

Memorial to John West Wells 1907–1994

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John West Wells, professor emeritus in the Department of Geology at Cornell University, died on January 12, 1994, at his home in Ithaca, New York. He was a teacher, scholar, and world-renowned specialist on scleractinian corals, both fossil and living.

John was born July 15, 1907, in Philadelphia, but, from preschool to college age, lived in the small town of Homer, New York, 20 miles northeast of Ithaca. From Homer he entered the University of Pittsburgh, receiving his B.S. degree in 1928. He was instructor of geology at the University of Texas (1929–1931); received his M.A. (1930) and Ph.D. (1933) degrees from Cornell; and married Elizabeth ("Pie") Baker, of Ithaca, in late 1932. During 1933–1934, John was a National Research Council Fellow, studying in the British Museum (London), the Muséum National d'Histoire Naturelle (Paris), and the Humboldt Museum (Berlin). During 1935–1937 he worked with T. Wayland Vaughan in Washington, D.C., and "looked for a job." The monumental volume on revision of the Scleractinia (1943) was a product of this period and the principal result of the Vaughan collaboration. John taught at the State Normal School at Fredonia, New York (1937–1938), and Ohio State University (1938–1948). He returned to Cornell in 1948 as professor of geology, served as department chairman (1962–1965), and became professor emeritus in 1973.



John's career was not all academic. During 1944–1945, he served in France and Germany with the Office of Strategic Services. He was a member of an allied group assessing war damage, and in 1945 published notes on the state of various French and German universities and museums. In 1946 he began an affiliation with the U.S. Geological Survey that lasted until long after his retirement. He was involved in various Pacific island studies, including field participation in the resurvey of Bikini (1947) and the Pacific Science Board's Amo Atoll Expedition (1950). He continued to identify, describe, and analyze the Recent and Tertiary corals from these and other expeditions well into the 1980s. Some 40 of his publications, including both monographs and analytic studies, were the direct result of this Pacific island work.

During 1954, John was Fulbright lecturer at the University of Queensland. In 1956 he and Dorothy Hill jointly prepared nine sections on the Coclenterata for the *Treatise on Invertebrate Paleontology*. These were in addition to the section on Scleractinia by Wells alone.

John's first publications in 1932 were on scleractinian corals, and these continued to be the main focus of his research; over half of his 174 publications over the next 56 years addressed some aspect of scleractinian biology. He published regularly on Cenozoic and Mesozoic Scleractinia throughout his career, but not until 1950, coincident with his field work at Amo Atoll, did he seriously begin to publish on Recent Scleractinia. His collaboration with T. W. Vaughan, *Revision of the Suborders, Families, and Genera of the Scleractinia* (1943) is perhaps his greatest contribution to coral biology. This monograph was the first modern synthesis of the higher-level classification of the Scleractinia (the preceding being that of Duncan in 1885) and is the basic reference for most coral workers. The monograph includes not only diagnoses and keys to

all the scleractinian higher taxa, but also a summary of coral anatomy and morphology, reproduction, ecology, distribution, and evolution, as well as an extensive bibliography. This seminal work set the stage for Wells's later account of the Scleractinia (1956) in the *Treatise on Invertebrate Paleontology* and finally an updated list of all scleractinian generic and subgeneric names and their type species (1986).

John Wells is well known for his meticulous faunal revisions of both fossil and Recent corals. His hefty *Recent Corals of the Marshall Islands* (1954) includes the descriptions and illustrations of 240 species from the region, and his first important monograph (1933)—the result of his Ph.D. dissertation—is a comprehensive account of 146 Cretaceous species in North America, with remarks on their stratigraphy. He is also noted for his revisionary work on Caribbean Scleractinia (1974) that resulted in a list of 64 Recent species from off Jamaica, still the largest number of coral species from any one Caribbean locality. In earlier works on West Indian fossil corals, he described 19 new species from the Cretaceous and Eocene of Jamaica (1934) and 17 from the island of Barbados and Martinique (1945). His revision of the Galápagos Scleractinia (1983) is noteworthy as a comprehensive account of a fauna. Most of John's specimens are now deposited in the U.S. National Museum of Natural History in Washington.

John's 56-year publication career resulted in almost 100 papers on scleractinian corals. The overall impression is that he was both a specialist and a generalist. He knew species-level coral taxonomy, from Triassic to Recent, on a worldwide basis, but also synthesized these data into a higher classification and evolutionary scenario of the whole order. He was the doyen of 20th century scleractinian workers.

John had an insatiable curiosity about the world that surrounded him. This resulted in many studies of local geology and an interest in regional history. During his early years in Homer, and while teaching at Ohio State and Cornell, John's work involved areas that had served as the basis for classic studies of the Devonian, so it was perhaps inevitable that many of his publications were on Devonian paleontology and stratigraphy, including several on rugose and tabulate corals. His analysis of the rugose coral *Heliophyllum halli* (1937) is an outstanding and still basic study of individual variation in fossils invertebrates, while his tightly construed "Provisional paleoecological analysis ..." (1947) is a textbook example of the integration of stratigraphic and paleoecologic analysis; two papers, on crinoids (1941) and *P. woodmani* (1967), are examples of his innovative ingenuity. Other Paleozoic papers are on such disparate Devonian subjects as fish, crinoids, sponges, starfish, ammonoids, bone beds, and Ithaca area geology, plus miscellaneous Ordovician, Silurian, and Carboniferous contributions. Most of the Paleozoic papers are nonsystematic, dealing with interesting aspects of unique or unusual occurrences, growth or color patterns, etc.

Sometime during the 1940s, while associated with George W. White at Ohio State University, John became interested in the history of geology. More than a dozen Wells publications grew out of this interest. His "Early investigations of the Devonian System in New York, 1656–1836" is representative and combines history with his love of New York. Wells and White were pioneers in the field, and both were enthusiastic supporters of the History of Earth Sciences Society from its founding in 1981–1982.

John's most widely noted paper was first presented as his presidential address to the Paleontological Society in November 1962 and soon published in *Nature*. "Coral Growth and Geochronometry" demonstrated that there were more days in the Devonian year than in today's year by comparing counts of daily growth lines in corals: nearly 400 (Devonian) versus approximately 365 (today); Pennsylvanian counts were intermediate. This attracted the immediate attention of astronomers and geophysicists who had theorized that the rotating Earth was slowing down but needed independent evidence such as Wells provided. John's paper generated a great amount of research on incremental growth of skeletal material in several groups of invertebrates.

John's interests and research were not limited to geology and paleontology. Local and cultural history, especially of upstate New York, were major outside interests. He belonged to the Cobblestone Society, and for many years he and his wife enjoyed that group's annual tours of cobblestone buildings in various New York counties. In his own boat, John joined the celebration of the 350th anniversary of Samuel de Champlain's trip down what is now Lake Champlain. The seriousness of his interest in local and New York history is represented by "The Cayuga Bridge" (1958). This 1780–1860 story was as thoroughly researched in contemporary records and other appropriate sources as were his local geology papers.

Soon after returning to Cornell in 1948, the Wellses established a summer home, Lucky Stone Lodge, on Cayuga Lake, 15 miles from Ithaca. There they hosted students, colleagues, and other friends in what became a virtual museum of New Yorkiana and other interesting products of their world travels: numerous prints and paintings, stone books, odd and fine fossils and shells, and what must be the largest collection anywhere of chamber-pot lids. John was a bibliophile who had important collections of early works on American and European geology and British prize books, as well as innumerable paperback whodunits and a library of general literature. Many people have pleasant memories of swimming in the lake, relaxing on the large porch with one of John's beverage concoctions, and enjoying good conversation.

John was a Fellow of the Geological Society of America, and a member of the Paleontological Society, Paleontological Research Institution, Society of Vertebrate Paleontology, Society of Systematic Zoology, Society for the Study of Evolution, American Association for the Advancement of Science, Sigma Xi, and the International Association for the Study of Fossil Cnidaria. He received many honors in addition to his National Research Council Fellowship (1933–1934) and Fulbright Lectureship in Queensland (1954). He was president of the Paleontological Society (1961–1962) and, at almost the same time, president of the Paleontological Research Institution (1961–1963) and chairman of the Cornell geology department (1962–1965). In 1968 he was elected to membership in the National Academy of Sciences. In 1974, he received the Paleontological Society Medal in recognition of his lifetime accomplishments. In 1987, he was awarded the James Hall Medal of the New York Geological Survey for all of his work, but especially for his contributions, and those of his students, to New York paleontology and geology. His medal citation reads:

John W. Wells
for distinguished contributions to
paleontology and stratigraphy
Professor, Historian, Mentor

It could not be better stated.

Elizabeth Wells died in 1990. John Wells is survived by his daughter Ellen Baker Wells of Washington, two granddaughters, and two great-grandchildren.

ACKNOWLEDGMENTS

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