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OBITUARIES

A Man for All Wet Seasons: Kentwood D. Wells (1948–2024)

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KENTWOOD D. WELLS, an extraordinary scientist, herpetologist, and educator, passed away at his home in Storrs, Connecticut, on 23 May 2024, at the age of 76. Kent's work on frog reproductive behavior was strongly influential in the growth of behavioral ecology and sociobiology as disciplines, and his monumental 2007 book, *The Ecology and Behavior of Amphibians*, stands as a legacy of his remarkable mind. Kent spent most of his professional career in the Department of Ecology and Evolutionary Biology at the University of Connecticut in Storrs where he served on the faculty from 1977 until his retirement in 2019, including a stint as Department Head from 2007–2013. He was the graduate advisor to 13 Ph.D. and five master's degree students and advisor to countless undergraduates. He was a close and cherished friend to his colleagues and former students (Fig. 1).

Kent completed his B.A. at Duke University in 1970 and a Ph.D. at Cornell with Harvey Pough in 1976. He went on to a postdoctoral appointment at the Smithsonian Tropical Research Institute (STRI) in Panama, where he worked with Stan Rand, before taking the position at UConn. His research interests focused on the social behavior and communication of amphibians, especially frogs. Kent's work made exceptionally important contributions to our understanding of mating systems, vocal communication, aggressive behavior, calling energetics, and parental care in these animals. Research with his colleague Ted Taigen on the dynamic nature and energetics of vocal behavior in the Gray Tree Frog (*Hyla versicolor*) helped make this species and the closely related Cope's Gray Tree Frog (*Hyla chrysoscelis*) models for the study of sexual selection, acoustic communication, and calling energetics in frogs (Fig. 2). In addition to his scientific pursuits, Kent was a bibliophile with a particular interest in the history of biology. Among his approximately 176 publications, one finds eleven articles relating to biological history, including his first three published papers (1971–1973) and his last (2024). Kent's scholarly reputation led to many requests to review books, including several on the history of biology. As the herpetology book review editor for *Copeia* from 1997–2006, Kent was in a perfect position to indulge his bibliophilia, taking the opportunity to review many publications himself, including some more esoteric

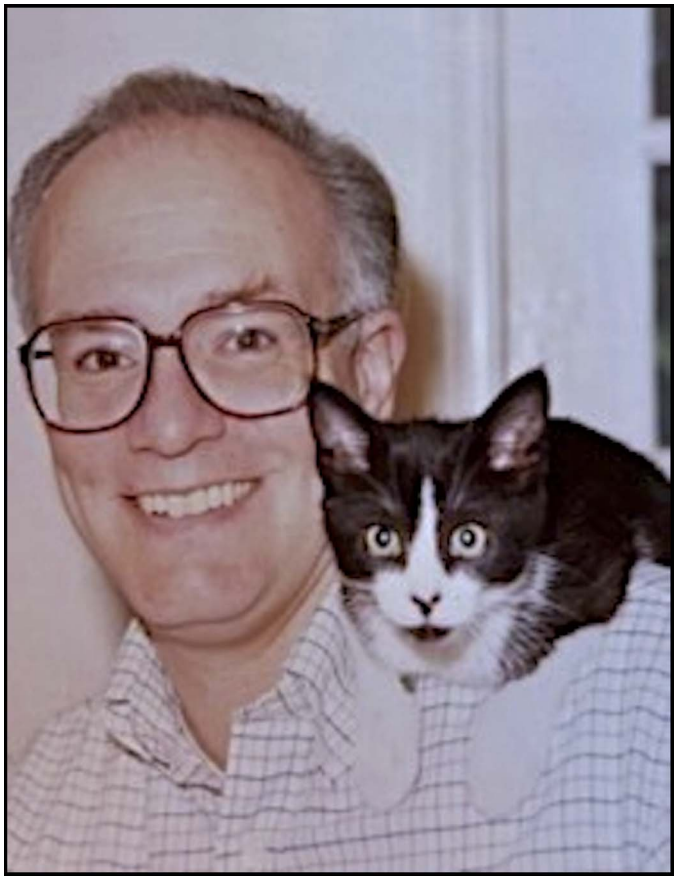

Fig. 1. Kent loved cats and always had them around.

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Fig. 2. Kent with collecting net at a favorite field site near the University of Connecticut campus in 2004.

contributions that would otherwise have gone unreviewed. In all, Kent published an extraordinary 92 book reviews!

Kent's scholarship started with a bang. His dissertation research on territoriality and reproductive success in Green Frogs has proven to be some of his most influential work. It placed anuran amphibians at the center of research in the then-nascent fields of behavioral ecology and sociobiology and set a high bar for future researchers. As part of this early work, Kent published a concise, highly synthetic review in *Animal Behaviour* entitled "The social behaviour of anuran amphibians" (Wells, 1977a). Prior to this paper, studies of anuran reproductive behavior had two principal foci: the neuroethology of call recognition, as initiated by Robert Capranica and pursued by two of his postdocs, Peter Narins and Carl Gerhardt; and elucidating the role of mating calls in reproductive isolation among populations and its contribution to speciation, as in the work of Frank Blair and Murray Littlejohn. But there was less attention paid to ecology and sexual selection. Kent's paper changed all of that, as he lucidly proposed that local ecology influences not only the frogs' mating system but also the strength of sexual selection. In 1991, the Institute for Scientific Information (ISI; now Clarivate) identified Wells (1977a) as a 'Citation Classic' (see commentary by Wells, 1991), and in 1997 his contributions to the field were further recognized by his election as a Fellow of the Animal Behavior Society. Twenty-two years after being named a citation classic, Wells (1977a) received the Animal Behavior Society's 60th anniversary award as one of the most influential papers published in the journal *Animal Behaviour* over the previous six decades (see Bee et al., 2013). At the time of this writing, the paper has been cited 2,170 times. Wells (1977a), along with a second significant review paper, "The courtship of frogs," published the same year (Wells, 1977b), established Kent early in his career as a scholar of extraordinary insight who was capable of distilling a vast amount of information to its essential elements and articulating critical areas for future research.

Starting in 1998, Kent became a major contributor to the widely used textbook *Herpetology* (Prentiss Hall; most recently, Sinauer Assoc.) begun by his former advisor, Harvey Pough. While his contributions to the various editions of the book are outstanding, his ambition was to author his own book, putting to paper his ever-accumulating knowledge of amphibian behavioral ecology based on his own research and his encyclopedic knowledge of the literature—a project that, in fact, he had already begun. Over the next 20 years, Kent wrote chapter after chapter, and as the years rolled by, he went back to revise and update everything he had already written! The patience of the University of Chicago Press throughout this time presumably is attributable to their expectation of an outstanding final product and in this they were not disappointed. In 2007, they published Kent's masterful, 1,148-page, hernia-inducing tome, *The Ecology and Behavior of Amphibians*, an achievement that is unlikely to be surpassed. The book was the winner of the Best Single-Volume Science Reference Book for 2007 awarded by the Professional and Scholarly Publishing Division of the Association of American Publishers and the following year was *Choice* magazine's selection for Outstanding Academic Title. Aaron Bauer, a scholar of herpetological history and a bibliophile himself, judged that "Kent's book on ecology and behavior of amphibians is one of the most important books published in all of herpetology over the last 50 years" (pers. comm., 2024).

Kent was an extremely hardworking person of great integrity and intellect, and he did not shy away from service to his institution and his profession. Recognition by his colleagues of his diligence, dependability, and willingness to take on challenging and burdensome tasks was reflected in his choice as Department Head for Ecology and Evolutionary Biology at UConn from 2007–2012. During his career, Kent also served on the Editorial Board (1979–1981) and as an Associate Editor (1982–1984) for *Herpetologica*, on the Board of Advisory Editors for *Behavioral Ecology and Sociobiology* (1991–2002), on the Editorial Board of *Copeia* (1997–2002) and as its Herpetology Book Review Editor (1997–2006), and finally, on the Board of Governors of the American Society of Ichthyologists and Herpetologists (1997–2006).

Over his 42-year career at UConn, Kent's principal teaching consisted of advanced courses in herpetology and vertebrate social behavior. His lectures were unusually lucid and densely informative. He eschewed novelty for its own sake and rejected the modern flight to PowerPoint, instead writing extensive notes on the board and providing students with lengthy handouts, each packed with figures, text, and up-to-the-minute bibliographies. Kent referred to the primary literature regularly and provided citations for all his lectures. He had regular assignments that required students to consult a carefully curated set of papers that he updated continually. Perhaps because of his long-standing interest in the history of biology, Kent's herpetology lectures were rich in references to and stories about individual scientists who have contributed to herpetology as a field, including its modern practitioners. Importantly, Kent always made clear the contributions of women and people of color to herpetology—not by way of making a point and moving on, but simply by crediting their work throughout the course when appropriate. These features of Kentwood's teaching not only modeled the behavior of a scholar, but brought students into the field at a humanistic level, making them see the practice of science and herpetology as a human pursuit—in other words, something that they could participate in. One former undergraduate student of Kent's in herpetology put it this way: "Kentwood is really impressive and knowledgeable, but he also makes you feel like you could be a scientist too, both by teaching you how to think and write in that way, but also by providing human examples of scientists."

As a field biologist, it was essential to Kent to introduce students to living herps in the wild (Fig. 3). He squeezed as

Fig. 3. Kent with then-graduate student Kristiina Hurme at a local black racer den in 2009.

many field trips as possible into his herpetology class during the short window of time available for such trips during a spring semester in the northeastern US. Fortunately, local habitats provided many opportunities for field observation. Most famously, Kent equipped all of the students in herpetology with hip boots and headlamps, and brought them at night to a large, flooded beaver pond that offered vast, early spring-breeding populations of Wood Frogs, Spring Peepers, Gray Tree Frogs, Eastern Newts, and Spotted Salamanders, as well as habitat for Green Frogs, Bullfrogs, American Toads, Painted Turtles, Spotted Turtles, Wood Turtles, Snapping Turtles, Common Water Snakes, Common Garter Snakes, leeches, spiders, muskrats, and of course, the beavers, themselves, among other things. It's hard to describe the transformative nature of this field trip on students. The initial terror of wading into a swamp in the dark is quickly replaced by awe as the calling frogs crescendo into a deafening chorus. Egg masses and amplexing frogs are everywhere, while tadpoles, salamanders, snakes, and turtles swim into the light of the headlamps. Throughout the experience, Kent is there locating examples, highlighting things the students had learned in lectures, and teaching in his usual understated, but authoritative way.

Kent's course in vertebrate social behavior exemplified his commitment to providing students with regular feedback and, particularly, teaching them how to write. It is not an exaggeration to say that, in many cases, Kent devoted more effort to grading essay questions and term papers than most students did to writing them. Every essay was meticulously edited and commented on to provide specific and substantial feedback to the students on content and writing style. Students were surprised to have their papers returned with comments and corrections exceeding in length what they themselves had written! Kent's courses undoubtedly provided more direct instruction in writing than any course other than an actual writing class. He was a punctilious grammarian and intolerant of verbosity—his own papers are known not only for their content, but for their concision and clarity.

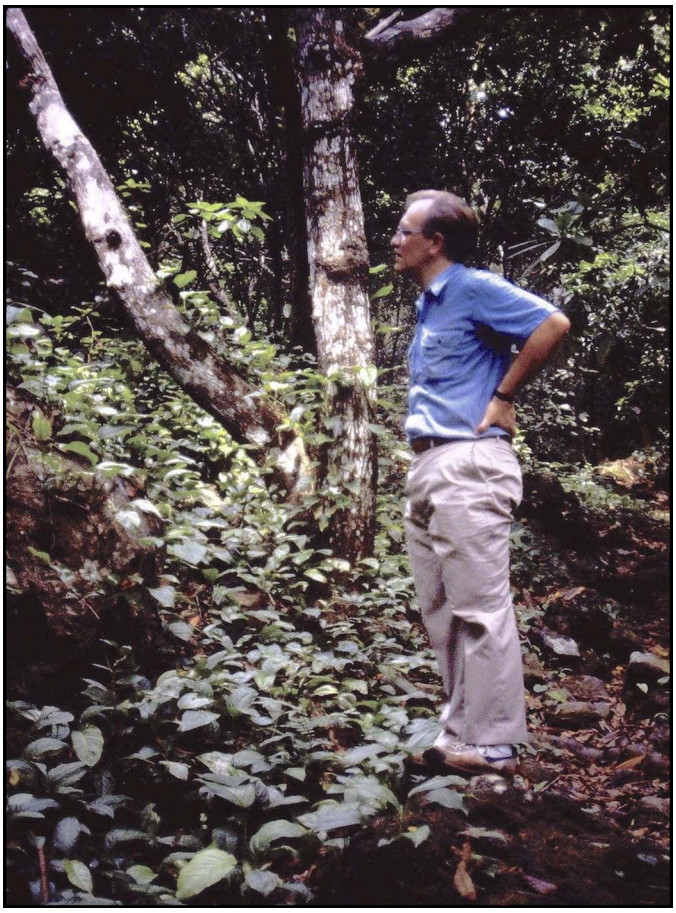

Fig. 4. Kent at STRI in Panama, 1985.

Kent's thoroughness and meticulous attention to detail extended to his mentorship of graduate students. He worked closely with his students, helping them directly to become better scientists and writers. His former students will all attest to the improvement in their own writing skills that can be credited to Kent's liberal use of red ink. Kent grew close to virtually all of his graduate students and remained in touch with most of them throughout his life. Nearly all achieved professional positions as herpetologists in academics and related fields. Always proud of his students, he advocated for them whenever he could.

Kent's daily uniform was a button-down shirt and khaki pants—in 42 years he was never seen at work in jeans and a tee shirt. His dress and outwardly conservative demeanor, however, belied a great sense of humor, a sarcastic wit, and genuine kindness. At lunchtime, loud peals of laughter were frequently heard reverberating down the hallway, emanating from Kent's office where a group of faculty met regularly to hear his sardonic pronouncements on politics and the latest administrative outrages. Surprisingly to people who only knew him slightly, Kent was also famous for his uncanny ability to produce ultra-realistic frog calls. His calls were so accurate that a recording of one was correctly identified by call recognition software as that of a Green Frog. During a walk on the Cornell campus, Kent gave a single three-note call to a pair of male Green Frogs on the opposite side of a pond, prompting them to make a beeline to his position, spoiling for a fight! The first time Kent demonstrated a call in the classroom, his undergraduate students were startled not only by its realism, but by the incongruity of their buttoned-down professor squeaking, peeping, or bellowing.

Fig. 5. Kent with a magic lantern, another topic of scholarly interest.

Kent was not one to embrace new technology uncritically—he had to be convinced it was worthwhile. In his early years as an Assistant Professor, he relied on an HP calculator to analyze his data and a typewriter for writing manuscripts. His Damascene moment came, however, when he saw how quickly his students could tackle large datasets using the campus mainframe computer, and he made the leap to exploiting this technology. Although his typewriter remained a fixture in his office for many years, Kent eventually moved to mainframe- and then PC-based word processors. And of course, software for analysis of frog calls became a welcome and essential part of his toolkit.

At heart, however, Kent was always a field biologist. Field work in the tropics is often uncomfortable and physically demanding, but Kent never hesitated to put in the hard work required to obtain the data for his research, an ethic he passed on to his graduate students. During the rainy season in Gamboa, Panama, he spent so many nights at his main field site that, to this day, it is known among STRI researchers as "Kent's Marsh" (Fig. 4). Kent manifested the observational skills and stamina of a 19th century naturalist, and he kept meticulous field notes. The contents of these notes were frequently the genesis of future investigations by his graduate students.

Throughout his life, Kent had an interest, passed on by his parents, in antiques and particularly 'magic lanterns'—the 19th c. equivalent of a slide projector (Fig. 5). He collected the lanterns as a hobby and often wrote for the journal dedicated to their study, *The Magic Lantern Gazette*, later becoming its editor, a position he held until his death. Kent's articles about magic lanterns are characteristically scholarly, and several of them deal with the use of magic lanterns in the teaching and dissemination of scientific knowledge.

Fig. 6. Kent as a child on Christmas day with his grandfather. We don't know if the toy frog reflects an already budding interest in anurans, or if it might be the source of his later obsession.

As for so many of us in biology, Kent Wells's love for the natural world developed in childhood when he kept in his basement a menagerie of herps caught near his home in Springfield, Virginia (Fig. 6). We are grateful that Kent's passion for nature, herps, and history never faded, because it has enriched us all. Kent's contributions to biology and herpetology continue to grow through his students and the many others exposed to the products of his scholarship. His work will undoubtedly continue to have a profound impact on the growth of knowledge for generations. We mourn his loss as a scientist, but most of all, as a friend. Kent is survived by his beloved wife, Marta, two daughters, Camilla and Gabriella, and his sister, Rev. DanaBeth Wells-Goodwin, and nephew, Benjamin Wells-Goodwin, of Maine.

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