In Memoriam: Justin Schmidt and Emily Butler

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Justin Schmidt, a renowned insect scientist dubbed the "King of Sting" and known for his passion for sharing the wonders of the natural world with the public, particularly with children and students, died on Feb. 18 at the age of 75.

Over his long career as an adjunct scientist in the Department of Entomology at the University of Arizona's College of Agriculture and Life Sciences, Schmidt followed his curiosity around the globe, tracking down insects in remote places and documenting their ecology and behavior. Schmidt's research has resulted in more than 185 publications, 20 book chapters, two books and hundreds of scientific presentations.

Schmidt gained worldwide recognition for creating the Schmidt Pain Index, the only scientific rating system classifying the pain inflicted by stinging insects.

Schmidt followed his passion – learning as much as he could about the six-legged members of the animal kingdom as he could – up until his death. Less than two months ago, University of Arizona News interviewed him about discoveries he made over the course of more than two decades studying giant velvet mites, a group of arachnids that have largely been ignored by the scientific community. The bright red, fuzzy-looking creatures had immediately attracted Schmidt's curiosity after he moved to the desert Southwest from his native Pennsylvania.

"I was an East Coast boy. And there we had relatively little diversity of animals," Schmidt said during the interview. "We had no lizards where I grew up, a few snakes, a few toads and salamanders, and that's about all."

When he moved to Georgia to pursue a graduate degree in entomology – the study of insects and their kin – Schmidt saw "all these really cool bugs that we didn't have where I grew up."

It was then that he set his sights on Arizona.

"When I did my research on harvester ants, I found that Arizona is the mecca of just about everything taxonomically in the U.S.," he said.

After moving to Tucson, he saw the bright red velvet mites on walks out in the desert, sparking his curiosity, he recalled.

"I saw these giant mites and thought, 'Wow! What in the devil are these things?' And so I did a little bit of work, and I found out that virtually nothing was known about them."

That first encounter with the elusive desert dwellers sparked a lifelong interest in velvet mites, which culminated in a published paper that included insights about the mites' ways of life and even a taste test – with Schmidt as the tester – to figure out why virtually no predators show any interest in going after them.

(The image below is a screenshot from "Insecta: Science That Stings," a documentary featuring Schmidt that was produced by Landmark Stories, housed in the Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension. Watch the documentary at www.insectamovie.org.)
Carl Olson, associate curator emeritus for the Department of Entomology, met Schmidt when he worked at the Carl Hayden Bee Research Center in Tucson, where he studied the physiology, ecology and behavior of honeybees, before devoting himself full time to the Southwest Biological Institute, which he founded in 2006.

Staff at the University of Arizona Insect Collection “kept getting questions about bees from the public and I could always count on a good answer from Justin, along with a sharp retort about something or someone in our world,” Olson said. “He was a fountain of knowledge, always willing to talk about the grand world we were fortunate to work in.”

Gene Hall, manager of the Insect Collection, remembers first meeting Schmidt at the bee research center and getting to know him through field trips, entomological events and Schmidt’s frequent visits to the insect collection, where he gathered species data, usually on Hymenoptera (ants, bees and wasps).

“For all of his worldwide popularity due to his sting pain index and publications, including the popular book ‘The Sting of the Wild,’ Justin was a modest person who used media outlets and other outreach to educate about the wonders of biology, encouraging others to appreciate local and global biodiversity,” Hall said. “He had a passion for natural history in a broad sense, and one good example is his recent publication on the life history of the giant velvet mite, a stunningly beautiful yet little known beast. I’ll miss Justin’s friendship and visits to the UAIC, but more importantly his legacy of curiosity lives on, inspiring others to take the time to observe, document and share with the world.”

Schmidt was awarded the 2015 Ig Nobel Prize in Physiology and Entomology for “painstakingly creating the Schmidt Sting Pain Index.” The satiric prize recognizes unusual accomplishments.

He said that, more often than not, getting stung was the result of him letting down his guard when handling stinging insects – as opposed to intentionally inviting a painful jab. Over time, he became known for his exquisite descriptions of insect stings, which he phrased with a whimsical, evocative prose typically reserved for wine tasting.

Bruce Tabashnik, Regents Professor and head of the Department of Entomology, remembers Schmidt as “an amazing colleague and beloved friend who will be sorely missed.”

“Justin was a wonderful supporter of our department and community,” Tabashnik said. “His humility and generous sharing of his fame helped to boost our department. He was devoted to the study of insects in a way we can all learn from. His appreciation of nature and remarkable individualism teach us about having the courage and tenacity to follow our own paths, no matter where they take us.”

Schmidt died surrounded by family and loved ones in his home after a battle with Parkinson’s disease.

Watch Justin Schmidt participating in a research collaboration to help residents of Bisbee in Southern Arizona get rid of kissing bugs invading their homes in this video from 2017.
In Memoriam: Emily Butler

Emily A. Butler, professor of family studies and human development in the College of Agriculture and Life Sciences, died Jan. 31. She is remembered by family, friends, colleagues and students as a trailblazing researcher and supportive mentor.

Butler, who was 59, is survived by her husband, Jacobus Barnard, professor in the Department of Computer Science, her parents and a nephew.

“Emily was a staunch advocate for graduate education, she was a truly gifted mentor, teacher and researcher, and was not afraid to speak her mind,” said Laura Scaramella, director of the Norton School of Human Ecology. “She had a wonderful sense of humor and a truly infectious laugh.”

Butler came to the University in 2003 as a postdoctoral researcher in the Department of Psychology and joined the John and Doris Norton School of Human Ecology faculty in 2006. Her research focused on the emotional, self-regulatory and relationship mechanisms that contribute to physical, mental and social well-being. At the forefront of the quantitative transformation in social sciences, she was an internationally recognized scholar in the field of emotional and behavioral dynamics. Her research was supported by the National Institutes of Health, the National Science Foundation, the American Cancer Society and the Defense Advanced Research Projects Agency, bringing more than $12 million to the University of Arizona.

Her interdisciplinary, collaborative approach was trailblazing, according to Parker Antin, associate vice president for research in the Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension.

Butler regularly collaborated on grants and publications with faculty in psychology, psychiatry, nursing and computer science. She was a member of the Cancer Prevention and Control Program at the University of Arizona Cancer Center and an affiliated faculty member in the Department of Psychology and the Statistics Graduate Interdisciplinary Program. She also led an interdisciplinary research initiative on health, emotion, and relationships through the Frances McClelland Institute For Children, Youth and Families.

Butler published nearly 100 peer-reviewed journal articles and was on the editorial board of several academic journals. Among her numerous awards, Butler was recognized by the College of Agriculture and Life Sciences with the Bart Cardon Early Career Faculty Teaching Award in 2010 and the Research Faculty of the Year Award in 2020.

“She accepted her Research Faculty of the Year award over Zoom from a remote campground where she was spending the summer hiking,” said Victoria Ligon, who knew Butler best from her own time as a Norton School graduate student and later as a colleague in her role as an assistant professor of practice in personal and family financial planning. “To me, she embodied the dream of ‘having it all’ as she excelled in her career while also unapologetically pursuing her personal passions.”

“Emily’s achievements are truly reflective of her love for science and dedication to educating future scientists,” said Melissa Barnett, associate professor of family studies and human development and the Director of the Francis McClelland Institute.

During her time at the University, Butler chaired dozens of dissertation and master’s thesis committees and mentored students who may not have completed their doctorates without her support.

“She did this truly to help the students, not to advance her own career, as they did not work in her lab and their research interests were often outside of her own,” Barnett said.

Butler advocated for the needs of graduate students and policies and programs that provided opportunities for students.

Her approach to graduate education was guided by a strong sense of equity, colleagues said.

“She truly was a champion for graduate education in general, and for her students in particular,” Ligon said.

Donations can be made in memory of Emily Butler to the Norton School Cat-A-List graduate student scholarship, in recognition of her commitment to graduate students in the Family Studies and Human Development program.

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