

Tuesday, 17 April 2018

Unique real-world experiment explores link between fire and herbivore activity

Embargoed until 10am, Wednesday, 18 April 2018

Media note: interviews and filming opportunities will be available near Ross, at 10am tomorrow. See further details below.

A real-world experiment drawing on the concept of renewal ecology to help explore the relationship between fire and herbivore activity in Tasmania's Midlands will be carried out this month.

Researchers from the University of Tasmania's School of Natural Sciences, in collaboration with Bush Heritage Australia, will conduct a unique field experiment at Beaufront, a privately-owned farm located east of Ross where rare grassy woodland remnants are managed under a stewardship agreement.

The experiment is to understand better the relationship between native (pademelons, wallables and kangaroos) and non-native (sheep, deer, rabbits) herbivore activity and landscape fire and how this impacts on biodiversity.

The research is being carried out by Professor David Bowman and research associate Ben French.

Unique to the research project, Beaufront landowner – Julian von Bibra – is collaborating with the Tasmanian Aboriginal community to carry out patch burning as part of the experiment.

Patch burning has been used by many indigenous cultures, including in Tasmania where Aboriginal people have managed landscapes with fire.

"Fire and herbivores, including native and non-native herbivores, are interdependent in grassy systems," Professor Bowman said.

"This is especially the case in the native grasslands and open eucalypt woodlands of the Tasmanian Midlands in which fire is critical to sustaining biodiversity and where native and non-native animals are abundant.

"This scenario presents a real scientific conundrum.

"You've got biodiversity values, the need to burn and also a whole lot of herbivores, including some abundance of non-native ones.

"How do you fit that together to maintain your biodiversity values?"

Professor Bowman said the experiment wanted to draw on the concepts of renewal ecology.

"Renewal ecology refers to a solutions-based approach, incorporating both ecological and societal factors in response to ever-changing environmental concerns," he said.

"The Tasmanian Aboriginal community is a logical partner in renewal ecology in this project, recognising the long history of Indigenous presence in the landscape and the role of traditional burning took in shaping it."

The experiment will burn patches of multiple sizes, with researchers monitoring herbivore feeding patterns before and after the burning.

Scientists will also study the effects of fire and grazing on vegetation composition and structure.

Professor Bowman said results from the study will be valuable for refining burning strategies to meet conservation and bushfire risk-reduction goals, as well as contributing to broader debates surrounding fire and herbivore activity.

The project is being conducted with landowner Julian von Bibra and in cooperation with the Tasmanian Aboriginal Centre, Tasmanian Land Conservancy, Greening Australia and the Tasmania Fire Service. It is funded by an Australian Research Council Linkage Grant, supported by Bush Heritage Australia.

Media Opportunity

Who: Professor David Bowman, landowner Julian von Bibra, and Andry Sculthorpe from the Tasmanian Aboriginal Centre.

When: Wednesday, 18 April, 10am to 12pm, with interviews to be followed by filming opportunities.

Where: Beaufront, 395 Tooms Lake Rd., Ross. Coming from the North, leave the Midland Highway, come south down the main street of Ross, at the pub/war memorial turn left and then immediately via right out the Tooms Lake Rd. Journalists are to gather at the shearer's quarters.

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