

Memorial to Glenn Lowell Jepsen 1903-1974

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Glenn Lowell Jepsen, Sinclair Professor of Vertebrate Paleontology, Emeritus, at Princeton University, died at his home in Princeton, New Jersey, on October 15, 1974, of cancer after an illness of several months. His rather sudden death came as a severe shock to his many friends and colleagues.

Jep (as he was generally known) was born in Lead, South Dakota, on March 4, 1903, son of Victor T. and Kittie (Gallup) Jepsen. Four years later the family moved to Rapid City, South Dakota, where Jep began his schooling. After the death of his mother in 1910, he and his older brother were brought up by an aunt, "Ma" Starner. The brothers spent part of each year in their town house and part at the ranch outside of town, where they grew up as typical

westerners, helping to raise horses, cattle, and hogs. It was near the ranch that Jep found his first fossil, reputedly an ammonite.

During his high school years in Rapid City, Jep was a member of the Forensic Society, the Dramatics Society, and the Publications Board, and he was a successful member of the Debating Team for several years. He also found time to join the track team, on which he was a consistent winner in the 100-yard dash and the 220-yard high hurdles. Other hobbies included playing the violin and constructing crystal-set radios.

After graduating from high school, Jep attended the University of Michigan for a year. From 1923 to 1925, he attended the South Dakota School of Mines, where he was a part-time student as well as an instructor in English. Like many of the students at the School of Mines, Jep became interested in collecting and studying some of the many fossil remains of primitive mammals from the already-famous Oligocene deposits in the nearby Badlands of South Dakota. It was there he met Professor William J. Sinclair, the distinguished vertebrate paleontologist from Princeton University. His close friendship with Sinclair led to Jep's transfer to Princeton University, where he entered as a junior in 1925. He majored in geology and graduated with highest honors in 1927; also he was elected to Phi Beta Kappa. While still an undergraduate he published his first paper, based on his discovery and study of "The oldest known cat," *Hoplophoneus oharrai*, from the Oligocene beds in the South Dakota Badlands. He continued as a graduate student at Princeton and was awarded the Ph.D. degree in the spring of 1930.

That fall Jepsen began his long and distinguished career on the faculty of Princeton University as an instructor in the Department of Geology. He was promoted to assistant professor in 1934. In the following year he was appointed Curator of Vertebrate Paleontology, as well as director of the field expeditions supported by the William Berryman Scott Fund of Princeton University. In 1940 he attained the rank of associate professor and was appointed Director of the Princeton Museum of Natural History, which included both geological and biological exhibits. In 1946 he became the first incumbent of the

Sinclair Professorship of Vertebrate Paleontology, a chair he filled until his retirement in 1971.

Continuing his earlier interests in prehistoric land mammals, Jep spent most of his undergraduate summers in the Badlands of South Dakota. His fossil collecting in the Badlands brought him in contact with many members of the Sioux Indian Tribes, who came to admire and respect him sufficiently to confer on him the Sioux name "Hohu Wichasa," meaning "Bone-finding Man." Upon graduation in 1927 he accompanied Sinclair into the Big Horn Basin of Wyoming, following in the path of the first Princeton fossil-collecting expedition led in 1877 by William Berryman Scott and Henry Fairfield Osborn. As it turned out, that summer was to be only one of a total of forty-six summers that Jep subsequently spent in the same region. He recognized that the Polecat Bench area near Powell, Wyoming, contained as well exposed and as complete a section of nonmarine Paleocene rocks as is known in North America. Although fossils were rare in the formation (which he named the Polecat Bench Formation), Jep's characteristic persistence, patience, and downright stubbornness over the years led to his original aim—to present to the world the largest and most complete collection of Paleocene mammalian species ever known from one limited area. His numerous scholarly publications on this unique assemblage have cast new and significant light on some of Man's earliest relatives and their extinct mammalian associates. He seemed to take greater pride in this accomplishment than in any of his other major contributions to vertebrate paleontology. It has been generally recognized that Jep's Polecat Bench Formation "has become a world standard for defining the Paleocene Epoch in terms of mammal-bearing terrestrial sediments" (from a personal communication from Jep).

Jep's work in the Big Horn Basin was also his occasion for contacts in the field with both undergraduate and graduate students, many of whom began their careers as vertebrate paleontologists under his guidance. His articulate, exciting, and superbly organized presentations in the field were fully recognized and deeply appreciated. As a token of their esteem, 150 of his former students presented him, upon his retirement in 1971, with a bound volume of their letters of appreciation and respect.

It was also in his Big Horn Basin project that Jep met the two Churchill families who adopted him and his students, feeding them, housing them, and encouraging them in their investigations. On their ranch house property Jep parked his large mobile home in 1950, and there it remained immobile for the next twenty-five years, often a welcome-wagon for visiting friends.

In the 1940s Jep was temporarily diverted to Cody, Wyoming, still in the Big Horn Basin; a few miles east of the town, one of the Scott Fund expeditions under his direction made a collection of unsurpassed remains of ancient buffalo bones and some "Yuma" artifacts. Jep's publications on this collection provided new clues to a 7000-year-old culture, and evidences of a substantial buffalo kill by ancient American buffalo hunters.

One of the more widely known and respected of Jep's investigations was his research on a perfectly preserved fossil skeleton of the earliest known bat, discovered in the well-known Eocene Green River oil shales of southwestern Wyoming. In the cover story of *Science*, December 1966, Jep described the 5-inch-long skeleton in every minute detail. This was the result of several thousand hours of extremely delicate and painstaking work, requiring the use of sharply pointed needles under a binocular microscope to remove the fine rock from around the fossil skeleton. From such exposed details of the 254 skeletal bones he was able to determine taxonomic relationship, age, sex, weight, food habits, and cause of death of this most ancient flying mammal. This accomplish-

ment has often been cited as a classic of detailed analysis. Jep took great delight in naming this ancient bat *Icaronycteris index* from Icarus, the ancient flying man; nycteris (Greek), the bat; and index, to call attention to the claw on the index finger.

Another of Jep's notable contributions to vertebrate paleontology was made, as sheer luck would have it, a few hundred feet from his office on the Princeton University campus in the fall of 1946. From an excavation being made for the new Firestone Library, a few fragments casually picked up by geology professor Arthur Buddington were recognized by Jep as rare fossil fishes of potential scientific value. Jep at once convinced the foreman to rope off the fossil-bearing portion of the pit. For several days thereafter the spot was swarming with fossil hunters, including geology department undergraduates, graduate students, faculty, and even a janitor or two. The resulting collections—enough to fill a vacated garage—yielded a large and very significant assemblage of Late Triassic fishes, including some of the best specimens of coelocanthus known.

During the 1940s Jep's investigations of the Big Horn Basin fossil vertebrates naturally took him into the related fields of evolution and genetics. These interests led him to organize and later to direct (at Princeton University's Bicentennial Celebration from 1946 to 1947) the first international symposium ever held on genetics, paleontology, and evolution, wherein biologists and paleontologists shared each other's views and outlined plans for cooperative research in evolution. From this highly successful conference stemmed the well-known volume *Genetics, Paleontology and Evolution* edited by Glenn L. Jepsen, George Gaylord Simpson, and Ernst Mayr.

For forty-one years Jepsen taught at Princeton University, and his courses in evolution, vertebrate paleontology, and human origins were always in demand across the campus. Words of praise for his teaching included "stimulating," "exciting," "elegant," "thorough but rigorous," and "intellectually uplifting." Despite the low tone of his voice and his quiet manner of presentation, he never failed in attracting the attention of every member of his class. At the time of his death many of his former students, colleagues, and friends established the Glenn L. Jepsen Fund in Natural History, to support student research at Princeton, especially in vertebrate paleontology.

One of Jep's coveted honors was his award in 1962 of the Addison Verrill Medal, one of Yale University's top honors in science, an award that commemorates the eminent 19th-century scientist who was Yale's first professor of geology. In his citation he was lauded as a teacher "whose fundamental discoveries in a lifelong quest for ancient mammals have profoundly added to the revelation of the strange and colorful vista of the beginning of the Age of Mammals."

Glenn L. Jepsen was a Fellow of the Geological Society of America (councilor from 1951 to 1954); the Paleontological Society of America (vice president from 1955 to 1956); the Society of Vertebrate Paleontology (president from 1944 to 1945); the Society for the Study of Evolution (councilor from 1946 to 1947); and the American Association for the Advancement of Science. He was also a member of the American Philosophical Society, the American Association of University Professors, the American Society of Mammalogists, the Geological Society of New Jersey (president from 1959 to 1961; director from 1961 to 1963), Phi Beta Kappa, and Sigma Xi.

In a letter to me to be read at a conference in late August 1974, Jep revealed in two short paragraphs his opinion on geologic concepts on which he had been working and thinking throughout his fruitful life. They are worth quoting:

[The Polecat Bench area is one] that reveals some of the fallacies in trying to fit principles of marine stratigraphy to fresh water deposits. It also

demonstrates the futility of many efforts to establish meaningful explanatory terms for time-rock-organism combinations. To the stratigraphers who have *not* been forced into rapid surveys and false accuracy by their institutional assignments of speedy mapping of rocks, and to those who have been careful not to go beyond the field evidence in interpretations of fossiliferous strata, many of the highly organized international symposia on nomenclature are regarded as exercises of social success and scientific futility where processes and objects are confused in long wordy discourse . . .

You'll notice that I am avoiding the use of taxonomic names. There's a reason, just as there is for my reluctance to publish very many lists of them. Names are not the significant objects in comparisons of fossils. But, unfortunately the fossils themselves (which are named by different people who have different criteria of identification) are rarely compared for faunal lists. The result is the comparisons of symbols that are derived from highly personalized estimates of structures and may be quite different from author to author whose bases of comparison are different. Many so-called faunal comparisons have been useless because they are really comparisons of written words, not of organisms.

Jep's marriage in 1934 to Janet E. Mayo ended in divorce in 1953. He is survived by her, now Mrs. Eric Biddle of Arlington, Virginia; a brother, Marvin V. Jepsen of Rapid City, South Dakota; and a daughter, Kittie A. Jepsen of Muskegon, Michigan.

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