# GEOLOGIC NOTES 

## DIVISION OF GEOLOGY

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# OF GEORGIA AND THE CAROLINAS 

Br
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## DISCUSSION

Late Miocene marine deposits of Georgia, South Carolina and North Carolina generally are considered to comprise the Duplin formation. Deposits in Florida, possibly contemporaneous with the Dupling are termed the Choctawhatchee formation in the Panhandle and the Tamiami formation in southern Florida. In northern North Carolina, Virginia and southern Maryland late Miocene marine deposits are referred to the Yorktown formation Which is thought tobe, at least in part, equivalent to the Duplin formation. Actually, the precise stratigraphic relationship among these four formations has not beEn' determined.

Preliminary to a detalled stratigraphic-paleoecologic study of the Duplin formation the authors compiled a check list of Duplin molluscan species that have been reported in the literature from Georgia and the Carolinas. Previously, the most comprehensive list of Duplin mollusks was published by Dall (1903). Since that time many additIONAL SPECIES have been reported from various localities and by Varioue paleontologists. The present authors have Attempted to eliminate the obvious synonyms and to bring UP-TO-DATE THE NOMENCLATURE.

In preparation of the check list only those LOCALITIES WERE CONSIDERED WHICH, ON THE BASIS OF THE FAUNA AND OTHER PUBLISHED STRATIGRAPHIC DATA, APPEAR TO clearly represent equivalent deposits of late Miocene age (DUPLIN formation).

Supplementary to study of the literature, the AUTHORS MADE AND EXAMINED LARGE COLLECTIONS FROM THE TYPE locality of the duplin formation at Natural Well, near Magnolia, North Carolina, and from the north bank of Lake Waccamaw, Columbus County, North Carolina.

The check list includes 238 species and.subspecies of pelecypods, 357 species and subspecies of gastroPODS, 7 SPECIES AND SUBSPECIES OF SCAPHOPODS, AND 1 AMphineurid species; a total of 603 species and subspecies.

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## KEY TO REFERENCES CITED IN THE DUBLIN <br> MOLLUSCAN CHECK LIST

SYMBOL

## REFERENCE

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MS

MB

R

S

V

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| Pelecypoda | REFERENCES |
| :---: | :---: |
| Agra aequalis Say | D, G, G1, M8 |
| Abra aequalis deltoidea Gardner |  |
| AlIgena ampuata Conrad | D, G1, M8 |
| ALIGENA MINDR DALL | D, G1 |
| ALIGENA RHOMBO, DEA GARDNER | G |
| AMUS, UM MORTONI (Ravenel) | D, M1, M8 |
| ANADARA CALLICESTOSA (DALL) | M8 |
| ANADARA CALL L CESTOSA W,ILSONI GARDNER | G |
| ANADARA CARDLINENSIS (WAGNER) | D, G, G1, R |
| ANADARA IMPROCERA (CONRAD) | $D, G 1, M 8, R, V$ |
| ANADARA IMPRDCERA BUCULA (CONRAD) | D, G1 |
| ANADARA LIENOSA (SAY) | D, G, G1, M8, R |
| AnADARA MAGNOL IANA GARDNER | G |
| AnADARA PLLICATULA (CONRAD) | R |
| ANADARA PLICATURA (CONRAD) | D |
| ANADARA SCALARIS (CONRAD) | D, G, G1, M8, R |
| AnAdARA SUBROSTRATA (Conrad) | D |
| ANGULUS DUPLINIANA DALL | D |
| ANGULUS MACILENTA DALL | D |
| Angulus Propetenella Dall | D |
| ANGULUS UNBRA DALL | D |
| ANISODONTA GAROLINA DALL | D, G1 |
| Anomalocardia dupliniana Dall | D |
| ANOMIA SIMPRLEX D'ORBIGNY | D, M8, R, V |
| Arca iriginitaria Conrad | R |
| ASAPHIS GENTENARIA (CONRAD) | D, M8 |
| ASTARTE GONGENTRICA CONRAD | D, G, G1, R, |
| ASTARTE CONGENTRIGA EELLA CONRAD | R |
| ASTARTE CDNCENTRICA CONRADI GARDNER | G |
| ASTARTE DISTANS FLORIDANA DALL | $V$ |
| ASTARTE GLENNI DALL | G1 |
| ? Astarte lyyrata Conrad | D |
| ASTARTE OERUTA CONRAD | R |
| ASTARTE UNDULATA SAY | D, G, G1, R, V |
| ATR,INA SP. | M8 |
| ATRINA HARRISII DALL | D |
| Barbatia centenaria say | D |
| BARBATIA PROPATULA CONRAD | D, G, M8 |
| Barbatia leonensis Mansfield | M8 |
| Bornila rota Dall | D, G1 |
| Bornia IRIANGULA DALL | D, G, G1 |
| CARDITA ARATA (Conrad) | D, G, M8 |
| CARDITA GRANULATA (SAY) |  |
| [ $=$ VENERIGARDIA GRANULATA (Say)] | D, G1, M8, R, V |
| Carditia perplana (Conrad) | D, G, V |
| [= GLANS PERPLANA (Conrad)] |  |
| Cardita perplana abrreviata (Conrad) | D, G, G1, M8 |
| CARDITA TRIDENTATA (SAY) |  |
| [=GLANS TRIDENTATA (SAY)] | D, G, R, V |

CARDITA TRIDENTATA DECEMCOSTATA (CONRAD)
CARDIUM ACUTILAQUEATUM CONRAD
CARDIUM LAQUEATUM CONRAD
CARYOCOREULA BARRATTIANA LEONENSIS
MANSFIELD
CARYOCDRBULA CONRADI RETUSA (GARDNER)
CARYOCORBULA CUNEATA (SAY)
CARYOCORBULA INAEQUALIS (SAY)
CERASTODERMA ACUTILAQUAETUM (CONRAD)
CHAMA CONGREGATA CONRAD
CHAMA CDRTICDSA CONRAD
CHAMA GARDNERAE OLSSON \& HAREISDN
[ $=$ CHAMA STRIATA EMMONS]
CHI ONE CRIBRARIA CONRAD
CHIDNE GRUS HOLMES
CHIONE LATILIRATA CONRAD
CHIDNE LATILIRATA ATHLETA CONRAD CHLAMYS EBDREUS (CONRAD)
CHLAMYS EBOREUS DARLINGTONENSIS DALL
CHLAMYS EDGECOMBENSIS CONRAD
CHLAMYS UEFFERSDNIUS (SAY)
CHLAMYS JEFFERSONIUS SEPTENARIUS SAY
CHLAMYS COMPARILIS TUOMEY \& HOLMES
CODAKIA MAGNOLIANA DALL
CODAKIA SPECIDSA (ROGERS)
COOPERELLA CARPENTERI DALL
CORBICULA DENSATA (CONRAD)
CRASSINELLA DUPLINIANA DALL
CRASSINELLA LUNULATA (CONRAD)
CRENELLA DUPLINENSIS DALL
CTENA MAGNDLIANA (DALL)
CTENA MICROIMBRICATA GARDNER
CTENA SPECIDSA (ROGERS \& ROGERS)
CUMINGIA MEDIALIS CONRAD
CUSPIDARIA SP. AFF. CUSPIDARIA DRNATISSIMA D'ORBIGNY
CYRENA DUPLINIANA DALL
DINDCARDIUM RDBUSTUM (SOLANDER)
DIPLODONTA ACCLINIS (CONRAD)
DIPLODONTA LEANA DALL
DIPLODONTA SP. AFF. DIPLODONTA LEANA DALL
DIPLODONTA NUCLEIFORMIS WAGNER
DIPLODONTA SORDR (C.B. ADAMS)
DIVARICELLA QUADRISULCATA (D'ORBIGNY)
DONAX AEQUILIBRATA DALL
DONAX CUNEOLA GARDNER \& ALDRICH
DDNAX EMMONSI DALL
DONAX EMMONSI PREAQUILIBRATA GARDNER
DONAX FOSSOR SAY
DOSINIA ELEGANS CONRAD
ECHINDCHAMA ARCINELLA (LINNE)
ENSIS DIRECTUS (CONRAD)

G, G1, M8
D, G1
D
M8
G
D, G1
D, G1, M8, R, V
G
D, M8
D, G, G1, R
D, $G, G 1, M 8, R$
D, G, G1
D, G, G1, M8
D, R
G1, M8, V
$D, G, G 1, M 1, R$
M1, M8
D
G, V
$D, G, M 1, M 8, V$
M8
D, M8
D, G1
D, G
G
D, G, G1, M8, V
$\mathrm{D}, \mathrm{G}, \mathrm{G} 1, \mathrm{M} 8$
D
G
G
G
D
G1
G1
D
D, G1, M8
G
G1
D, G1
G
D, G1, M8, R
D
G1
D, G, G?
G
D, G, M8
D; G, G1, M8
D, G1, M8, R

Ensis ensiformis Conrad
ERVILIA LATA DALL
Ervilia lata radiata gardner
ERYCINA GAROL INENSSIS DALL
ERYCiNA REGIFICA OLSSON
EUCRASSATELLA PSYCHOPTERUS (DALL)
[= CRASSATELLITES PSYCHOPTERUS DALL]
EUCRASSATELLA SPECIDSA A. ADAMS
[ $=$ CRASSATELL ITES GIBBESSIII (TuOMEY \& Holmes)]
Eucrassatella undulatus (Say)
[ $=$ CRASSATEL LTES UNDULATUS SAY]
FOSSULARCA ADAMSI SMITH
GASTROCHAENA CUNEIFORMIS SPENGLER
GASTROCHAENA LIGUA H. C. LEA?
GEMMA MAGNA DALL
GEMMA MAGNA INSULCATA GARDNER
GEMMA TRIGONA DALL
GLYCYMERIS SP.
GL Y Y, YMERIS AMERICANA (De France)
GLYCYMERIS DUPLINENS,IS DALL
GLYCYMERIS PECTINATA (GMELIN)
GLYGYMERIS PENNACEA LAMARCK
GLYCYMERIS PLAGIA DALL
GLYCYMERIS SUBOVATA (SAY)
GOULDIA METASTRIATUM (CONRAD)
HEMIMETIS MAGNOLIANA (DALL) [ $=$ METIS MAGNOL IANA DALL]
HINDSIELLLA ACUTA DALL
HINDSIELLA CAROLINENSIS DALL
HINDSIELLLA SP• AFF. HINDSIELLA CAROLINENSIS DALL
HINDSI ELLA GAROLINENSIS COENSIS MANSFIELD M8
ISOGARDIA CAROLINA DALL D D D D D D D D D
ISOCARDIA FRATERNA SAY D
LABIDSA LINEATA SAY
LAEVICARDIUM SUBLINEATUM (CONRAD)
LIMA GAROLINENSIS DALL
MACOMA GAROLINENS 13 Gardner \& ALDRICH
MACOMA CONRADI DALL
MACOMA HOLMESII DALL
Macrogallista emmonsi Gardner
MAcROGALLISTA REPOSTA CONRAD
Margaritaria abrupta Conrad
MERCENARIA COMPECHIIENS,IS (GMELIN)
MERCENARIA CAMPECHIENSIS CAROLINENSIS (CONRAD)
MERCENARIA GAMPEGHIENSIS RILEYI CONRAD
MERCENARIA MERCENARIA (L1NNE)
MERCENARIA PLENA CONRAD
MERCENARIA IRIDACNOIDES LAMARCK

D
D, G, M8
G
D, G, G1
OLSSON

D

D, M8, R
D, G1, R
D, G1, M8
G1
D, M8
D, G, G1, M8
G
D, G1
$V$
D, G1, M8, R
D, G1
D, M8, R
D
D
D, G1, M8, R
D, G1, M8
D, G1, M8
D, G1
D
G1

G1
$D, G, G 1, R$
D, M8
G, G1
D
G1
G
D, G, G1
D
n, $R$
M8
G, G1, R
R
D
D, R, V

MODIOLARIA CAROLINENSIS DALL
MODIOLARIA DUCATELI CONRAD
?MODIOLAR,IA GIGANTOIDES OLSSON
?MODIOLUS PULCHELLUS OLSSON
MULINIA CONGESTA (CONRAD)
MULINIA CONGESTA MAGNOLIANA (DALL)
MULINIA LATERALIS SAY
MULINIA MILESII HOLMES
?MYA ARENARIA LINNÉ
MYSELLA STANTONI (DALL)
MYTILUS CONRADIANUS D'ORBIGNY?
NOETI,A INCILE (SAY)
NOETIA LIMULA CONRAD
NOET,IA VARIABILIS (MACNEIL)
NUCULA LAPTERIA DALL
Nugula proxima Say
NUCULA TAPHRIA DALL
NUCULANA ACUTA CONRAD
[ $=$ LEDA ACUTA CONRAD]
NUCULANA HYPSOMA (DALL)
[ $=$ LEDA HYPSOMA DALL]
NUCULANA TROCHILISA DALL
[= LEDA TROCHILIA DALL]
Nuculana
[= LEDA TROCHILLIA CDENSIS MANSFIELD]
NUCULANA TROCHILIA HAMLINENSIS MANSFIELD
[= LEDA TROCHILIA HAMLINENSIS MANSFIELD]
OSTREA COMPRESSIROSTRA SAY
OSTREA DISPARILIS CONRAD
OSTREA S,CULPTURATA CONRAD
OSTREA TRIGONALIS CONRAD
PANDORA AREN,OSA CONRAD
PANDORA CRASS,IDENS CONRAD
PANDORA PRODROMOS GARDNER \& ALDRICH
PANDORA TRILINEATA SAY
PANDORA TUOMEYI GARDNER \& ALDRICH
PANDORA REFLEXA (SAY)
PAPYRIDEA SEMISULCATA GRAY
Paramya subovata Conrad
PECTEN RAVENELI DALL
PETRICOLA CAROLINENSIS CONRAD
PH,COLDES AND,DONTA (SAY)
PHACOIDES CRIBRARIUS (SAY)
PHACOIDES CRENULATUS (CONRAD)
PHACOIDES DENSATUS CONRAD
PHACDIDES MULTILINEATUS (TUOMEY \& HOLMES)
PHACOIDES RADIANS (CONRAD)
PHAGOIDES TRISULCATUS (CONRAD)
PHACOIDES TRISULCATUS MULTISTRIATUS
(CONRAD)

D
D
D, $R$
0
0
$D, G, G 1, M 8, R, V$
G, G1
D
D
G1
G
D, G1, M8, R
D, G1, M8
D, R
R
G1
G, G1, M8, V
D, M8
D, G1, R, V

G1
M8

M8
D8, G1, V
M8,
D, G1, M8, R, V
D
D, G1, M8
D
G 1
D
G, G1
D, G1, M8
D
D
G
D, G
D, G1, M8, R, V
$D, G, G 1, M 8$
D, M
$D, M 8$, $R$
D
G, G1, M8, V
D, G1, V
G1, R
D, G, G1, M8

Phacoides tuomeyi Dall
PITAR SAYANA (CONRAD)
[= CALLOCARDIA SAYANA (Conrad)]
Pitaria filosina Dall
placunanomia plicata Tuomey \& Holmes
PLICATULA MARGINATA SAY
PSAMMACOMA HOLMESII DALL
PSEUDAMUSIUM SP.
PSEUDOCYRENA DUPLIN,IANA DALL
PTERIA COLYMBUS BOLTEN
RANGIA CLATHRODONTA CONRAD
ROCHEFORTIA STANTONI DALL
ROCHEFORTIA STIMPS,ON,I,DALL
SAXIGAVA ARGTICA LINNE
SEMELE GARINATA CONRAD
SEMELE NELLIANA OLSSON
SEMELE SUBOYATA (SAY) DALL
SEMELE SUBOVATA APPRESSA DALL
SEMELE SUBOVATA DUPLINENSIS DALL
SEMELE (SEMELINA) NUCULOIDES (CONRAD)
SPHENIA DUBIA H. C. LEA
SPISULA CONFRAGOSA (CONRAD)
SPISULA CURTIDENS DALL
SPISULA DUPLINENSIS DALL
SPISULA HARRISI OLSSON
SPISULA MAGNOLIANA DALL
SPISULA MODICELLA ALTA GARDNER
SPISULA SIMILIS (SAY)
SPISULA SUBPARILIS CONRAD
SPORTELLA GALPIX GARDNER
SPORTELLA CONSTRICTA (CONRAD) DALL
SPORTELLA PROTEXTA (CONRAD)
STRIGILLA SP. (FRAGMENT)
Strigilla eutykta Gardner \& Aldrich
STRIGILLA ELEXUOSA SAY
TAGELUS GAROLINENSIS CONRAD
TAGELUS PLEBEIUS SOLANDER
[ $=$ TAGELUS GIBBus SPENGLER]
TELLINA AEQUISTRIATA SAY
TELLINA ARCTATA CONRAD
TELLINA DECLIVISS SAY
TELLINA DUPLINIANA DALL
TELLINA LINTEA CONRAD
TELLINA MACILENTA DALL
TELLINA UMBRA DALL
Thracia conradi Couthouy
THRACIA IRANSVERSA H. C. Lea
TrACHYCARDIUM ISOCARDIA CONRAD
TRACHYGARDIUM MURICATUM (LINNÉ)
TRACHYGARDIUM DEDOLIUM HARVEYENSE (MANSFIELD)
Transenella caloosana Dall
TRANSENELLA CAROLINENSIS DALL

D, G1, M8
D, G, G1
D, G1
D, M8, V
D, G, G1, M8, R, V
D
V
D
V
D, R
D, G1
D, G1
D, G1
D, G1
0
G
D, G1
D, G1
D, G, G1, M8
D, G1
G1
D
D, G
0
D
D
G
G
D, G1
G
$\mathrm{D}, \mathrm{G}, \mathrm{G1}, \mathrm{M} 8$
$\mathrm{D}, \mathrm{G1}, \mathrm{M} 8$
$V$
G1, M8
D
D

G1
G1, M8
D
R
G, G1
D
G, G1, M8
G1, V
G
G1
D
G
G1, M8
V
D, G1, M8

Trigoniocardia media (Linné)
TUGONIOPSIS COMPACTA DALL
VARICORBULA CALDOSAE (DALL)
[= CORBULA CAL ODSAE DALL]
G1
VERTICORDIA (TRIGONULINA) EMMONSII CONRAD
D, G, G1 YOLDIA LAEVIS (SAY) CONRAD

G, G1

## GASTROPDDA

ACTEON SP. CF. ACTEON SHLLOHENSIS WHITFIELD G1
ACTEON VAUGHANI MANSFIELD M3
ADEORBIS CONGAVUS H.C. LEA D
ADEORBIS HOLMESII DALL D
ADEORBIS LEAI DALL D
ADEORBIS ORBIGNYI FISCHER D
ADEOREIS SUPRANITIDUS S. WOOD D
AESOPUS STEARNSII (TRYON) G
ANACHIS ANOMALA GARDNER \& ALDRICH G1
ANACHIS AVARA AMYDRA (DALL) G
ANACHIS CAMAX DALL G1
ANACHIS CAMAX GOENSIS MANSFIELD M3
?ANACHIS INTERRUPTA CONRAD D
ANACHIS DBESA (C.B. ADAMS) G
ANACHIS STYL, IOLA (DALL) D, G
ANACHIS S STYL, SLA OBSOLETA GARDNER \& $\quad$ GRICH G1
Anachis sumterensis Gardner \& Aldrich G1
ArGhitectonica nobilis "Bolten" Roeding D, G, G1, M3
ARCHITEGTONICA NUPERA (CONRAD) G?
ASTYRIS COMMUNIS CAROLINENSIS GARDNER \& $\quad$ G1
ASTYRIS LUNATA (SAY) G1
ASTYRIS SP. D
BITTT, I, MM ANNET,TAE DALL D
BUSYCON AMDENUM CONRAD G
BUSYCON ELADENENSE GARDNER G
BUSYCON CONCINUM CONRAD G1
BUSYCON GORONATUM CONRAD D, R
BUSYCON MAX,IMUM CONRAD $\quad D, G 1, R$
BuSYCON PERVERSUM (LINNÉ)
BUSYCON PERVERSUM ROBESONENSE GARDNER
BUSYCON PYRUM EXCAVATUM CONRAD G1
BUSYCON PYRUM INCILE CONRAD D
BUSYCON RAPUM (HEILPRIN) M3
BUSYCON RUGOSUM CONRAD D
CAECUM COMPACTUM DALL
CAECUM CDOPERIS. SMITH D, G1, M3
CaEgum goronellum Dall ..... DCAEGUM FLEMINGI GarDNER \& ALDRICH
G, G1CAECUM FLORIDANUM STIMPSON
CAEGUM IBEX DALL
CaEgum stevensoni Meyer
CAECUM TORTILE DALLCalliostoma sp. aff. C. aluminum Dall
Calliostoma arnillatum tuomey \& HolmesCALLIOSTOMA SP. AFF. C. 日ELLUM (CONRAD)CALLIOSTOMA CYCLUS DALL
CALLIDSTOMA DISTANS CONRADD
D, G1GD
CALL iostoma eliminatum Dall
CALLIOSTOMA MITCHELLI CONRAD
CALLIOSTOMA PHILANTHROPUS CONRAD
CALL. IOSTOMA RUFFINI H. C. LEAG1G1, VG1DCALLIOSTOMA VIRGINICUM CONRADCALLIDSTOMA SP. AFF. C. WILLGOXIANUM DALLCALYPTRAEA CENTRALIS (CDNRAD)
CALYPTRAEA TROCHIFORMIS LAMARCK
CANGELLARIA LUNATA CONRADCANCELLARIA PERSPEGIIVA COVRADCANCELLARIA ROTUNDA DALL
Cancellaria tabulata Gardner \& AldrichCancellaria venusta tuomey \& HolmesDDD, VDDDD, G1?D, G1, M3DDCancellaria propeyenusta MansfieldDCANTHARUS SP. AFF. CANTHARUS FLORIDANA(CONRAD) $\quad[=$ MURICIDES SP.AFF.Muricides eloridana (Conrad)]G1
CASSIS HODGEI CONRAD ..... G1
CERITHIOPSIS EMERSONII PERSUBULATA GARDNER ..... G
CERITHIDPSIS EMMDNSI CONRADD
CERITHIDPSIS SP. AFF. CERITHIOPSIS GREENEI (C.B. ADAMS) ..... G1
CERITHIDPSIS Subulata Montagu ..... D, G1
CERDDRILLIA SIMPSONI (GARDNER)
[= "DrILLIA" SIMPSDNI GARDNER]GCERODRILLIA SIMPSONI CINGULATA (GARDNER)$[=$ "DRILLIA" SIMPSDNI CINGULATAGARDNER]G1
Cirqulus schmidit Olsson ..... 01
"CiRCULUS" (?SUPRA-NITIDUS WOOD SUBSP.)OREIGNYI (FISCHER)G
?CLATHRODRILLIA EMMONSI (OLSSON) ..... M3
CLAVATULA CORNELLIANA (OLSSON) ..... G
COCHLIOLEPIS NAUTILIFORMIS HOLMES ..... D
COCHLIDLEPIS SIRIATA STIMPSON ..... DCOCHLIDLEPIS SP. AFF. COCHLIOLEPISSTRIATA STIMPSONG1

Colubraria aclinica Tucker \& Wilson
Colubraria leona Mansfield
G

- M2

COMPSODRILLIA DREWI (GARDNER)
[ $=$ "DRILLLIA" DREW! GARDNER]
CONUS ADVERSARIUS CONRad
CONUS ELORIDANUS GABB
CONUS MARYLANDICUS GREEN
CREPIDULA ACULEATA COSTATA MORTON
CREPIDULA A QULEATA SPINOSA CONRAD
CREPIDULA FORNIGATA (LINNE)
CREPIDULA EORNIGATA PONDEROSA H. C. LEA
CREPIDULA FORNICATA ROSTRATA CONRAD
CREPIDULA PLANA SAY
CRUCIBULUM AURIGULUM SPINOSUM SOWERBY
CRUCIBULUM AURICULUM IMBRIGATUM SOWERBY
CRUCIBULUM CONSTRICTUM CONRAD
CRUGIBULUM COSTATUM SAY
CRUCIBULUM GRANDIS SAY
CRUCIBULUM MULTILINEATUM (CONRAD)
CYCLOSTREMELLA MAGNOLIANA OLSSON
CYLICHNA DUPLINENSIS (DALL)
CYLIGHNINA MIGROTREMA DALL
CYMATOSYRINX LUNATA (H. C. LEA)
G
D, G1, M3, R
R
D, G1
G1, M3
M3
D, G1, R
M3
M3
D, G1, M3, R
D, G1, R
G1, M3
D, G1, R
D, R
R
$\mathrm{D}, \mathrm{G1}, \mathrm{M} 3$
D, G
D
M3
CYMATOSYRINX PERPOLITA (DALL) [= DRILLIA PERPOLITA DALL]
Cymatosyrinx tiara gardner
Cymatosyrinx ziozac Gardner
CYPRAEA CAROLINENSIS CONRAD
DIODORA GATELLIFORMIS ROGERS
DIDDORA GHIPOLANA DALL
DIODORA FLORIDANA GARDNER
[=DIDDORA CAROLINENSIS (CONRAD)]
DIODORA NUGULA DALL
DIDDORA SP.
?DORSANUM PLICATILUM (BOSE)
"DRILLLIA" EGPHORAE OLSSON
"DriLLLIA" ELEGANS EMMONs
"DRILLIA" EMMONSI OLSSON
"Dr.ILL.IA" FLEXUOSA EMMONS
"DRILLLIA" GASTROPHILA OLSSON
"DrILLIA" LIMATULA LEA
"DRILLIA" MAGNOL LaNA OLsSON G
"Drill IA" MAGNOL,IANA OLSSON
"Drilllia" mcgrawensis Olsson
"DRILLIA" POLYGONALIS DALL
"DRILLIA" PRECURSOR GARDNER
"Drillia" sumterensis Gardner
"DRILLLIA" IRICATENARIA CONRAD
"DRILLA" GRMA G1
"Drillida" tuberculata Emmons
"DRILLIA" VIRGINIANA CONRAD D

ECPHORA QUADRICOSTATA SAY
EPISCYNIA MULTICARINATA STIMPSON
EPITONIUM CAROLINAE GARDNER EPITONIUM FASCIATUM GARDNER
EPITONIUM JUNCEUM GARDNER
EPITONIUM SP. AFF. EPITONIUM LINEATUM SAY EPITONIUM LINEATUM MAGNOLIANA (OLSSON) EPITONIUM MULDROWI GARDNER \& ALDRICH EPITONIUM PRATTI GARDNER
EPITONIUM ROBESONENSE GARDNER

## ERATO MAUGERIAE GRAY

ETHALIA ALEXANDERI OLSSON
EUNATIGINA GAROLINENSIS DALL
FASCIDLARIA ACUTA EMMONS FASCIOLARIA APICINA DALL FASCIDLARIA ELEGANS EMMONS FASCIOLARIA RHOMBDIDEA ROGERS FASCIDLARIA SPARROWI EMMONS FENIMOREA PAGODULA (DALL)
[ $=\mathrm{DR}, \mathrm{LLIA}$ PAGODULA DALL]
FICUS PILSERYI DUPLINENSIS (SMITH)?
FOSSARUS LYRA CONRAD
FUSINUS CALOOSAENSIS CAROLINENSIS DALL FUSINUS EQUALIS (EMMONS)
FUSINUS EXILIS (CDNRAD)
FUSINUS HEILPRINI GARDNER
FUSINUS LAMELLOSUS (EMMONS)?
GELASINOSTOMA SP. AFF. GELASINOSTOMA
ELEGANTULA (DALL) $\quad$ COLLONIA SP.
AFF. COLLONIA ELEGANTULA DALL]
GIBBERULINA DAGRIA (DALL) $[=$ CYPRAEOLINA
DACRIA (DALL)]
GIEBERULINA LACHRIMULA (GOULD)
$[=$ CYPRAEOLINA LACHRIMULA (GOULD)] G
GIBBULA AMERICANA DALL
GLYPHOSTOMA JOHNSONI DALL
CLYPHOSTOMA ZOSTER GARDNER
GLYPHOSTOMA ZOSTER MANSEIELDI GARDNER GLYPHOSTOMA ZOSTER PHROUDON GARDNER KURTZIELLA ERITIMA (BUSH) LEMINTINA GRANIFERA (SAY)
[=SERPULORBIS GRANIFERA (SAY)]
LEMINTINA GRANIFERA TENERA (DALL)
LOT1A (ARENE) GEMMA TUOMEY \& HOLMES LIOTIA (ARENE MAJOR GARDNER \& ALDRICH LTTORINA IRRORATA (SAY)
[=LITTORINA CAROL INENSIS CONRAD]
LITTORINA LINEATA EMMONS
LONGGHAEUS ARENOSUS CONRAD
ONGCHAEUS SP.
MACROMPHALINA DUPL, INENSIS DALL

G1
D, G1, R
D, G1
G
G
G

## G1

## 01

G, G1
G
G
G1
01
G1
D
R
D, R
D, G1, M3, R
D, G, M3, R
G1
S
D, G1
G1
D, R
D, G, G1
G
D
D

G1, M3

D
D, G1
G
G
G
G , G2
D, G, M3: R
D, G
G1
G1
G
D
D
D
D
D
?MACROMPHALINA SP. ..... D
Mangilia harveyensis Mansfield ..... M3
MANGILIA MAGNOLIANA OLSSON ..... 01
MANGILIA SP. AFF. MANGILIA RUBELLA
KURTZ \& StimpsonG1
Marginella antiqua Redfield ..... D, G, G1, R
MARGINELLA ANTIQUA OLIVIFORMIS (TuOMEY \&HOLMES)?
Marginella aureocincta Stearns
G
Marginella avata EmmonsMARGINELLA (VOLVARINA) AVENA AVENACEADESHAYESG1, M3DG
Marginella sp. aff. Marginella avena AVENACEA DESHAYES ..... G1
Marginella bella (Conrad) ..... G1
Marginella borealis Verrill ..... G1
Marginella contracta Conrad ..... D, G1
Marginella denticulata Conrad ..... G, G1
MARGINELLA GRAVIDA DALL ..... G1
Marginella limatula Conrad ..... RMarginella minuta Pfeiffer
G1, M3
Marginella oliviformis Tuomey \& Holmes ..... G1Marginella schmidTI OLSsonMELANOPUS LINEATUS SAY01
G1MELANELLA BARTSCHI GARDNER \& ALDRIch
G1, M3Melanella magnoliana Gardner \& AldrichMitra carolinensis ConradMITRA DALLL GARDNER \& ALDRICHMitra wandoensis (Holmes)MITRELLA LUNATA (SAY)G1, M3D, G1, RG1
G1, M3G
Mitromorpha mitrodita Gardner \& Aldrich ..... G1
MOLLERIA DUPLINENSIS DALL ..... D
MOLLERIA HARRISI OLSSON ..... 01
Murex sp. AFF. Murex burnsli Whitfield ..... G1
Murex cellulosa (Conrad)[=Tritonalia cellulosa (Conrad)]G, G1
MUREX (PTEROYTIS GONRADI DALL ..... G1
MUREX POMUM GMEL IN ..... D
MUREX Salleanus A. Adams? ..... D[-Murex rufus Lamarck Dall]NASSARINA GLYPTA (BUSH)G1
NASSARIUS ARATA (SAY)
[= Llyanassa arata Say] ..... D, G
Nassarius bidentatus (Emmons) [ $=$ UzITA BIDENTATUS (Emmons)] ..... D, G
NASSARIUS CALOOSAENSIS (DALL)$[=$ UZ 1 TA CALOOSAENSIS (DALL)]GNASSARIUS CAL OOSAENSIS CORNELLIANA (OLSSON)$[=U Z, T A$ CALDOSAENS IS CORNELLIANA(0LSSON)]G

Nassarius chowanensis (Gardner)
[=UZ, TA CHOWANENSIS (GARDNER)]
NASSARIUS CDNSENSOIDES (OLSSON)
[=UZ, TA CONSENSOIDES (OLSSON)]
Nassarius consensus (Ravenel)
[=ALECTRION CONSENSUS (RAVENEL)]
NASSARIUS CORNELL IANA (OLSSON)
[-ALECTRION CORNELLIANA (OLSSON)]
NASSARIUS GRANIFERA (CONRAD)
[ $=$ LLYANASSA GRANIFERA CONRAD]
NASSARIUS GRANIFERA SEXDENTATA CONRAD
[= LLYANASSA GRANIFERA SEXDENTATA CONRAD]
NASSARIUS HARPULOIDES (CONRAD)
NASSARIUS IRRORATA (CONRAD) CONRAD G
NASSARIUS JOHNSONI (DALL)
[=ALECTRION UOHNSONI (DALL)] $\quad$ (GASSARIUS NEDGENENSIS (GARER ALDRICH)
$[=$ ULZTTA NEOGENENSIS (GARDNER \& ALDR(CH)]
ALDRICH)] PORCINA SAY]
NASSARIUS PORCINA SAY [= ILYANASSA D
Nassarius scalaspira (Conrad)
[=ALECTRIDN SGALASPIRA (CONRAD)]
NASSARIUS SCHIZOPYGA DALL
[ = ILYANASSA SCHIZOPYGA DALL]
NASSARIUS SMITHIANA (OLSSON)
[=UZ, TA SMITHIANA (OLSSON)]
NASSARIUS VIBEX (SAY)
[ $=\mathrm{UZ}, \overrightarrow{T A}$ VIBEX (SAY)]
NATICA CANRENA (LINNE)
?NISO WILLCDXIANA DALL
ODOSTOMIA SP.
ODOSTOMIA (CHRYSALLIDA) SP.
ODOSTOMIA (EG,LLA) SP.
ODOSTOMIA (EVALEA) SP.
ODOSTDMIA (HEIDA) ATTENUATA DALL
ODOSTOMIA (HEIDA) $S P$. D
OLIVA IDONEA CONRAD
OLIVA LITTERATA LAMARCK
OLIVA ROBESONENSIS GARDNER
OLIVA SAYANA RAVENEL
OLIVELLA ANCILLLARIAEFORMIS LEA
OLIVELLA CAROLINAE GARDNER
OLivella mutica (Say)
PERISTERNIA FILICATA (CONRAD)
PETALOCONCHUS SCULPTURATUS H. C. LEA
PHOS SLOANI GARDNER \& ALDRICH
PISANIA (CALOTOCDNUS) NUX DALL
PLEUROPLOCA GIGANTEA (KIENER)
[ F FASCIOLARIA GIGANTEA KIENER]

G

G, G1

G, G1
G
G, $O$
D, G1
M3, O
D, G, G1
D, G

G

D

G, G1
D, G
G, 01
G, G1
D, G1, M3
G1
D
D
D
D
D
D
D, G1
G
M3, R
D
G
$D, G 1, M 3, R$
G1, M3
G1, M3, R
G1, G, G1
$D, G, G$

PLEURDTOMA GOMMUNIS CONRAD D

M3

$$
\begin{aligned}
& \text { G1, M3, R } \\
& \text { R } \\
& D, G, M 3, R \\
& D
\end{aligned}
$$

ROGERS
PTERORHYTIS UMBRIFER CONRAD
PTYCHOSALPINX LAQUEATUM CONRAD G1
PTYCHDSALPINX MULTIRUGATA CONRAD. D, G
PTychosalpinX TUOMEYI (H. C. Lea) G
PYRGISCUS $\ldots 6$ SPECIES D
PYRG,SGUS PROTRACTA $\quad D$
RETUSA CANALICULATA (SAY)
$[=$ TORNATINA CANALICULATA (SAY)] D
RETUSA MYRMECDON (DALL)
[=TORNATINA MYRMECDON (DALL)] D, G1
RISSSA GERAEA DALL D
RISSOINA JOHNSONI DALL
RISSOINA TERSA MANSFIELD M3
D, G1
SCALA ... 5 SPECIES
Scala gurta Emmons
SCALA DUPLIANA OLSSON
SCALLA MULT,STRIATA SAY D
SCAPHELLA DUBIA (BRODERIP)
[=AURINIA DUBIA (BRODERIP)] D
SCAPHELLA MUTABILIS (CONRAD)
$[=A \cup R, N \mid A$ MUTABILIS (CONRAD)]
SCAPHELLA DBTUSA (EMMONS)
SCAPHELLA TRENHOLMI (TUOMEY \& Holmes)
SCONSIA HODGEI (CONRAD)
?SEDILIA APHANITOMA OXIA (DALL)
[=DRILLIA APHANITOMA DXIA DALL] G1
SEDILIA MYRMECDON (DALL)
[=DRILLIA MYRME,CDON DALL] G
SEILA ADAMSI H. C. LEA
SEILA CLAYULUS (H. C. LEA) G1, M3
?SINUM PERSPECTIVUM (SAY) G1, R
SOLARIDRBIS COLLINUS DALL
SOLARIORBIS DUPLINENSE DALL
SOLARIORBIS STEIRATUM DALL D
SOLARIDRBIS UNDULA DALL
SOLARIDRBIS VORTEX DALL
STROMBIEORMIS BARTSCHI (GARDNER \& ALDRICH) G
STROMBIFORMIS BICONICA GARDNER $G$
STROMBIFORMIS DALLI GARDNER \& ALDRICH GOMBIFDRMIS GINA GARDNER G1
STROMBIFDRMIS LINA GARDNER G
STROMBIFORMIS SPATULATA GARDNER G
Strombina anomala (Gardner \& Aldrich)
TECTONATICA PUSILLA SAY
G
TEGULA EXOLETA (CONRAD) $\quad D, G 1, M 3$

| TEinostoma bushi (Olsson) <br> [=PSEUDOROTELLA BUSH. OLSSON] | 01 |
| :---: | :---: |
| Teinosioma carinatum (H. C. Lea) | G1 |
| TEINOSTOMA MILIUM DALL |  |
| [=PSEUDORATELLA MILIUM DALL] | D |
| Teinostoma miocenica Olsson | 01 |
| TEINOSTOMA NANUM UMBILICATUM (H.C.LEA) | M3 |
| TEINOSTOMA THOMPSONI OLSSDN | 01 |
| Terebra carolinensis (Conrad) | D, G, G1, R |
| Terebra concava Say | G1 |
| Terebra dislocata Say | D, G1, M3, R |
| Terebra emmonsi Dall | D |
| Terebra exoleta (Conrad) | V |
| TEREBRA INDENTA Conrad | G1, M3 |
| TEREBRA NEGLECTA Emmons | G, G1 |
| TEREBRA PROTEXTA CONRAD | D |
| TEREBRA ROBESONENSIS GARDNER | G |
| TEREBRA UNILINEATA (CDNRAD) | D, G |
| Travana pyta Gardner | G |
| Triforis melanura C. B. Adams | D |
| TRIFORIS MONILIFERA H. C. LEA? | D |
| ?TRIFORIS MODESTA C. B. AdAMS | G 1 |
| Trigonostoma carolinensis Emmons | D |
| TRIGONOSTOMA IENERA (PHILIPPI) | G1, M3 |
| TRIPHORA DUPLINIANA (OLSSON) | G |
| TRIPHORIS BARTSCHI OLSSON | 01 |
| Triphoris Dupliana OLsson | 01 |
| Trivia Pediculus Linné | D |
| Trochus humilis Conrad | R |
| TROPHON LEEP, DOTA (DALL) | G1 |
| Turbonilla (CHEMNITz IA) ... + species | D |
| TURBONILLA (DUNKERIA) SP. | D |
| TURBONILLA ( DUNKERIA) SP. | D |
| TURBONILLA (ANCEA)... 2 species | D |
| Turbonill Sa Strioturbonilla) ... 3 species | D |
| TURBONILLA (TURBONILLA) SP. | D |
| Turritella a Equistriata Conrad | D |
| Turritella burdeni (Tuomey \& Holmes) | D, G1 |
| TURRITELLA CAROLINENSIS CONRAD | G1 |
| TURRITELLA CONSTRICTA EMMONS | D |
| TURRITELLA DUPLINENSIS GARDNER \& ALDRICH | G, G1, M3, |
| TURRITELA ETIWANENSIS (Tuomey \& Holmes) | D, G1, M3 |
| TURRITELLA HOLMESII DALL | D |
| Turritelba subannulata Heilprin | R |
| TURRITELLA VARIABILIS Conrad | $\mathrm{V}, \mathrm{R}$ |
| TYPHIS HARRISI OLSSON | M3 |
| UROSALPINX PERRUGATA (Conrad) | G |
| Urosalpinx phrikna Gardier \& Aldrich | G, G1 |
| UROSALPINX STIMPSONI GARDNER | G |
| UROSALPINX SUFFOLKENSIS GARDNER | G |
| UROSALPINX IROSSULA (CONRAD) | D, G, G1 |
| VERMICULARIA SPIRATA (PhILIPPI) | G |
| Vdlvula oxytata Bush | G1 |
| Volvula oxymata hosfordensis Mansfield | M3 |
| XENOPHDRA CONCHYL, IOPHORA BORN | D |

AMPHINEURA
CHAETOPLEURA APICULATA SAY G1

SCAPHOPDDA
CADULUS THALLUS CONRAD
DENTALIUM ATTENUATUM SAY
DENTALIUM CAROLINENSE CONRAD
$D, G 1, ~ M 3, ~ V$
D, G1
DENTAL IUM DANAI MEYER
D, G1
DENTALIUM DANAI MEYER, VAR.
G1
DENTALIUM DISPARILE D'ORBIGNY D
D
Dentalium DISPariLe Leonense Mansfield M3


