Obituary: Warren Glenford Kinzey (1935–1994)

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Warren Kinzey died peacefully during the early hours of October 1, 1994, at home in Tarrytown, New York. Many of us knew this was coming. Warren was suffering from amyotrophic lateral sclerosis (ALS), Lou Gehrig's disease. His brother-in-law, Steven, at Warren's side until the final moments along with Julie Kelly, Warren's wife, said Warren went to the last as he did everything, with the dignity of the great teacher that he was.

Warren's life was as full as he could possibly fill it. Hours before the onset of the bout of pneumonia that hospitalized him during the final week of his life, Warren was on the phone to Eric Delson scheduling a trip in to Manhattan. He planned to hear a talk by one his own Ph.D. students, upon her return from thesis research in Madagascar. A month before, he completed a new manuscript on saki monkeys co-written with Marilyn Norconk. Last June he shipped me 16 long chapters on the natural history of New World monkeys, a genus-by-genus account, for a book he was editing. Warren would soon call me back to relate proudly that "New World Primates: Ecology, Behavior and Evolution" had gone off to the publisher. All that activity was made possible by a devoted entourage of family, friends, and graduate students, caring for him and working with him as his muscles wasted from disease. Most of all it was Julie Kelly who enabled Warren to continue the enjoyment of travelling, writing, meeting with students, spending time with his family, and leaving all, including himself, prepared for death's untimely truth. Warren would have been 59 years old on the last day of October, 1994.

Warren is remembered for his pioneering research on New World monkeys as well as his genius as a mentor. He inspired and nurtured many young people and guided them into productive careers, both in and outside of academe. That magic was not reserved for his students alone. Warren was always scouting talent, advising, cajoling, and encouraging anyone with like interests to carry out a project.

Warren's magnetism as a teacher derived from an effervescent mix of scholarship and charm. For decades, his youthful vigor, warmth, and generosity drew students of many kinds and calibers into his office, where the real teaching would begin. Undergraduates and beginning graduate students were especially welcome. He invited all into his home for late-term parties around Christmas, where he proudly showed off family, played a mean game of table tennis, entertained with slide shows, and introduced us to the lore and personalities-he seemed to know everyone-of physical anthropology. There we saw his personal dimension, his love for singing, his passion for ice dancing. Alas, it was from his wheelchair that Warren watched the medal rounds of his last Winter Olympics together with a small group of friends. Always teaching, he marveled as he explained the triple axle jump, dissecting it with the knowledge of a functional morphologist and the exuberant spirit of a fan. He noted how this maneuver, unthinkable when he skated competitively, is now possible because progress in the anatomical sciences enabled an extension of species-specific, human locomotor performance. The irony was felt by all, for science could do little to preserve Warren's own biomechanics as the disease progressed.

Warren was determined to be an anatomist when he arrived at the University of Chicago's anthropology program in 1957, but the discipline was then still undeveloped there. Clark Howell, then at Chicago, recalled Warren in his early twenties, "coming down from Minnesota" where he had done his bachelor's and master's degrees. Intellectually critical and stubbornly determined to pursue his own path. Warren avoided the impression of arrogance with his "boyish look, great big grin and infectious smile." the expression that many of us in the profession came to know. He soon moved on to the University of California at Berkeley, to follow Sherry Washburn and to complete his Ph.D. in anatomy, which he received in 1964. Warren's thesis research on the endocrinology of reproduction in rats was a topic of convenience, but it also became a foundation of his lifelong interest in dietary adaptation. Likewise, in the first phase of his research career he worked several fronts in disparate disciplines-human variation, primate functional morphology, endocrinology, hominids, biometrics, allometry—exploiting his broad background in anatomy, anthropology, zoology, and biostatistics while gradually focusing on the dentition as a main research specialty.

Although he was widely admired for his influence on the growth of New World monkey studies, 12 years of publishing were to elapse before Warren's first platyrrhine paper appeared, a modest little study quantifying the lack of sexual dimorphism in titi monkey canine teeth. Nonetheless, one paper of that earlier period stands out as a quiet, highly original prelude to what would become a pillar of Warren's scientific success. It was under the tutelage of the inspiring dentist and odontologist, Albert Dahlberg, working in a basement laboratory at the University of Chicago, that Warren's interest in teeth began to form. Decades later. Warren would be doubly amused that his long-forgotten first "tooth paper," published in 1962 with Dahlberg, was not only an experimental study on microscopic tooth wear-actually, the effects on Warren of chewing sand-but also that it was written in French.

Warren's debut as a force in primatology occurred in 1965, when he was an assistant professor of anthropology, zoology, and anatomy at the University of California at Davis. In a brilliant reading of the contemporary research scene, he convened primatology's first major thematic symposium in the United States. The topic was primate locomotion. The papers appeared in a special volume of the *AJPA* in 1967, which he edited.

While writing up his thesis work during the late 1960s and into the 1970s, Warren was establishing a family and a teaching career, and beginning to seed primatology and paleoanthropology with a diverse new generation of scholars. As he sought to build an anthropological research identity, the tug of hominid evolution and fossil primates led back to dentition after a ten-year hiatus. He published two interesting, related papers in the journal Nature early in the 1970s. One quantified the evolutionary rates of canine crown size reduction in hominids. The other examined jaw shape in primates as a background to the diagnosis of Hominidae, a project stimulated by the issues surrounding "Ramapithecus" and its supposedly parabolic dental arcade. In doing this work, Warren recognized that another primate presented that rare combination of small canines and parabolic jaws, the genus Callicebus. The wheels began to turn and in several years Warren would be off to Amazonian Peru, seeking to learn more about a species in which small canines, a non-aggressive demeanor, and a monogamous social organisation were coupled adaptively. Researching this pattern eventually brought forth a radical alternative to the Washburn-Devore open-country baboon model of human origins, radical in terms of its ecological and sociobiological implications, as well as its taxonomic derivation. I imagine Warren also found delight in delivering an alternative caricature of the archetypical early hominid male as a cooperative, nurturing, paternalistic figure within an intimate family-group setting, one not given to the vehicles of ferocious bluff and gender-based chauvinism.

Warren's career crystallized after his arrival at the City College of New York in 1970. He was thrilled to be among a critical mass of physical anthropologists united by a convenient subway system. His circle of friends and fellow scholars in New York City included Cliff Jolly, Fred Szalay, Eric Delson, Ian Tattersall, Bob Sussman, Ralph Holloway, and Pat Luckett; up at Yale, Elwyn Simons, David Pilbeam, and Alison Richards; and on Long Island, Jack Stern, Randy Susman, and John Fleagle, who were assembling an anatomy faculty with intellectual roots tracing back to Chicago and Warren's own deep interest in locomotion. Warren was quick to help found the New York Regional Primate Group to capitalize on this diverse, expanding brain trust and, most of all, to offer students a stage to witness and join at the exchange of ideas among professionals. City University of New York (CUNY) has since hosted a monthly Thursday evening seminar on primatology and paleoanthropology, possibly the longest-running gathering of its kind in the country. The recent formation of the NYCEP consortium owes much to the seeds of discussion Warren helped sow 20 years ago.

Warren's deepening commitment to platyrrhines began in the early 1970s, when New World monkeys were an entirely open field of study. They offered an essentially unknown radiation as a context for forging his personal synthesis of S.L. Washburn's teachings, which inverted primatology's predisposition for the science of bodies over behaviors. Washburn emphasized the living animals as the primary information base of functional anatomy, rather than the bones and muscles by themselves. Warren blended this view with the evolutionary perspective of the anatomist Le Gros Clark, whose work he admired, especially Clark's ideas of evolutionary trends and total morphological pattern.

Warren's two decades of research and writing on platyrrhines was an artfully scripted programme. The New World monkeys demanded study because they are intrinsically interesting; because of their didactic significance for hominid evolution; because fieldwork on them could be accomplished at relatively low cost; and because the study of non-human primates needed to be legitimized as part of anthropology if primatology, as a discipline, was to be sustainable in the social sciences and provide teaching jobs for the students that would be coming out. His research agenda paid off quickly and well. One of warren's early insights led to an extension of Jolly's seedeaters hypothesis. In this 1974 paper, "Ceboid models for the evolution of the hominoid dentition," Warren showed that protohominids may have been hard-object fruit eaters living in the trees.

Warren was drawn deeply into fieldwork to solidify the morphology-behavior interface from 1974 onward, with encouragement from his old friend Bob Sussman. He made Peru and then Brazil his summer and midwinter destinations in a quest to study different species of the monogamous *Callicebus* in as many habitats as possible.

Social organization, feeding behavior, and dental morphology nourished Warren's first questions, but his appetite for projects continued to grow, for he read broadly, collaborated easily, and was always interested in new ideas and people. As the study of primate locomotion gained momentum in the mid-1970s, Warren was ready with data on the positional behavior of *Callicebus* and *Ce*buella. When the Pleistocene refugium hypothesis gained attention, Warren, a stickler for details, an adroit mapmaker, and now travelling widely in South America, was keen to follow up its implications for understanding the geographic distribution of platyrrhines. As vocal playbacks developed into a field tool, Warren investigated the social and ecological meaning of the booming long calls of titi monkeys.

During the last 10 years of his life, in the buoyant years of what should have been midlife, Warren returned to the nagging questions he left unanswered decades before. With Marilyn Norconk, he began an intense program of fieldwork exploring the adaptive significance of food hardness and biochemistry in the little-known saki and uakari monkeys. The methods they developed to test the physical properties of the foods primates eat are becoming standard tools of the fieldworker's kit. That Warren would press this issue some 15 years after he first mulled it over in the literature testifies to the determination Clark Howell saw in the same man 30 years younger.

While managing this benchmark series of field studies from afar, Warren did a twoyear stint in Washington, DC, as program director of physical anthropology at the Na-



Fig. 1. Warren Glenford Kinzey (1935-1994).

tional Science Foundation. In this capacity, he continued to promote primatology with wisdom and zeal and managed to significantly enlarge support for student research. Those of us who knew Warren well understood the joy he took in this and why he considered it one of his finest personal accomplishments.

In 1990, shortly after Warren left DC to return to CUNY and City College, the mysterious early symptoms of ALS began to appear. True to his character—inquisitive, determined, and consistant—Warren made ALS another research project, and the subject of death was added to his teaching repertoire. All along he spoke candidly about the physical and emotional aspects of his experience, particularly with his medical students.

In February, 1994, some sixty of us gathered at the Smithsonian's National Zoological Park in Washington, DC, to honor Warren with a two-day conference on New World monkeys. Reluctant at first to be singled out this way, Warren eventually relinquished his modesty. Although he was then very weak and almost immobile, Warren enjoyed the meeting thoroughly. He mused about its significance for the field and the potential impact of this growing cadre—a mix of generations and disciplines—talking to one another about platyrrhines. Always looking forward, Warren asked if we could possibly do this annually, without a sliver of regret that he would not make the next one. He knew that knowledge evolved and that people, its agents of change, needed to be encouraged always. And that he always did.

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