Carbon-Flux Micrometeorological Project

The Daintree Discovery Centre is committed to the reduction of carbon emissions. It supports carbon offset research by sponsoring programs such as the Carbon-Flux Project being conducted by James Cook University.

As part of a TERN Funded Project, Assoc. Prof. Mike Liddell has installed a Flux station, and a Weather station, with radiation sensors on top of the Canopy Tower to measure climate induced changes in the carbon storage of rainforest. A canopy phenocamera is constantly recording the changes in flowering and fruiting behaviour of the forest. An instrumented soil pit has been dug into the forest floor to measure water and heat storage in the soil as soil water is a key driver of the plant community.

Information from the Flux Station on the Canopy Tower comes in at 10 pieces of data per second on multiple sensors so there are vast quantities of data stored.

▲ FACT
Information from the Flux Station on the Canopy Tower comes in at 10 pieces of data per second on every sensor so there are vast quantities of data stored.

The display on the PC shows all the normal weather parameters; rainfall, temperature, humidity, wind, solar radiation. But it also provides important information about carbon exchange.

In GREEN are the 'good hours' when carbon is being stored.

In RED are the 'bad hours' when carbon is being produced.

Source: Assoc Prof Mike Liddell, James Cook University
B.Sc Hons(Otago), M.Sc. (Monash), Ph.D. (Adelaide)

About Mike Liddell:
Mike Liddell is Assoc Professor in the
Chemistry Department, James Cook University, Cairns.

Current major research projects:
TERN Network Leader : Australian Supersite Network
(seven Supersitesare distributed nationally)

TERN Project Leader: FNQ Rainforest Supersite
(JCU, CSIRO, Griffith, La Trobe)

Special Expertise
Eddy covariance fluxes and biometry in tropical rainforests.
Synthetic, theoretical and spectroscopic chemistry.

TERN
Terrestrial Ecosystem Research Network

Far North QUEENSLAND
RAINFOREST SUPERSITE

Australian SupersiteNetwork