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DR. MARK D. SCHWARTZ • EMPOWER EXTRAORDINARY CAMPAIGN • ALUMNI NEWS



MICHIGAN STATE UNIVERSITY

Lyman Briggs College

Dr. Mark D. Schwartz, '80

Lyman Briggs College alumnus, Dr. Mark D. Schwartz, remembers being attracted to LBC for many of the same reasons that our students are today. Coming from Gagetown, a small town in Michigan's thumb, he liked that Lyman Briggs provided a small college experience within a large research university. Dr. Schwartz thought that LBC was a place where he could pursue his interest in weather and climate, while building a foundation in the sciences more broadly. He also received an in-state merit scholarship to attend MSU.

Dr. Schwartz, who is now a Distinguished Professor of Geography at the University of Wisconsin-Milwaukee, looks back fondly at his time at Lyman Briggs College. He lived in 620 East Holmes Hall for all four years of his undergraduate career and wishes he'd continued living in the building as a graduate student. Prof. Schwartz completed geography courses on topics such as climatology and remote sensing, but he has strong memories of his LBC courses. He remembers taking Science and Technology Studies courses (now called History, Philosophy, & Sociology of Science) in which he watched and discussed films such as *Them!* and *Dr. Strangelove*. He also remembers chemistry classes with Prof. Steven Spees and physics courses with Prof. Paul

Parker. Prof. Schwartz has adopted Prof. Parker's grading methodology in his own courses at the University of Wisconsin-Milwaukee.

During his time at LBC, Prof. Schwartz was a radio station disc jockey and production director for one of MSU's student radio stations, WMCD. He had a strong radio voice, which he can still turn on today. Many of his peers thought he would pursue a career in broadcasting, but he was attracted to a career with more stability.

After graduating from LBC, Prof. Schwartz earned his master's in geography from MSU's College of Social Science. While completing his graduate degree, he also worked one year as an undergraduate advisor for Lyman Briggs students. He then went on to receive his Ph.D. in geography at the University of Kansas (it took him less than three years to complete his doctorate!). Prof. Schwartz is now associate chair of the geography department at the University of Wisconsin-Milwaukee, where he teaches undergraduate and graduate courses in remote sensing, climatology, and occasionally phenology.

Prof. Schwartz has focused his research on phenology, which is the study of weather and climate interactions with plant and animal life cycles. Prof. Schwartz looks specifically at the ways in which spring and autumn temperatures influence the development of plants and the ways in which plants influence the composition of the lower atmosphere.

For the early part of his career, Prof. Schwartz says that phenological research was respected, but its importance wasn't completely understood by scientists outside the field. But in the late 1990s, Prof. Schwartz and several colleagues published four separate articles in *Nature* on phenology. He believes that these publications, combined with the growing interest in climate change, helped bring the field into the limelight. Today, phenological data is of great interest to scientists across many disciplines.

In the mid-2000s, Prof. Schwartz and a colleague co-founded the USA National Phenology Network in an effort to expand the types and amount of data available to scientists. This network encourages both researchers and citizen scientists to observe and record phenological changes in their local environment. Individuals and organizations can sign up for a program called Nature's Notebook and record when they see specific plant growth stages or animals emerging throughout the year. Prof. Schwartz and his colleagues are working to increase the



Prof. Schwartz downloads data from a temperature sensor at one of his field research sites in northern Wisconsin.



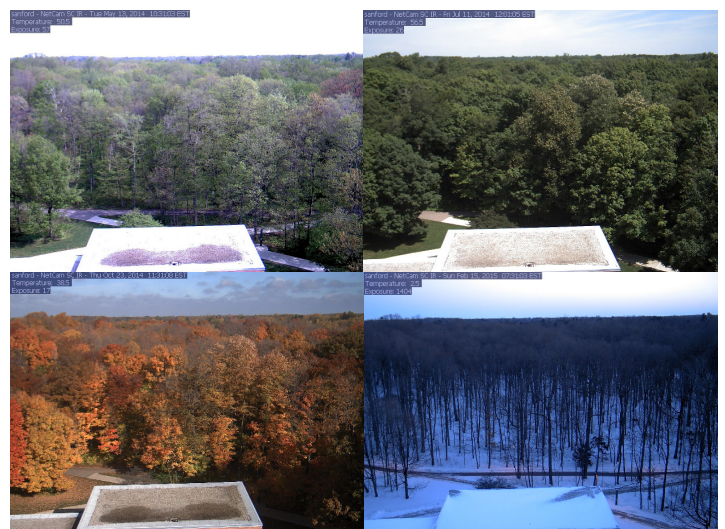
Prof. Schwartz had the opportunity to sing the National Anthem at a Milwaukee Brewer's game last fall. He also sings as a cantor at his parish.

number of program participants nationwide. Prof. Schwartz has helped involve Lyman Briggs College with a different phenology project called the PhenoCam Network. Led by Dr. Andrew Richardson at Harvard University, the PhenoCam Network bridges the gap between phenological data collected through satellite imagery and data collected from individual observations. Dr. Richardson's team has set up cameras at sites across the country to take photos of forested areas. Researchers can analyze the greenness of the canopies shown in the photos in order to track the changing of seasons over time. Prof. Schwartz helped set up two PhenoCams at the University of Wisconsin-Milwaukee and then realized that his alma mater would be a good candidate for a PhenoCam as well. There is now a PhenoCam installed on the roof of Holmes Hall that takes images at regular intervals of the Sanford Natural Area.

Phenology is an interdisciplinary field made up of geographers, engineers, atmospheric scientists, ecologists, and biologists. Prof. Schwartz has found that the strong foundation he built in Briggs chemistry, physics, biology, and computer science courses has served him well. "This background I have has put me in position to be a natural team leader when working with multi-disciplinary research groups," says Prof. Schwartz. He also believes his LBC courses on the history and philosophy of science have helped him to better appreciate the research of geography colleagues whose work is centered in the humanities and social sciences.

Prof. Schwartz is proud to be a Briggs alumnus and believes his experience at LBC was influential in leading him to his current work and research interests. "From my perspective, the curriculum and the program was something that was tremendously useful for me in ways that when I was there, I couldn't even conceive of how they would be," he says.

Prof. Schwartz was one of about sixty Lyman Briggs students to graduate in 1980. This May, he will address almost 300 graduates as LBC's 2015 Spring Commencement Speaker. "From my point of view, this is the way that the big questions in science are being effectively addressed, by giving people a broad base in science and this connectedness to the issues facing society," says Prof. Schwartz. "Briggs was the school...And now it's more vibrant than ever."



The Sanford Natural Area behind Holmes Hall is one of more than 80 sites nationwide that make up the "PhenoCam Network." The images taken at these sites are analyzed based on the amount and color of foliage present.