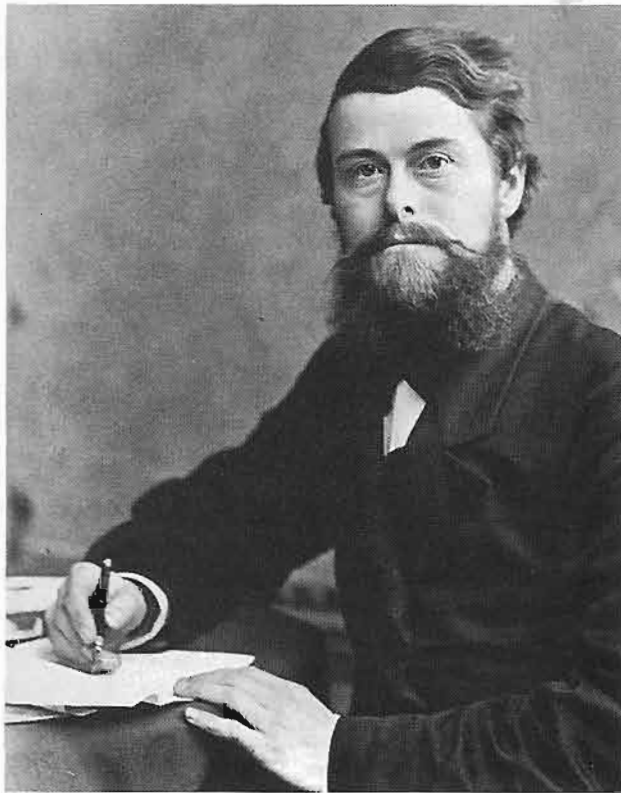


described two new salamanders and proposed modifications in the classification of the group. Although Cope's interests later broadened to include all vertebrate groups, herpetology was his first love and favorite branch of study, and it continued to occupy him for the rest of his life.

Under the ruse that it would permit him to treat farm stock, Cope pleaded with his father to let him attend the University of Pennsylvania to study comparative anatomy with the paleontologist Joseph Leidy, and he finally was allowed to do so during 1860-1861. It was the only formal course in science that Cope ever had! It soon became clear that he would never be happy as a farmer, so his father relented and permitted him to pursue his informal studies by spending the winters of 1861-1863, during the Civil War, in Washington where he became a protégé of Spencer F. Baird.

In 1863-1864 Cope travelled throughout Europe, where he met and worked with some of the leading anatomists and herpetologists of the day, including John E. Gray and Albert Günther at the British Museum, Hermann Schlegel in Leiden, the anatomist Karl von Siebold and explorer Prince Maximilian zu Wied-Neuwied in Prussia, and Giorgio Jan in Milan. There were also extended periods at the museums in Vienna, Berlin, and Paris. The year in Europe completed Cope's student life, and the exposure set a high standard for his future research and publication.

Shortly after returning to America, Cope became Professor of Natural Science at Haverford College, near Philadelphia. Cope, of course, had no formal degree, so



*Edward D. Cope*

Haverford obliged with an honorary one (A.M. 1864). Concurrently, he was Curator of Herpetology at the Academy of Natural Sciences (1865-1873). His publications on living amphibians and reptiles continued, but in 1865 he published his first paper in paleontology—on a fossil amphibian from Illinois—and thereafter his interests shifted more to that subject. Increasingly, Cope found that his teaching duties interfered with his research and, after three years at Haverford, he resigned to pursue scientific exploration and writing, operating from two adjacent houses in Philadelphia.

From 1871 to 1893, Cope participated almost annually in extensive explorations in western North America, beginning in Kansas and later extending north to Montana, west to California, and as far south as Veracruz, Mexico. During many of these years, Cope spent about eight months of each year in the field and the remainder in Philadelphia writing up the latest results. This work was largely under the auspices of official U.S. government surveys, although Cope provided most of his own support. Travel was by stagecoach west from Philadelphia, then by horse and wagon. Cope's field parties were small, usually only himself, a guide, and a few assistants, yet they often worked in disputed areas beyond the protection of the military. The primary purpose of these expeditions was paleontological, but Cope also collected and observed living vertebrates, including amphibians and reptiles. It is not generally recognized today to what extent Cope was also a field naturalist; indeed, it is fair to say that he was the first of the great herpetologists to be thoroughly familiar with his animals in nature.

Cope's most epochal contributions were to vertebrate paleontology. He recognized the importance of the enormous collections of vertebrate fossils, especially those of dinosaurs, being unearthed mainly in the American West, and through their study foresaw his dominance of the field of paleontology. In his many books and papers on the subject, Cope described and named 1282 genera and species of North American fossil vertebrates, 510 of them amphibians and reptiles.

This work inevitably brought Cope into conflict with the other leading American paleontologist of the era, O. C. Marsh of Yale College. They had previously been friends, but beginning in 1872 their famous feud began, eventually involving dirty tricks, spying, charges of plagiarism and, in 1890, sensational headlines in a series of newspaper articles in the *New York Herald*. The competition became so fierce that Cope got into the habit of hurriedly studying his newly-collected material in the field and then promptly telegraphing his descriptions to Eastern journals, but several times the telegraph operators got the names of his new species garbled—for all posterity! Sometimes Cope's and Marsh's papers were published only one day apart. The dispute ended finally with Cope's death, but by that time the rivalry had engulfed America's leading scientific institutions and academies and many biologists and paleontologists, including the anatomist Georg Baur, Marsh's chief assistant, who was secretly Cope's ally.