

# Researchers find fertile pastures

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(PhysOrg.com) -- University of Queensland researchers are breaking new ground in rainforest regeneration.

Through an ambitious 20-year project, Dr Margie Mayfield and her colleagues from UQ, the University of Adelaide, Charles Darwin University and Cambridge and Lancaster Universities in the UK, hope to track and measure the best way to regenerate rainforest for biodiversity recovery and [carbon sequestration](#).

Dr Mayfield's project involves a block of land in Queensland's tropical north which is part rainforest and part pasture.

This site gives her team the unique ability to track recovery progress over time, starting from the pre-existing diversity and carbon stores found in the pasture and compared its recovery to the adjacent intact rainforest.

“The first stage of the project will be to properly survey what is there before any revegetation takes places on the pasture land, this step is absent from previous rainforest restoration projects,” Dr Mayfield said.

“We will then set up a number of experimental blocks that will be used to plant different combinations of trees so that we can properly measure what works best to restore the most biodiversity, and quickly reach a state similar to the adjacent rainforest.”

She said, to date, rainforest restoration had not been based on scientific

experimentation and usually involved planting as many trees as there is money for.

“Very little has been done to track rainforest restoration success, so this project represents a unique opportunity,” she said.

“Scientists really have no idea how important it is to plant a diversity of trees for biodiversity recovery because it has never been tested.”

Dr Mayfield said the project would also have the added bonus of tracking which restoration approach is best for having the dual benefit of biodiversity recovery and using the restoration project in emerging carbon markets.

“We need to find out a proper framework for maximising the use of reforestation projects for [carbon storage](#), whether it is planting a monoculture, five tree species, 25 tree species or more, as it is clear that forests will be an important part of these markets in the future,” she said.

Dr Mayfield said the project would involve many different parties, including landowners, environmental consultants and community members.

“This is a unique opportunity to get people involved at the beginning of a project that will give so much back,” she said.

This Australian Research Council funded project is being conducted at the Thiaki Creek Reserve, a private property owned by Noel Preece and Penny van Oosterzee, who run the environmental consulting firm Biome5 and who are actively involved in the development of a national carbon scheme that includes the protection and regeneration of Australia's forests.

Provided by University of Queensland ([news](#) : [web](#))

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