

# Tasmania hosts threatened ancient cultural landscapes

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The collection of lake sediments allowed scientists to reconstruct past environmental changes from Tasmania. Credit: Michela Mariani

The landscape of Tasmania has been shaped by thousands of years of Aboriginal burning practices, researchers at the University of Melbourne have found.

Climate change, bushfires and human activities threaten a variety of ecosystems worldwide. For instance, Tasmanian rainforests and moorlands are in danger of severe reduction and extinction due to the environmental impacts of [climate change](#).

"To understand how [bushfires](#) and droughts affect Australian ecosystems, we need to know how Australian landscapes evolved through time," says researcher Dr. Michela Mariani.

Michela and her colleagues used [fossil pollen](#) stored in sediments deposited in lakes to reconstruct past landscapes and the vegetation that covered them. Different plants produce

different amounts of pollen and disperse it in different ways, Michela says, which makes it difficult to interpret fossil pollen traces.

"When we applied cutting-edge models for past vegetation reconstruction to Tasmania, we found that this 'wilderness' area is actually an ancient cultural landscape shaped by Tasmanian Aborigines."

Conservation efforts should be increased to protect the vegetation mosaics of Tasmania because of their additional cultural heritage value, Michela adds.

**More information:** Michela Mariani et al. How old is the Tasmanian cultural landscape? A test of landscape openness using quantitative land-cover reconstructions, *Journal of Biogeography* (2017). [DOI: 10.1111/jbi.13040](https://doi.org/10.1111/jbi.13040)

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