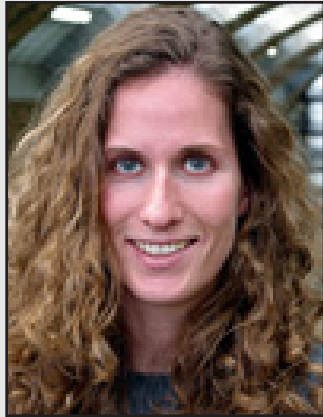


## 2012 MEDALS & AWARDS

### BIGGS AWARD FOR EXCELLENCE IN EARTH SCIENCE TEACHING

Presented to  
**Kathleen D. Surpless**



Kathleen D. Surpless  
Trinity University in San Antonio

#### *Citation By Diane R. Smith*

I am pleased and privileged to be the citationist for the 2012 recipient of the Biggs Award for Excellence in Earth Science Education, my colleague Kathleen Surpless. Kathy received her Bachelor's degree from Amherst College and her Ph.D. from Stanford University. After finishing her Ph.D., she spent three years at Stanford as Lecturer and Undergraduate Program Coordinator, where she taught, advised, and developed research opportunities for undergraduates. Kathy was very effective in this position, especially in creating a culture of inclusion and community among the students. During her time at Stanford, the number of geosciences majors more than doubled. Kathy joined the faculty at Trinity University in 2004 as an assistant professor. Her experience and successes led my colleagues and me to believe that she had high potential to become an excellent teacher-scholar, potential that has been more than realized.

At Trinity, Kathy has taught a wide range of courses, ranging from freshman seminars and introductory geosciences courses, to mid- and upper-level courses in earth history, sedimentology, and stratigraphy, to a team-taught environmental studies summer field course in Colorado. At all levels, she employs inventive and effective teaching methods

in the field, lab, and classroom. She has an uncanny ability to explain difficult concepts to a broad audience and engages her students with meaningful learning experiences. She challenges her students to learn and discover on their own, and builds their competence and confidence in doing science. A student in her sed/strat course said "this course taught me how to think like a geologist and talk like a sedimentologist." A participant in one of her field trips said that she "led each and every one of us to the "aha!" moment....no other field trip that I have been on drove the concepts home like this one did." Another student said that her "method of pushing students to discover for themselves is without a doubt the most effective teaching technique I have encountered." One of Kathy's research students said "it never ceased to amaze me the amount of responsibility she bestowed on us and the faith she put in our abilities."

In support of her research, Kathy has received funding from the Petroleum Research Fund and is the recipient of a prestigious NSF CAREER award. Kathy was awarded the 2009 Trinity University Junior Faculty Award for Distinguished Teaching and Research. Kathy views research as an integral part of an excellent undergraduate education. As an example, in her sed/strat course, students learn the material in the context of three class projects, which include collection of field and lab data, interpretation and analysis of the data, and presentation of both research papers and conference-style posters. In addition, Kathy has engaged 13 Trinity students with her research involving provenance studies of Cretaceous sedimentary rocks. Her students give presentations at GSA conferences and much of the work has been published in articles with the students as co-authors. All of Kathy's research students subsequently entered graduate school or have plans to do so in the near future.

Just like at Stanford, the number of geosciences majors at Trinity has more than doubled since Kathy joined our faculty. I call it the "Surpless Syndrome," which is a *good* thing to have! Kathy has played a critical role in getting our students excited about geology. She gets them started and keeps them engaged by teaching rigorous and challenging courses, providing research opportunities, and sharing sound advice about applying to graduate school and other post-graduation options.

Kathy, it has been a pleasure to observe you exceed the potential we saw in you eight years ago. Your achievements as a teacher-scholar are multiple, wide-ranging, and of the very highest quality. Congratulations on receiving this highly deserved award!

#### *Response by Kathleen Degraaff Surpless*

I am deeply honored to receive the Biggs Outstanding Educator Award. It seems extraordinary to be singled out for my teaching; I have always viewed my teaching as a collaborative effort in which I have depended heavily on my own teachers, mentors, colleagues, and, of course, my students. I certainly wouldn't be standing here without the help I've received from many, many others, and I'd like to acknowledge just a few of them today.

At Amherst College, I discovered geology late in my second year, and it was great teaching (including some truly excellent field experiences) that drew me in and kept me there. In fact, in the spirit of sharing and collaboration, I asked for and received Tekla Harms' Introductory Geology Final Project when I began teaching; I modified the project in a course I taught at Stanford, and we now use a version of it at Trinity. Tekla, Jack Cheney, and Peter Crowley modeled for me what I wanted to accomplish as a college professor – successfully weaving together teaching with research, and meaningfully involving undergraduate students in authentic, publishable research.

At Stanford, I was fortunate to be surrounded by fellow graduate students who shared my passion for teaching and were also eager to improve their abilities. Stanford's Center for Teaching and Learning and, in particular, Robyn Wright Dunbar helped make this happen for all of us. We learned pedagogy, developed our own courses, made the most of our TA opportunities and even designed courses to co-teach with Stanford faculty in the Stanford Continuing Studies Program – a true teaching apprenticeship. I was also lucky to have the support of Steve Graham, my thesis advisor, who continues to masterfully advise a large group of graduate students, and is another marvelous role model for me in my own mentoring of students and my development of my teaching and research at Trinity.

As I developed my courses, I relied heavily, as always, on others. I continue to scan the SERC webpage for new ideas and activities, I look back at ideas generated during *On The Cutting Edge* workshops I attended, I collect and aggregate notes, images, powerpoint slides, and lab and field activities from colleagues at Trinity and schools all over the country. I am grateful for all those informal discussions about teaching I've had with my Trinity colleagues, including and especially Diane Smith, as they

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have helped me work through a whole range of issues. I want to thank my husband Ben, a fellow Trinity Geoscience professor, who has been a phenomenal source of support, encouragement, and inspiration for me. And finally, I am grateful for the students I've been fortunate enough to teach – they have been and continue to be my collaborators as well, and they are better than anyone else at letting me know when things are going well and when they are not. So, thank you to my students, colleagues, advisors, mentors, and teachers for collaborating with me. Thank you for this wonderful recognition.