

Samantha Elizabeth Lake

4 September 2023

Enquiry in Australian Antarctic Division funding

To whom it may concern,

I am writing regarding the Senate enquiry into Australian Antarctic Division funding.

I have a Ph.D in Antarctic science, and worked for many years at Davis Station leading a long term monitoring project.

Since having children, I have been unable to dedicate my focus full-time to career and thus have relied on casual contract work supporting the career scientists.

Last year when the Morrison government announced \$82 million over 10 years to Antarctic Science, I presumed I could rely on Antarctic science contract work until retirement. Less than a year later, the money has 'disappeared'.

This seriously disadvantages women, in particular, who casually specialise in science.

- Firstly, there isn't any casual work.
- Secondly, there are no contributions to already small superfunds.
- Thirdly, skill levels drop when not working or when having to move to other areas where special expertise is not relevant.

When I was a career scientist, I worked in a long-term monitoring program, as mentioned above. I analysed more than 30 years of data for Ph.D. candidature. I know that to identify change in the Antarctic environment it is necessary to collect data over several decades, because there is cyclical variation that corresponds with ENSO and other periodical changes. Long-term change needs to be defined independent of short-term periodicity.

My current speciality is sea-ice. I worked for the UN (World Meteorological Organisation) writing best practices for sea-ice research. Since then, I have worked with the sea-ice group at Australian Antarctic Program Partnership. I know that Antarctic sea-ice is changing, especially this year and probably into the future. Sea-ice is an integral component of coupled climate models. Thus we need Antarctic sea-ice science for accurate predictive models of future climate.