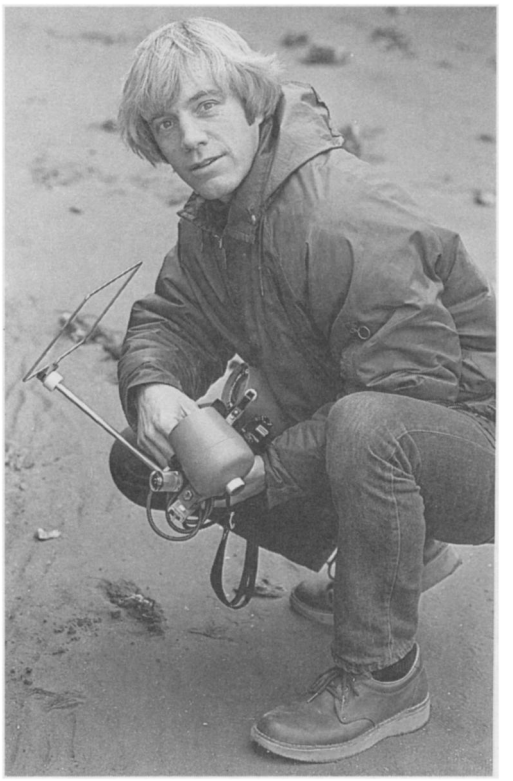
Resolution of Respect

John Patrick Sutherland
1942–1993



John Sutherland died 15 July 1993 in Washington, D.C. after an 18-month battle with a brain tumor. He was a member of the Ecological Society of America for his entire career and served a four-year term on the Board of Editors.

John was born 1 October 1942 in Salem, Oregon. As a youth, he demonstrated an ability to concentrate intensely and single-mindedly on any problem that interested him, a trait later exemplifying his approach to science. After two years at Willamette College, John transferred to the University of Washington in autumn 1962 where he met Robert Paine, then an Assistant Professor in the Department of Zoology. This acquaintance was the turning point in John's life. As he put it, Paine "saved him from medical school, and introduced him to the joy of ecology." He worked for Paine on field trips to rocky shores on the outer coast of Washington State. It was probably during this time that he adopted his philosophical approach to ecology (and life), which was "you have to love nature if you want to understand her."

He graduated in 1964 and that autumn began doctoral studies with Oscar Paris at the University of California in Berkeley. For his dissertation, John studied the population ecology and ecological energetics of an intertidal limpet near Bodega Marine Laboratory. This field station was new at the time, was remote, and had no resident staff in ecology, and thus carrying out a thesis demanded independence. The resulting papers, published in *Ecology* and *Ecological Monographs*, were of exceptional quality and heralded the emergence of an outstanding ecologist.

John received his Ph.D. in 1969 and took an Assistant Professorship at Duke University Marine Laboratory (DUML) in Beaufort, North Carolina. John knew marine rocky intertidal habitats best, but except for jetties and dock pilings, no such habitats were available in North Carolina. John solved this dilemma by creating his own hard substrata. He suspended unglazed ceramic tiles beneath the dock at DUML, thereby providing an experimental system for the study of "fouling" communities. The research, funded primarily by small grants (e.g., $4,000 per year from 1970–1975) from the Office of Naval Research, produced several classic papers and brought international renown and respect. His 1974 paper in the *American Naturalist* firmly established that communities could persist in one of several alternative (stable) states, each of which was brought about by a particular combination of ecological events. The concept of alternative states brought clarity and insight into early struggles with community stability. John was clearly a rising star in ecology.

His 1981 *American Naturalist* paper returned to, and provided further insight into, the theme of stability. Papers in the *American Naturalist* coauthored with Bruce Menge (1976, 1987) proposed a synthetic model of community regulation. Finally, his fouling-community research anticipated by a decade the issue of recruitment ("supply-side ecology") as a structuring force in natural assemblages.

Fouling-community studies occupied John and his graduate students for most of the 1970's.

During this period, several events set the stage for his second important and perhaps most lasting contribution to ecology. First, by the mid-to-late 1970's he had initiated new studies in subtidal reef habitats in Jamaica and on deep hard-bottom reefs at the Gulf Stream's edge off the coast of North Carolina. While logistical constraints limited the success of these efforts (the Jamaica study was largely destroyed by a hurricane), they whetted his appetite for research in other marine environments. Second, as part of an International Training Program in the Marine Sciences, he taught Ecological Theory to a large group of advanced students selected from around the world. Many of these were already embarked on professional careers in their own countries, but for most, John's teachings provided a totally new perspective on ecology. These contacts led naturally to invitations to travel, especially to South America, to give seminars, courses, and initiate research projects. Perhaps most significantly, however, both John and several Latin American participants had important but different formative experiences during this course. In John's case, these opportunities led to the discovery of a heretofore hidden talent: despite struggles with Russian while an undergraduate, he had a remarkable proficiency for learning Romance languages. To facilitate communication with his new colleagues, he taught himself to read and speak fluent Portuguese and then Spanish with phenomenal rapidity (aided, no doubt, by keeping Portuguese and Spanish textbooks in his bathroom). In each, he mastered both subtle variation in dialect and complete proficiency in off-color stories. His fluency was important in the development of strong personal and scientific ties to a legion of Latin colleagues.

John relished his Latin American sojourns and their enthusiastic reception. His first sabbatical leave was spent studying the fouling communities of mangrove roots in Venezuela in 1976–1977. He received a Fulbright Research award to spend his second sabbatical in Costa Rica in 1983–1984. While on the lecture circuit, he presented seminars in Brazil (in Portuguese), Chile, Ecuador, Peru, Venezuela (all in Spanish), and Panama. Collaborations with Latin colleagues, including Juan Carlos Castilla, Fernando Jara, Carlos Moreno, and Jorge Peterson, partly funded by NSF Cooperative Research Grants, resulted in numerous joint publications.

Another important event occurring in John's personal life during this time was his introduction to Sonia Ortega, a native of Nicaragua attracted to DUML by its well-established ties with Latin America. Sonia would later become his second wife, and his partner in his subsequent research activities, particularly in Costa Rica.

The consequences of these Latin connections extend well beyond their immediate scientific importance and may be John's most enduring legacy. Though he did not consciously seek a "Johnny Appleseed" role, his visits, lectures, and interactions, all uniquely characterized by his charismatic personality, were a major stimulus in galvanizing and modernizing marine ecology in Latin America. John's friendliness and honesty, his humility and openness, his linguistic skills, and deeply respectful interactions won him immense esteem and affection. His advice, vision, and extraordinary character made him a role model to an entire cohort of marine ecologists, many of whom regard John as the "father" of that discipline in Latin America.

During the 1980's, John's research focussed on the role of recruitment in establishing community structure, an issue he had helped bring to the ecological forefront. With Sonia, he studied the impact of recruitment and postrecruitment processes on barnacle populations in Costa Rica. The results, published just prior to the discovery of his tumor, added substantially to the still-limited set of studies of tropical marine communities.

While he was fundamentally a field ecologist with little real interest in administrative or political aspects of professional life, John served his institution and his profession in important ways. At Duke, he helped administer the graduate program and was Acting Director of the Marine Laboratory for 1 year. An early computer addict, he was the DUML supervisor of computers. Characteristically, he spent a significant fraction of his career at Duke instructing and helping colleagues and students in the use of computers and statistics, justifying the time expended by noting that, in so doing, he nearly always learned something new. From 1982–1986, he was on the ESA Board of Editors. From 1973–1975, he was on the NSF Biological Oceanography panel, and in 1987, he co-organized an NSF workshop on Nearshore Benthic Marine Ecology, which later formed an

integral part of a major initiative (GLOBEC). John co-founded the East Coast Benthic Ecology meetings in 1973, and organized or co-organized three later meetings (1974, 1975, and 1987). Shortly before he was stricken, he went on leave to Washington D.C., where he took a fixed-term appointment with NOAA/Sea Grant, and was a member of the National Research Council's Committee to Review the EPA's EMAP, an assignment he found particularly fulfilling.

John Sutherland touched and enlivened the lives of many during his 50 years of life. He was a hands-off advisor of graduate students who at the same time was strongly supportive and personally engaged. His interest in them and their careers extended well beyond their graduate work. John was generous and open and was always eager to share ideas. He brooked no nonsense, was direct, and honest. He was a fast and true friend who nonetheless did not let personal feelings obstruct his scientific objectivity either with friends (he once rejected a manuscript submitted to *Ecology* by his friend and sometime co-author, Menge!) or even the love of his life, Sonia.

John had a genuine talent to enjoy life, anywhere and under almost any set of conditions. An enthusiastic guitarist, he often entertained colleagues and students on field trips. To minimize the time lost travelling between DUML and the main campus at Durham, he learned to fly small planes and subsequently took delight in flying friends through the skies of the southeast seaboard. He vastly enjoyed his sabbatical year and subsequent stays in Costa Rica, during which, in order to stretch their minimal research funds, he and Sonia essentially camped out on the beach and lived out of an aged and wheezing 4-wheel-drive vehicle. He was athletic and addicted to running, entering (and often winning) races whenever and wherever possible. He avidly and whole-heartedly pursued rock climbing, skiing, springboard diving, soccer, and other activities. He partied exuberantly, had a rapier wit, and found much amusement in life, most often at his own expense, even when close to death. He loved to dance, and further endeared himself to his Latin acquaintances by wearing out the dance floor doing the samba, lambata, and any other known (and some unknown) dances. John was the sort of individual you never grew tired of; you always enjoyed his presence, and when he wasn't present you wished he was. In the final battle of his life, he characteristically demonstrated enormous courage and toughness, probably thereby extending his life for 12 months longer than physicians felt possible.

John is survived by his parents Don and Blair, his sisters Julie and Nancy, his wife Sonia Ortega, presently at NSF, and his children Scott and Lynn. He leaves an enduring scientific legacy, and was an unforgettable and close friend; we miss him.

Selected synthetic publications (chronologically)

Sutherland, J. P. 1974. Multiple stable points in natural communities. American Naturalist **108**:859–873.

Menge, B. A., and J. P. Sutherland. 1976. Species diversity gradients: synthesis of the role of predation, competition and temporal heterogeneity. American Naturalist **110**:351–369.

Sutherland, J. P. 1981. The fouling community at Beaufort, North Carolina: a study in stability. American Naturalist **118**:499–519.

Menge, B. A., and J. P. Sutherland. 1987. Community regulation: variation in disturbance, competition, and predation in relation to environmental stress and recruitment. American Naturalist **130**:730–757.

Sutherland, J. P. 1990. Recruitment regulates demographic variation in a tropical intertidal barnacle. Ecology **71**:955–972.

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Source: Bulletin of the Ecological Society of America, Vol. 74, No. 4 (Dec., 1993), pp. 275-277. Courtesy of JSTOR.