

PROCEEDINGS

OF THE

Academy of Natural Sciences

OF

PHILADELPHIA

---

VOLUME LV

---


1903

PHILADELPHIA:

THE ACADEMY OF NATURAL SCIENCES

LOGAN SQUARE

1903-1904



THE ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA.  
FEBRUARY 5, 1904.

I hereby certify that printed copies of the PROCEEDINGS for 1903 have been mailed as follows:

|                 |              |           |
|-----------------|--------------|-----------|
| Pages 1-32..... | mailed April | 10, 1903. |
| " 33-80.....    | " May        | 7, 1903.  |
| " 81-128.....   | " May        | 16, 1903. |
| " 129-160.....  | " May        | 22, 1903. |
| " 161-208.....  | " June       | 4, 1903.  |
| " 209-256.....  | " June       | 30, 1903. |
| " 257-336.....  | " July       | 8, 1903.  |
| " 337-352.....  | " July       | 10, 1903. |
| " 353-400.....  | " August     | 18, 1903. |
| " 401-528.....  | " September  | 4, 1903.  |
| " 529-576.....  | " September  | 29, 1903. |
| " 577-624.....  | " October    | 6, 1903.  |
| " 625-640.....  | " November   | 10, 1903. |
| " 641-688.....  | " November   | 25, 1903. |
| " 689-704.....  | " December   | 4, 1903.  |
| " 705-752.....  | " December   | 16, 1903. |
| " 753-784.....  | " January    | 15, 1904. |
| " 785-816.....  | " February   | 1, 1904.  |

EDWARD J. NOLAN,  
*Recording Secretary.*

COMMITTEE ON PUBLICATION:

HENRY SKINNER, M.D., PHILIP P. CALVERT, Ph.D.,

HENRY A. PILSBRY, Sc.D., WITMER STONE,

EDWARD J. NOLAN, M.D.,

*The President,* SAMUEL G. DIXON, M.D., *ex-officio.*

EDITOR: EDWARD J. NOLAN, M.D.

CONTENTS.

*For Announcements, Reports, etc., see General Index.*

|   |     |
|---|-----|
| ANDERSON, MALCOLM P., and JOSEPH GRINNELL. Birds of the Siskiyou Mountains, California: a Problem in Distribution, . . . . .                              | 4   |
| BANKS, NATHAN. A List of Arachnida from Hayti, with Descriptions of New Species (Plate XV). . . . .   | 340 |
| BILGRAM, HUGO. Inclusions in Quartz, . . . . .  | 700 |
| BROWN, ARTHUR ERWIN. The Variations of Eutania in the Pacific Subregion, . . . . .  | 286 |
| Texas Reptiles and Their Faunal Relations. . . . .  | 543 |
| CALVERT, P. P., Ph.D. Ganglia of Odonata, . . . . .   | 760 |
| CASEY, THOMAS L. Notes on the Conrad Collection of Vicksburg Fossils, with Descriptions of New Species, . . . . .   | 261 |
| CHAMBERLAIN, RALPH V. Myriopods from Beulah, New Mexico, New Lithobii from California and Oregon, . . . . .   | 35  |
| 152   |     |
| CHAPMAN, HENRY C., M.D. On a Collection of Anthropoids, . . . . .   | 719 |
| COCKERELL, T. D. A. Bees of the Genus Nomada from California, . . . . .   | 559 |
| North American Bees of the Genus Nomada, . . . . .  | 580 |
| Variations in the Snail-Genus Ashmunella, . . . . .   | 615 |
| CONKLIN, EDWIN G., Ph.D. The Cause of Inverse Symmetry, . . . . .   | 753 |
| CRAWLEY, HOWARD. List of Polycystid Gregarines of the United States (Plates I, II, III), . . . . .  | 41  |
| Nosema geophili, sp. n., a Myxosporidian Parasite of Geophilus, . . . . .   | 337 |
| The Polycystid Gregarines of the United States (Plate XXX), . . . . .   | 632 |
| EIGENMANN, CARL H., and CLARENCE HAMILTON KENNEDY. On a Collection of Fishes from Paraguay, with a Synopsis of the American Genera of Cichlids, . . . . . | 497 |
| FIELDE, ADELE M. Supplementary Notes on an Ant, . . . . .   | 491 |
| Experiments with Ants Induced to Swim, . . . . .  | 617 |

A LIST OF SHELLS COLLECTED IN WESTERN FLORIDA AND HORN ISLAND, MISSISSIPPI.

BY E. G. VANATTA.

During February and March, 1902, Mr. Clarence B. Moore collected the following species of shells while on an archaeological expedition in western Florida. Most of the specimens were picked up on the shore. The numbers after the species correspond to the numbers of the localities, as follows:

1. Alligator Harbor, Franklin county, Florida.
2. St. George's Sound, Franklin county, Florida.
3. Indian Pass, Apalachicola Bay, Calhoun county, Florida.
4. St. Joseph's Bay, Calhoun county, Florida.
5. Crooked Island, off St. Andrew's Sound, Calhoun county, Florida.
6. St. Andrew's Bay, Washington county, Florida.

Those numbered 7 are a collection of shells from Horn Island, Mississippi, presented to the Academy some years ago. It is hoped that this list, which well covers the western coast of non-peninsular Florida, will be a useful appendix to Prof. W. H. Dall's Bulletin 37 of the U. S. National Museum. I wish to thank Prof. W. H. Dall, Mr. C. W. Johnson and Dr. H. A. Pilsbry for their assistance in identifying some of the species of this collection.

Class PELECYPODA.

- |   |   |
|---|---|
| <i>Ostrea virginica</i> Gmel. 2, 4, 5.    | <i>Arca secticostata</i> Reeve. 4, 5.       |
| <i>Anomia simplex</i> Orb. 4, 5, 7.       | <i>Glycimeris americana</i> DeFr. 3.        |
| <i>Plicatula gibbosa</i> Lam. 4, 5, 7,    | <i>Leda acuta</i> Conr. 3, 4, 5.            |
| <i>Pecten gibbus irradians</i> Lam. 1,    | <i>Cardita floridana</i> Conr. 1, 5.        |
| 3, 4, 5, 6, 7.                            | <i>Cuna dalli</i> Van. 3, 4, 5.             |
| <i>Atrina rigida</i> Dillw. 4.            | <i>Crassinella lunulata</i> Conr. 3, 4, 5.  |
| <i>Atrina serrata</i> "Sol." Sowb. 4.     | <i>Anisodonta elliptica</i> Recl. 5.        |
| <i>Mytilus exustus</i> L. 5.              | <i>Erycina floridana</i> Van. 5.            |
| <i>Modiolus tulipus</i> L. 1, 4, 5.       | <i>Lucina chrysostoma</i> Phil. 4, 5.       |
| <i>Modiolus demissus</i> Dillw. 4.        | <i>Phacoides trisulcatus</i> Conr. 5.       |
| <i>Arca ponderosa</i> Say. 1, 3, 4, 5, 7. | <i>Phacoides nassula</i> Conr. 4, 5.        |
| <i>Arca transversa</i> Say. 3, 5, 7.      | <i>Phacoides floridanus</i> Conr. 4, 5,     |
| <i>Arca incongrua</i> Say. 1, 3, 4, 7.    | 7.  |
| <i>Arca campechiensis</i> Gmel. 1, 3, 4,  | <i>Phacoides radians</i> Conr. 4, 5, 7,     |
| 7.  | <i>Phacoides crenella</i> Dall. 3, 4, 5, 7. |

- |   |   |
|---|---|
| <i>Phacoides amiantus</i> Dall. 4, 5, 7.    | <i>Donax variabilis</i> Say. 1, 3, 4, 5,  |
| <i>Divaricella quadrisulcata</i> Orb. 5.    | 6, 7.                                     |
| <i>Diplodonta punctata</i> Say. 5, 7.       | <i>Donax obesa</i> Orb. 3, 4, 5, 7.       |
| <i>Chama arcinella</i> L. 4.                | <i>Tagelus divisus</i> Spengl. 3, 5.      |
| <i>Cardium robustum</i> Sol. 3, 4, 5,       | <i>Tellina magna</i> Spengl. 5.           |
| 6, 7.                                       | <i>Tellina alternata</i> Say. 1, 3, 7.    |
| <i>Cardium isocardium</i> L. 1, 4, 5.       | <i>Tellina tenera</i> Say. 3.             |
| <i>Cardium muricatum</i> L. 3, 4.           | <i>Tellina polita</i> Say. 4.             |
| <i>Cardium serratum</i> L. 3, 4, 5, 7.      | <i>Tellina consobrina</i> Orb. 5, 7.      |
| <i>Cardium mortoni</i> Conr. 6.             | <i>Tellina lintea</i> Conr. 5, 7.         |
| <i>Venus mercenaria</i> L. 1, 4.            | <i>Tellina pauperata</i> Orb. 4, 5.       |
| <i>Venus mercenaria mortoni</i> Conr.       | <i>Macoma constricta</i> Broug. 3.        |
| 3, 5, 7.                                    | <i>Macoma brevifrons</i> Say. 7.          |
| <i>Venus cribraria</i> Conr. 4, 5, 7.       | <i>Macoma tenta</i> Say. 5.               |
| <i>Venus cancellata</i> L. 4, 5, 7.         | <i>Tellidora cristata</i> Recl. 5.        |
| <i>Venus pygmaea</i> Lam. 4, 5, 7.          | <i>Strigilla flexuosa</i> Say. 4, 5, 7.   |
| <i>Venus cuneimeris</i> Conr. 4, 5.         | <i>Metis intastriata</i> Say. 4.          |
| <i>Gemma gemma purpurea</i> Lea. 4.         | <i>Abra æqualis</i> Say. 3, 4, 5, 7.      |
| <i>Parastarte triquetra</i> Conr. 4, 5.     | <i>Ervilia concentrica</i> Gld. 4, 5.     |
| <i>Meretrix simpsoni</i> Dall. 4, 5.        | <i>Semele bellastrata</i> Conr. 4, 7.     |
| <i>Meretrix eucymata</i> Dall. 7.           | <i>Spisula solidissima similis</i> Say.   |
| <i>Meretrix conradiana</i> Dall. 4, 5.      | 1, 3, 4, 5, 7.                            |
| <i>Meretrix texasiana</i> Dall. 3.          | <i>Mulinia lateralis</i> Say. 3, 4, 5, 7. |
| <i>Callista nimbose</i> Sol. 1, 4, 5, 6, 7. | <i>Labiosa canaliculata</i> Say. 1, 3, 7. |
| <i>Dosinia discus</i> Rve. 1, 4, 5, 7.      | <i>Panopea bitruncata</i> Conr. 5.        |
| <i>Petricola pholadiformis</i> Lam. 3,      | <i>Ensis directus</i> Conr. 5.            |
| 4, 5.                                       | <i>Barnea costata</i> Say. 3.             |

Class SCAPHOPODA.

- Dentalium disparile* Orb. 4, 5.

Class GASTROPODA.

- |  |  |
|--|--|
| <i>Tornatina candei</i> Orb. 4, 5.       | <i>Olivella pusilla</i> Marr. 4, 5.    |
| <i>Cylichnella bidentata</i> Orb. 3.     | <i>Marginella apicina</i> Menke. 5.    |
| <i>Bullus occidentalis</i> A. Ad. 5.     | <i>Fasciolaria tulipa</i> Lam. 4, 5.   |
| <i>Melampus coffea gundlachi</i> Pfr. 6. | <i>Fulgur pyrum</i> Dillw. 4, 5.       |
| <i>Terebra dislocata</i> Say. 4, 5.      | <i>Fulgur perversa</i> L. 4, 5.        |
| <i>Mangilia cerina</i> K. and S. 4, 5.   | <i>Melongena corona</i> Gmel. 4.       |
| <i>Cancellaria reticulata</i> L. 5.      | <i>Tritonidea cancellaria</i> Conr. 7. |
| <i>Oliva literata</i> Lam. 1, 3, 4, 5.   | <i>Nassa acuta</i> Say. 4, 5.          |
| <i>Olivella mutica</i> Say. 4.           | <i>Columbella avara</i> Say. 5.        |