FNQ Tropical Rainforest Ozflux
Daintree / Robson

Status report.

Presentation by:
Associate Professor Mike Liddell
James Cook University
email: michael.liddell@jcu.edu.au
ph: 07 4042 1275

TERN is supported by the Australian Government through the National Collaborative Research Infrastructure Strategy and the Super Science Initiative.
Daintree Ozflux Sites

- Pristine lowland rainforest at both stations.
- Complex Type 1A mesophyll vine forest
- **Canopy height**: 25-35m
- **Leaf area index**: ≈ 4
- **Elevation**: 65m
- **Rainfall**: 4900mm
- **T_{\text{mean}}**: 24°C
- Lots of lightning
DAINTREE RAINFOREST OBSERVATORY
Daintree Rainforest Observatory

- Class room for 40 students
- Large basic laboratory.
- Camp-site plus a bunk-bed to accommodate 40 people.
- Large communal kitchen.
- Toilet and shower block.
- Establish ecological monitoring plots/sensors on elevational gradient.
- Establish access tracks.
Daintree Tower

- TERN Ozflux Standard system.
On going activities:
- Nico: modifying Python to handle the slightly larger data set coming in.
- Nico: adding comms to Central node (Dropbox).
- Nico: hardware: tipping bucket, leaf wetness, Phenocam, sensor mounts, comms to 24V power.
- Mike & Jason: all data 2001 – 2011 into same format, fast read engine for fixed format, writes to format for EdiRe (will look at EdiPro).
- Mike & Glyn: recoding Matlab QC/gapfilling code.
- Last year there was 7600mm rainfall at Cape Trib!
Robson Creek

- **Lamb Range:** 700m
  Simple Notophyll Vine Forest (SNVF) 26 – 40m canopy
- **Soils:** Metasediments and Metamorphics.
- **Rainfall:** $\approx 2300$mm
- **$T_{\text{mean}}$:** $\approx 19^\circ$C
TERN
TERN-1

- Sub-project 5: Forest/atmosphere CO$_2$/H$_2$O/Energy exchange.
  Soil measurements. Microclimate.
Robson Creek: Progress

TERN-1

- **Sub-project 5**: Weatherstation, soilpit, bore
  1 quote in for 40m 4 leg flux tower (5m x 5m).

Robson Creek: Future

TERN-1/TERN-EIF

- **Sub-project 5**: Complete flux tower.
Robson Creek: Progress

TERN-1

Surface Moisture Content at Robsons Creek

Jim Wallace (CSIRO Land & Water)