

ENVIRONMENT RESEARCH IS STILL BEING HUSHED UP, WARN SCIENTISTS

Restrictions on Australian researchers speaking about their work are getting worse, survey finds.

By Dyani Lewis

Environmental scientists in Australia say that they are under increasing pressure from their employers to downplay research findings or avoid communicating them at all. More than half of the respondents to an online survey thought that constraints on speaking publicly on issues such as threatened species, urban development, mining, logging and climate change had become worse in recent years (D. A. Driscoll *et al. Conserv. Lett.* 2020, e12757; 2020).

The findings, published last month in *Conservation Letters*, reflect how politicized debates about environmental policy in Australia have become, says Saul Cunningham, an environmental scientist at the Australian National University in Canberra. “We need our

publicly funded institutions to be more vocal in defending the importance of an independent voice based on research,” he says.

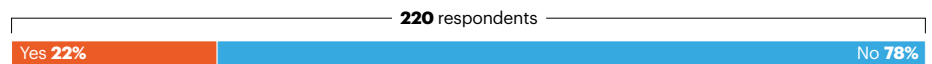
Australian scientists aren’t the only ones who have reported interference in science or pressure – particularly from government employers – to downplay research findings. Scientists in the United States, Canada and Brazil have also reported such intrusions in the past decade.

Two hundred and twenty scientists in Australia responded to the survey, which was organized by the Ecological Society of Australia and ran from October 2018 until February 2019. Some of the respondents worked in government; others worked in universities or in industry, such as environmental consultancies or non-governmental organizations (see ‘Scientists silenced’).

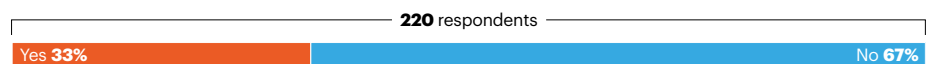
SCIENTISTS SILENCED

Roughly one-quarter of environmental scientists have had their work altered by their employer, and one-third have been banned from speaking publicly about their research.

Q: Have you ever experienced ‘undue modification’ to your work by your organization that downplays, masks or misleads about environmental impacts?



Q: Have you ever been prohibited by your organization from providing public communication in regard to a matter about which you are knowledgeable?



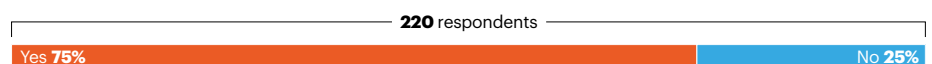
Q: Please indicate which kinds of communication you have been prohibited from providing.



Q: Which option below best describes your general view about how the constraints on public commentary by scientists have changed over recent years.



Q: Have you ever ‘opted out’ or otherwise practised self-censorship by refraining from making a contribution to public information or debate, despite there being a clear opportunity to do so?



cancel out the Doppler brightening.

This was not unexpected, the authors say: although the M87* black hole itself does not change from year to year, the environment around it does. On a scale of several weeks, strong magnetic fields should stir the accretion disk and produce hotter spots that then orbit the black hole. In 2018, a separate team reported evidence of a blob of hot gas circling Sagittarius A*, the Milky Way’s central black hole, over the course of around 1 hour. Because M87*, at 6.5 billion times the mass of the Sun, is more than 1,000 times the size of Sagittarius A*, the dynamics around M87* take longer to unfold.

The EHT collaboration attempts to observe M87* and Sagittarius A* every year, in late March or early April. That is when weather conditions are most likely to be good simultaneously at the many sites in its network. The 2020 campaign had to be scrapped because of restrictions owing to the COVID-19 pandemic, but the team hopes to have another chance in 2021. If all goes well, more observatories — including one in Greenland and one in France — will join the effort.

The team also hopes that next year’s campaign will include its first global observations using shorter-wavelength radiation. Although more challenging to see through Earth’s atmosphere, this would improve the resolution of the EHT images. “We would get even closer to that black-hole shadow, and get sharper images,” says EHT member Sara Issaoun, a radio astronomer at Radboud University in Nijmegen, the Netherlands.

By Davide Castelvecchi

News in focus

The results show that government and industry scientists experienced greater constraints from their employers than did university staff. Among government employees, about half were prohibited from speaking publicly about their research, compared with 38% employed in industry and 9% of university staff. Three-quarters of those surveyed also reported self-censoring their work.

One-third of government respondents and 30% of industry employees also reported that their employers or managers had modified their work to downplay or mislead the public on the environmental impacts of activities such as logging and mining.

Government employers most commonly modified science reported for the media or for internal communications, but conference presentations and journal articles were also altered to downplay environmental impacts. In a 2013 survey of more than 4,000 Canadian government scientists, a similar proportion (24%) of respondents reported that information for the media had been altered or excluded for non-scientific reasons (see go.nature.com/3o8eioi). In Australia, public commentary was most often curtailed on issues related to threatened species. “The public often remains ‘in the dark’ about the true state and trends of many species,” wrote one survey respondent.

Managers modifying communications shared in government departments is particularly concerning, says ecologist Don Driscoll at Deakin University outside Melbourne, who led the study. It suggests that for controversial issues, such as the environmental impacts of mining or land clearing, “the information is not getting right through to the decision makers”.

Although university scientists reported fewer restrictions on communicating their work, Cunningham says that they are not immune to pressures that can prevent them from speaking out. “Many prominent researchers in my school receive threats of violence as a result of their work,” he says. That’s “not going to be good for your mental health, and it might also shape your willingness to speak publicly about contentious issues”, he adds.

Just under half of the survey respondents reported being harassed or criticized for speaking out. The Ecological Society of Australia has now set up a permanent online portal where instances of science suppression can be anonymously reported.

Most scientists felt the main consequences of being blocked or refraining from speaking about their work was that groups with vested interests then dominated public debates and could mislead people, and that relevant data were not used to inform policies.

Driscoll says that one way to reduce employer interference and improve transparency is to establish an independent environment commission that provides policy advice and has guaranteed funding. The

commissioner in charge would need security of tenure, “so that they can’t be sacked every time there’s an election”, says Driscoll. This happened in 2013, when a newly elected conservative government disbanded a climate commission set up two years earlier to act as an advisory board to government on climate science. New Zealand has had an independent commissioner for the environment since 1986, to provide independent advice on environmental issues to the parliament.

Policies that stipulate how science should be communicated can also be helpful for scientists working in government departments, says Driscoll. In 2018, Canada adopted a policy for the public service that ensures scientific communication is free from interference.

“I don’t think there’s a simple solution,” says Cunningham, but “it’s important to pursue some of these sorts of institutional changes and policy changes that can create a little bit of protection for ideas”.

‘APOCALYPTIC’ FIRES ARE RAVAGING A RARE TROPICAL WETLAND

Researchers fear the fragile ecosystem of South America’s Pantanal region will never recover.

By Emiliano Rodríguez Mega

When Luciana Leite arrived in the Pantanal on 2 September, she thought she would be celebrating her wedding anniversary. Instead, the biologist and her husband spent their planned eight-day holiday aiding volunteers and firefighters struggling to extinguish the burning landscape.

A common destination for ecotourists, the

Pantanal is the world’s largest tropical wetland, home to Indigenous peoples and a high concentration of rare and endangered species, such as jaguars (*Panthera onca*) and giant armadillos (*Priodontes maximus*). Small fires occur every year in the region, which sprawls over parts of western Brazil and extends into Bolivia and Paraguay.

But 2020’s fires have been unprecedented in extent and duration, researchers say. So far, 22% of the vast floodplain – around



Firefighters and volunteers in the Pantanal have been scrambling to rescue jaguars from fires.

ANDRE PENNER/AP/SHUTTERSTOCK