Silent no more

After being muzzled for nine years, government scientists in Canada are now allowed to speak out about their work.

By *Lesley Evans Ogden*

Early one Thursday morning last November, Kristi Miller-Saunders was surprised to receive a visit from her manager. Miller-Saunders, a molecular geneticist at the Canadian fisheries agency, had her reasons to worry about attention from above. On numerous occasions over the previous four years, government officials had forbidden her from talking to the press or the public about her work on the genetics of salmon — part of a broad policy that muzzled government scientists in Canada for many years. At one point, a brawny 'minder' had actually accompanied her to a public hearing to make sure that she didn't break the rules.

But the meeting last autumn was different. Miller-Saunders' manager at Fisheries and Oceans Canada (DFO) in Nanaimo walked in with a smile and gave her advance notice that the newly elected government would be opening up scientific communication: she and other federal researchers would finally be free to speak to the press. "It was like a weight was being lifted," she says. Important findings on climate change, depletion of the ozone layer, toxicology and wildlife conservation that had been restricted for so long could now be openly discussed.

Canadian scientists celebrated the move far and wide. Shark researcher Steve Campana danced in his office at the University of Iceland in Reykjavik, where he had relocated after leaving the DFO because of the communications constraints and other limitations.

Six months later, the government is loosening its grip on communications but the shift at some agencies has not been as swift and comprehensive as many had hoped. And with the newfound freedom to speak, the full impact of the former restrictions is finally becoming clear. Canadian scientists and government representatives are opening up about what it was like to work under the former policy and the kind of consequences it had. Some of the officials who imposed the rules are talking about how the restrictions affected the morale and careers of researchers. Their stories hint at how governments control communications in even more politically repressive countries such as China, and suggest what might happen in Canada if the political winds reverse.

"It was not a good time for journalists. It was not a good time for scientists. It was not

ILLUSTRATION BY GARY NEILL

a good time for morale in the federal community, and it was not a good time for Canadian citizens," says Paul Dufour, a science-policy analyst at the University of Ottawa.

Set to silence

The crackdown on government scientists in Canada began in 2006, after Stephen Harper of the Conservative Party was elected prime minister. During the nine-year Harper administration, the government placed a priority on boosting the economy, in part by stimulating development and increasing the extraction of resources, such as petroleum from the oil sands in Alberta. To speed projects along, the administration eased environmental regulations. And when journalists sought out government scientists to ask about the impacts of such changes, or anything to do with environmental or climate science, they ran into roadblocks.

For decades before the Harper administration, reporters had been free to call up government researchers directly for interviews. But suddenly, all requests for interviews had to be sent to government communications offices, which then had to get approval from multiple tiers of bureaucrats higher up. "It was an incredible rigmarole to try and get the most innocuous bit of information to media or the public," says Diane Lake, who was a communications officer with the DFO at the time.

Lake had been a newspaper reporter for a dozen years before joining the department in 1992, so she knew what journalists needed to produce stories. She has fond memories of her time as a communications officer before the Harper years, but after he took office, her job became less about communicating science and more about censoring it. When journalists called her trying to reach scientists, she was required to get approval for scripted answers that researchers could give, but she found the authorization process opaque and arbitrary. "There were never any written protocols on what would pass muster and what wouldn't," she says. "I would always say, 'can you write that down?' to folks in Ottawa." No one ever did.

Because the scripts had to be endorsed by "legions of approvers" in a convoluted process, meeting reporters' deadlines was "kind of hopeless", says Lake. The starkest example for her came in 2011, when Miller-Saunders (then Miller) and her colleagues published a paper in *Science* that investigated why unusual numbers of sockeye salmon (*Onchorhynchus nerka*) were dying in British Columbia's Fraser River on their way to spawn (K. M. Miller *et al. Science* **331,** 214–217; 2011). Through genomic analysis, the researchers found evidence that a virus might be to blame. The topic was sensitive in part because some scientists and environmentalists had previously raised concerns that fish farms could transfer diseases to wild salmon.

Science had alerted journalists about the paper days ahead of its publication under an embargo, giving reporters time to conduct interviews and write their stories. Many journalists had contacted Lake with requests to speak with Miller-Saunders, and Lake had been busy setting up interviews during the days before publication. But the permission process dragged on, and Lake and Miller-Saunders had to postpone those interviews repeatedly.

Then, on the day of the paper's publication — 14 January — Lake got word from Ottawa that Miller-Saunders had been denied permission to talk to reporters at all. "Obviously, journalists were very upset, and it sort of snowballed from there," Lake says. Many reporters wrote stories about the muzzling of a government scientist rather than about the genetics of salmon.

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Journalists who wanted interviews with Miller-Saunders were told to contact her co-authors outside the government. "The unfortunate thing was that my co-authors were not genomic scientists," Miller-Saunders says, so they couldn't readily address specific questions about the genetic aspects of the study.

The "Kristi Miller debacle", as Lake calls it, was just one high-profile example of scientists being silenced. But there were hundreds of others, she says. "It was like an iron curtain was drawn across communicating research to Canadians."

The federal government maintained that it was inappropriate for Miller-Saunders to speak to reporters because she was part of a judicial enquiry into the management of sockeye salmon, known as the Cohen Commission. At a public enquiry of the commission in 2011, the DFO assigned Miller-Saunders a media officer and a bodyguard, whom Miller-Saunders describes as a "very nice burly man". Miller-Saunders was kept in a separate room, away from the media and public, when not testifying. Her husband and daughter were there with her. "It was all very friendly and meant to keep me from distraction and being a distraction," she says. Because she was not permitted to speak for herself, a media officer answered all questions on behalf of Miller-Saunders. "It was all a very surreal experience," she says. University scientists on the commission, by contrast, could freely speak to the media freely.

The decision to muzzle Miller-Saunders was clearly political, says Calvin Sandborn, legal director of the University of Victoria's Environmental Law Centre. "There are all sorts of enquiries where experts talk about their findings outside of the hearing room."

Although the approval 'rules' were unwritten, Lake says it became clear over time what stories were likely to be permitted. Under Harper, government-science stories, "could only reflect economics, and what you could sell, not what you could save or conserve", she says.

Lake's work environment became a culture of frustration, low morale and fear, she says. Midway through the Harper years, she attended a meeting called by the DFO's Pacific-region director-general, Paul Sprout. Lake says that Sprout was "fair, and treated staff with integrity". But on this occasion, "he told staff they were not to speak critically about the Harper government, even on their own time".

That atmosphere eventually wore Lake down. She retired several years early, in 2013, explaining that she found the atmosphere at work "untenable". Now, she spends her time writing, volunteering and working in a community garden. She would like to have served in Canada's new government, she says, in a communications role "where public employees can actually do their job".

Sprout, now retired from his 34-year career with the DFO, denies having said that employees had to wait until they left their posts before saying anything critical about the government. He confirms, however, that the DFO's policy was "unequivocal that any approval for doing media interviews would have to be approved by the director-general of communications", who was based in Ottawa.

Sprout says that it was his responsibility to enforce the policy so that communications employees and scientists in his department would not face any repercussions in their personal careers. "I had to make sure that the policies of the department were respected. That was my job," he says.

When he started out as a fisheries biologist in the late 1970s, there was much more flexibility in communications, even when other Conservative governments were in power, Sprout says. During the Harper era, "there were a lot of limitations on being able to speak", says Sprout. "It was difficult to actually get media interviews, even when we wanted to encourage them."

Toxic environment

Not all scientists were willing to comply with Canada's closely controlled communications practices. One senior scientist who flouted the rules was Robie Macdonald, a biogeochemical oceanographer who was at the DFO's Institute of Ocean Sciences (IOS) in Sidney. He started his career with the DFO in 1973, and had worked under many federal governments.

Early in his career, there was no written

JOHN LEHMANN/GLOBE AND MAIL/CANADIAN PRESS

Kristi Miller-Saunders was not allowed to talk to the press about her work on salmon management.

media policy, but scientists understood that "they should comment on science and science issues and shouldn't comment on policy", he says. The Harper government, however, "made the process so cumbersome that most media people would not bother talking to you to start with".

Macdonald's group studied ocean contaminants, and the researchers ran afoul of the administration because they often identified environmental problems, such as the toxic effects of mercury and persistent organic pollutants on wildlife. Under Harper, contaminants research was removed from the DFO's mandate and toxicologists were fired or transferred, he says. When Macdonald's work on contaminants was cancelled, he retired early to continue his research, unpaid.

Another federal scientist who retired earlier than he had intended — in part because of media muzzling — was Ian Stirling, a prominent biologist with Environment and Climate Change Canada, the federal department that conducts research in areas including air quality, ozone, climate, weather, pollution and wildlife. Stirling began studying polar bears in 1970, but such research attracted scrutiny under the Harper government because scientists had shown that the animals were sensitive to climate change and the loss of sea ice.

Stirling says that the policies during the Harper administration reminded him of a another regime that had tight control over the media. During the 1970s, he had gone to meetings in Canada that were also attended by Soviet scientists. The visiting researchers would arrive, he says, "with a KGB guy, who would stand there with no smiles, a scowl on his face and arms crossed". Stirling still finds it unbelievable that the Canadian government used similar tactics at conferences. In 2012, for example, the Canadian news outlet CBC reported that media minders had shadowed scientists from Environment Canada at a meeting of the International Polar Year in Montreal.

Some officials say that the situation was not as bad as it has been portrayed. One manager within Environment Canada spoke to *Nature* on condition of anonymity. He says that the "muzzling" label used by the media is an overexaggeration. "I think that's a bit of a coarse way to articulate it. What was done really was a bit more nuanced than that," he says. The vetting process required approval from such a high level "that the probability of getting that within a very tight, and very common, media timeline, wasn't great", he says.

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"Sometimes we got approval, and sometimes we didn't. It wasn't always clear why," he says. Sometimes even stories about good news wouldn't get approved. He attributes this to the sheer volume sent "into the black box of decision-making". The most profound effect, he says, was that "people on both sides stopped trying".

Now, the manager says, media protocols in his office are "back to more or less the old way of doing it". If a journalist contacts one of his scientists directly, the researcher can do an interview but is required to inform a manager and communications officer beforehand. That's progress, but it offers less freedom than the DFO's new directive that scientists can now talk to media first, and let communications staff know later.

Government crackdown

Some departments are clearly struggling with the transition, as *Nature* found when it requested current media protocols for scientists from several government departments. Parks Canada provided information that had been published in 2006 and was updated in 2012, during the Harper administration. Canadian journalists continue to report difficulties in setting up media interviews with Parks Canada scientists.

Some scientists and communications staff worry that a shift in the political winds could bring back restrictive policies. "It's hard to say that it wouldn't happen again. It happens all over the world in totalitarian governments," Lake says.

A former journalist from China says that scientists there are censored, but that the restrictions are often lighter than those imposed on other sectors because science is considered ideologically free and the state censorship agency may not have the capacity to censor every researcher. But he also says that scientists there are generally reluctant to give interviews. "Scientists in China are not accustomed to talking to journalists," he says.

The muzzling of scientists is an ongoing concern even in some of the most open countries. The Union of Concerned Scientists (UCS) in Cambridge, Massachusetts, started tracking the issue in the United States during the administration of President George W. Bush, when government scientists complained that their data were being altered or suppressed and that they were unable to talk to the media. When President Barack Obama took office in 2009, he vowed to end such practices and ordered government departments to adopt scientific-integrity policies; but journalists and scientists still report problems with some agencies.

Gretchen Goldman, the lead analyst with the UCS on this issue, says that one thing Canada might learn from the US experience is that it takes time for a culture of transparency to take root. Even after a more open administration assumes power, many staff members remain from the previous government, and have been trained in the more-restrictive policies. "Practices often lag the policy," she says.

It could take years for Canadian scientists to recover from heavy funding cuts, low morale and tight control over communication. Looking back over what happened, Macdonald remembers something his grandmother once told him. "It takes ten years to make a good garden, but you can wreck it in six months," he says. "It's like that with science." ■

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