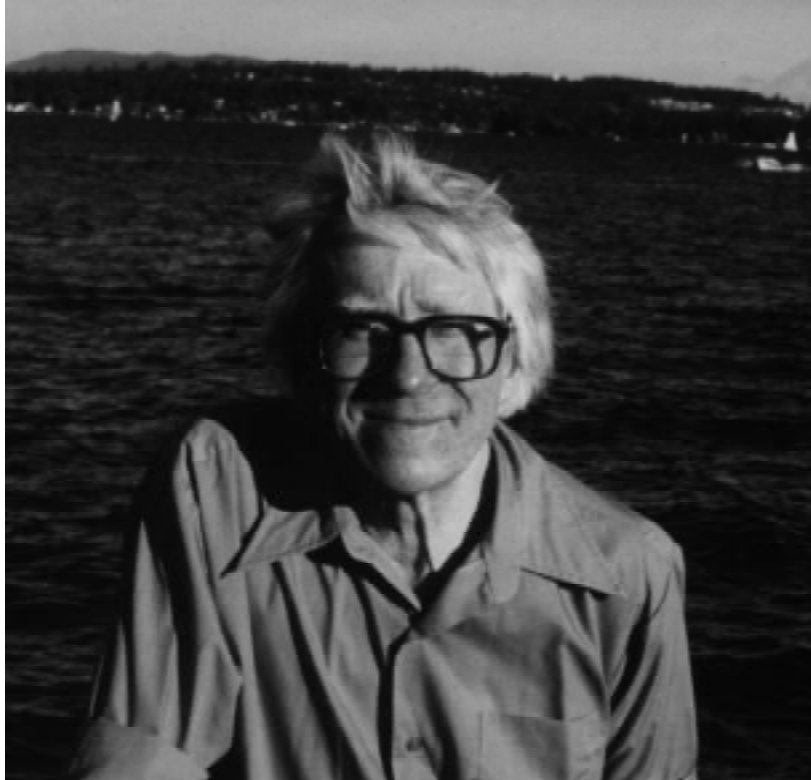


Obituary

“Good science and good luck”



W. T. (Tommy) Edmondson

In January, W. T. (Tommy) Edmondson finally succumbed to injuries and paralysis resulting from an automobile accident months earlier. His passing deprives us of one of the thoughtful minds which created a modern synthesis in limnology by blending the field with ecological and evolutionary theory. His gifts of methods, scientific ideas and careful studies have indelibly imprinted the scientific discipline which he loved.

“The job of a scientist is to find things out and tell people about them. And have them printed somewhere” (pers. comm., 1996). Characteristically succinct, direct and unpretentious is how Tommy assessed

his societal role. During his career, he succeeded brilliantly, publishing concise and thought-provoking analyses, and sharing his invention of methods that would revolutionize the study of zooplankton population dynamics. Buoyant and perpetually youthful in spirit, he found everything in his world interesting. Edmondson’s academic gestation traced to a time when science was the province of individual scholars drawn by the magnet of natural mystery and its corresponding beauty. Organisms held a special charisma for him, so much so that when he no longer led field trips on Lake Washington, he insisted on receiving a live net collection the instant that the crew set foot back in

the lab. He poured each new sample with earnest anticipation, and exclamations of pure joy greeted each diminutive but familiar representative in the dish. “If I took you through high school, college and graduate school I would tell you that always the center of the universe was the room with the microscopes and right next to it was the library” (Edmondson, 1989, p. 3).

Tommy Edmondson’s memory is irrevocably linked with the story of Lake Washington that he so faithfully documented for half a century. It might seem surprising, therefore, to learn that in his own mind he did not count the work he did with that lake among his most cherished contributions. Tommy said that he reckoned himself lucky because he had had three good ideas in his life. First and foremost, he relished the spark of inspiration that guided him in placing time markers of carmine and charcoal on the tubes of *Floscularia* because of the revelations they unfolded (Edmondson, 1945). Those experiments were in fact the conceptual springboard to the Egg Ratio Method (Edmondson, 1960, 1965), his second ‘good idea’ and the one which became Tommy’s greatest intellectual gift to zooplankton ecology. Third was his introduction of a graphical method for tracking reproductive schedules of plankton in an elegantly simple and direct analog of matrix algebra (Edmondson, 1968). These creative stirrings from the inside of one’s own head, occasionally called the ‘Eureka experience,’ are the most meaningful rewards of a life in science.

Poised against these highpoints of personal illumination was the work that earned Edmondson the Cottrell Award for Environmental Quality in 1973, and his election the following day, his birthday, to the National Academy of Sciences. When asked more than 20 years after the fact about the circumstances of that election, against the backdrop of Egg Ratios and plankton ecology, Tommy quickly shrugged “Oh, that was all about Lake Washington, of course”.

The truth is that Edmondson the scientist and environmentalist was not forged by his Lake Washington experience, but the events in that lake served to focus attention on his intellectual breadth and wisdom. What made him an exemplary figure was his ability to function within a political process without becoming politicized. He marshaled facts and reasoning, presented them without exaggeration and placed his trust in the democratic political process. Through tireless lectures, public interviews and letters he contributed mightily to scientific literacy in one of the greatest single examples of mass public education about the scientific principles behind environmental issues.

Good ideas include more than sparks of creative inspiration. Scientists know that the path to those few prized moments of elated energy and insight is often barred by limitation of intellect, resources, opportunity or temperament. Tommy was blessedly free of those mundane impediments and so good fortune favored him. Of Lake Washington, he would say that he was in the right place at the right time. But that is too hastily dismissive of his deeper mark on science. It is not possible to know what would have happened if Edmondson had not been on the scene in Seattle when the transformational events in the life of its lake began, but it is safe to say that the scientific documentation of the events would not have been nearly so thorough and complete. A final accounting will reveal that Edmondson’s greatest legacy to ecological and environmental science is the long term record that he amassed for Lake Washington. The wisdom, planning and perseverance enshrined in that record are surely the product and seeds of a great many other good ideas. Tommy was also blessed with the convivial spirit that attracted and retained a legendary staff of competent and committed ‘technologists’, by whose hands the remarkable data collection was assembled.

Tommy claimed that one of the key lessons he learned from Evelyn Hutchinson was the importance of matching the right lake to the principles under investigation. Thus, Soap Lake and Lake Lenore were superbly suited to studies of chemical ecology and related food web issues. Lake Washington became a classic study because it was the right lake in which to test ideas about nutrient control of productivity, and about food web effects on water quality. A few years ago, I came across the original ‘model’ that Tommy used circa 1960 to predict the temporal response of Lake Washington to a step change in nutrient loading. It was a piece of semi-logarithmic graph paper marked with phosphate concentrations and lines corresponding to hydrologic flushing. It reminded me of the quote in Sigma Xi’s *A New Agenda for Science*: “Real genius begins with paper, a pencil and time to understand the problem”.

It takes time and concentrated mental energy to solve any problem of nature’s complex creation. Compared to the generation that has succeeded him, Edmondson deferred from the sorts of conspicuous activism and disciplinary promotion that is now a fixture of the ‘business’ of science and science budgets. That, too, has its foundation in a time when science was strictly the passion of scholars. Tommy Edmondson had the great good fortune of spending a lifetime im-

mersed in his passion, and true passion leaves little time or inclination for diversion. Tommy's account of his first encounter with the Rotatoria at age twelve (personal communication, 1996) aptly captured his life's unrelenting motivation in compellingly simple terms:

I looked at some water from my backyard aquarium and saw a rotifer. I didn't know anything about them. It just swam through the field of the microscope. Some things are engraved on your mind forever.

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