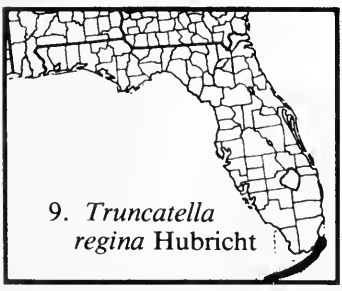

4. *Lucidella tantilla* (Pilsbry)

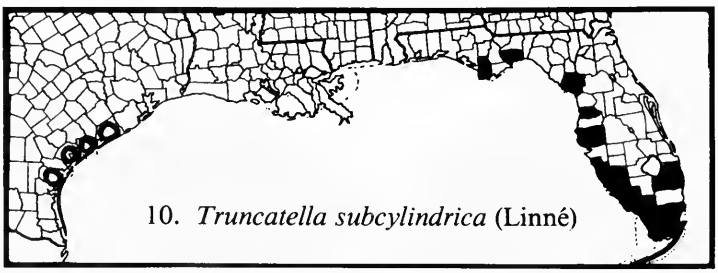

5. *Chondropoma dentatum* (Say)

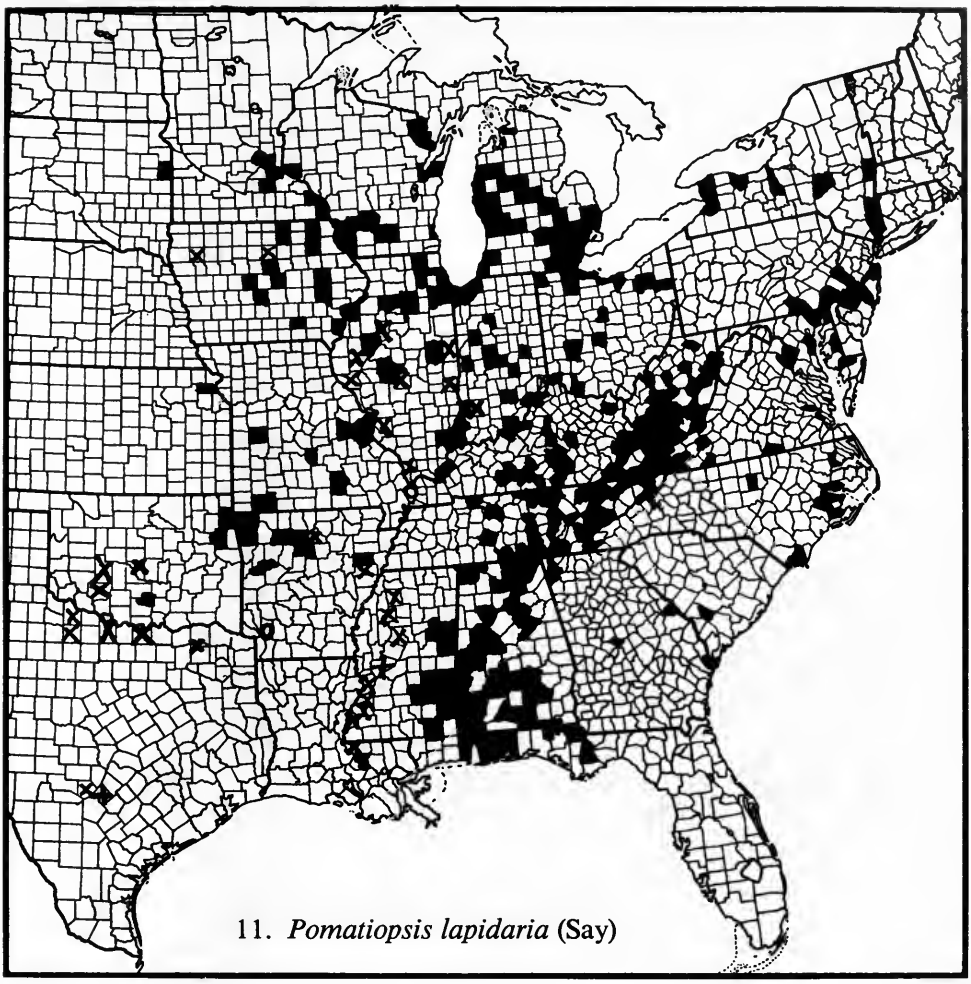

6. *Truncatella pulchella* Pfeiffer


7. *Truncatella floridana* Hubricht

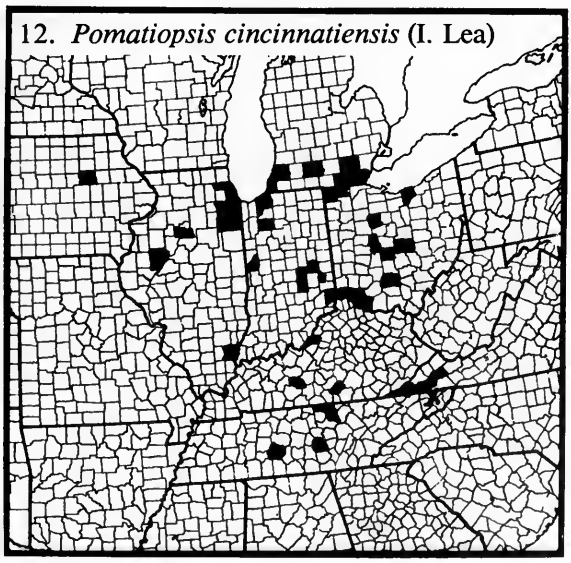

8. *Truncatella scalaris clathrus* Lowe


9. *Truncatella regina* Hubricht

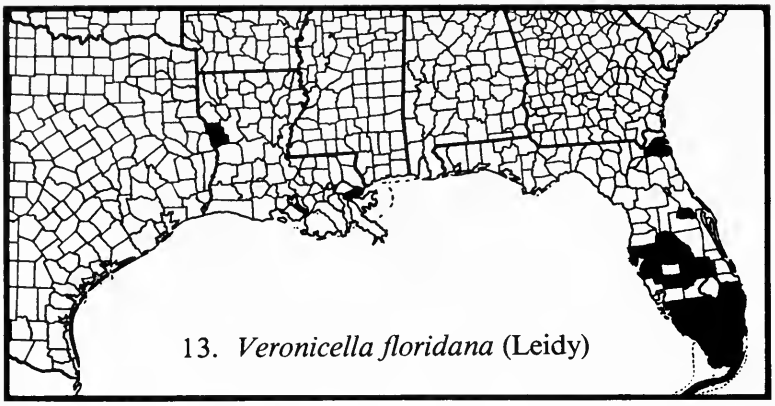

10. *Truncatella subcylindrica* (Linné)



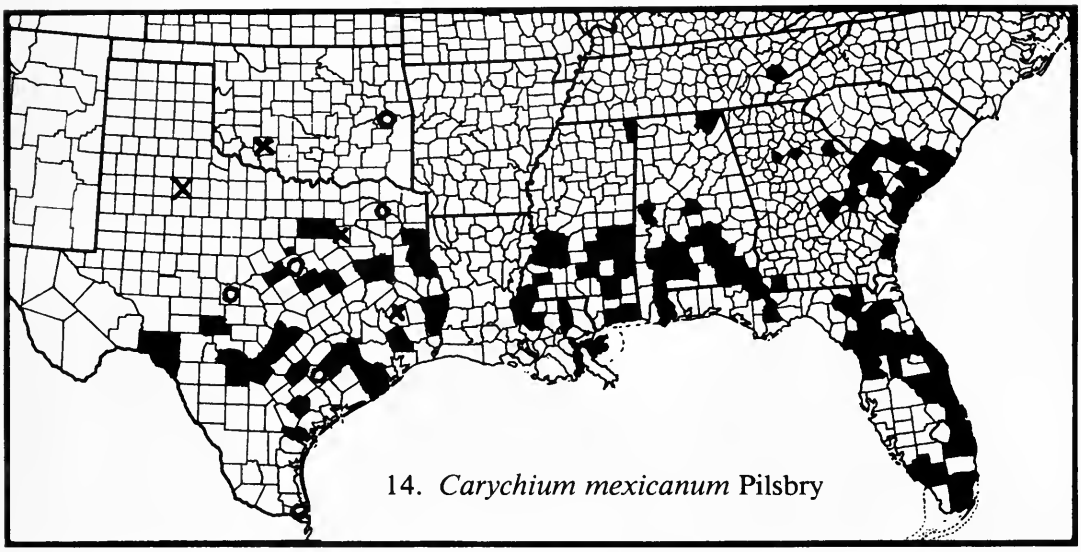
11. *Pomatiopsis lapidaria* (Say)



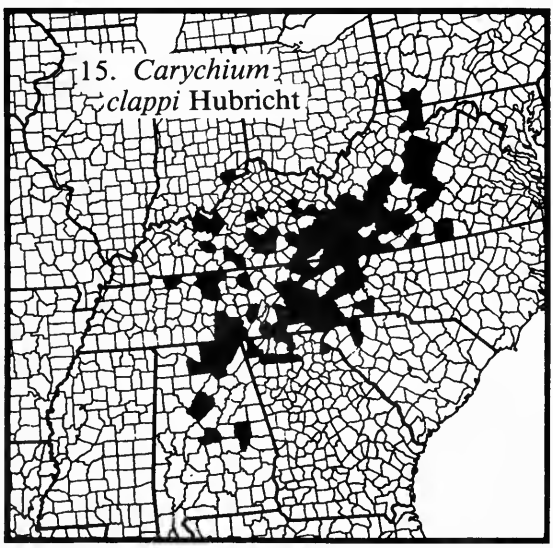
12. *Pomatiopsis cincinnatiensis* (I. Lea)



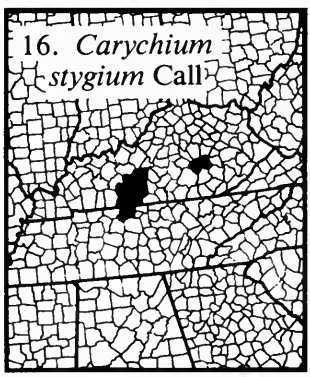
13. *Veronicella floridana* (Leidy)



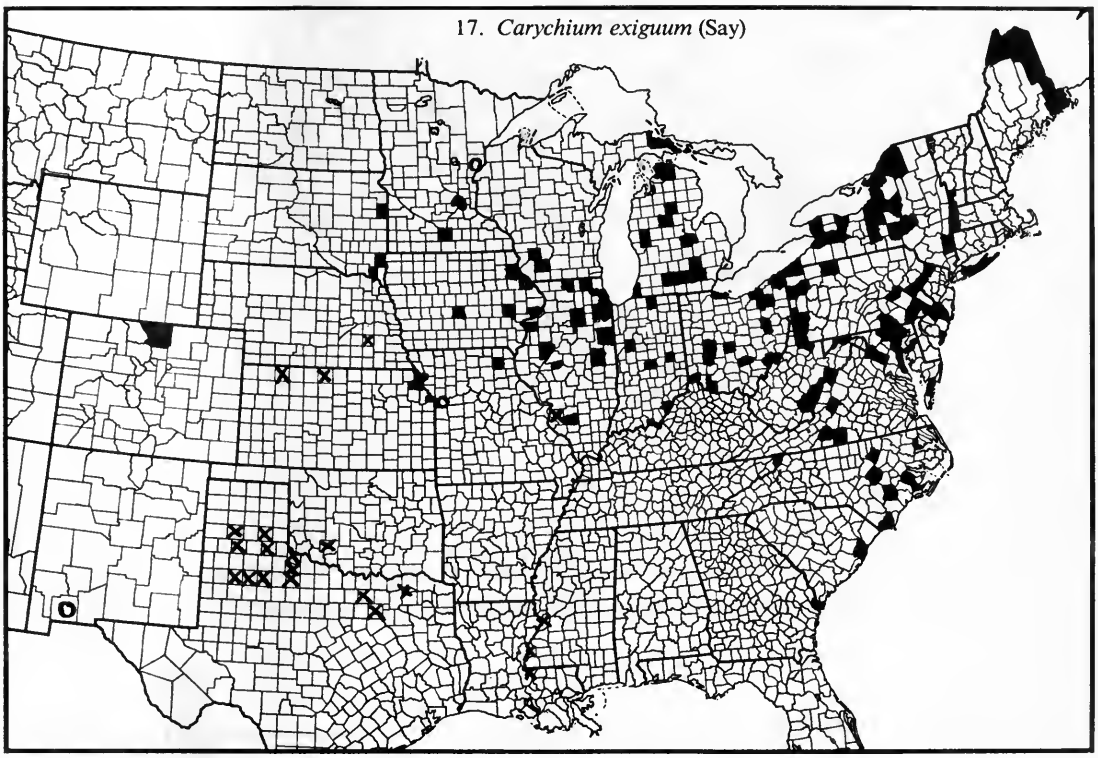
14. *Carychium mexicanum* Pilsbry



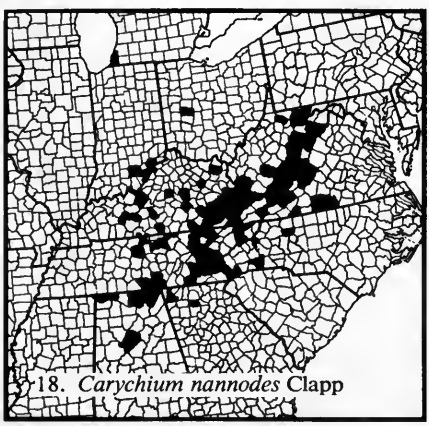
15. *Carychium clappi* Hubricht



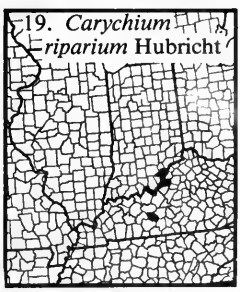
16. *Carychium stygium* Call



17. *Carychium exiguum* (Say)

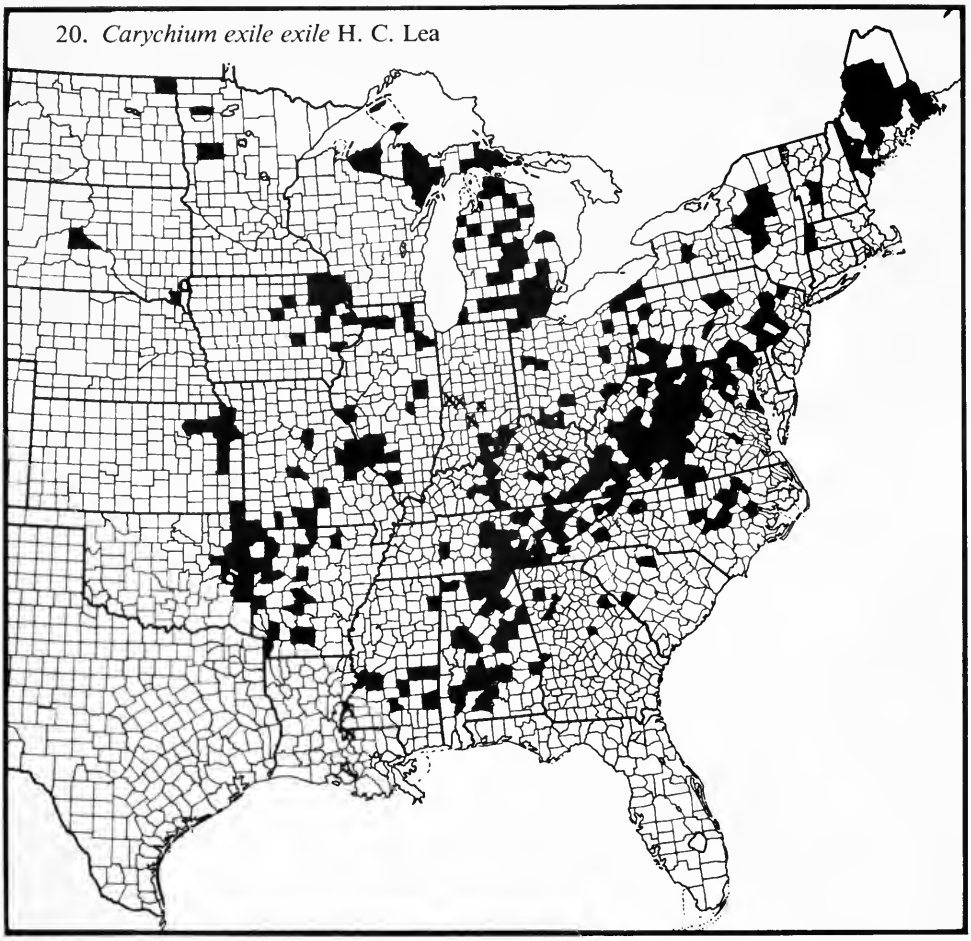


18. *Carychium nannodes* Clapp

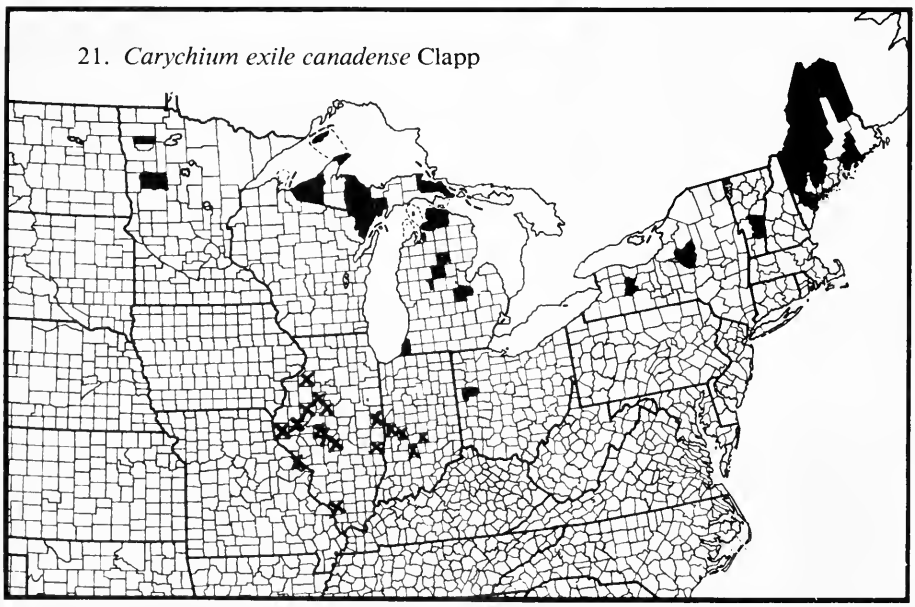


19. *Carychium riparium* Hubricht

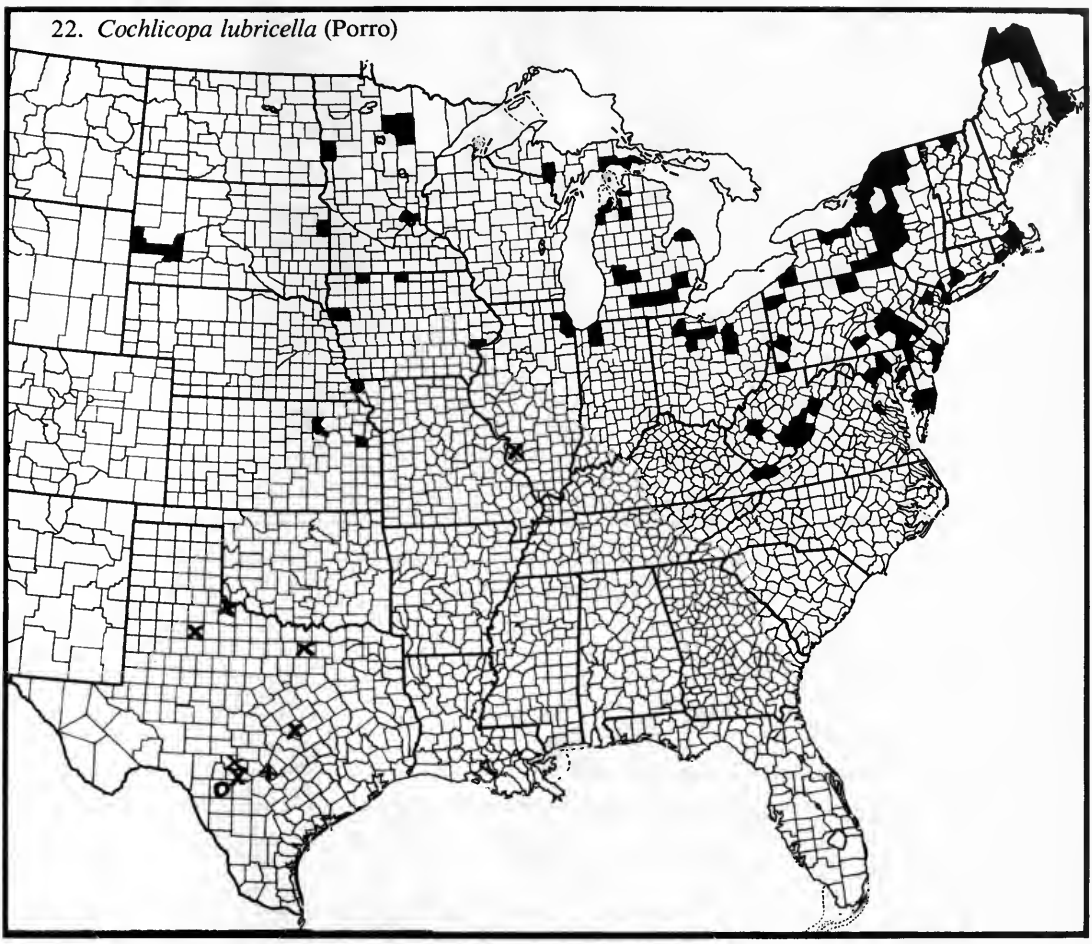
20. *Carychium exile exile* H. C. Lea



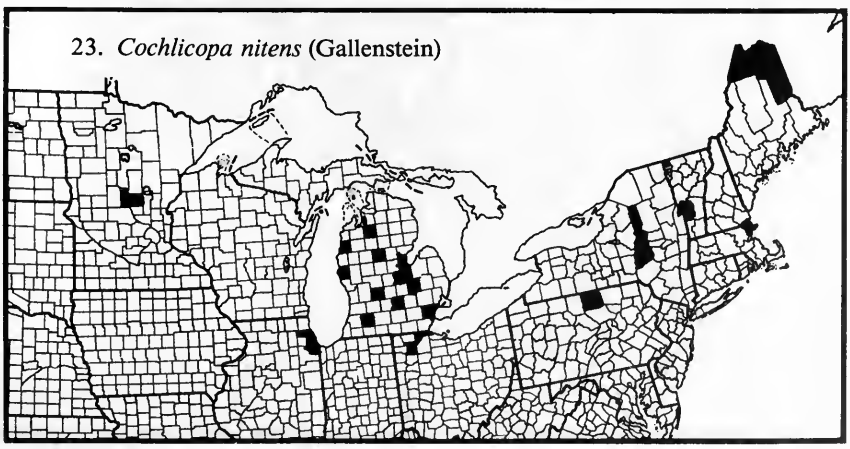
21. *Carychium exile canadense* Clapp



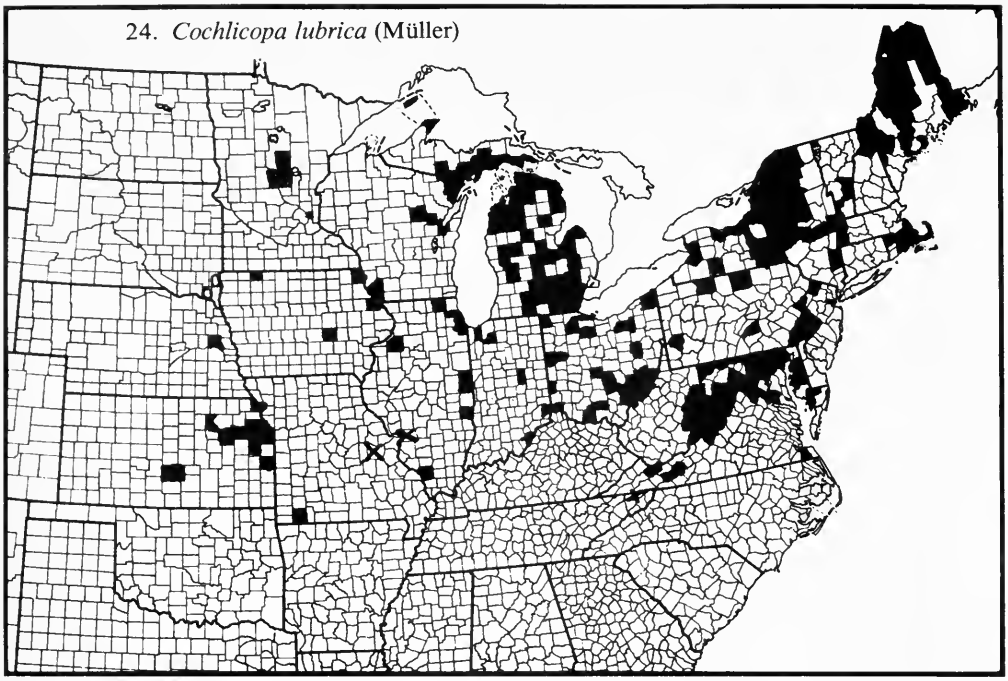
22. *Cochlicopa lubricella* (Porro)



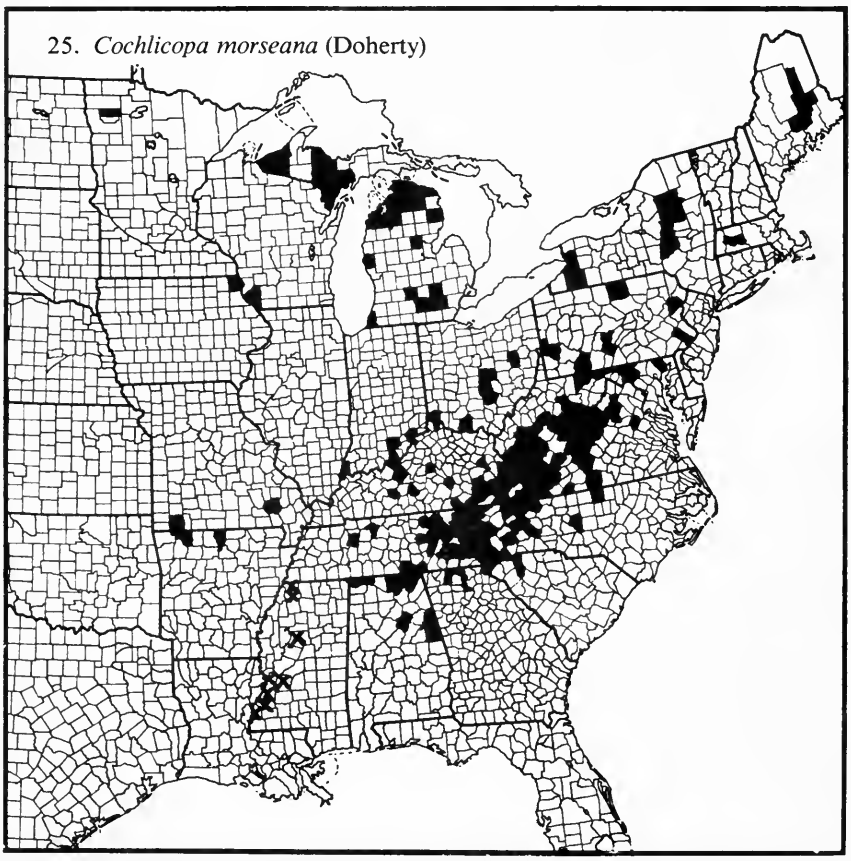
23. *Cochlicopa nitens* (Gallenstein)



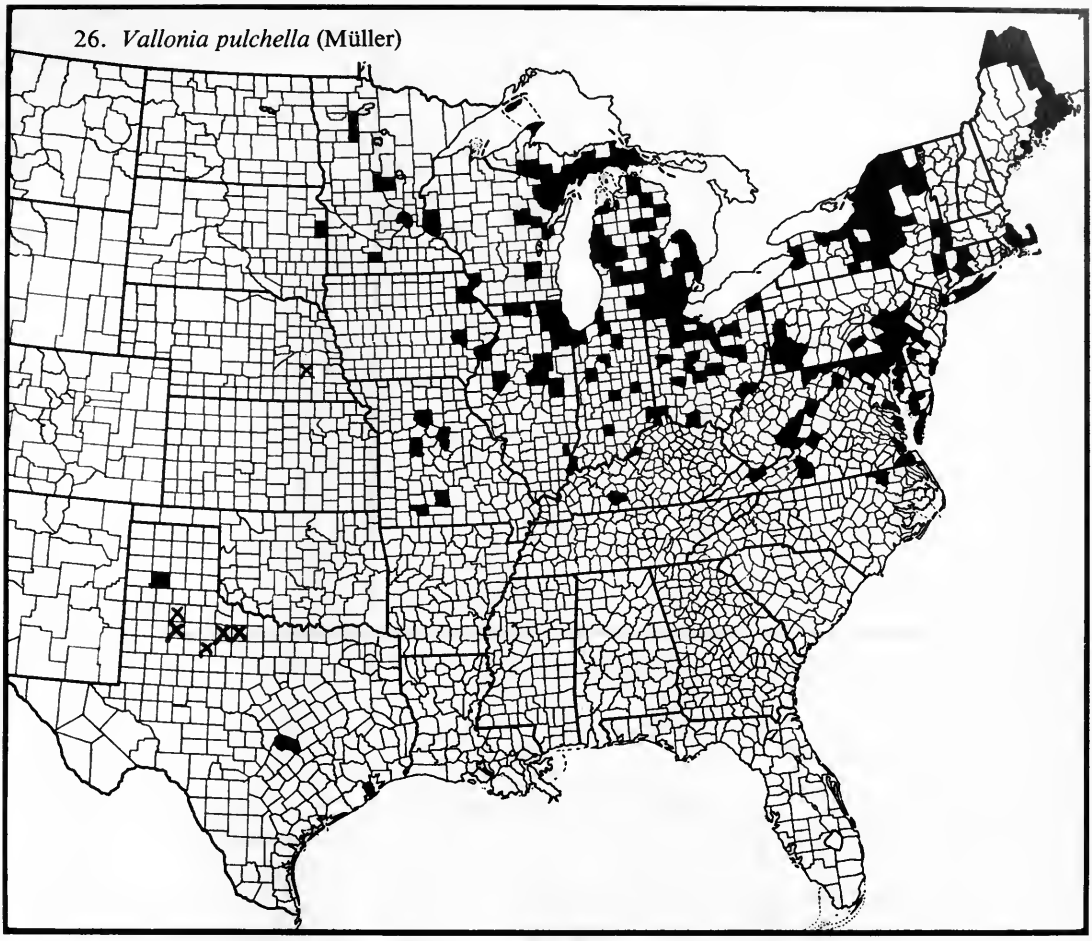
24. *Cochlicopa lubrica* (Müller)



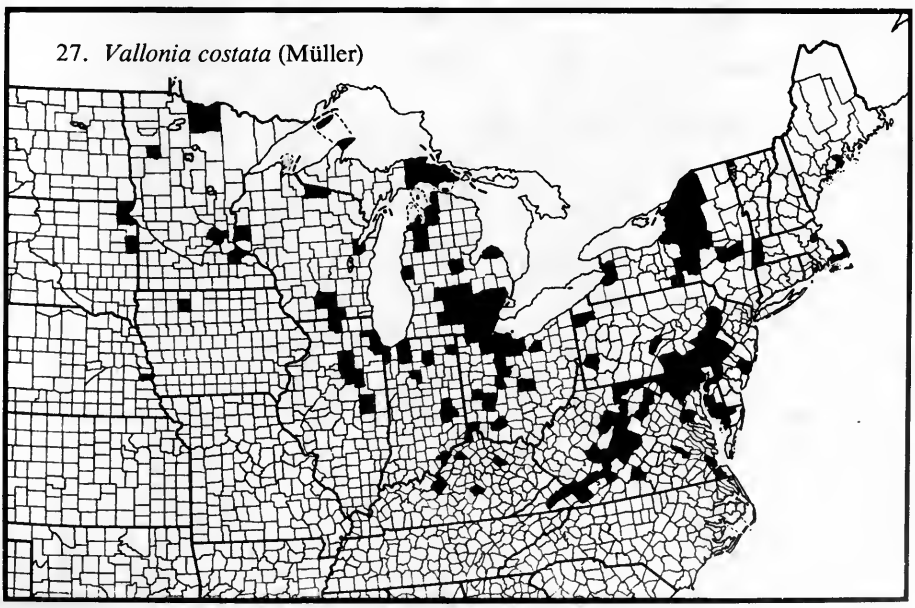
25. *Cochlicopa morseana* (Doherty)

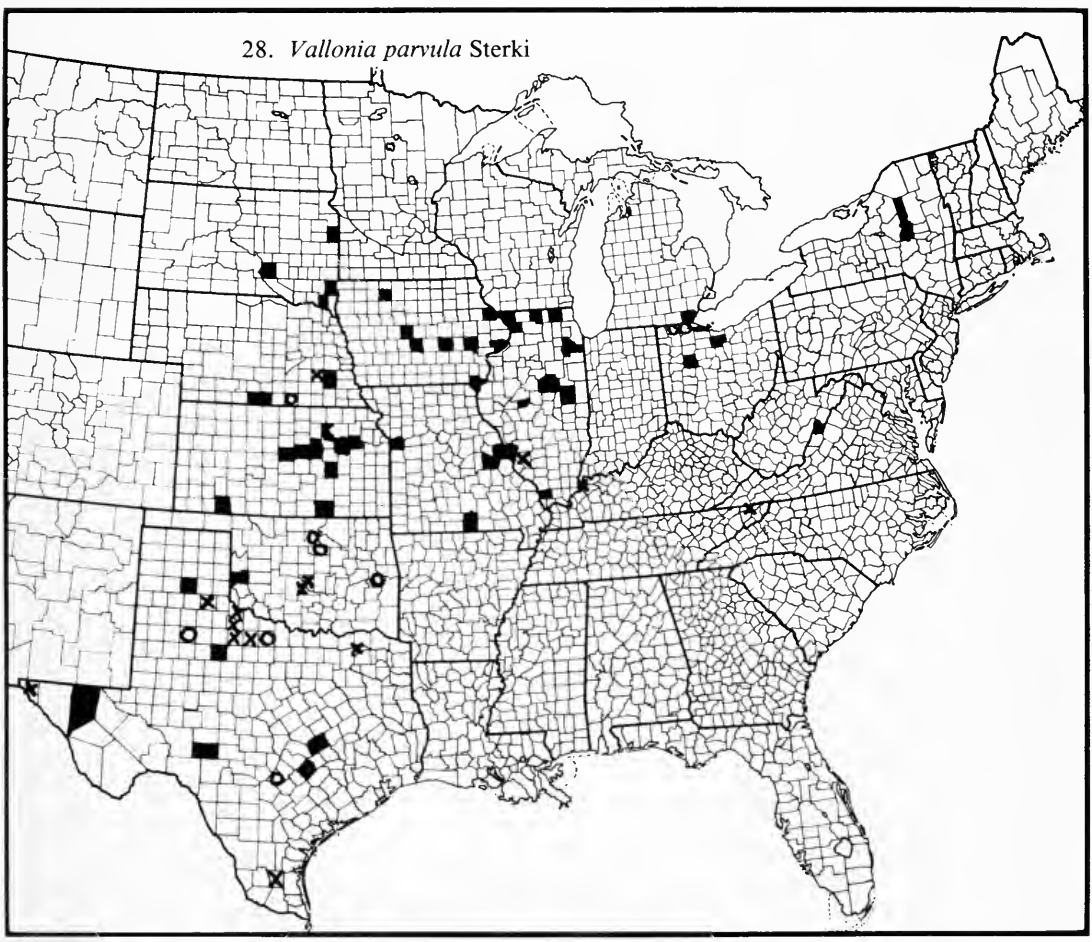


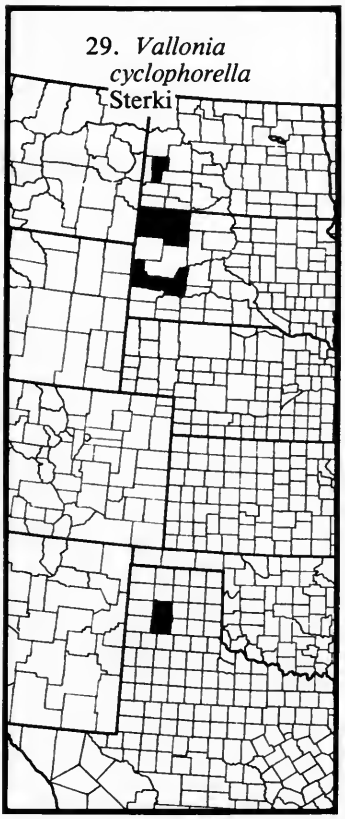
26. *Vallonia pulchella* (Müller)

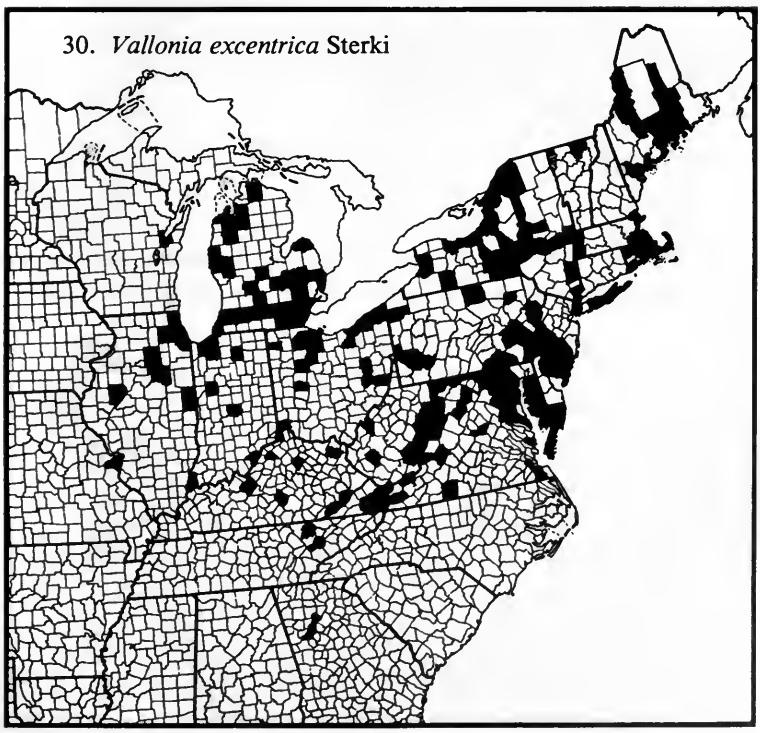


27. *Vallonia costata* (Müller)

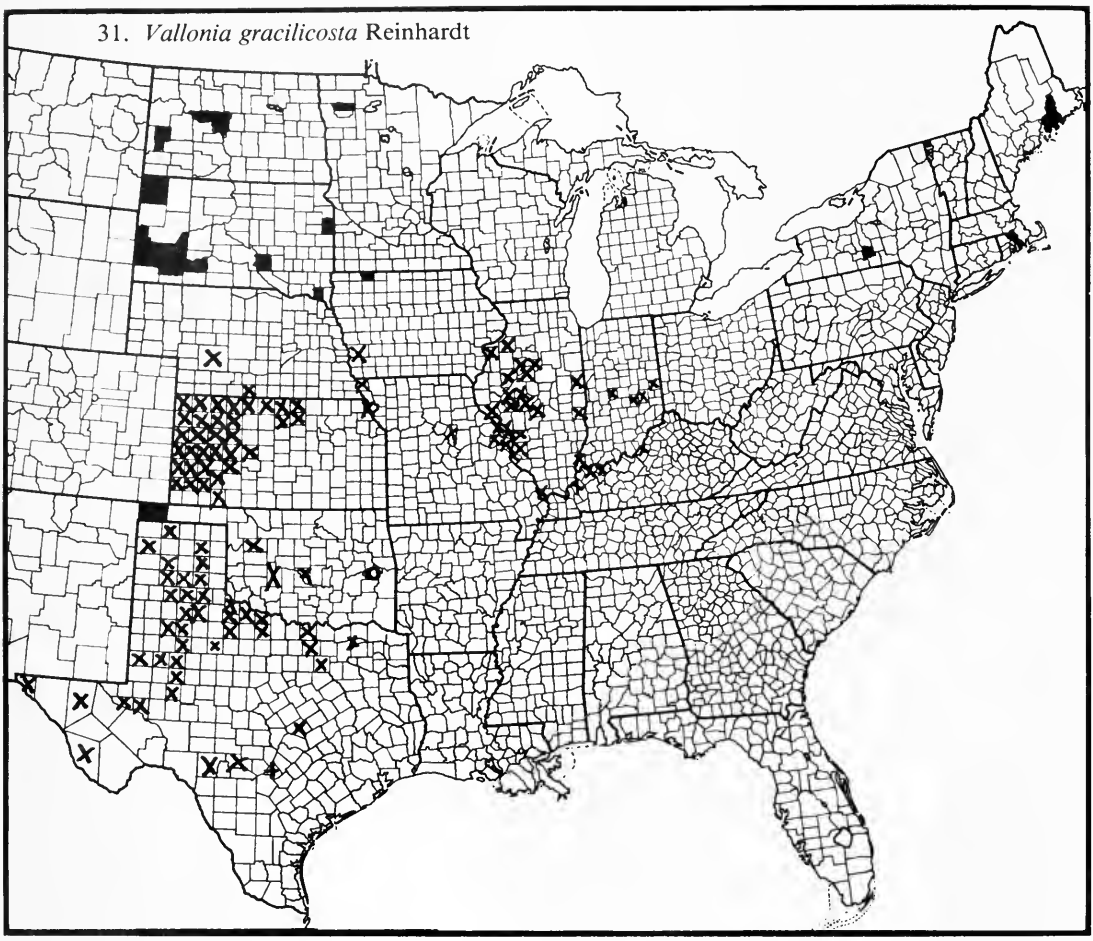



28. *Vallonia parvula* Sterki

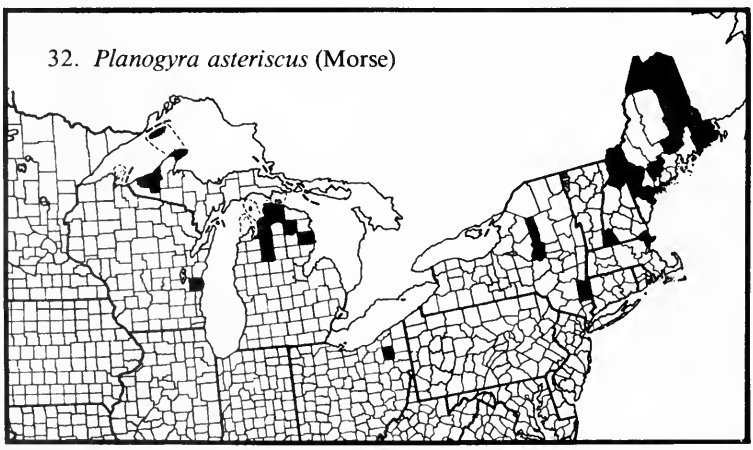

29. *Vallonia cyclophorella* Sterki


30. *Vallonia excentrica* Sterki

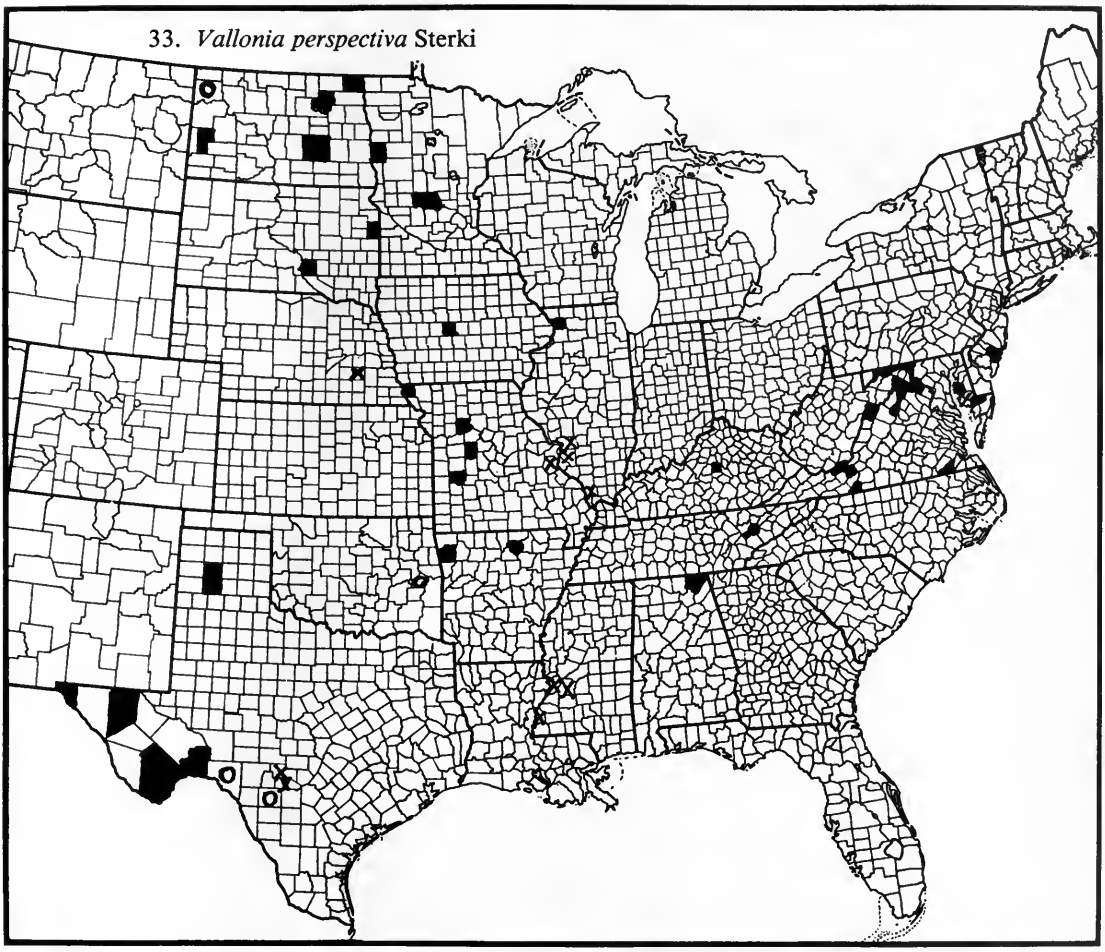
31. *Vallonia gracilicosta* Reinhardt



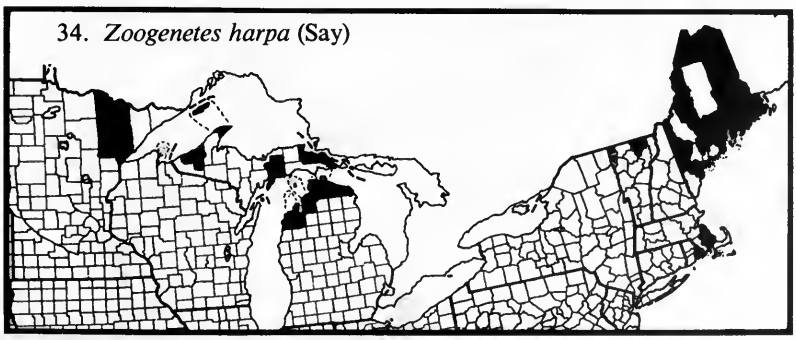
32. *Planogyra asteriscus* (Morse)

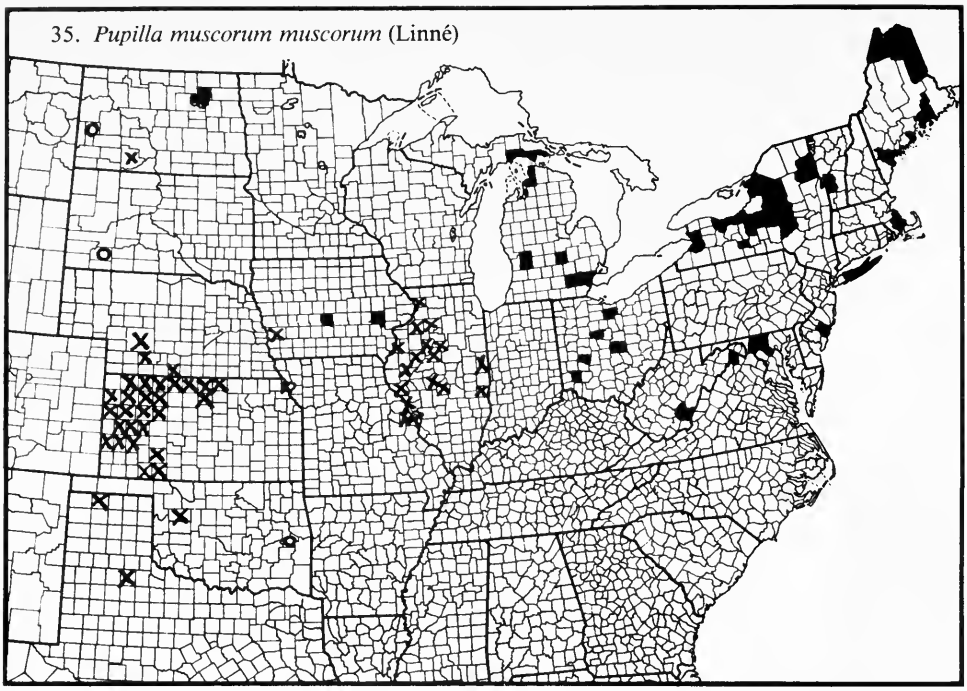


33. *Vallonia perspectiva* Sterki

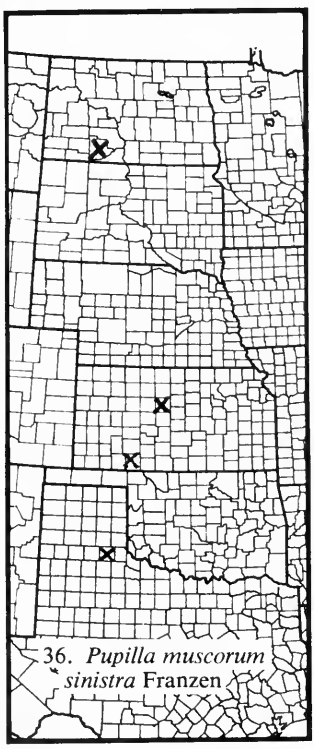


34. *Zoogenetes harpa* (Say)

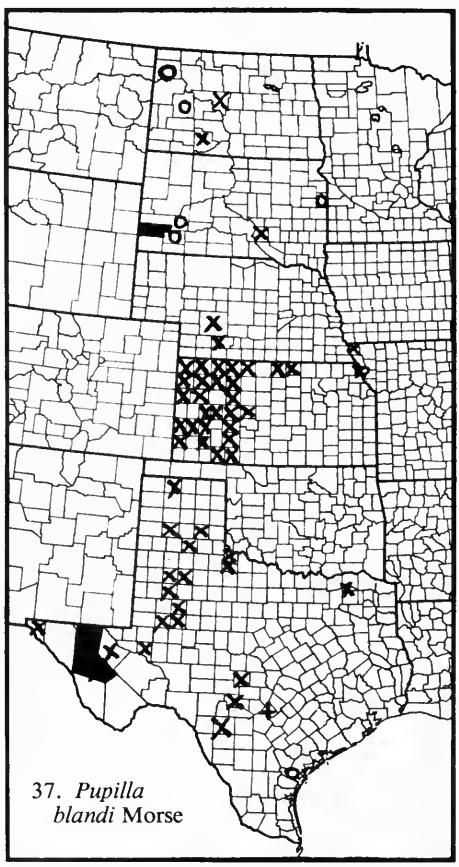




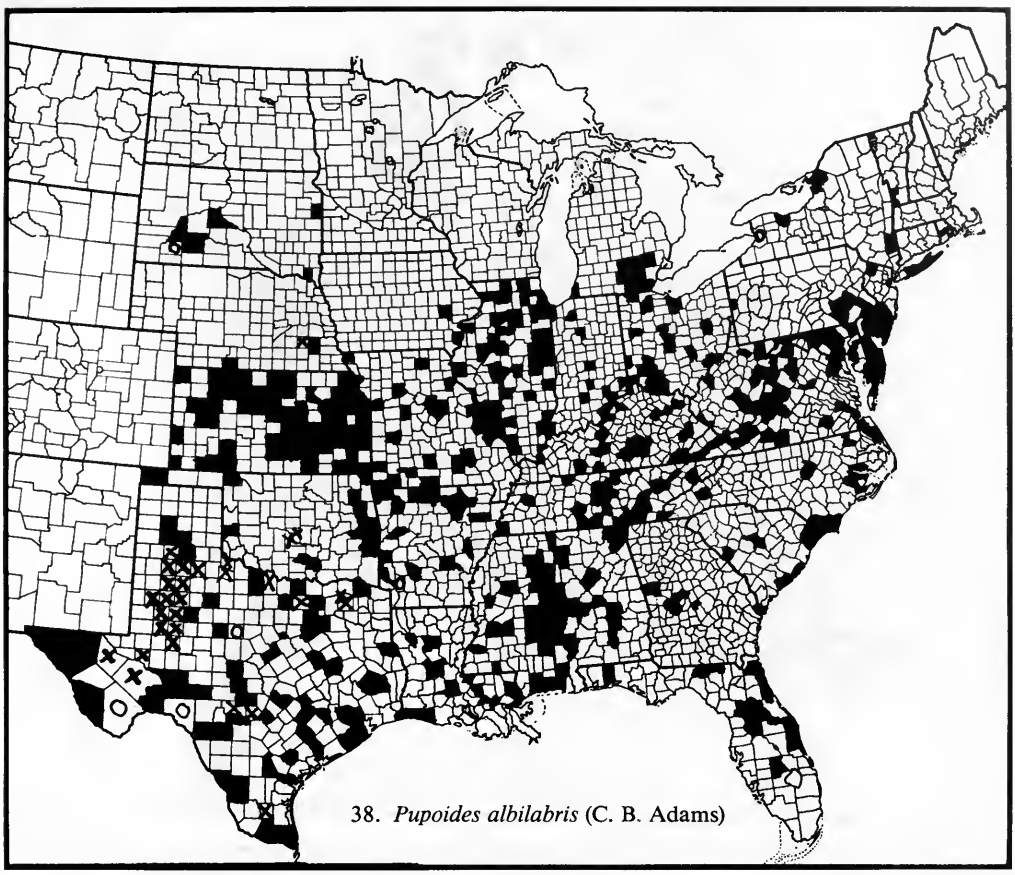
35. *Pupilla muscorum muscorum* (Linné)



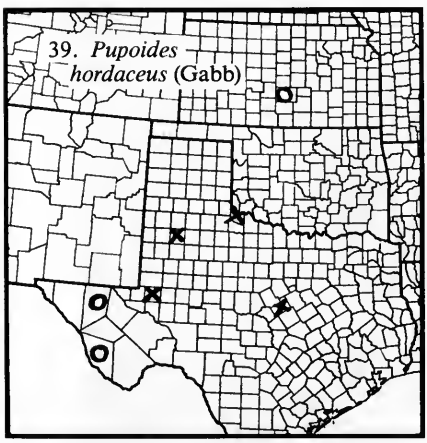
36. *Pupilla muscorum sinistra* Franzen



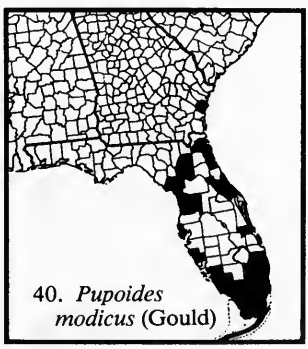
37. *Pupilla blandi* Morse



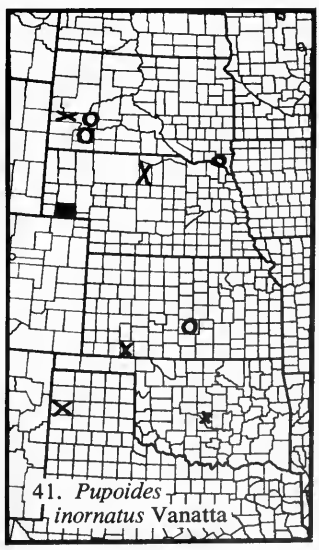
38. *Pupoides albilabris* (C. B. Adams)



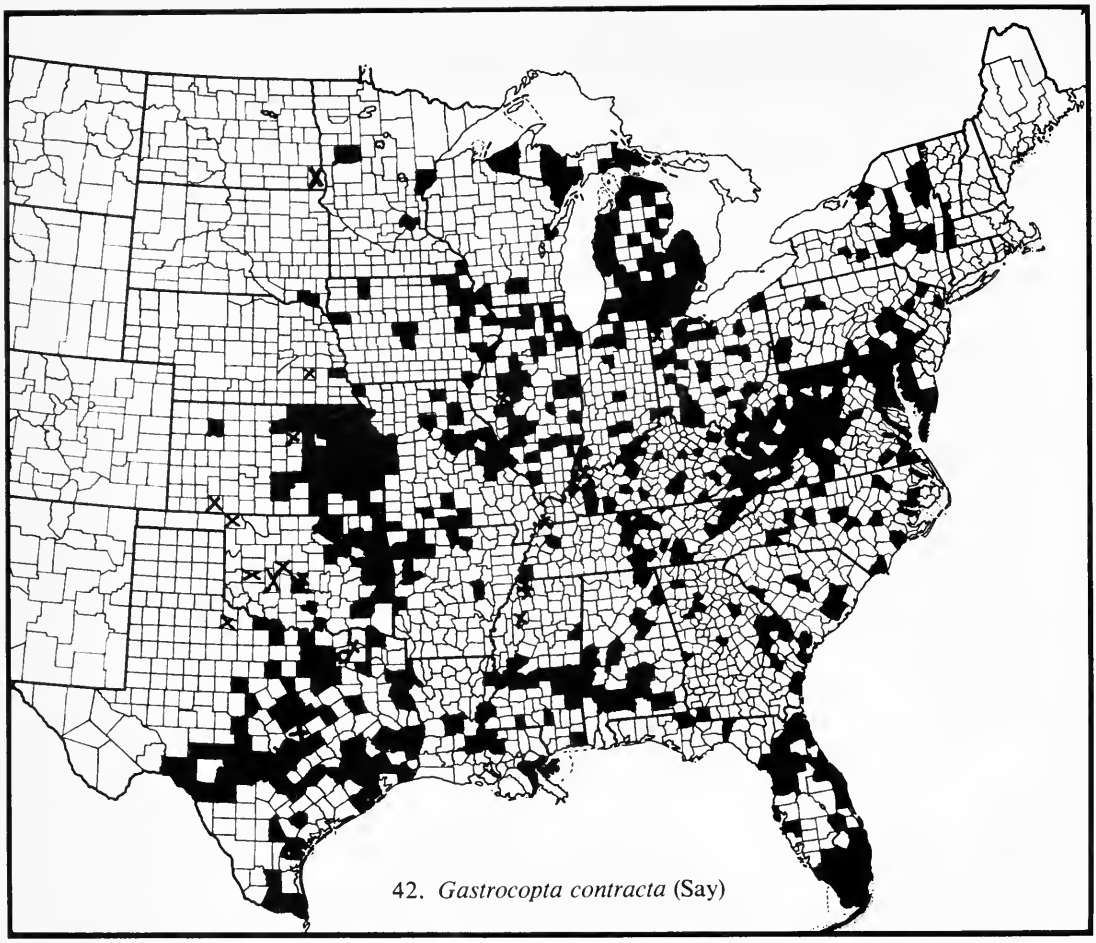
39. *Pupoides hordaceus* (Gabb)



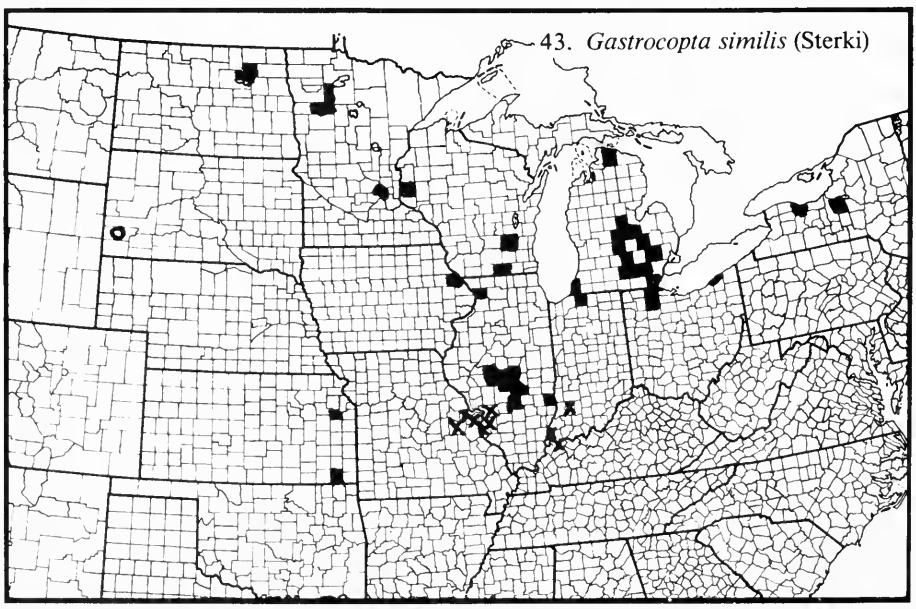
40. *Pupoides modicus* (Gould)



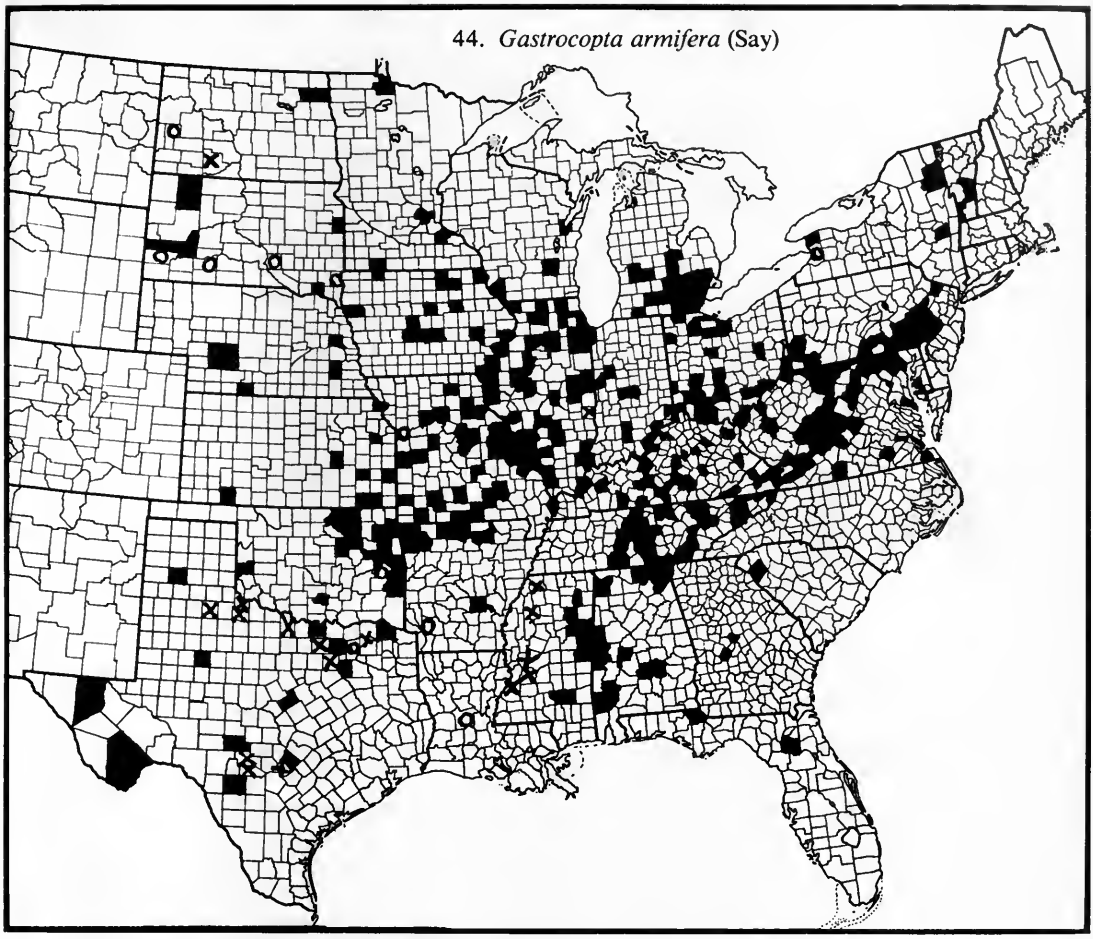
41. *Pupoides inornatus* Vanatta



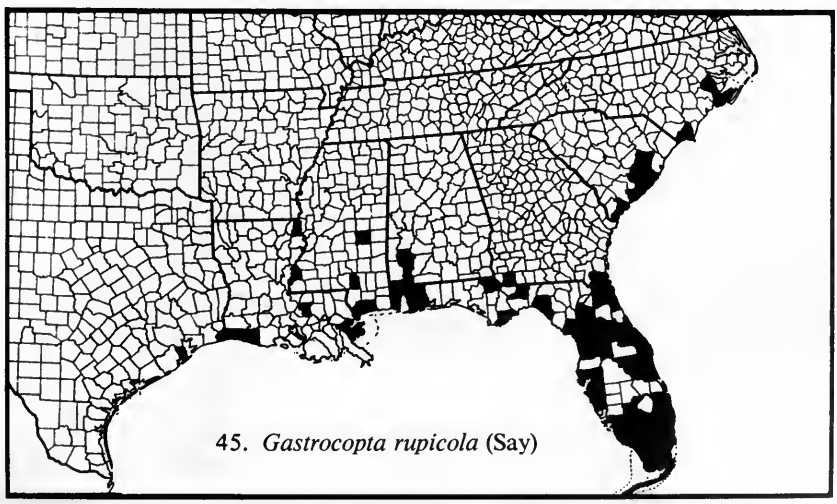
42. *Gastrocopta contracta* (Say)



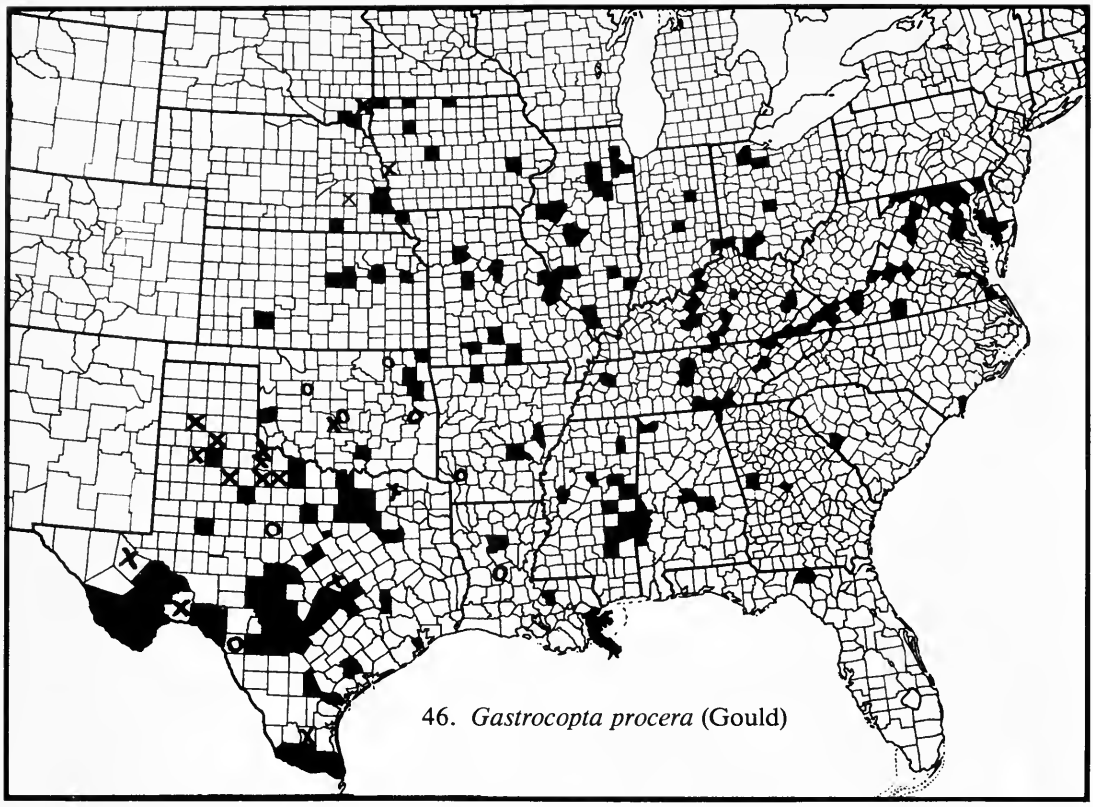
43. *Gastrocopta similis* (Sterki)



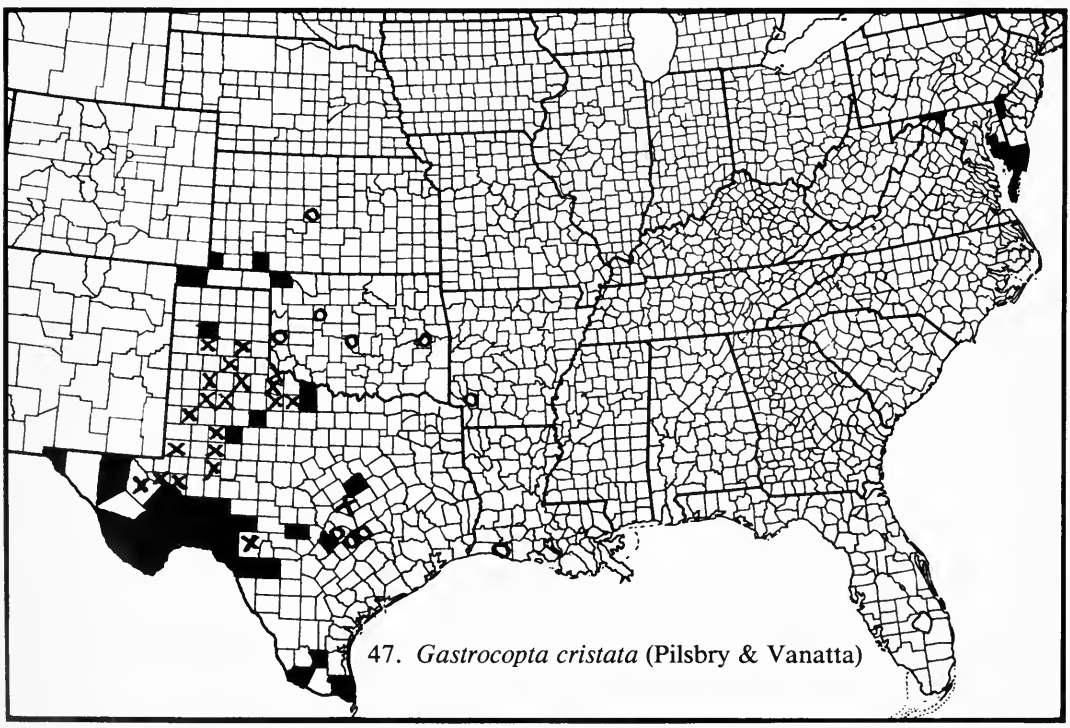
44. *Gastrocopta armifera* (Say)



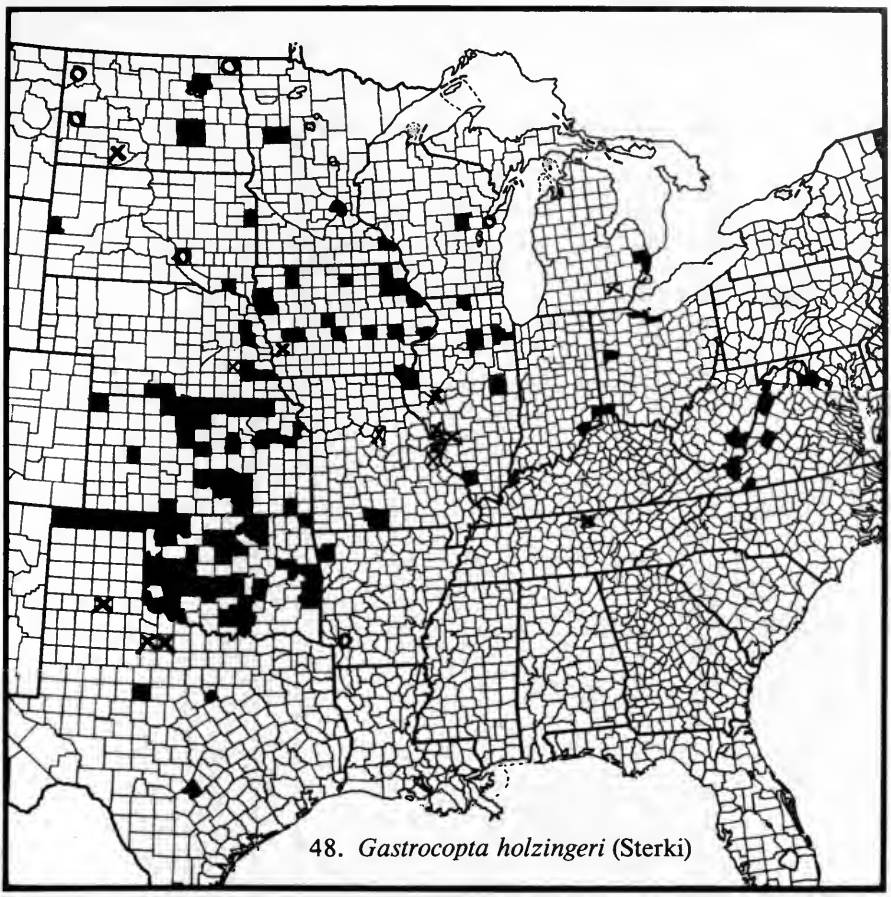
45. *Gastrocopta rupicola* (Say)



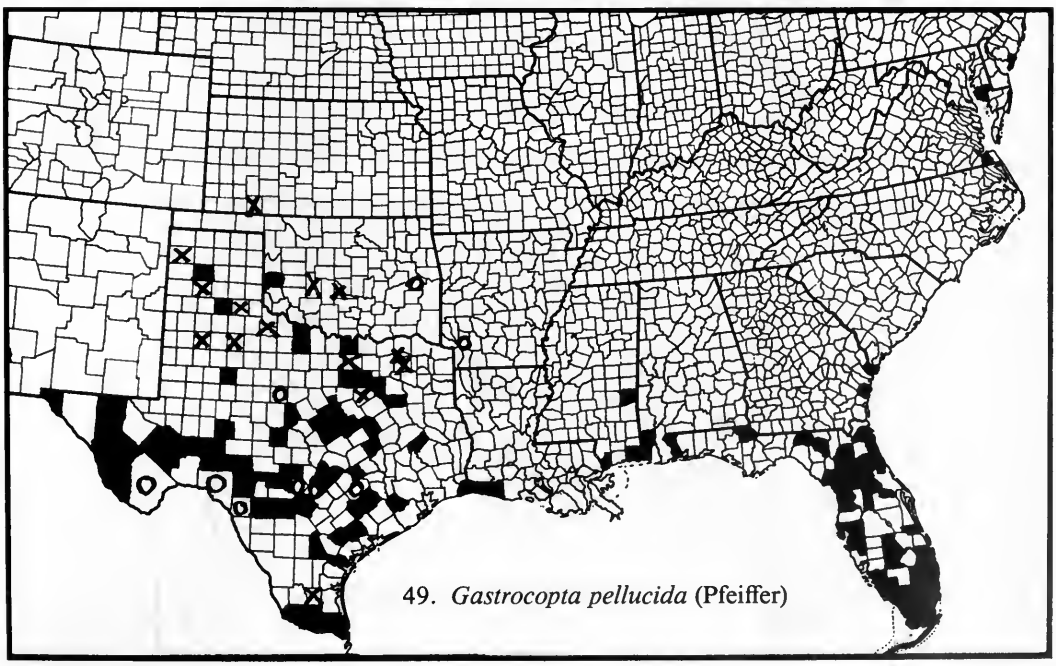
46. *Gastrocopta procera* (Gould)



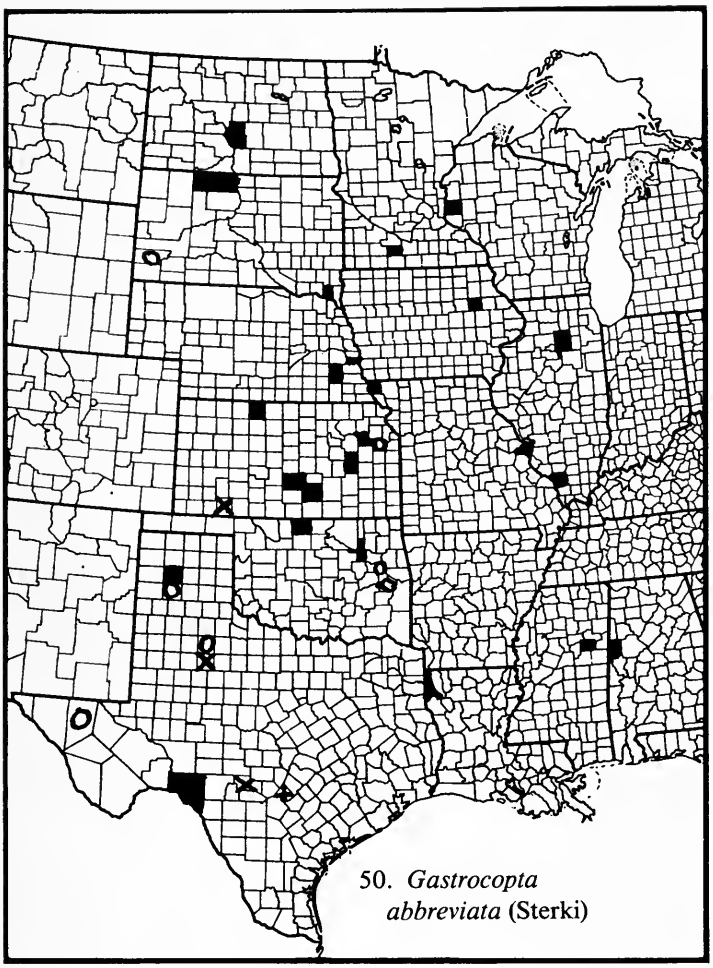
47. *Gastrocopta cristata* (Pilsbry & Vanatta)



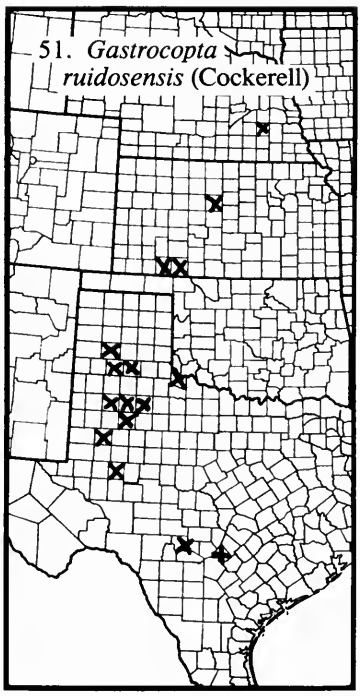
48. *Gastrocopta holzingeri* (Sterki)



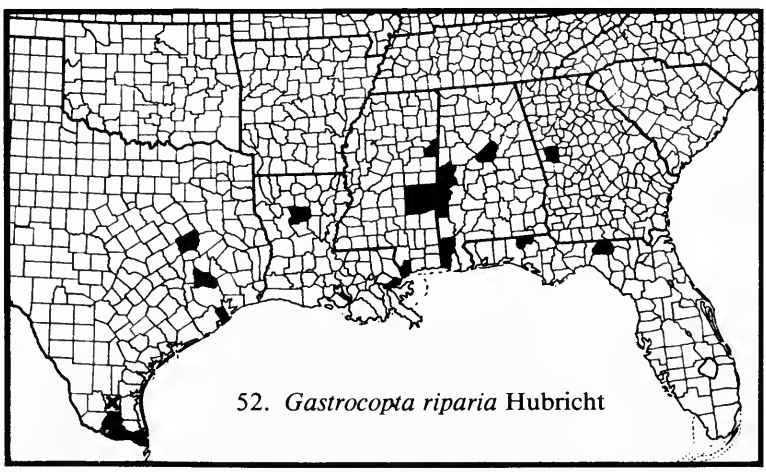
49. *Gastrocopta pellucida* (Pfeiffer)



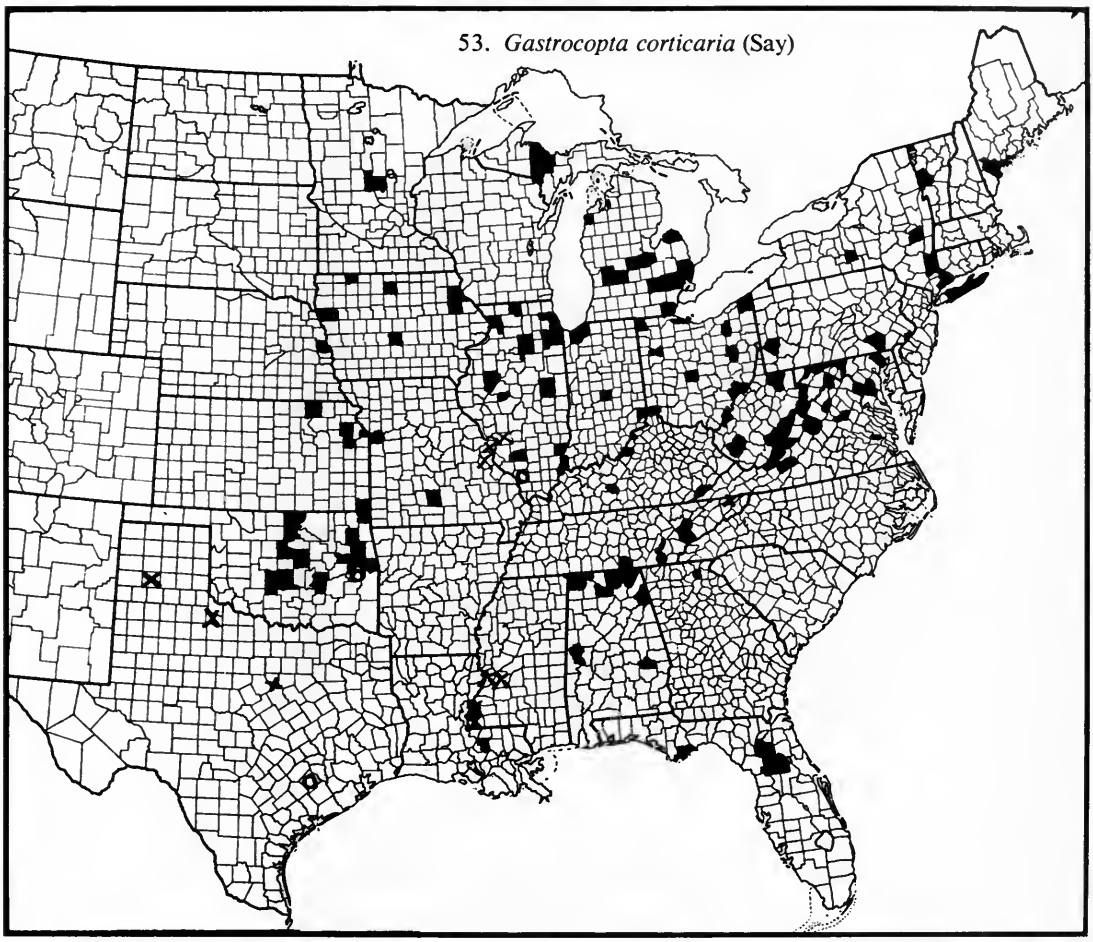
50. *Gastrocopta abbreviata* (Sterki)

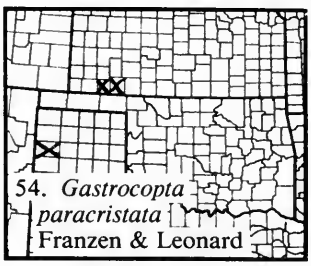


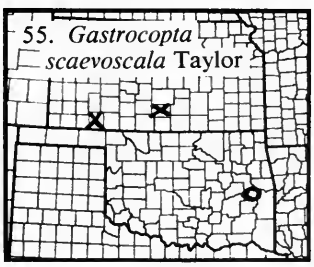
51. *Gastrocopta ruidosensis* (Cockerell)

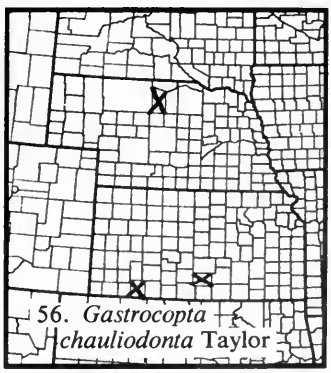


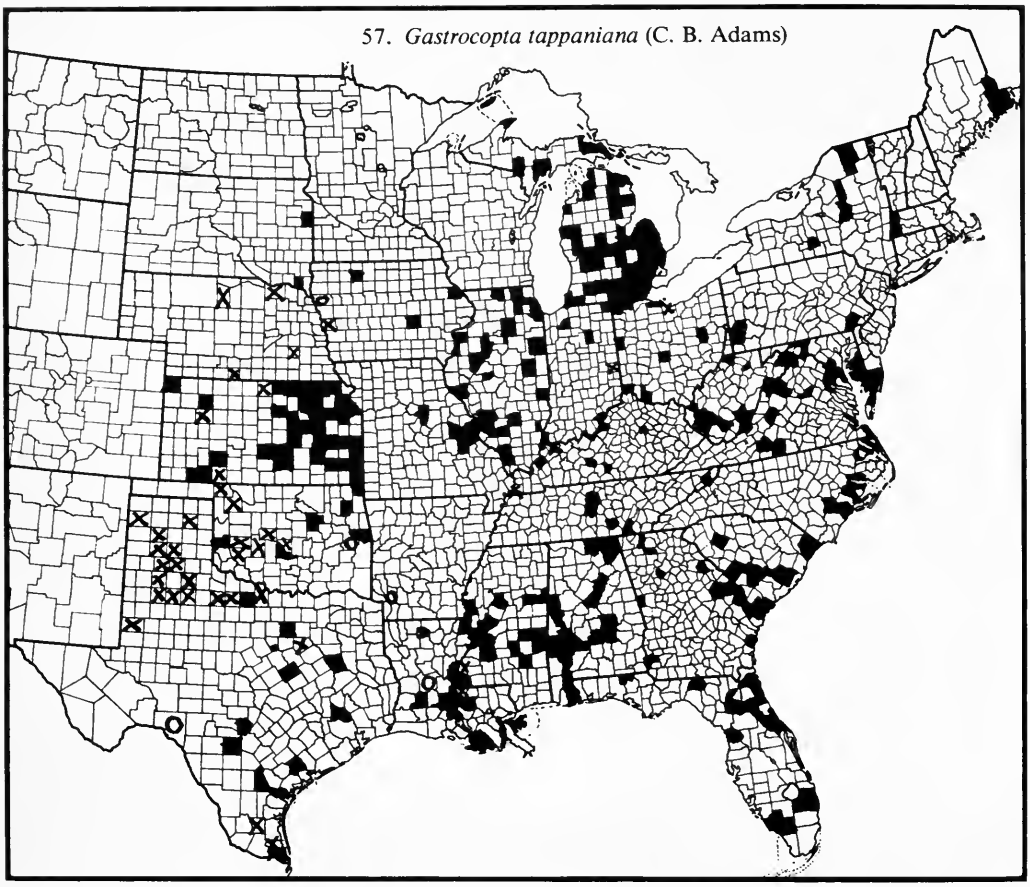
52. *Gastrocopta riparia* Hubricht

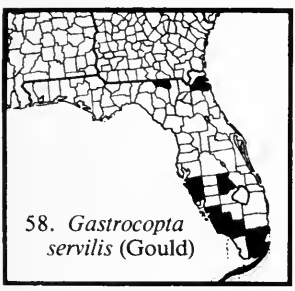

53. *Gastrocopta corticaria* (Say)

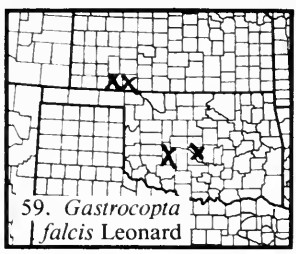

54. *Gastrocopta paracristata* Franzen & Leonard

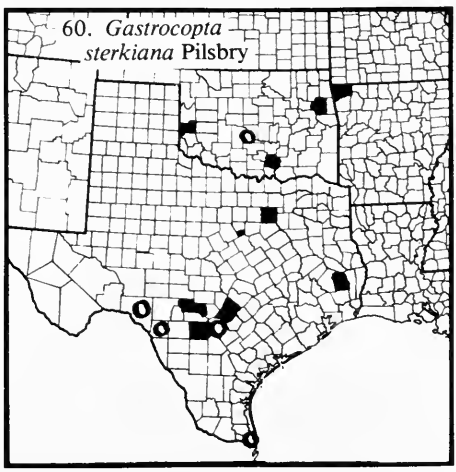

55. *Gastrocopta scaevoscala* Taylor

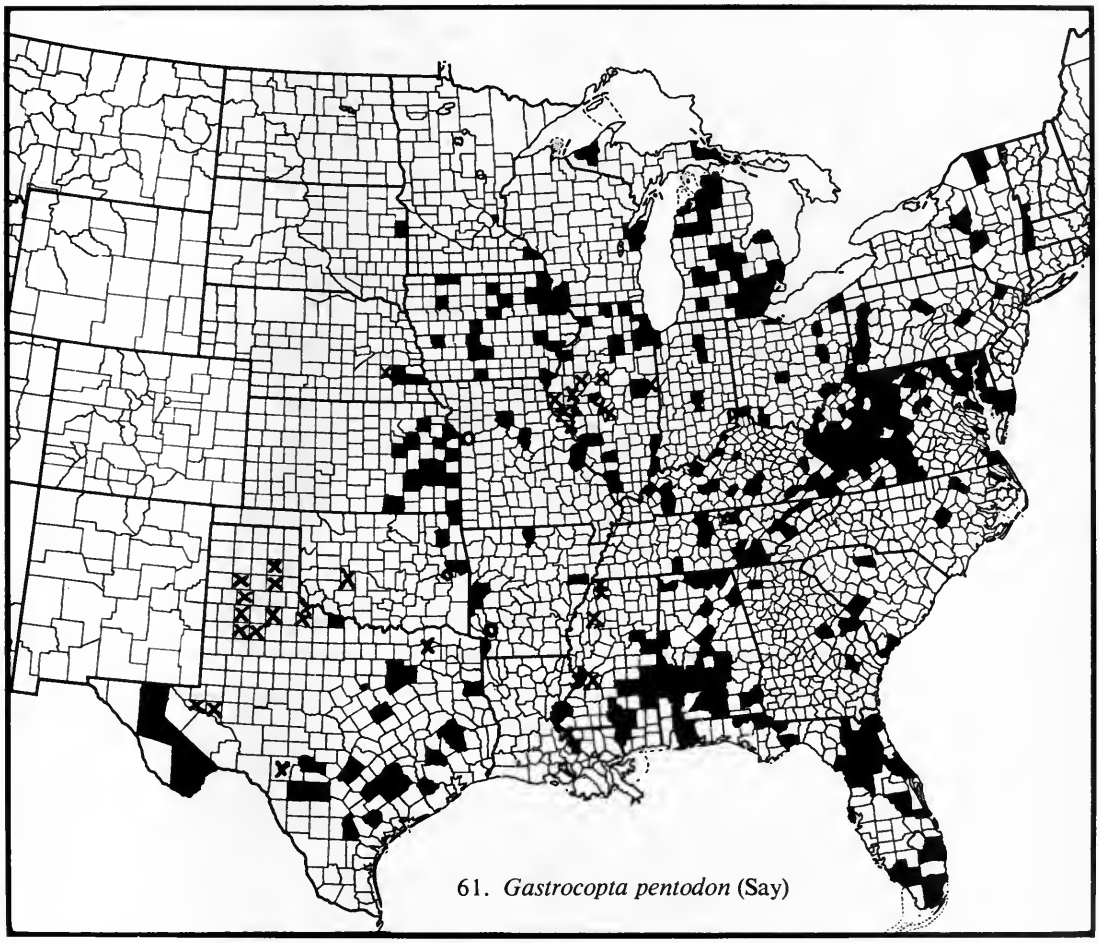

56. *Gastrocopta chauliodonta* Taylor


57. *Gastrocopta tappaniana* (C. B. Adams)

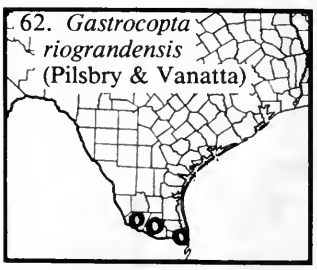

58. *Gastrocopta servilis* (Gould)


59. *Gastrocopta falcis* Leonard

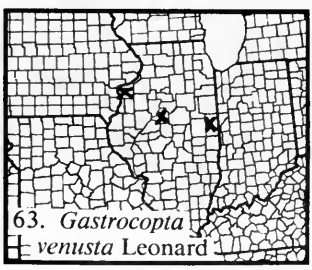

60. *Gastrocopta sterkiana* Pilsbry



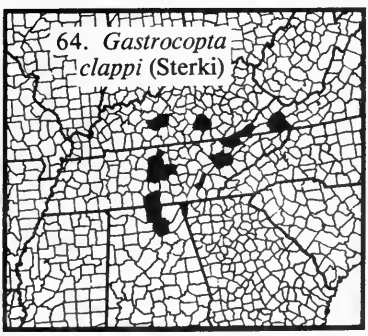
61. *Gastrocopta pentodon* (Say)



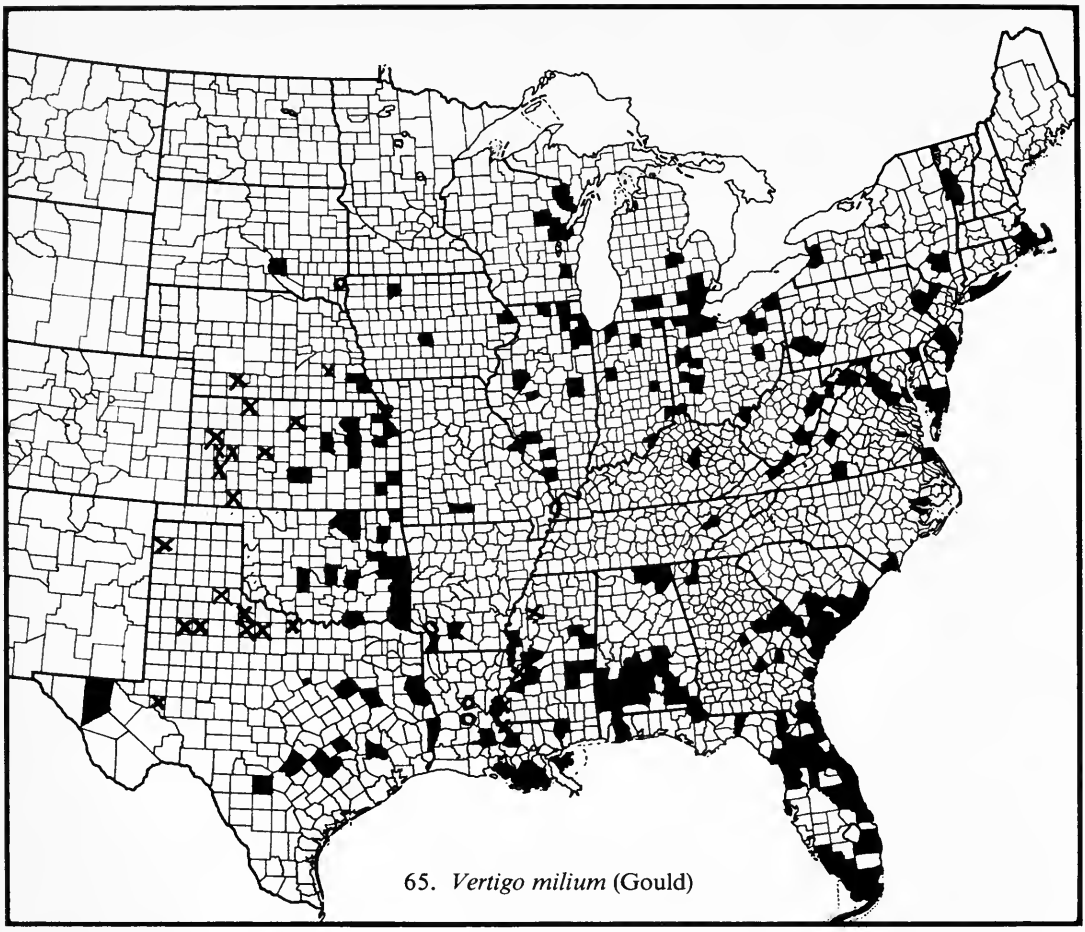
62. *Gastrocopta riograndensis* (Pilsbry & Vanatta)



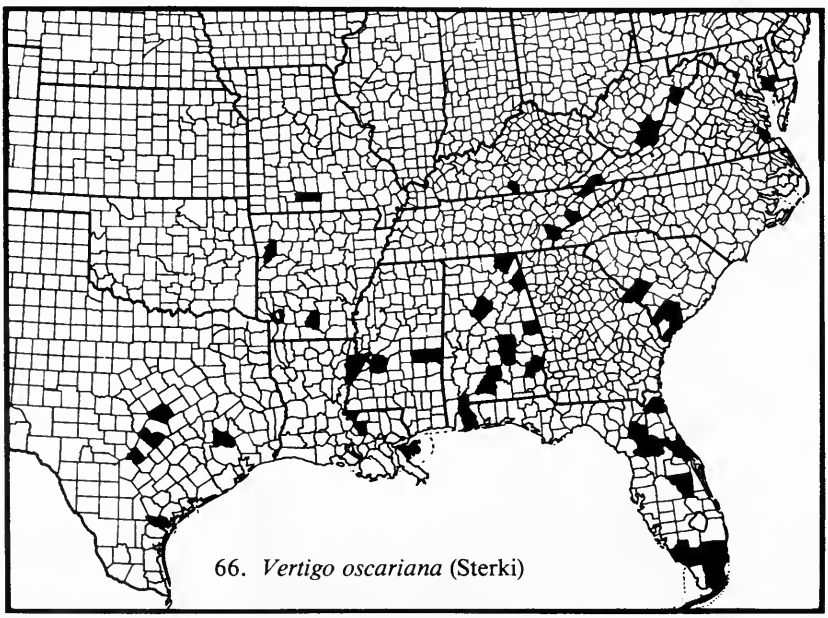
63. *Gastrocopta venusta* Leonard



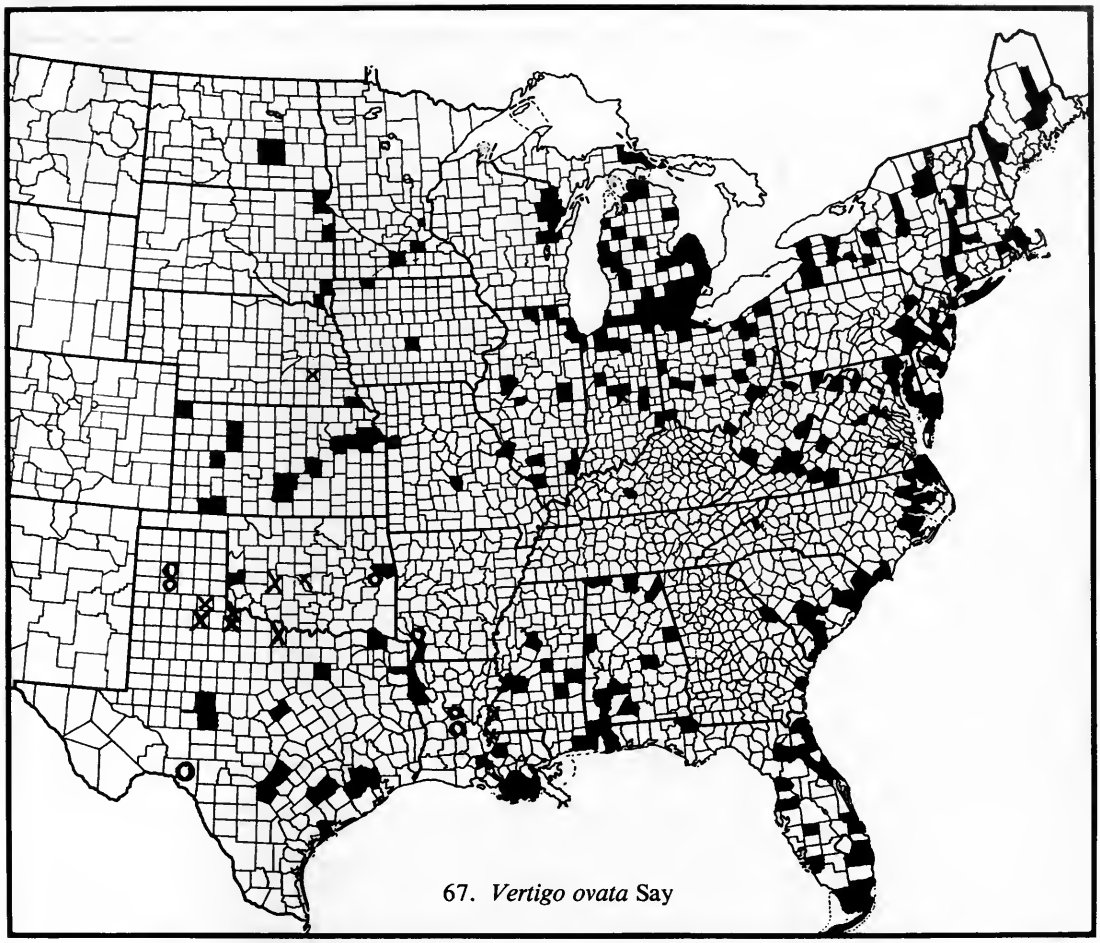
64. *Gastrocopta clappi* (Sterki)



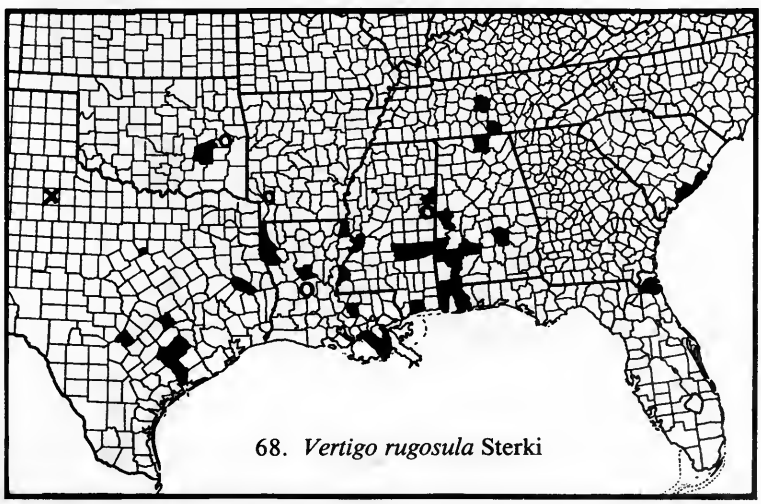
65. *Vertigo milium* (Gould)



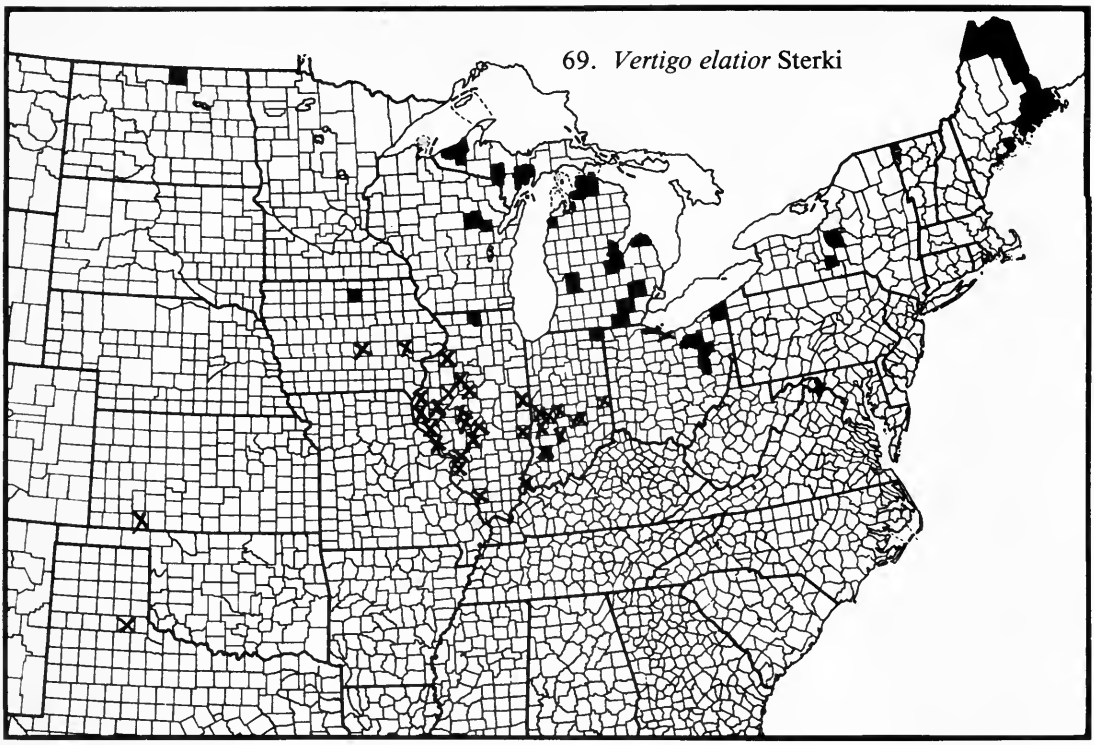
66. *Vertigo oscariana* (Sterki)



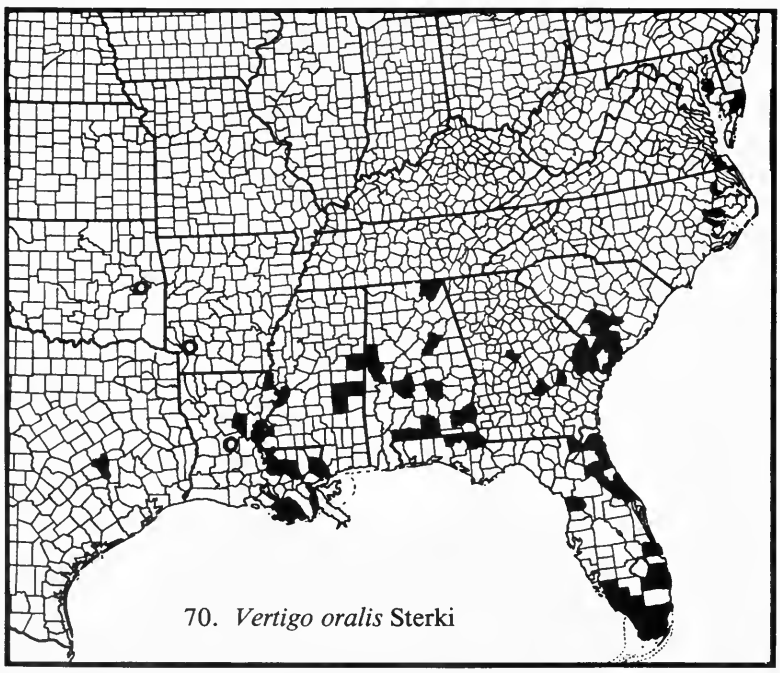
67. *Vertigo ovata* Say



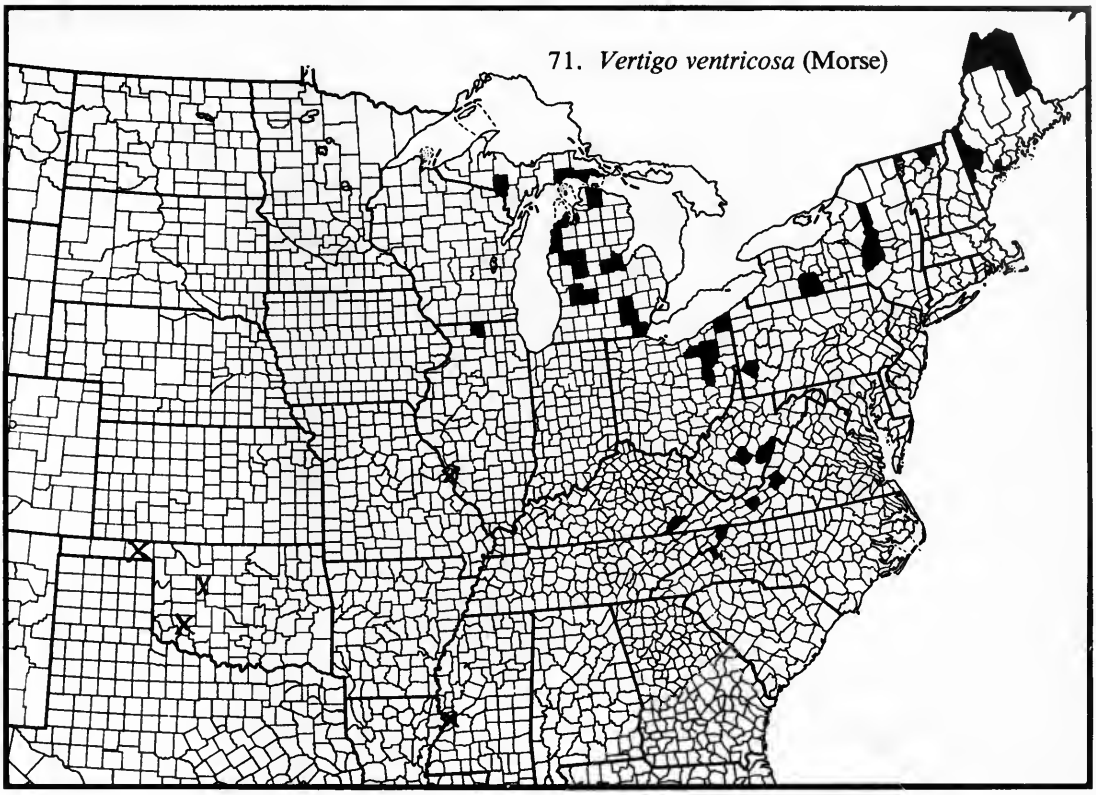
68. *Vertigo rugosula* Sterki



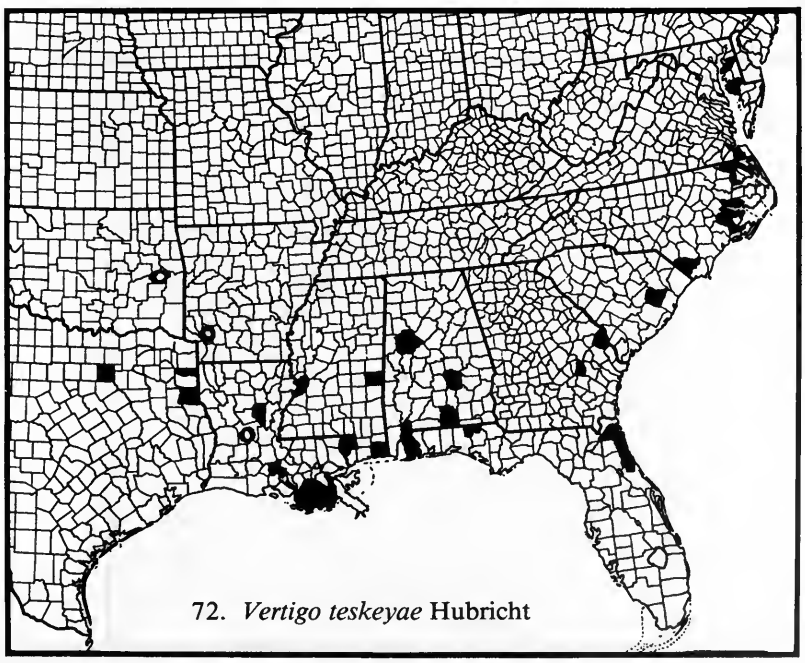
69. *Vertigo elatior* Sterki



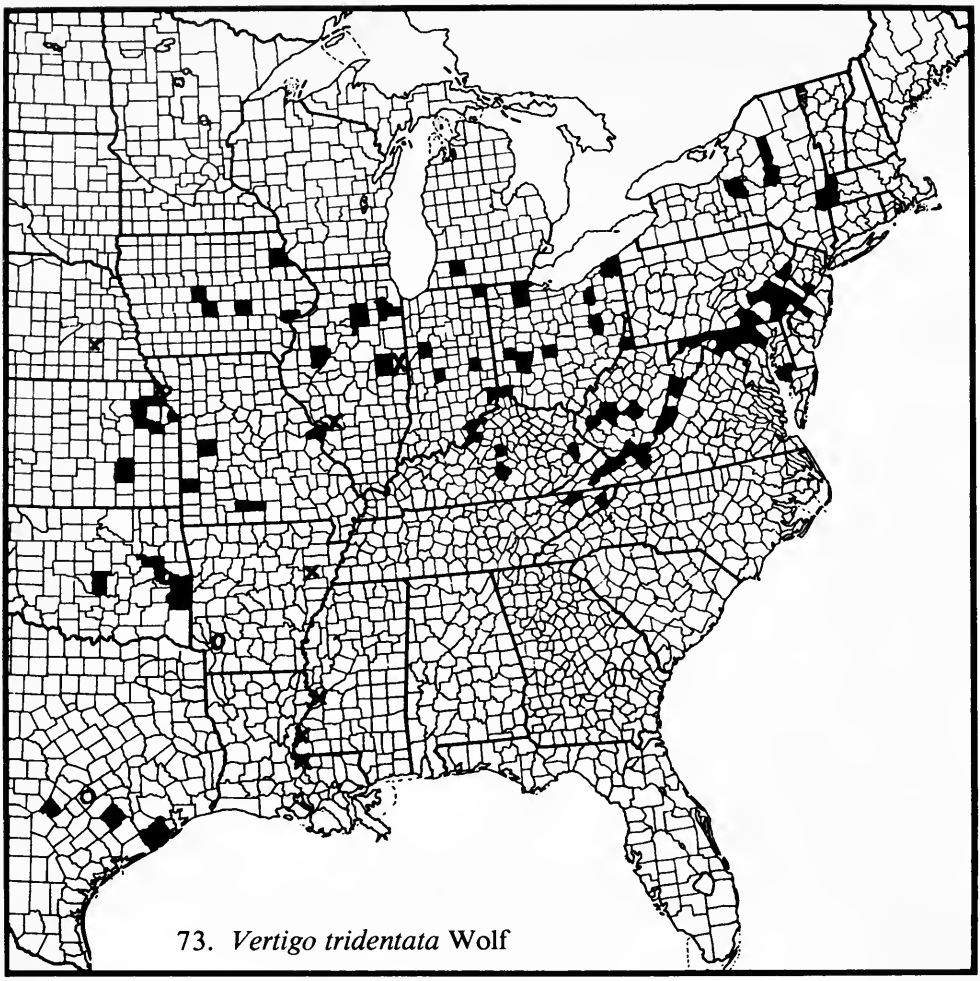
70. *Vertigo oralis* Sterki



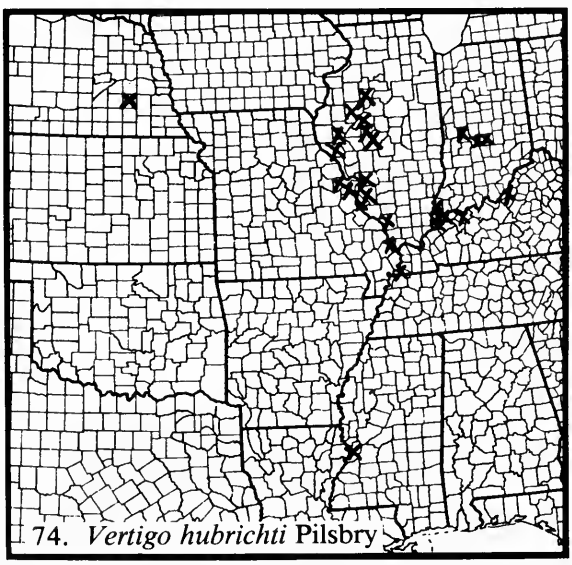
71. *Vertigo ventricosa* (Morse)



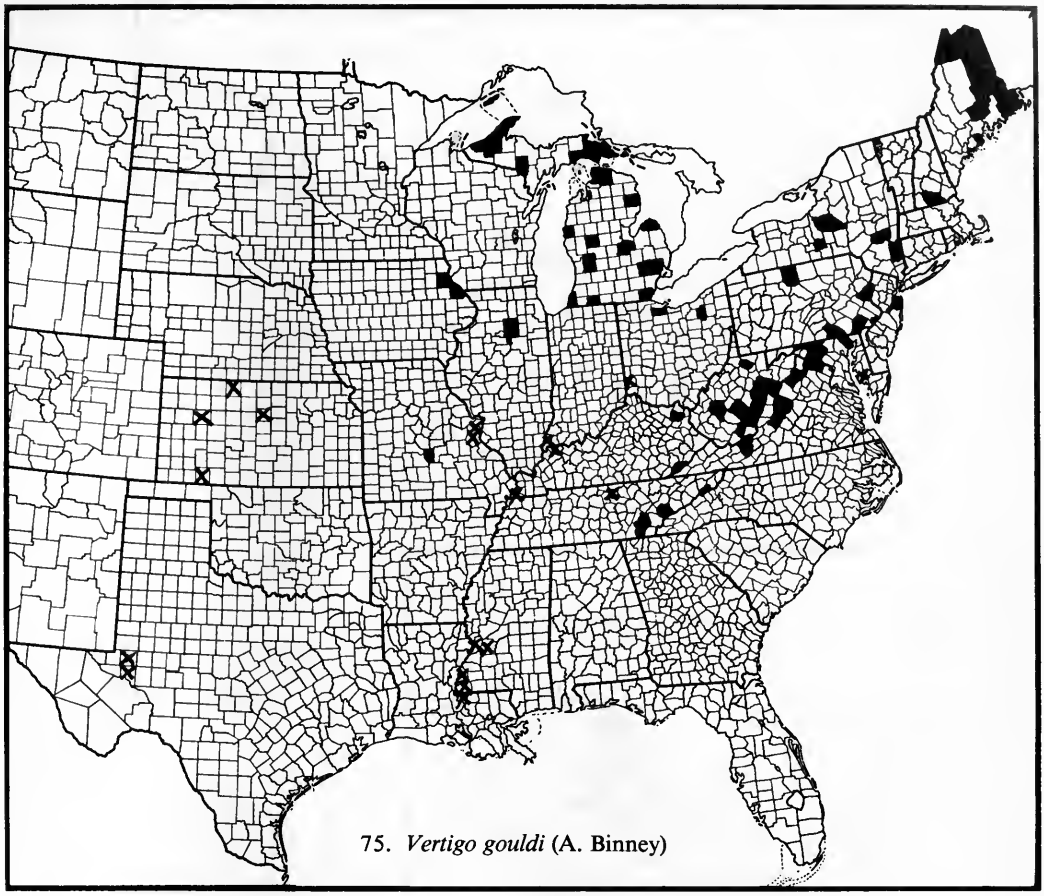
72. *Vertigo teskeyae* Hubricht



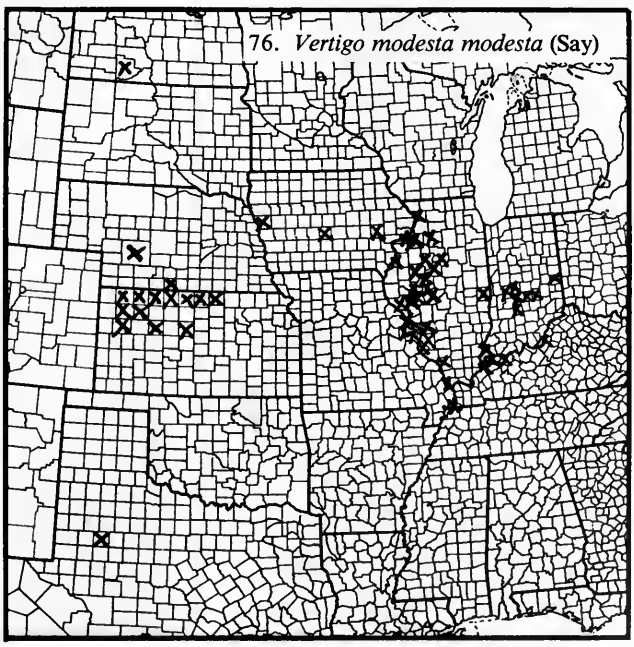
73. *Vertigo tridentata* Wolf



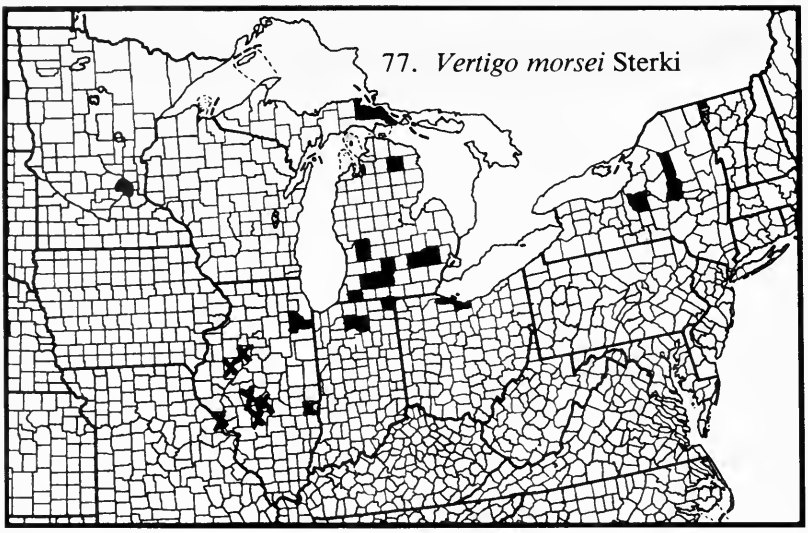
74. *Vertigo hubrichti* Pilsbry

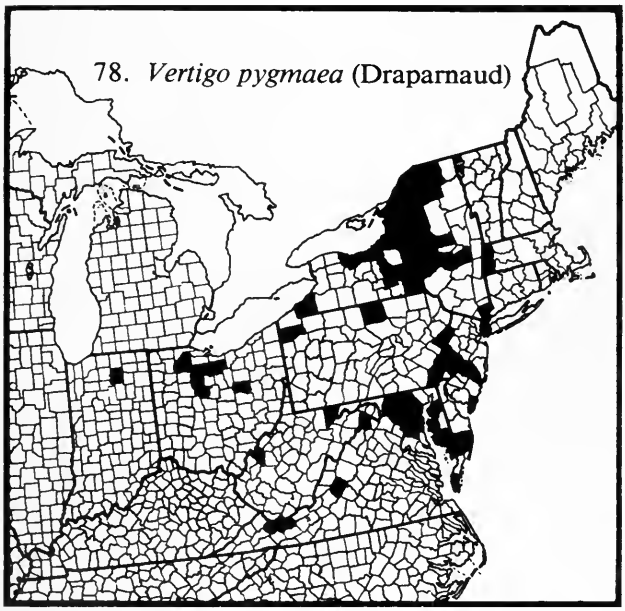


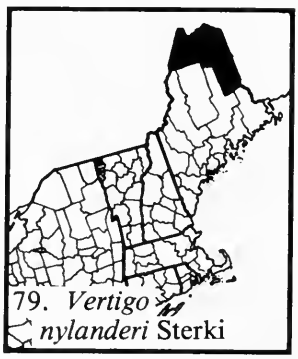
75. *Vertigo gouldi* (A. Binney)



76. *Vertigo modesta modesta* (Say)

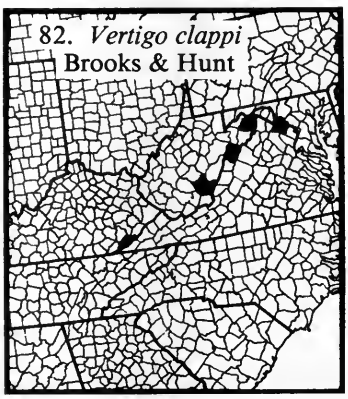

77. *Vertigo morsei* Sterki

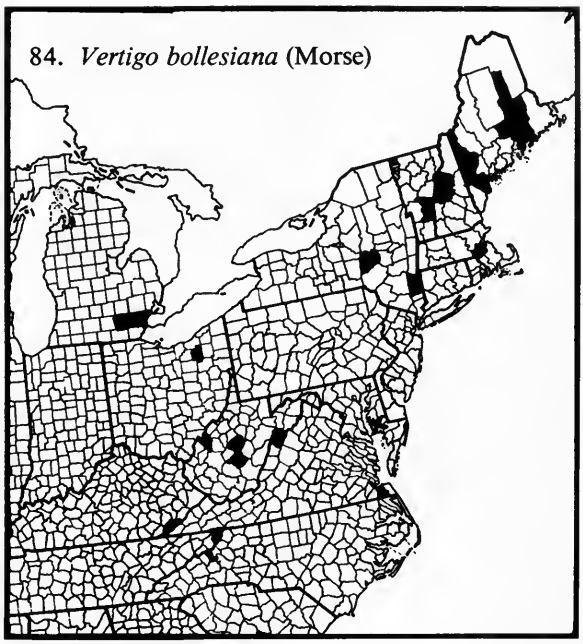

78. *Vertigo pygmaea* (Draparnaud)

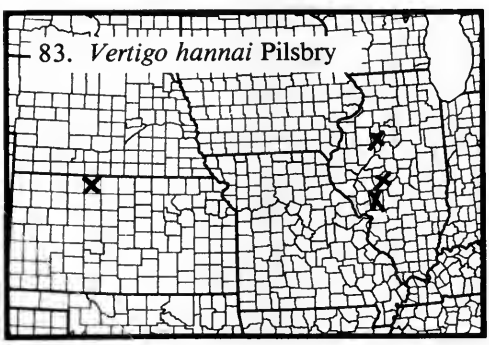

79. *Vertigo nylanderi* Sterki

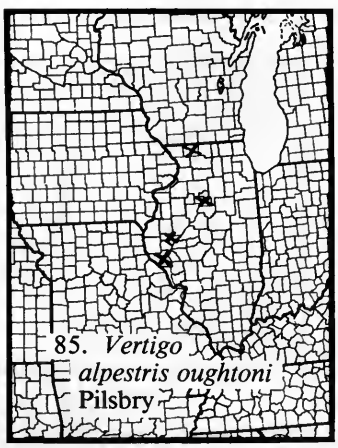

80. *Vertigo paradoxa* Sterki


81. *Vertigo parvula* Sterki


82. *Vertigo clappi*
Brooks & Hunt

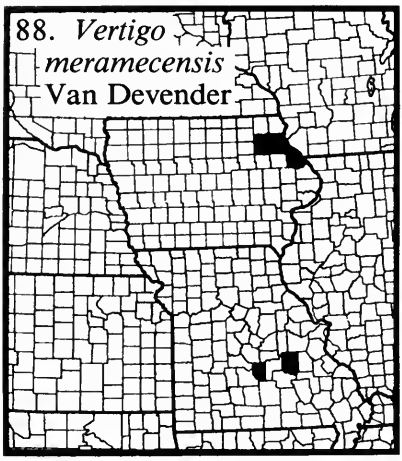

84. *Vertigo bollesiana* (Morse)

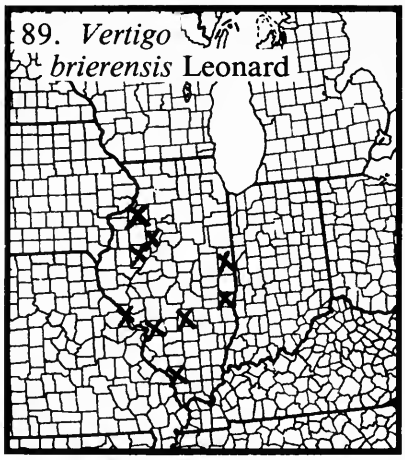

83. *Vertigo hannai* Pilsbry

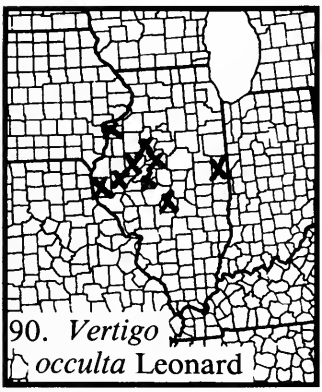

85. *Vertigo alpestris oughtoni*
Pilsbry

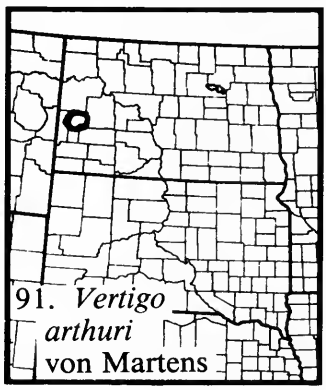

86. *Vertigo binneyana* Sterki

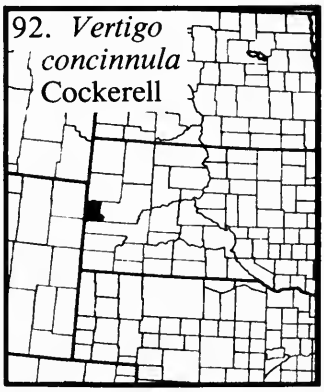

87. *Vertigo perryi* Sterki

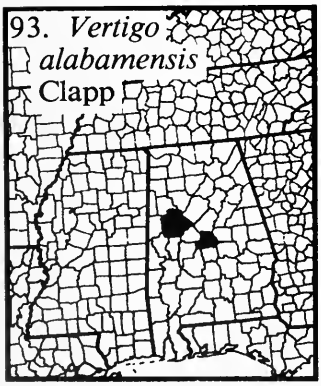

88. *Vertigo meramecensis* Van Devender

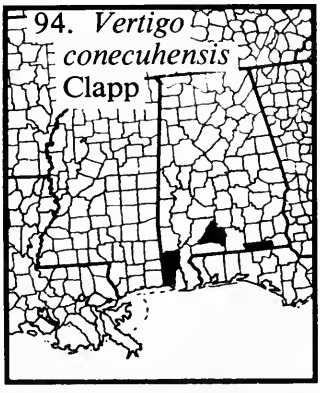

89. *Vertigo brierensis* Leonard

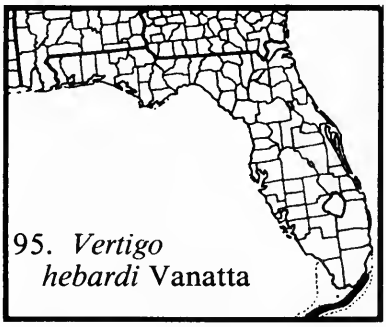

90. *Vertigo occulta* Leonard

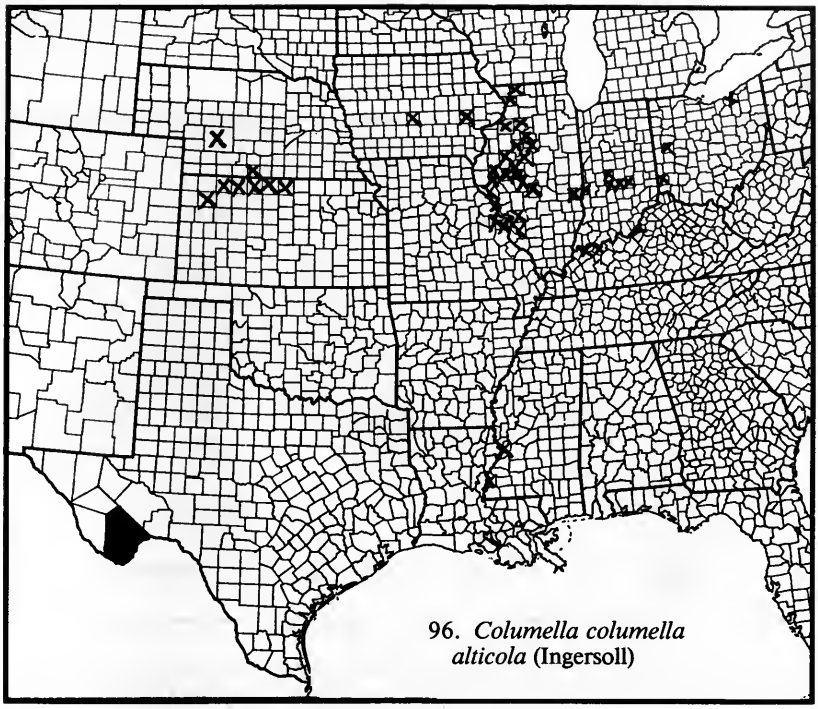

91. *Vertigo arthuri* von Martens


92. *Vertigo concinnula* Cockerell

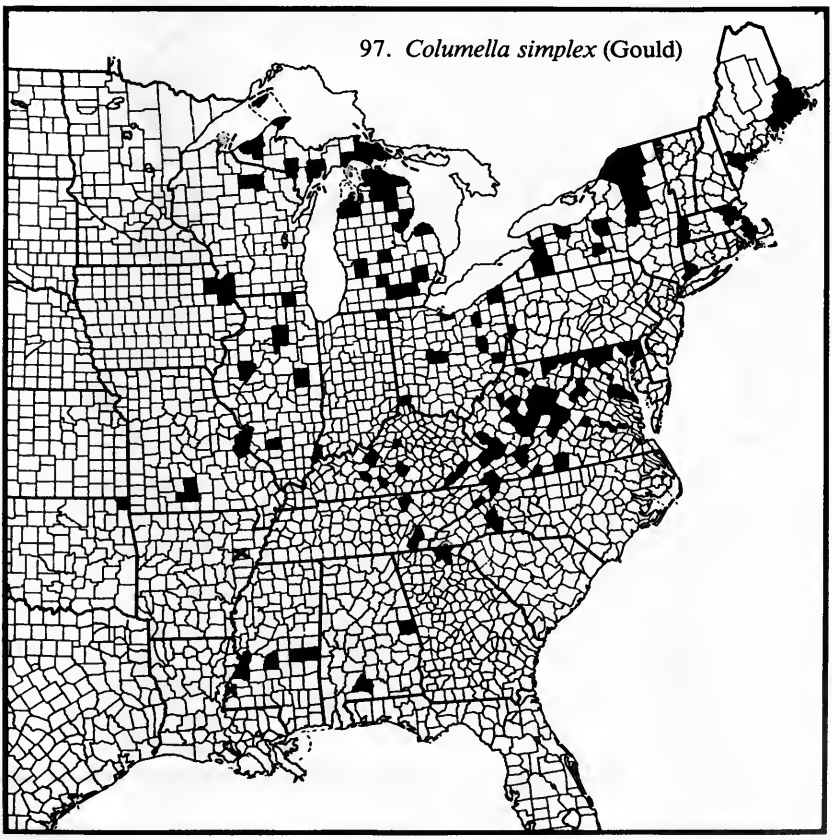

93. *Vertigo alabamensis* Clapp


94. *Vertigo conecuhensis* Clapp

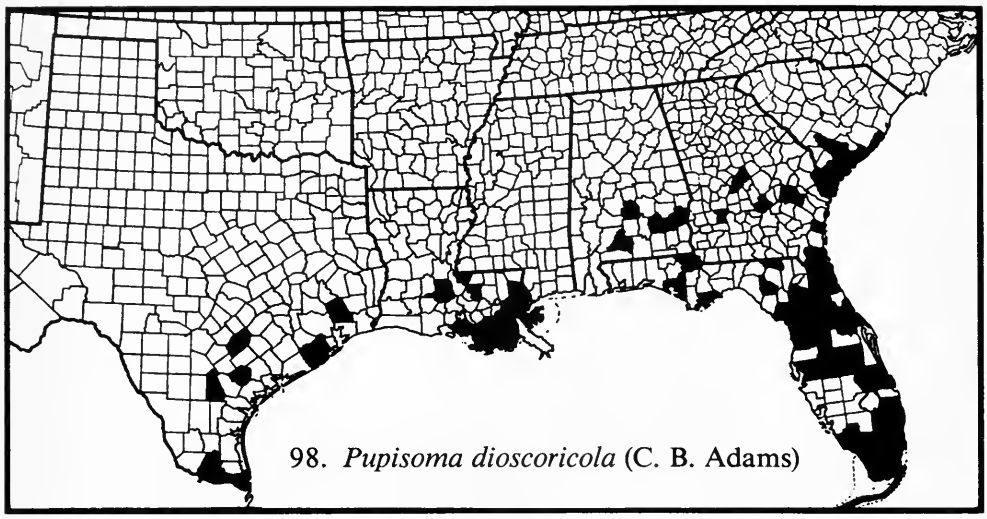

95. *Vertigo hebardi* Vanatta



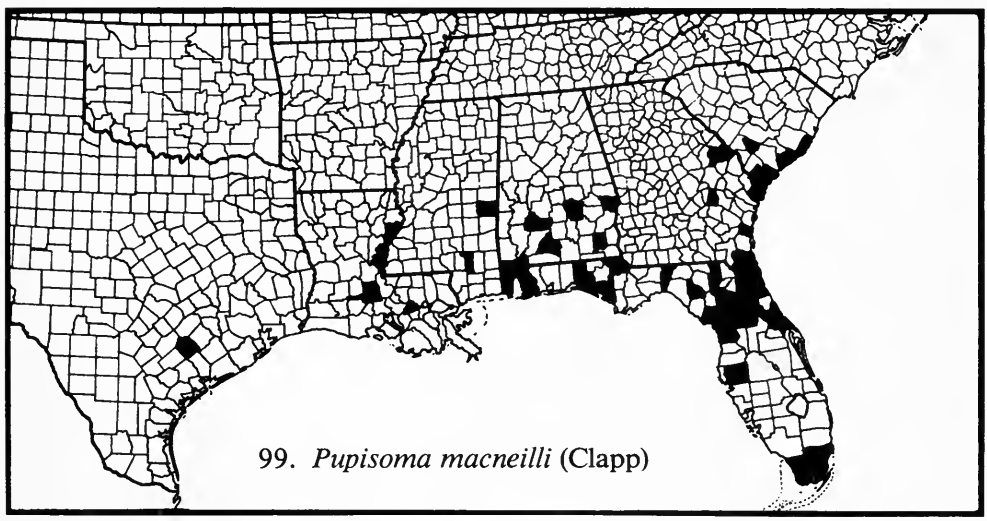
96. *Columella columella alticola* (Ingersoll)



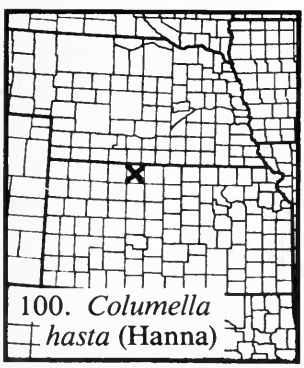
97. *Columella simplex* (Gould)



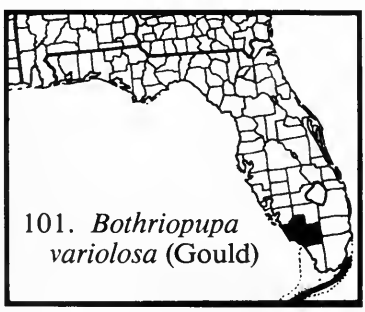
98. *Pupisoma dioscoricola* (C. B. Adams)



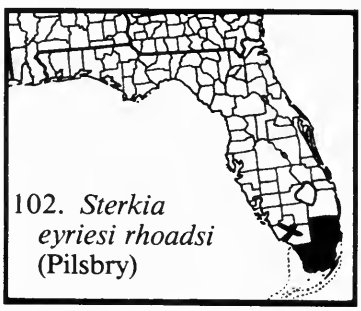
99. *Pupisoma macneilli* (Clapp)



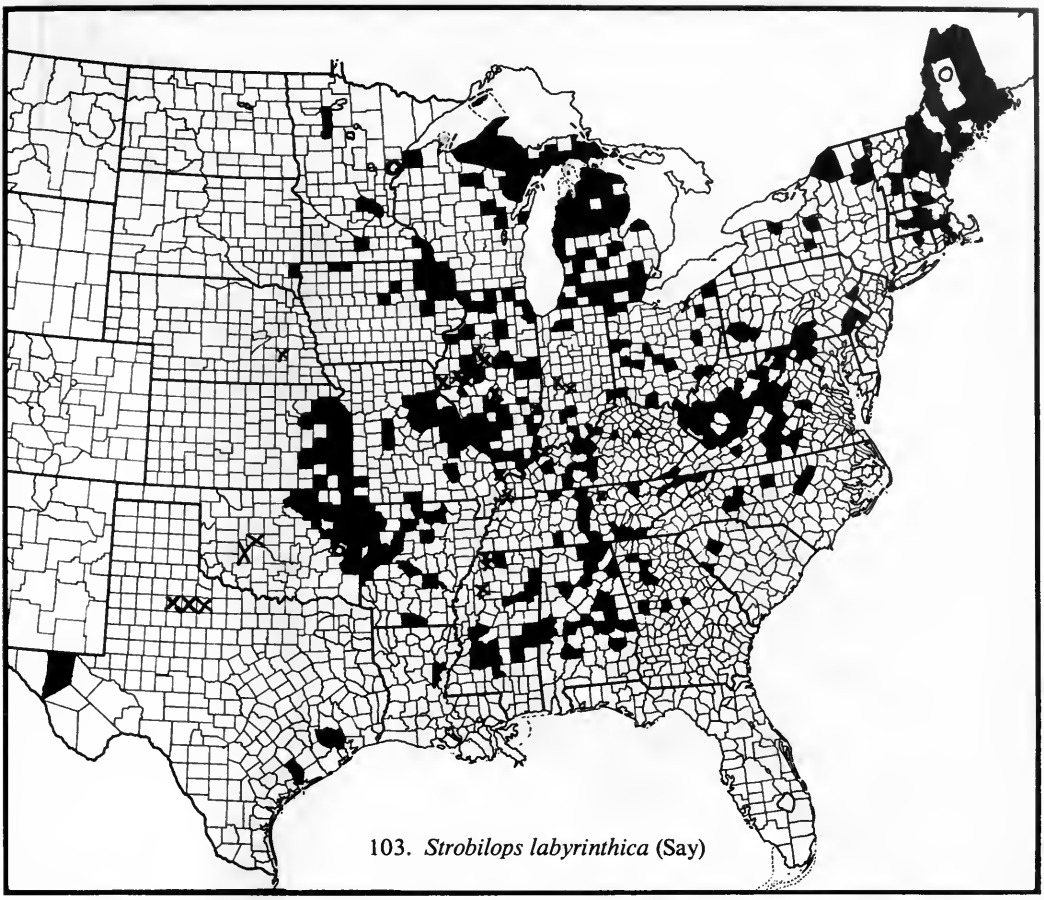
100. *Columella hasta* (Hanna)



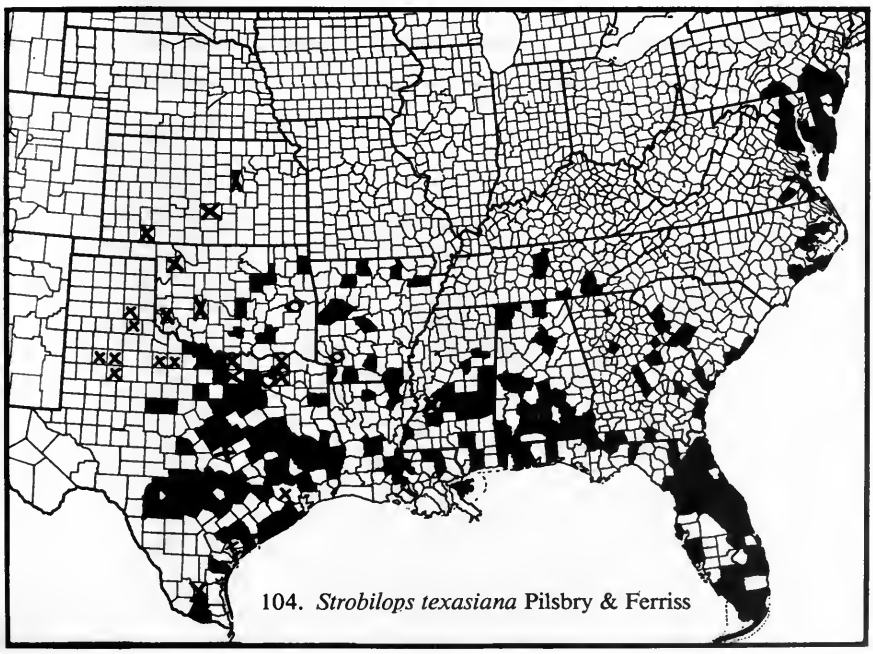
101. *Bothriopupa variolosa* (Gould)



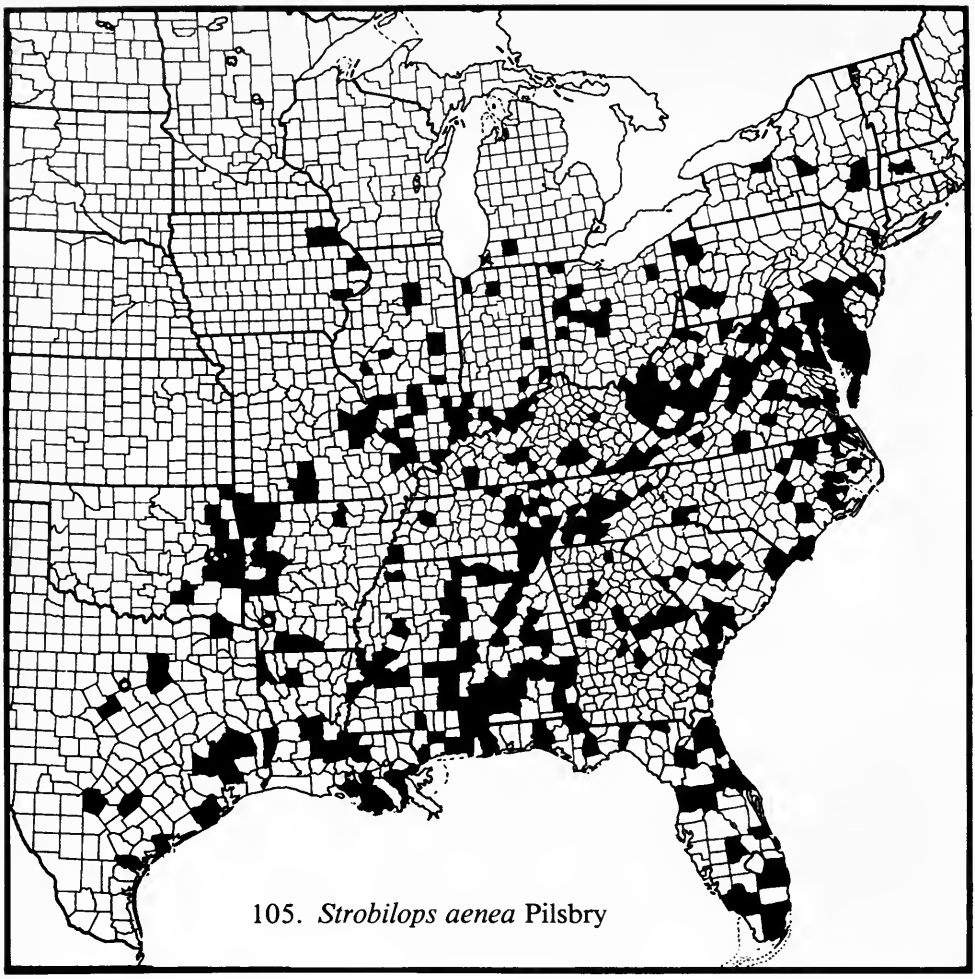
102. *Sterkia eyriesi rhoadsi* (Pilsbry)



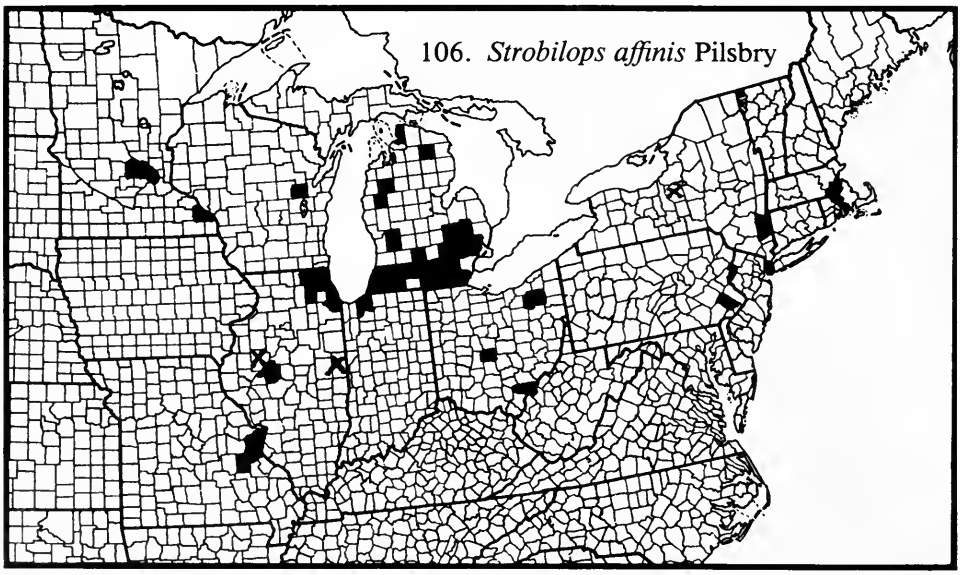
103. *Strobilops labyrinthica* (Say)



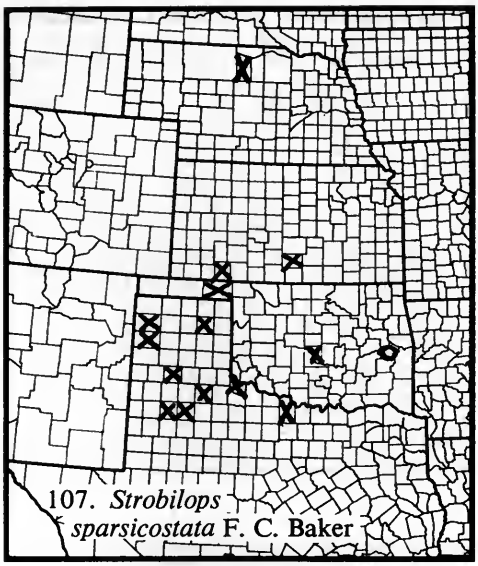
104. *Strobilops texasiana* Pilsbry & Ferriss



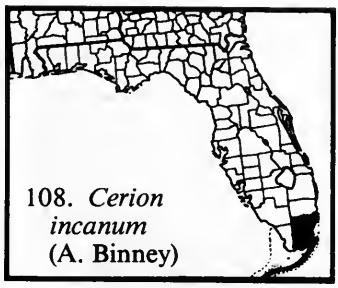
105. *Strobilops aenea* Pilsbry



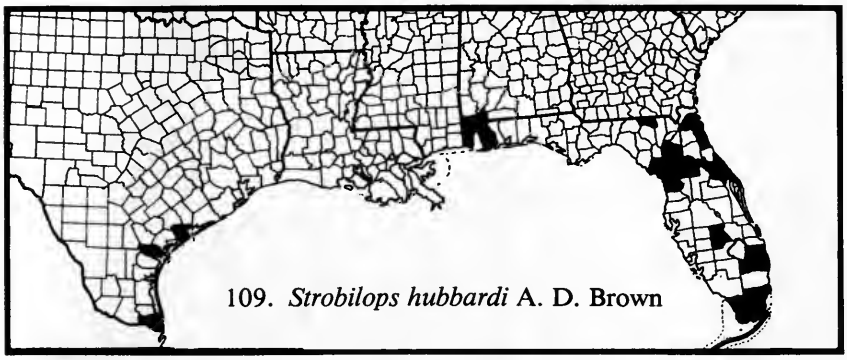
106. *Strobilops affinis* Pilsbry



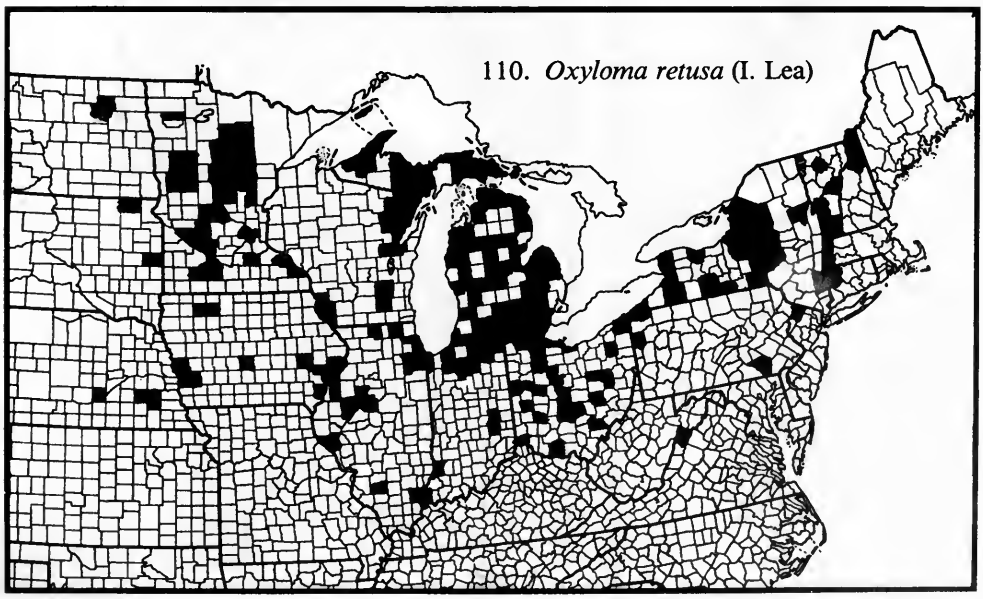
107. *Strobilops sparsicostata* F. C. Baker



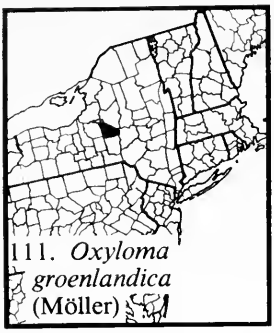
108. *Cerion incanum* (A. Binney)



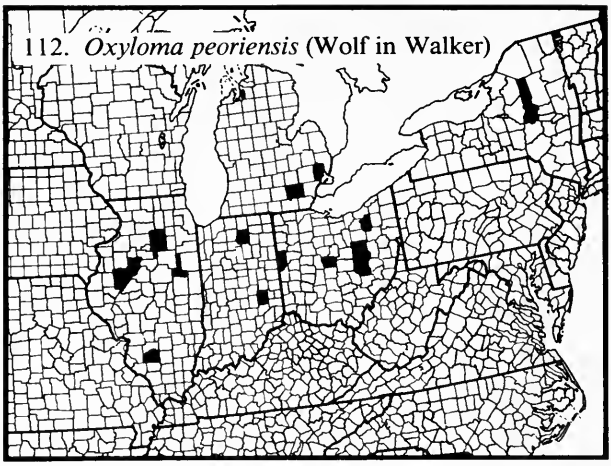
109. *Strobilops hubbardi* A. D. Brown



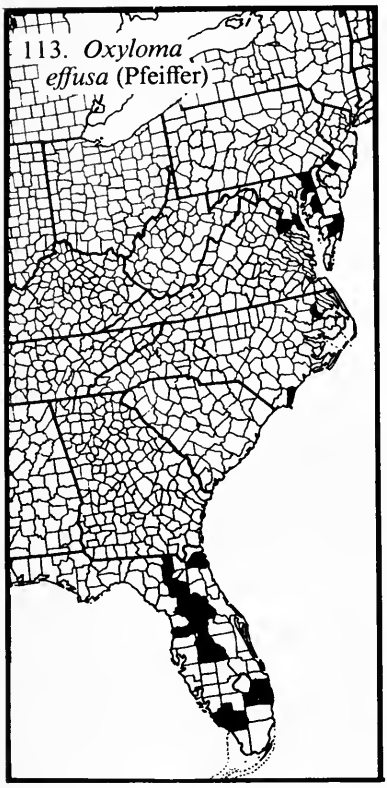
110. *Oxyloma retusa* (I. Lea)



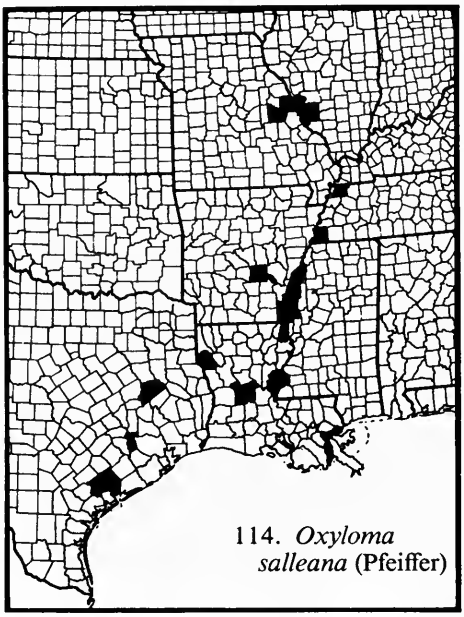
111. *Oxyloma groenlandica* (Möller)



112. *Oxyloma peoriensis* (Wolf in Walker)

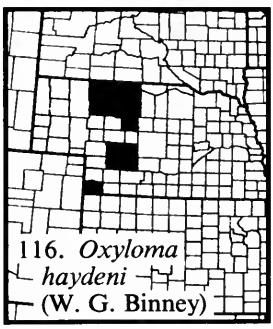


113. *Oxyloma effusa* (Pfeiffer)

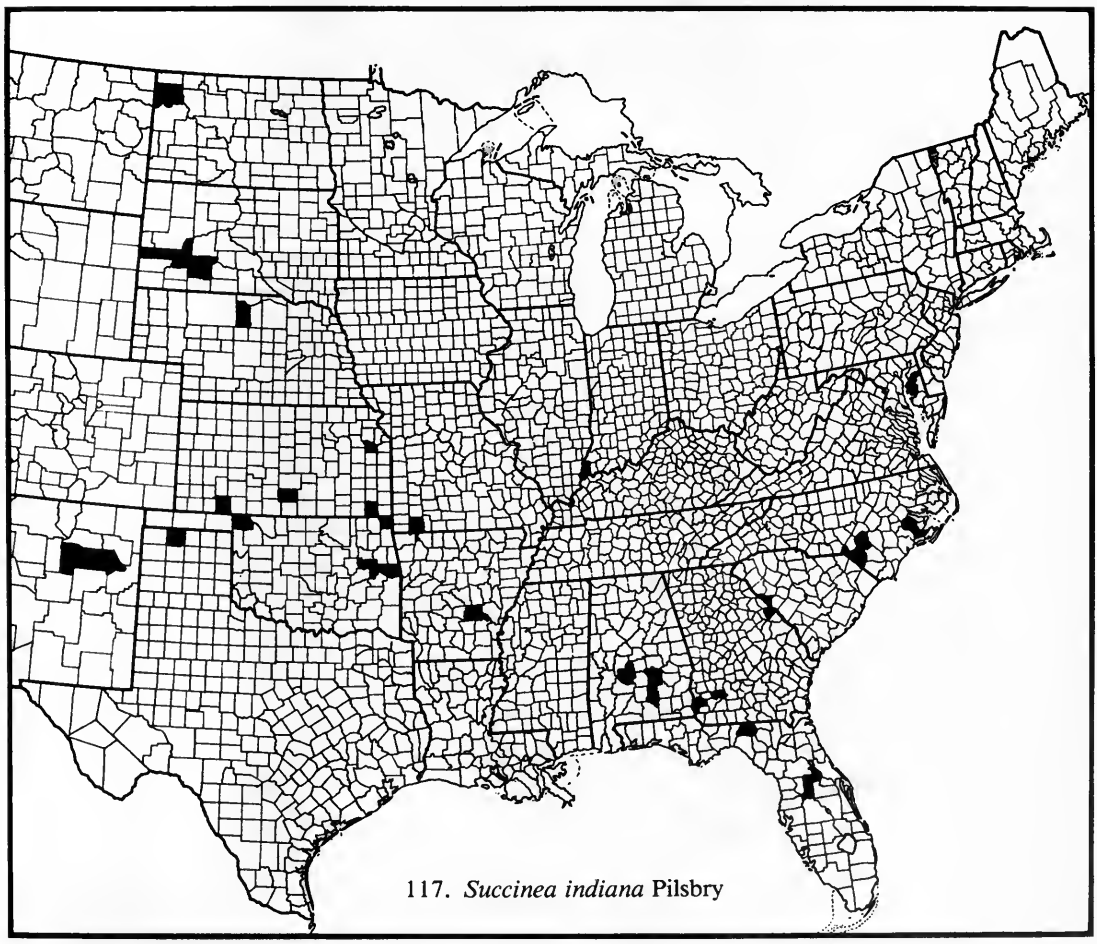


114. *Oxyloma salleana* (Pfeiffer)

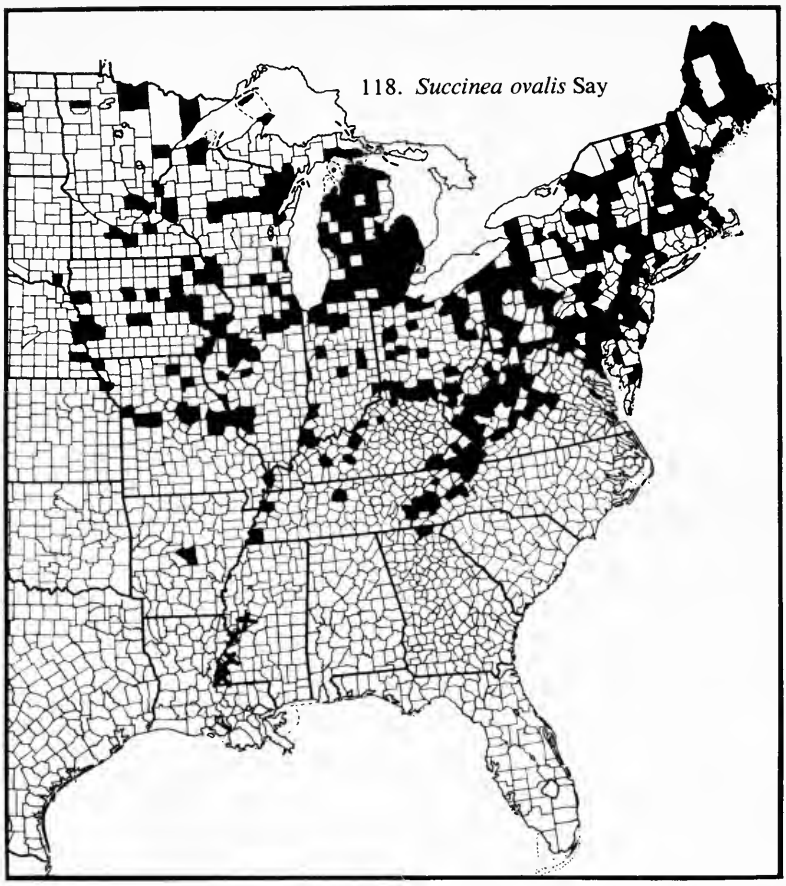
115. *Oxyloma subeffusa* Pilsbry



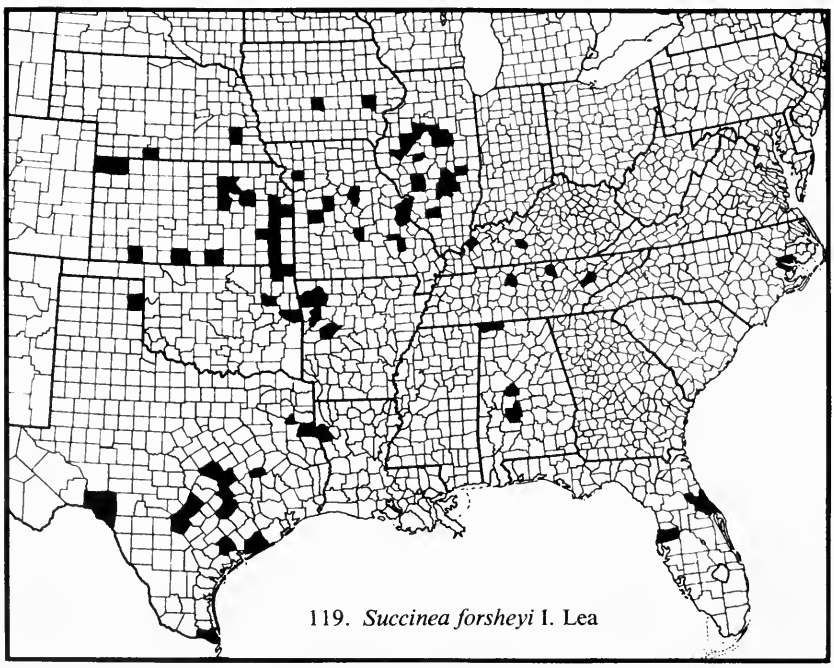
116. *Oxyloma haydeni* (W. G. Binney)



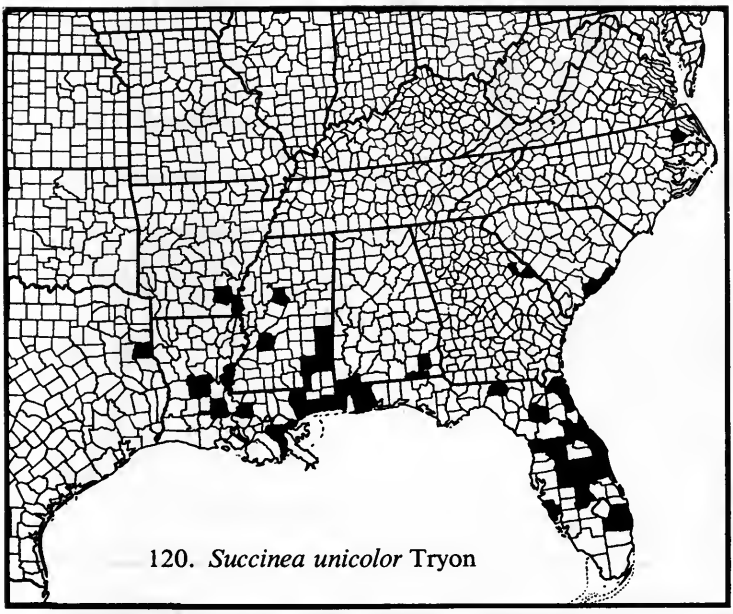
117. *Succinea indiana* Pilsbry



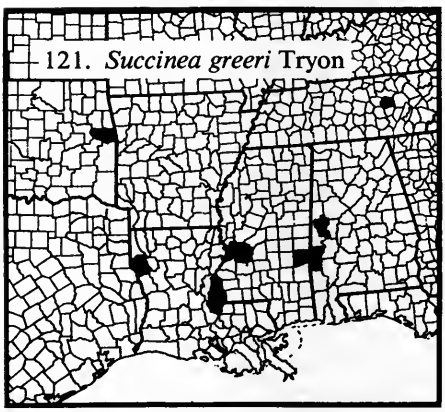
118. *Succinea ovalis* Say



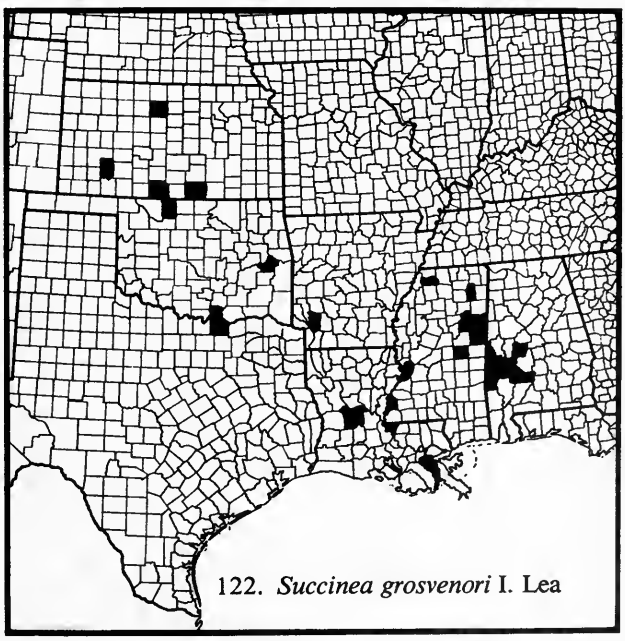
119. *Succinea forsheyi* I. Lea



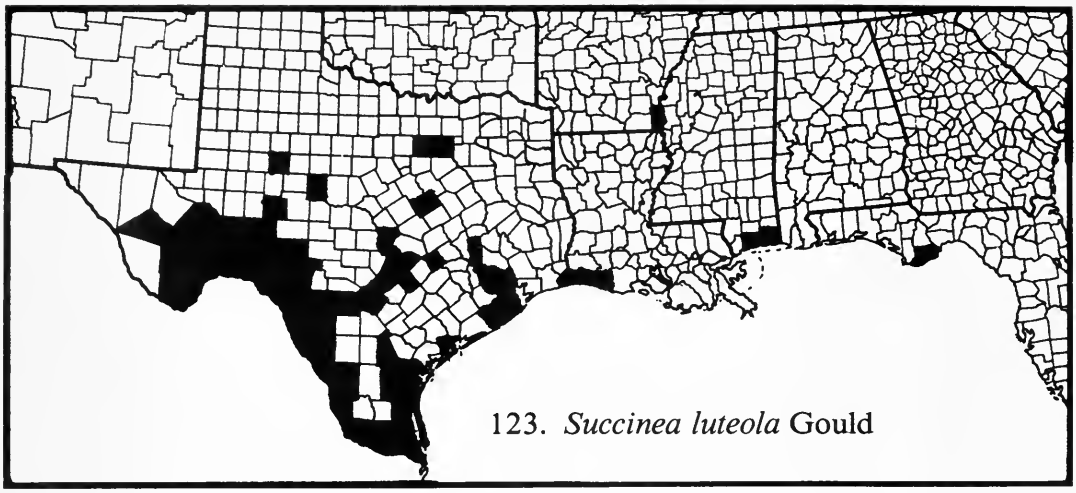
120. *Succinea unicolor* Tryon



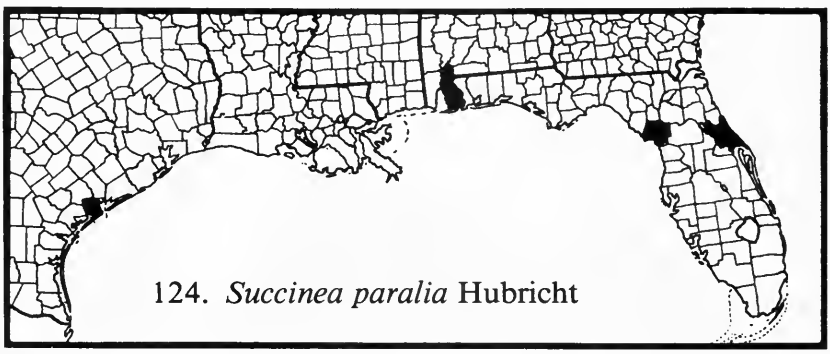
121. *Succinea greeri* Tryon



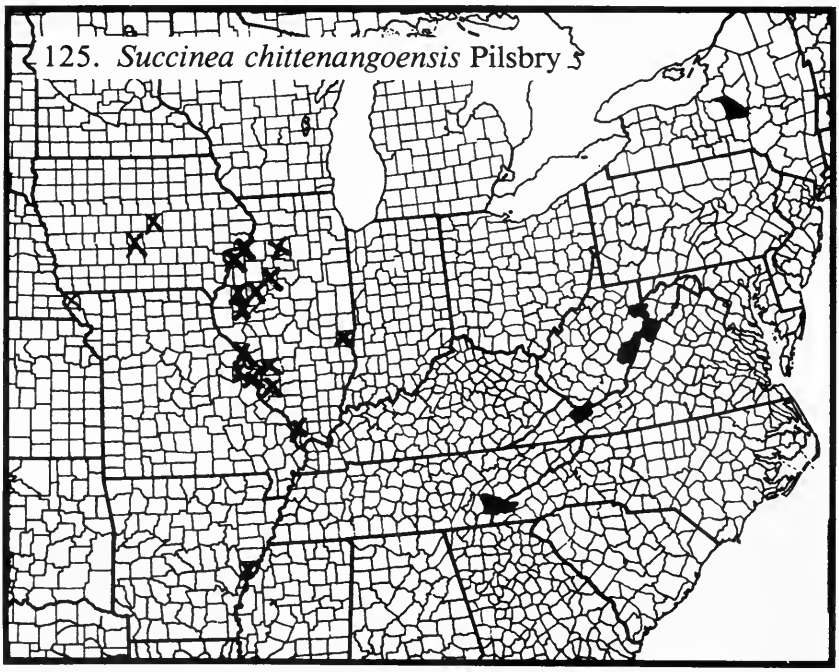
122. *Succinea grosvenori* I. Lea



123. *Succinea luteola* Gould



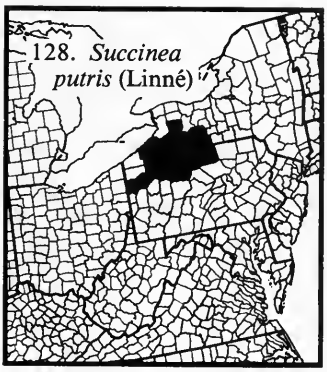
124. *Succinea paralia* Hubricht

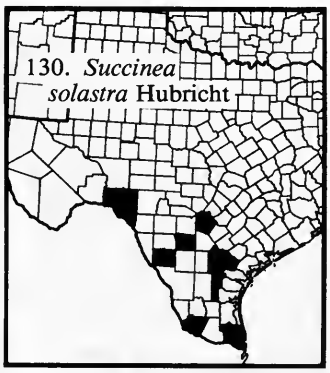


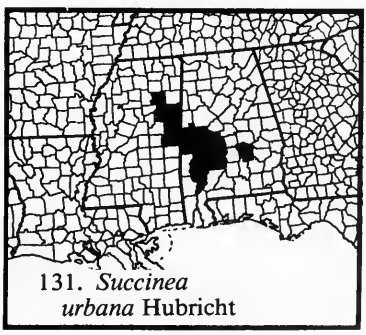
125. *Succinea chittenangoensis* Pilsbry ♂


126. *Succinea campestris* Say

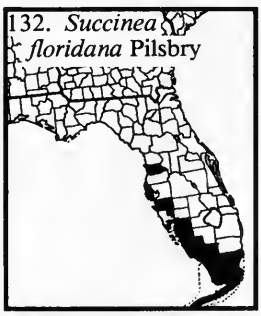

127. *Succinea wilsoni* I. Lea

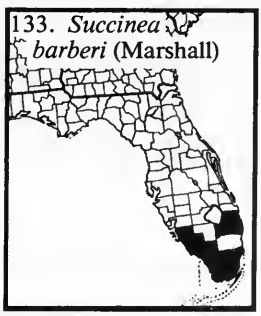

128. *Succinea putris* (Linné)

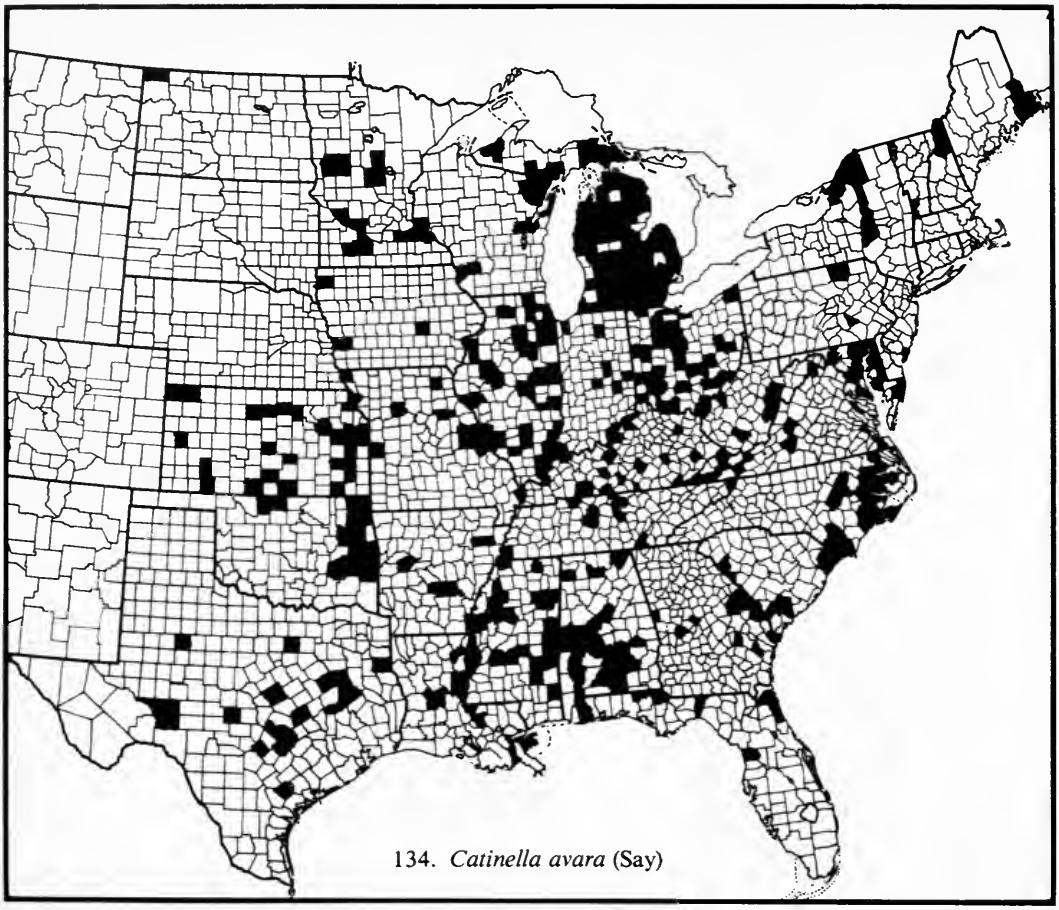

130. *Succinea solastra* Hubricht


131. *Succinea urbana* Hubricht

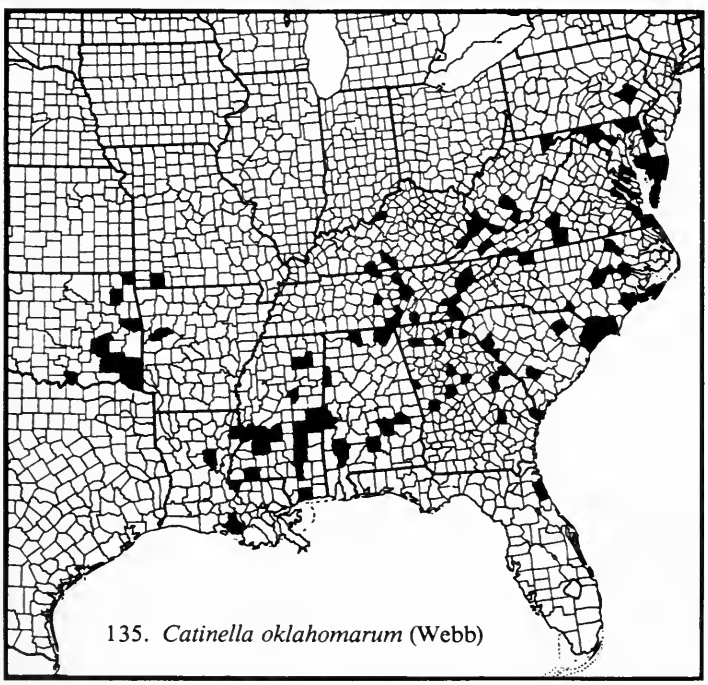

129. *Succinea bakeri* Hubricht


132. *Succinea floridana* Pilsbry


133. *Succinea barberi* (Marshall)

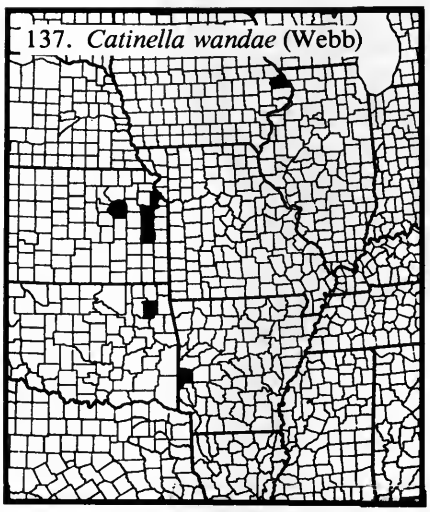


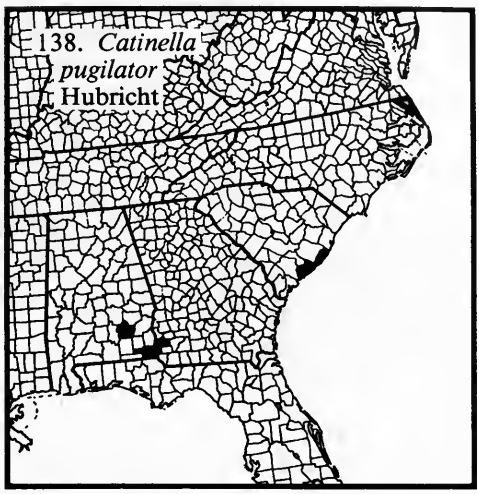
134. *Catinella avara* (Say)

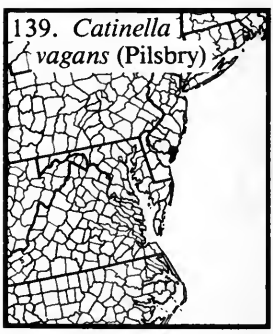


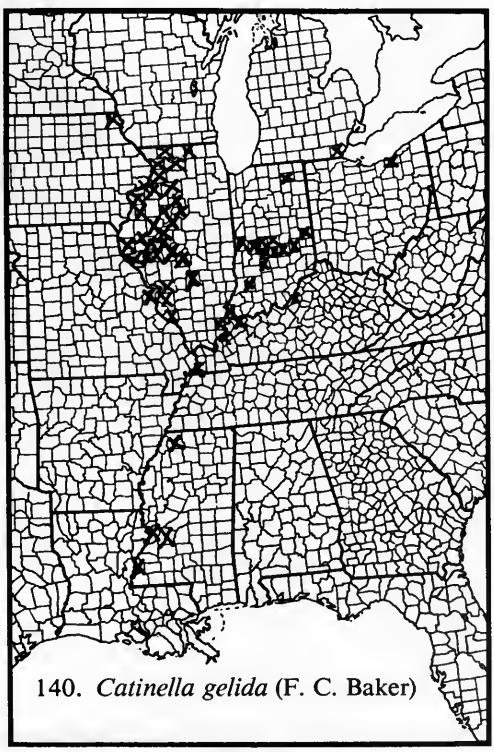
135. *Catinella oklahomarum* (Webb)

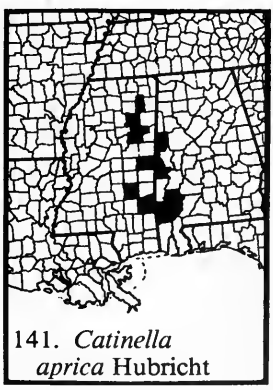
136. *Catinella hubrichti* Grimm

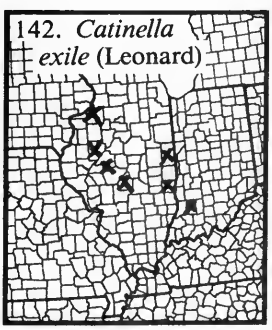

137. *Catinella wandae* (Webb)

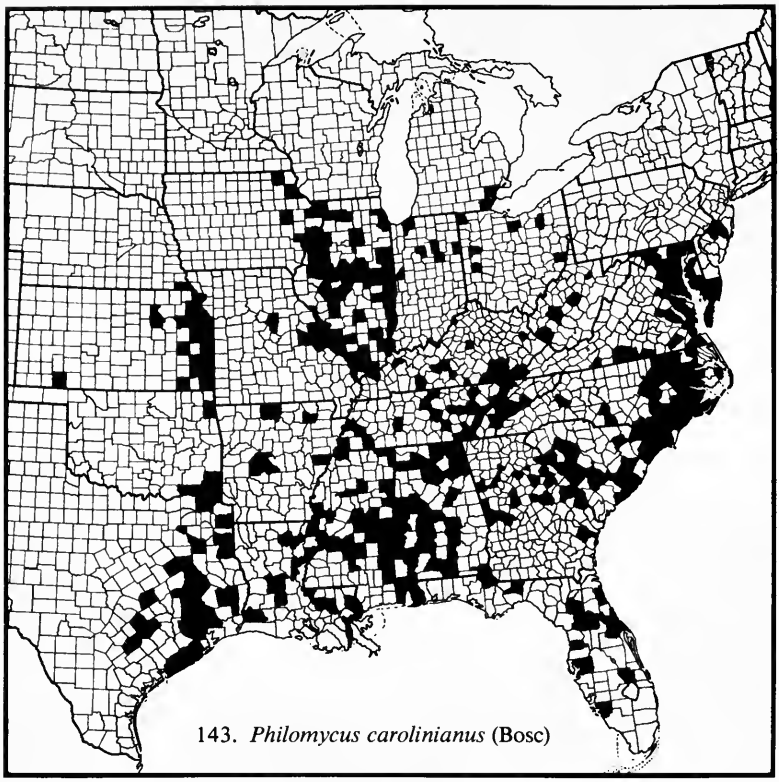

138. *Catinella pugilator* Hubricht


139. *Catinella vagans* (Pilsbry)

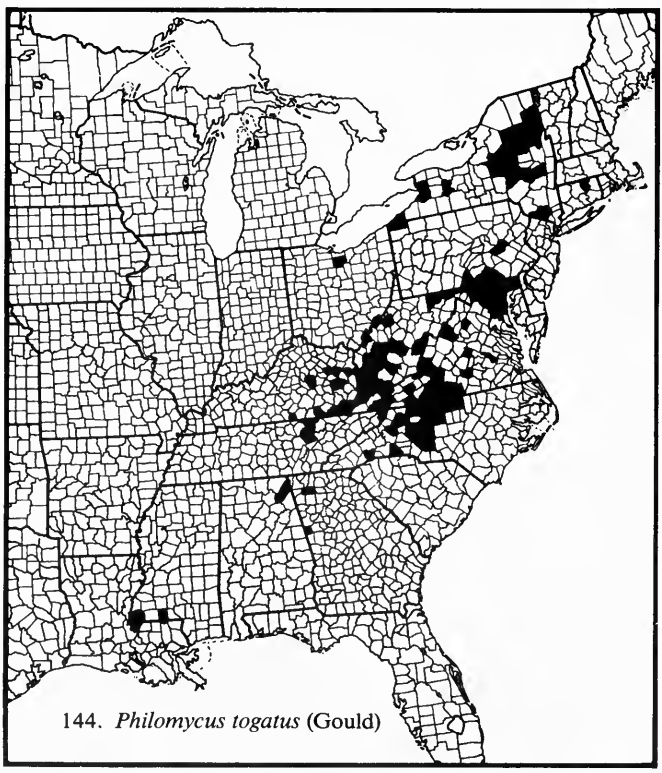

140. *Catinella gelida* (F. C. Baker)


141. *Catinella aprica* Hubricht

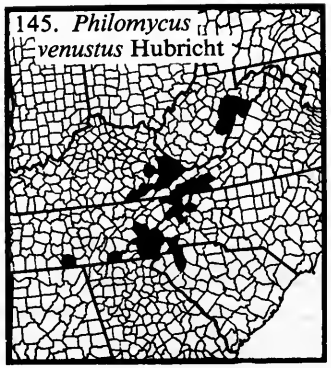

142. *Catinella exile* (Leonard)



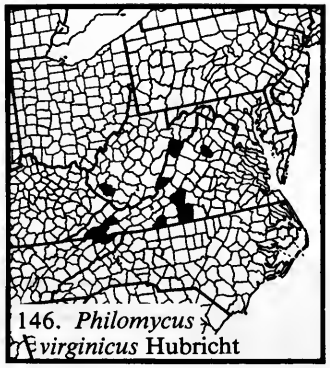
143. *Philomycus carolinianus* (Bosc)



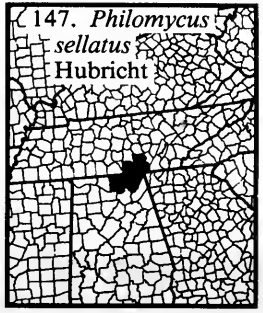
144. *Philomycus togatus* (Gould)



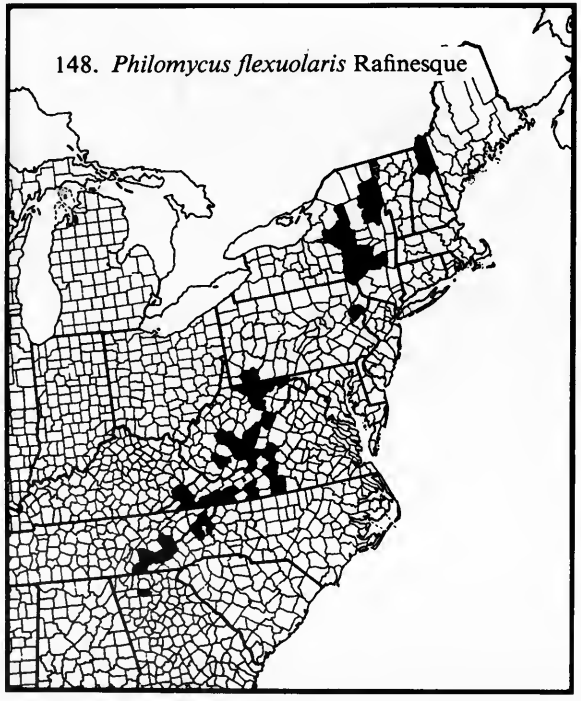
145. *Philomycus venustus* Hubricht



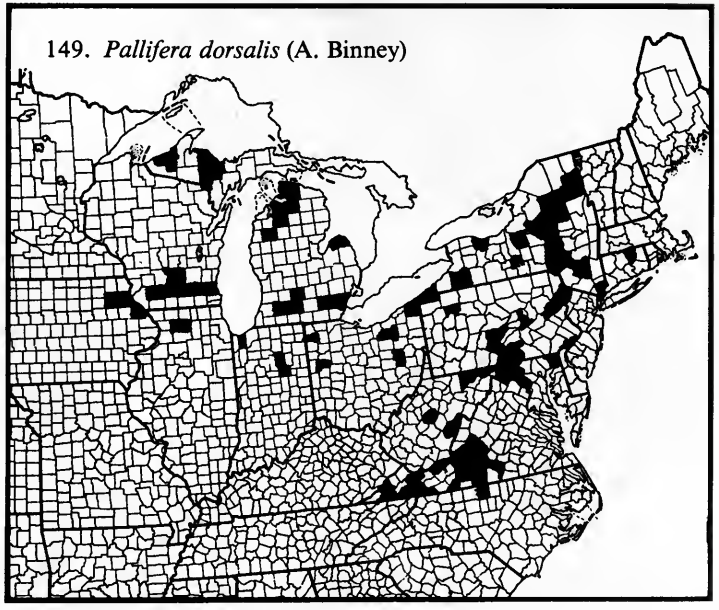
146. *Philomycus virginicus* Hubricht



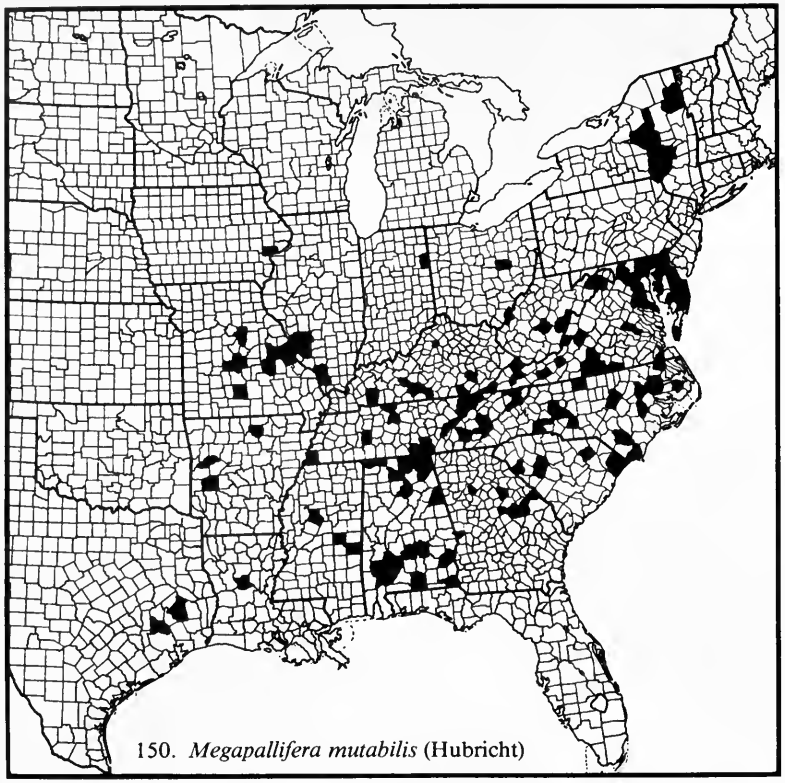
147. *Philomycus sellatus* Hubricht



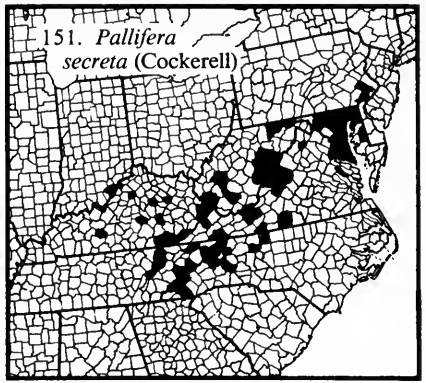
148. *Philomycus flexuolaris* Rafinesque



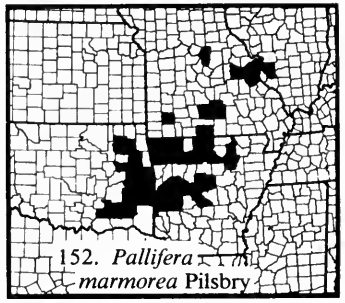
149. *Pallifera dorsalis* (A. Binney)



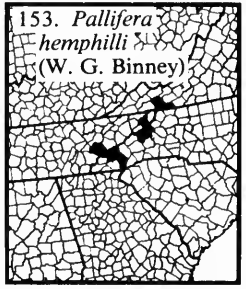
150. *Megapallifera mutabilis* (Hubricht)



151. *Pallifera secreta* (Cockerell)

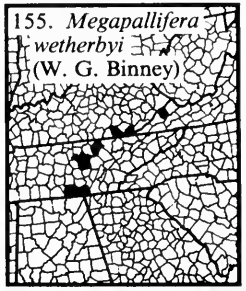


152. *Pallifera marmorea* Pilsbry

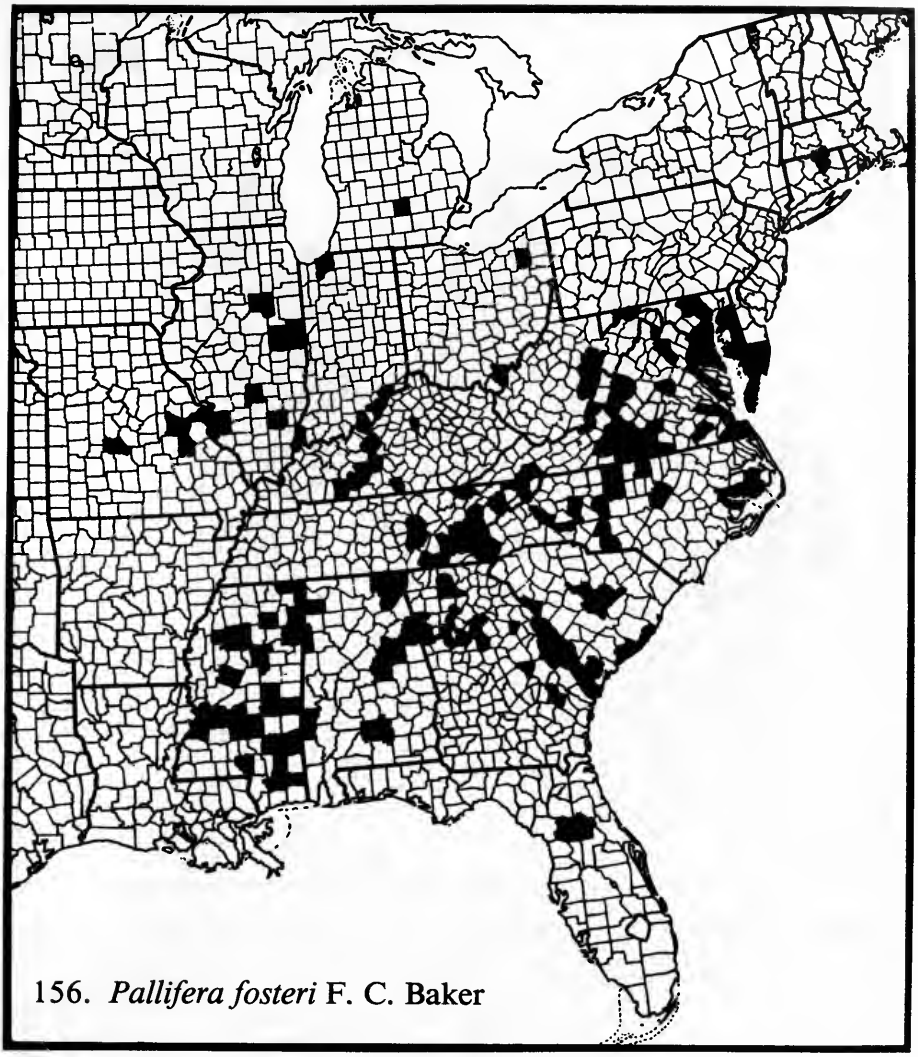


153. *Pallifera hemphilli* (W. G. Binney)

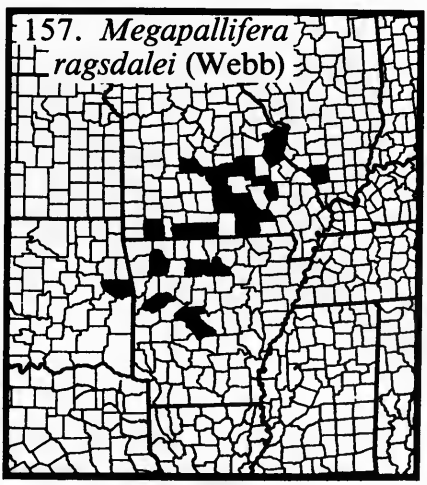
154. *Pallifera varia* Hubricht



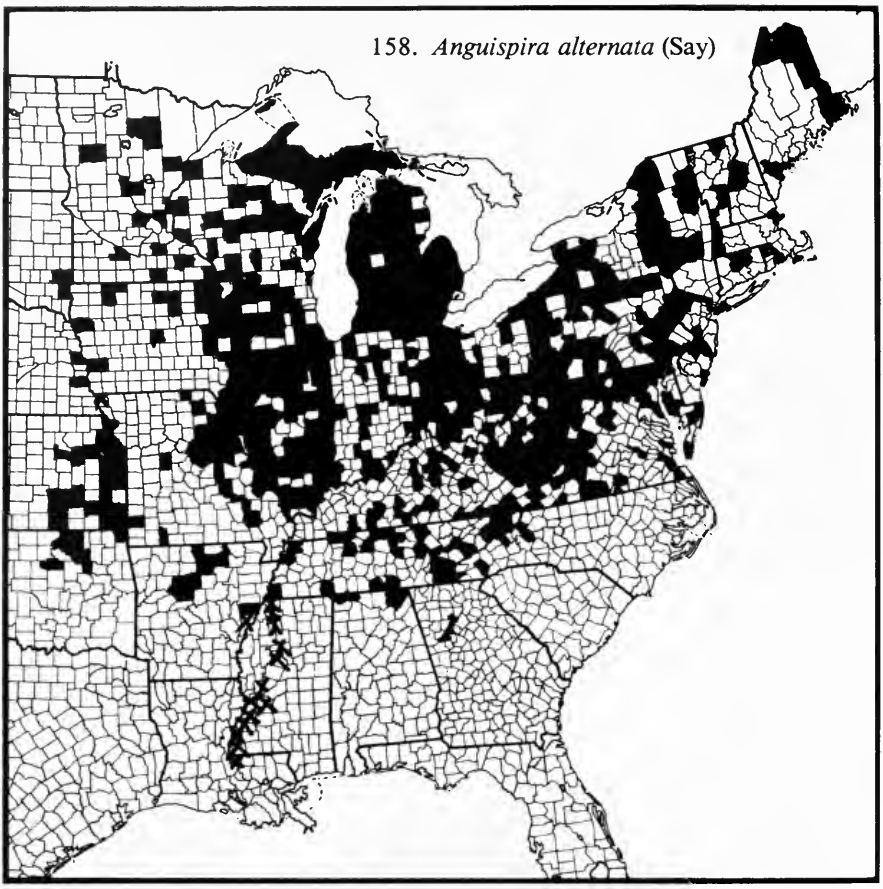
155. *Megapallifera wetherbyi* (W. G. Binney)



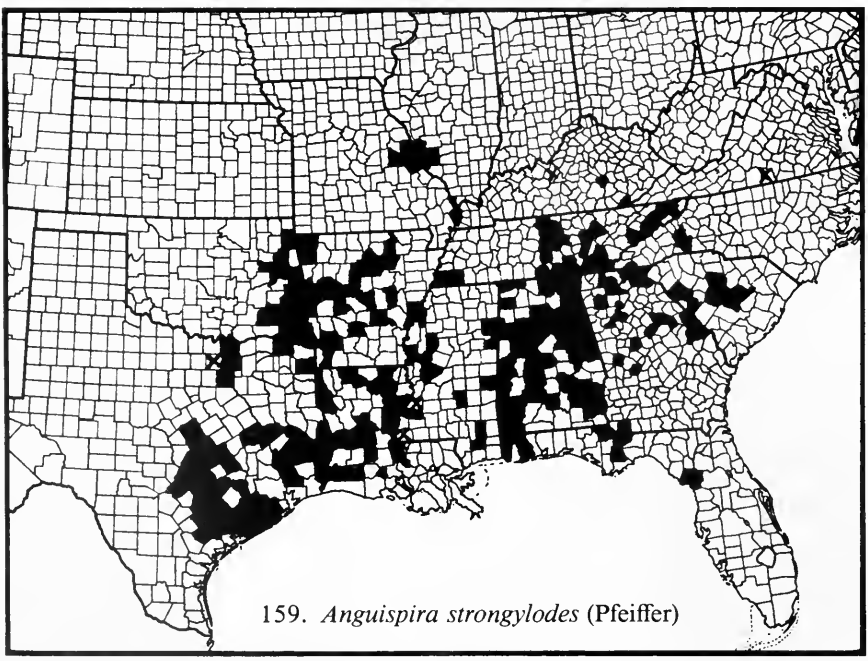
156. *Pallifera fosteri* F. C. Baker



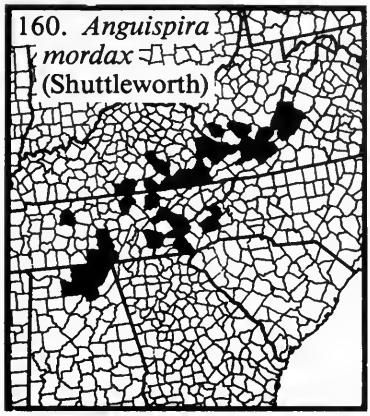
157. *Megapallifera ragsdalei* (Webb)

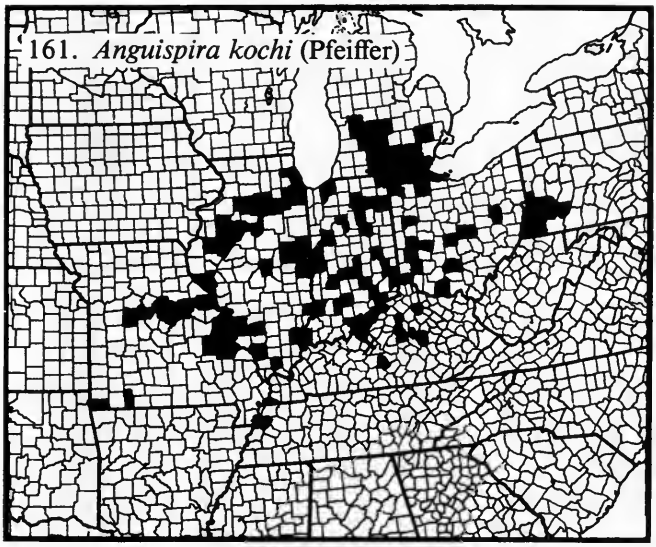


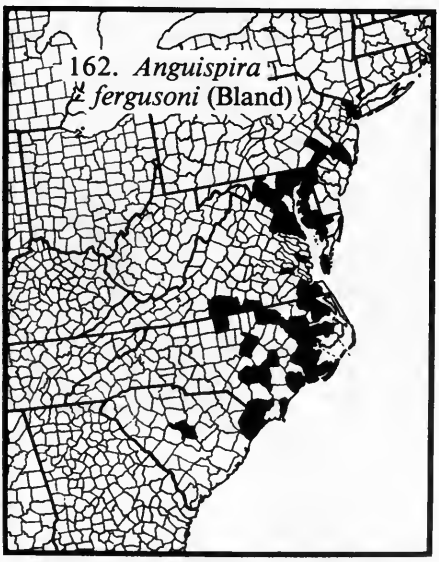
158. *Anguispira alternata* (Say)

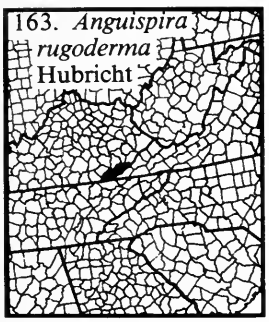


159. *Anguispira strongylodes* (Pfeiffer)

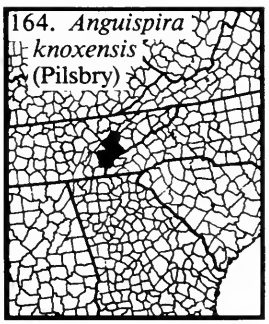

160. *Anguispira mordax* (Shuttleworth)


161. *Anguispira kochi* (Pfeiffer)

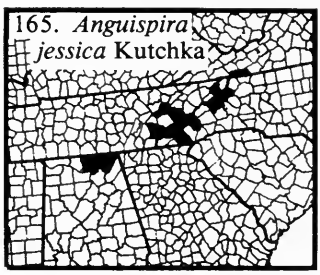

162. *Anguispira fergusoni* (Bland)



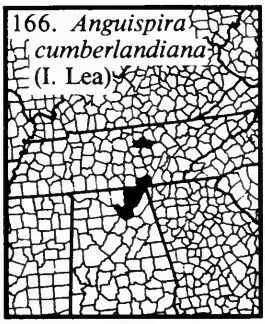
163. *Anguispira rugoderma* Hubricht



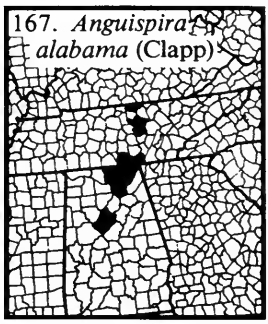
164. *Anguispira knoxensis* (Pilsbry)



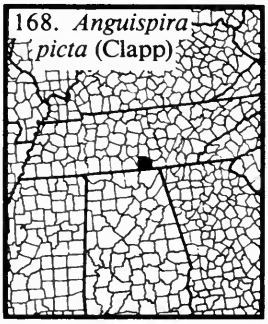
165. *Anguispira jessica* Kutchka



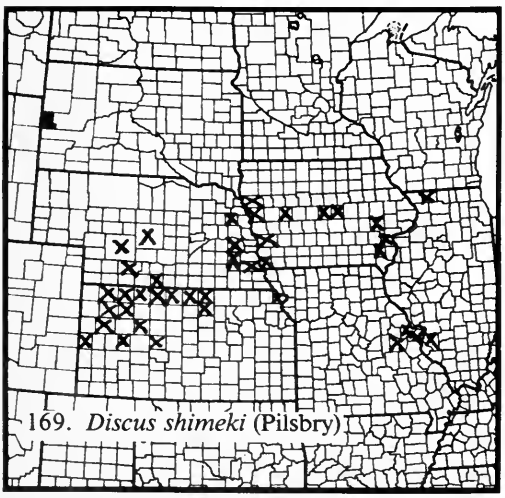
166. *Anguispira cumberlandiana* (I. Lea)



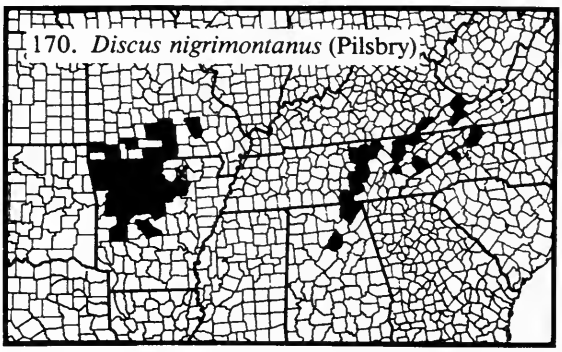
167. *Anguispira alabama* (Clapp)



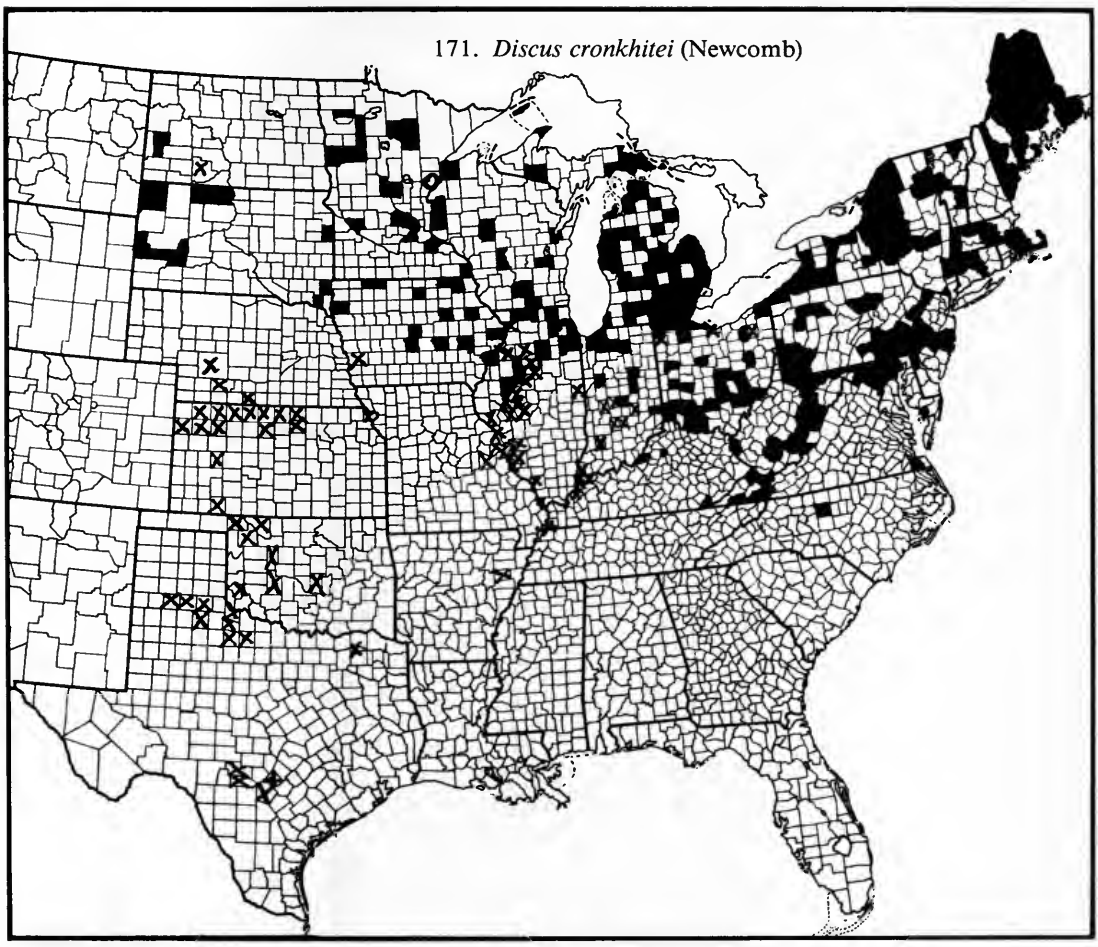
168. *Anguispira picta* (Clapp)

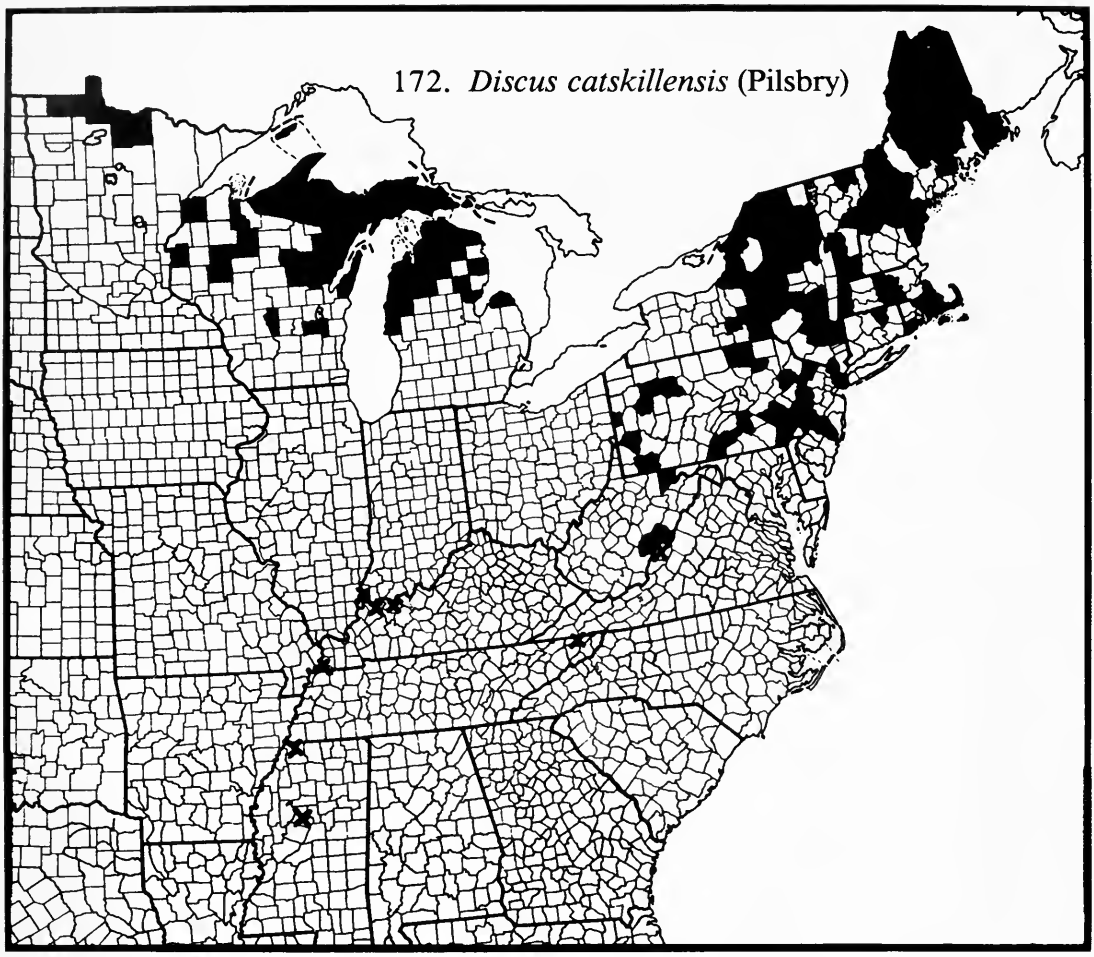


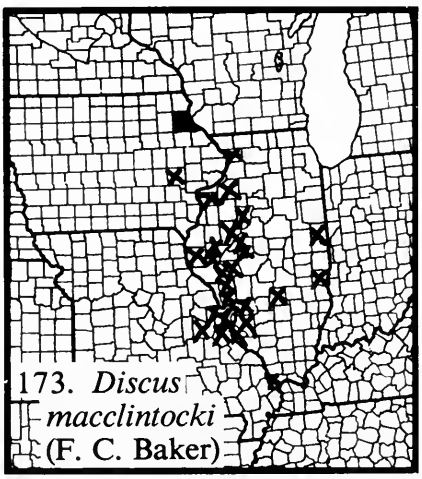
169. *Discus shimeki* (Pilsbry)

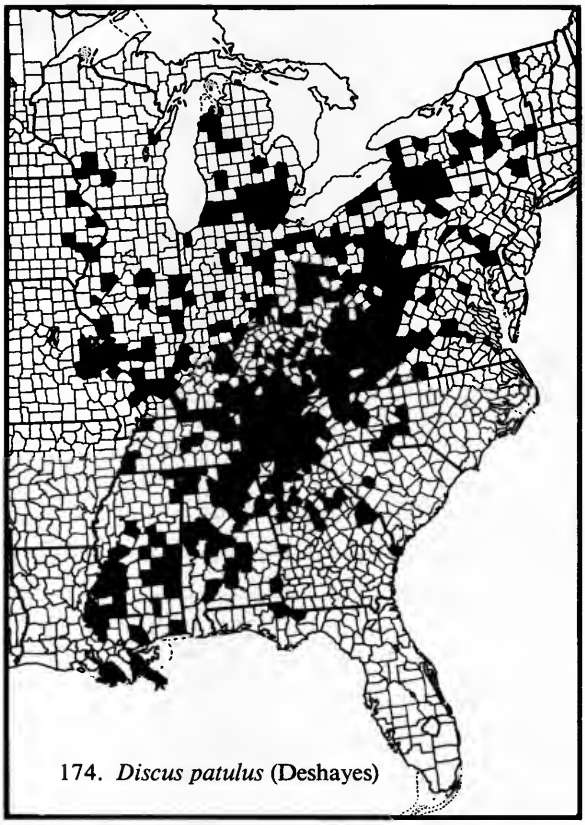


170. *Discus nigrimontanus* (Pilsbry)

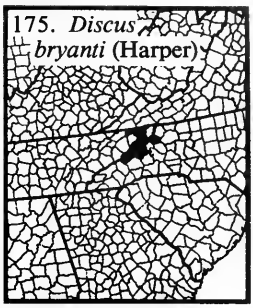

171. *Discus cronkhitei* (Newcomb)


172. *Discus catskillensis* (Pilsbry)

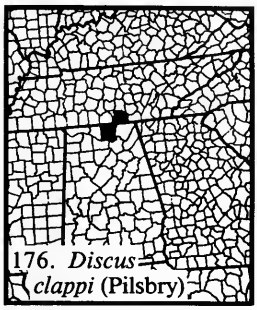

173. *Discus macclintocki* (F. C. Baker)



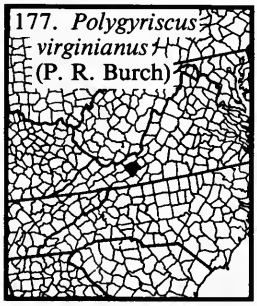
174. *Discus patulus* (Deshayes)



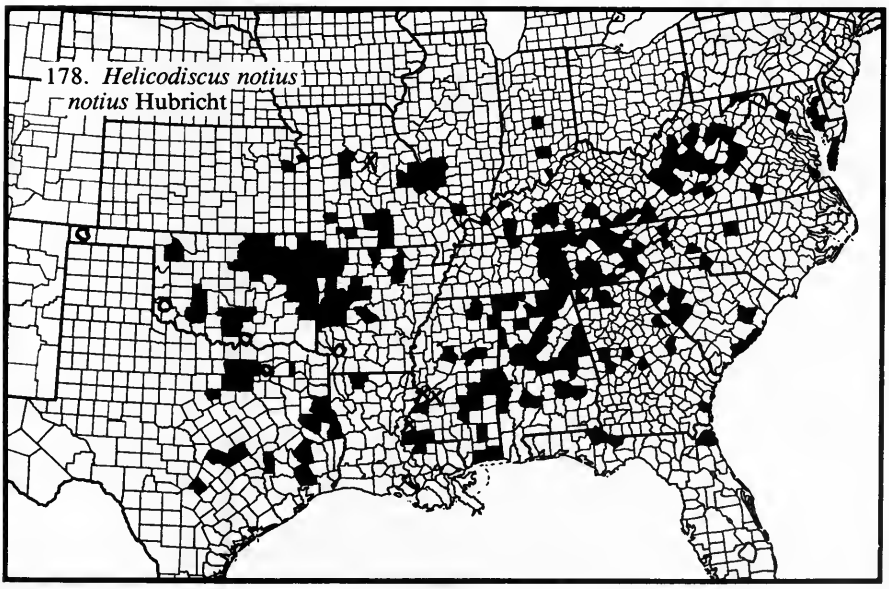
175. *Discus bryanti* (Harper)



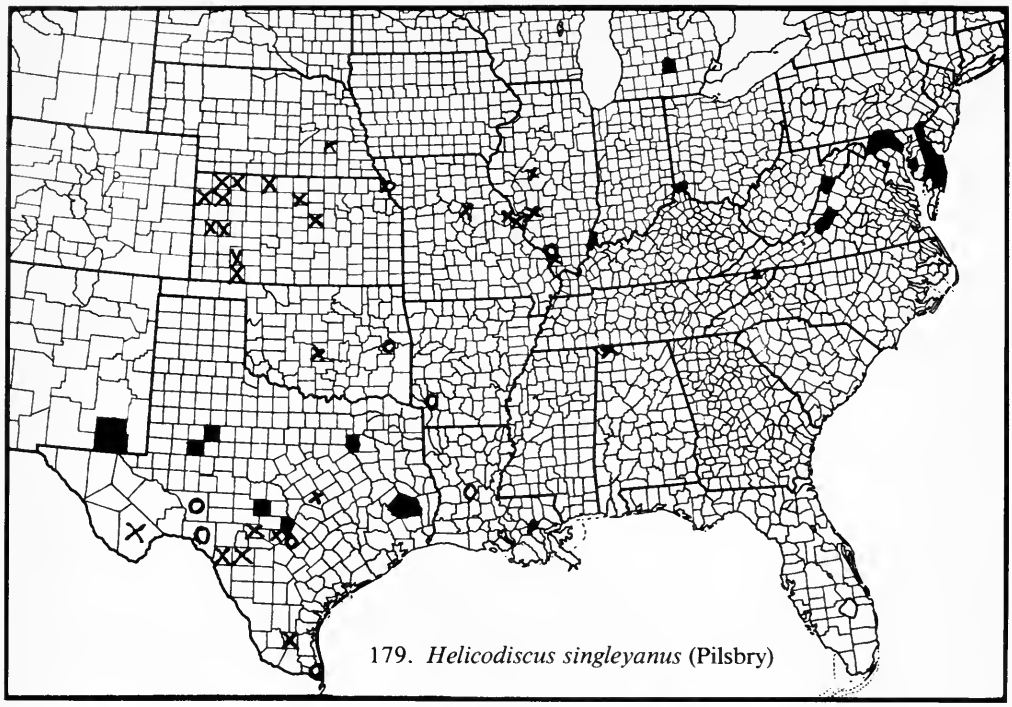
176. *Discus clappi* (Pilsbry)



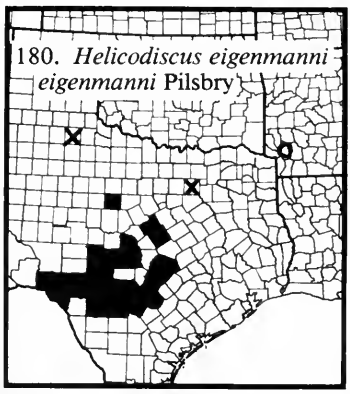
177. *Polygyriscus virginianus* (P. R. Burch)



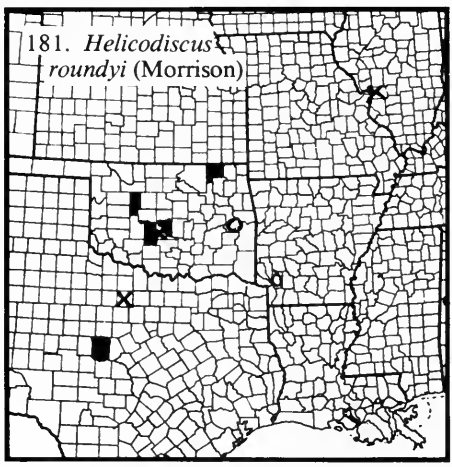
178. *Helicodiscus notius notius* Hubricht



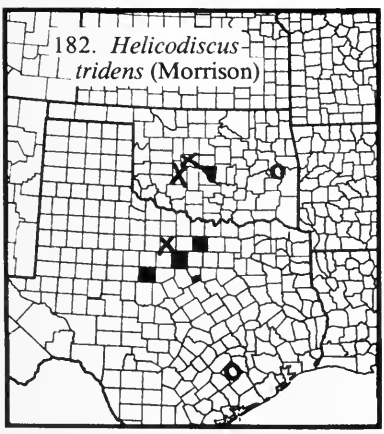
179. *Helicodiscus singleyanus* (Pilsbry)



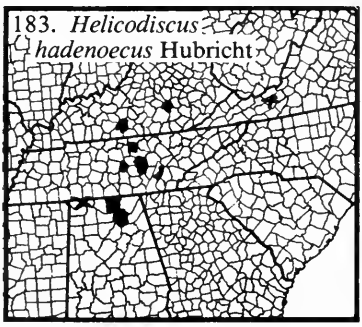
180. *Helicodiscus eigenmanni eigenmanni* Pilsbry



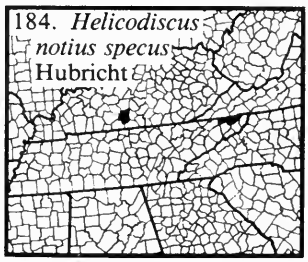
181. *Helicodiscus roundyi* (Morrison)



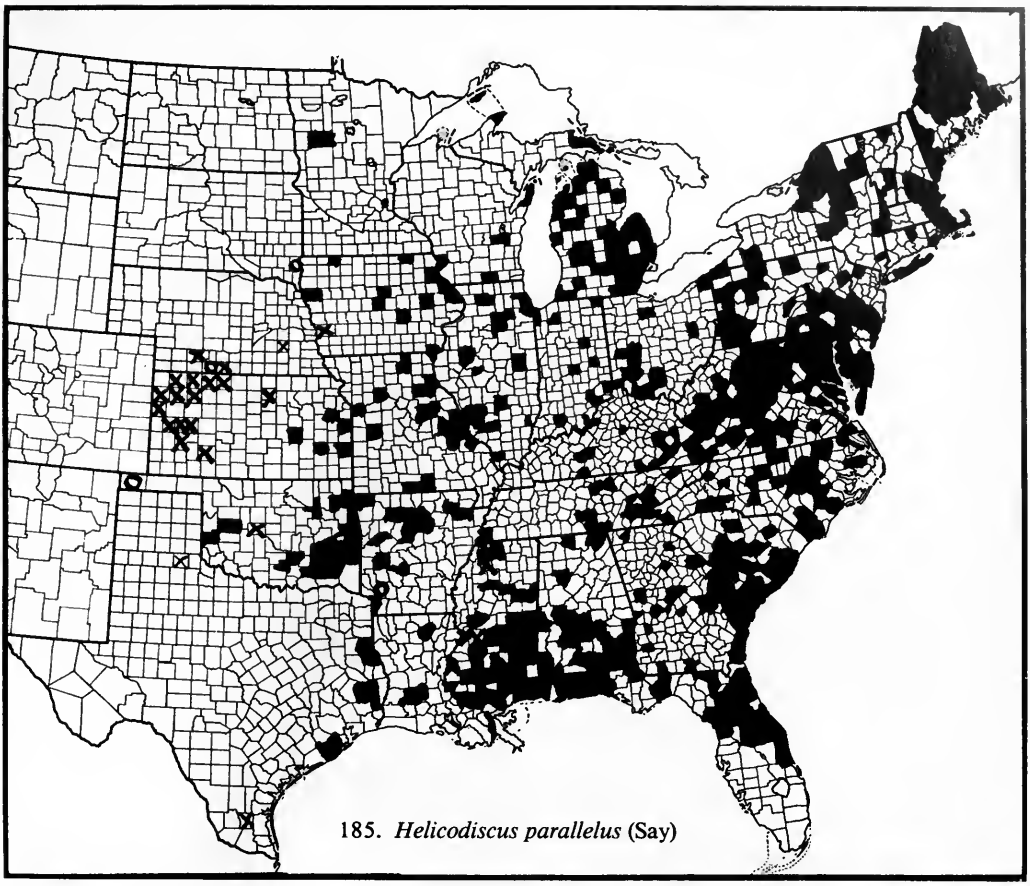
182. *Helicodiscus tridens* (Morrison)



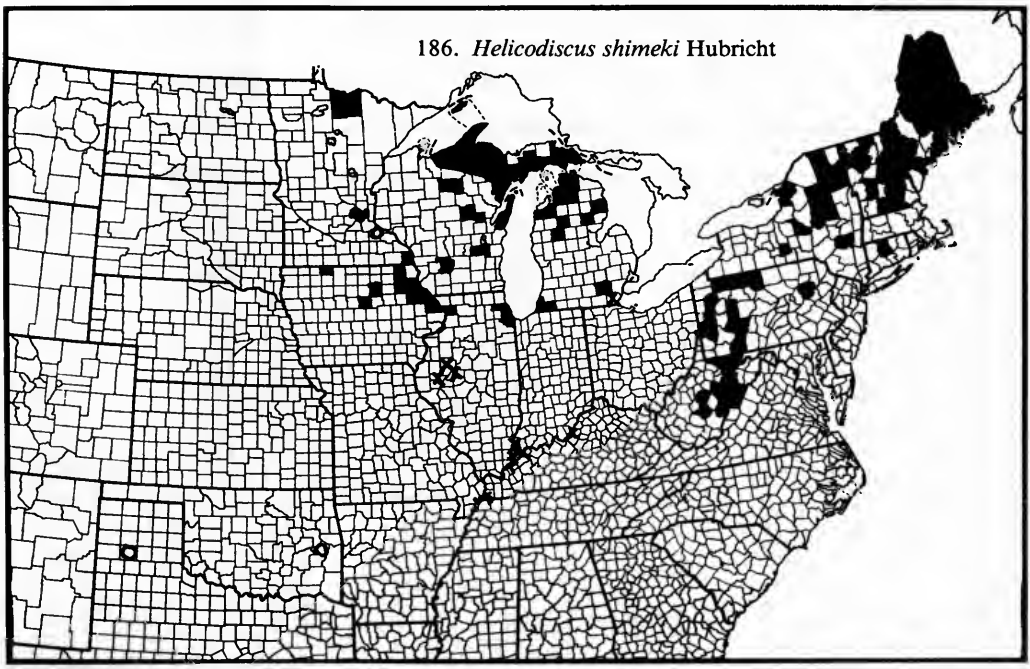
183. *Helicodiscus hadenoecus* Hubricht



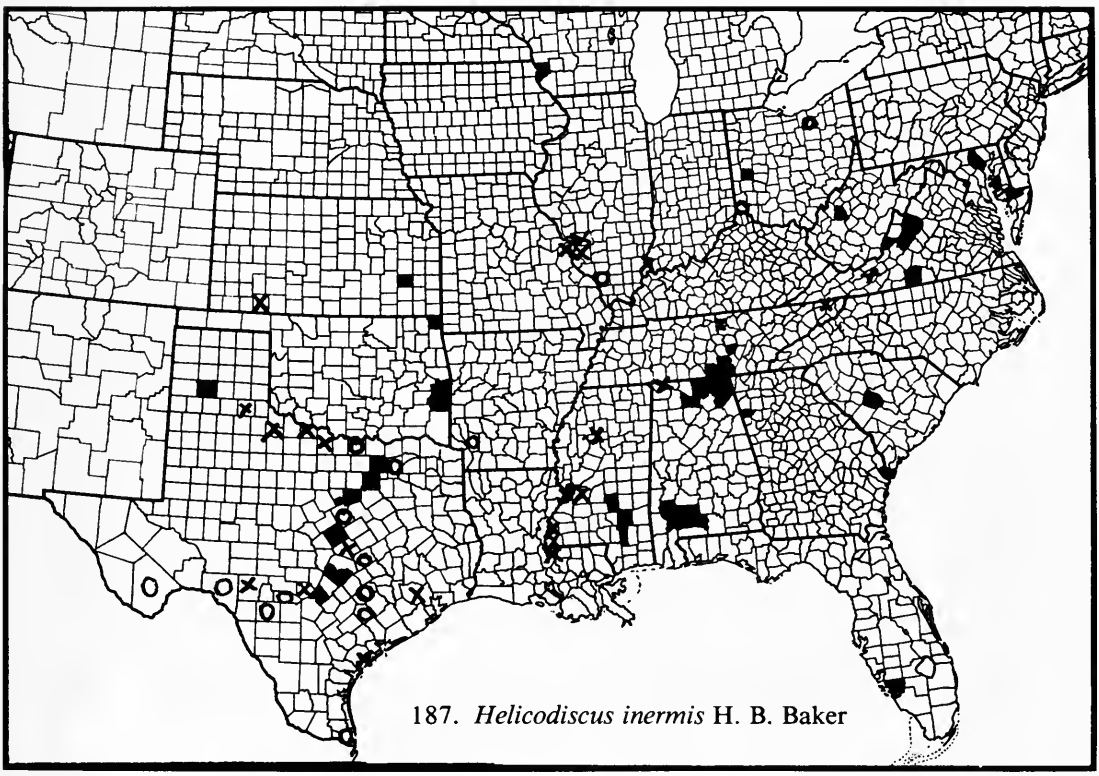
184. *Helicodiscus notius specus* Hubricht



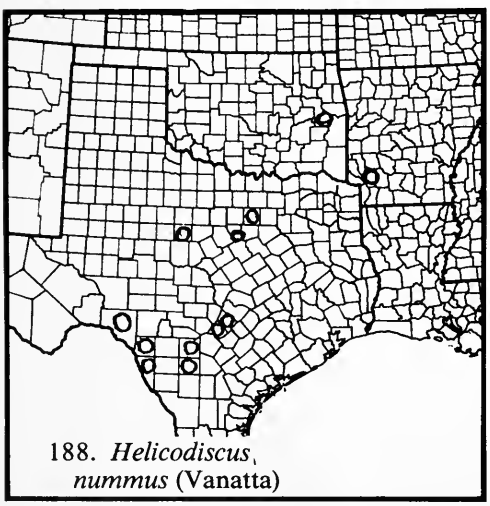
185. *Helicodiscus parallelus* (Say)



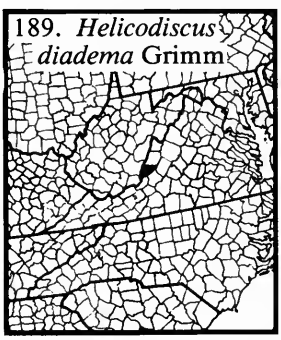
186. *Helicodiscus shimeki* Hubricht



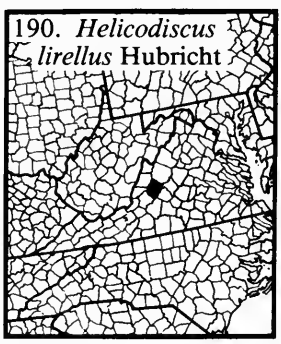
187. *Helicodiscus inermis* H. B. Baker



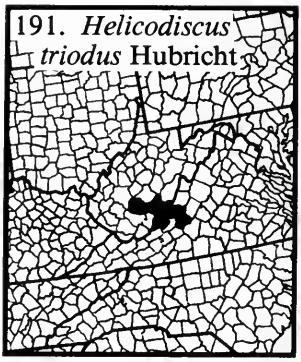
188. *Helicodiscus nummus* (Vanatta)

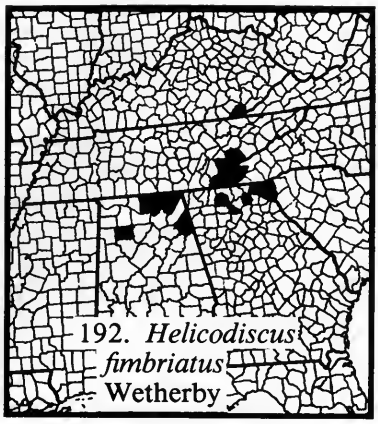


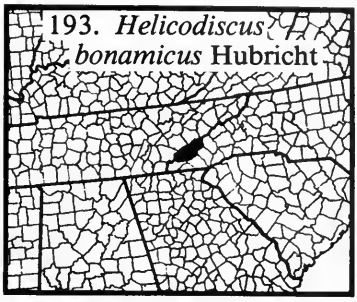
189. *Helicodiscus diadema* Grimm

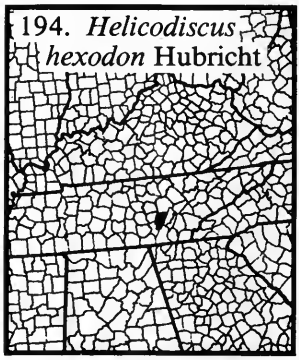


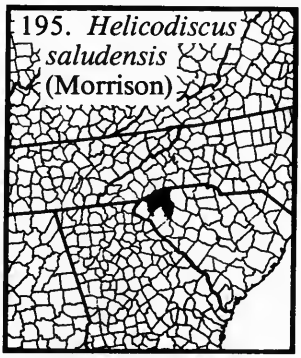
190. *Helicodiscus lirellus* Hubricht

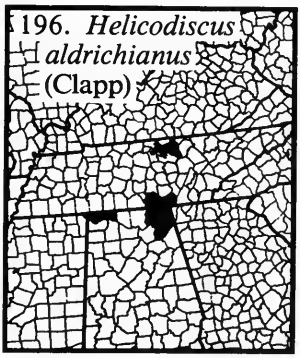

191. *Helicodiscus triodus* Hubricht

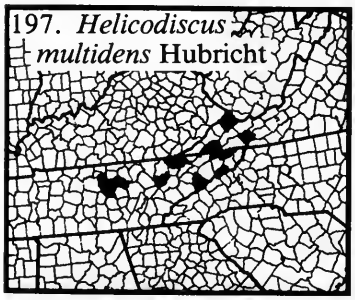

192. *Helicodiscus fimbriatus* Wetherby

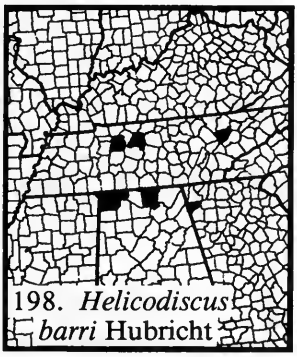

193. *Helicodiscus bonamicus* Hubricht

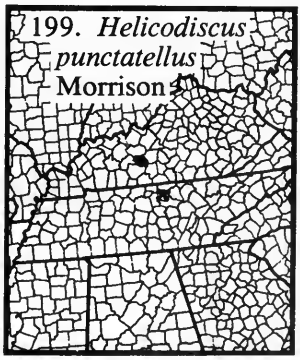

194. *Helicodiscus hexodon* Hubricht

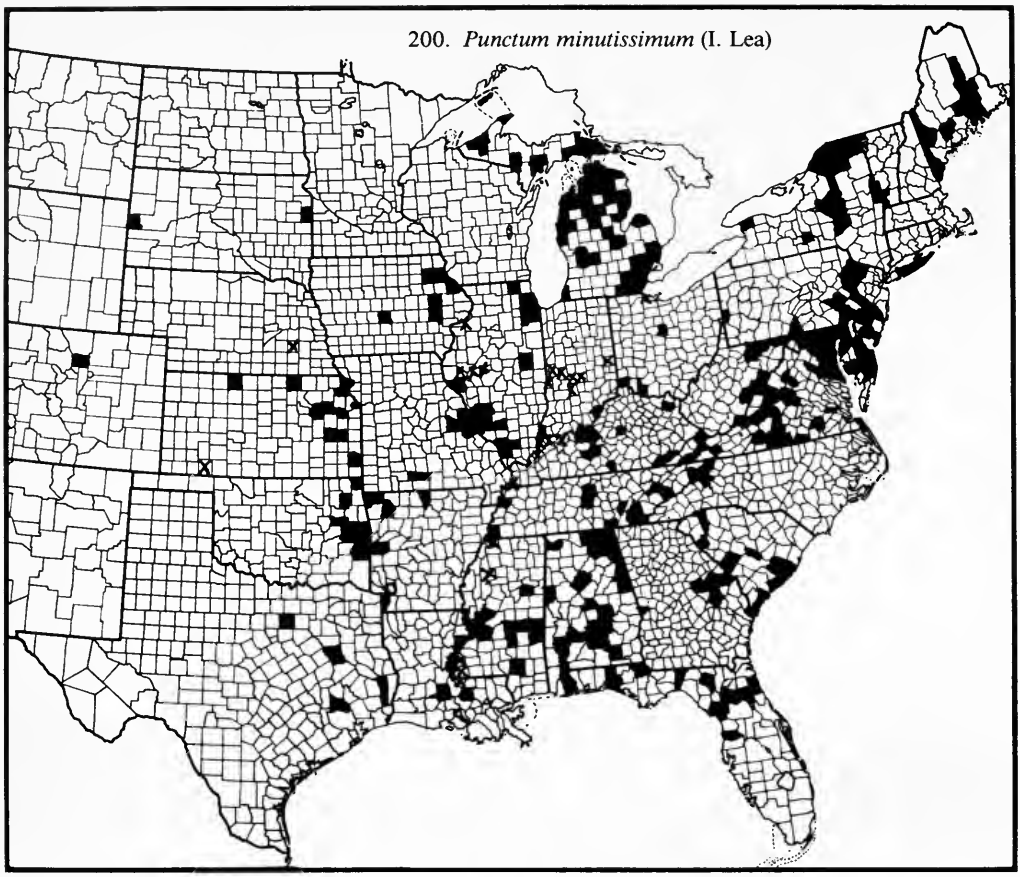

195. *Helicodiscus saludensis* (Morrison)


196. *Helicodiscus aldrichianus* (Clapp)

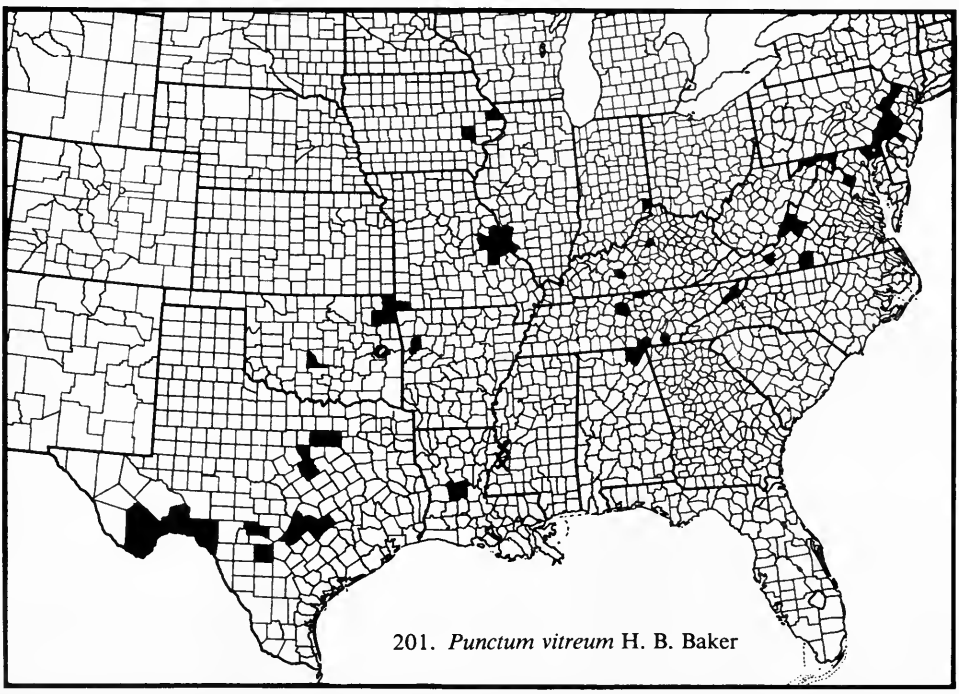

197. *Helicodiscus multidens* Hubricht


198. *Helicodiscus barri* Hubricht

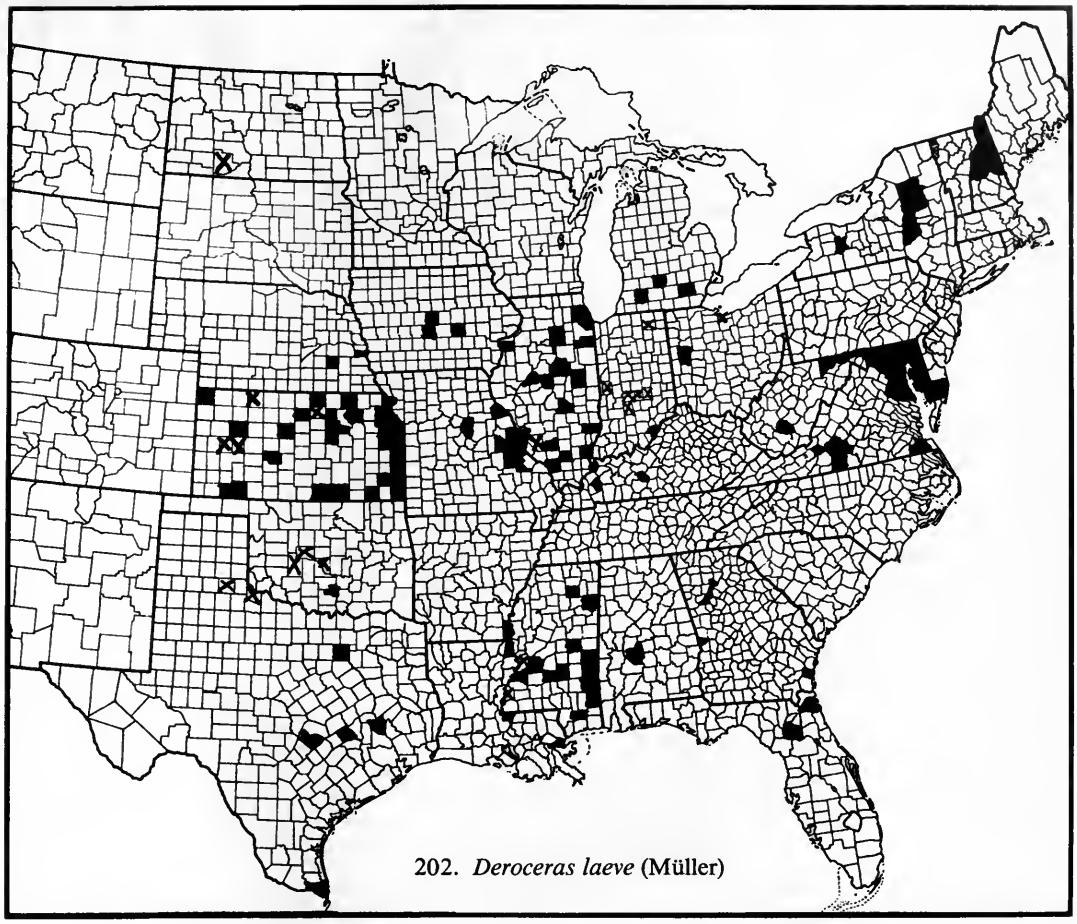

199. *Helicodiscus punctatellus* Morrison



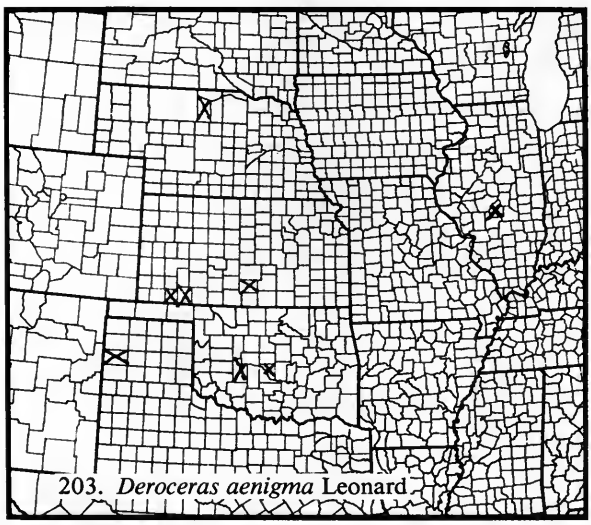
200. *Punctum minutissimum* (I. Lea)



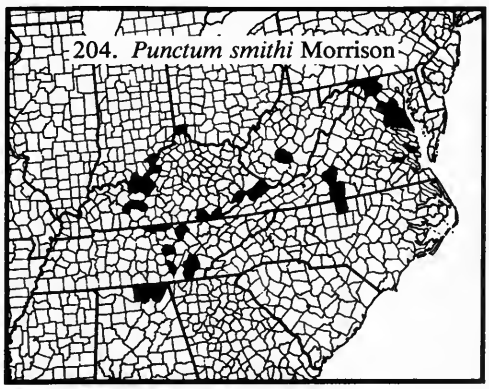
201. *Punctum vitreum* H. B. Baker



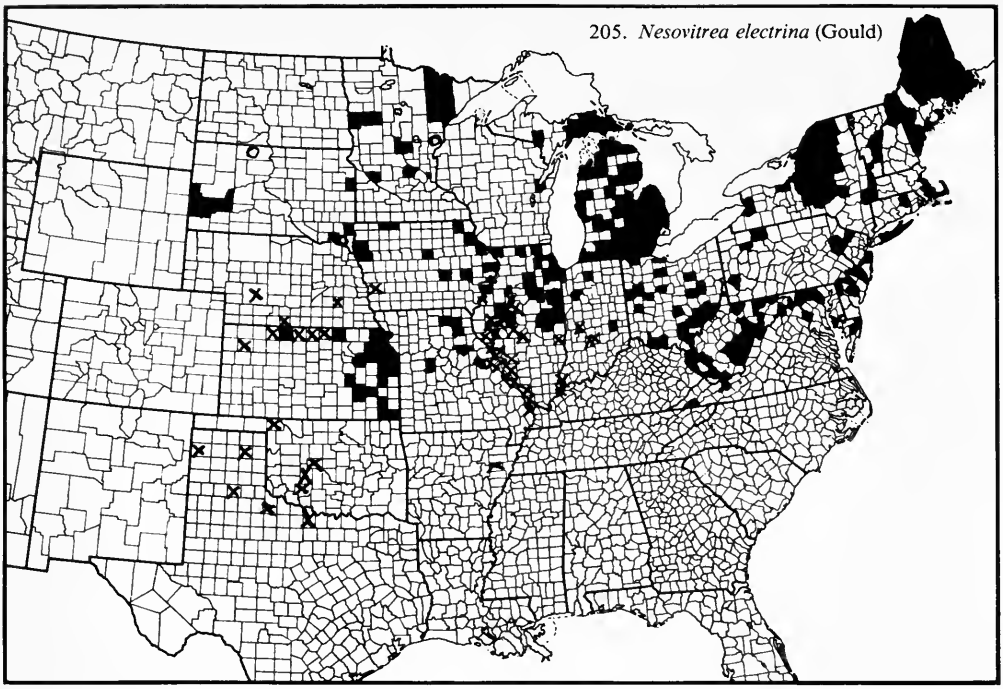
202. *Deroceras laeve* (Müller)

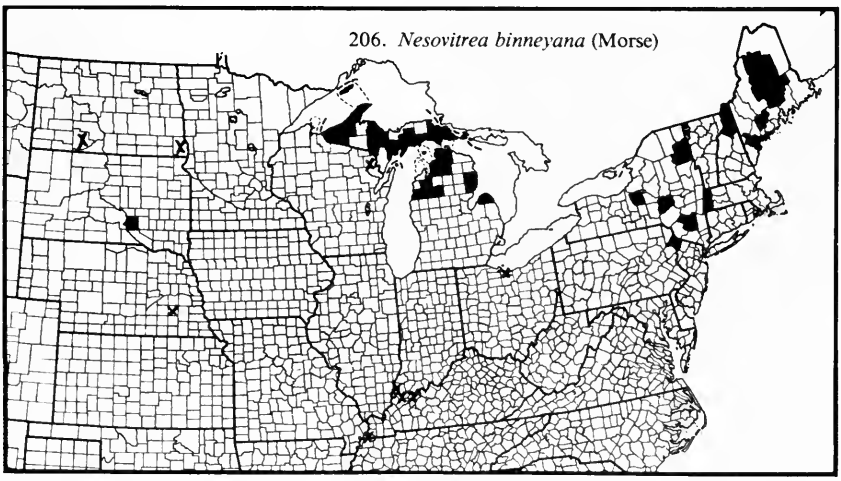


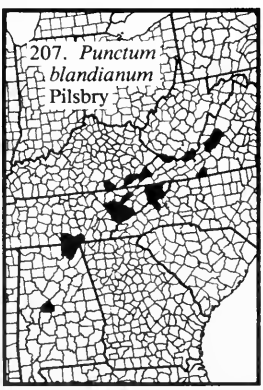
203. *Deroceras aenigma* Leonard

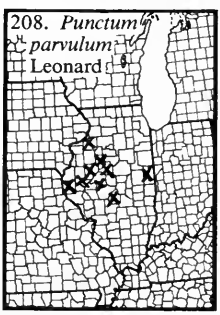


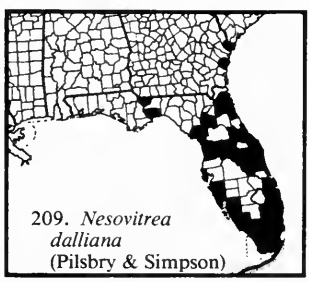
204. *Punctum smithi* Morrison

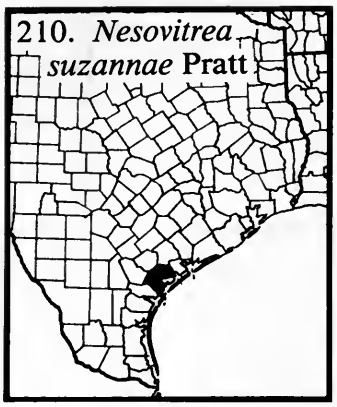

205. *Nesovitrea electrina* (Gould)


206. *Nesovitrea binneyana* (Morse)

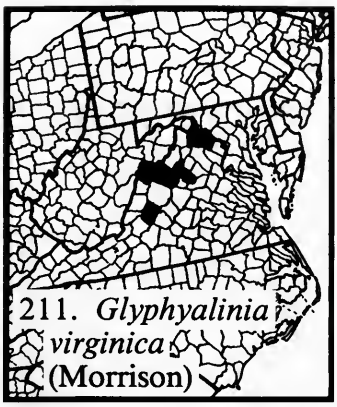

207. *Punctum blandianum* Pilsbry


208. *Punctum parvulum* Leonard

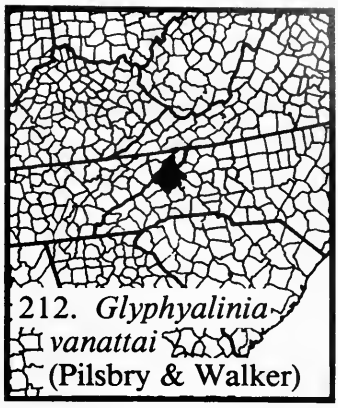

209. *Nesovitrea dalliana* (Pilsbry & Simpson)



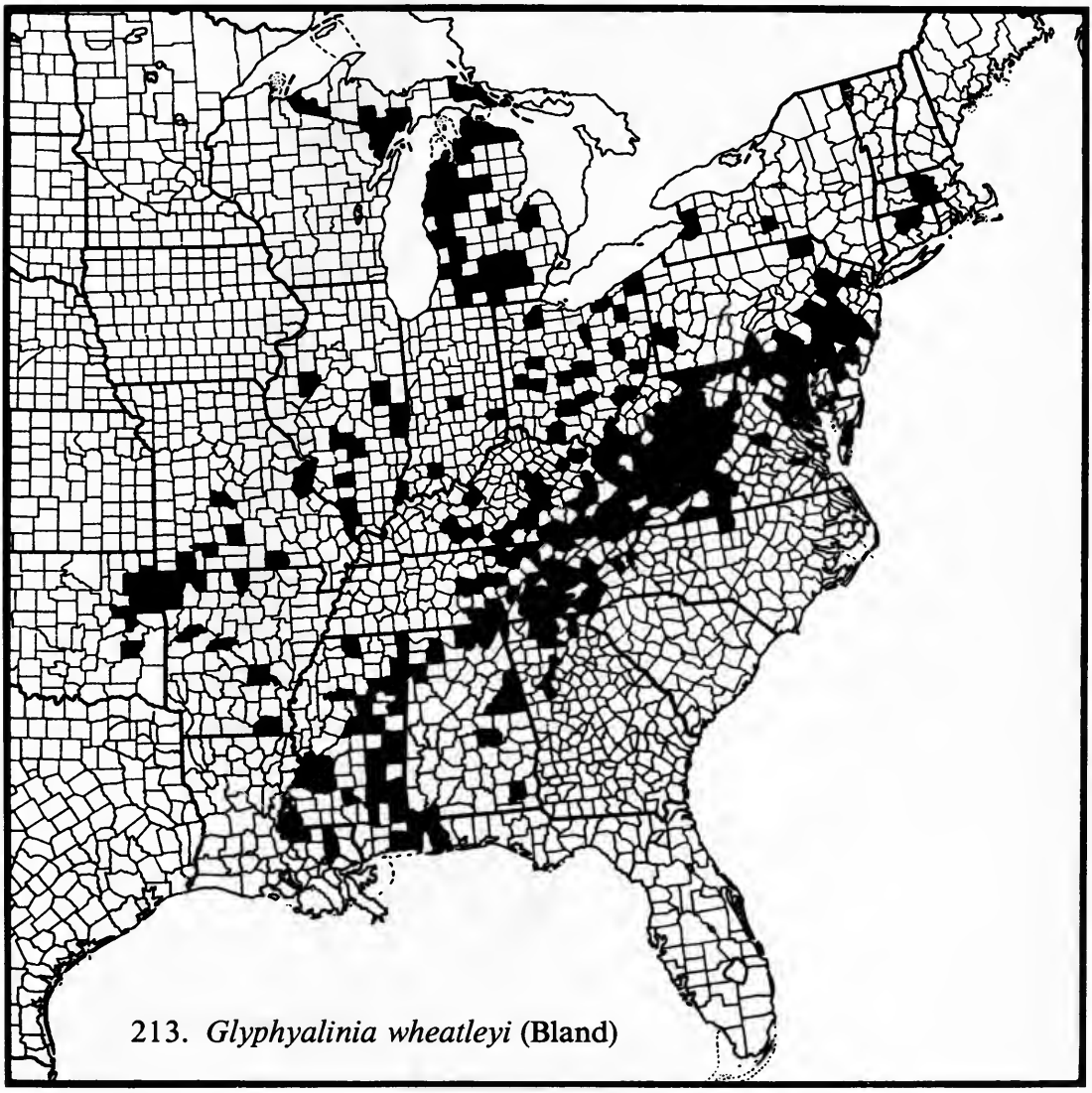
210. *Nesovitrea suzannae* Pratt



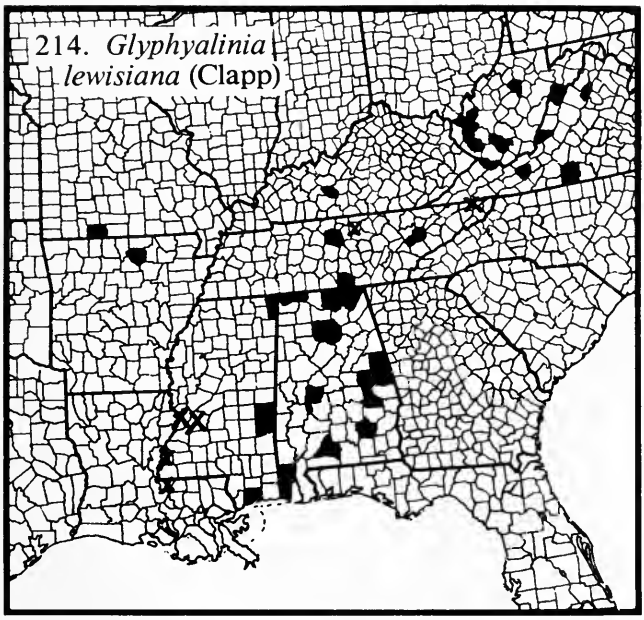
211. *Glyphyalinia virginica* (Morrison)

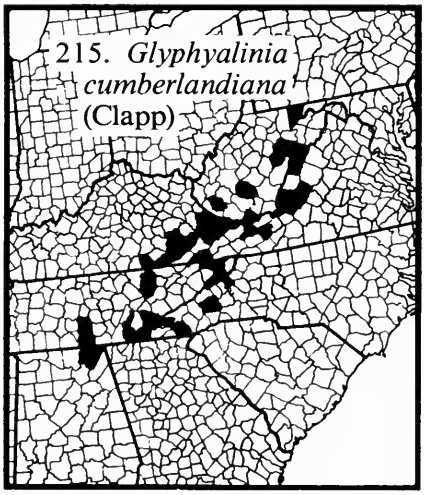


212. *Glyphyalinia vanattai* (Pilsbry & Walker)

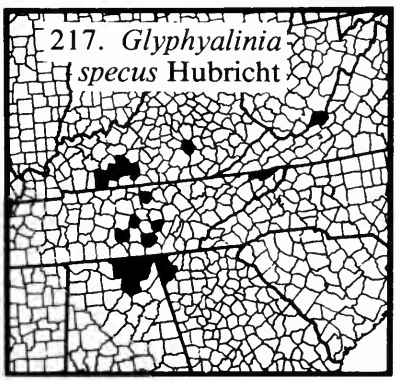


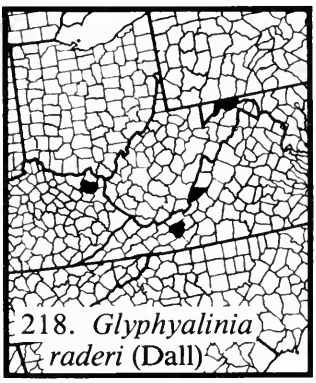
213. *Glyphyalinia wheatleyi* (Bland)

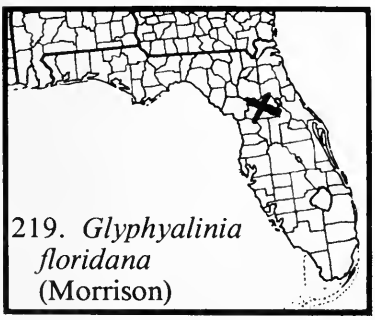

214. *Glyphyalinia lewisiana* (Clapp)

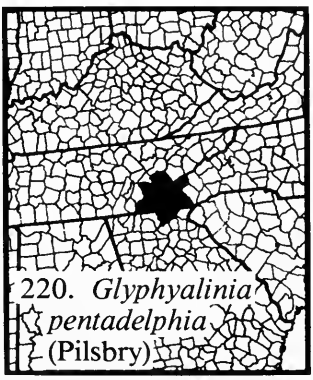

215. *Glyphyalinia cumberlandiana* (Clapp)

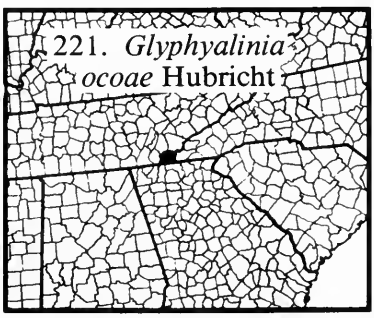

216. *Glyphyalinia clingmani* (Dall)

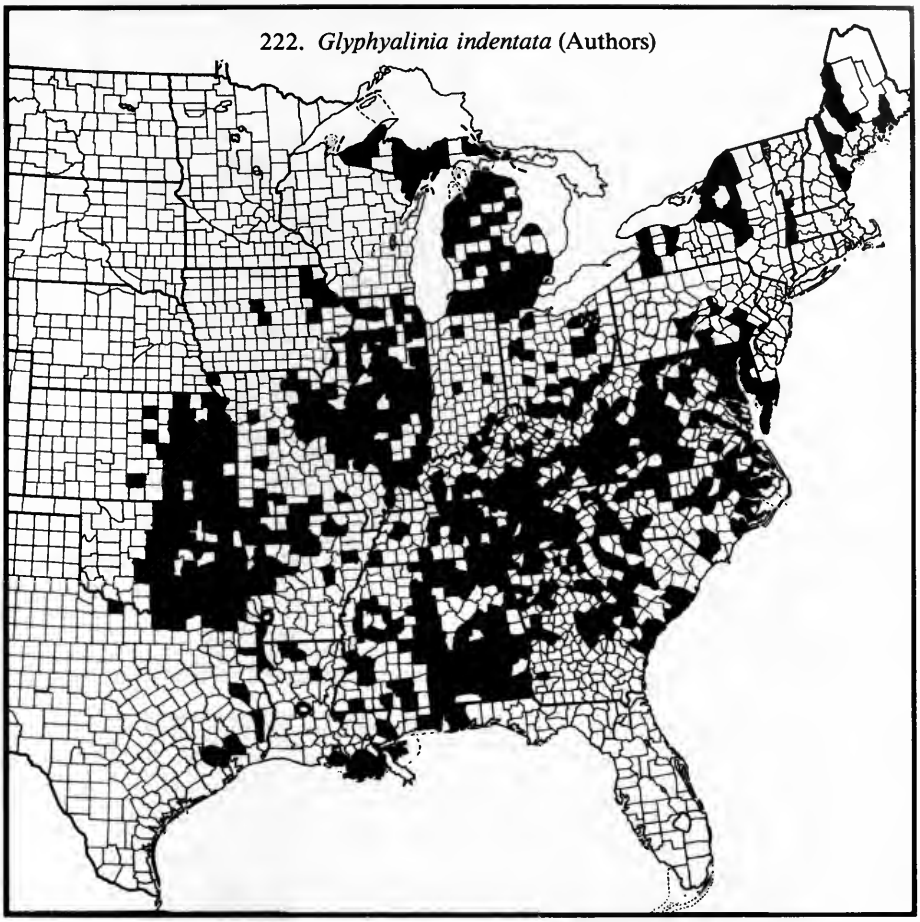

217. *Glyphyalinia specus* Hubricht

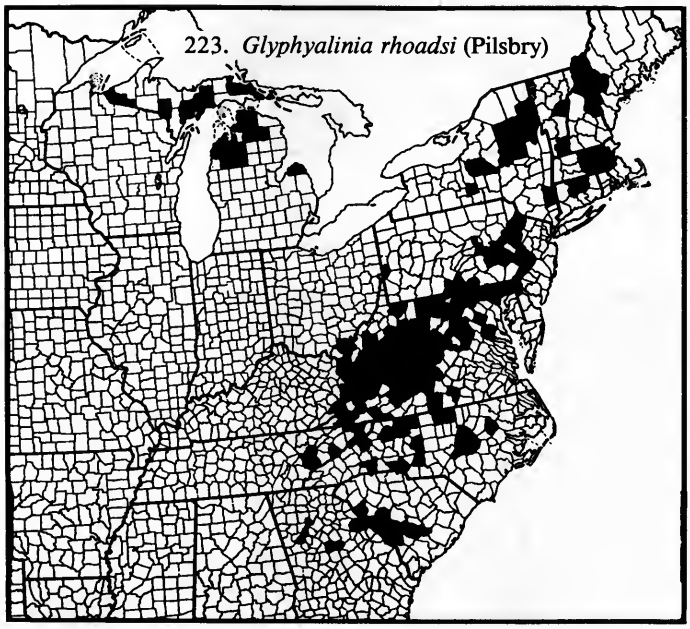

218. *Glyphyalinia raderi* (Dall)

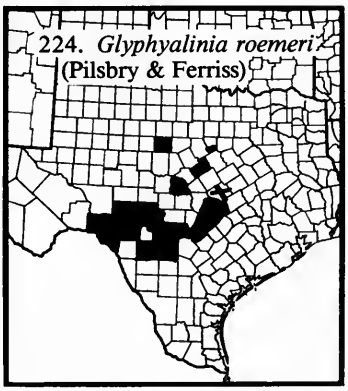

219. *Glyphyalinia floridana* (Morrison)

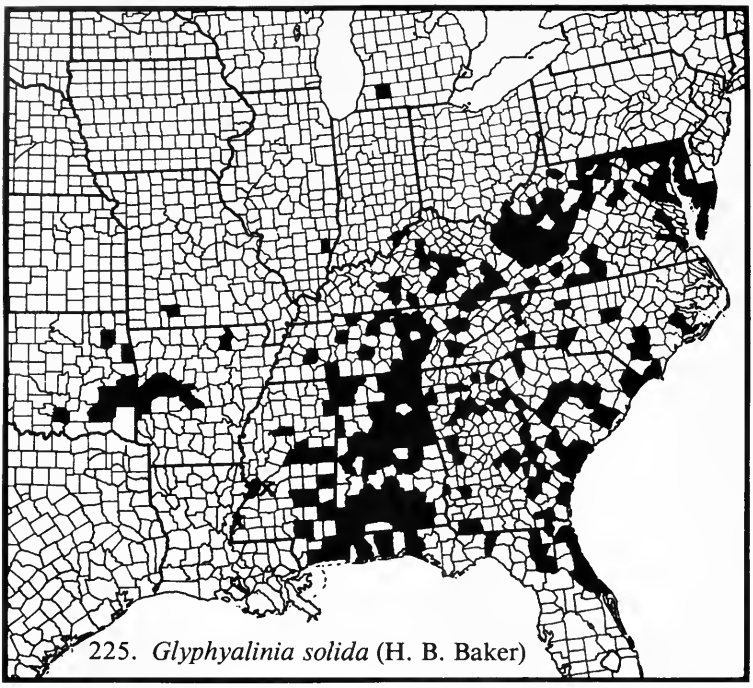

220. *Glyphyalinia pentadelphia* (Pilsbry)


221. *Glyphyalinia ocoae* Hubricht

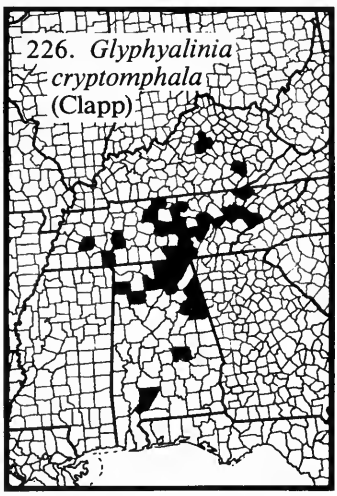

222. *Glyphyalinia indentata* (Authors)


223. *Glyphyalinia rhoadsi* (Pilsbry)

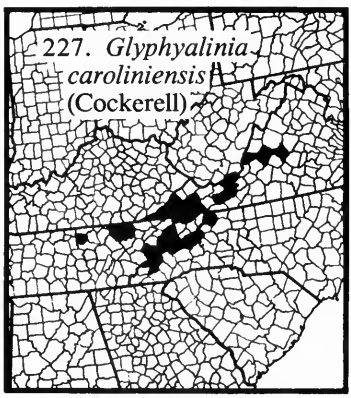

224. *Glyphyalinia roemeri*
(Pilsbry & Ferriss)



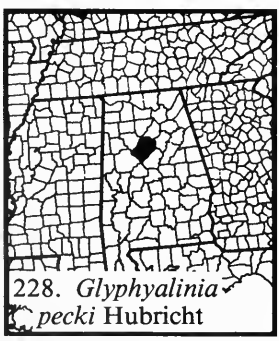
225. *Glyphyalinia solida* (H. B. Baker)



226. *Glyphyalinia cryptomphala* (Clapp)

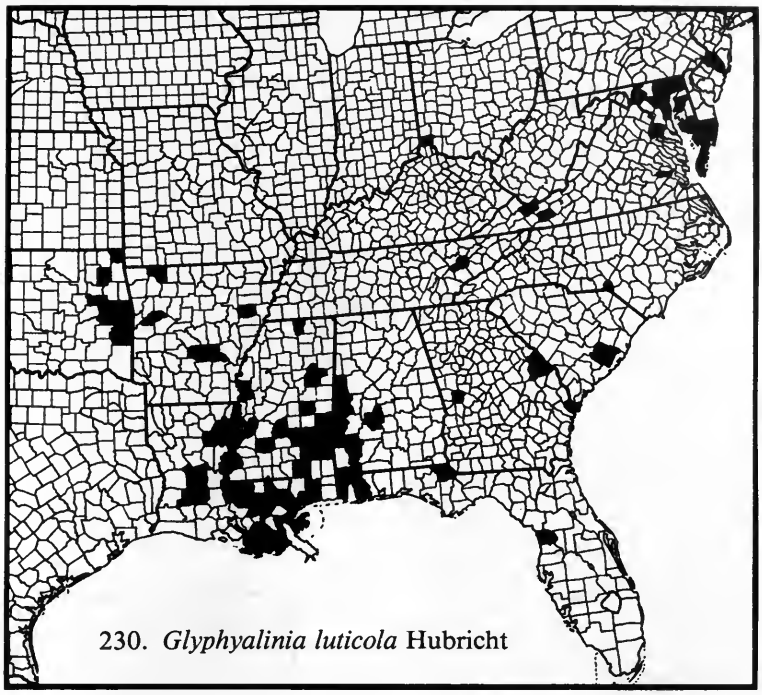


227. *Glyphyalinia caroliniensis* (Cockerell)

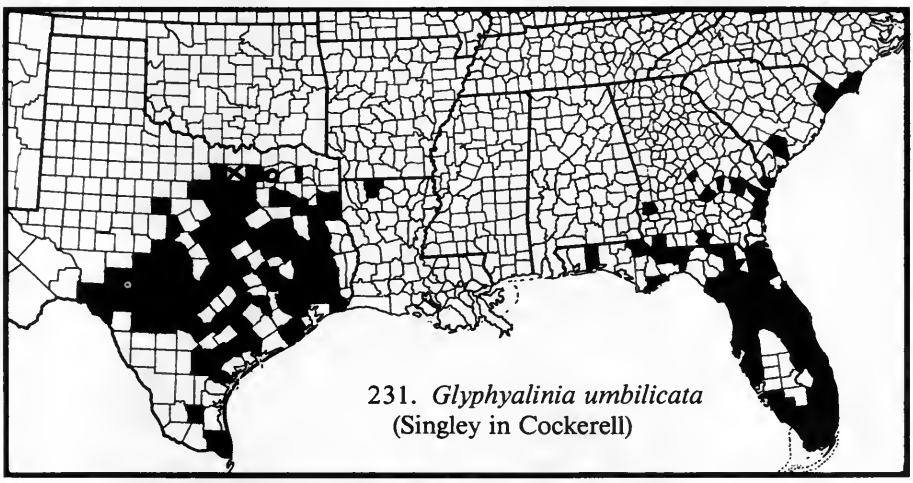


228. *Glyphyalinia pecki* Hubricht

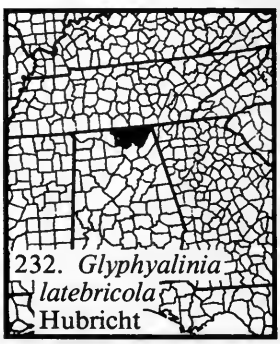
229. *Glyphyalinia rimula* Hubricht



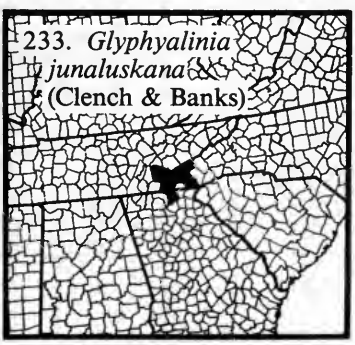
230. *Glyphyalinia luticola* Hubricht



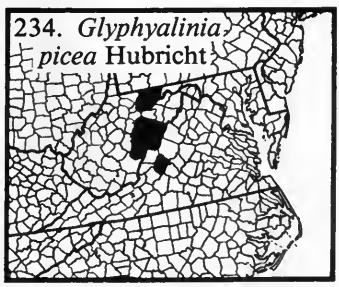
231. *Glyphyalinia umbilicata*
(Singley in Cockerell)



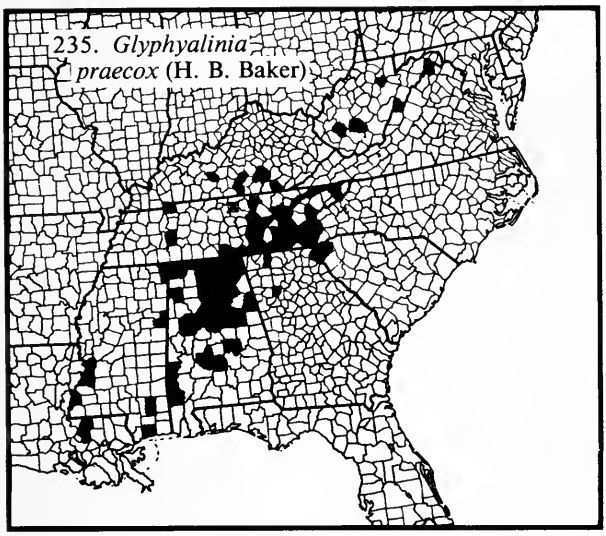
232. *Glyphyalinia latebricola* Hubricht



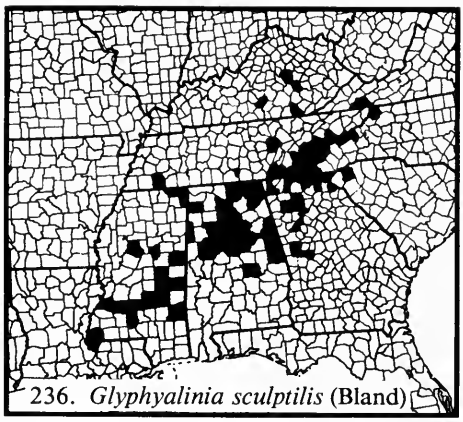
233. *Glyphyalinia junaluskana* (Clench & Banks)



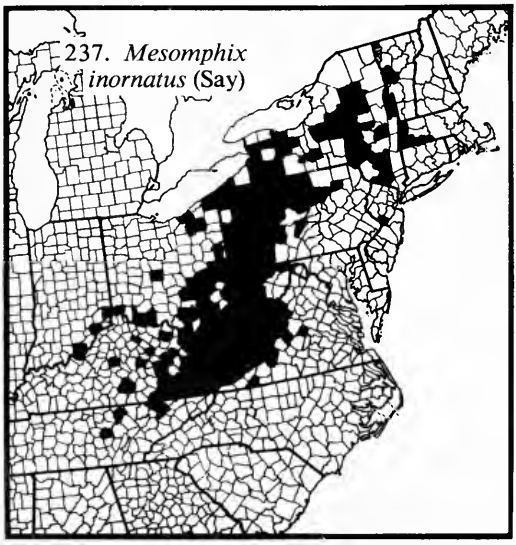
234. *Glyphyalinia picea* Hubricht



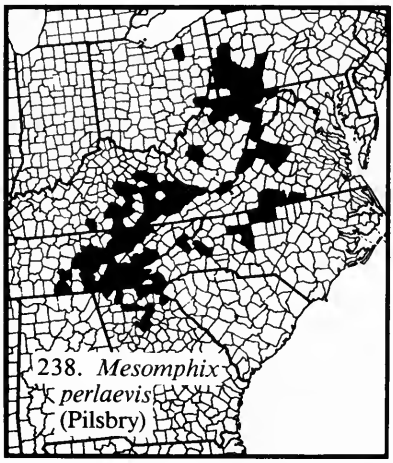
235. *Glyphyalinia praecox* (H. B. Baker)



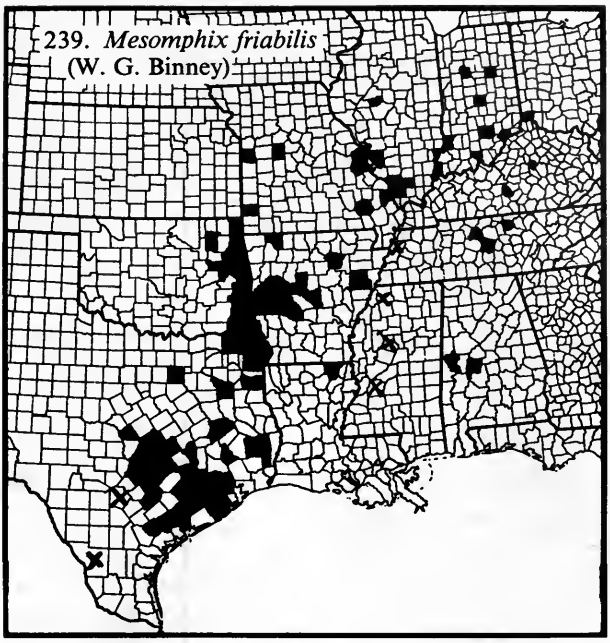
236. *Glyphyalinia sculptilis* (Bland)

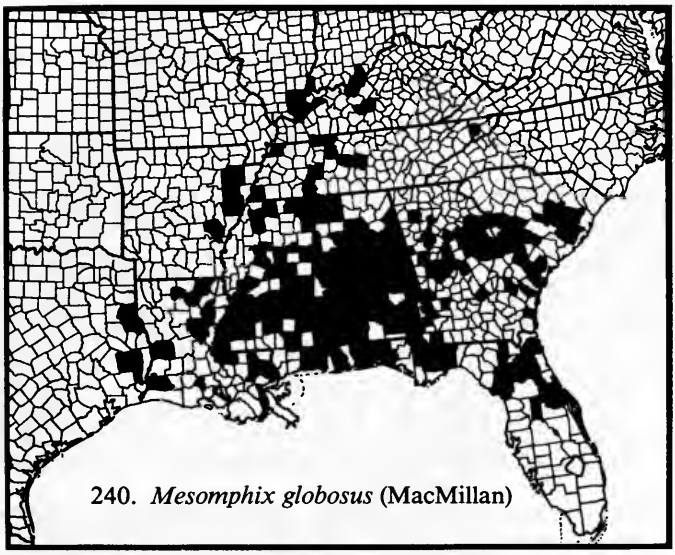


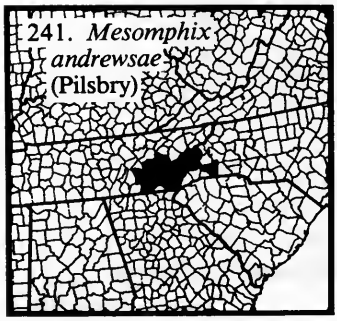
237. *Mesomphix inornatus* (Say)

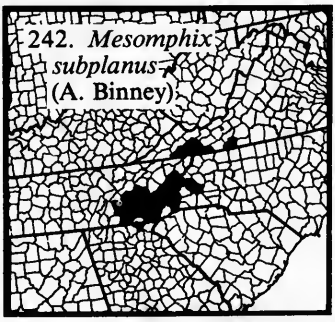


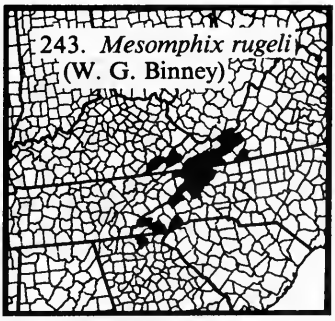
238. *Mesomphix perlaevis* (Pilsbry)

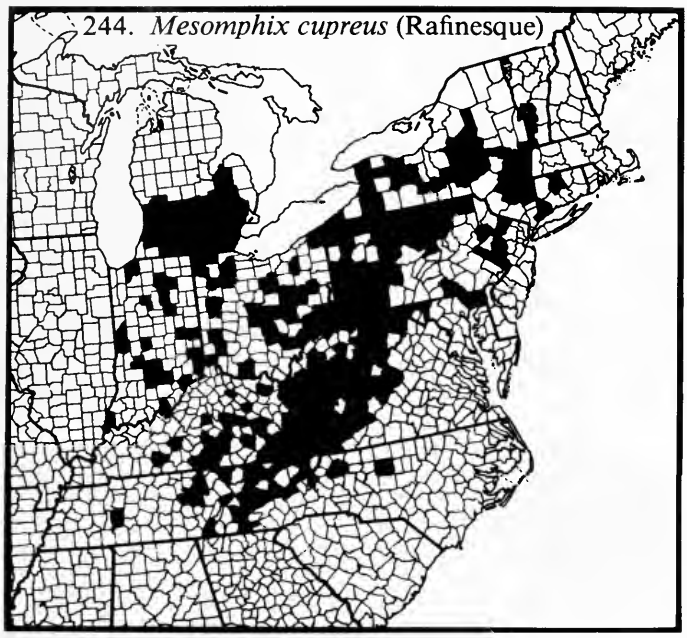

239. *Mesomphix friabilis*
(W. G. Binney)

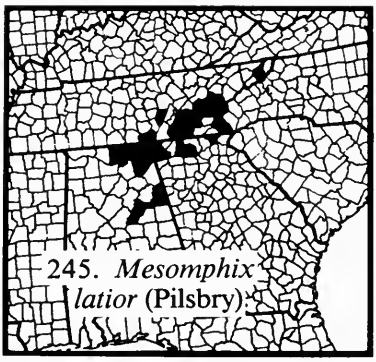

240. *Mesomphix globosus* (MacMillan)

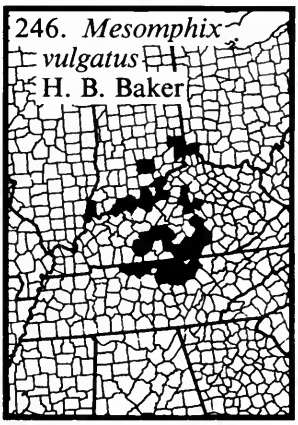

241. *Mesomphix andrewsae*
(Pilsbry)

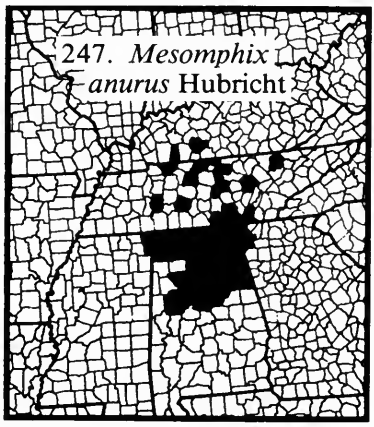

242. *Mesomphix subplanus*
(A. Binney)

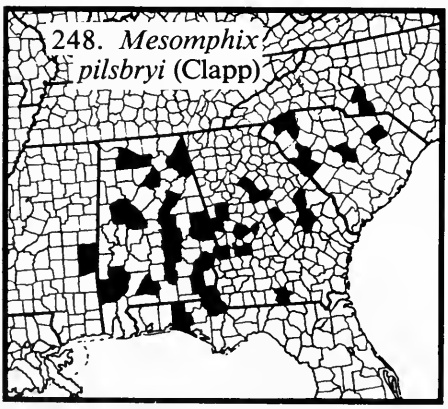

243. *Mesomphix rugeli*
(W. G. Binney)

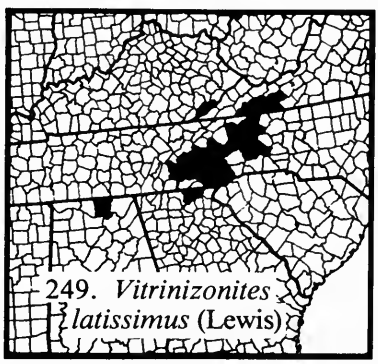

244. *Mesomphix cupreus* (Rafinesque)

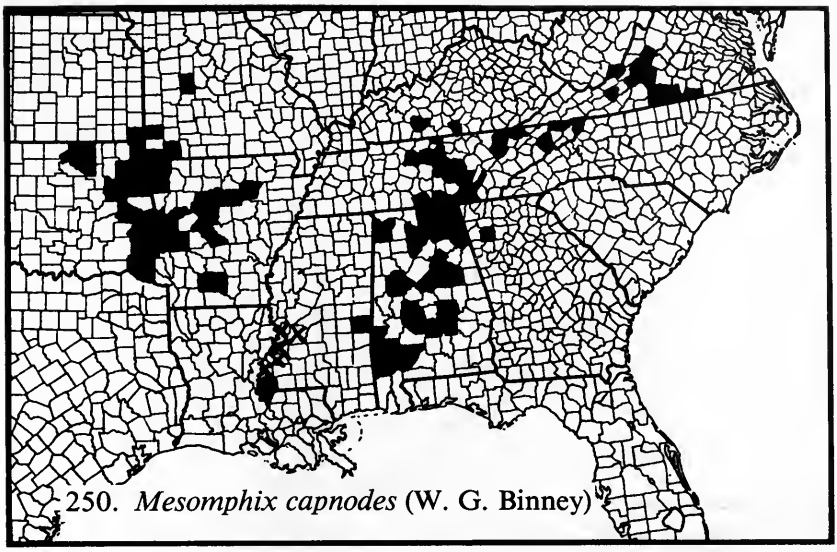

245. *Mesomphix latior* (Pilsbry)


246. *Mesomphix vulgatus* H. B. Baker

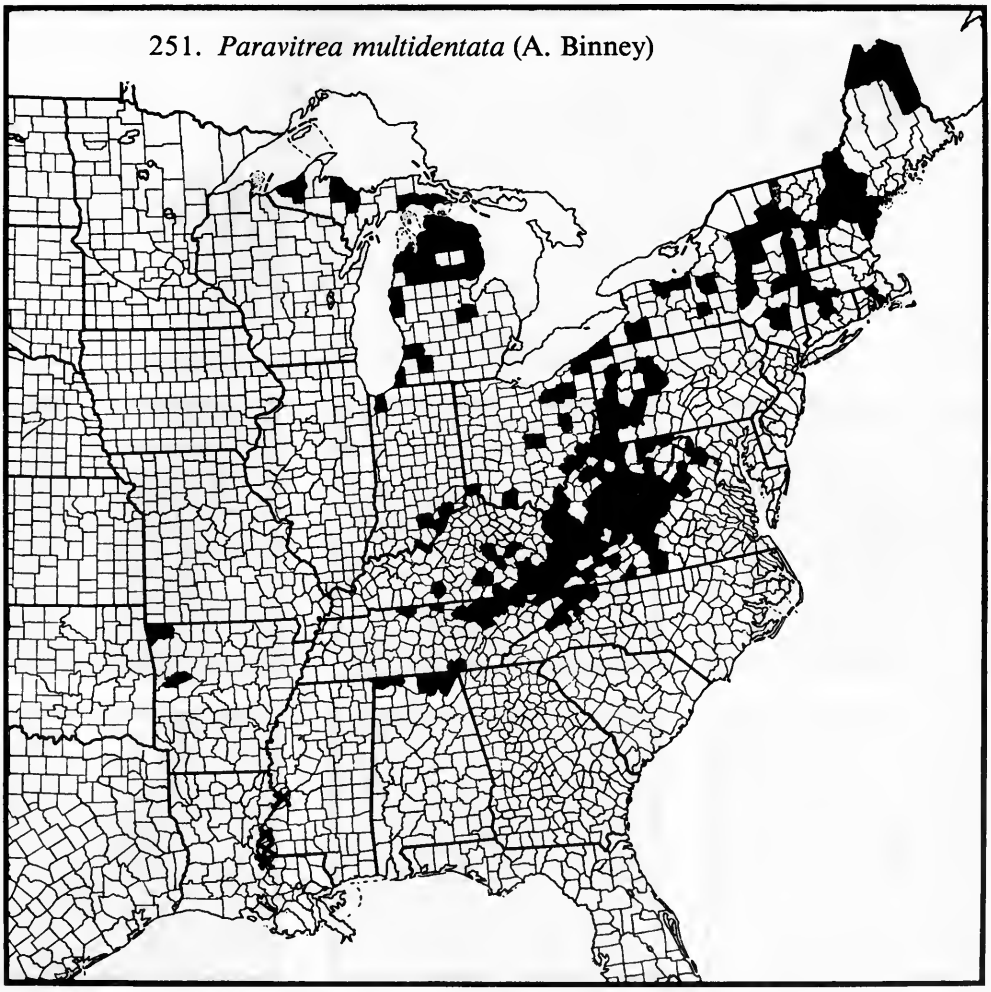

247. *Mesomphix anurus* Hubricht


248. *Mesomphix pilsbryi* (Clapp)

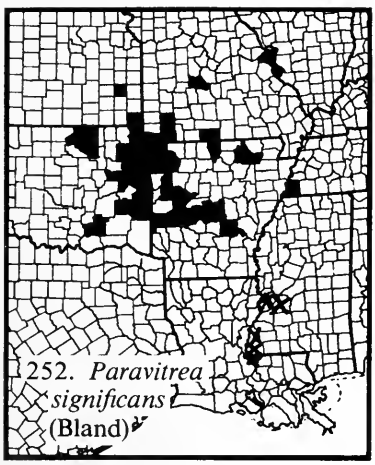

249. *Vitrinizonites latissimus* (Lewis)



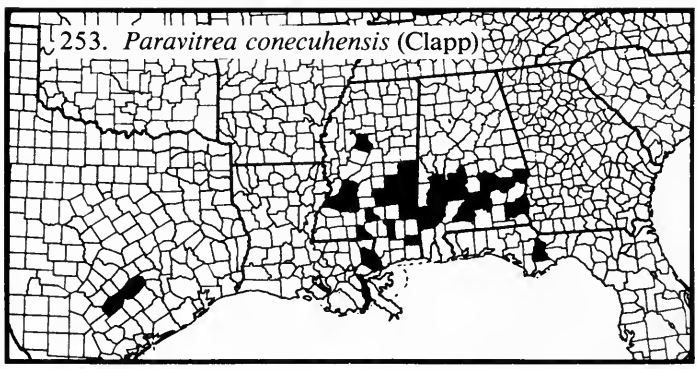
250. *Mesomphix capnodes* (W. G. Binney)



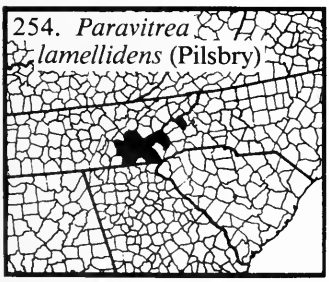
251. *Paravitrea multidentata* (A. Binney)



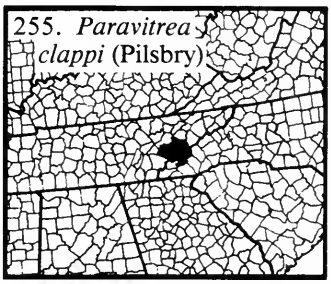
252. *Paravitrea significans* (Bland)



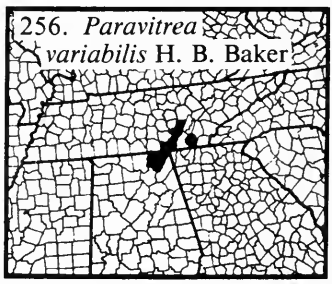
253. *Paravitrea conecuhensis* (Clapp)



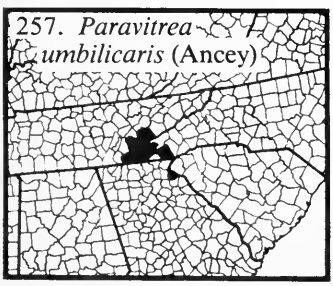
254. *Paravitrea lamellidens* (Pilsbry)



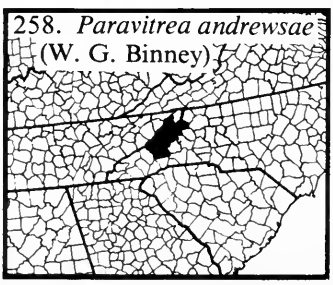
255. *Paravitrea clappi* (Pilsbry)



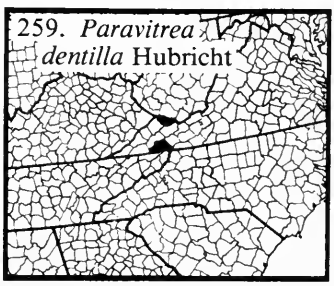
256. *Paravitrea variabilis* H. B. Baker



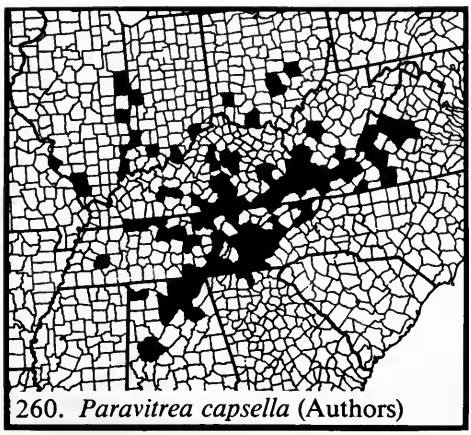
257. *Paravitrea umbilicaris* (Ancey)



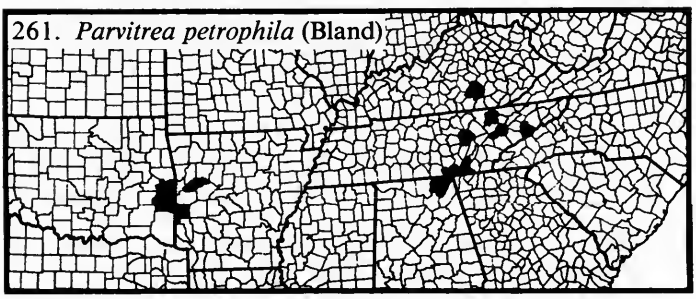
258. *Paravitrea andrewsae* (W. G. Binney)



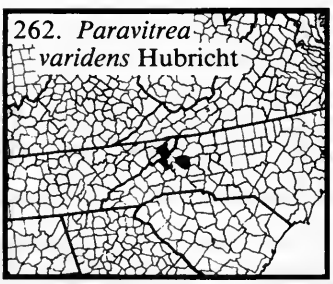
259. *Paravitrea dentilla* Hubricht



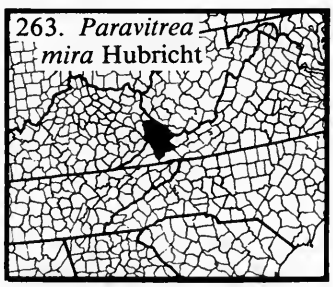
260. *Paravitrea capsella* (Authors)



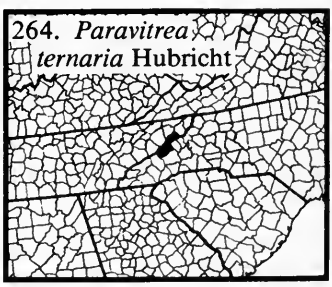
261. *Parvitrea petrophila* (Bland)



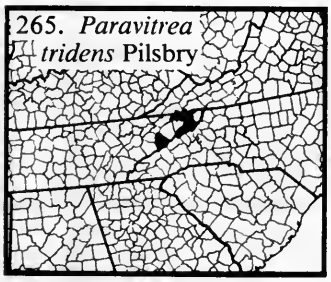
262. *Paravitrea varidens* Hubricht



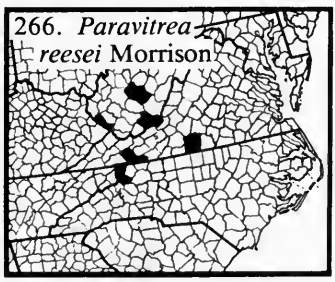
263. *Paravitrea mira* Hubricht



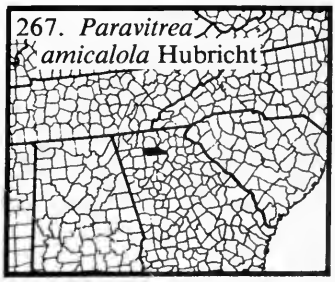
264. *Paravitrea ternaria* Hubricht



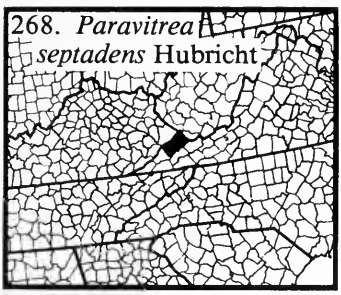
265. *Paravitrea tridens* Pilsbry

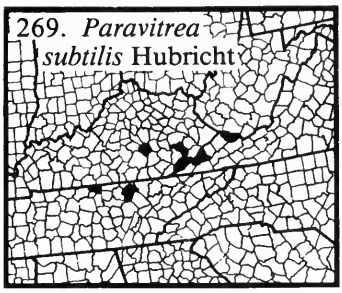


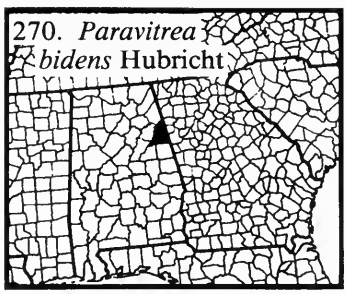
266. *Paravitrea reesei* Morrison

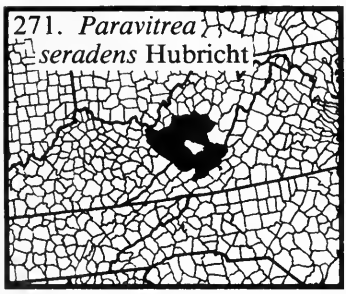


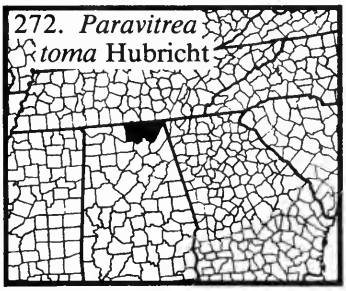
267. *Paravitrea amicalola* Hubricht

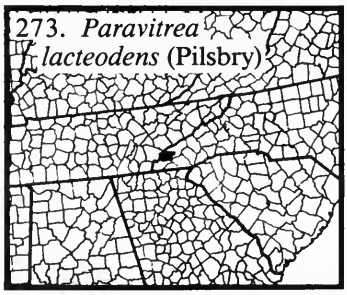

268. *Paravitrea septadens* Hubricht

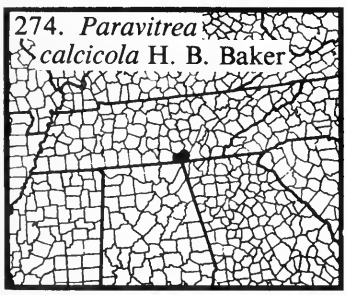

269. *Paravitrea subtilis* Hubricht

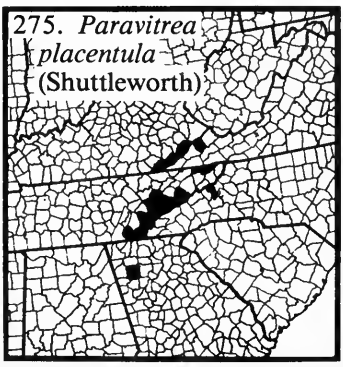

270. *Paravitrea bidens* Hubricht

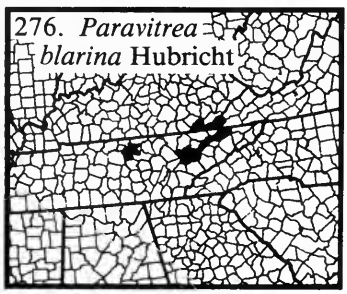

271. *Paravitrea seradens* Hubricht


272. *Paravitrea toma* Hubricht


273. *Paravitrea lacteodens* (Pilsbry)

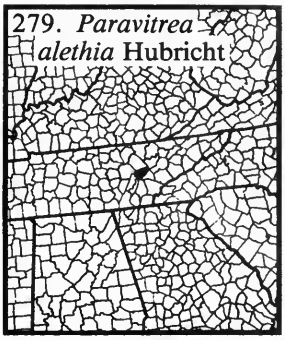

274. *Paravitrea calcicola* H. B. Baker


275. *Paravitrea placentula* (Shuttleworth)

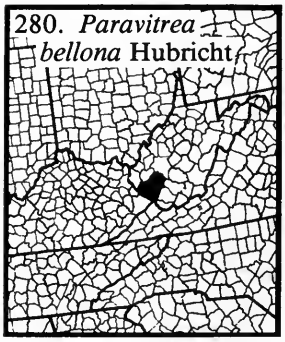

276. *Paravitrea blarina* Hubricht

277. *Paravitrea pilsbryana* (Clapp)

278. *Paravitrea tiara* Hubricht



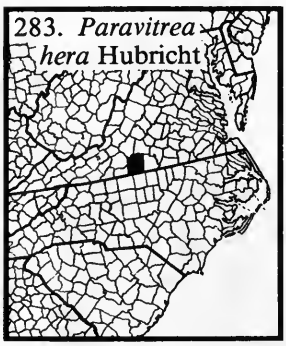
279. *Paravitrea alethia* Hubricht



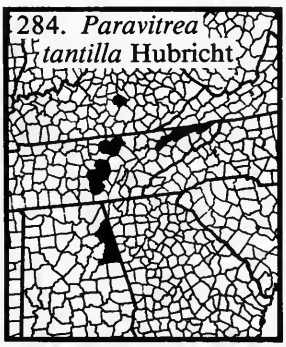
280. *Paravitrea bellona* Hubricht

281. *Paravitrea ceres* Hubricht

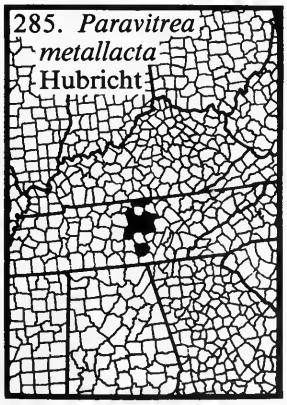
282. *Paravitrea diana* Hubricht



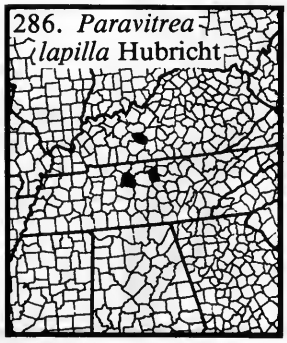
283. *Paravitrea hera* Hubricht



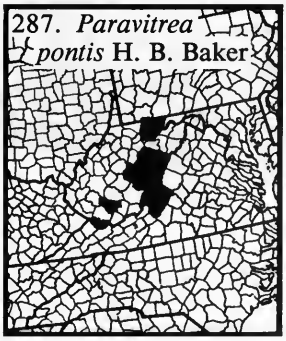
284. *Paravitrea tantilla* Hubricht



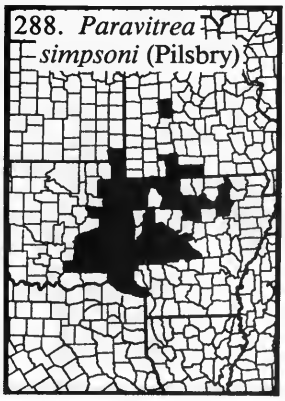
285. *Paravitrea metallacta* Hubricht



286. *Paravitrea lapilla* Hubricht

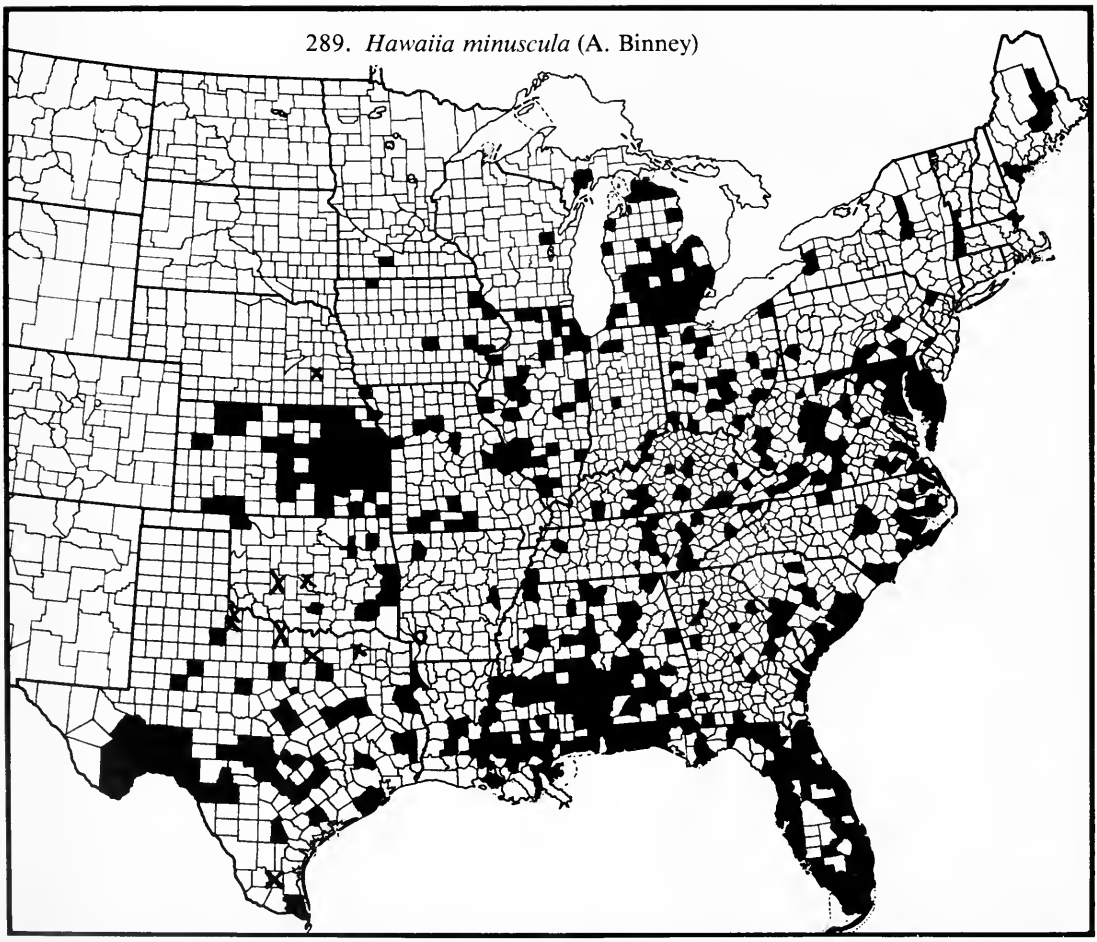


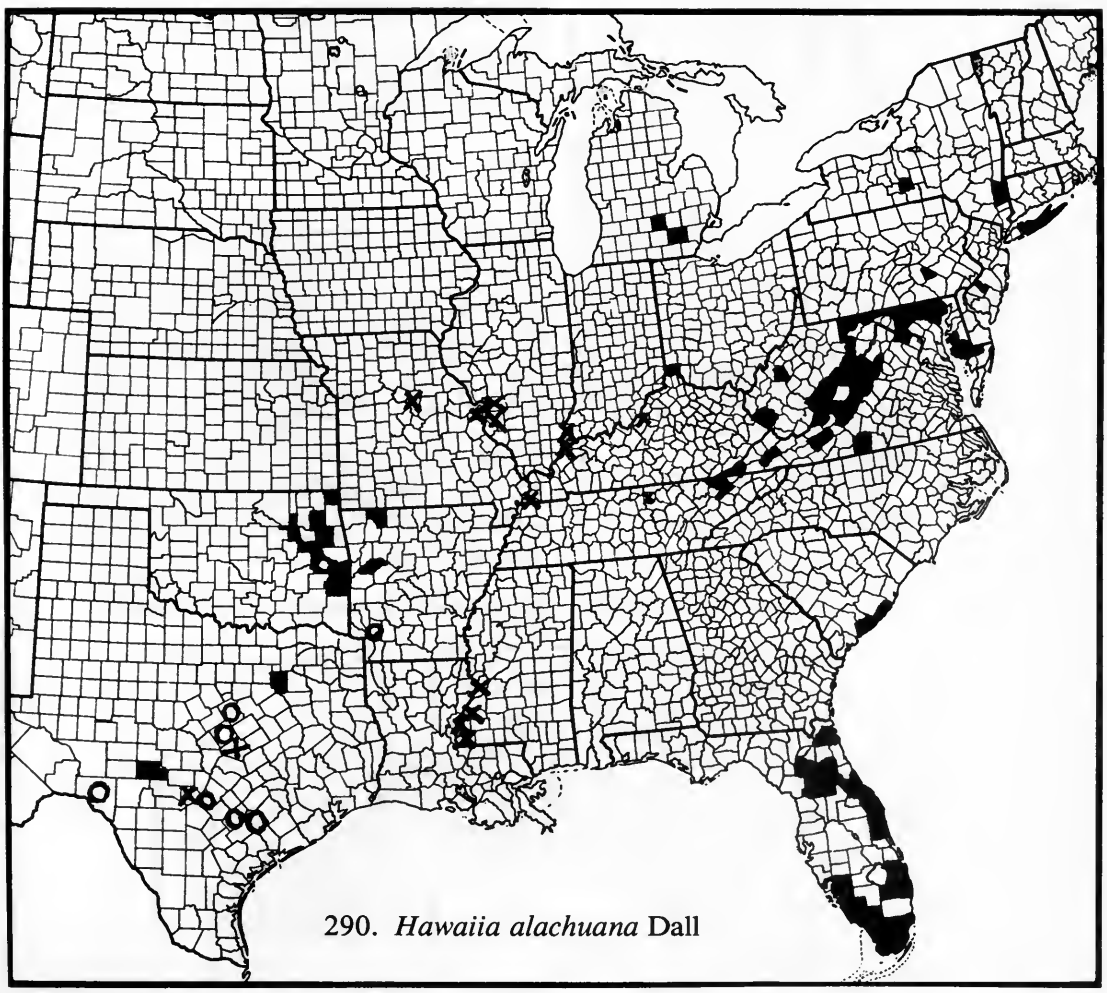
287. *Paravitrea pontis* H. B. Baker



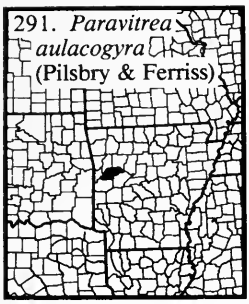
288. *Paravitrea simpsoni* (Pilsbry)

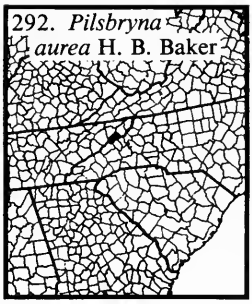
289. *Hawaiia minuscula* (A. Binney)

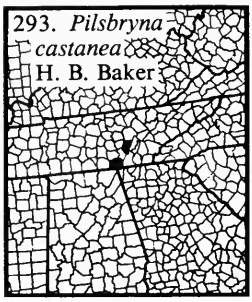




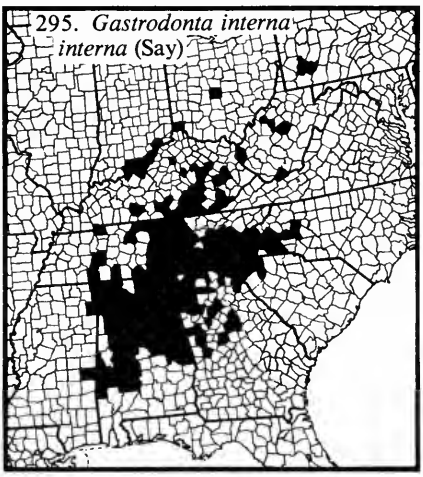
290. *Hawaiia alachuana* Dall

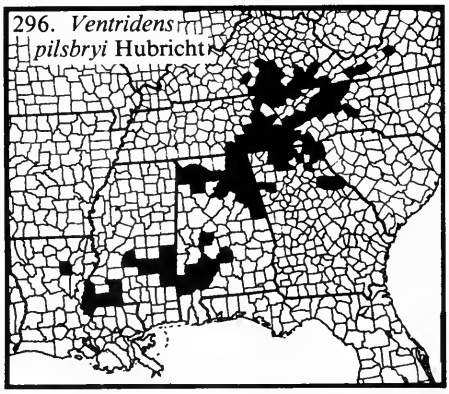

291. *Paravitrea aulacogyra* (Pilsbry & Ferriss)

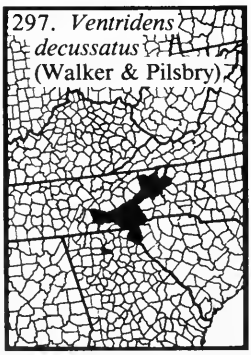

292. *Pilsbryna aurea* H. B. Baker


293. *Pilsbryna castanea* H. B. Baker

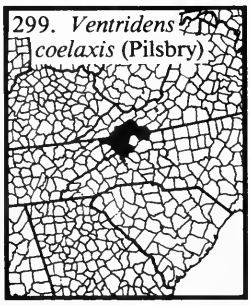

294. *Gastrodonta interna fonticula* Wurtz

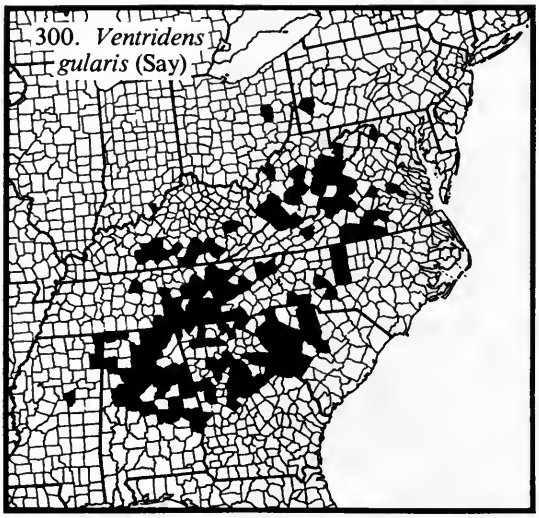

295. *Gastrodonta interna interna* (Say)

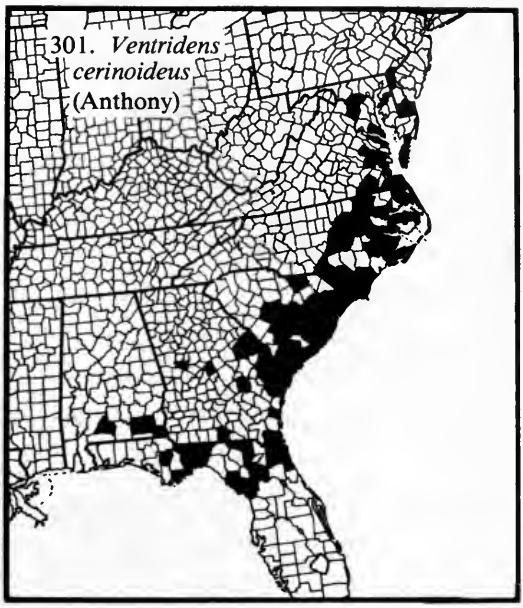

296. *Ventridens pilsbryi* Hubricht

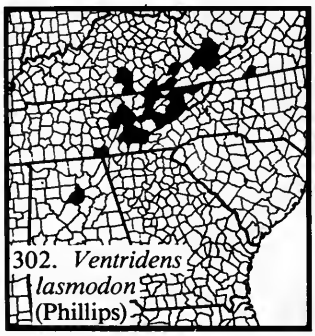

297. *Ventridens decussatus* (Walker & Pilsbry)

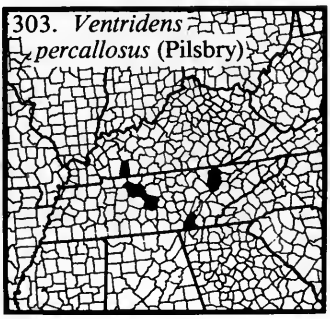

298. *Ventridens monodon* Hubricht

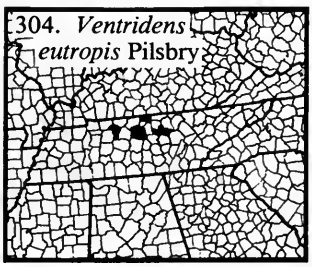

299. *Ventridens coelaxis* (Pilsbry)

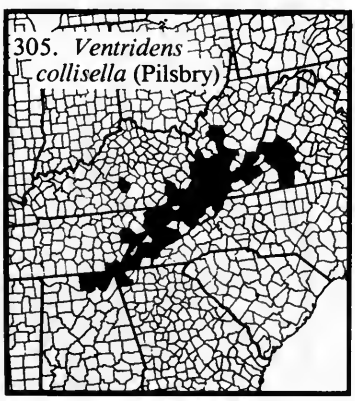

300. *Ventridens gularis* (Say)

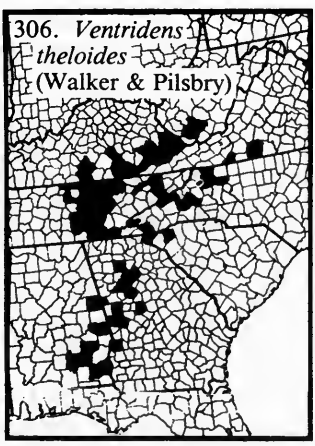

301. *Ventridens cerinoideus* (Anthony)

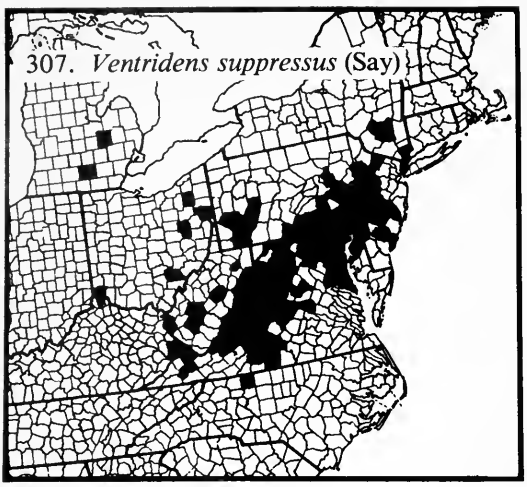

302. *Ventridens lasmodon* (Phillips)

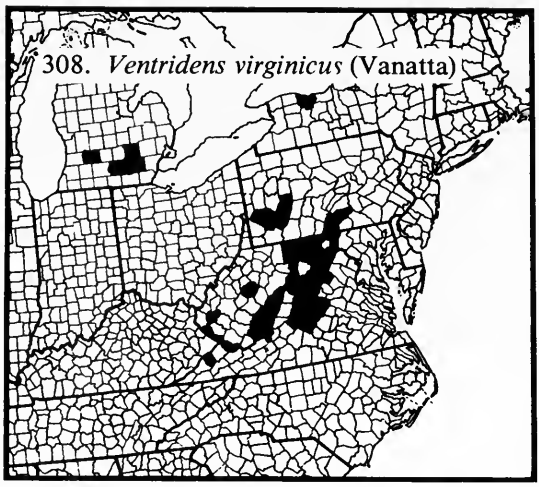

303. *Ventridens percallosus* (Pilsbry)

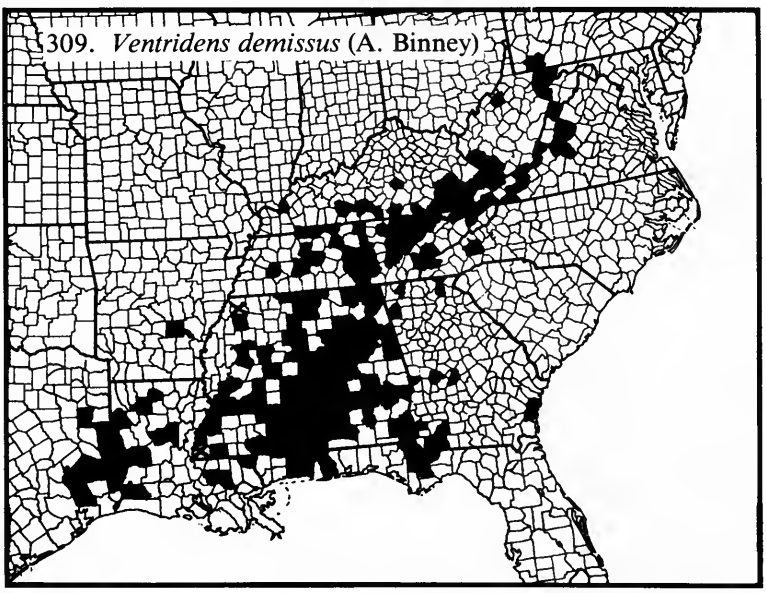

304. *Ventridens eutropis* Pilsbry

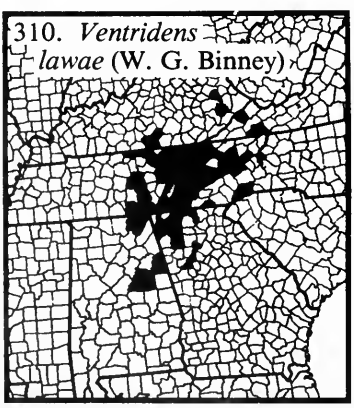

305. *Ventridens collisella* (Pilsbry)

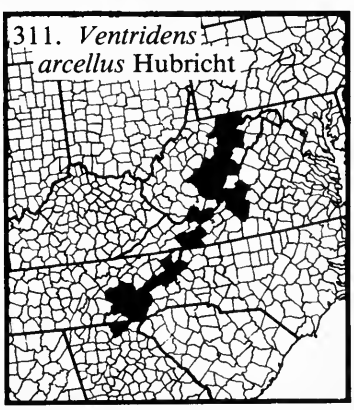

306. *Ventridens theloides* (Walker & Pilsbry)

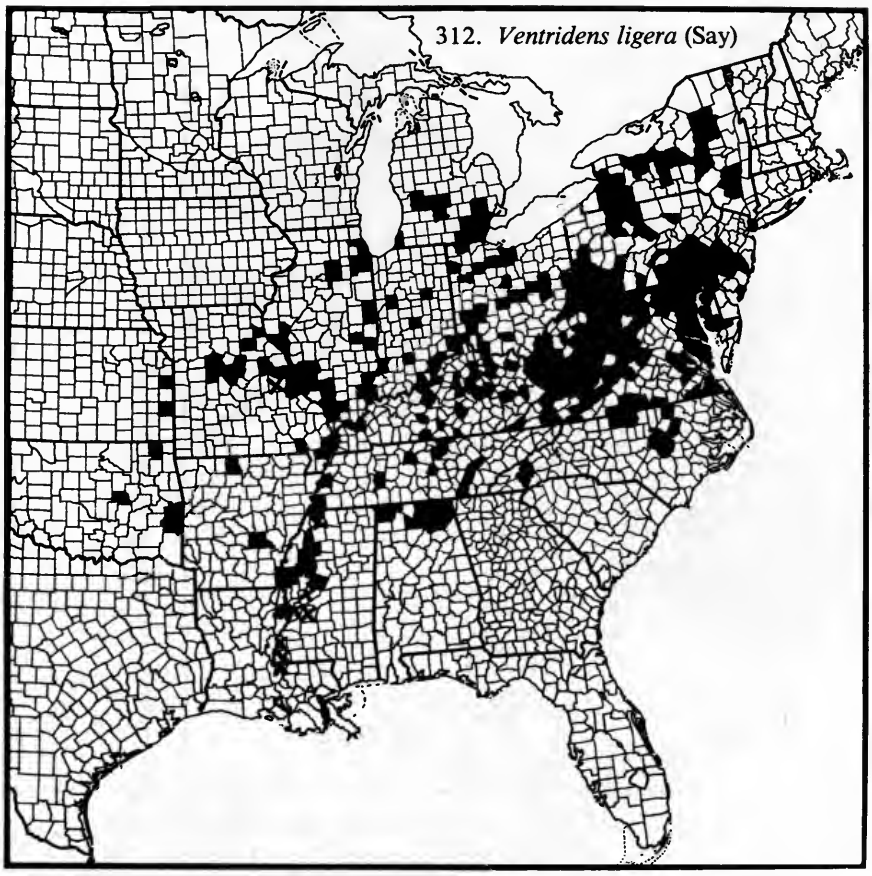

307. *Ventridens suppressus* (Say)

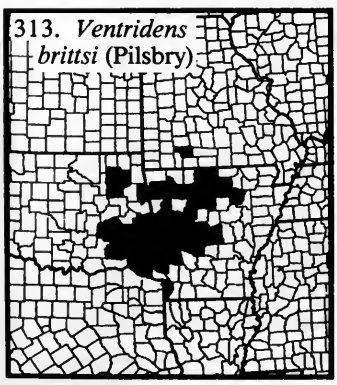

308. *Ventridens virginicus* (Vanatta)

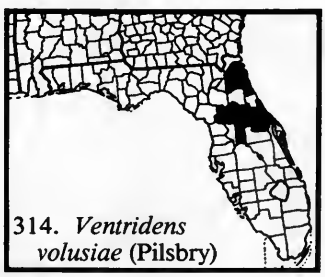

309. *Ventridens demissus* (A. Binney)

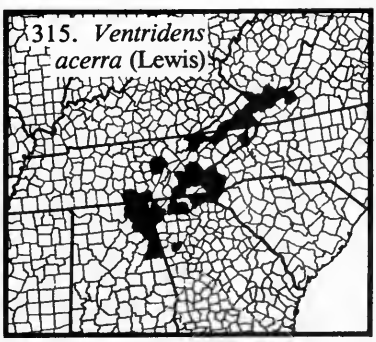

310. *Ventridens lawae* (W. G. Binney)

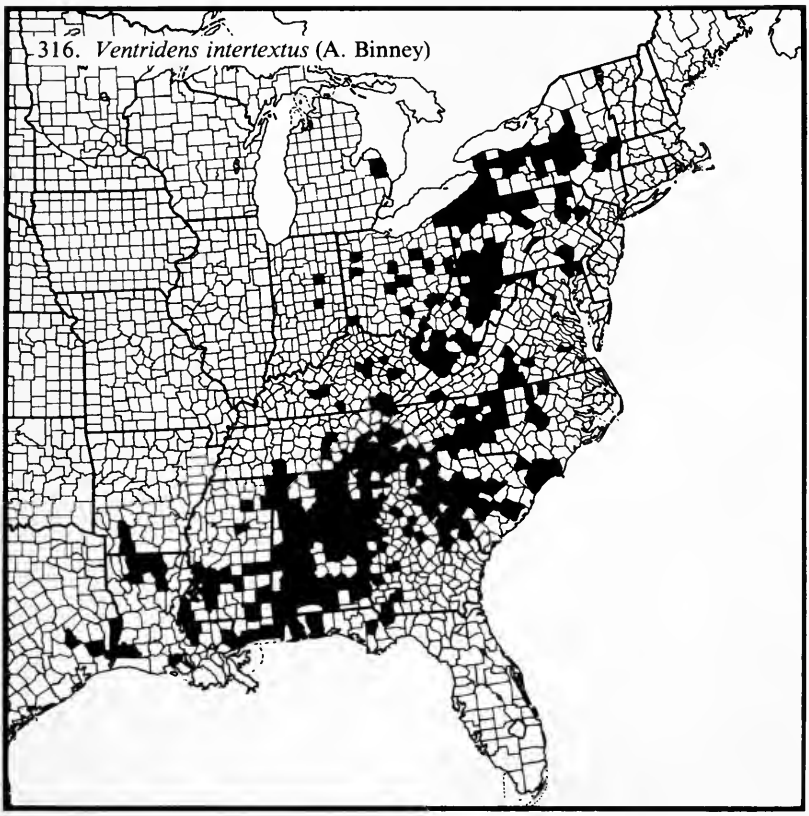

311. *Ventridens arcellus* Hubricht

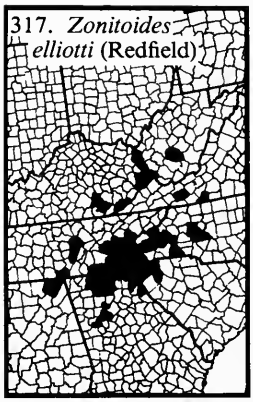

312. *Ventridens ligera* (Say)

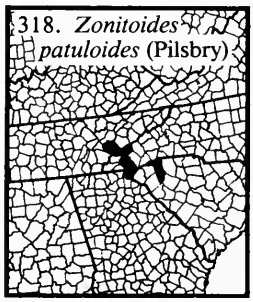

313. *Ventridens brittsi* (Pilsbry)

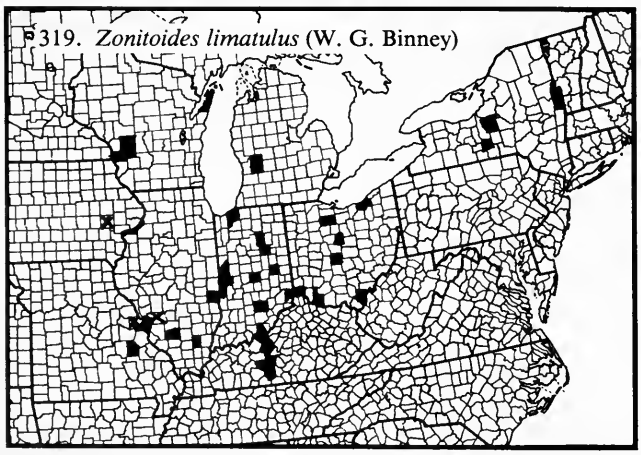

314. *Ventridens volusiae* (Pilsbry)

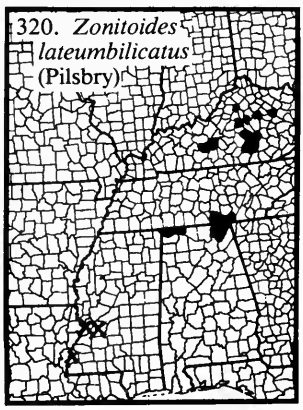

315. *Ventridens acerra* (Lewis)

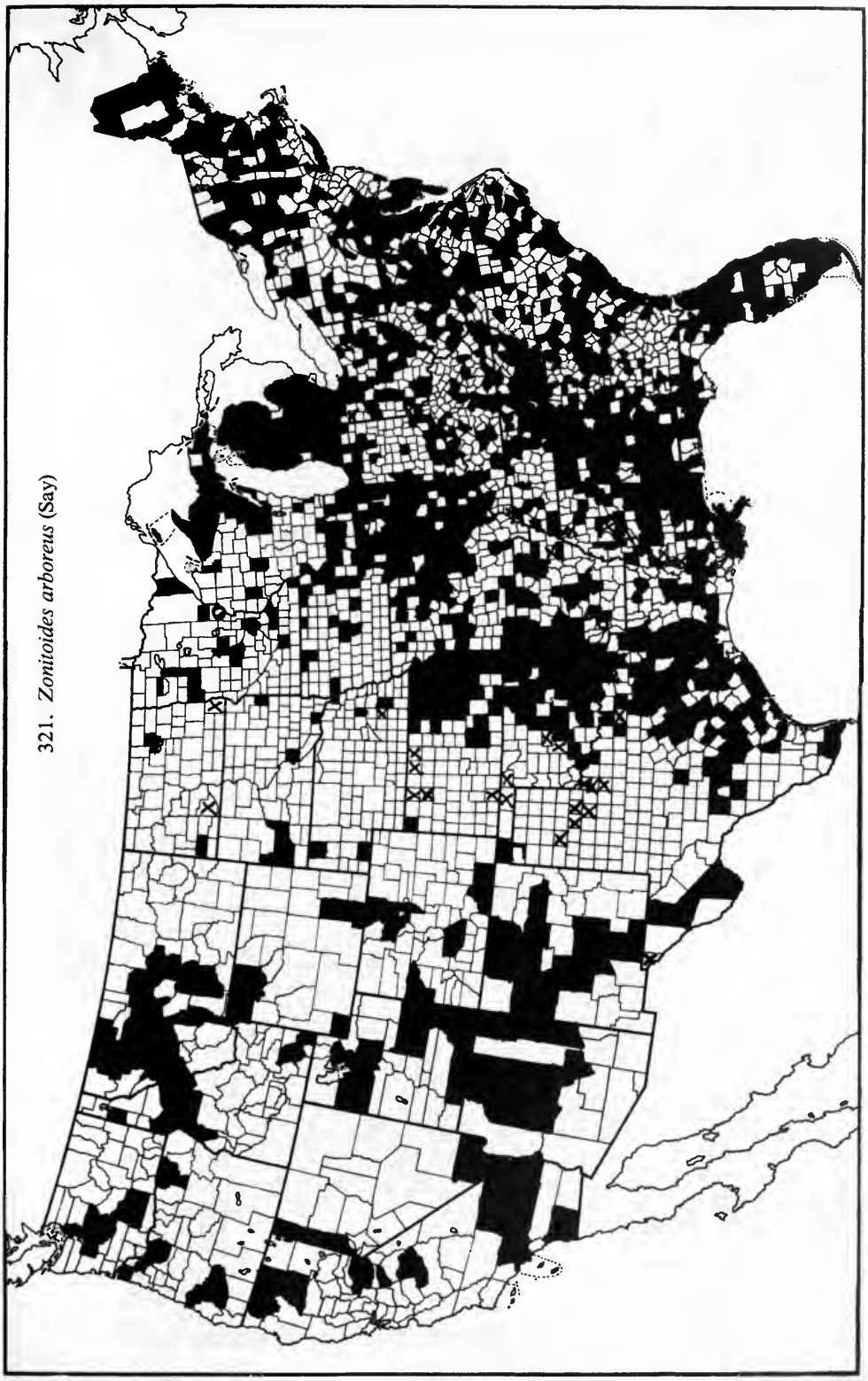

316. *Ventridens intertextus* (A. Binney)


317. *Zonitoides elliotti* (Redfield)

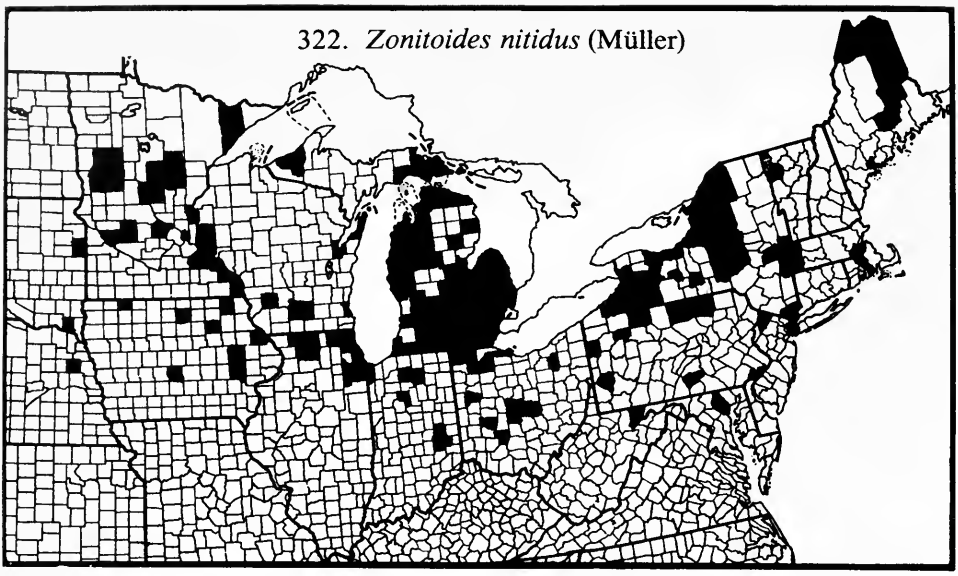

318. *Zonitoides patuloides* (Pilsbry)


319. *Zonitoides limatulus* (W. G. Binney)

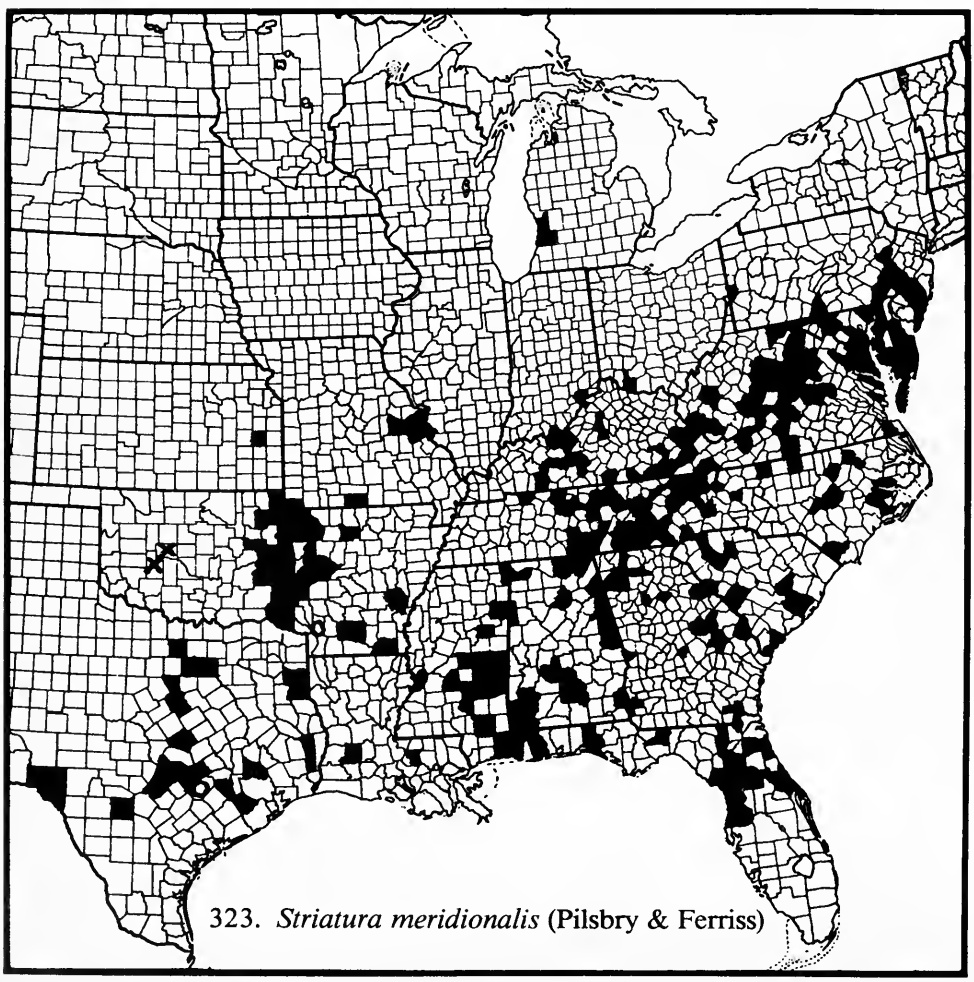

320. *Zonitoides lateumbilicatus* (Pilsbry)



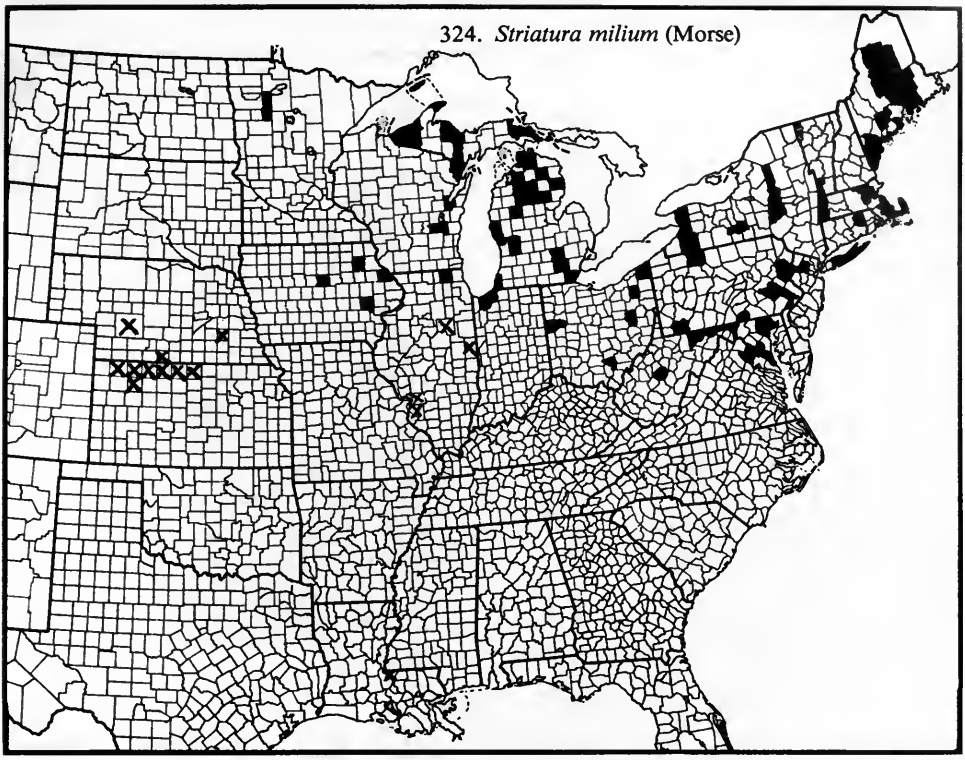
321. *Zonitoides arboreus* (Say)



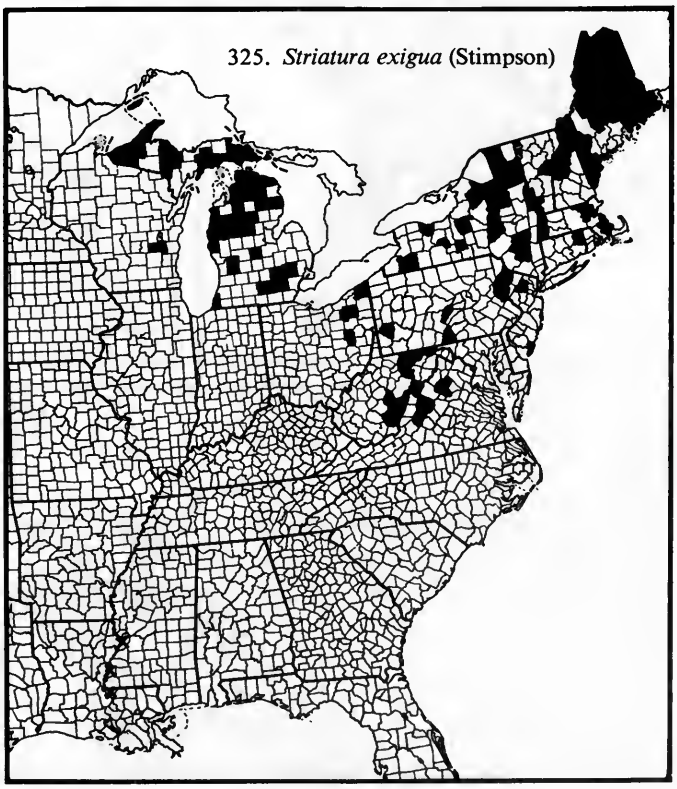
322. *Zonitoides nitidus* (Müller)



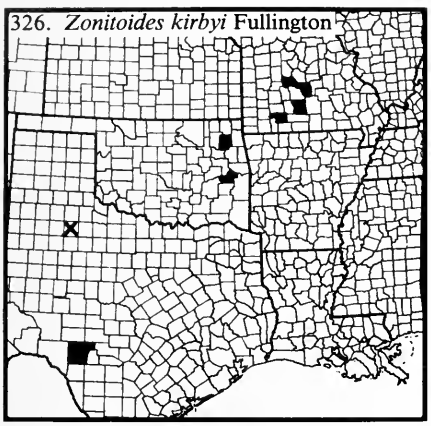
323. *Striatura meridionalis* (Pilsbry & Ferriss)



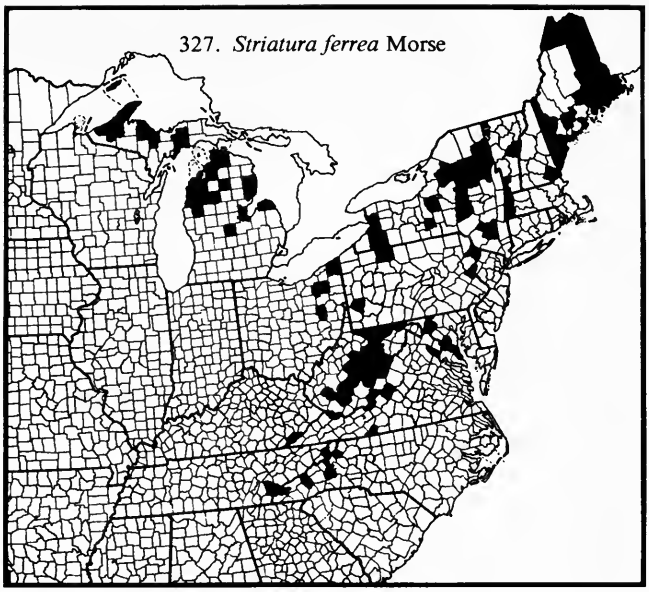
324. *Striatura milium* (Morse)



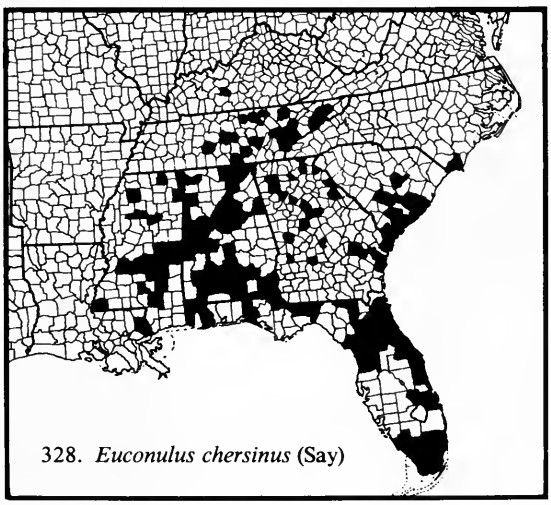
325. *Striatura exigua* (Stimpson)



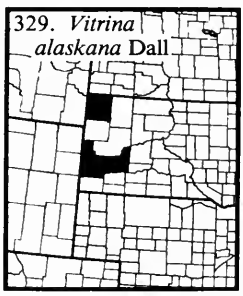
326. *Zonitoides kirbyi* Fullington



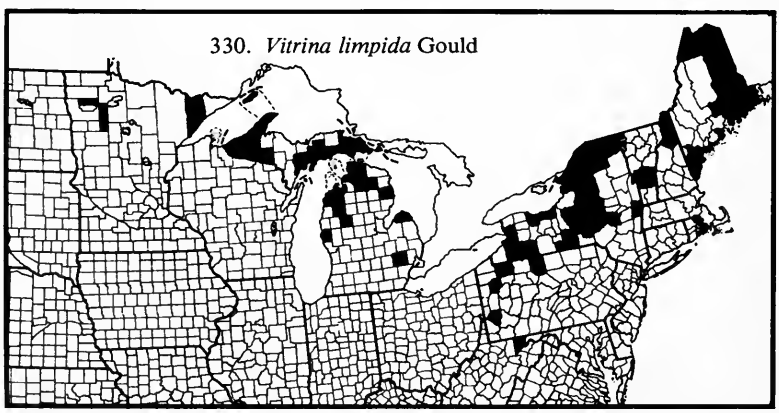
327. *Striatura ferrea* Morse



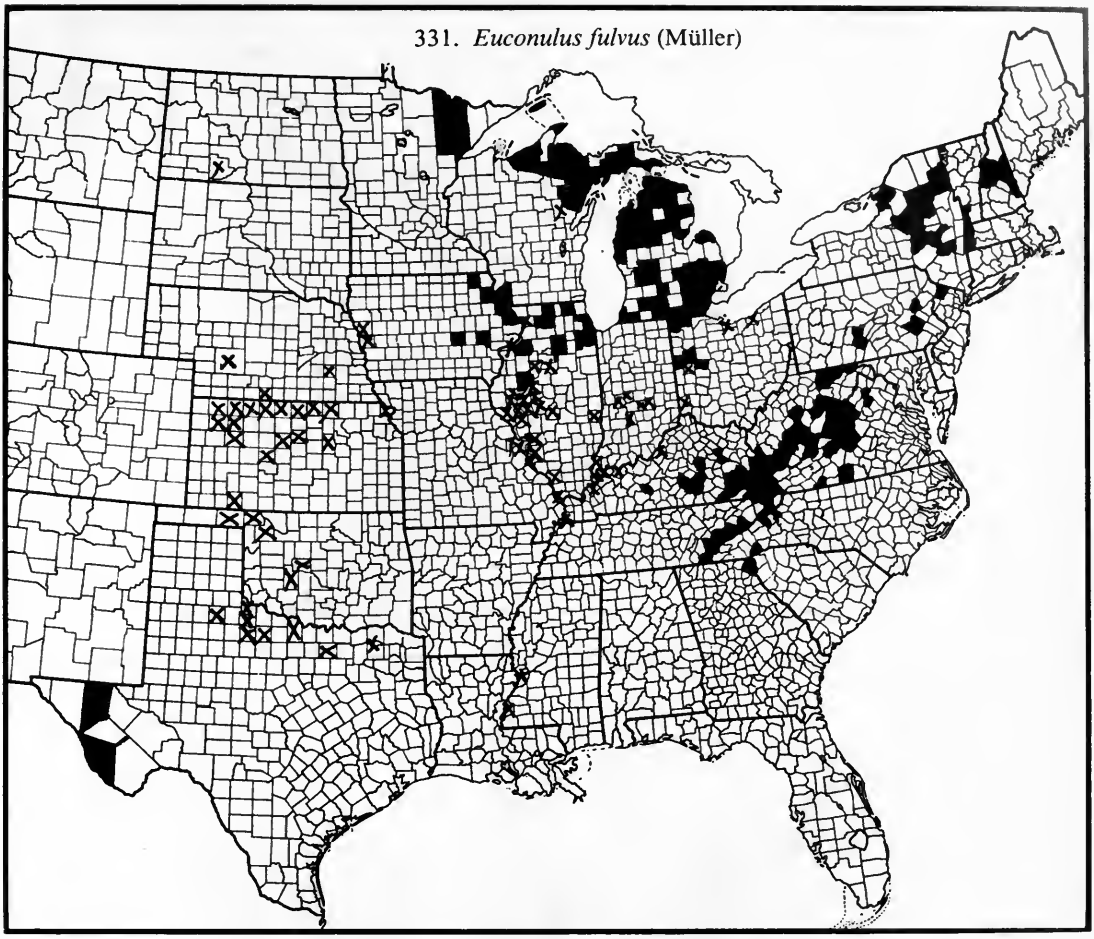
328. *Euconulus chersinus* (Say)



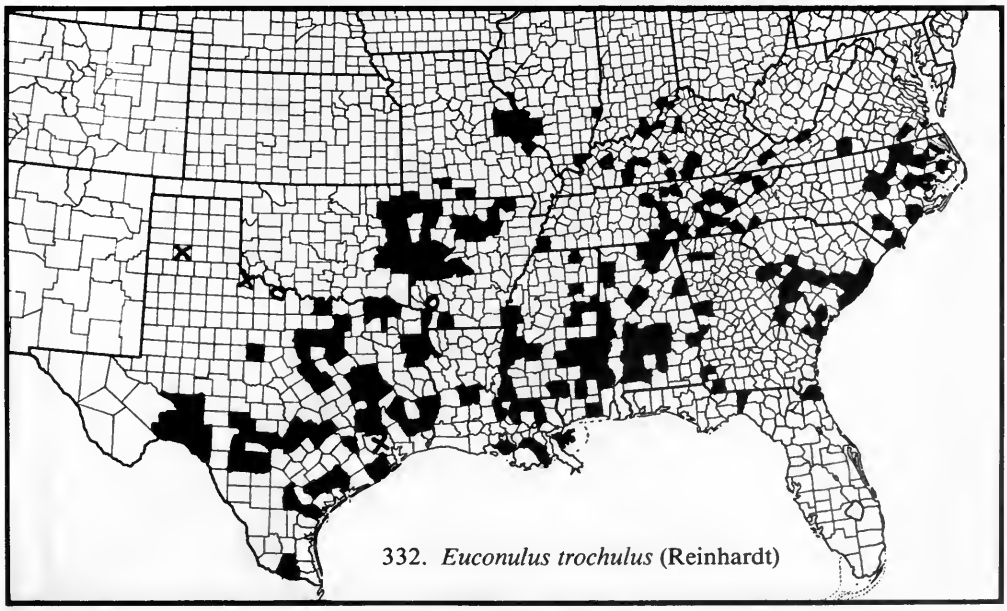
329. *Vitrina alaskana* Dall



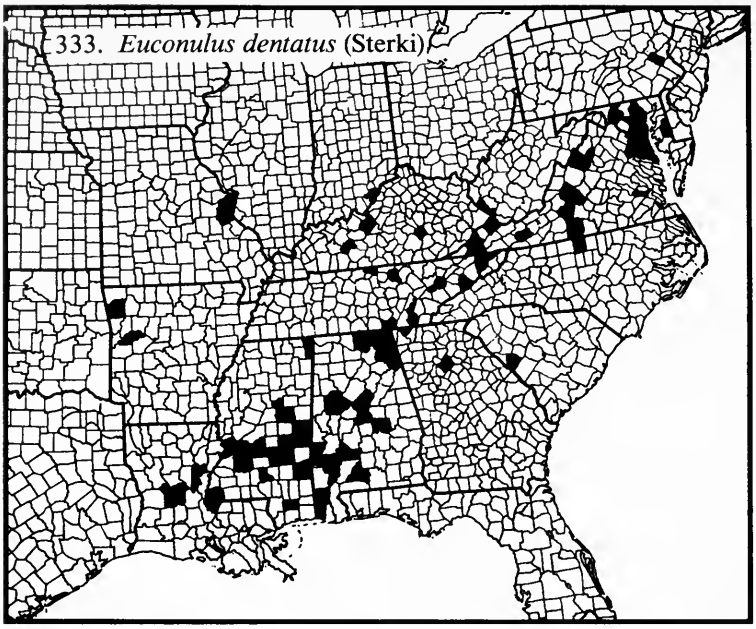
330. *Vitrina limpida* Gould



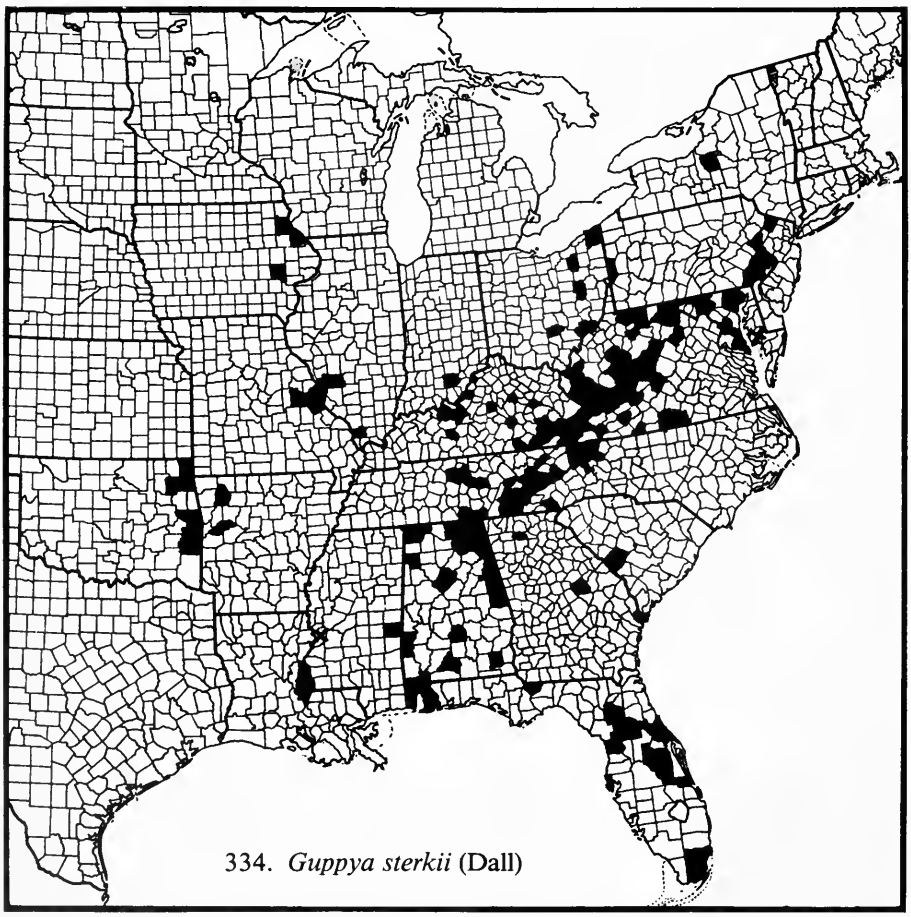
331. *Euconulus fulvus* (Müller)



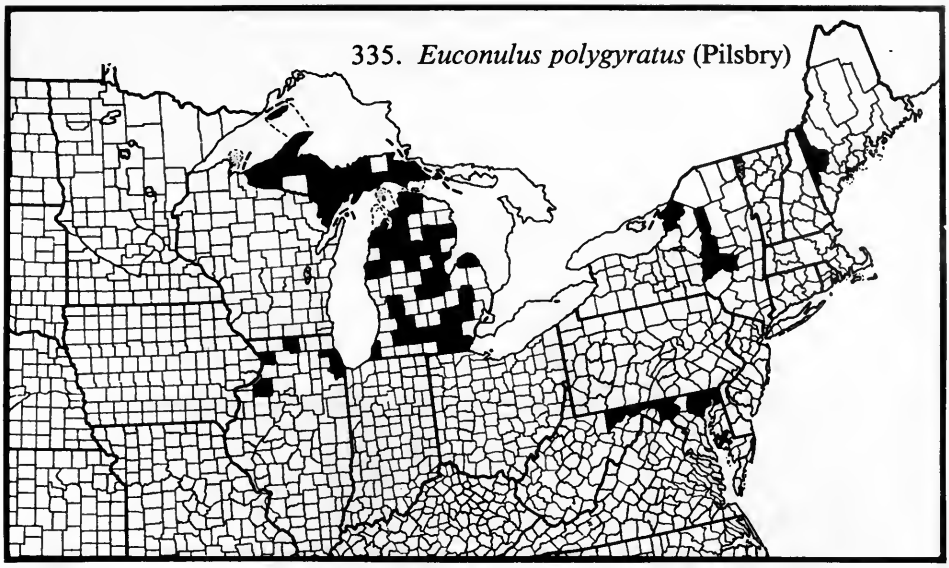
332. *Euconulus trochulus* (Reinhardt)



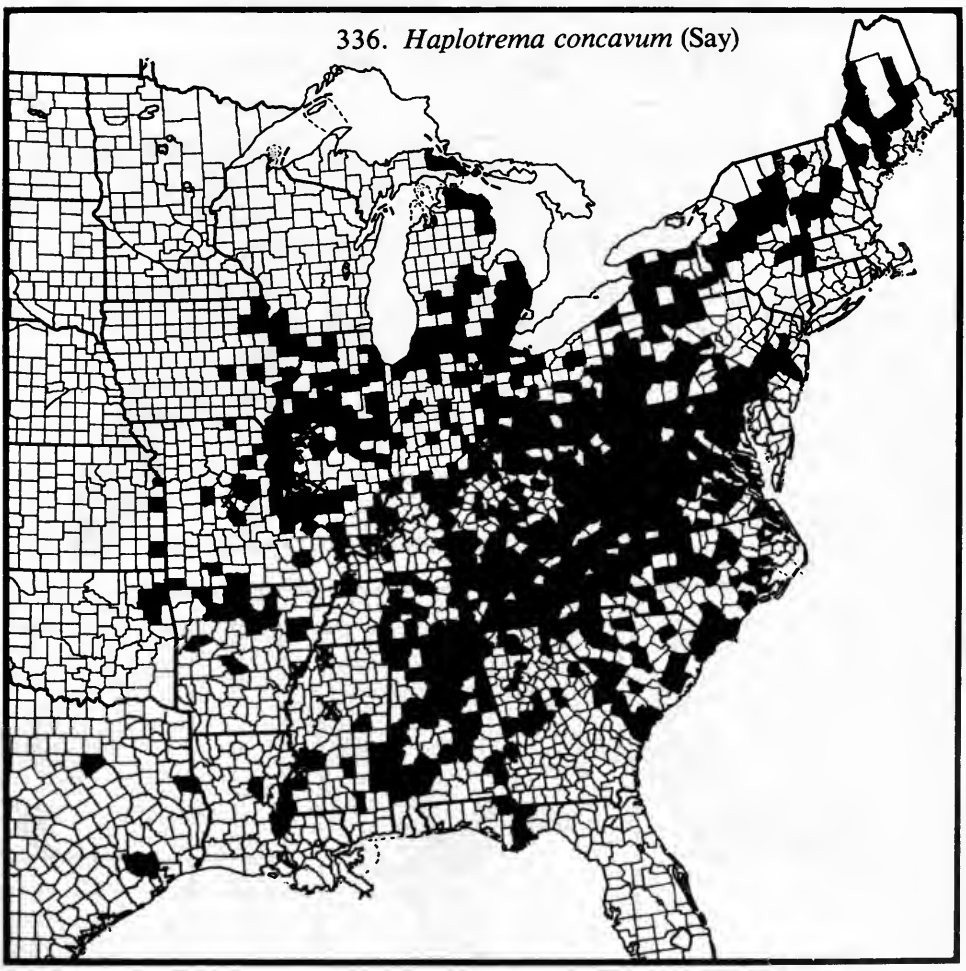
333. *Euconulus dentatus* (Sterki)



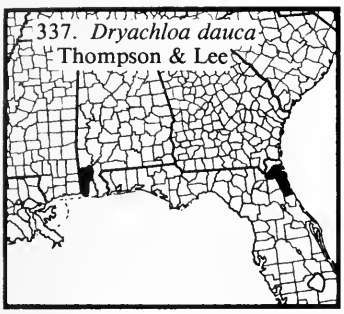
334. *Guppya sterkii* (Dall)



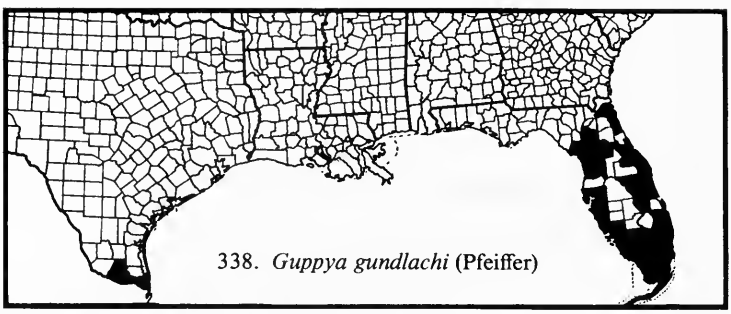
335. *Euconulus polygyratus* (Pilsbry)



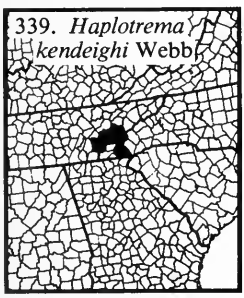
336. *Haplotrema concavum* (Say)



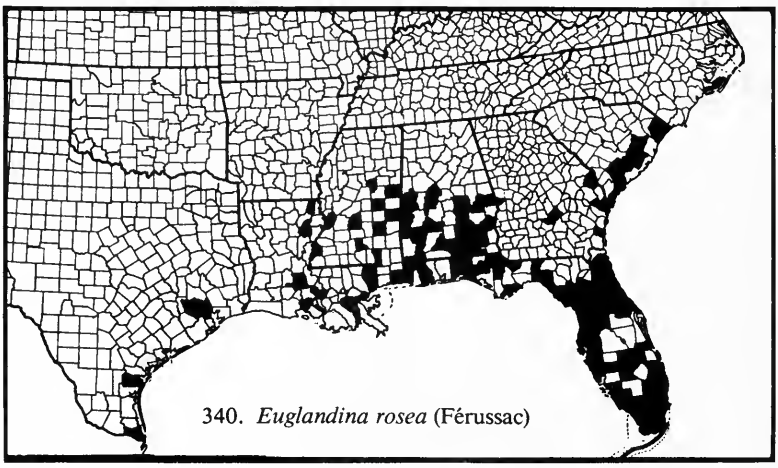
337. *Dryachloa dauca* Thompson & Lee



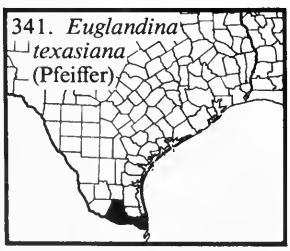
338. *Guppya gundlachi* (Pfeiffer)



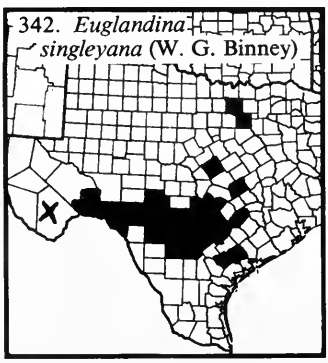
339. *Haplotrema kendeighi* Webb



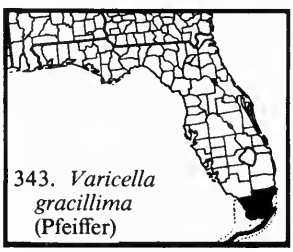
340. *Euglandina rosea* (Férussac)



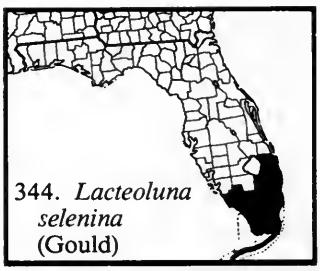
341. *Euglandina texasiana* (Pfeiffer)

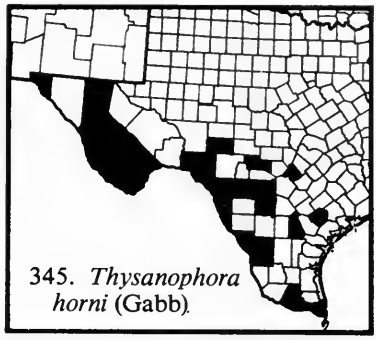


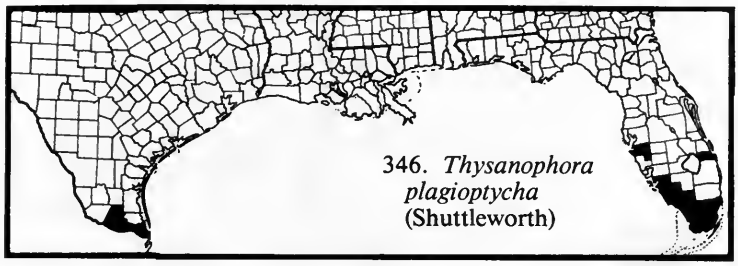
342. *Euglandina singleyana* (W. G. Binney)

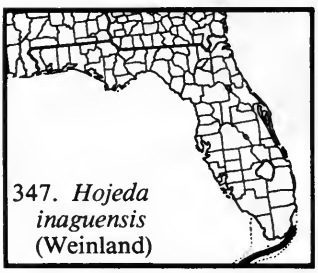


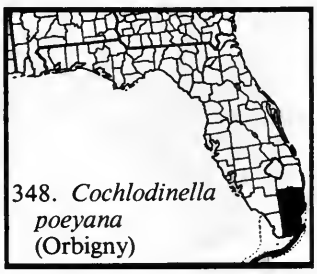
343. *Varicella gracillima* (Pfeiffer)

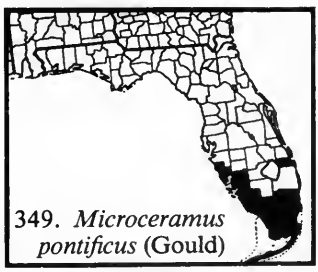

344. *Lacteoluna selenina* (Gould)

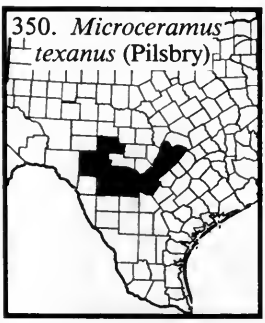

345. *Thysanophora horni* (Gabb)

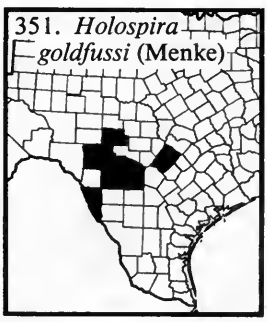

346. *Thysanophora plagioptycha* (Shuttleworth)

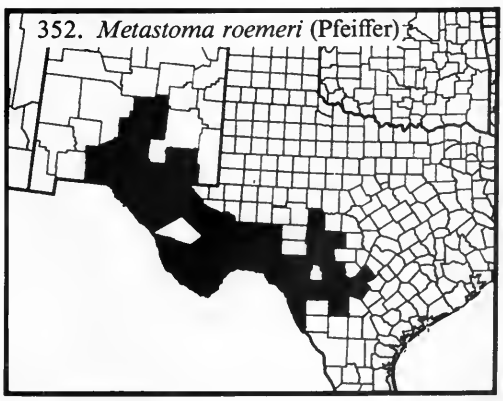

347. *Hojeda inaguensis* (Weinland)

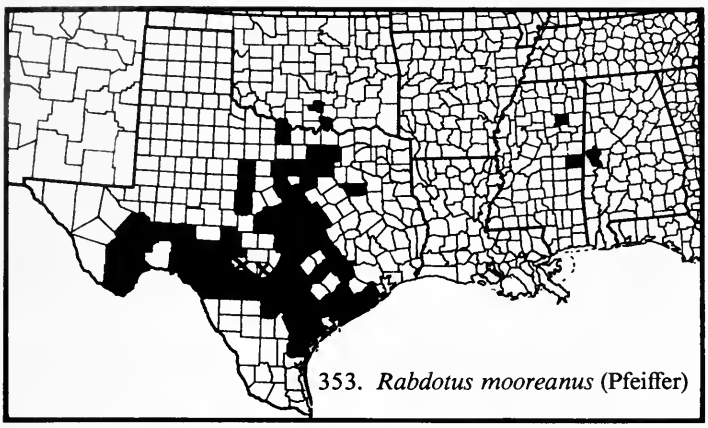

348. *Cochlodinella poeyana* (Orbigny)

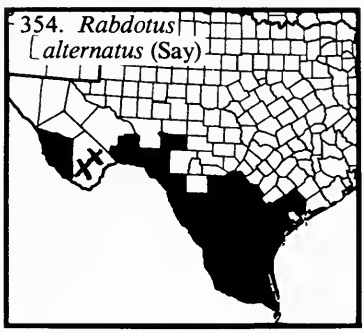

349. *Microceramus pontificus* (Gould)

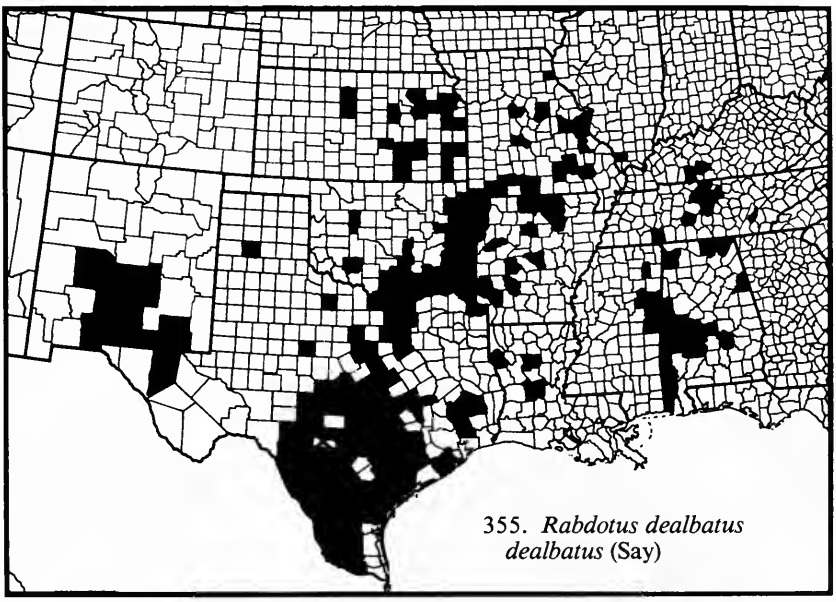

350. *Microceramus texanus* (Pilsbry)

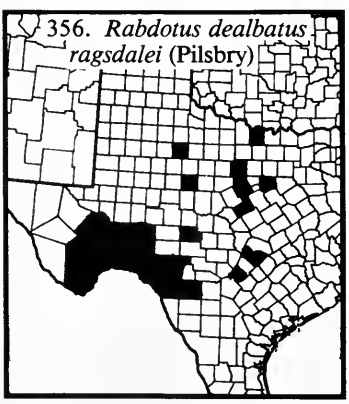

351. *Holospira goldfussi* (Menke)

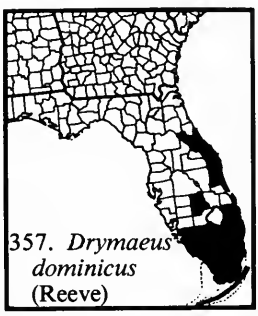

352. *Metastoma roemeri* (Pfeiffer)

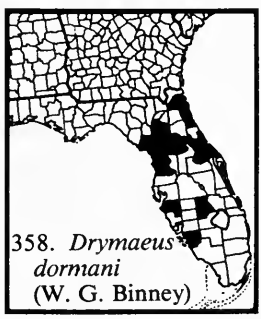

353. *Rabdotus mooreanus* (Pfeiffer)


354. *Rabdotus alternatus* (Say)

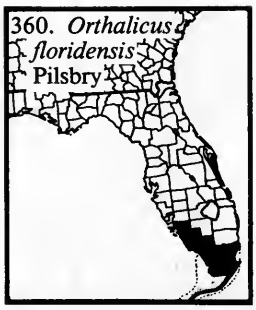

355. *Rabdotus dealbatus dealbatus* (Say)


356. *Rabdotus dealbatus ragsdalei* (Pilsbry)

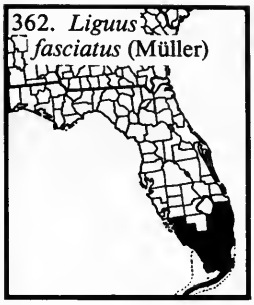

357. *Drymaeus dominicus* (Reeve)

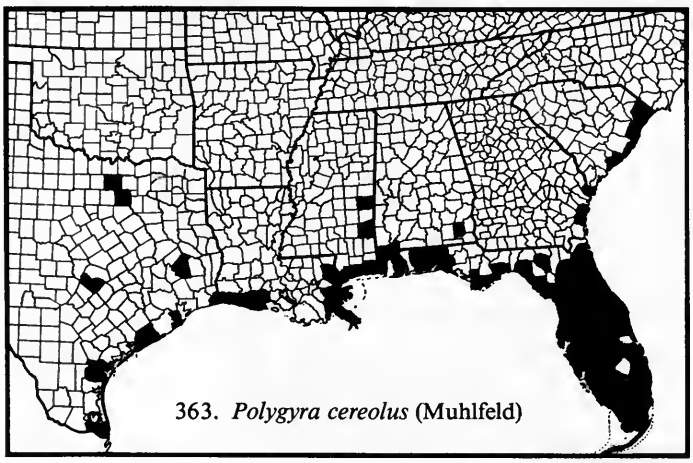

358. *Drymaeus dormani* (W. G. Binney)


359. *Drymaeus multilineatus* (Say)

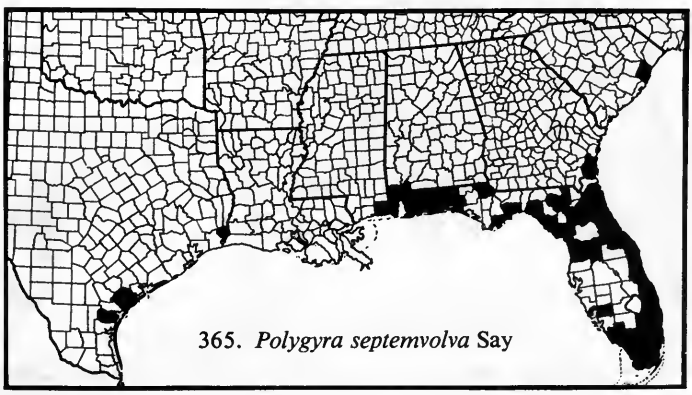

360. *Orthalicus floridensis* Pilsbry

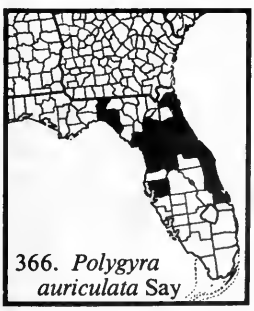

361. *Orthalicus reses* (Say)

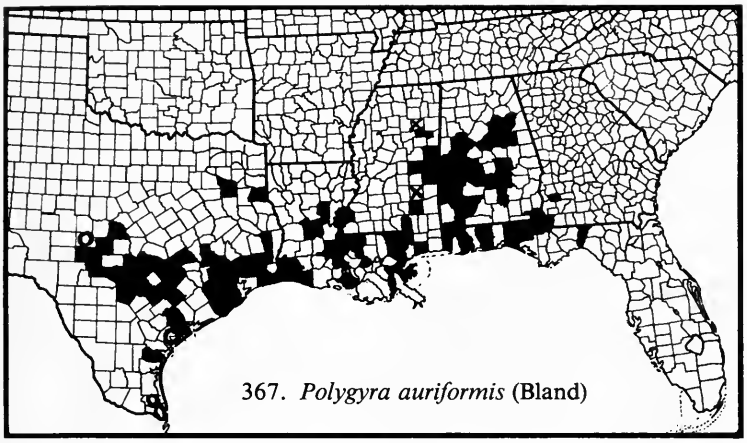

362. *Liguus fasciatus* (Müller)


363. *Polygyra cereolus* (Muhlfeld)

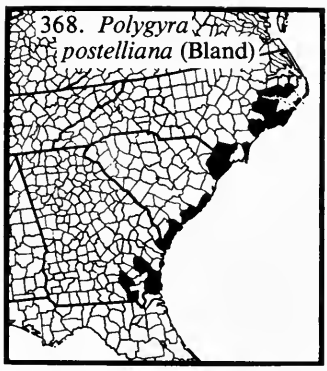

364. *Polygyra uvulifera* (Shuttleworth)


365. *Polygyra septemvolva* Say

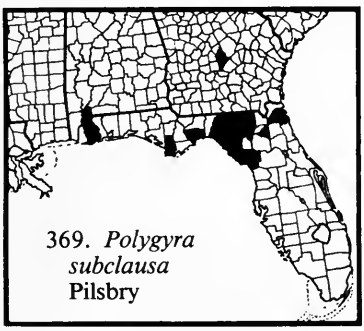

366. *Polygyra auriculata* Say



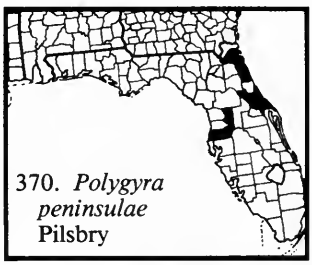
367. *Polygyra auriformis* (Bland)



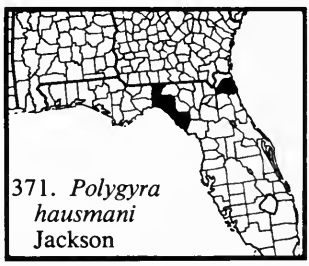
368. *Polygyra postelliana* (Bland)



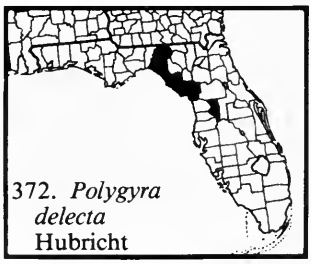
369. *Polygyra subclausa* Pilsbry



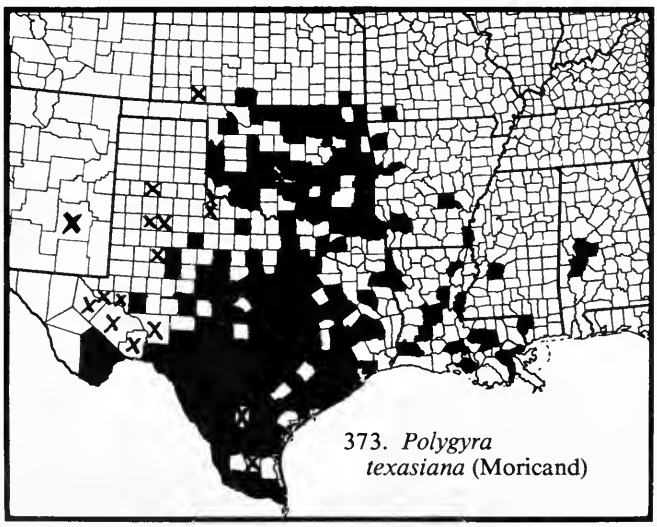
370. *Polygyra peninsulae* Pilsbry



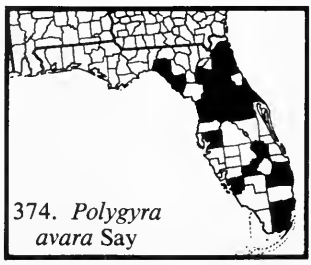
371. *Polygyra hausmani* Jackson



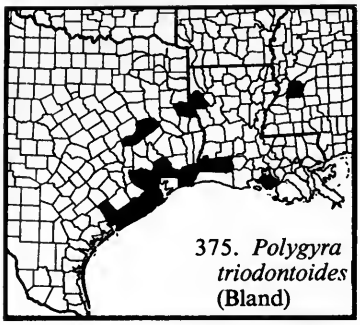
372. *Polygyra delecta* Hubricht



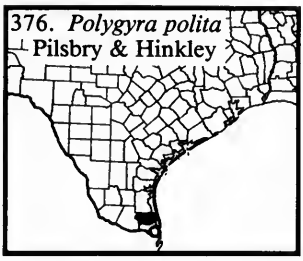
373. *Polygyra texasiana* (Moricand)



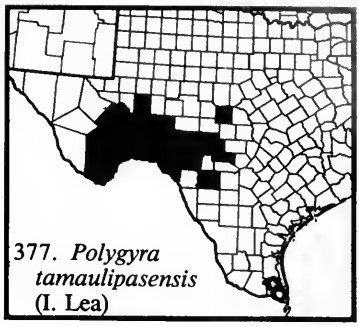
374. *Polygyra avara* Say



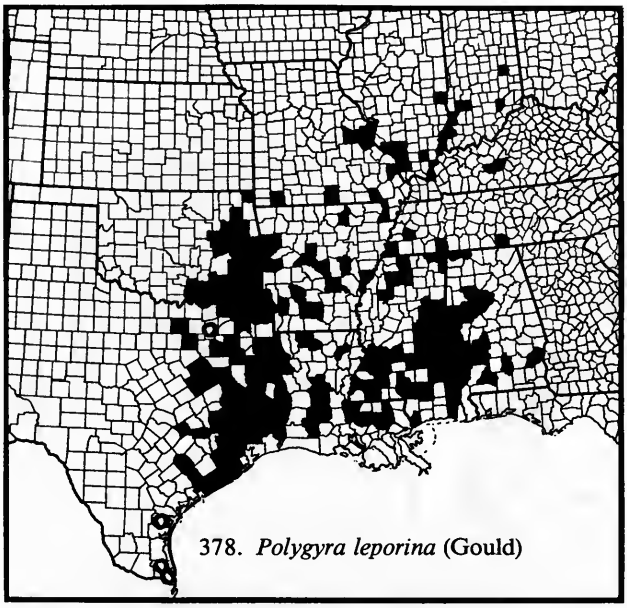
375. *Polygyra triodontoides* (Bland)



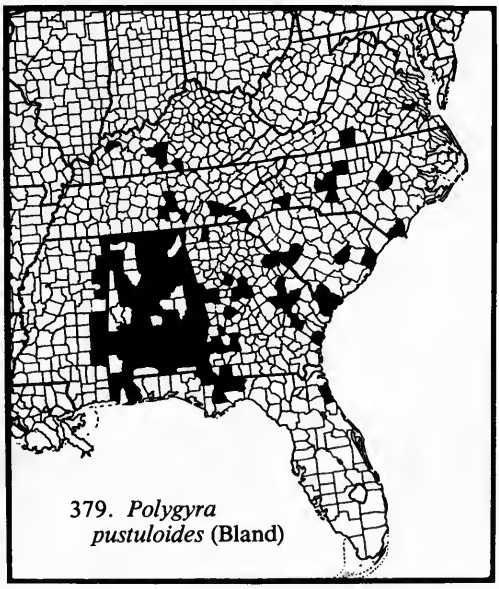
376. *Polygyra polita* Pilsbry & Hinkley



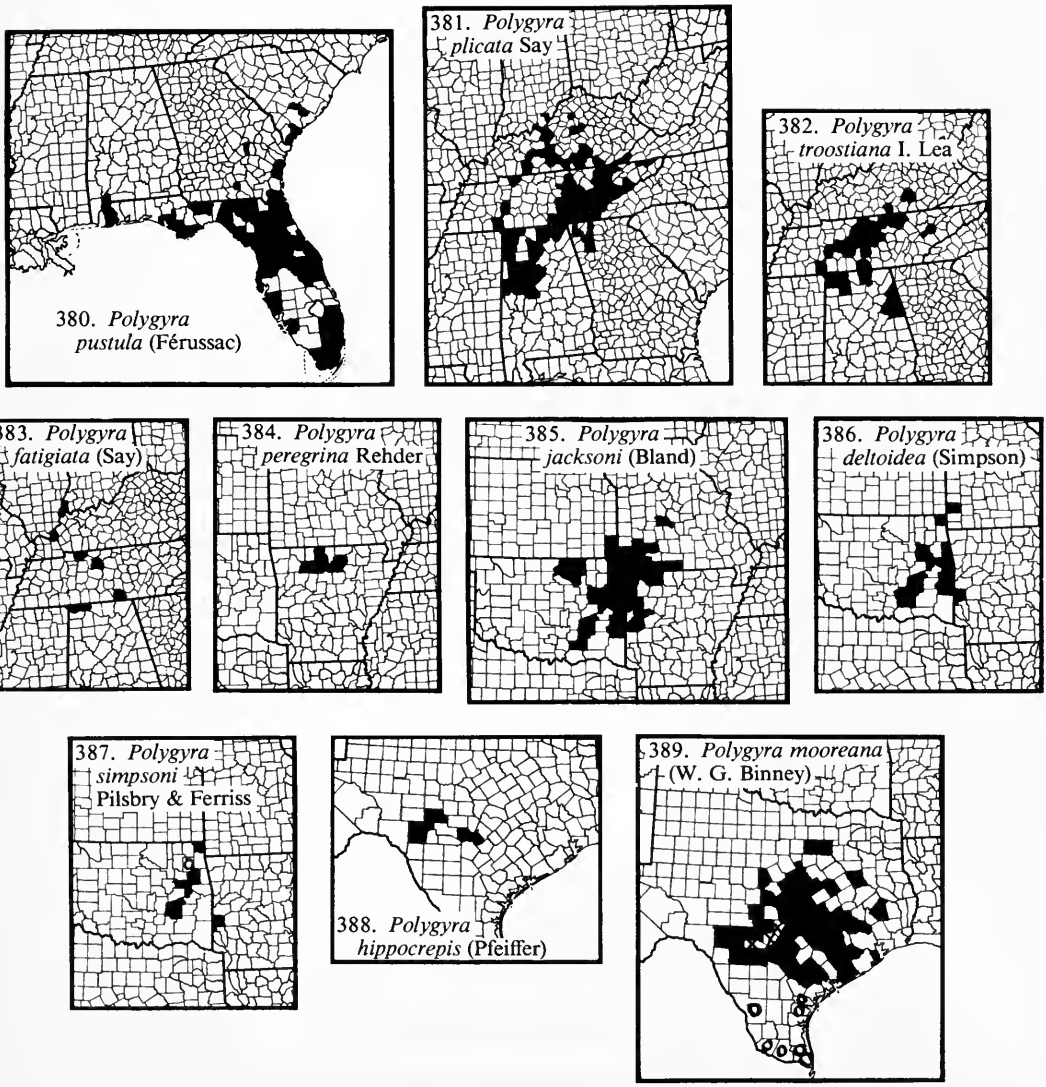
377. *Polygyra tamaulipasensis* (I. Lea)

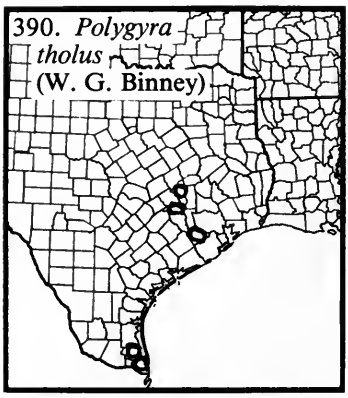


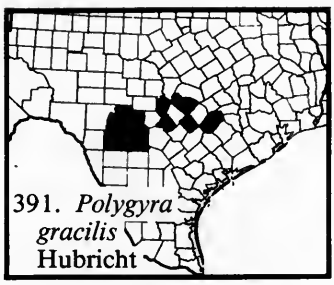
378. *Polygyra leporina* (Gould)

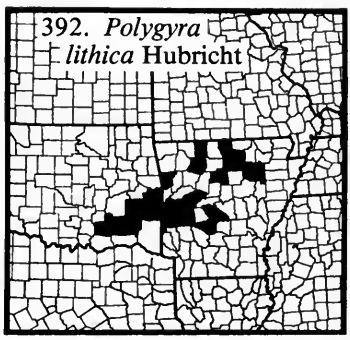


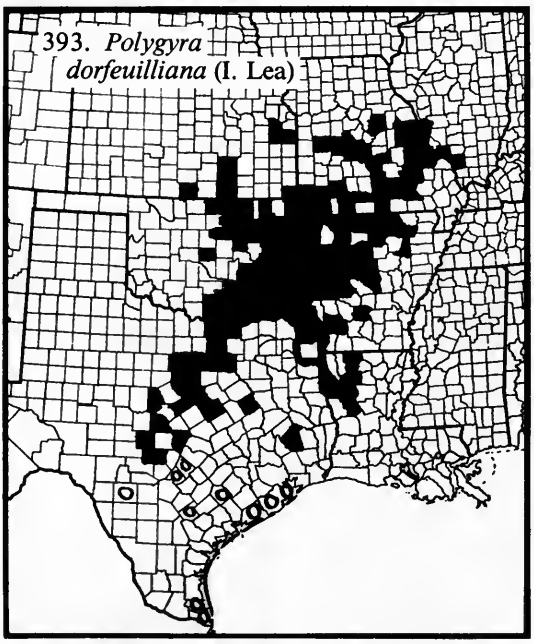
379. *Polygyra pustuloides* (Bland)

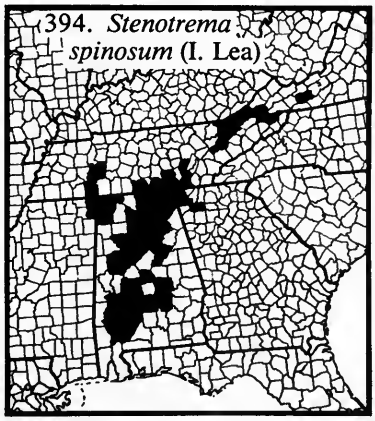

380. *Polygyra pustula* (Férussac)
381. *Polygyra plicata* Say
382. *Polygyra troostiana* I. Lea
383. *Polygyra fatigiata* (Say)
384. *Polygyra peregrina* Rehder
385. *Polygyra jacksoni* (Bland)
386. *Polygyra deltoidea* (Simpson)
387. *Polygyra simpsoni* Pilsbry & Ferriss
388. *Polygyra hippocrepis* (Pfeiffer)
389. *Polygyra mooreana* (W. G. Binney)

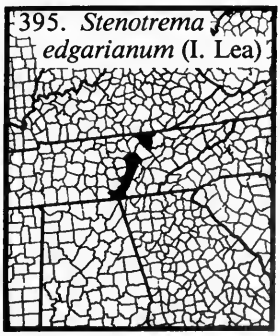

390. *Polygyra tholus* (W. G. Binney)

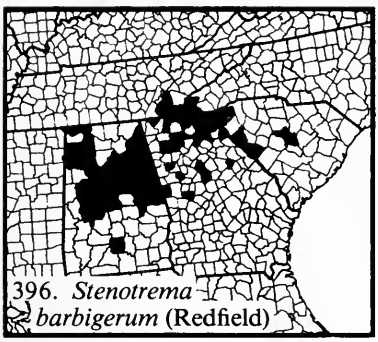

391. *Polygyra gracilis* Hubricht

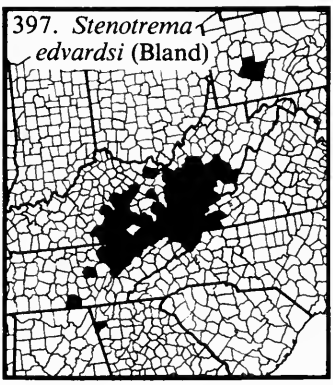

392. *Polygyra lithica* Hubricht

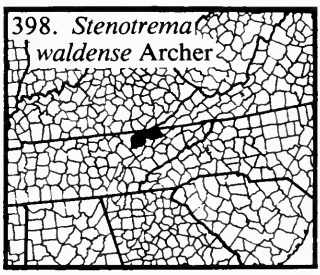

393. *Polygyra dorfeuilliana* (I. Lea)


394. *Stenotrema spinosum* (I. Lea)

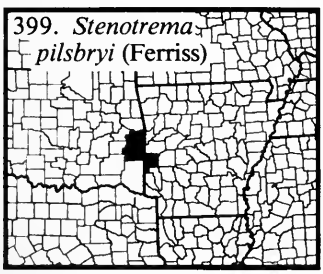

395. *Stenotrema edgarianum* (I. Lea)

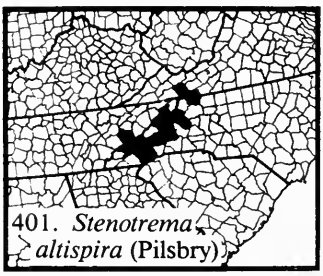

396. *Stenotrema barbigerum* (Redfield)

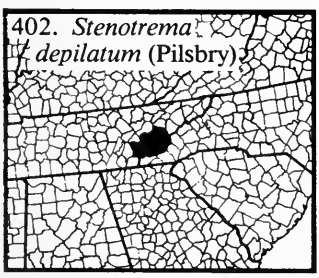

397. *Stenotrema edvardsi* (Bland)

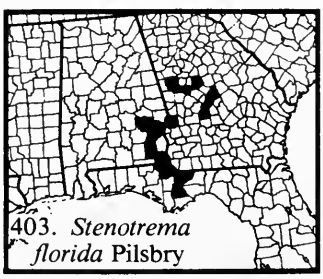

398. *Stenotrema waldense* Archer

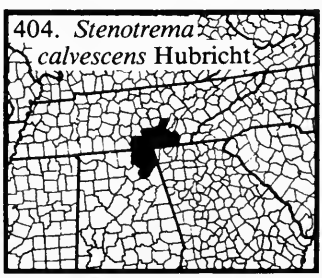

400. *Stenotrema labrosum* (Bland)

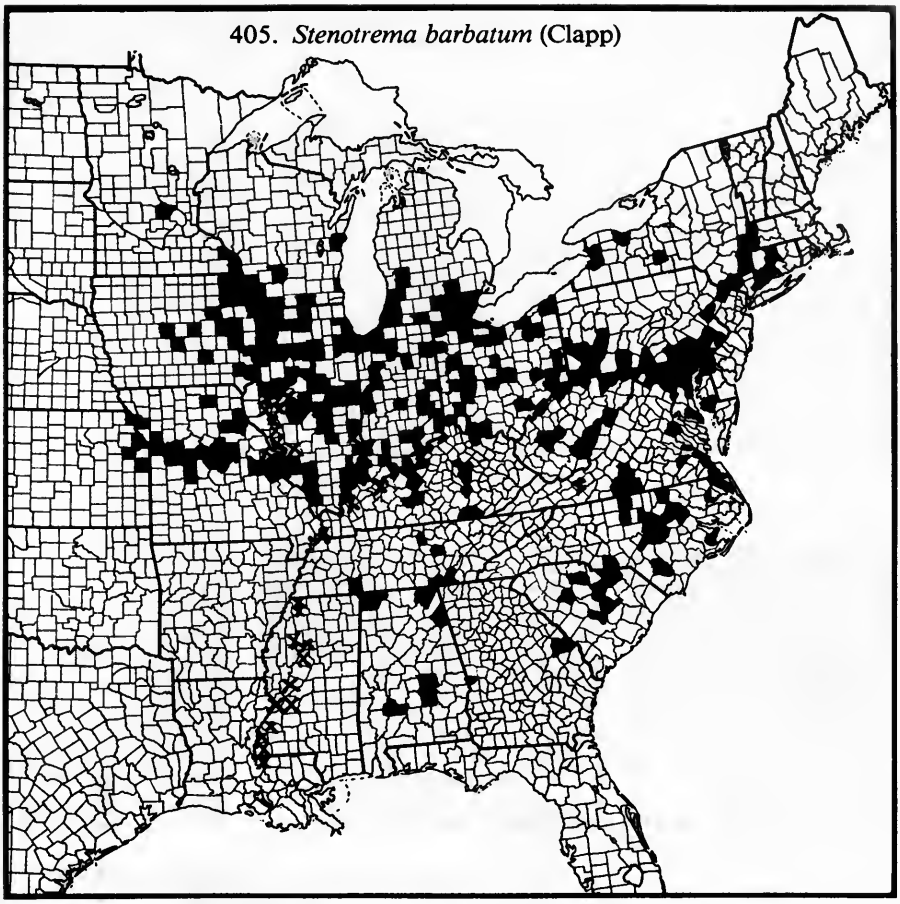

399. *Stenotrema pilsbryi* (Ferriss)


401. *Stenotrema altispira* (Pilsbry)

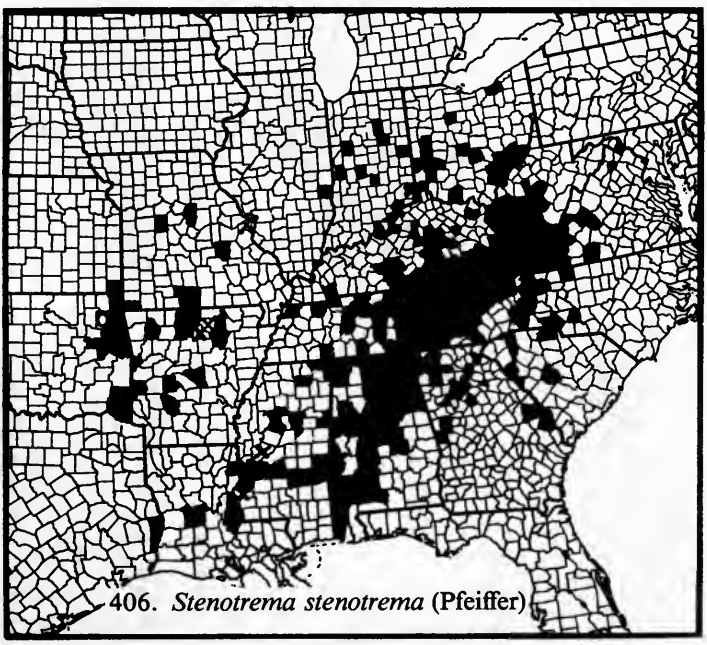

402. *Stenotrema depilatum* (Pilsbry)


403. *Stenotrema florida* Pilsbry

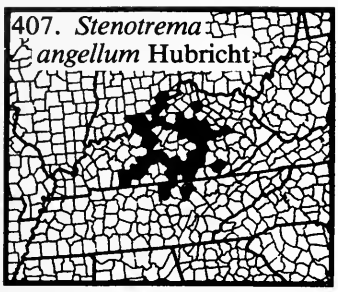

404. *Stenotrema calvescens* Hubricht



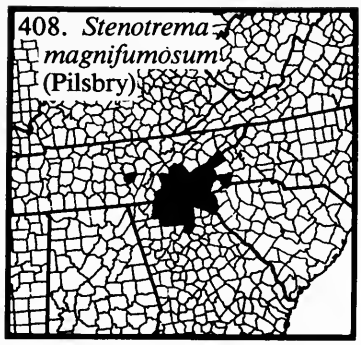
405. *Stenotrema barbatum* (Clapp)



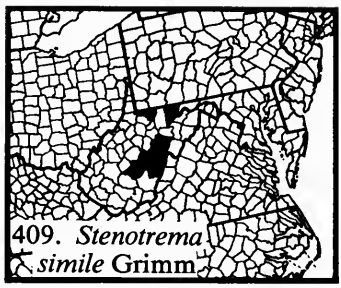
406. *Stenotrema stenotrema* (Pfeiffer)



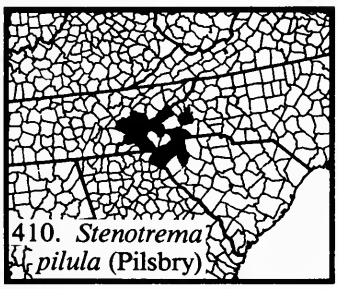
407. *Stenotrema angellum* Hubricht



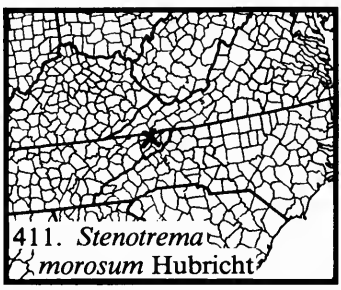
408. *Stenotrema magnifumosum* (Pilsbry)



409. *Stenotrema simile* Grimm

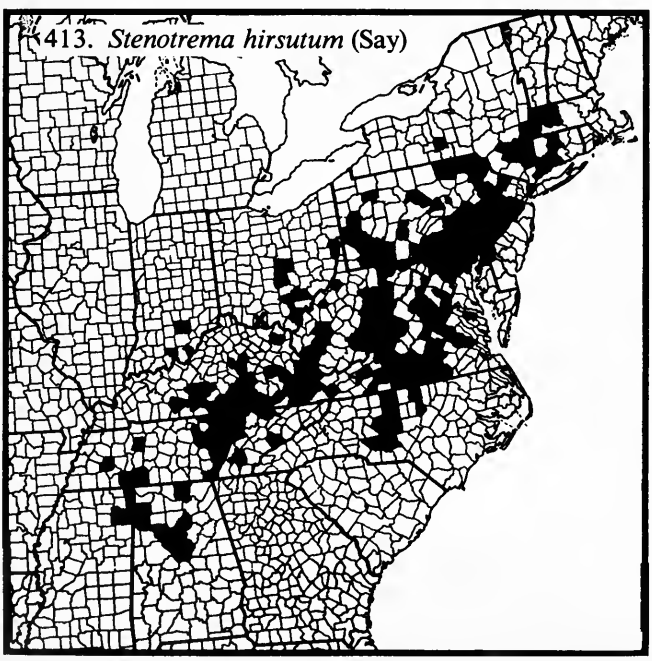


410. *Stenotrema pilula* (Pilsbry)



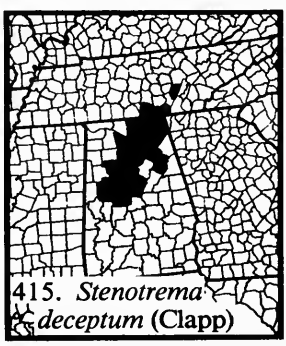
411. *Stenotrema morosum* Hubricht

412. *Stenotrema exodon* (Pilsbry)

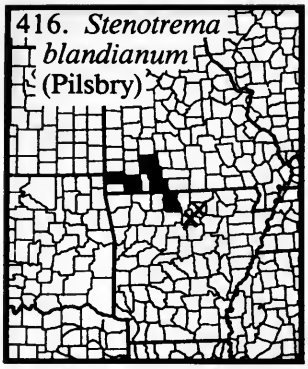


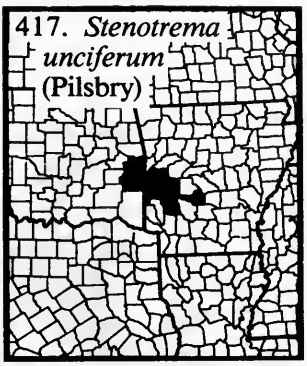
413. *Stenotrema hirsutum* (Say)

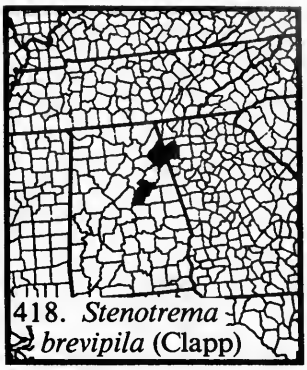
414. *Stenotrema turbinella* (Clench & Archer)



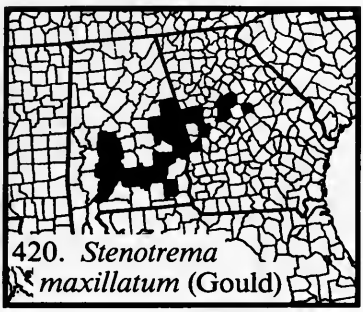
415. *Stenotrema deceptum* (Clapp)

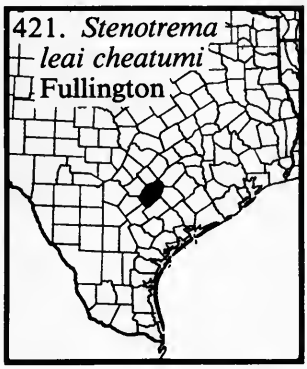

416. *Stenotrema blandianum* (Pilsbry)

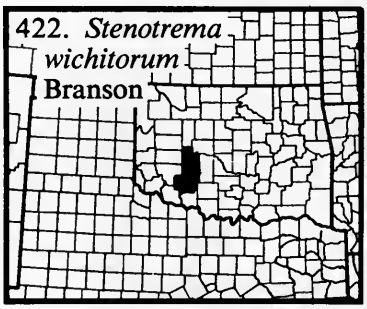

417. *Stenotrema unciferum* (Pilsbry)

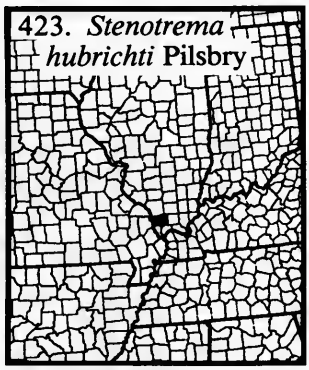

418. *Stenotrema brevipila* (Clapp)

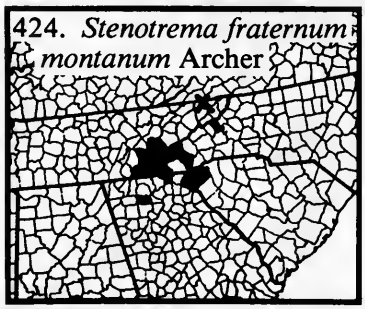

419. *Stenotrema cohuttense* (Clapp)

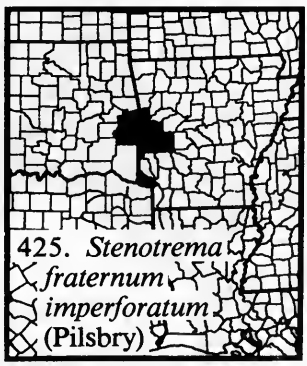

420. *Stenotrema maxillatum* (Gould)

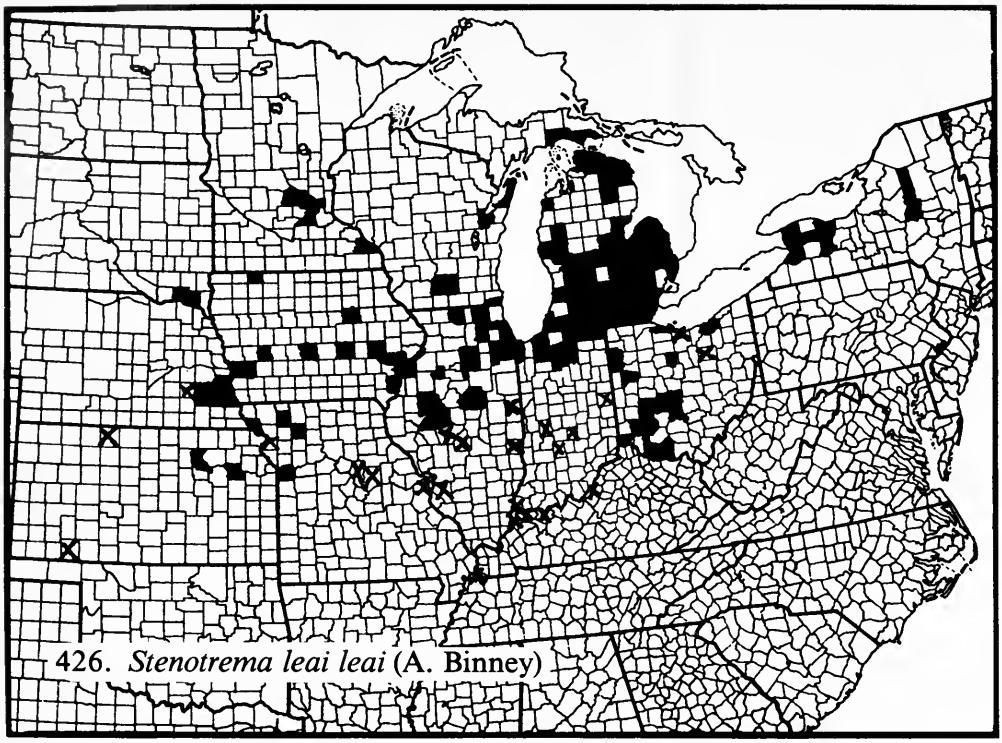

421. *Stenotrema leai cheatumi* Fullington


422. *Stenotrema wichitorum* Branson

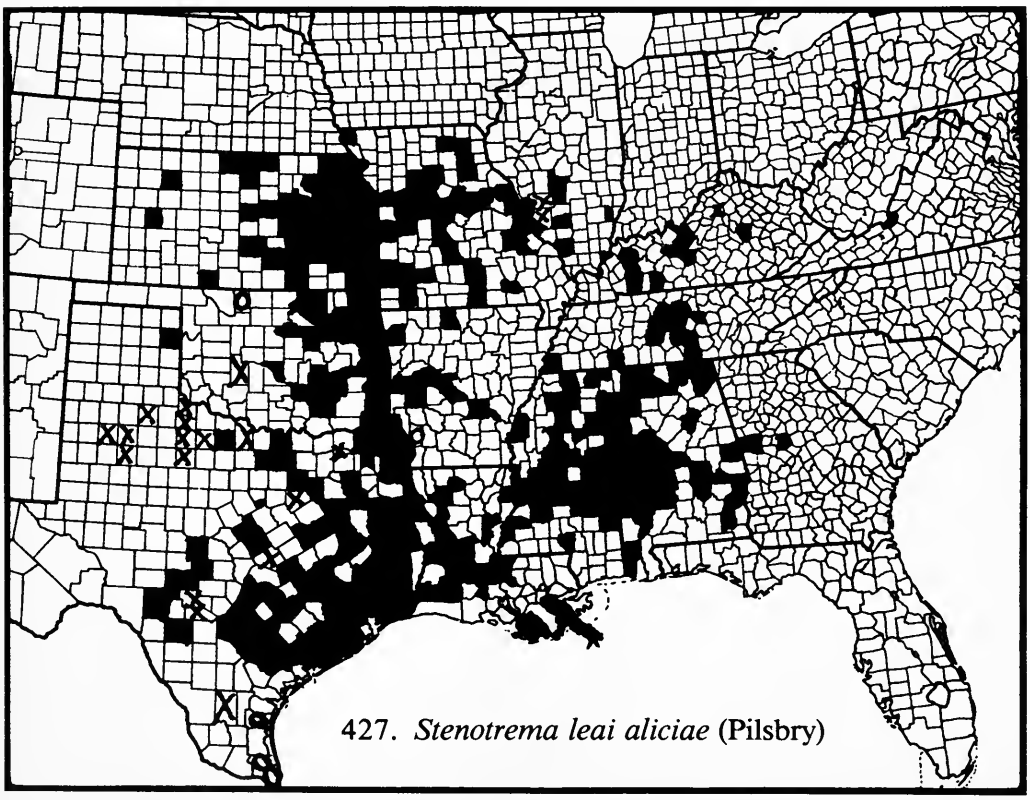

423. *Stenotrema hubrichti* Pilsbry


424. *Stenotrema fraternum montanum* Archer

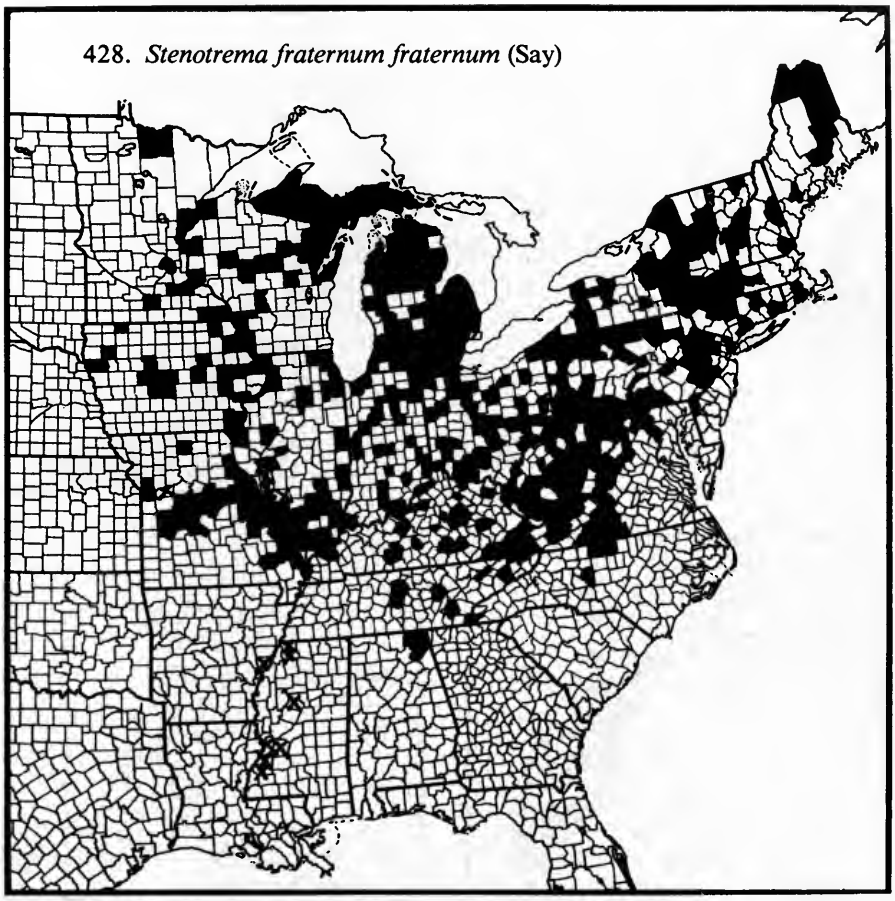

425. *Stenotrema fraternum imperforatum* (Pilsbry)

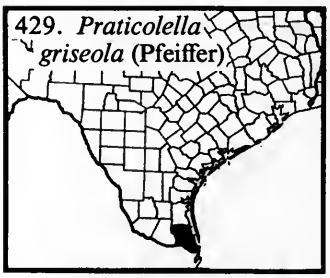


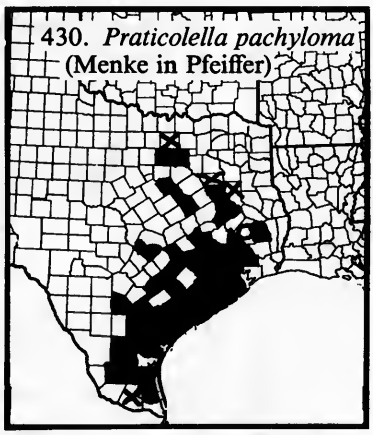
426. *Stenotrema leai leai* (A. Binney)

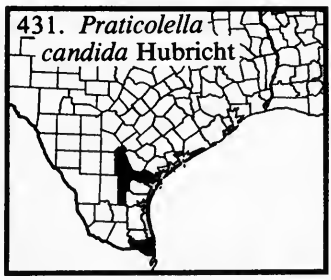


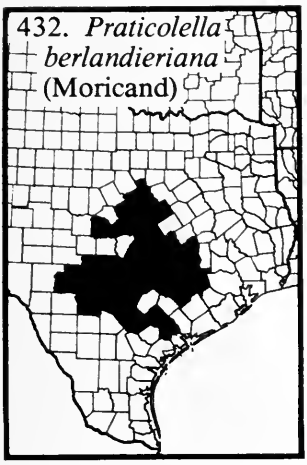
427. *Stenotrema leai aliciae* (Pilsbry)

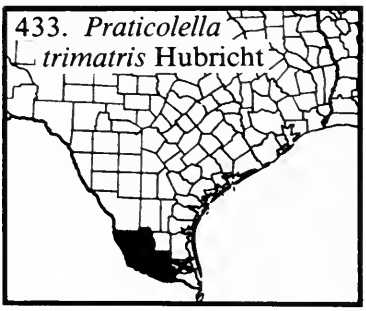

428. *Stenotrema fraternum fraternum* (Say)

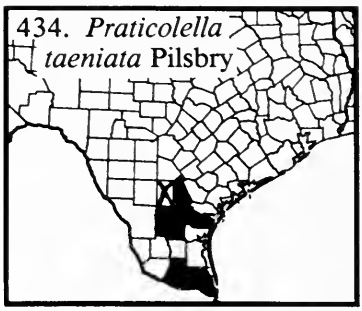

429. *Praticolella griseola* (Pfeiffer)

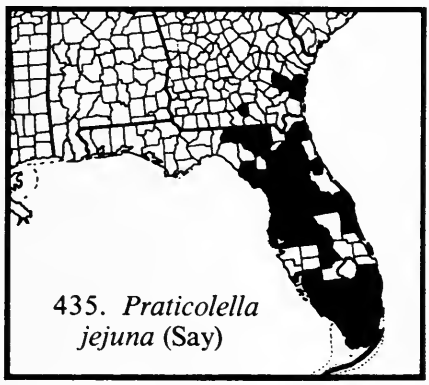

430. *Praticolella pachyloma* (Menke in Pfeiffer)

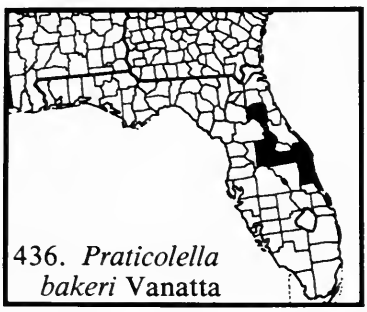

431. *Praticolella candida* Hubricht

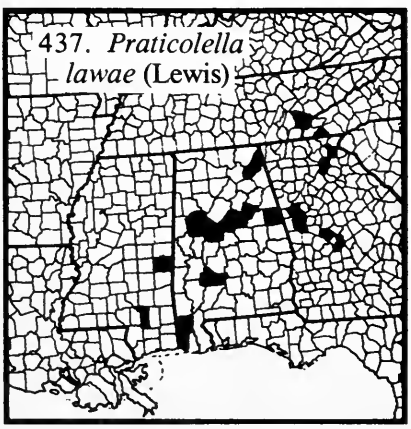

432. *Praticolella berlandieriana* (Moricand)

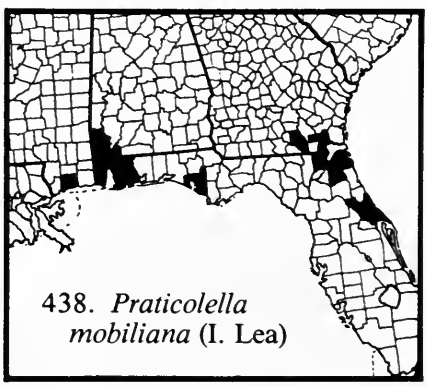

433. *Praticolella trimatris* Hubricht

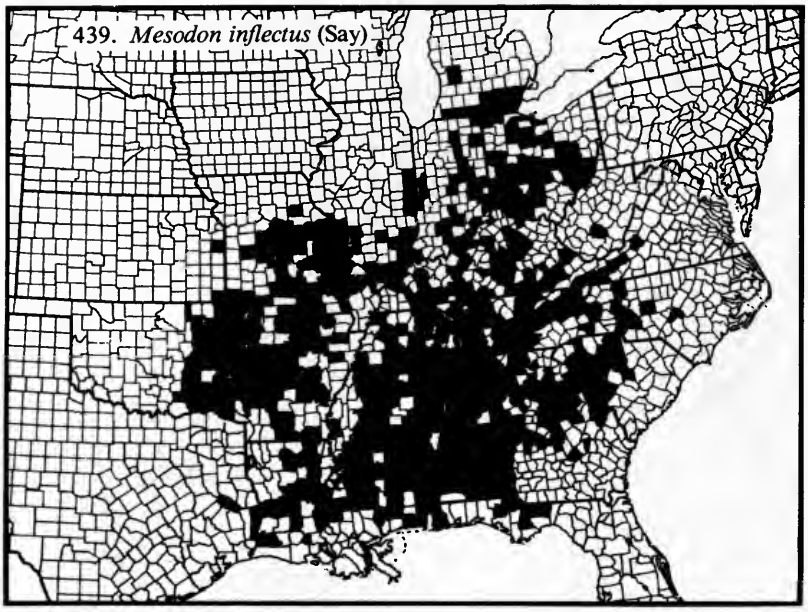

434. *Praticolella taeniata* Pilsbry

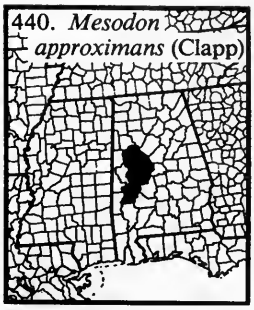

435. *Praticolella jejuna* (Say)

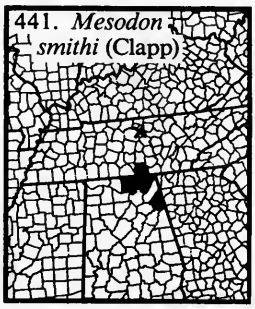

436. *Praticolella bakeri* Vanatta

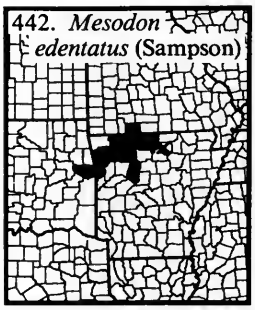

437. *Praticolella lawae* (Lewis)

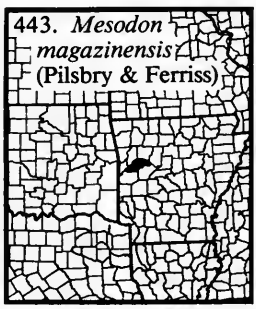

438. *Praticolella mobiliana* (I. Lea)

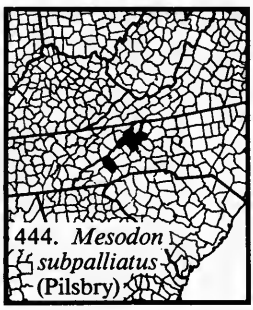

439. *Mesodon inflectus* (Say)


440. *Mesodon approximans* (Clapp)

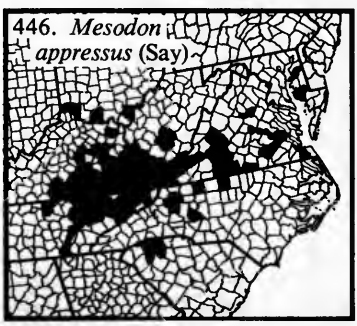

441. *Mesodon smithi* (Clapp)


442. *Mesodon edentatus* (Sampson)

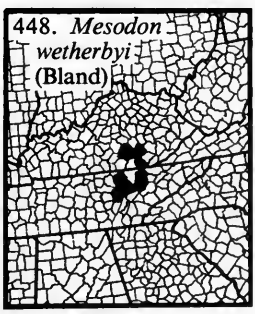

443. *Mesodon magazinensis* (Pilsbry & Ferriss)

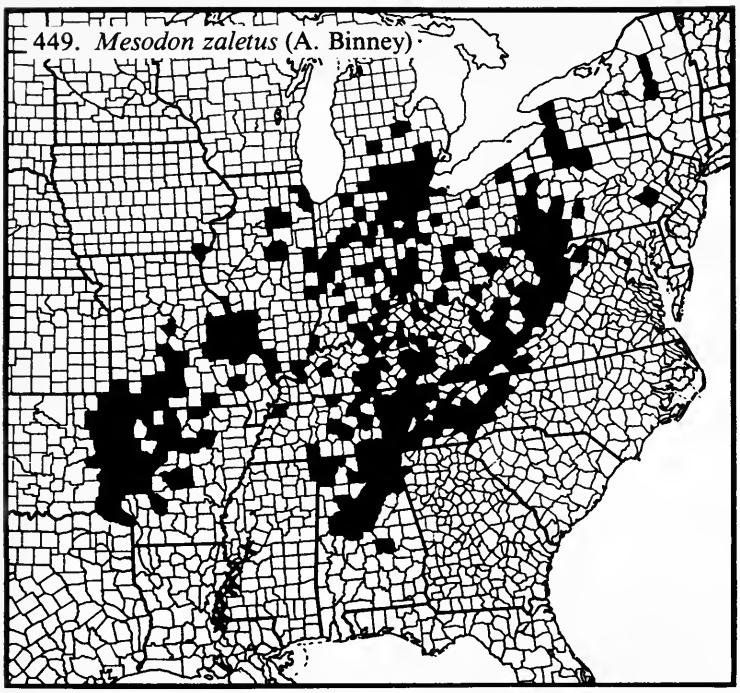

444. *Mesodon subpalliatus* (Pilsbry)

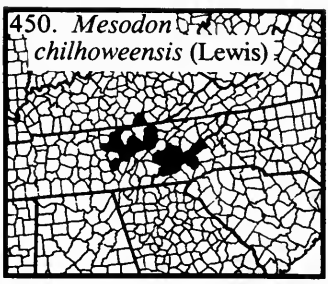

445. *Mesodon sargentianus* (Johnson & Pilsbry)


446. *Mesodon appressus* (Say)

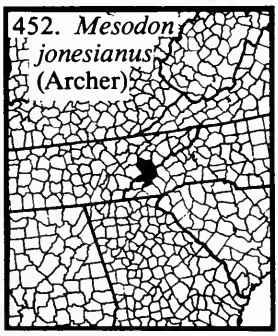

447. *Mesodon panselenus* Hubricht

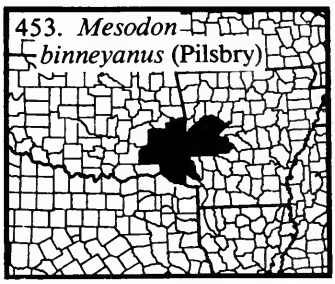

448. *Mesodon wetherbyi* (Bland)

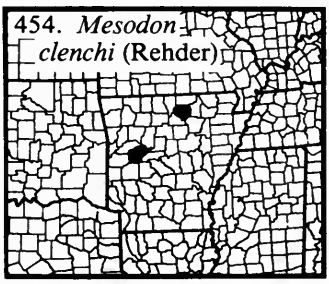

449. *Mesodon zaletus* (A. Binney)

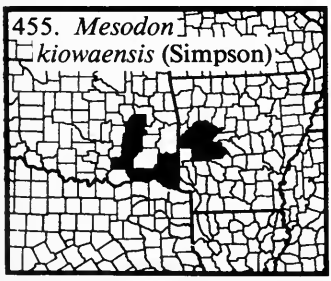

450. *Mesodon chilhoweensis* (Lewis)

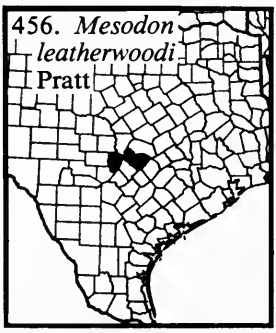

451. *Mesodon indianorum* (Pilsbry)

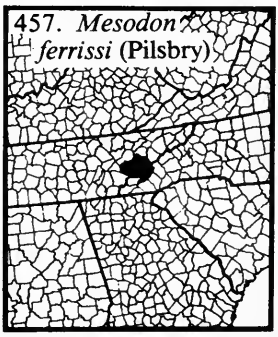

452. *Mesodon jonesianus* (Archer)

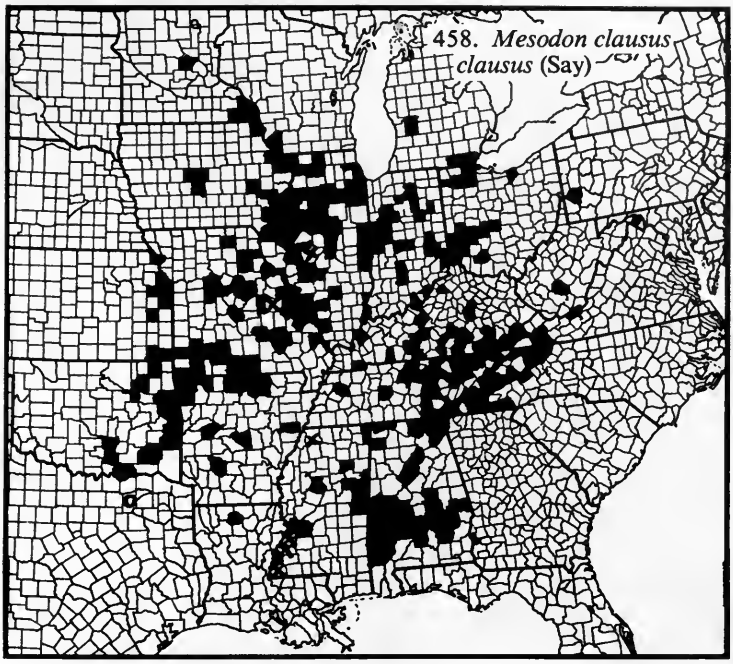

453. *Mesodon binneyanus* (Pilsbry)

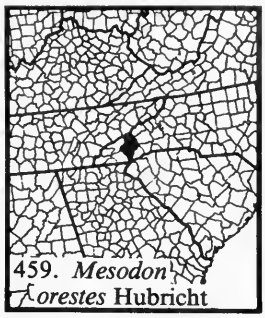

454. *Mesodon clenchi* (Rehder)

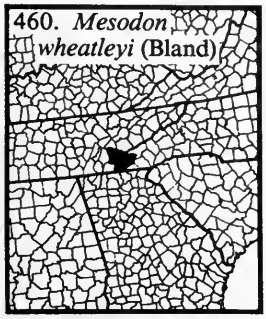

455. *Mesodon kiowaensis* (Simpson)

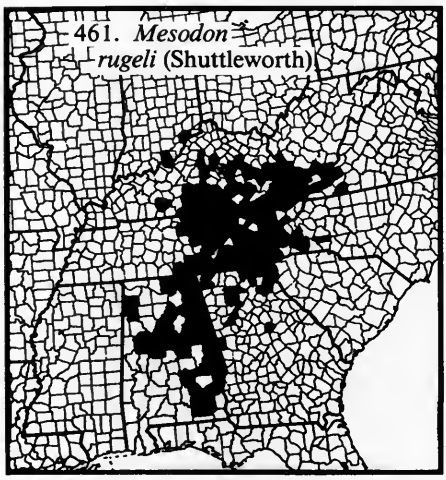

456. *Mesodon leatherwoodi* Pratt

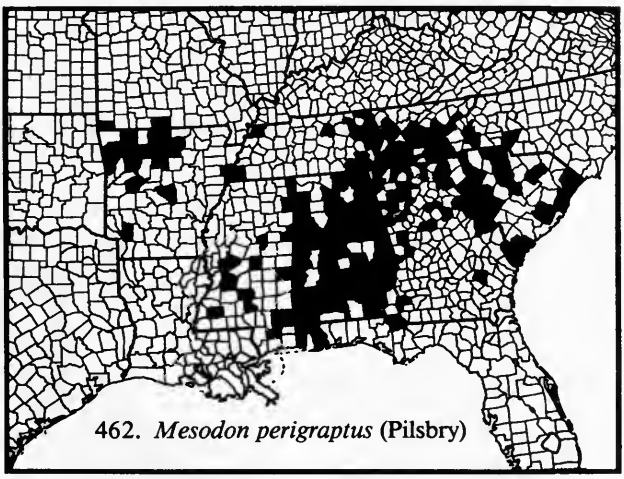

457. *Mesodon ferrissi* (Pilsbry)


458. *Mesodon clausus clausus* (Say)


459. *Mesodon forestes* Hubricht

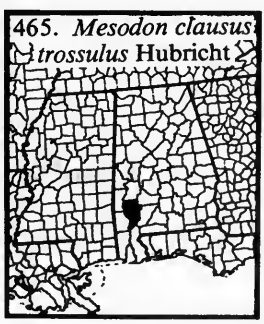

460. *Mesodon wheatleyi* (Bland)

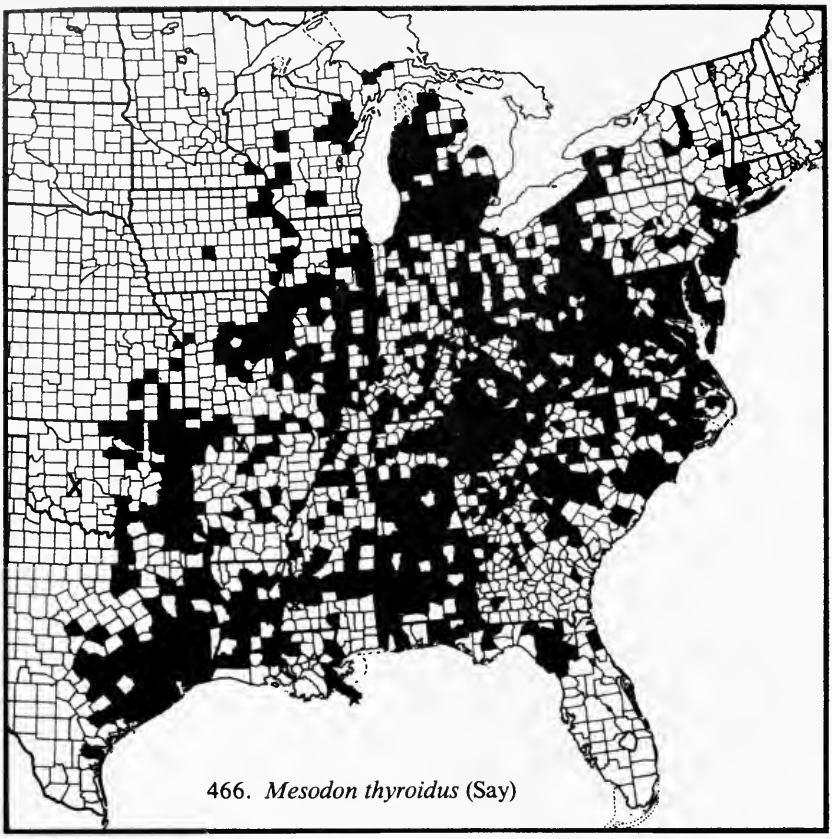

461. *Mesodon rugeli* (Shuttleworth)


462. *Mesodon perigraptus* (Pilsbry)

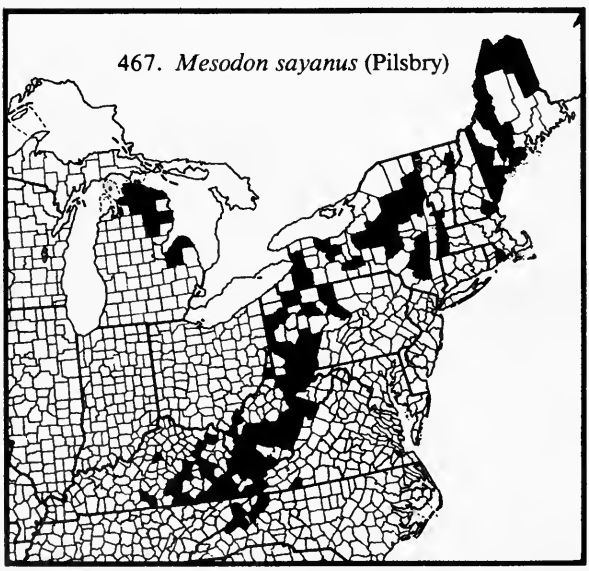

463. *Mesodon clingmanicus* (Pilsbry)


464. *Mesodon christyi* (Bland)

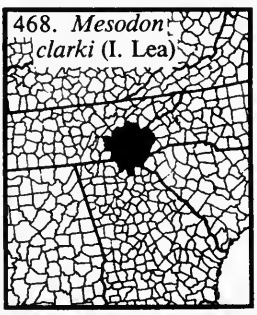

465. *Mesodon clausus trossulus* Hubricht



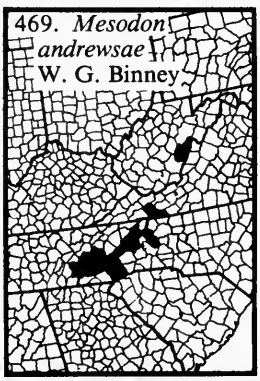
466. *Mesodon thyroidus* (Say)



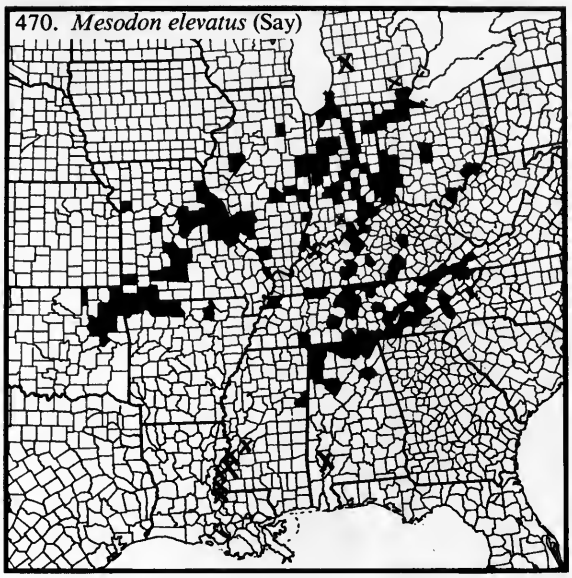
467. *Mesodon sayanus* (Pilsbry)

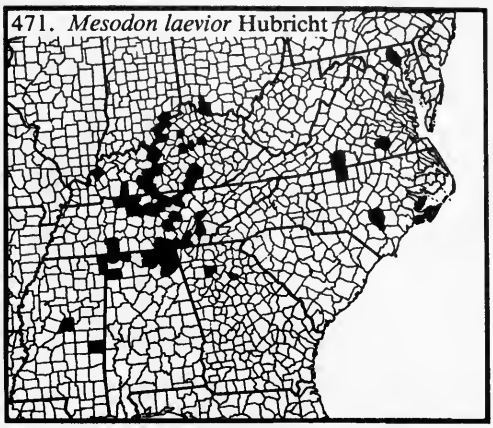


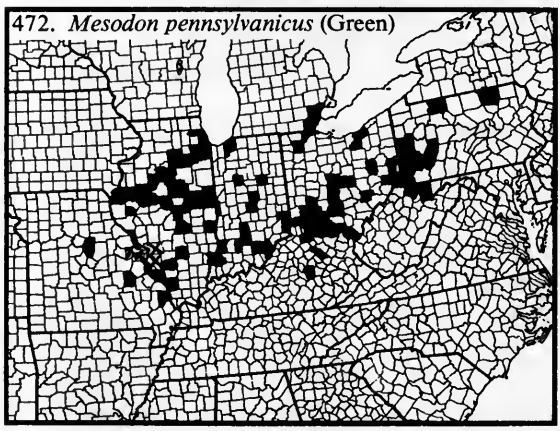
468. *Mesodon clarki* (I. Lea)

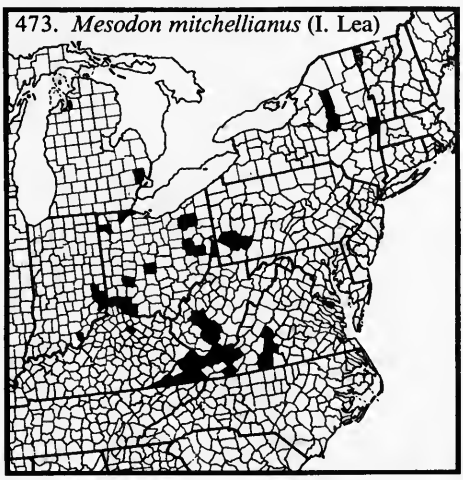


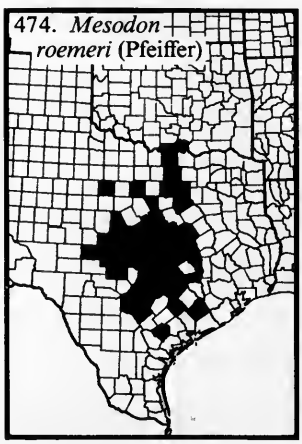
469. *Mesodon andrewsae* W. G. Binney

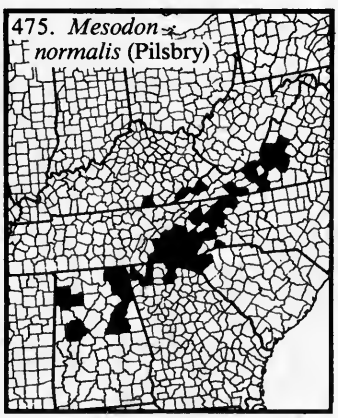

470. *Mesodon elevatus* (Say)

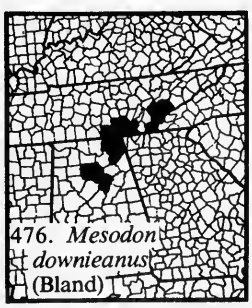

471. *Mesodon laevior* Hubricht


472. *Mesodon pennsylvanicus* (Green)

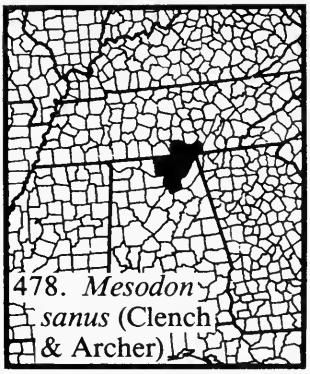

473. *Mesodon mitchellianus* (I. Lea)

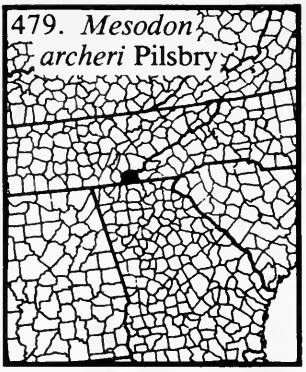

474. *Mesodon roemeri* (Pfeiffer)

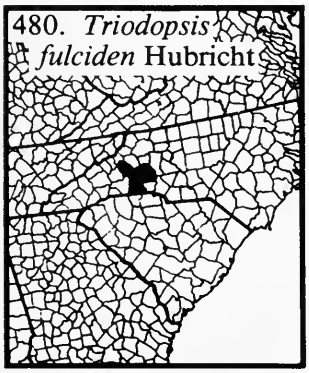

475. *Mesodon normalis* (Pilsbry)

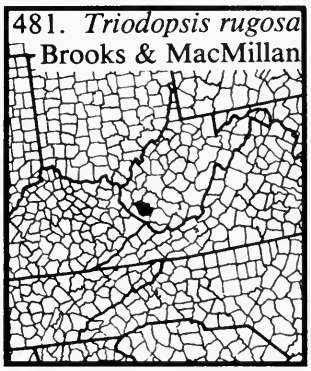

476. *Mesodon downieanus* (Bland)

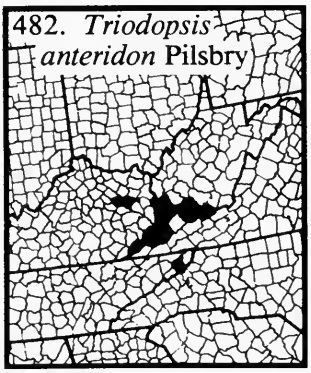

477. *Mesodon kalmianus* Hubricht

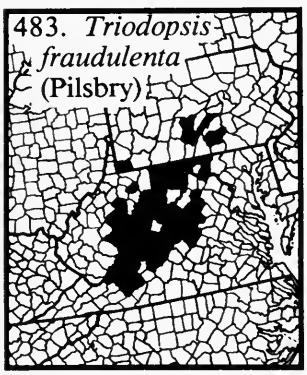

478. *Mesodon sanus* (Clench & Archer)

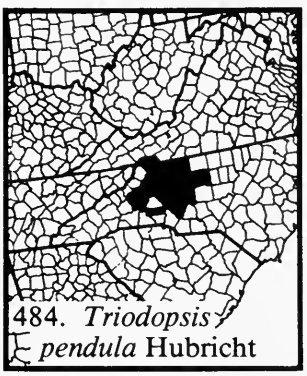

479. *Mesodon archeri* Pilsbry

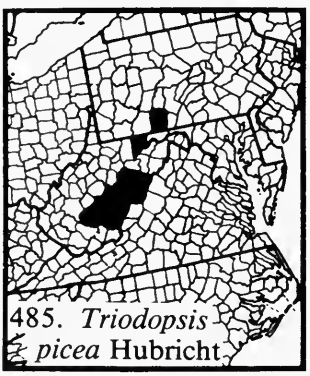

480. *Triodopsis fulciden* Hubricht

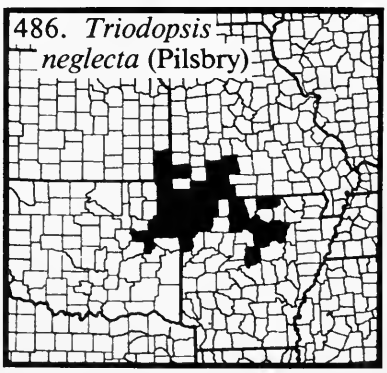

481. *Triodopsis rugosa* Brooks & MacMillan

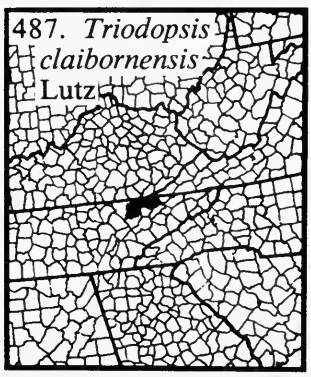

482. *Triodopsis anteridon* Pilsbry

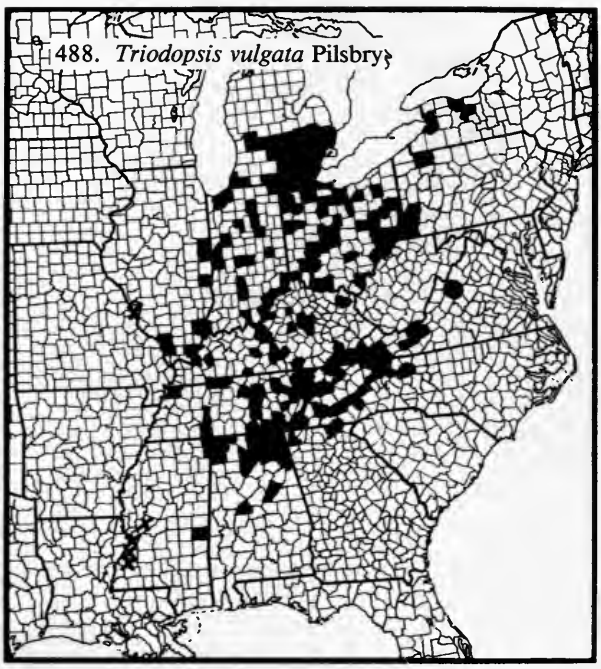

483. *Triodopsis fraudulenta* (Pilsbry)


484. *Triodopsis pendula* Hubricht

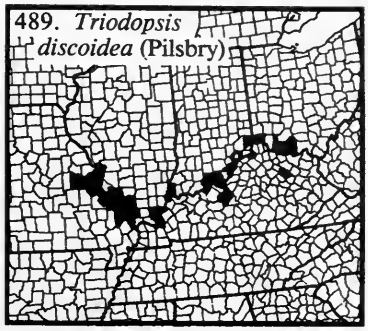

485. *Triodopsis picea* Hubricht


486. *Triodopsis neglecta* (Pilsbry)

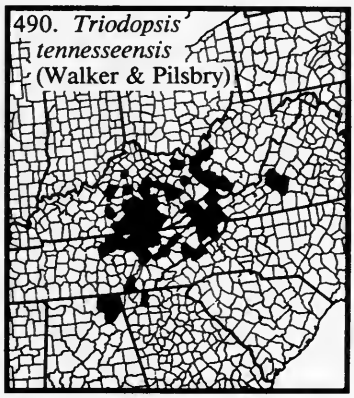

487. *Triodopsis claibornensis* Lutz



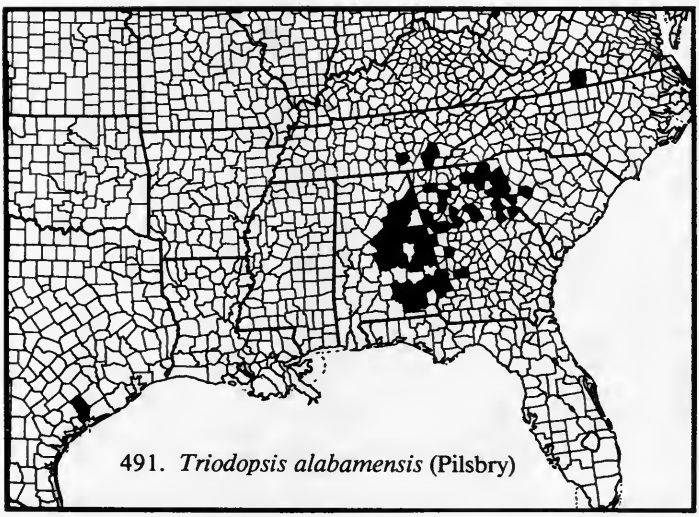
488. *Triodopsis vulgata* Pilsbry



489. *Triodopsis discoidea* (Pilsbry)

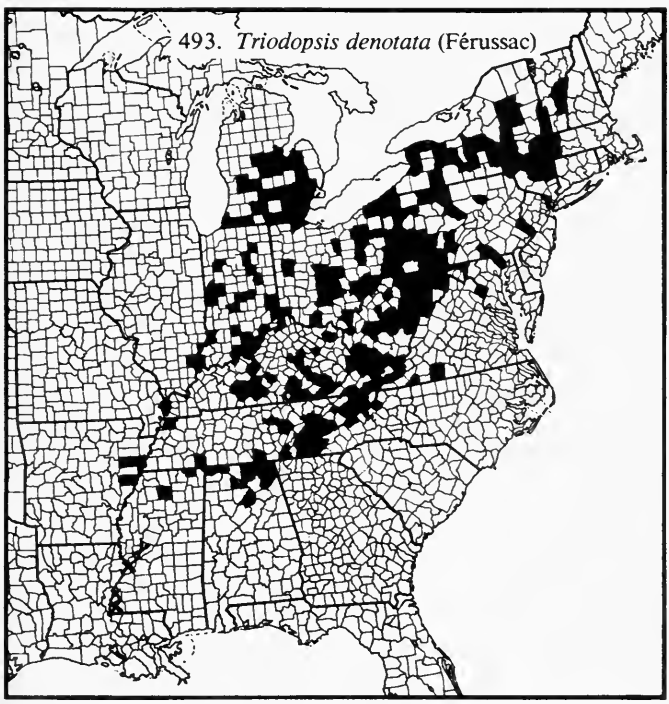


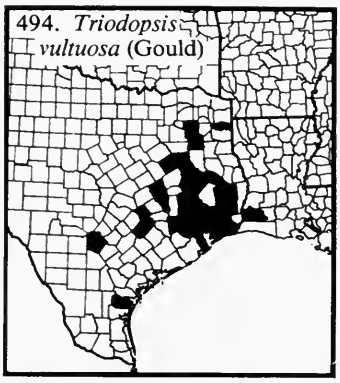
490. *Triodopsis tennesseensis* (Walker & Pilsbry)

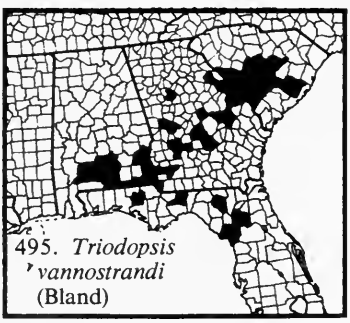


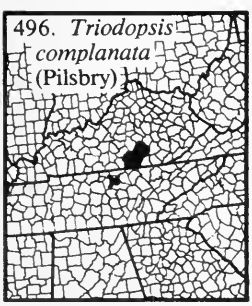
491. *Triodopsis alabamensis* (Pilsbry)

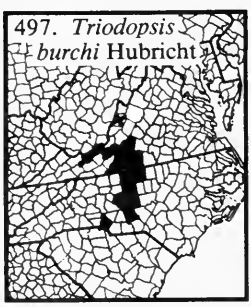
492. *Triodopsis juxtidens* (Pilsbry)

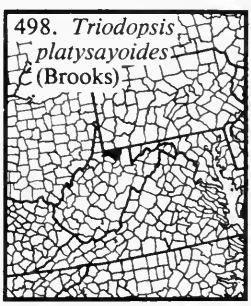

493. *Triodopsis denotata* (Férussac)

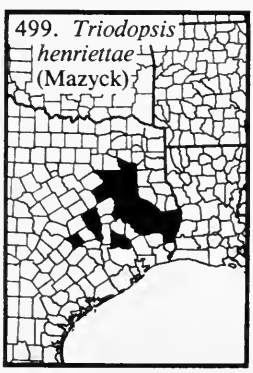

494. *Triodopsis vultuosa* (Gould)

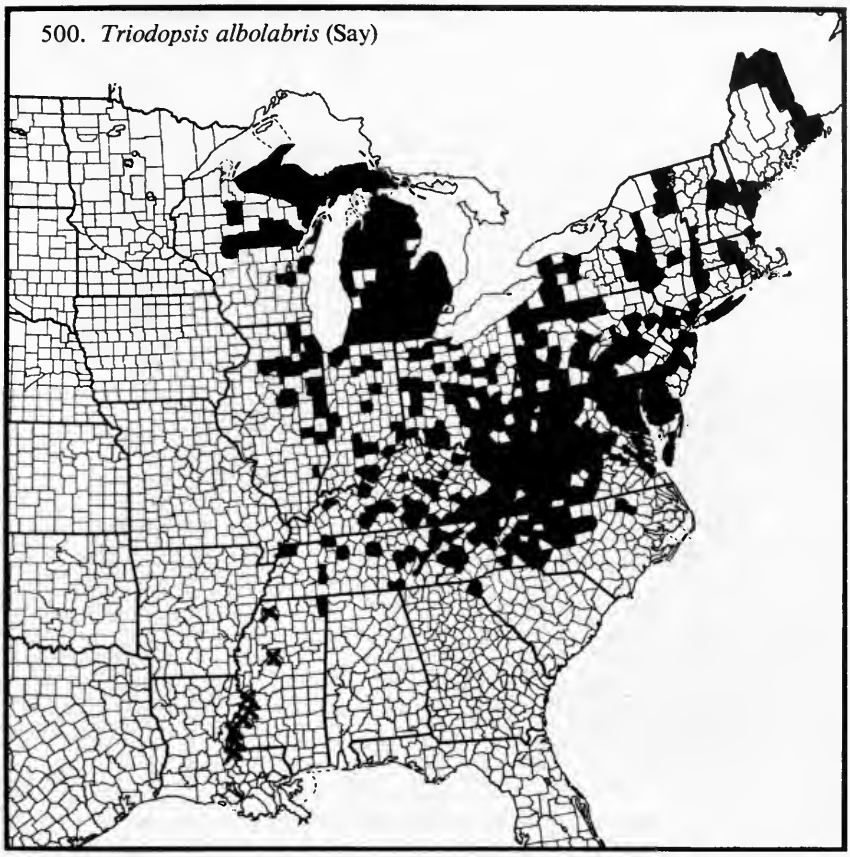

495. *Triodopsis vannostrandi* (Bland)

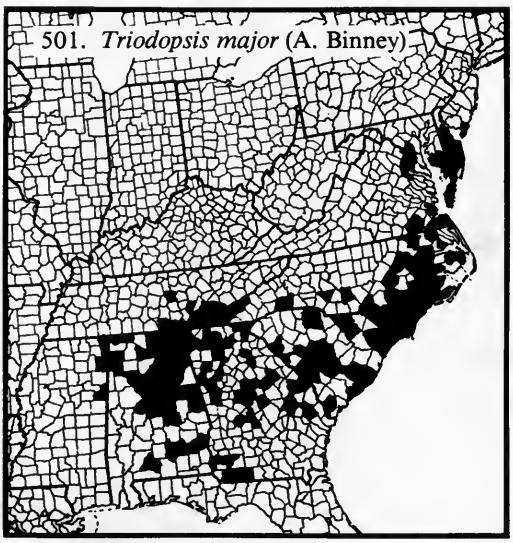

496. *Triodopsis complanata* (Pilsbry)

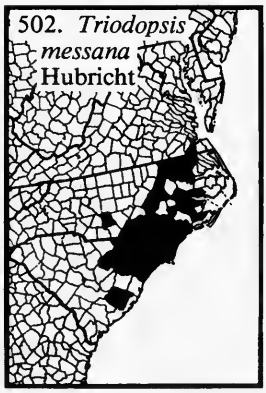

497. *Triodopsis burchi* Hubricht


498. *Triodopsis platysayoides* (Brooks)

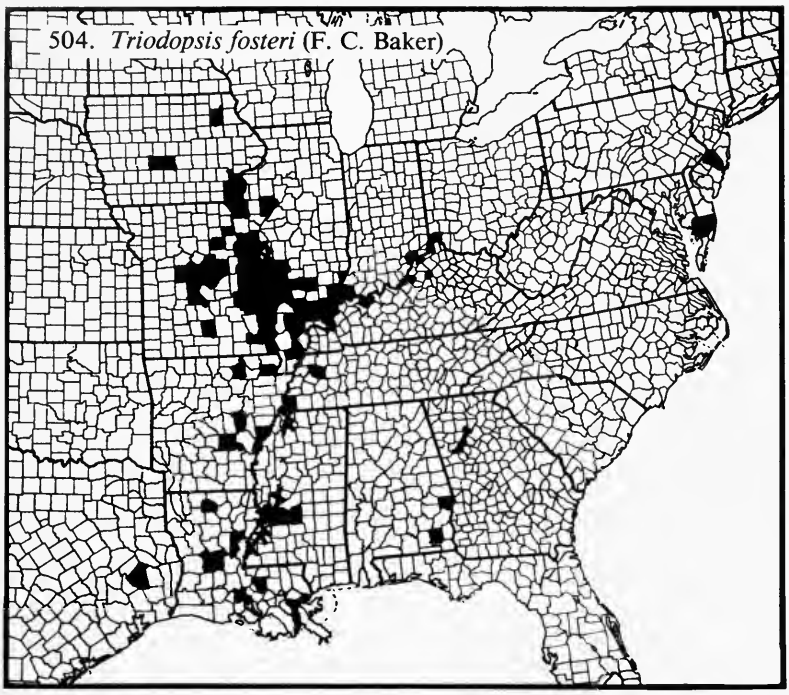

499. *Triodopsis henriettae* (Mazyck)

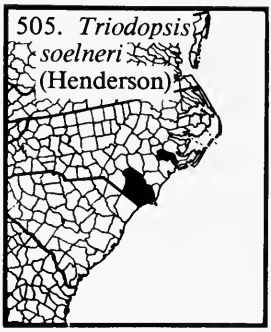

500. *Triodopsis albolabris* (Say)

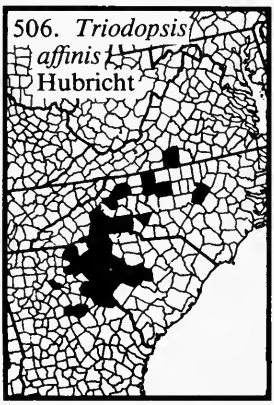

501. *Triodopsis major* (A. Binney)

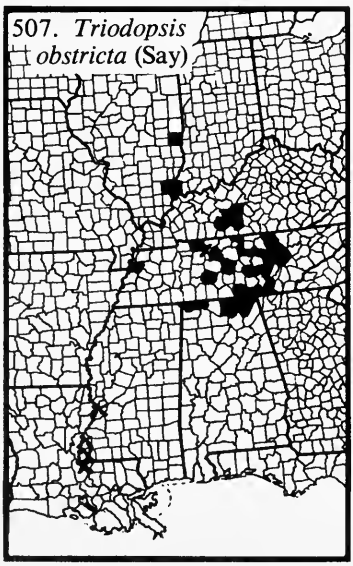

502. *Triodopsis messana* Hubricht

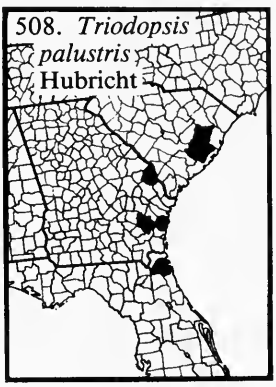

503. *Triodopsis obsoleta* (Pilsbry)

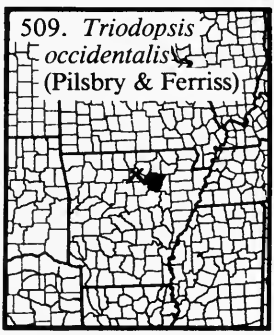

504. *Triodopsis fosteri* (F. C. Baker)

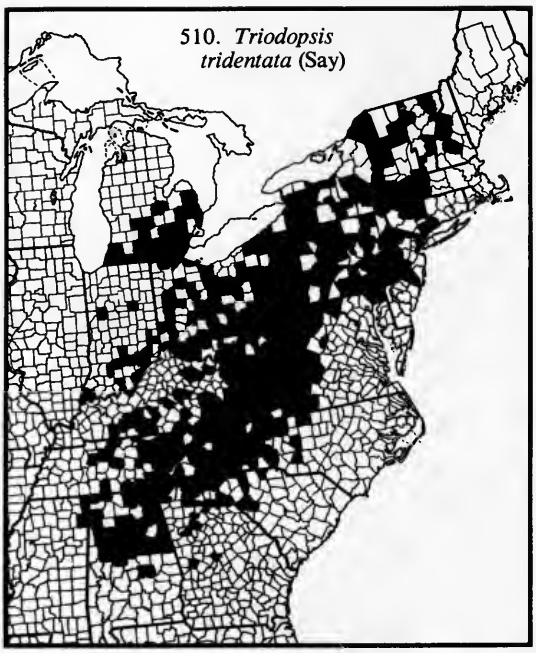

505. *Triodopsis soelneri* (Henderson)

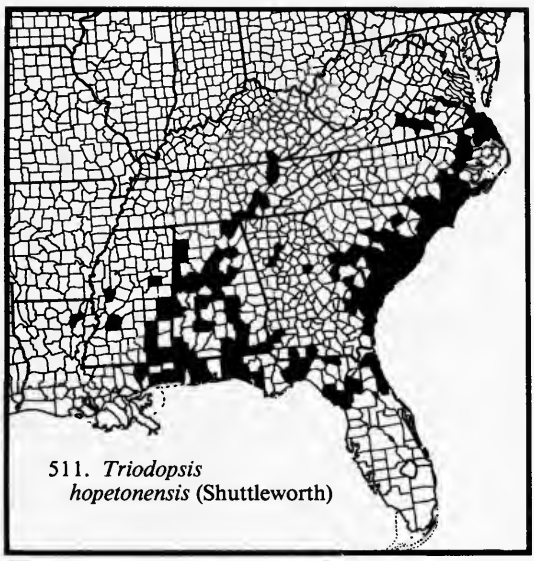

506. *Triodopsis affinis* Hubricht

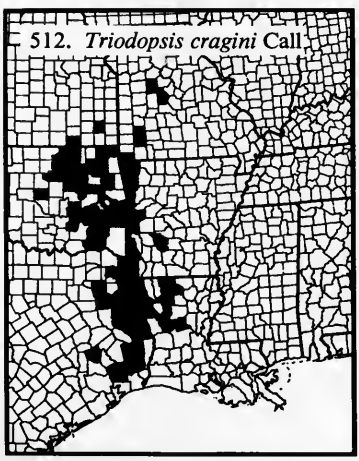

507. *Triodopsis obstricta* (Say)

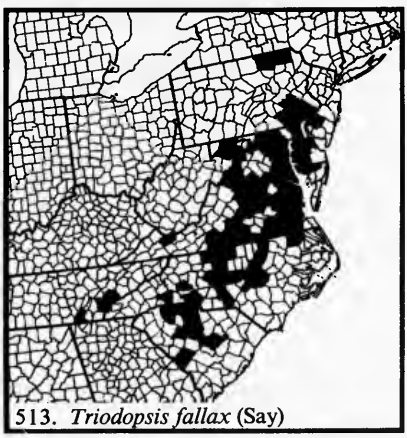

508. *Triodopsis palustris* Hubricht

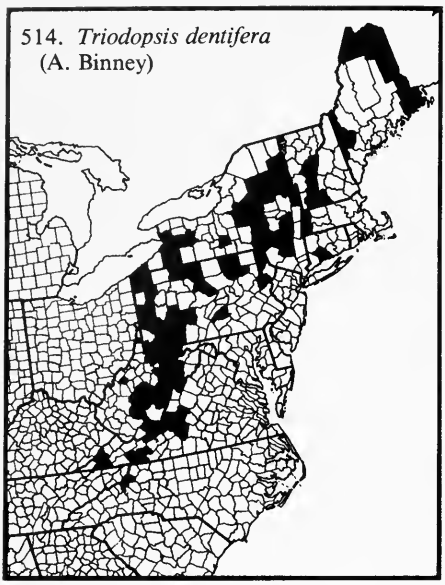

509. *Triodopsis occidentalis* (Pilsbry & Ferriss)

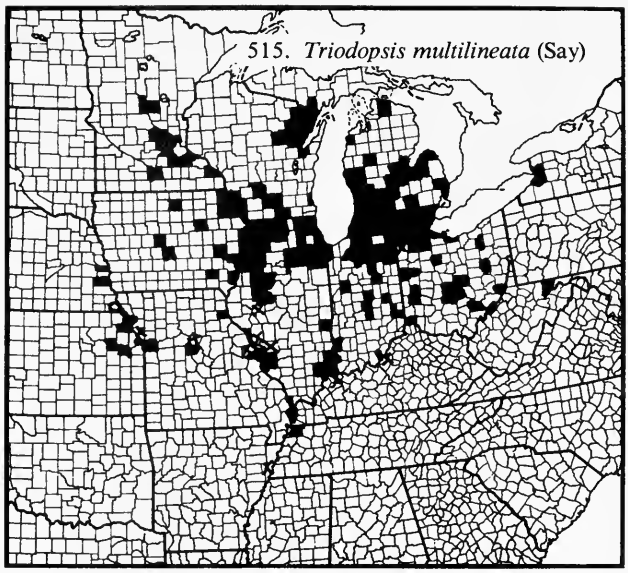

510. *Triodopsis tridentata* (Say)

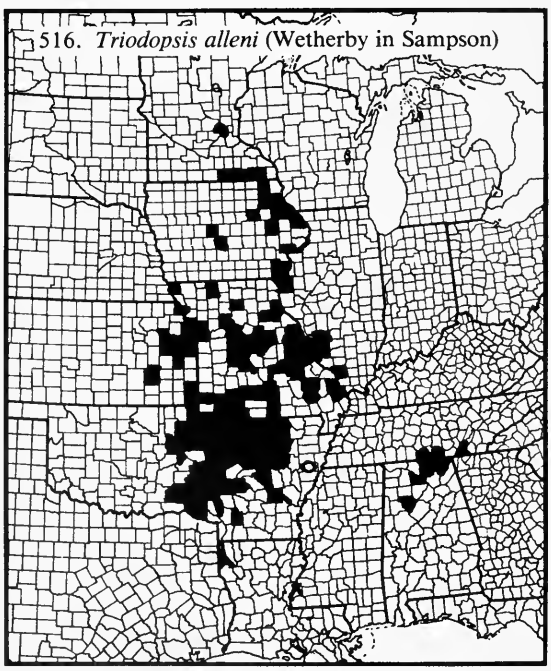

511. *Triodopsis hopetonensis* (Shuttleworth)

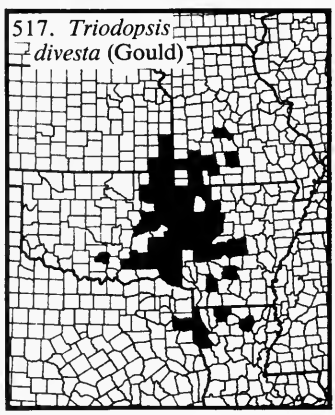

512. *Triodopsis cragini* Call

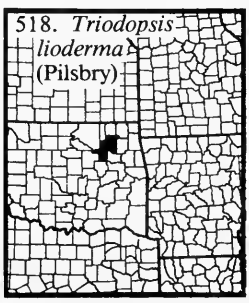

513. *Triodopsis fallax* (Say)


514. *Triodopsis dentifera*
(A. Binney)

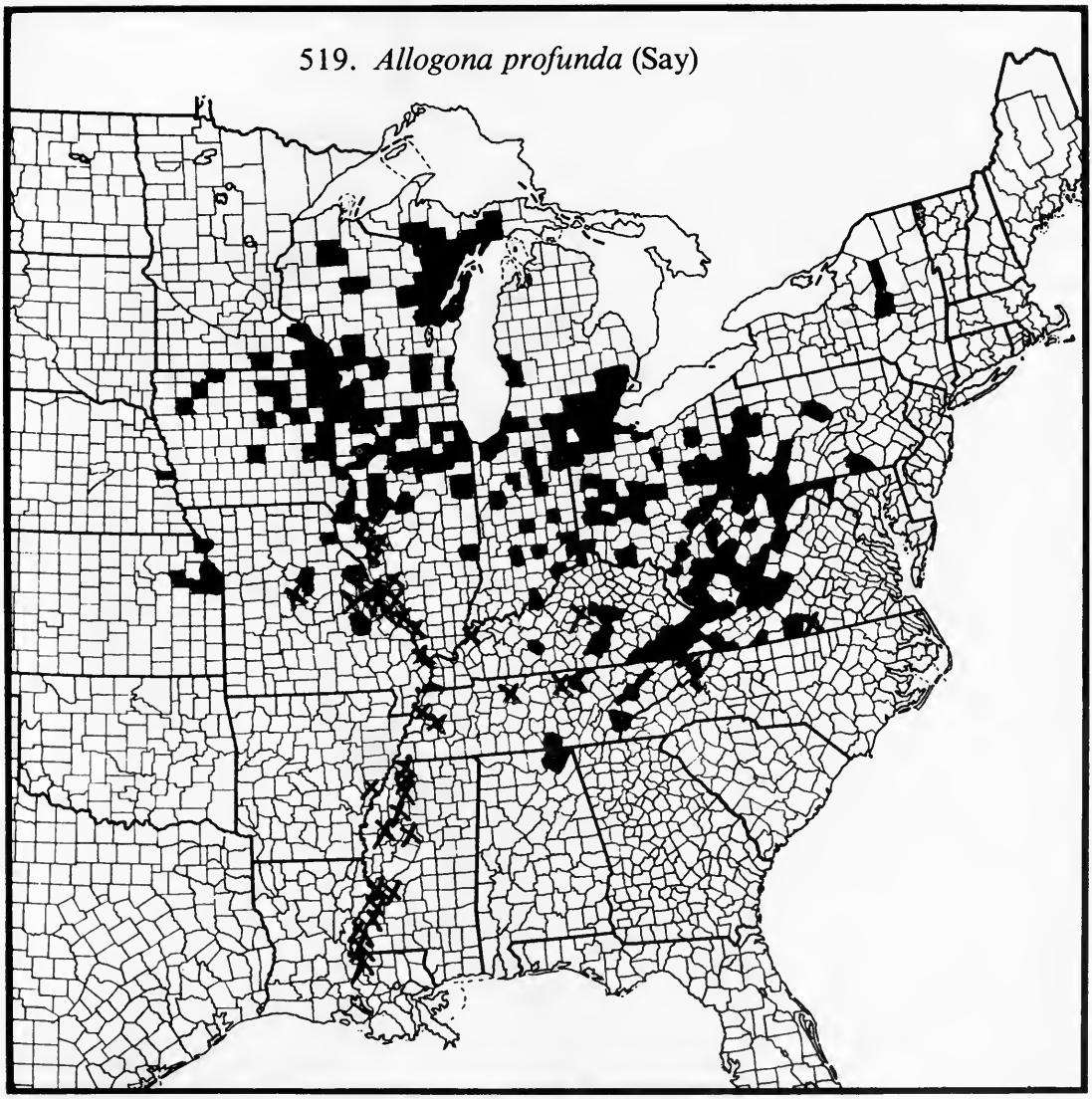

515. *Triodopsis multilineata* (Say)

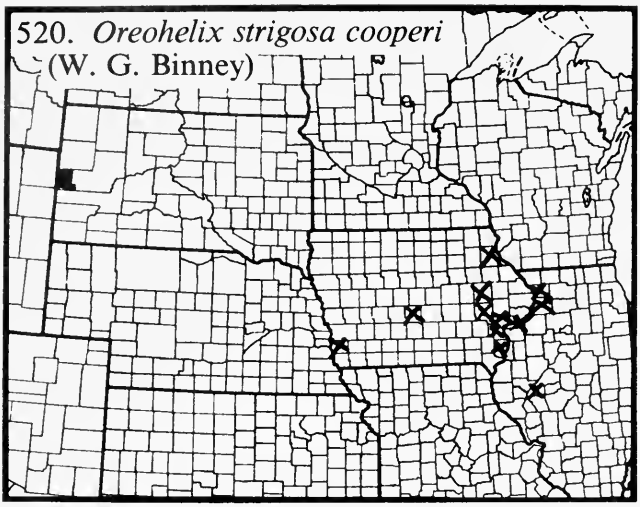

516. *Triodopsis alleni* (Wetherby in Sampson)

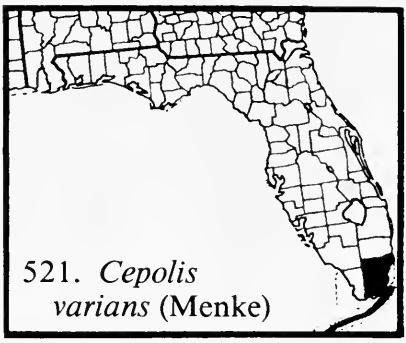

517. *Triodopsis divesta* (Gould)

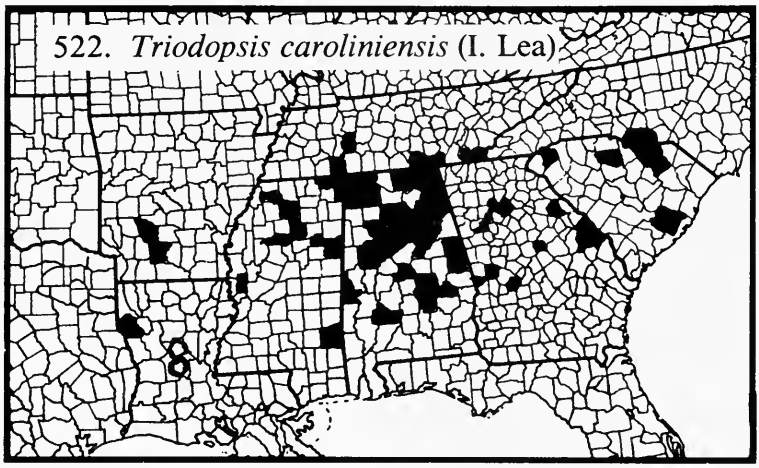

518. *Triodopsis lioderma*
(Pilsbry)

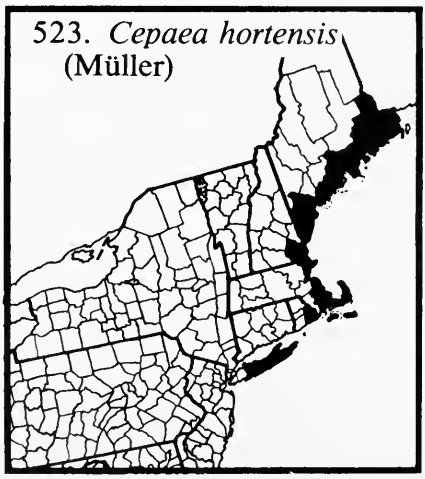
519. *Allogona profunda* (Say)




520. *Oreohelix strigosa cooperi*
(W. G. Binney)


521. *Cepolis*
varians (Menke)


522. *Triodopsis caroliniensis* (I. Lea)


523. *Cepaea hortensis*
(Müller)

Index

All references to map numbers are in **boldface;** to text pages, in regular type. Subspecies, forms, and synonyms are listed in regular type, with their synonymy following in parentheses. All recognized species are listed in *italics.*

Field Museum of Natural History
Roosevelt Road at Lake Shore Drive
Chicago, Illinois 60605-2496
Telephone: (312) 922-9410