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Guide to the Charles Otis Whitman Collection ca. 1911



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Descriptive Summary

Identifier	ICU.SPCL.WHITMANCO
Title	Whitman, Charles Otis. Collection
Date	ca. 1911
Size	.5 linear ft. (1 box)
Repository	Special Collections Research Center University of Chicago Library 1100 East 57th Street Chicago, Illinois 60637 U.S.A.
Abstract	Professor and Head of Department of Zoology, University of Chicago, 1892-1910. Correspondence, reminiscences, and biographical sketches of Charles O. Whitman collected by Frank Lillie while preparing a biography of Whitman.

Information on Use

Access

No restrictions

Citation

When quoting material from this collection, the preferred citation is: Whitman, Charles Otis. Collection, [Box #, Folder #], Special Collections Research Center, University of Chicago Library

Biographical Note

Charles Otis Whitman was a leading American morphologist, embryologist, and behaviorist. Born about 1850, he became the founder of the Marine Biological Laboratories at Woods Hole, Massachusetts (1888) and of the *Journal of Morphology*. His scientific work argued for a blend of orthogenesis and micro-mutationist Darwinism that excluded Lamarckism. The posthumous study of his work in pigeon behavior has become a landmark in ethology.

Whitman played the central role in establishing biology as a scientific subject. As founding director of the Woods Hole Marine Biological Laboratory (1888-1908), and organizer of the biology programs at Clark University (1889-1892) and the University of Chicago (1892-1910), he fostered and coordinated the work of an entire generation of practitioners in the full range of biological sciences, from bacteriology and embryology through physiology and ecology. Additionally, Whitman is considered a major pioneer in ethology: his work on the evolutionary bases of the behavior of pigeons formed a crucial link between the ideas of Darwin and those of

Konrad Lorenz. Finally, he is now seen as one significant proponent of the view, dominant in American academic thinking at least until the 1940s, that (even allowing for natural selection) the history of life was essentially a progressive process culminating in humans.

He was born in 1842 in western Maine to a hastily married couple caught up in the millennial movement known as Millerism, or Adventism. His father, calling upon both the priority of family and the demands of Adventist pacifism, prevented his efforts to enlist in the Union army in 1862. For the next three years Charles worked as a part-time grammar school teacher, but devoted much of his energy during that time to disputing his family's exceptional religious commitments. He proclaimed his independence by joining the local Universalist congregation. Ultimately he enrolled at Bowdoin College in hopes of becoming a secondary school teacher.

Following graduation Whitman became principal of the Westford Academy, a small Unitarian-oriented college preparatory school outside Lowell, Massachusetts. At the end of the 1860s the Free Religious Association split over the relative importance of fostering religious devotion and supporting the "scientific study of theology." By 1871 Whitman was following the rationalist wing. In 1872 he resigned from his position in Westford after criticizing the school's trustees for wasting tuition money on themselves. He moved to Boston and joined the staff of the public English High School. He probably taught both English and natural science there, as he did at Westford. He applied to attend the new natural history summer school that the famous Harvard zoologist Louis Agassiz organized on Penikese Island in the summer of 1873. In early 1874 he became a member of the Boston Society of Natural History, and following a second summer at Penikese, he decided to study zoology full time. In 1875 he took a leave of absence from teaching and followed the lead of his fellow Penikese Student, Charles S. Minot, going to work at the University of Leipzig with the parasitologist Rudolf Leuckart and decided to remain in Germany to complete a Ph.D. Whitman's professional life remained unsettled for more than a decade following completion of his doctorate in 1878. Initially, having no other prospects, he returned to the routine of high school teaching. A year later he received a postdoctoral fellowship at the Johns Hopkins University, but immediately gave it up when E.S. Morse, who knew him from Penikese, asked him to be his successor at the recently established University of Tokyo. He left Tokyo after two years and worked for a number of months at the Naples Zoological Station; he then spent four years as Alexander Agassiz's assistant at the Museum of Comparative Zoology, and followed that with three years in Milwaukee as tutor to the wealthy zoological amateur, E. Y. Allis, Jr., and director of his short-lived Lake Laboratory.

In 1884 he married Emily Nunn and soon took on the responsibilities of fatherhood. He became the founding leader of the Marine Biological Laboratory and of the University of Chicago biology program, and the central figure in the organization of academic biology in the United States. During the 1880s, Whitman established himself as the American master of biological technique. He systematized and diffused the procedures that European anatomists and zoologists had gradually developed over the past two decades: how to isolate, section, stain, and mount embryological specimens, and how to distinguish subcellular structures from the artifacts of

preservation 23. Moreover, he used the Lake Laboratory to provide hands-on instruction in these techniques, not only to Allis, but also to a small group of assistants he induced Allis to support.

From his focus on cutting-edge research methods, Whitman developed plans to reform the organization of the life sciences in the United States. In 1889 President G. Stanley Hall of Clark University asked him to lead the biology department. Two years later, when William Rainey Harper determined to raid Clark in order to make the new University of Chicago an immediate world leader in science, Whitman was the chief acquisition. He brought with him as junior colleagues much of the next generation of leadership in biological science: Jacques Loeb, William Morton Wheeler, Frank Mall, Henry Donaldson, and Frank Lillie. . In December 1910, however, he caught a chill while trying to protect his birds from a sudden cold snap, and died a few days later, just shy of his sixty-eighth birthday.

Scope Note

Correspondence, reminiscences, and biographical sketches of Charles O. Whitman collected by Frank Lillie while preparing the Charles Otis Whitman Memorial Volume of the Journal of Morphology (Vol. 22), 1911.

Related Resources

The following related resources are located in the Department of Special Collections:

<http://www.lib.uchicago.edu/e/spcl/select.html>

Subject Headings

- Whitman, Charles Otis, 1842-1910
- Lillie, Frank Rattray, 1870-1947
- Zoologists

INVENTORY

Box 1

Folder 1

Reminiscences

- E. P. Allis, Jr., Lake Laboratory, Milwaukee, Wisconsin; and the founding of the Journal of Morphology
- Thornton D. Appollonio, English High School, Boston
- Jobert? Casey, English High School, Boston

Box 1

Folder 2

Reminiscences

- Cornelia M. Clapp, Penikese school
- E.G. Conklin
- Wallace Craig

- Cornelia Fletcher Day, Westford Academy
- H. H. Donaldson
- Reinhardt Dohrn, Naples station

Box 1

Folder 3

Reminiscences

- Helen Keith Frost, Westford Academy; English High School
- Laura Guillian, Johns Hopkins
- I. Jijima, University of Leipzig
- George T. Little, Bowdoin College
- E. L. Mark, Museum of Comparative Zoology, Harvard University

Box 1

Folder 4

Reminiscences

- T. H. Morgan
- E. S. Morse

Box 1

Folder 5

Reminiscences

- Oscar Riddle
- Sarah H. Trumball, English High School
- C. Bowyer Vaux

Box 1

Folder 6

Reminiscences

- W. M. Wheeler, English High School
- Carroll Whitman

Box 1

Folder 7

Biographical data on Charles O. Whitman