

Breaking the ice

First U.S. female scientists 'bust' into Antarctic history in 1969

By Peter Rejcek, *Antarctic Sun* Editor

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Terry Tickhill Terrell was a 19-year-old undergraduate student at The Ohio State University — a chemistry major dissatisfied with the prospect of spending her career in drab laboratories — when she learned about a job opening on a science expedition to Antarctica.

She walked into the then-Institute of Polar Studies at the university and announced that she wanted to go to Antarctica. Silent stares greeted her announcement.

That was 1969. The year of Woodstock and Neil Armstrong taking the first steps on the moon. But women didn't go to Antarctica.

All that was about to change.

Now retired from a scientific career in the U.S. Fish and Wildlife Service and National Park Service, Terrell says she didn't know about the barriers for women working in Antarctica when she decided to head to the world's coldest continent 40 years ago.

"But I certainly knew about the barrier for women in just about everything else in society, that's for sure," says Terrell, a tall, vigorous woman of 59 who moved to the rural community of Masonville along Colorado's Front Range about two years ago.

It was a "return to the farm" for the Ohio native, who had never traveled farther than 250 miles from home before joining three other women from Ohio State on a scientific expedition to the McMurdo Dry Valleys, a relatively ice-free area near the U.S. Antarctic Program's McMurdo Station.

Colin Bull, director of the Institute of Polar Studies at the time (now the Byrd Polar Research Center), chose geochemist Lois Jones to lead the all-woman science team. A renowned polar scientist who led the first university-sponsored team to Antarctica in 1958-59 during the International Geophysical Year (IGY), Bull had tried for 10 years to send a woman to the Ice.

Time and time again, the U.S. Navy refused, protecting what many still referred to as the "last bastion of male supremacy." Bull still has his own pointed opinions on the whole matter.

"The Navy refused adamantly. They wouldn't even contemplate the possibility. I couldn't see any reason at all for this," he says from his home on Bainbridge Island, off Puget Sound in Washington State. "It was really utterly stupid, the whole thing, but we managed to bust it."

A short history

The history of women in Antarctica before 1969 is brief but colorful.

In 1935, Caroline Mikkelsen, wife of a Norwegian whaling captain, became the first known woman to set foot on the continent, when she and her husband went briefly ashore near the present location of Australia's Davis Station.

Another dozen years would pass before any women would return to Antarctica.

Famed Norwegian-American polar explorer Finn Ronne led a private expedition to the Ice in 1947. Harry Darlington served as his aviation chief.

The wives of both men, Edith Ronne and Jennie Darlington, were originally only supposed to accompany the expedition as far as Valparaiso, Chile, the last port before Antarctica. At the last minute, the mercurial Ronne decided Edith should stay with the ship to continue her series of news reports for the North American Newspaper Alliance. Jennie Darlington was asked to come along, too.

The two women ended up spending a year on the Ice, though relations between the Ronnes and Darlingtons deteriorated over the months. In her memoir of the experience, "My Antarctic Honeymoon," Jennie Darlington wrote, "Taking everything into consideration, I do not think women belong in Antarctica."

It seemed most agreed with that sentiment for the next couple of decades. A Russian marine geologist named Marie V. Klenova did make it ashore in 1956 while working aboard Soviet icebreakers at the start of the IGY.

Chicago-based biologist Mary Alice McWhinnie gained a reputation as one of the world's premiere Antarctic scientists in the 1960s, also working from the deck of ship. In 1974, her patience would pay off when she served as the first female chief scientist at McMurdo Station. She would also become one of the first two women to winter at McMurdo — with 128 men.

Preparing for history

However, McWhinnie would have to wait for the Ohio State team to break the ice in 1969, though technically the first female scientist to work in the U.S. Antarctic Research Program (which would later drop "Research" from its title) would beat Jones' team to the continent by a few weeks.

Christine Muller-Schwarze, a psychologist from Utah State University, joined her scientist husband at Cape Crozier in October 1969 to study penguin behavior.

Later quoted in the book "The New Explorers: Women in Antarctica" by Barbara Land, the German-born scientist said she wasn't trying to set a record. Their reason for an early arrival was scientific. "We just wanted to be at Cape Crozier when the first penguins arrived to choose their nest sites."

Meanwhile, Jones was assembling her team at Ohio State.

Eileen McSaveney was no stranger to being in the minority when it came to the sciences. At the University of Buffalo, she was the sole female undergraduate student in the Geology Department. The ratio of young female scientists went up when she arrived at Ohio State for her graduate work.

She was already familiar with the Antarctic research program when Jones asked her to join the first all-woman field party in 1969.

"I thought about it for a while — about half a second — and said yes. It didn't seem out of the ordinary. My then-fiancé Mauri — we have now been married for 40 years — had already been to Antarctica that year, and many fellow geology grad students were involved in polar work through the Institute of Polar Studies," she says via e-mail from New Zealand, where today she works as an editor and writer in earth sciences.

Kay Lindsay was the third member of the team. Though an entomologist on a geologic expedition, Lindsay's husband John was a geology grad student and had also been to Antarctica.

Bull says the National Science Foundation (NSF), which manages the U.S. Antarctic Program, paradoxically wanted women with Antarctic experience.

(Though, Bull admits, he's unsure just how tongue-in-cheek the request was.) He figured Lindsay and McSaveney qualified because of their husbands. Jones, he adds, had written her PhD on rock samples returned from Antarctica. And besides, she was "built like a Sherman tank," he says.

And Terrell?

"I never could invent any Antarctic experience for her, but she was really good at stripping down a motorbike, or a radio, or a Primus [stove]," Bull says. "She was someone anyone would want in an [expedition] party."

Terrell confirms that her down-on-the-farm work ethic and vigor proved to be assets in the field. "I'm not a tiny person. The work was hard. [Jones] was looking for someone who could carry a 65-pound backpack and a 13-pound sledgehammer around and collect rocks."

Busting into history

The announcement of an all-woman science team headed to Antarctica drew plenty of media attention though much of it reflected the bigotry of the times, with headlines like, "Powderpuff explorers to invade South Pole." Reporters asked hard-hitting questions like, "Will you wear lipstick while you work?"

McSaveney recalls that the first journalists to show up at Ohio State were from the local Columbus newspaper. "They weren't satisfied with boring ordinary pictures of the group, so we donned heavy parkas and trooped down to the Institute's ice core cold rooms, where we could be photographed looking at some cores (even though Lois's project had nothing to do with ice cores)."

Predictably, the Navy, while finally relenting on the prohibition on women in Antarctica, was skeptical of the expedition. "They definitely made it very obvious that there was a concern that we wouldn't make it," says Terrell, which only goaded the team to work harder than the male researchers in the field.

"Two thousand people a year manage to make it," she adds. "Why wouldn't we be able to make it? It just didn't make sense to me that we couldn't do it. I didn't feel so much pressured [to succeed] as amused that they would think we were so unable to do the same sorts of things the men were."

But attitudes were already changing, and Terrell says the experience was largely positive. "There was a tremendous amount of support," she says. "There was a large number of people who thought this was a great idea."

The four women spent most of their time working in the moonscape of Wright Valley, making only brief visits to McMurdo Station to shower or do laundry.

"Our time spent in McMurdo was often amusing," McSaveney says "The Navy officers treated us with almost elaborate courtesy, but several poor Navy enlisted guys who used bad language within earshot of us got a tongue lashing."

One time Terrell noticed a fellow following her around McMurdo. Later, she saw him sitting on a porch crying. She asked him what was wrong. He said, "I think you're a woman." Terrell assured him that's what she thought as well. Apparently, the Navy hadn't told most of the enlisted men that there were going to be women there — a particular shock to those who had been on the Ice for more than a year.

"The thing that struck me was how unnatural it was. The pressure situation must have been so much worse before we arrived — not just us, but women in general," she says.

History at Pole

At first leery of the gender experiment in Antarctica, the Navy later embraced the opportunity to show off its progressive attitude with a media event at South Pole. No woman had set foot at the bottom of the world. That was also about to change.

A ski-equipped LC-130 flown by the Navy took the women to the South Pole on Nov. 12, 1969. By that time, there were seven women in Antarctica. Jones' team was working the Dry Valleys. Muller-Schwarze was with her husband at Cape Crozier. Pam Young was a young Kiwi biologist doing research with the New Zealand Antarctic program. And Jean Pearson, a respected science writer for the *Detroit Free Press*, was on the Ice filing news reports.

Rear Adm. D.F. Welch, the commander of the naval forces in Antarctica, escorted the six women to the Pole. (Muller-Schwarze declined to go because she was busy with her work.) His aide, then-Lt. Jon Clarke, helped orchestrate the moment when all six women would step off the cargo ramp at the back of the plane.

Who would be the first woman to step on the Ice?

"The admiral decided [King] Solomon-like that the solution to that problem was that all [six] of them could jump off the ramp at the same time and they could all claim to be the first at the Pole. I was the guy in charge of stage managing that event," says Clarke, who left active service in 1970 to go to law school. He has a law office outside of Denver.

Photographers filmed and shot every moment, from the first steps on the polar plateau to the group picture at the geographic pole that marks 90 degrees south.

Terrell admits the event was overly staged, but also says the visit probably held more meaning for Jones, who was older than the rest of the team and had faced gender discrimination for years. It also served as an example that women could be more than nurses or teachers, as she'd been told in grade school.

"That's what the teachers were telling the kids: Their opportunities were extremely limited," Terrell says. "To me, [the visit to South Pole] was in part to say, 'The only bounds you have are the ones you put on yourself.'"

In the field

Away from the spotlight, the Ohio State team stayed busy with its fieldwork in the Dry Valleys, which involved living out of tents on the edge of Lake Vanda, melting ice for water, and hiking with rock-laden backpacks.

"We didn't disgrace ourselves by needing to be rescued, so I presume it made things easier for the next women proposing to go south," McSaveney says. "We had some minor difficulties — we were by and large urban women rather than outdoor enthusiasts."

The women, like all scientists headed into Antarctica's backcountry, received survival training. Though it didn't cover everything, McSaveney recalls.

"We had a very cold first few nights in Bonney Hut in Taylor Valley because no one had thought to show us how to start and run the hut's unique oil drum heater," she explains. "Afraid of blowing up ourselves, or the hut, we waited several days until someone could show us the procedure, which was quite simple once you knew how."

Cold temperatures and finicky heaters weren't the only dangers. Two helicopters crashed that season. The first accident killed several people, Terrell says. The

Ohio State team was involved in the second crash — a very hard landing.

“On the way down, I wasn’t so sure how it was going to end,” she recalls, adding that the now-experienced field team of women ended up having to show the helicopter pilots how to set up a tent while they waited for rescue.

Helo visits were generally few and far between to their camp at Lake Vanda. The women rarely called in for additional supplies — unlike the men when they ran out of libations, according to Terrell.

“We were considerably less bother than the men,” she says. “That was intentional. Dr. Jones was very concerned about being less bother. She had her professional career based on this. She was very concerned about making sure this was a very successful field season.”

A successful season

By all accounts, the gender experiment proved women could work in the Antarctic.

“They did a fairly good job,” Bull says. “They made about the same number of mistakes as four neophyte males would have done — but no more. It was a highly successful little expedition.”

Clarke says he doesn’t recall any problems while the women were in McMurdo.

“They all stuck together. They had what we called the Mother Hen. She [Jones] was an older woman,” he says. “We told these guys these women were scientists. They were married. Be respectful to them and don’t smart off. As far as I know, there were no problems. They were in the Dry Valleys most of the time.

“I think a bigger problem for the admiral was tourists,” he adds. “I think the admiral was more concerned about tourists becoming a problem than women scientists. By the time I left, we had both tourists and women. I guess I was there at an interesting time. It went from what it was in the old days to more of what it is now.”

Antarctica today

Today, women account for about a third of the American population in Antarctica. They lead major multimillion-dollar science expeditions, drive heavy equipment on long tractor traverses across hundreds of miles of ice, and serve in key leadership roles throughout an operation that moves 3,000 people to and from the Ice each year.

Pam Hill, a field support coordinator for the USAP, is at McMurdo Station for her 20th season on the Ice. She has seen some amazing changes since her first season working as a shuttle driver in 1985.

“As equal opportunity has become the norm versus the exception in America, the same is true for here on the Ice,” says Hill, whose Antarctic résumé includes a stint as winter site manager at the Palmer research facility on the Antarctic Peninsula.

Terrell and McSaveney both sound comfortable in their roles as Antarctic pioneers. Both have fond memories of their 1969 adventure.

Says Terrell, “When I left I was absolutely heartbroken, because I loved it there. From the perspective of doing research for the first time. From the perspective of being in that kind of intellectual environment. And from the perspective of being in a beautiful, wild place. There aren’t enough adjectives for beautiful.”

McSaveney says Antarctica is always tucked away at the back of her mind. “I have tried to keep up with scientific discoveries related to Antarctica, its geology and climate. And even many decades later, the beat of helicopter blades immediately conjures images of the Valleys.”

A few years ago, McSaveney adds, she saw a documentary on television showing people at McMurdo. There were a large number of women working both as scientists and in operational support roles.

“It was obviously so commonplace to have women working there that no particular mention of it was made in the commentary,” she says. “That told me that things are now as they should be — and gave me a really warm glow inside.”

Additional sources to this story: “The New Explorers: Women in Antarctica” by Barbara Land; Bill Spindler’s invaluable Web site, www.southpolestation.com; Billy-Ace “Penguin” Baker and friends with the Old Antarctic Explorers Association; and “A Warmer Climate for Women in Antarctica” by Ellyn Hament, The Exploratorium.

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