

OCCASIONAL PAPERS OF THE MUSEUM OF
ZOOLOGY

UNIVERSITY OF MICHIGAN

ANN ARBOR, MICHIGAN

UNIVERSITY OF MICHIGAN PRESS

THE SCIENTIFIC WRITINGS OF BRYANT WALKER
AN ANNOTATED BIBLIOGRAPHY

BY CALVIN GOODRICH

It will be seen that the studies made by Bryant Walker ranged freely among the land and fresh-water mollusca, that he ignored the marine fauna, and that, except for Pleistocene shells, he showed no interest in paleontological material. Throughout his productive period, 1876 to 1929, he was keenly alive to the importance of zoological distribution. Attesting this are his five catalogues of the mollusca of Michigan and his speculative adventures among the problems of the origin of the faunal populations of the Great Lakes region. About mid-course in his career Mr. Walker wrote a paper on the surface sculpture of the Ancyliidae. That led from one study of the family to another, until, finally, he had issued twenty-five papers on the subject and had become the foremost authority on the group. This authority so far has not been challenged. The labor must stand as his best.

Altogether, the Walker conchological writings comprise 155 publications. In them are named 143 new species, including names devised to take the place of certain ones preoccupied.

Mr. Walker published Charles Torrey Simpson's *Descriptive Catalogue of the Naiades* at his own expense in 1914. There had been intimation from Mr. Simpson himself that Mr. Walker

had had more to do with the preparation of the work than this. For the purposes of this bibliography, compilation of which began when Mr. Walker's illness became hopeless, I wrote to Mr. Simpson about the matter. He answered that he had brought his manuscript to a close in 1902, and that the many changes and additions which were made thereafter were by Mr. Walker: "It was my request that he attach his name as one of the authors, but this he was unwilling to do, so the thing came out under my name. As I remember, he read the proof, but frequently called on me for explanations or suggestions."

In the *Twenty-First Annual Report of the Michigan Academy of Science* (1920), Mr. Walker issued an abstract of a paper on the Unionidae of Alaska and British America. The work, he says, was "undertaken at the request of the Canadian Biological Survey, and the final report will be published by that Survey." Such a paper would be useful on both economic grounds and those of pure science. It would have peculiar weight simply because Mr. Walker, for a long time, knew more about the Unionidae than anyone else. For these reasons, special efforts were made to discover the whereabouts of the report. Messrs. John P. Oughten and Aurèle La Rocque joined the hunt. They were compelled to announce failure. The paper is to be counted lost or strayed in the limbo of official archives.

Generous aid in solving difficulties with this bibliography was supplied by Dr. H. A. Pilsbry of the Academy of Natural Sciences of Philadelphia; Mr. W. J. Clench sent me a list of all the Walker items in the libraries of the Museum of Comparative Zoology; Mr. Oughten of the Royal Ontario Museum of Zoology at Toronto and Mr. La Rocque of the National Museum of Canada, Ottawa, searched fruitfully among the files of Canadian zoological literature. To these four friends I extend my sincere gratitude.

WALKER, BRYANT AND C. E. BEECHER

1876 List of Land and Fresh-Water Shells found within a Circuit of Four Miles about Ann Arbor, Mich. Proc. Ann. Arbor Sci. Assoc., 1: 43-46.



BRYANT WALKER

C. M. Hayes & Co.

A work of student days, and the first of Mr. Walker's conchological papers. The date at the end of the paper is June 3, 1875. The paper appears to have been the first of Beecher's also. Beecher became University Professor of Paleontology at Yale University. He died in 1904.

WALKER, BRYANT

- 1879 Catalogue of the Shell-bearing Mollusca of Michigan. Journ. Conchology, 2: 325-37.

The first of several catalogues of the molluscan fauna of the state. It is of particular interest at this time since it points to difficulties of collecting which since have disappeared by reason of improvements in transportation. For example, the citations of species from the vicinity of Ann Arbor would have been quite different had not much of Washtenaw County been well-nigh inaccessible to Mr. Walker in the 1870's.

- 1886 Conchological Work in Michigan. Collector's Science Monthly (Battle Creek, Michigan), 1: 1-7.

A brief review of the studies that had been made of the Mollusca of the state up to 1886, together with an appeal for more thorough collecting.

- 1888 On the Re-discovery of *Planorbis Multivalvis* Case, and *Planorbis Truncatus* Miles. Journ. Conchology, 5: 330-31.

Mr. Walker changed his mind about this rediscovery of *P. multivolvis* (see *Nautilus*, 21 [1907]: 61). One of the two last conchological notes that he wrote (1929) dealt with the distribution of *P. truncatus*. The "*multivalvis*" of the title should have read *multivolvis*.

- 1889 On the Occurrence of *Limosina* in Texas. *Nautilus*, 3: 9.

Briefly records the finding in the United States of a genus hitherto believed to be confined to the West Indies and Central and South America. This is the first piece of writing of Mr. Walker's to appear in the *Nautilus*.

- 1889 On the Occurrence of *Unio complanatus* Sol., in Michigan. *Ibid.*, 3: 16-17.

Confirms an item of a molluscan list compiled by Dr. Manly Miles for the report of the Michigan Geological Survey of 1860. Nearly twenty years later this was to lead to a philosophical discussion of the *Unione* fauna of the Great Lakes (see *Nautilus*, 27 [1913]: 18-23, 29-34, 40-47, 56-59).

- 1891 Pupa *Holzingeri* Sterki in Ohio. *Ibid.*, 5: 93.

The result of a short collecting trip to South Bass Island of Lake Erie.

- 1891 *Unio Complanatus* Sol. in Northern Michigan. *Ibid.*, 5: 93.

A note of nine lines reporting a further finding in the state of a species which for many years had been thought to be restricted to streams of the eastern seaboard of the United States, although mentioned in an 1860 faunal list prepared by Dr. Manly Miles.

- 1892 Notes on *Unio Luteolus* Lam. *Ibid.*, 6: 94.

Directs attention to a fresh-water clam of peculiar nacre occurring in Crystal Lake, Benzie County, Michigan.

- 1893 The Shell Bearing Mollusca of Michigan. *Ibid.*, 6: 13-19, 31-35, 42-47, 63-67, 135-41; Pl. 1, Figs. 1-10.

The second of Mr. Walker's catalogues of Michigan mollusks. Describes as new: *Lymnaea stagnalis sanctaemariae*, *L. reflexa scalaris*, *L. palustris michiganensis*, and *Planorbis bicarinatus major*. Of these, only the *Planorbis* is mentioned in the comprehensive catalogue of 1918.

- 1894 Shells of the Saginaw Valley, Michigan. *Ibid.*, 7: 125-29.

A detailed account of a collection made by Dr. George A. Lathrop in and near Saginaw about the year 1869. Walker speaks of the collection's having "recently come into my possession," which may be taken as a modest

man's avoidance of the word "purchase." It seems probable that this was one of the first, if not the first, of the many accumulations of mollusks that Walker bought. Dr. Lathrop is known to Michigan history in connection with the development of the salt industry in the Saginaw region.

1895 Our Present Knowledge of the Molluscan Fauna of Michigan. Detroit: Printed for the Author. Pp. 1-27.

"Read before the Michigan Academy of Science, December 27, 1894." Contains much distributional data, a list of 284 mollusks resident to the state, and an excellent bibliography.

1895 A Month with the Michigan Fish Commission. Nautilus, 9: 2-6.

Walker reports that ninety-three species of mollusks were obtained, "of which eleven species and three varieties were new to the fauna of the state, one species new to this country and five species new to science." Descriptions were postponed.

1896 Report upon the Mollusca Collected in the Vicinity of Charlevoix, Michigan, in the Summer of 1894. Bull. Mich. Fish Comm., No. 6: 96-99.

An appendix to "A Biological Examination of Lake Michigan in the Traverse Bay Region," by H. B. Ward.

1896 On Certain Abnormal Sphaeria. Nautilus, 9: 135-37.

Finds that in 10 per cent of *Sphaerium striatinum* examined, the hinge teeth were the reverse of the common arrangement; in the case of *S. simile*, 16 per cent.

1897 Planorbis Nautilus L. in America. *Ibid.*, 10: 117.

The author decides that this small mollusk, hitherto thought to be exclusively European, is also native to North America. It is now known as *Gyraulus crista* (Linnaeus).

- 1897 *Vallonia Parvula* and *Pupa Holzingeri*. *Ibid.*, 11: 82.

Corrects a statement about the distribution of *V. parvula* Sterki and mentions *P. holzingeri* as associated with it on an island of Lake Erie. (See also *Nautilus*, 5 [1891]: 93.)

- 1897 Notes on Michigan Mollusca. Rept. Third Annual Meeting Mich. Acad. Sci.

The paper is indexed and marked "not published." This would seem to have become a part of the following paper.

- 1898 The Distribution of the Unionidae in Michigan. Detroit: Printed by the Author. Pp. 1-23, 3 maps.

"Read before the Michigan Academy of Science, March 31." A study based on a census of the mollusks of the state which was conducted by Walker.

- 1898 A Proposed Census of Michigan Mollusca. *Nautilus*, 11: 98-100.

The word "proposed" in the title is somewhat misleading, since by the time the paper was published the census had been carried on for nearly three years and a paper printed on the information gathered. The organization of a "section of conchology" of the Michigan Academy is described with enthusiasm. Events scarcely justified the elation, the state then as now being rather barren of persons interested in the subject.

- 1898 Mollusca Contemporaneous with the Mastodon. *Ibid.*, 11: 121-22.

Names thirty-six species of land and fresh-water shells that were picked from muck from beneath the bones of a mastodon. This find is in Dr. E. C. Case's records as from two miles west and a little north of Buchanan, Berrien County. A description appears in *Carnegie Inst. Publ.*, 322 (1923): 82, Oliver D. Hay.

- 1898 William Henry DeCamp. *Ibid.*, 12: 61-62, Pl. 3.

An obituary notice of one of the founders of the Kent Scientific Institute of Grand Rapids, Michigan. Dr. De-Camp is remembered particularly by naturalists as having seized on military service as an opportunity for collecting varied botanical and zoological specimens.

1899 Station of *Limnaea gracilis*. *Ibid.*, 12: 119–20.

This is an extract from a letter of Dr. R. J. Kirkland of Grand Rapids, Michigan, concerning the spawning of a rare species, now known as *Lymnaea haldemani* Deshayes.

1899 *Polygyra edwardsi* in Elizabethton, Tennessee. *Ibid.*, 12: 120.

A distributional note.

1899 Supplemental Note on the Mollusca Associated with the Mastodon in Berrien County, Michigan. *Ibid.*, 13: 55.

Adds eight species to the list of thirty-six mentioned in the paper of 1898.

1899 The Terrestrial Mollusca of Michigan. Detroit: Published for the Author. Pp. 1–27.

“Read before the Michigan Academy of Science, March, 1899.” Catalogues and discusses seventy-five species and varieties of land shells that were known to occur in Michigan, and, in addition, nine which the author felt to be of doubtful authenticity. A three-word description is given to a new variety, *Polygyra monodon albida*. This was ignored in Walker’s later lists. A second variety, *P. profunda alba*, he later declared invalid (see *Nautilus*, 38 [1924]: 33–34).

1900 Changes with growth of *Lithasia Obovata* (Say), *Nautilus*, 13: 97–98.

Describes a form of shell development.

1900 The Genuine *Planorbis Corpulentus*, Say. *Ibid.*, 13: 133–38, Pl. 3, Figs. 1–7.

Gives distinct specific rank to a species that had experienced inhumation in the synonymy.

- 1900 The Origin and Distribution of the Land and Fresh-Water Mollusca of North America. First Rept. Mich. Acad. Sci., pp. 43-61.

This paper was read by Mr. Walker as the retiring president of the Academy at its second annual meeting, December 26, 1895, and was not published until five years later. It sums up what was then known of the molluscan distribution in the Americas.

- 1900 Note on *Vitrea rhoadsi* Pils. *Nautilus*, 14: 8.

Extends the range of a minute American land mollusk.

- 1900 Note on the Habits of *Limnaea mighelsi* W. G. Binn. *Ibid.*, 14: 8-9.

An extract from a letter written by Dr. R. J. Kirkland, of Grand Rapids, Michigan, in regard to the seasonal migration of a shell inhabiting Crystal Lake, Benzie County, Michigan.

- 1900 Supplemental Note on *Planorbis Corpulentus* Say. *Ibid.*, 14: 33-34.

Extends the information brought together in *Nautilus*, 13 (1900): 133-38.

- 1900 On an Addition to the Molluscan Fauna of Canada. *Ottawa Nat.*, 14: 94.

Reports on the occurrence of *Gastrodonta lamellidens* Pilsbry at Ottawa, Ontario.

WALKER, BRYANT, AND A. C. LANE

- 1900 Shells of the Marls of Huron County. Rept. Geol. Surv. Mich., 7 (Pt. 2): 247-52.

Read at the 1897 meeting of the Michigan Academy of Science under the title "Shells of the Quaternary Deposits in Huron County."

WALKER, BRYANT

- 1901 New Varieties of *Physa Ancillaria* Say. *Nautilus*, 14: 97-99.

Describes the *Physa ancillaria* subspecies *magnalacustris* and *crassa*, both of Michigan.

- 1901 A New *Amnicola*. *Ibid.*, 14: 113-14.

Describes *Amnicola letsoni* from Pleistocene deposits of Goat Island, Niagara River. Later he decided that the species belonged to the genus *Pyrgulopsis* and that it was not extinct.

- 1901 The Synonymy of *Bythinella obtusa* Lea. *Ibid.*, 15: 30-32.

The writer shows that a name devised by Dr. Isaac Lea was preoccupied and that the species should go under the name of *Amnicola emarginata* (Küster). The paper is an example at once of Walker's painstaking searches in dusty zoological literature and of his gift for concise writing.

- 1901 A New Species of *Strophitus*. *Ibid.*, 15: 65-66, Pl. 3, 3 figs.

Describes *S. wrightianus* from Flint River tributaries of Baker County, Georgia.

- 1902 A Revision of the Carinate *Valvatas* of the United States. *Ibid.*, 15: 121-25, 7 text figures.

Describes *Valvata tricarinata confusa* and *V. bicarinata normalis*. The subject is carried further in *Nautilus*, 20 (1906): 25-32.

- 1902 Notes on the Marl Fauna. Rept. Mich. Geol. Surv. for 1901, p. 137.

A letter to Professor A. C. Lane, State Geologist, in regard to the shells of seventeen deposits of marl: "Taken as a whole the fauna . . . does not differ from the present fauna of that portion of the state from which the shells came."

WALKER, BRYANT AND B. H. WRIGHT

1902 Check List of North American Naiades. Detroit: Printed for the Authors. Pp. 1-19.

A compilation of names from Charles Torrey Simpson's "Synopsis of the Naiades, or Pearly Fresh-Water Mussels," *Proc. U. S. Nat. Mus.*, 22 (1900): 501-1044.

WALKER, BRYANT

1902 The Mollusca of the Chicago Area, Part II. *Nautilus*, 16: 33-36.

A review of Frank Collins Baker's work under this title. This second part was issued in April, 1902, and is usually bound with Part I, which was issued in September, 1898.

1902 Surface Sculpture in *Ancylus*. *Ibid.*, 16: 85-88.

The first of several papers on the Ancyliidae.

WALKER, BRYANT, AND H. A. PILSBRY

1902 The Mollusca of the Mt. Mitchell Region, North Carolina. *Proc. Nat. Acad. Sci. Phila.*, 54: 413-42, Pls. 24-25.

The results of a collecting trip made by Walker in company with James H. Ferriss.

Two new species and two new subspecies are described, namely, *Vitrea approxima*, *V. vanattai*, *Polygyra tridentata tennesseensis*, and *P. andrewsae intermedia*. In the paper are included descriptions of *Gastrodonta gularis theloides* A. D. Brown and *G. gularis decussata* Pilsbry and Vanatta.

WALKER, BRYANT

1903 On the Specific Validity of *Campeloma Milesii* Lea. *Nautilus*, 16: 121-24, Pl. 5.

Discusses a species named for Dr. Manly Miles, who was at one time the state zoologist of Michigan.

1903 Notes on Eastern American Ancyli. *Ibid.*, 17: 13-19, 25-31, Pls. 1-2.

An endeavor to distinguish the species of the Ancyliidae inhabiting Michigan led Walker into a broad study of this difficult family. This was to go on from a research into American forms to those of other parts of the world. In the present paper, *Ancylus kirklandi*, a new species, is described.

- 1903 On the Shells of Marls. Geol. Surv. Mich., 8, Pt. 3: 97-102.

A study of marl samples from seventeen Michigan localities. The paper is printed as an appendix to "Contributions to the Natural History of Marl," by Professor C. A. Davis.

- 1904 New Species of Somatogyrus. Nautilus, 17: 135-42, Pl. 5.

Describes *S. hinkleyi*, *constrictus*, *nanus*, *umbilicatus*, *coosaensis*, *obtusus*, *crassus*, *georgianus*, *pennsylvanicus*, *virginicus*, and *pilsbryanus*.

- 1904 Notes on Eastern American Ancyli, II. *Ibid.*, 18: 16-17, 25-30, Pls. 1-2.

A continuation of observations published in the seventeenth volume of the *Nautilus*.

- 1904 Mollusca New to the Canadian Fauna. Ottawa Nat., 18: 18.

Finds that two species, discovered at Oxley, Ontario, had not hitherto been reported from Canada.

- 1904 On the Variation in the Jaw of *Succinea Ovalis*. Sixth Rept. Mich. Acad. Sci., p. 187.

Abstract of a paper read before the seventh annual meeting of the Michigan Academy.

- 1904 Hints on Collecting Land and Fresh Water Mollusca. Journ. Applied Microscopy and Laboratory Methods, 5: 1954-61.

This will be found reprinted as a part of the introduction to the "Illustrated Catalogue of the Mollusca of Michigan," 1906.

- 1904 Notes on Eastern American Ancyli, III. *Nautilus*, 18, 75-83, Pls. 5-6.

For a time Walker ceased to write on this subject, on which he became the foremost authority. He resumed the issue of papers upon the Ancyliidae in 1907.

- 1904 Practical Contributions of Zoology to the State. *Mich. Acad. Sci. Bull.*, 1, No. 2: 6-8.

Directs attention to discoveries and studies in science that are contributing to the general welfare of the state.

- 1905 List of Shells from Northwestern Florida. *Nautilus*, 18: 133-36, Pl. 9, Figs. 1-3, 6-7.

The specimens came from the brothers King of Mimsville, Georgia, an elderly pair who served Walker as professional collectors and, at the same time, supplied him with salty rural entertainment. *Lioplax pilsbryi* and *Unio chipolaensis* are described.

- 1905 A new Species of *Medionidus*. *Ibid.*, 18: 136-37, Pl. 9, Figs. 4-5.

Describes *Medionidus simpsonianus* from Calvary, Georgia.

- 1905 Recent Progress in Michigan Conchology. *Bull. Mich. Acad. Sci.*, 2: 3-7.

Reports an addition of forty-seven mollusks to the fauna of Michigan since 1894. The paper is supplemented by a bibliography of eighty-one papers wherein reference is made to Mollusca of this state.

- 1905 The Distribution of *Polygyra* in Michigan. *Seventh Rept. Mich. Acad. Sci.*, pp. 92, 94, 5 maps.

Records based on the census of Michigan Mollusca, carried on by the author.

WALKER, BRYANT, AND A. G. RUTHVEN

- 1906 Annotated List of the Molluscs of the Porcupine Mountains and Isle Royale, Michigan. *Rept. Geol. Surv. Mich. for 1905*, pp. 93-99.

Catalogues forty-three species and subspecies from Porcupine Mountains of the Upper Peninsula, thirty-six from Isle Royale. In 1904, Ruthven (*Sixth Rept. Mich. Acad. Sci.*, pp. 188-92) printed a catalogue of the mollusks of Ontonagon County, of which the Porcupine Mountains are a part. A more extended paper by Walker on Isle Royale is in the *Report of the Geological Survey of Michigan for 1908* (pp. 281-98).

WALKER, BRYANT

1906 An Illustrated Catalogue of the Mollusca of Michigan. Mich. State Geol. Rept. for 1905, pp. 428-531, one plate, and one folded chart of "Census of Known Distribution"; 169 text figures.

Part I of a projected illustrated report on all the mollusks of the state. Only this section was ever issued. It is devoted wholly to the land snails. That dealing with aquatic species was prepared, at least as regards preliminary writing and the drawings of some figures. The printed part has been exceedingly useful. Certain conchologists have cut their milk teeth upon copies of it. The paper is authoritative after thirty years.

1906 New and Little Known Species of Amnicolidae. *Nautilus*, 19: 97-100, 114-17, Pl. 5.

Contains descriptions of *Somatogyrus substriatus*, *S. humerosus*, *S. quadratus*, *S. biangulatus*, *S. excavatus*, *S. tennesseensis*, *S. aldrichi* and *Amnicola pilsbryi*, all of Walker. A revised description of *S. pumilus* (Conrad) is given.

1906 Notes on Valvata. *Ibid.*, 20: 25-32, Pl. 1.

A review of described eastern North American species of *Valvata*, and descriptions of new subspecies *V. sincera danielsi*, *bicarinata connectans*, and *bicarinata perdepressa*.

WALKER, BRYANT, AND H. A. PILSBRY

1906 Notes on Vitrea Approxima and *V. Vanattai*. *Ibid.*, 20: 57-58.

Corrections of an article on the subject that was published in the *Proceedings of the Academy of Natural Science of Philadelphia*, 54 (1902): 413-42.

WALKER, BRYANT

1906 A List of Shells from Nebraska. *Ibid.*, 20: 81-83.

Mentions about fifty species found to occur at different localities in Nebraska.

1907 Mollusca of the Southwestern States, II. *Ibid.*, 20: 106-8.

A review of a paper having this title by H. A. Pilsbry and J. H. Ferriss.

1907 A New Species of *Segmentina*. *Ibid.*, 20: 122-24, Pl. 7.

Description of *Segmentina crassilabris*, type locality, Hamtramck, Wayne County, Michigan. The figures of the plate are presumably by Walker. Their excellence suggests that the artist was unjustified in lamenting an inability to draw.

1907 Notes on *Gundlachia*, I. *Ibid.*, 21: 14-17, Pl. 4.

While this paper is labeled "I," there does not appear to have been any more material on the subject.

1907 Notes on *Planorbis*—I. *Ibid.*, 21: 61-64, Pl. 8.

Concerns the rediscovery of the real *P. multivolvis* Case. The paper brings in the names of Peter White and Captain James Stannard, two of the most famous men connected with the development of the Upper Peninsula of Michigan. The rediscovery was made by Professor C. A. Davis within three or four miles of where Walker was accustomed to spend his summer vacations—a fact that Walker frequently recited as a joke upon himself.

1907 Marl Shells from Cobalt. *Ottawa Nat.*, 21: 180.

Reports upon twenty-five species of land and fresh-water mollusks found in northern Ontario.

- 1908 Pomatiopsis Robusta n. sp. *Ibid.*, 21: 97.

A species of Jackson Lake, Wyoming. Illustrated by a text cut.

- 1908 On some Immature Anculosae. *Ibid.*, 21: 110-17, Pl. 10.

In this a confusion of differences among certain species of *Anculosa* is cleared away.

- 1908 New Species of Ancyliidae. *Ibid.*, 21: 126-29, Pl. 9.

Describes *Neoplanorbis smithii*, *N. umbilicatus*, and *N. carinatus*, all three of the Coosa River, Alabama.

- 1908 New Species of Ancyliidae. *Ibid.*, 21: 138-40.

Describes *Ancylus hendersoni*, *A. novangliae*, *A. hinkleyi*, and *A. hemisphaericus*. This with the preceding paper represents the fruit of several years of study of a difficult family of fresh-water shells.

- 1908 New Michigan Lymnaeas. *Ibid.*, 22: 4-9, 16-19, Pls. 1-2.

A study preparatory to the publication of Part II of the "Illustrated Catalogue of the Mollusca of Michigan," never printed. Describes *Lymnaea pilsbryana*, *L. petoskeyensis*, *L. cyclostoma*, *L. stagnalis perampla*, *L. davisii*, *L. bakeri*, and *L. desidiosa peninsulae*.

- 1908 *Lymnaea umbilicata* C. B. Adams in Canada. *Ottawa Nat.*, 22: 89-81.

Reviews the literature of this species, elaborates the original description, distinguishes it from related species, and confirms a Canadian record that had stood unverified for nearly a half century.

- 1909 New Amnicolidae from Alabama. *Nautilus*, 22: 85-90, Pl. 6.

Contains a description of the new genus *Clappia*, together with descriptions of *Somatogyrus decipiens*, *S. hinkleyi*, *S. hendersoni*, *S. pygmaeus*, and *Clappia clappi*.

- 1909 Annotated List of the Mollusca of Isle Royale, Michigan. Rept. State Biol. Surv. for 1908., pp. 281-98, 3 unnumbered plates.

Treats of the Mollusca collected by C. C. Adams' Ecological Survey of Isle Royale, Lake Superior. A highly interesting comparison of the molluscan faunas of upper Canada, Alaska, and the mainland of Michigan.

- 1909 Notes on Planorbis II: *P. bicarinatus*. Nautilus, 23: 1-10, Pls. 1-3.

A review of all described forms of *P. bicarinatus* (now *Helisoma antrosom*). Describes *P. bicarinatus royalensis* and substitutes the subspecific name *percarinatus* for *major* Walker, preoccupied. Closes with an exhaustive bibliography.

- 1909 On the Use of Certain Preoccupied Names for European Mollusca. Journ. Conchology, 12: 238-40.

A nomenclatorial discussion.

- 1910 Distribution of *Margaritana margaritifera* (Linn.) in North America. Proc. Malacological Soc. London, 9: 126-45, Pl. 2.

Deals with the most widely distributed species of fresh-water clams. Reviews the geological evidence, the various theories concerning circumboreal migration, and a hypothesis for the present absence of the species in central North America. The bibliography gives sixty-eight references.

- 1910 On the Validity of *Unio Undatus* Barnes. Nautilus, 24: 6-10, Pls. 1 and 2.

A consideration of an intricate nomenclatorial puzzle.

- 1910 A New Species for the United States Fauna. *Ibid.*, 24: 11.

Reports the occurrence of *Segmentina christyi* Dall in South Dakota, known before this only from Manitoba and Alberta, Canada.

- 1910 Variation of *Polygyra Albolabris* in Michigan. Proc. Acad. Nat. Sci. Phila., 62: 21-40, 16 text figures.

Studies of races of a land mollusk as they occur in this state.

- 1910 A New *Spatha*. Nautilus, 24: 38-39, Pl. 3.

Describes *Spatha kamerunensis* from the Kribi River, Kamerun, West Africa. The paper which follows this describes the soft parts of the animal. This is by Dr. A. E. Ortmann.

- 1910 Description of a New Species of *Truncilla*. *Ibid.*, 24: 42-44, Pl. 3, Figs. 3-5.

Describes *Truncilla lewisii* from Holston River, Tennessee.

- 1910 Notes on *Truncilla*, with a Key to the Species. *Ibid.*, 24: 75-81.

The *Truncilla* about which Walker wrote is recognized now, by his own correction, as the genus *Dysnomia*.

- 1911 The Conchological Survey of Michigan. Thirteenth Rept. Mich. Acad. Sci., pp. 116-20.

The paper brings the information on the subject up to the spring of 1911.

- 1911 A Check List of Michigan Mollusca. *Ibid.*, pp. 121-29.

A catalogue of 301 species and subspecies. Sager's 1839 list has 63 species, and DeCamp's 1881 compilation has 177 species.

- 1911 Note on the Distribution of *Margaritana Monodonta* Say. Nautilus, 25: 57-58.

Extends the known range of the species.

WALKER, BRYANT, AND A. E. ORTMANN

- 1912 A New North American Naiad. Nautilus, 25: 97-100, Pl. 8.

The genus *Arkansia* is proposed, and the species *A. wheeleri* is described.

WALKER, BRYANT

- 1912 A Revision of the Ancyli of South Africa. *Ibid.*, 25: 139-44.

Establishes the section *Burnupia* that in 1923 the author was to raise to the dignity of a genus. *Ancylus mooiensis*, *A. burnupi*, *A. connollyi*, *A. equeefensis*, *A. fontinalis*, *A. victoriensis*, and *A. zambesiensis* are described, and brief diagnoses are given of *A. caffer capensis*, *A. caffer nanus*, *A. caffer farquhari*, and *A. mooiensis dubiosus*. The group is treated much more extensively in a paper privately printed in 1923.

- 1912 Land and Fresh Water Shells. In: P. A. Taverner, Instructions Regarding the Collection of Zoological Specimens for the Victoria Memorial Museum of Zoology. Geol. Surv. Canada, Dept. of Mines, No. 1234: 51-56.

"The text is almost identical with the part 'Hints on collecting Mollusca' in Walker's 1906 Catalogue of the Mollusca of Michigan, with a few changes and abbreviations."—Aurèle LaRocque.

- 1913 The Unione Fauna of the Great Lakes. *Nautilus*, 27: 18-23, 29-34, 40-47, 56-59, 5 text figures.

Dealing largely with the reinvasion of the areas by the fresh-water mussels; this fauna had been destroyed by the glaciers in Pleistocene time.

- 1914 Notes on the Ancyliidae of North Africa. *Ibid.*, 27: 113-17, 124-31, Pl. 7.

Raises *Ferrissia* to generic rank. Describes *F. platyrhynchus* and *F. pallaryi*. The bibliography has twenty-three references.

- 1915 Results of the Mershon Expedition to the Charity Islands, Lake Huron. *Occ. Papers Mus. Zool. Univ. Mich.*, 7: 1-7.

Thirty-five land and fresh-water species are listed as from the islands. The expedition was made possible by a grant of money from Mr. W. B. Mershon of Saginaw.

- 1915 On *Paludina Coarctata* and *Incrassata* Lea. *Nautilus*, 28: 121-27, Pl. 5, Figs: 3-7.

The author clears up misunderstandings in regard to certain southern species of *Campeloma*. The name *Campeloma lewisii* is substituted for *Melantho coarctata* W. G. Binney, preoccupied.

- 1915 *Pleurobema Missouriensis* Marsh. *Ibid.*, 28: 140-41, Pl. 5, Figs. 1-2.

The species was originally described without illustration. Walker supplies figures from the type, obtained by purchase. *Missouriensis* is taken from the genus *Pleurobema* and placed in *Quadrula*, since divided by Ortmann. The species would now be recognized as belonging to *Fusconia*.

- 1915 Apical Characters in *Somatogyrus* with Descriptions of Three New Species. *Ibid.*, 29: 37-41, 49-53, 4 text figs.

The new species are *Somatogyrus wheeleri*, *S. amnicoloides*, and *S. crassilabris*, all of Arkansas.

- 1915 *Unio Viridis* Conrad. *Ibid.*, 29: 74-78.

A phase of the Rafinesque controversy in which the author makes use of his talents in orderly and highly telling reasoning.

- 1915 Habits of *Eupera*. *Ibid.*, 29: 82.

A short quotation from a personal letter written by L. S. Frierson and dealing with a genus but recently discovered to be living in Louisiana.

- 1915 A List of Shells Collected in Arizona, New Mexico, Texas and Oklahoma by Dr. E. C. Case. *Occ. Papers Mus. Zool. Univ. Mich.*, No. 15: 1-11.

Distributional information about mollusks of twenty-five localities in the southwestern United States.

- 1916 *Pleurobema Lewisii* (Lea). *Nautilus*, 29: 114-16.

The species had been buried in the synonymy. It is here resurrected.

- 1916 The Mollusca Collected in Northeastern Nevada by the Walker-Newcomb Expedition of the University of Michigan. Occ. Papers Mus. Zool. Univ. Mich., No. 29: 1-8, 1 text fig.

Discusses the seventeen species of shells that were found by this expedition, and describes *Fluminicola nevadensis*, new.

- 1916 The Rafinesque-Poulson Unios. Nautilus, 30: 43-47.

Connected with the Rafinesque revival, in which the author makes his own position as a conservative in the matter clear. There was to be a later treatment of the subject by Walker, Ortmann, and Pilsbry jointly that as nearly as possible closed the discussion.

- 1917 The Type of Pleurocera Rafinesque. Occ. Papers Mus. Zool. Univ. Mich., No. 38: 1-10.

Identifies *Pleurocera acuta* Rafinesque, 1819, as the mollusk for which the name *P. subularis* (Lea), 1831, had been used for many years.

- 1917 A Revision of the Classification of the North American Patelliform Ancyliidae, with Descriptions of New Species. Nautilus, 31: 1-10, Pl. 1-3.

Erects the subfamilies Ferrissinae and Rhodacmeinae, the genus *Rhodacmea*, and the section *Rhodocephala*; describes the species *Rhodacmea cahawbensis*, *R. rhodacme*, and *R. gwatkiniana*. Classification is based on peculiarities of the radulae.

- 1917 A Sinistral Ampullaria. *Ibid.*, 31: 35-36.

Directs attention to reversed forms in a genus wherein sinistrality is rare.

- 1917 The Method of Evolution in the Unionidae. Occ. Papers Mus. Zool. Univ. Mich., No. 45: 1-10.

Read at a symposium on the method of evolution before the zoological section of the Michigan Academy of Science, March 28, 1917. Among other matters it contains

an admirable condensation of what is known of changes in American drainage systems.

- 1917 A New Gundlachia from Guatemala. *Nautilus*, 31: 51-53, Pl. 1, Figs. 10-16, Pl. 3, Fig. 1.

Describes *Gundlachia hinkleyi* from Quiriqua, Zacapa Department, Guatemala. One of the best examples of Walker's painstaking treatment of new species.

- 1917 A List of Shells from the East Coast of Florida. *Ibid.*, 31: 53-57.

Catalogues land, brackish, and fresh-water mollusks collected by Dr. Charles A. Davis, of the University of Michigan, while he was engaged in studies of peat deposits.

- 1918 Notes on North American Naiades, I. *Occ. Papers Mus. Zool. Univ. Mich.*, No. 49: 1-6.

Nomenclatorial.

- 1918 Foreign Land Snails in Michigan. *Ibid.*, No. 58: 1-3.

Mentions five species that have been introduced into the state recently.

- 1918 Another "Martyn." *Nautilus*, 32: 28-33.

A minute comparison of his copy of Martyn's *Universal Conchologist*, 1784, the fourth to come to the United States, with copies previously described.

- 1918 *Pressodonta rediviva*. *Ibid.*, 32: 35.

Corrects an error in *Occ. Papers Mus. Zool. Univ. Mich.*, No. 45 (see above) by supplanting the genus *Calceola* Swainson, preoccupied, with *Pressodonta* Simpson.

- 1918 The Mollusca. H. B. Ward and G. C. Whipple, *In Fresh-Water Biology*, New York, Chap. 29, pp. 957-1020, 132 figs.

A synopsis of the genera of mollusks known to inhabit the inland waters of the United States. Pulmonates of the seashore and occupants of brackish areas are included.

- 1918 The Unione Fauna of Alabama. Twentieth Ann. Rept. Mich. Acad. Sci., pp. 137-38.

Attention is called to an apparent barrier in southern Alabama by means of which the western distribution of the mollusks of the Atlantic coastal plain is halted.

- 1918 A Synopsis of the Classification of the Fresh-Water Mollusca of North America, North of Mexico, and A Catalogue of the More Recently Described Species, with Notes. Misc. Publ. Mus. Zool. Univ. Mich., No. 6: 1-213, 233 text figs.

In Part I the classification is brought up to date. Part II brings together a vast amount of information that was scattered through the scientific literature of a half century. Both parts have proved to be among the most useful of molluscan reference works.

- 1919 A New Species of *Camptoceras*. Occ. Papers Mus. Zool. Univ. Mich., No. 64: 1-5, Pl. 1.

Describes *Camptoceras hirasei*, a mollusk of Japan.

- 1919 Notes on Certain Philippine Species of *Viviparus*. Nautilus, 32: 109-24, Pls. 8-9.

Viviparus zamboangensis duplocinctus is described as a new subspecies, and the following new names are supplied for names preoccupied: *V. pseudocarinatus*, *V. bartschi*, *V. cumingianus*, and *V. burroughianus trinominis*. The paper is one of the best examples of Walker's patient pursuits through musty and confusing literature.

- 1919 New Species of *Amnicola* from Guatemala. Occ. Papers Mus. Zool. Univ. Mich., No. 73: 1-4, Pl. 1.

Describes *Amnicola cisternina*, *A. panzosensis*, *A. conchensensis*, and *A. hinkleyi*. The shells had been collected by A. A. Hinkley, who made collecting trips to Mexico and Central America and who appeared to have a special talent for discovering new species. Hinkley died in 1920.

- 1919 Notes on North American Naiades, II. *Ibid.*, No. 74: 1-8, Pls. 1 and 2.

Discusses *Unio tenerus* Ravenel and *Lampsilis modioliformis* (Lea), two little-known mollusks of South Carolina.

- 1920 *Ancylus Obscurus* Haldeman and Species Referred to It. *Nautilus*, 33: 99-103.

Describes *Ferrissia dalli*. The paper is continued to *Nautilus*, 34 (1921): 73-76.

- 1920 A Monograph of the Naiades of Pennsylvania, Part III. *Ibid.*, 34: 32-35.

A review of A. E. Ortmann's work entitled as above.

- 1920 Anson A. Hinkley. *Ibid.*, 34: 55-57, with portrait.

An obituary notice of a correspondent whom Walker seems never to have seen, but with whom he maintained relations of the greatest cordiality over a long period of years.

- 1920 The Distribution of the Unionidae in Alaska and British America. Twenty-first Ann. Rept. Mich. Acad. Sci., pp. 115-16.

An abstract of a preliminary report for the Biological Survey of Canada.

- 1920 A New Fresh-Water Mollusk from Indiana. Proc. U. S. Nat. Mus., 57: 525.

Describes *Ferrissia bartschi* from Lake Maxinkuckee, Marshall County, Indiana.

- 1921 The Life of the Pleistocene or Glacial Period. *Ecology*, 2: 73-75.

A review of an elaborate work of this title by Frank Collins Baker.

- 1921 *Ancylus Obscurus* Haldeman and Species Referred to It. *Nautilus*, 34: 73-76, Pl. 3.

A continuation of the paper of the same title listed above. *Ferrissia jamaicensis*, *F. adamsi*, and *F. blandi*, new species, are described.

- 1921 What is the Type of Ancylostomum Bourguignat?
Ibid., 35: 5-9.

A closely reasoned discussion of a question involving rules of nomenclature.

- 1921 On the Generic Position of Ancylostomum Fluviatilis Müller. *Ibid.*, 35: 57-58.

Proposes *Pseudancylostomum* "as the generic name for the group with *Ancylostomum fluviatilis* Müll. as the type."

- 1921 Research in Private Life. Twenty-second Ann. Rept. Mich. Acad. Sci., pp. 117-20.

Concerning the part of the amateur in scientific labors.

- 1921 The Relations of the Ancylostoma Fauna of South Africa and South America. *Ibid.*, p. 121; abstract.

Finds that the members of the Ancylostomidae of the two continents are closely related.

- 1921 Hyperstrophy in the Ancylostomidae. *Ibid.*, pp. 123-24.

Hyperstrophy occurs in families closely related to the Ancylostomidae and might be expected there. The author concludes from a study of two genera that this condition is absent in this particular family.

WALKER, BRYANT, AND A. E. ORTMANN

- 1922 A New Genus and Species of American Naiades.
Nautilus, 36: 1-6, Pl. I.

Ortmann proposes and describes the genus *Quincuncina*. Walker describes *Q. burkei*, illustrated by Figures 1 and 4 of Plate I. The paper closes with the description by Walker of *Nodularia croninae*, a fresh-water mussel of the Zambesi River of North Rhodesia, illustrated by Figures 2 and 3.

- 1922 On the Nomenclature of Certain North American Naiades. Occ. Papers Mus. Zool. Univ. Mich., No. 112: 1-75.

The outgrowth of the prolonged controversy over Rafinesque's scientific designations. The two authors undertook to pass unbiased judgment on the Rafinesque species, with Dr. H. A. Pilsbry sitting as arbitrator on disputed points. They dealt with a great body of nomenclatorial argument. The decisions have met with high respect although not universal acceptance, the subject having developed emotional states and biases. Of special value to the student are notes upon synonymy and the bibliography of seventy-seven titles.

WALKER, BRYANT

- 1922 A List of Shells from Goderich, Ontario. Canad. Field-Nat., 36: 132-33.

Thirty-three species and subspecies of mollusks are listed.

- 1923 Bourguignat's American Species of Ancyclus. Nautilus, 37: 7-16, Pls. 1-3.

Ten of Bourguignat's species are discussed and figured.

- 1923 The Ancyliidae of South Africa. London: Printed for the Author. Pp. 1-82, Pls. 1-2.

New species described are *Burnupia brunnea*, *B. Ponsonbyi*, *B. vulcanus*, *Ferrissia Ferrissia cawstoni*, *F. lacustris*, *F. natalensis*, and *Gundlachia farquhari*. New subspecies are *Burnupia capensis natalensis*, *B. ponsonbyi diminutiva*, and *transvaalensis apicata*. Also described is the new genus *Pseudancyclus*, which Walker had proposed as a substitute name in 1921. The paper concisely reviews all genera of the family.

- 1923 The Molluscan Fauna of the Big Vermilion River, Illinois. Ecology, 4: 317.

A review of a paper of this title written by Frank Collins Baker.

- 1924 *Amphidromus Virescens* (Swainson). *Nautilus*, 37: 84-88, Pl. 5.

A paper that grew out of Walker's purchase of a copy of Martyn's *Universal Conchologist*, an account of which was given in the *Nautilus*, 32 (1918): 28-33.

- 1924 The Varietal Names of *Polygyra Profunda* (Say). *Ibid.*, 38: 33-34.

An elimination of certain nude names, and the designation of *Polygyra profunda efasciata* and *P. profunda unicolor*, to clear away confusions.

- 1924 Two New Naiades from Nicaragua. *Ibid.*, 38: 51-54, Pl. 1.

Describes *Nephronaias elvae* and *Anodontites flucki*, both of the Río Cocos, Nicaragua.

- 1924 New Species of *Ferrissia* from Lower California. *Journ. Wash. Acad. Sci.*, 14: 430-32, 2 text figs.

Describes *Ferrissia bayacalifornica* and *F. occidentalis*.

- 1925 Notes on South American Ancyliidae, I. *Occ. Papers Mus. Zool. Univ. Mich.*, No. 157: 1-7, Pl. 1, 1 text figure.

Gundlachia lutzi, new species, is described, and three other species are discussed.

- 1925 New Species of Fresh-Water Operculates. *Nautilus*, 39: 5-8, Pl. 1.

Descriptions are provided for *Lanistes pilsbryi*, from So River, Cameroons, West Africa; *Amnicola winkleyi mozleyi*, from Manitoba, Canada; *Amnicola annandalei*, from Taichu Province, Formosa; and *Paludestrina bottimeri*, from Montgomery County, Maryland.

- 1925 A New Species of *Micromya*. *Occ. Papers Mus. Zool. Univ. Mich.*, No. 163: 1-4, Pl. 1.

The shell is *Micromya ortmanni*, found in the Green River of Kentucky and its tributaries.

- 1925 New Species of North American Ancyliidae and Lan-
cidae. *Ibid.*, No. 165: 1-7, Pls. 1-3.

Five new species are described: *Ancylus hendersoni*, *Ferrissia mcneilli*, *F. browni*, *F. arkansasensis*, and *Lanx hannai*.

1926 Notes on South African Ancyliidae, I. *Ibid.*, No. 175: 1-6, Pls. 1-2.

Discusses *Burnupia caffra* (Krauss), and describes *Burnupia obtusata* and *Gundlachia burnupi*.

1927 The Molluscan Hosts of Clonorchis Sinensis (Cobbold) in Japan, China and Southeastern Asia, and Other Species of Molluscs Closely Related to Them. *Amer. Journ. Hygiene, Monogr. Ser.*, No. 8: 208-84, Pl. 14.

A taxonomic study of the parasited Amnicolidae of the Orient. New species defined are *Parafossarulus woodi*, *Hydrobioides dautzenbergi*, *Bithynia funiculata*, and *B. thatkeana*. Sixty-eight references are given in the bibliography of the subject.

1928 The Date of Publication of *Unio Dombeyana* Val. *Nautilus*, 41: 131.

Shows that *Unio dombeyana* Valenciennes, 1827, supercedes *U. trapezoides* Lea, 1831.

1928 The Terrestrial Shell-Bearing Mollusca of Alabama. *Misc. Publ. Mus. Zool. Univ. Mich.*, No. 18: 1-180.

Describes and figures all the known land mollusks of Alabama, with the exception of slugs. To the older species are added these new species: *Polygyra herberti*, *Vitrea smithi*, *Anguispira alternata macneilli*, and *A. alternata smithi*. Included also are *Anguispira alternata crassa* and *A. alternata palustris*, both by George H. Clapp. The paper is the fulfillment of an undertaking begun years before by T. H. Aldrich, H. A. Pilsbry, G. H. Clapp, and Bryant Walker.

1929 *Planorbis Truncatus* Mighels in New York. *Nautilus*, 42: 104.

A distributional note. Mighels in the title should have read Miles.

1929 Gyraulus Vermicularis Hendersoni N. V. *Ibid.*, 42:
104-5.

“This form bears the same relation to typical *vermicularis* that var. *walkeri* does to *G. parvus*.”—B. Walker.