



Monitoring Antarctic bryophyte communities in a time of change

THE CENTER FOR SUSTAINABLE ECOSYSTEM SOLUTIONS PRESENTS:

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Date: Tuesday 12th March

Time: 16:00 - 17:00

Venue: Building 40 Theatre 131 (40.131)

Refreshments will be provided

ABSTRACT

Continental Antarctic vegetation communities are good baseline environments for climate change research. However, Continental Antarctic ecosystem responses to climate change are still somewhat uncertain, due to a paucity of available biodiversity data across the continent.

Here, I present the results from the first decade (2003-2013) of repeat long-term vegetation monitoring at two sites in the Windmill Islands, East Antarctica (ASPA 135 and Robinson Ridge), using semi-automated image analysis for vegetation percent cover, as well as traditional species identification methodologies. Moss health state changes were observed between healthy, stressed and moribund over the decade of monitoring, with associated changes in species composition. These changes, in addition to existing vegetation patterns in the Windmill Islands, suggest that this region is currently undergoing a period of long-term drying, with contraction of bryophyte communities to areas with reliable moisture supply. These results will inform policy and management of vegetation in the Australian Antarctic Territory and throughout the Antarctic continent.

BIOGRAPHY

Diana is an environmental scientist interested in using technology to assist with environmental monitoring and ecological studies. Her current research involves recommending Antarctic vegetation monitoring methodologies and protocols for the Antarctic Near-shore and Terrestrial Observing System. She is a recent PhD graduate from UOW and is currently the research officer for the Sustaining Coastal and Marine Zones stream of UOW's Global Challenges program.



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