MARY J. RATHBUN
1860-1943

BY

WALDO L. SCHMITT
Smithsonian Institution, Washington, D.C., U.S.A.

INTRODUCTION

Mary Jane Rathbun was born in Buffalo, New York, on June 11, 1860. Her father, Charles Rathbun — the lineal descendant of enterprising and accomplished stone masons who emigrated from England early in the seventeenth century — succeeded to the part ownership and active operation of several productive quarries that provided much of the street paving and building stone widely used in the Buffalo area around the turn of the century. Miss Rathbun’s birthplace was built of this very same stone.

Her mother, Jane Furey, of Irish ancestry, died when Mary Jane, the youngest of her five children, was but a year old. Thus, in effect, at an early age she was thrown on her own resources. What she knew of zoology, marine biology, and natural science she learned largely through her own efforts and powers of observation.

She died at home in Washington, District of Columbia, on April 14, 1943, in her eighty-third year.

SCHOOL YEARS

Although she never went on to college, Miss Rathbun happily received in the Buffalo public schools a thorough grounding in the three R’s — reading, writing, and arithmetic — the basic curriculum in the grade schools of those Victorian days.

Although classical and modern languages, along with other college preparatory courses, were available in the Central [High] School that she attended, she never mentioned any of them. Yet, in her Museum years, she seemed to have no difficulty with either French or German. The English major that she elected to pursue was an intensive four years of composition (consisting of writing letters and essays) and “readings” in literature and history (English, American, and classical in translation) that left little or no time for other disciplines.

In each of her four years at Central she was rated a “Star Scholar,” and at the time of her graduation in 1878 1) she was awarded the Jesse Ketchum Gold Medal, First Class, for excellence in English!

1) In earlier accounts of Miss Rathbun’s life this date was mistakenly given as 1880.
She attributed much of her success in later life to her thorough knowledge of the English language and her facility in expressing herself succinctly and clearly. Her mastery of English is reflected throughout her extensive correspondence with zoologists in this country and abroad, in her official reports on the progress and operations of the Museum’s marine invertebrate collections, and in her published works — 164 in number.

**THE WOODS HOLE YEARS**

The first time she beheld the ocean was in 1881, three years after her graduation from the Central School in Buffalo, when she accompanied her brother, Richard (later director of the U. S. National Museum), to Woods Hole, where he was employed by the then U. S. Commission of Fish and Fisheries as a scientific assistant to A. E. Verrill, of Yale University. At that time, Professor Verrill was working in a general way on the invertebrate marine fauna being gathered by the Fish Commission in the course of its investigations of the fishery resources of the United States, which had been initiated by the then Commissioner, Spencer F. Baird. Verrill’s principal assistant at the time was Prof. S. I. Smith, also of the Yale faculty, a recognized authority on Crustacea.

During Miss Rathbun’s summers at Woods Hole Smith was working up his several papers dealing more or less specifically with Crustacea collected by various Fish Commission vessels and published in the Annual Reports of the Commissioner of Fish and Fisheries (1884, 1886) or Proceedings of the U. S. National Museum (1881, 1883, 1885). Miss Rathbun had a hand in the sorting, labelling, and recording of the specimens collected. There can be no doubt that she was strongly attracted by the creatures that engaged Sidney Smith’s attention, for from that time on she made the study of Crustacea her life’s work. So interested was she in what was going on at Woods Hole and in what she was seeing and learning there that she was only too glad to work for her brother on a wholly voluntary basis (1881-1884).

She proved to be so helpful with her routine chores at Woods Hole that she was rewarded with a modestly compensated “clerkship” (1886) by Dr. Baird, who, in those days, was both Secretary of the Smithsonian Institution and head, as Commissioner, of the U. S. Commission of Fish and Fisheries, which he founded.

**NATIONAL MUSEUM YEARS**

Thus, as it involved but a simple transfer, Miss Rathbun soon found herself appointed (1886) “copyist” in the National Museum’s then Department of Marine Invertebrates, where her services were urgently needed, even more than at Woods Hole, as record keeper and cataloger. She also served as organizer of the veritable flood of invertebrate marine life that was descending upon the Museum as a result of the Commission’s expanding investigations of the United States fishery resources, making those collections available for reference, study, and report.
For years she worked virtually alone except for an occasional temporary assistant, as the Museum's limited budget did not permit any permanent additions to the invertebrate staff. Though her brother Richard at the time was ostensibly curator of Marine Invertebrates, the routine care of collections, writing the divisional reports, and attending to correspondence (all in longhand) devolved upon her, first as copyist, then as clerk, aid, and finally, after twenty-eight years in the service of the Museum, as assistant curator in charge of the division.

The beautifully written specimen labels, catalog entries, reports, and correspondence in her clear Spencerian hand dating from that first appointment have never been equalled for clarity or legibility. She laid the groundwork for the record systems still in use in the present Division of Crustacea, one of the several divisions into which the original Department [later, 1898-1965, Division] of Marine Invertebrates is today subdivided within a Department of Invertebrate Zoology.

In looking over the appended list of Miss Rathbun's publications one cannot fail to be impressed by her devotion to duty as she must have conceived it, and her steadfastness of purpose in furthering our knowledge of the decapod crustaceans from all parts of the world, beginning with catalogs of the materials at hand and culminating in her four monographic works on the marine crabs of the Americas. These well illustrated volumes include all New World species known to or described by Miss Rathbun up to the time of the completion of their respective manuscripts.

BIBLIOGRAPHY

The first published paper on which Miss Rathbun's name appeared was a review of "The Genus Panopeus" (1891), co-authored by Dr. J. E. Benedict, who, in the early years, was her senior in the Department of Marine Invertebrates. Of the 38 species and one variety recognized as belonging to this genus the authors personally examined 24. For these they provided a diagnostic key, synonymies, descriptions, records of specimens examined, and figures. Synonymy and a brief description were included for the 14 species and the variety not yet seen. This paper, which was believed, in the light of later developments, to be largely the result of Miss Rathbun's labors, set the pattern, so to speak, for the two annotated catalogs which followed. These she alone authored: "Catalogue of the crabs of the family Periceridae in the U. S. National Museum" (1892) and the "Catalogue of the Crabs of the Family Maiidae..." (1893). They also included a listing of the known species not represented in the Museum's collections. Six new species of Panopeus were described, 14 in the catalog of the Periceridae, and 4 species and a new genus in the Maiidae.

In the course of a 14-year period beginning with the co-authored Panopeus paper (1891) up to and including the year of publication of the first part of "Les crabes d'eau douce" (1904), Miss Rathbun published a wide range of studies, 47 in number. Among these were 4 of purely nomenclatorial interest; 3 still much sought-after faunal papers: "Brachyura and Macrura of Porto Rico" (1901), "Japanese
Stalk-eyed Crustaceans” (1902), and the “Decapod Crustaceans of the Northwest Coast of North America” (1904); and 8 less comprehensive papers concerned with crabs of the western Indian Ocean (1894), Africa (1894, 1897, 1900), Costa Rica (1896), Galapagos Islands (1902), Hawaii (1902), and the Maldive Islands (1902).

In the 47 papers published in the years 1891-1904 25 new genera and a new family were diagnosed, and 344 new species and 3 new subspecies described.

The manuscript of “Les crabes d’eau douce,” originally submitted in its entirety, was intended for publication as a single volume. It was finally printed, however, in Paris in three separately paged installments, each bearing the same title, in successive volumes of the Nouvelles Archives du Museum d’Histoire Naturelle (1904, 1905, 1906). 2)

In the fourteen years (1905-1918) following the original publication of the first installment of “Les crabes...” (1904), the first of Miss Rathbun’s definitive handbooks of the American species, “The Grapsoid Crabs of America” (1918) appeared. In those years 45 of her carcinological contributions, including the second and third parts of “Les crabes...” were printed and distributed. All told, these papers carried the diagnoses of a new family, a new superfamily, 22 new genera, and the descriptions of 330 new species and 12 subspecies.

In the Introduction to the Grapsoid bulletin Miss Rathbun remarked, “This volume is part of a work projected many years ago as a handbook for the study of American crabs, the main purpose being to give a brief description with figures of each species.”

In line with that objective and for the purpose of settling such taxonomic problems as had arisen in the determination of the identity of the older American species, she had spent four months abroad in 1896 visiting European museums in order to examine and photograph the types of American species in their collections, particularly those of J. C. Fabricius in Copenhagen and Kiel, Herbst in Berlin, Saussure in Geneva, Henri and Alphonse Milne Edwards in Paris, and Miers and others in the British Museum of Natural History. But it was eighteen years before she found time in 1914 to bring together pertinent notes and observations for implementing the long dormant idea of doing that handbook.

Meanwhile, the representation of American species in the Museum’s collections had grown by leaps and bounds, as had also her notes upon them. She soon realized that no one handbook could encompass the host of American species then known and that nothing short of a series of monographic accounts would suffice to make available the wealth of pertinent information that she had accumulated in her almost 30 years with the Museum.

Even more to the point, she was forced to realize that, without help with the routine chores involved, it would not be possible for even this first of those volumes, “The Grapsoid Crabs of America,” to materialize.

2) This fundamental systematic treatise on the freshwater crabs of the world has again been made available as a “reimpression” by the Amsterdam, Netherlands, firm of A. Asher & Co.
To provide the necessary funds, which were unavailable from Smithsonian sources, she resigned, in order that her salary as assistant curator could be used to hire a much-needed assistant. Only the modest competence left by her father to his surviving children made that sacrifice possible!

The second of Miss Rathbun’s monographic handbooks, “The Spider Crabs of America” (1925) followed the first of the series in seven years. For this period (1919-1925) her titles numbered 30. These included the characterization of a new family, 8 new genera, and the descriptions of 129 new species and 4 subspecies.

The third volume of the handbook series, “The Cancroid Crabs of America,” came out five years later (1930). In these five years (1926-1930) this bulletin and 14 other of her carcinological papers were published. In them 2 new genera, 95 new species, and a subspecies were established.

The fourth, and concluding, volume of the series, “The Oxystomatous and Allied Crabs of America” (1937), was published seven years after the third. This was the last major work of her active career and the last of 28 papers published in those last seven years (1931-1937) of her more active years of service in the Museum, in which she described 185 new species, 13 subspecies, and 6 new genera.

IN RETROSPECT

It is perhaps not inappropriate here to remark that Miss Rathbun’s resignation, December 31, 1914, in no way curtailed her productivity, which, up to that time, accounted for 80 of her published papers. From 1915 through 1937 she was able to see in print 84 of her manuscripts, fossil and recent, which she had completed in the preceding quarter of a century. Among them were the four National Museum Bulletins comprising her Crabs of America handbooks. Two smaller papers on fossil crustaceans from Fiji (1945) and Peru (1947), containing the descriptions of 31 new species, were published posthumously.

As enumerated in the bibliography that follows, Miss Rathbun’s publications number 166. She described, all told, 1147 new species and subspecies, diagnosed 63 new genera, and established 5 higher categories — a new superfamily, 3 families, and a subfamily. The new varieties, forms, names, and combinations alone totalled more than fifty.

REFLECTIONS

I shall never forget Miss Rathbun! Neither will any of those who ever concerned themselves in any way with crustacean systematics. Her published works alone have endurably established her as the foremost American carcinologist of her day.

She was a remarkably gifted person. A small, neat woman, no more than four and a half feet in height, with plain, strong features, in conversation a most interesting and engaging personality, with a dry sense of humor, unobtrusively well endowed with the familial traits that had brought success to the men of her...
family — innate ability, originality of thought, initiative, and enterprise — which assured the success she herself achieved in the field of carcinology.

Withal, she was a most kindly, charitable person, generous to a fault. During the first World War she quietly put aside all research and writing at the Museum. She was seldom seen there for the duration of the war, as she was serving in the local Red Cross chapter, a dedicated "gray lady," turning out bandages for the wounded. Then, as provisions and meat became scarce, she sent food parcels to friends and correspondents abroad, and on at least one occasion a huge ham to Dr. W. T. Calman, a fellow carcinologist, the late Keeper of Zoology in the British Museum. Even after the war, as she became aware of the need, she contributed to the support of the small daughter of an Austrian scientist numbered among her foreign correspondents.

She accomplished a prodigious amount of work in her lifetime — the identification of thousands of specimens, thereby enhancing the Museum's reference collections, writing the Division's quarterly and annual reports, carrying on an extensive official correspondence practically all in longhand virtually up to the date of her resignation (1914) and for some 25 years thereafter. All this besides completing her published papers.

Miss Rathbun exemplified to a high degree what a quiet, persevering, modestly ambitious and industrious individual, starting from scratch (1881) could accomplish in less than five decades in a chosen field of scientific endeavor.

The fact that for much of her active life she held relatively minor positions, first with the Commission of Fish and Fisheries and afterwards in the U. S. National Museum, never deterred her from rendering faithful, conscientious performance of her assigned duties, however routine they may have been.

She began, as we have seen, her first year (1886) of life-time service in the Museum as a "copyist," a not uncommon title in the days before typewriters came into general use in the Smithsonian Institution. 3)

Advancing from an initial stipend of $580 per annum by small biennial increments, she reached the clerical level of compensation of $840 seven years later (1893). During the last of her three years of tenure of the position of "clerk" she co-authored one (1891) and was the sole author of five other systematic studies (1892-1893). These accomplishments must have impressed the powers "that were," for she was next promoted (1894) to "aid" at $960 per annum, and then four years and fifteen publications later (1898) to "second assistant curator," a title that appeared on a number of her publications of this period, at $1200. For eight years she served (1898-1906) at that modest emolument before her salary was raised to $1320. She must have been an industrious assistant curator, for, in addition to her routine responsibilities, she produced thirty-five papers besides giving some time to manuscripts of several more

3) Accession file cards and other official records were still done in longhand up to about 1910, as was much of the divisional correspondence, copies of which were made in the widely used letter-press books as late as 1920.
published in the next year or two (1906, 1907). This productivity, as the term is employed nowadays, led eventually to her being advanced to full assistant curator (1907), with an initial salary of $1380. Seven more years passed before her annual salary reached its maximum, $1800 (1913).

After serving a mere 18 months as full assistant curator in complete charge of the operation of the Division of Marine Invertebrates, she resigned on the 31st day of December, 1914, with the explicit understanding that her salary be devoted to the hire of an assistant urgently needed for the preparation of the first of her monographic handbooks on American crabs, upon which she had started to work.

With the start of the New Year (1915), in recognition of her long and devoted service to the Museum, the Smithsonian designated her as Honorary Research Associate, one of the Institution's select group of scholars and scientists.

In 1916, in recognition of her services to Science, the University of Pittsburgh conferred on her an honorary Master’s Degree, after which she went on to qualify for her doctorate at George Washington University in Washington, D.C., in 1917.

Aside from several trips to Europe, in part to examine crustacean collections in foreign museums, Miss Rathbun's field work was centered in New England — Woods Hole, Massachusetts, and South Harpswell, Maine. There, with the assistance of an artist, Miss Violet Dandridge, she made a comprehensive collection of all groups of littoral invertebrates. These were sketched in color by Miss Dandridge, in order that the natural colors could be transferred to the preserved specimens when they were later mounted to form a synoptic series of east coast invertebrates.

Never, while able, could she resist the call of Crustacea or the lure of the Museum's collections. She came daily to her desk through the nineteen thirties until failing health confined her to her home, where a few years later she suffered a fall and a broken hip. The ensuing complications hastened the end. She died in her eighty-third year on April 14, 1943.

During her lifetime she gave the Museum her extensive carcinological library, and at her death bequeathed to the Smithsonian Institution $10,000 to further work on decapod Crustacea in which many another student became interested because of her personal encouragement.

Words alone do not suffice to express adequately my high regard for Miss Rathbun and her works, published or otherwise, my gratitude for all that she did for me, and my respect for her as a woman and as a scientist.

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To the aforementioned Miss McCain we are also indebted for the very thoroughly prepared bibliography.

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(prepared by Lucile McCain, Museum of Natural History, Smithsonian Institution)

34. 1901. The Brachyura and Macrura of Porto Rico. Investigations of the aquatic resources and fisheries of Porto Rico by the United States Fish Commission Steamer Fish Hawk. ["Extracted from"] Bull. U. S. Fish Commision, 20 (2) [for 1900]: 1-127, text figs. 1-26, pls. 1, 2. (Extract has a separate index, pp. 129-137, entries of which are included in index to entire volume (1902), pp. 417-429).
47. 1904-1906. Les crables d'eau douce (Potamonidae).
is without plates, but contains, relative to all three parts of this monographic work: "Liste des nomina nuda", "Espèces indéterminables", and "Espèces rapportées par erreur aux Potamonidés" (pp. 73-76), and "Bibliographie" (pp. 77-97). In the "Addenda" to vol. 6 (p. 98) are "Explication des planches" (pp. 99-104); "Index nominum alphabeticus" (pp. 105-122); and "Errata" to vol. 7 (p. 122).

The manuscript of "Les crabes d'eau douce," originally submitted in its entirety and planned for publication as a single volume, was finally printed in Paris in three separately paged installments, each with the same title. Inasmuch as many carcinological bibliographers treat each of the parts as separate publications, that practice has been followed here. The parts are listed after their respective dates of publication: 1904 above, 1905 and 1906 below in chronological order.

A reprint edition of the three parts, bound in one volume, was published in 1965 by A. Asher & Co. Amsterdam.

53. 1906. The Brachyura and Macrura of the Hawaiian Islands. Based on collections and investigations made by the United States Fish Commission Steamer Albatross in 1902, under the direction of David Starr Jordan and Barton Warren Evermann. ["Extracted from"] Bull. U. S. Fish Commission, 23 (3) [for 1903]: 827-930, text figs. 1-79, pls. 1-24. (Extract has a separate index, pp. i-viii, entries of which are included in index to entire volume (1906), pp. 1183-1198).
   Reprint, also dated 1906, pp. 1-7 [369-375] does not conform to the pagination of the published volume; hence, when referring to specific species, authors should indicate whether volume or reprint pagination is followed.
   Reprint, dated 1907, pp. 1-5 [500-504], does not conform to the pagination of the published volume; hence, when referring to specific species, authors should indicate whether volume or reprint pagination is followed.
   Reprint, dated 1909, pp. 1, 2 [69, 70] does not conform to the pagination of the published volume; hence, when referring to specific species, authors should indicate whether volume or reprint pagination is followed.

Reprint, dated 1909, pp. 1-5 [101-105], does not conform to the pagination of the published volume; hence, when referring to specific species, authors should indicate whether volume or reprint pagination is followed.


Posthumously published

ADDENDUM

Miss Rathbun was greatly interested in zoological nomenclature and devoted much time and effort in straightening out nomenclatural problems in Decapoda. Her papers listed here as no. 20 and 46 were devoted entirely to nomenclature. The present stability in Brachyuran nomenclature is mainly due to her, even though she has, usually unjustifiedly, been criticized by contemporaries for "too much name-changing". The generation of today greatly benefits by Miss Rathbun's consistency in applying the International Rules of Zoological Nomenclature, which resulted in the present stability and uniformity.

At several instances Miss Rathbun applied to the International Commission on Zoological Nomenclature for decision on problematic cases, and also gave her own views on nomenclatural matters if so requested. The following opinions issued by the Commission are based on proposals or requests for judgment submitted by Miss Rathbun, or contain comments provided by her.


*) Miss Rathbun's death occurred while this paper was in press.
Nomencl., 1 (A): 159-170, and in 1958, Opin. Decl. Int. Comm. zool. Nomencl., 1 (B): 13-14; Miss Rathbun’s statement (pp. 13, 161 and 13 respectively) was given anonymously).


Opinion 17, Shall the genera of Weber, 1795, be accepted? (1910, Smithsonian Inst. Publ., 1938: 40-42; reprinted in 1958, Opin. Decl. Int. Comm. zool. Nomencl., 1 (B): 40-42; Miss Rathbun’s statement (p. 40) had the same title as the opinion).


Opinion 203, Validation under the plenary powers, of the specific name "vulgaris" Schmeil, 1897, as published in the combination "Diaptomus vulgaris" (Class Crustacea, Order Copepoda) (1954, Opin. Decl. Int. Comm. zool. Nomencl., 3 (22): 287-296; on p. 291 Miss Rathbun’s comment on this case is published).

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