



IN MEMORIAM

Eric T. Pengelley
Professor of Biology Emeritus
UC Riverside
1919 - 2003

Professor of Biology Emeritus Eric T. Pengelley was born in Toronto Canada on July 18, 1919 and died quickly and peacefully of a massive heart attack on March 22, 2003. He was 83 years of age and was vigorous and independent to the end. Ted, as he was known to most, is survived by his daughter Alison and son David. Ted was a remarkable man — a highly principled and widely read scholar and humanist, and an unrelenting advocate of the power of evolutionary biology to liberate minds and spirits. He was also one of the most unforgettable of characters, and there were days when you were convinced that he was someone created in the mind of Charles Dickens. He left an indelible impression-- sometimes for the better, sometimes for the worse-- on all with whom he came in contact whether in the lecture, the lab, Academic Senate meetings, the chambers of the City Council or in many UCR theatre productions. Of particular note was his role as Bacchus, the God of Wine, in the musical “Orpheus in the Underworld.” While his singing voice was pretty bad, he stole the show playing this character with such verve.

When World War II broke out Ted volunteered to serve in the Royal Canadian Air Force as a radar technician in Britain and later on the continent. In Britain he met Daphne Hill, who was a radar screen operator in the Royal Air Force. Although he asked her to marry him then, she refused, citing his lack of breadth of education and reading!! After the war she pursued a diploma at the Royal College of Art, and Ted returned to Canada, vowing to improve his education to win Daphne’s hand. After a few years she agreed, and they were married in Toronto, and only in 1948 when she completed her degree at the Royal College; Daphne continued as an artist, art teacher, and artist in community service in Riverside and Davis all her life. Daphne, his lifelong companion and love of his life, was the leavening and calming influence on Ted’s hypertensive bombast. She died in Davis in 1990 after he nursed her at home through a long battle with cancer.

Ted came a long way from his upbringing, which as a boy was largely on a colonial sugar plantation in Jamaica, where his father was the engineer, and from which he was sent annually on the “banana boats” to boarding school in England. Returning to Canada after the war he didn’t know exactly what he wanted to do. Initially, he tried to follow in his mother’s footsteps and become a potter, and took pottery lessons in her basement but this didn’t last. He was a bank teller, and then enrolled in hotel management at the University of Toronto receiving a diploma in Institutional Management (1949). He remained at this for a while, including an internship as night manager at a big hotel, and substitute chef at the Chateau Lake Louise. But then a “life-changing event” happened: he accompanied a friend who was mist-netting and banding birds for research in Algonquin Provincial Park one night, and he was hooked onto biology. He started over as a beginning student in biology receiving a BA in biology (1954) and a PhD (1959) in pPhysiology. It was at Toronto, working for his doctoral degree under “KC” (Kenneth Clarke) Fisher that he began his studies of annual rhythms and hibernation in the golden-mantled ground squirrel *Citellus lateralis*, and this work was carried forward during his 22 years at UC Riverside.

Ted’s first academic appointment was as an acting assistant professor of zoology at UC Davis, from there he moved to a position as acting assistant professor at UC Santa Barbara, and following this was another 1- year appointment at William and Mary College. In 1962 he joined the Department of Life Sciences (later Biology)

as a lecturer in biology, advanced to assistant professor (1965), to associate professor (1967), and professor (1972) at which rank he retired from UCR in 1984. Upon retirement from UCR, Ted and Daphne moved back to Davis, where Ted became a widely recognized campus character. He was renowned as a raconteur of rare talents and was extremely popular with both students and faculty for his lectures on the history of science. He continued to give those lectures up to the year of his death; in fact, when graduate students in physiology initiated a seminar program on the history and philosophy of physiology, Ted was the first faculty member to come to mind as a participant. He was equally well known around the town of Davis, where he could be seen riding his bicycle to almost every place in town, including to City Hall, where he was a frequent speaker before the City Council. He was well known to that august body, where he delivered opinions on an astonishing array of topics, often so well thought out that minds were changed on the spot. The people of Davis will miss him greatly.

At UCR Ted taught the introductory course in biology for non- science majors and he was legendary for challenging students for their beliefs in creationism, God, organized religion, war, peace, ethics, and morality. In 1969 the Dean of the College W. Mack Dugger asked him to visit UC Davis to observe Professor Milton Hildebrand teaching a course concerned with human sexuality. After 3 days of hearing Hildebrand and extensive conversations with the 1200 students he became convinced that this course should be taught at UC Riverside. He began teaching the course in 1970 and in the preface to the book he wrote based on this course (*Sex and Human Life*, 1974, 1978) he rationalized his qualifications: "I had a Ph.D. in zoology... I was a well-trained zoologist. I had taken a full year of medical physiology at the Banting and Best Institute at the University of Toronto and in addition, I had some 25 years of practical experience and hoped to have a good many more!" Ted taught the Biology 30 course "Human reproduction and sexual behavior" (affectionately called "dirty thirty" by the undergrads) to thousands of students from 1970 until retirement in 1984. The course was taught on a sound biological basis with a view to helping the students better understand the vast biological, psychological, social and political aspects of human sexuality. It is fair to say that the students in the course also taught him a thing or two about sex!

Ted had an intense interest in the history of science particularly medicine and evolution. Recognizing that very few people had much knowledge of biological and medical history, and even less of their importance and significance, and still less of the places where these events took place, he and Daphne traveled to the places where medical history was made, and he was a frequent visitor to Charles Darwin's home, Down House. Nothing described in their delightful and informative book *A Traveler's Guide to the History of Biology and Medicine* (Trevor Hill Press, 1986) was second hand, and his travels and experiences formed the basis for his teaching of the popular seminar in "History and Biology and Medicine."

Ted's interest in history of biology and medicine led him to become a real authority on Charles Darwin and the history of the theory of evolution, including amassing (over 25 years) the best private collection of the works of Darwin and the history of evolutionary biology in the US. (He helped spearhead a Darwin Symposium at UCR, too.) He was a frequent lecturer on Darwin and on the history of the discovery of insulin by Banting and Best, and he also became a serious writer and lecturer on atheism in retirement.

Ted was a polished and practiced teacher and public speaker. Indeed, while walking on the UCR campus, and before his figure could actually be seen, one could hear his booming voice lecturing to no one in particular. This turned many heads, but it ensured that he was well- prepared for a forthcoming meeting of the Academic Senate or for a formal class lecture.

The changing patterns of activity of both plants and animals that has fascinated humans even before historical records also captured the interest of Ted. These behaviors, related to the rotation of the Earth on its axis with a period of approximately 24hr (=circadian) and the yearly orbit of the Earth around the Sun approximately every 365 days (=circannual), provoked Ted to ask a critical biological question: How is the behavioral physiology of an animal in hibernation synchronized with a changing environment? To demonstrate that there existed an endogenous rhythm he kept his experimental animals under constant environmental conditions, sometimes for over 700 days. Ted's work on hibernation in golden- mantled ground squirrels was the first conclusively to prove, through these very long- term experiments, the existence of an internal circannual biological clock in an animal that instigates indefinite repeated annual hibernation even under constant laboratory conditions devoid of any annual variation. Although Ted's work did not specifically identify the "zeitgeber" it suggested that temperature, light, opportunity to breed and access to movement contributed to the annual rhythms in body, weight, movement, food and water consumption, fluctuations in body temperature and reproductive competence. His work expanded beyond the golden- mantled ground squirrel to include aestivation in desert ground squirrels. His son David tells that one of his fondest recollections of

childhood was accompanying him as an assistant on trips to the Mammoth area to capture ground squirrels to bring to his lab. Days on end would be spent in the forests, father, son and the squirrel traps. On one occasion, they were chased all the way down a mountain by a swarm of bees or wasps that they had disturbed by mistake, and both ended up at the Bishop hospital emergency room. Such experiences led to David's love of camping and backpacking, but for Ted it was entirely different: he said he had experienced all the camping he ever wanted to do in his life while staffing a mobile radar unit on the continent after D- day!

Ted's flamboyant and erudite teaching of evolutionary biology, history of science and medicine, and human sexuality, as well as his research contributions on annual rhythms, will be sorely missed by both colleagues and subsequent generations of University of California students.

Irwin W. Sherman
Rudolfo Ruibal
John Crowe
Richard K. Grosberg