

A COLD CASE

Years ago, two women allege, their team leader sexually harassed them in Antarctica. Now they are taking action

By Meredith Wadman

Editor's note: This article includes crude language and disturbing details.

Boston University is investigating sexual harassment complaints made against a prominent Antarctic geologist by two of his former graduate students. The women allege that David Marchant, then an assistant professor, harassed them during different research expeditions starting 2 decades ago, while they were isolated in small groups in the Antarctic. In supporting documents and interviews, several other women report similar treatment from Marchant in that period.

The first complainant, Jane Willenbring, now an associate professor at the Scripps Institution of Oceanography, part of the University of California, San Diego, alleges that Marchant repeatedly shoved her down a steep slope, pelted her with rocks while she was urinating in the field, called her a “slut” and a “whore,” and urged her to have sex with his brother, who was also on the trip.

The second complainant, Deborah Doe (a pseudonym), who was in Antarctica for two austral summers during this era, reports that Marchant called her a “c-t” and a “bitch” repeatedly. She alleges that he promised to block her access to research funding should she earn a Ph.D. She abandoned her career dreams and left academe.

A third woman, Hillary Tulley, a Skokie, Illinois, high school teacher, describes her experience in a supporting letter filed with Boston University (BU) investigators. “His taunts, degrading comments about my body, brain and general inadequacies never ended,” she writes. She claims Marchant

tried to exhaust her into leaving Antarctica. “Every day was terrifying,” she says in an interview with *Science*.

Willenbring writes that she waited to file her complaint with BU until October 2016, shortly after she received tenure, for fear of professional reprisal from Marchant before she had established herself as a scholar. Several of the women involved and two male witnesses say they feel guilty about not speaking out at the time, guilt that fuels their desire to speak now.

“This is one of the only real regrets I have in my whole life,” says Adam Lewis, who as a graduate student was in Antarctica with Willenbring and Tulley. “I had the chance to stand up for people. And I didn’t.”

Science is unaware of any additional formal complaints from more recent students. Marchant supervised two women who earned Ph.D.s in 2009 and 2016 and worked with him in Antarctica. Both women, contacted repeatedly by *Science*, declined to comment on their experiences with him.

Marchant, 55, now a department chairperson at BU, declined by email to be interviewed or to provide his written rebuttal to Willenbring’s complaint. Other documents related to the investigation suggest that he denies the allegations. He was scheduled to be honored as a fellow of the Geological Society of America (GSA) at the society’s meeting in Seattle, Washington, this month, but last week his name was removed from the GSA website’s list of new fellows.

Some other women who have worked with Marchant at BU and in the field stoutly

defend his character. Emily Jacesko, who as a 21-year-old undergraduate worked with Marchant in Antarctica in 2002, says she never witnessed or experienced sexual harassment from him. “I ... sincere[ly] support ... him as an upstanding and professional individual,” says Jacesko, a senior staff geologist at a consulting firm headquartered in Boca Raton, Florida. She has filed a letter of support for Marchant with BU.

The allegations come at a time of heightened attention to sexual harassment and gender discrimination in science. Scientists are also becoming more attuned to the potential dangers women face in isolated field camps, where they may depend on senior men for food, water, and shelter. In one online survey published in *PLOS ONE* in 2014, 71% of 512 female respondents reported being sexually harassed during field work; 84% of them were trainees.

The allegations against Marchant raise the question of whether women can successfully press complaints many years after allegedly abusive incidents. “I have seen claims up to 4 years after the last incident had happened. But I haven’t seen anything with quite that amount of time,” says



PHOTO: ADAM LEWIS
<http://science.sciencemag.org/> on February 13, 2020



In Antarctica in 1999, Jane Willenbring (right) was the only woman on a four-person team including David Marchant (center) and his brother (left).

Alexandra Tracy-Ramirez, an attorney with Hopkins Way in Phoenix who specializes in gender discrimination.

Tracy-Ramirez, who read Willenbring's complaint at *Science's* request, says the case likely "will be a fairly important part of a larger conversation schools are having about, 'What are we required to do?' and, 'What is the right thing to do?'"

THOSE WHO KNOW MARCHANT describe him as often charming and charismatic, a very good scientist, and an excellent teacher. He made his name documenting landscape evolution in Antarctica's McMurdo Dry Valleys, and he is known as an experienced field geologist, making more than 30 research trips to the frigid continent.

Jennifer Berglund, 33, a science communicator based in Somerville, Massachusetts, who was a field assistant for Marchant in 2012, recalls her first, windy night in Antarctica, when she and her tentmate had set up their tent with only small rocks holding down the guy lines. "In the middle of the night, we heard some rustling around outside of the tent. It was Dave lugging and placing giant boulders atop our small,

scrawny ones, and tightening the guy lines."

Marchant also made his mark on the BU campus, winning two teaching awards including, in 2004, one of the university's highest teaching prizes. In 2014 he was named a professor of the Howard Hughes Medical Institute (HHMI); his \$1 million, 5-year award is part of a program to improve science teaching. Marchant was "an excellent professor," says Rachel Watsky, now a law student at BU. She took a class with Marchant, who was also her undergraduate academic adviser, and she worked for him as a lab assistant on campus in 2011–12. She told *Science* he was a "great boss ... eager for my input."

The allegations against Marchant in the complaints and supporting documents paint a different picture, and read like a riveting survival novel unfurling in unforgiving, isolated terrain. In her complaint, Willenbring describes her first Antarctic field season as a master's student starting in December 1999, when she was 22.

Marchant, Willenbring, Lewis (then a graduate student at the University of Maine in Orono), and Marchant's brother Jeffrey, who was working as an assistant, lived and

worked in the arid, boulder-strewn Beacon Valley and in the shadow of 2470-meter Pivot Peak. They slept in unheated tents in temperatures as low as -40°C , walked long distances in rugged terrain, and dug deep holes to find ancient ice and volcanic ash. Dropped by helicopter with supplies, for weeks the four had only radio contact with the main base at McMurdo Station.

Willenbring alleges that Marchant, her thesis adviser, then 37, greeted her daily with the words: "Today I'm going to make you cry." He slept in his own tent and Lewis in the cook tent, leaving Willenbring to share a tent with Jeffrey Marchant, she writes. According to Willenbring, Marchant told her repeatedly that his brother had a "porn-sized" penis, and said she should have sex with him and feel lucky for the opportunity.

One week, Willenbring alleges, David Marchant "decided that he would throw rocks at me every time I urinated in the field." She cut her water consumption so she could last the 12-hour days far from camp without urinating, then drank liters at night. She says she developed a urinary tract infection and urinary incon-



**“He said,
‘I noticed
someone hasn’t
cried today.’”**

Jane Willenbring,
Scripps Institution of
Oceanography

David Marchant (left, in the McMurdo Dry Valleys in 2006) has led more than 30 field expeditions to Antarctica. Jane Willenbring (right, in Antarctica in 2008) has filed a sexual harassment complaint against him.



tinence, which has since recurred. When blood appeared in her urine, she alleges, Marchant prohibited her from going back to McMurdo for treatment.

“Most days,” Willenbring writes, “I would listen to long discussions about how I was a ‘slut’ or a ‘whore.’” When she disagreed, she alleges, “he would call me a liar and say, ‘There’s no place in science for liars, is there Jane? Is there Jane?’” repeating the phrase for up to 20 minutes.

As they neared camp toward the end of one arduous day, Willenbring alleges in the complaint that Marchant waited above her on a steep slope. He said, “I noticed someone hasn’t cried today,” grabbed her by the backpack and threw her down the slope, she writes. She climbed up twice more; each time, she claims, he shoved her down again, leaving her bruised, with an injured knee and a twisted wrist.

In another instance, Willenbring alleges in the complaint, Marchant declared it was “training time.” Excited that he might be about to teach her something, Willenbring allowed him to pour volcanic ash, which includes tiny shards of glass, into her hand. She had been troubled by ice blindness, caused by excessive ultraviolet light exposure, which sensitizes the eyes. She says she leaned in to observe, and Marchant blew the ash into her eyes. “He knew that glass shards hitting my already sensitive eyes would be really painful—and it was,” she writes.

Lewis, a glacial geologist who worked at North Dakota State University in Fargo until he emigrated to Canada last year, cor-

roborates this anecdote in a written letter to BU. He writes that after Marchant blew ash in Willenbring’s eyes, she “yelled and cursed in pain. While she was doubled over, [Marchant] looked back at the other members of the field party and gave us a comical expression that I interpreted as meaning ‘oops, that went a little too far.’” Lewis’s letter also says that he saw Marchant grab and push Willenbring at least twice.

Lewis had also been in Antarctica with Marchant the previous season, when Tulley was there with a National Science Foundation (NSF) program called Teachers Experiencing Antarctica and the Arctic. Tulley writes in a letter supporting Willenbring’s complaint that she had not yet cleared the rotors of the helicopter that dropped them at their field site when, “I was aggressively grabbed by Marchant and wheeled around, while he yelled and called me a ‘dumbass, lazy c--t’ ... who did not know that we had to set up camp immediately.”

She alleges in her letter that Marchant failed to teach her or include her, the only woman present, in the research. “Talk during [group] meals ... always included relentless, snickering mentions of my advanced age (I was 43), my small breasts, and other failings, always initiated by Marchant. All my attempts to steer the conversation to science were shut down.”

Lewis’s letter supports much of Tulley’s account. He writes that Marchant repeatedly said to the other men that an older woman in the field “will slow us down.” He adds in his letter: “On multiple occasions

while walking without Tulley, Marchant made grotesque sexual comments about her body.” At other times, Lewis writes, Marchant “clearly stated that he did not believe women should be field geologists.”

Andrew Lorrey, then a student at the University of Maine in Orono, was also in the field that season and was interviewed by BU investigators last year. Contacted by *Science*, Lorrey says he also remembers Marchant’s mealtime disparagement of Tulley and her body. Marchant’s relationship with Tulley was “not positive,” says Lorrey, now a climate scientist at the National Institute of Water and Atmospheric Research in Auckland, New Zealand. However, he says: “I did not necessarily attribute [this] to her being a woman as much as ... an outsider.”

Doe, a third woman, alleges that she was harassed by Marchant in field seasons in the late 1990s, in a supporting letter for Willenbring that she later converted into a formal complaint on her own behalf. (She authenticated this letter in an email to *Science*, and requested anonymity.)

When she was a student at BU, she writes, Marchant told her “less than two weeks into my graduate career, that I was lazy, less than intelligent, and incapable of meeting even the basest expectations.” She adds in the letter that, “My every action or social interaction was scrutinized and remarked upon, usually with a belittling comment, followed by ... that blinding smile that he deployed to make it seem as if he hadn’t just cut you to the core. ... I began to believe the

things he told me.”

Once in Antarctica, the abuse escalated, Doe writes. “He repeatedly called me a ‘c--t,’ among many other insults ... (bitch being the most common) that were invoked on a daily basis or more. ... He would crow that he could say absolutely anything he wanted to because we were ‘in his domain.’”

Marchant told her that if she completed her Ph.D., he and another scientist would ensure she never got NSF funding, Doe alleges. (NSF is the major source of funding for Antarctic field research.)

“I distinctly remember standing there, aghast, in my red down jacket and black wind pants, watching my career and life plans dissolve as Dr. Marchant smiled triumphantly at me,” she writes.

Four women who all worked in the Antarctic with Marchant at different times report him saying close variations of the same words: “I’m going to break you down and build you up in my image.”

NEARLY ALL OF THE WOMEN say they considered reporting the abuse at the time. Doe met with then-department chairperson Carol Simpson after returning to BU to discuss filing academic charges against Marchant. Doe’s letter alleges that Simpson, noting Marchant’s “sizeable” reputation and funding, “asked me if it wouldn’t just be easier on me to complete my degree and leave. I was astonished, deflated, and, I believed at that time, left without recourse.”

Simpson, who has since retired, wrote in an email that she could not comment on the ongoing investigation. She wrote that she would have “dealt quickly and decisively” with allegations “approaching the seriousness indicated” in Doe’s letter.

Doe writes that “it took years, literally, to overcome the damage to my self-worth. I slowly ... rebuilt a career grounded in scientific inquiry” outside academe. She writes in her complaint: “For [many] years I have carried the weight of knowing” that she stayed quiet “rather than speaking up and saving those who would follow me from the torment and anguish I had experienced.”

Tulley writes that she contacted one of the directors of NSF’s polar program for teachers upon her return, and was promised “a private, confidential meeting with an administrator.” The meeting did not materialize, and she did not pursue her complaint, she tells *Science*, because Marchant’s alleged treatment had “knocked me for a loop psychologically. ... I wimped out.” When she spoke to other teachers on NSF’s behalf, she relayed only the positive aspects of her experience.

Back at BU, Willenbring, too, did not speak up. She writes in her complaint that, “I believe that I would not be where I am

today if I had said something” at the time.

In 2002, as Willenbring finished her master’s degree with Marchant, another professor asked her to write a letter of evaluation for Marchant’s tenure and promotion file. She alleges that Marchant threatened to ruin her career if she did not write a positive letter. She wrote one. “I kept it to the science because he is a very good scientist,” she tells *Science*.

To avoid Marchant, Willenbring switched her Ph.D. research to the Arctic and moved to another university. She promised herself that when she got tenure, she would speak out.

IN JULY 2016, Scripps hired Willenbring as a tenured associate professor. She filed a Title IX complaint with BU in October 2016. Title IX is the 1972 law that prohibits discrimination based on sex at universities that receive federal funding. Institutions can lose federal funds if they do not comply with the law. (Willenbring also filed complaints with NSF and NASA, which fund Marchant’s research, in December 2016. However, Title IX complaints against individuals are typically handled first by the institutions where the alleged harassment occurred.)

Schools are unlikely to dismiss a years-old complaint out of hand, says Tracy-Ramirez, the Title IX lawyer, “but rather to ask, ‘Did a hostile environment occur at that time?’ and, ‘Is there reason to suspect there is a hostile environment happening now?’”

BU’s Equal Opportunity Office has interviewed numerous people, elicited a 200-page rebuttal from Marchant, and received at least four letters in his support plus at least five letters supporting Willenbring. It has also begun investigating Doe’s complaint, which was filed 7 months later, in May. BU told Willenbring last month that it expects to finish its report soon. The university declined to discuss the investigation with *Science*, citing privacy concerns.

Willenbring had also sent her complaint to GSA in December, because Marchant edits a GSA publication. The society declined to comment, or to say why Marchant’s name was removed as a GSA fellow.

Marchant, contacted repeatedly by *Science*, wrote in an email: “Boston University’s investigation into these allegations is ongoing. I have cooperated fully in that investigation. I do not wish to compromise the integrity of that investigation by making any comments before the investigation has been completed.”

Marchant’s defenders tell *Science* they do not recognize the man described in the complaints. “I find the allegations against Dave of physical abuse, verbal abuse, and sexual harassment beyond comprehension given my field experiences with him in Antarctica as a female” in 2008 and 2012, Jacquelyn

Hams, chairperson of the earth science department at Los Angeles Valley College in California, wrote in an email. “The time I spent doing field work in Antarctica with Dave continues to be the best experience of my professional life.”

Others praised his character. Marchant is “a person completely absent the stain of misogyny or unchecked anger,” wrote Berglund, who in addition to working with Marchant in Antarctica, administers the HHMI-supported BU science education program that he leads. Shivani Ehrenfeucht, 26, a second-year Ph.D. student in Marchant’s lab who has not been to Antarctica, says she was “completely shocked” by the allegations. “Nothing that I have heard lines up with the man that I know.” She calls Marchant “kind and genuine.”

Some scientists note that extreme isolation and the absence of institutional support at remote camps create conditions where abuse can flourish. “On campus, I can go speak to a trusted faculty member, the department chair, the ombudsperson,” says Meredith Hastings, an atmospheric chemist at Brown University and co-principal investigator on a \$1.1 million NSF grant aimed at curbing sexual harassment in the geosciences. “Who do you go talk to when you are in the field?”

Lewis, who earned his Ph.D. with Marchant, noted in his letter: “In the office and classroom setting, Marchant’s behavior toward women was much less outrageous ... he was careful and measured in his tone when others were present.” He adds that he never again saw from Marchant “the extreme behavior” of those early seasons, and says Marchant’s “attitude shifted to simply being distrustful” of women.

What is an institution’s responsibility when confronted with decades-old sexual harassment complaints? “The evidence is that the people who perpetrate this kind of behavior, it’s a pattern,” Hastings says.

Billie Dziech, a professor of English at the University of Cincinnati in Ohio and an expert on sexual harassment on college campuses, argues that even if an abuser has changed over time, they are not absolved of responsibility for acts committed decades ago. “I have a moral responsibility to the young people I teach,” she says. “I don’t care if I did damage 10, 20 years ago: What I do today and what I did yesterday matters.”

In concluding her complaint against Marchant, Willenbring writes that her goal is to prevent “another young, female student bearing the brunt of his misogyny.” She added, in an interview with *Science*: “I just don’t want it to happen again.” ■

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