

In Memoriam

Thomas G. Siccama

1936–2014



Thomas “Tom” Siccama, 78, of Shelburne, Vermont, passed away peacefully on October 3, 2014, at Vermont Respite House in Williston with his family by his side. Tom was born July 6, 1936, in Rahway, New Jersey, to Theodore and Alaneda Siccama. As a young boy growing up in rural New Jersey near his grandparents’ farm, he enjoyed being outdoors in the forest or spending time with the chickens and garden at the farm. This upbringing inspired his love of nature and the natural world.

Tom earned all of his academic degrees in Botany at the University of Vermont. He then began a postdoctoral position at the Hubbard Brook Ecosystem Study in the White Mountain National Forest of New Hampshire. He remained a part of Hubbard Brook for the rest of his life.

Tom joined the faculty of Yale’s School of Forestry & Environmental Sciences in 1967, and he continued to teach there as Professor Emeritus after his retirement in 2006. Throughout his teaching career, Tom followed the philosophy that “the great outdoors” was the best classroom because it allowed students to understand the complexities of ecology through first-hand observation and by getting their hands dirty. Armed with W.C.

Muenschner’s Keys to Woody Plants, he led many students through the woods and instilled in them a lifelong appreciation for the natural world.

Tom was a gifted, inspired teacher who infused a lasting spark of curiosity into his students. Tom offered his field courses to graduate students at the Yale School of Forestry and Environmental Studies as well as to undergraduates at Yale College. As a teacher and mentor, Tom taught generations of students how to see the forest as a sum of its parts, and not to ignore the soil, the insects, and the most delicate of flowers. He encouraged students to take a good look around them and find the clues that elucidated the past use of a given patch of land. Were civilization to vanish, Tom would be just the person to come along, assess the situation and explain what happened.

As an introduction to his field courses, Tom began his lectures at a made-up field site known as the “Blah Woods,” where acid rain, mismanagement, drought, and disease had taken their toll on the diversity and vitality of the forest. Conversations among the students swiftly evolved from memorizing details of forest ecology to making connections between human actions,

natural variation, declining forest health, and decreasing biodiversity. He treated his students with field trips to some of the most interesting and little-known corners of forestland of Connecticut, all the while telling interesting tales of the history of each site. Often, graduates of his courses would tag along on his field trips again just to continue in the fun and excitement of learning under Tom's guidance. Ultimately, his great contribution was to seed in his students not only a curiosity about forests, but also a resolve to address the problems that "Blah Woods" posed and to find pathways towards healthier and more robust forests around the globe.

Tom's contribution in dendrochronology was principally in the topic of forest decline. Beginning in the 1960s, various forests of the US Northeast were showing signs of stress, including browning foliage, reduced annual increment, and even death of trees across age classes. By the 1970s and 1980s, this phenomenon had become a major

focus of research of forest science, including tree-ring science. Tom co-authored several tree-ring publications on this topic throughout the 1980s. General forest decline proved to be difficult to explain, with candidate causes including climate (warming and/or drought), acid rain and/or ozone degrading foliage directly, acid rain indirectly altering soil chemistry (*e.g.* increasing aluminum in soil solution), increased activity of forest pests and pathogens, and natural stand dynamics and aging. Of particular interest to Tom was the role of acid deposition in altering soil conditions, either by immobilizing nutrients in the soil for tree uptake or by mobilizing toxic elements. Ultimately, multiple causes were probably in play, and this research illustrated the very concepts that he taught at Yale, *i.e.* that nature can be complex, requiring multidisciplinary approaches of study.

—Contributed by *Amy McCoy,*
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