ABOUT

WOMEN IN EARLY NATURAL SCIENCES AT UT: HILDA FLORENCE ROSENE

by Nicole Elmer, August 9, 2016

Continuing our look at women in the natural sciences at UT during the early 20th century, Hilda Florence Rosene was the only other of two women to hold a tenure track position in the natural sciences at UT from the late 1930s to the 1950s. Rosene was in fact the first tenured female faculty member in the natural sciences at UT. Her contemporary was Marie Betzner Morrow in the Department of Microbiology.

Rosene was a plant physiologist, and taught and did research at UT from 1933 until her resignation in 1957. The research she performed that received the most attention focused on the factors that influence the way plant roots absorb water.

Hilda Rosene Florence

(from John Simon Guggenheim Memorial Foundation)

EARLY YEARS

Born on March 26, 1897, Hilda Florence Rosene was one of six children born to Charles Emil and Martha Wilhelmina Steffan, both of European decent. Rosene was born in Chicago, Illinois, but only remained there until she was three years of age. In 1900, her family moved to the Snoqualmie Valley, a farming and lumber-producing region located along the Snoqualmie River in Western Washington state.

Here, her family tended a dairy farm, where Rosene and her siblings were active in outdoor life and helping out on the farm. According to a UT obituary, Rosene was also an “avid reader and good scholar.”

EDUCATION

Rosene attended high school in the Union Hill-Novelty Hill, Washington area until her senior year, when she left home to attend Lincoln High School in Seattle. She was very athletic, primarily interested in basketball and outdoor activities common to the area, such as hiking and fishing.

Lincoln High School 1914 *(from Seattle Public Schools, Historylink.org image No. 015-2689)*

After high school, Rosene was very interested in teaching, not an uncommon career choice for young women at the time, and she received a two-year teaching diploma from Western Washing College of Education. She actively taught and studied at the Puget Sound Biological Station, which is known today as Friday Harbor Laboratories. This is a marine biology station of the University of Washington located on San Juan Island. During her time at the Biological Station, Rosene became very interested in marine biology and physiology.

Rosene received her Bachelor of Science degree in 1922 from the University of Washington in Seattle, with a focus on zoology, physiology, and chemistry.

From 1922 to 1924, while working on her Master’s degree, she taught both zoology and physiology at Washington State Normal School in Bellingham, known today as Western Washington University, the northernmost university in the contiguous US. She continued to teach there until 1929, when she moved away from the cooler damp climes of Washington State and into the heat of Central Texas, where she began work towards her Ph.D.

UT AUSTIN YEARS

Once in Texas at UT Austin, Rosene began work on her Ph.D in zoology and physiology in 1929, and in 1933, she received her Ph.D. from the Department of Zoology. Her dissertation title was “Contributions to the Electrochemistry of the Cell.” Her thesis advisor was Dr. Elmer Lund, the professor who rekindled UT’s involvement and interest in marine science in the 1930s, after several attempts years before had been wrecked, quite literally, by tropical storms and hurricanes.

While Rosene was working towards her Ph.D., the US was between two World Wars, with many young men home. There was not only an increase in the number of students in natural sciences at UT, but a growing enrollment in physiology courses. The Chairman for the Department of Zoology, John T. Patterson, empowered Lund to hire additions to the staff to increase training and research in physiology, and in 1931, Rosene took the position of Technical Research Fellow.

From this position, Rosene would continue along the path of teaching at UT in the Department of Zoology, becoming an Instructor in 1933, an Assistant Professor in 1937, and finally an Associate Professor in 1943.

Rosene in 1922 from the University of Washington "Tyee" yearbook

Rosene, standing center at 1951 a UT dinner honoring J.T. Patterson, seated on the bottom right.

In the late 1930s, Rosene contributed to an ecological survey of the Texas coastline. She was awarded the Guggenheim Fellowship in 1939 – 1940, appointed for “investigation of the force and structures involved in absorption and transport of water in plants.” The work done under a microscope involved the separation of fine plant roots into capillary glass tubes to study methods and amounts of water absorption by single roots. The research she did during this fellowship was often cited in many leading plant physiology textbooks at the time.

THE LATER YEARS

Perhaps unlike many women of her generation, Rosene did not marry until the age of 53. In 1955, she married Elmer Lund, her doctoral advisor, who was 71 at the time. The two had met in Puget Sound years before when Lund had been serving on the summer faculty but was still teaching at the University of Minnesota. They co-authored *Bioelectic Fields and Growth* in 1947. They would remain married until his death in 1969.

During the 1950s, Rosene both organized and participated in various symposia of professional societies in both the US and abroad. She also held appointive and elective offices in sections of the Botanical Society of America and the American Society of Plant physiologists.

On September 21, 1957, after having held the position of Associate Professor for fourteen years, Rosene submitted her resignation effective just two days later, on September 23. In her letter, she states a frustration with her request for promotion and salary increase being consistently overlooked by the Budget Council of Zoology, despite her insistent letters and meetings with Deans.

Rosene and Lund had previously experienced tension within the Zoology Department in the late 1940s as leaders of the Physiology Group. At that time, with the increasing size of both UT and the department, Lund and Rosene wanted independence for the Physiology Group, with Lund creating a letterhead stating "Department of Zoology and Physiology." Lund was dismissed by the Board of Regents in 1949 following this issue.

Rosene passed away in Austin, Texas on December 21, 1978. She was 81 years old.

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