

Queensland rainforest ‘supersite’ to track climate change impacts

Scientists will monitor the impact of climate change on the health of far north Queensland’s unique rainforests through a research ‘supersite’, recently expanded with the addition of a large-scale study site at Robson Creek on the Atherton Tablelands near Cairns.



Credit: CSIRO

The commissioning of the Robson Creek site follows three years of research and planning by CSIRO and the Terrestrial Ecosystem Research Network (TERN).

‘We established baseline data by identifying, mapping and measuring every tree that was greater than 10 cm in diameter so we can continue to monitor them,’ said Matt Bradford, a field botanist who manages the Robson Creek site for the CSIRO.

‘We censused over 23 000 stems from 212 different species and there is estimated to be more than 400 plant species represented on the plot.

‘It’s been a huge effort, but it’s a great place to be working. There’s such a diversity of life and some of the trees on site are well over a thousand years old.’

TERN and CSIRO are now inviting scientists from Australia and across the world to undertake research at the Robson Creek site, the largest rainforest plot ever set up in Australia.

‘Studies already under way involve CSIRO and four Australian universities looking at the diversity of plants, birds, animals and insects and the dynamics of how things like water, carbon and gases move through the ecosystem,’ said Mr Bradford.

‘A state-of-the-art flux measuring tower, part of TERN’s OzFlux network, will be installed on the site in coming months to monitor gas exchange between the forest and the atmosphere, allowing us to observe how climate change might affect this ecosystem.’

‘We envisage that the Robson Creek plot will quickly become an important part of the global forest plot network that will allow for comparisons with other tropical forests and contribute to our understanding of how the world’s forests will adapt to any effects of climate change,’ said Mr Bradford.

Within Australia, the Robson Creek plot forms part of the Far North Queensland Rainforest Supersite, which enables researchers to keep an eye on the rainforests of the World Heritage Wet Tropics region.

This rainforest supersite is one of ten research ‘supersites’ that make up the [Australian Supersite Network](#) established by TERN. The ten supersites – each representative of a different type of Australian ecosystem – provide a complete record of the ecosystems. Data are available for use by the scientific, management and policy communities and the wider public to answer questions about species distribution, the potential for carbon storage and exchange, and the impacts of a changing climate.

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Source: CSIRO/Australian Supersite Network

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