

The Cumberland Plains Woodland site



Australian and New Zealand Flux Research and Monitoring

HOME

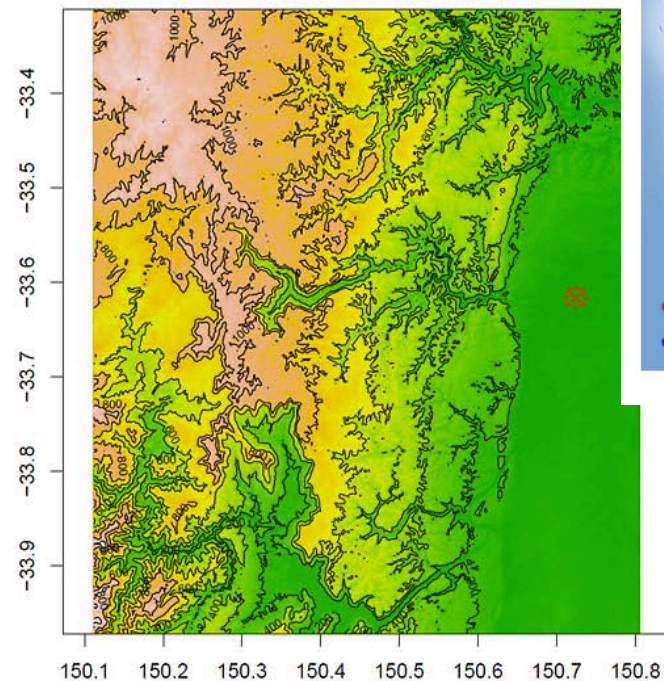
MONITORING SITES

[Adelaide River](#)
[Alice Springs](#)
[Arcturus](#)
[Burdekin Delta](#)
[Calperum](#)
[Cape Tribulation](#)
[Cumberland Plains](#)
[Daintree](#)
[Daly River Pasture](#)
[Daly River Uncleared](#)
[Dargo](#)
[Dry River](#)
[Fogg Dam](#)
[Gingin](#)
[Great Western Woodlands](#)
[Hammersley](#)
[Howard Springs](#)
[Kopuatai](#)
[Nimmo](#)
[Otway](#)
[Oxford](#)
[Riggs Creek](#)
[Samford](#)
[Scott Farm](#)
[Sturt Plains](#)
[Tumbarumba](#)
[Virginia Park](#)
[Wallaby Creek](#)
[Wombat](#)

Monitoring Sites - Cumberland Plains

[Introduction](#) | [Contacts](#) | [Purpose](#) | [Site Description](#) | [Measurements](#) | [DEM](#) | [P](#)

Digital Elevation Model



The CUP

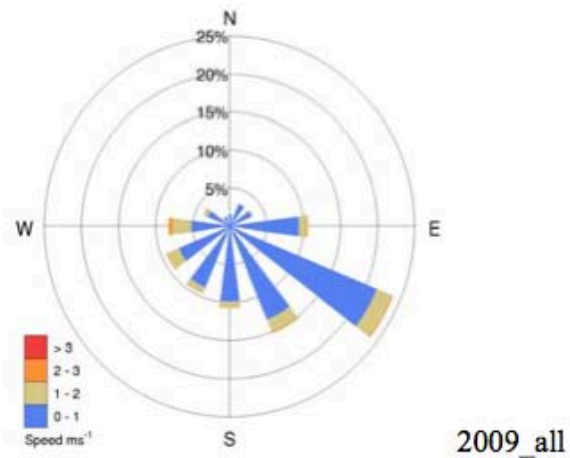
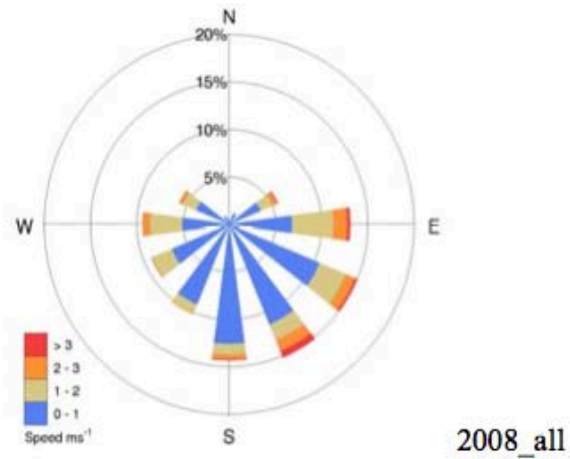
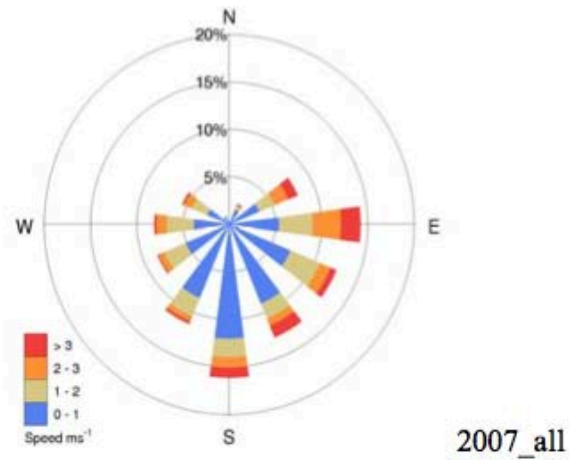


Today

- Site description
- Measurements (some)
- Questions (some)

Site description

Location & set-up (Tissue) after
scoping report (Cleugh, Leuning)



Site description

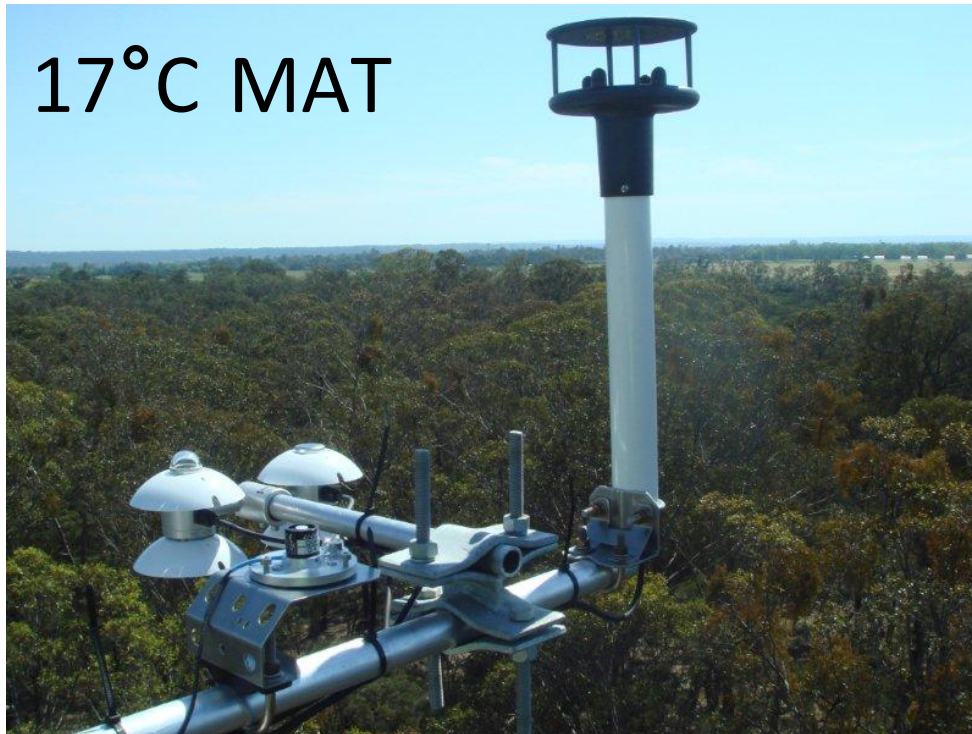
Dry sclerophyll forest

E. fibrosa & *E. moluccana*

200 m ASL

800 mm MAP

17°C MAT



Site description

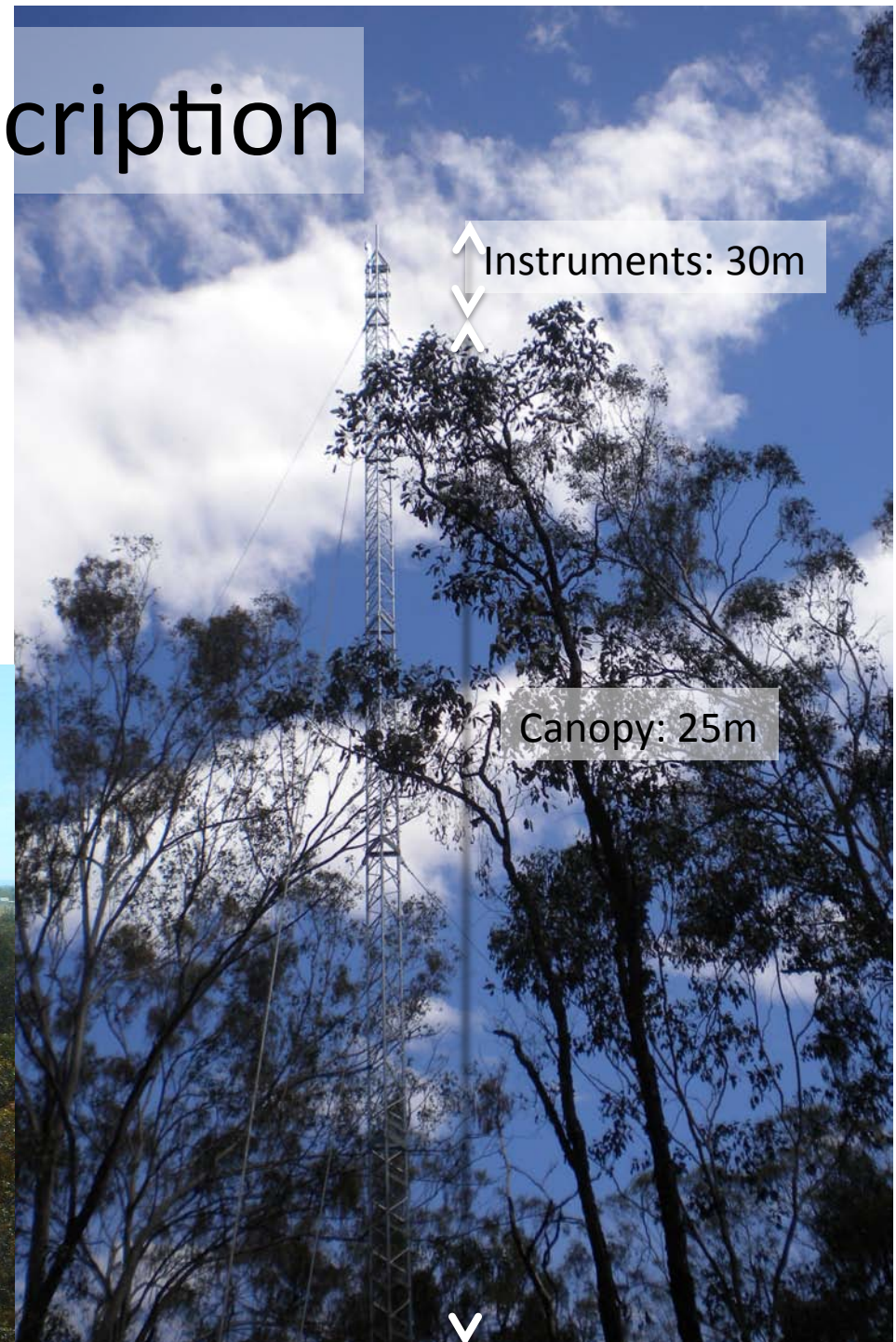
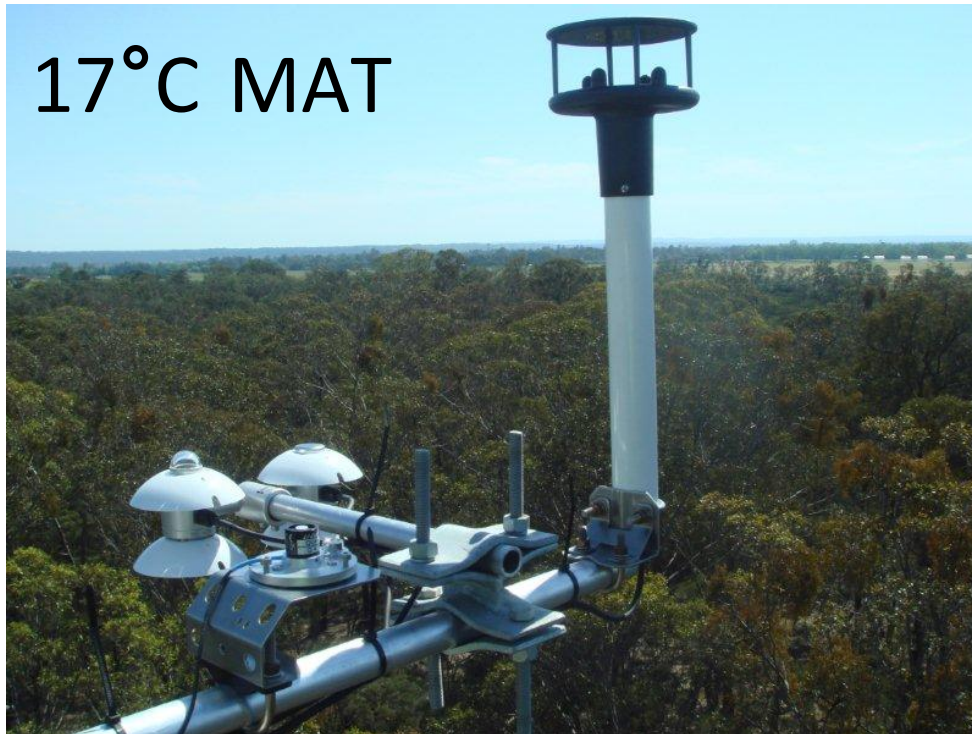
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Site description

Dry scleropyll forest

E. fibrosa & *E. moluccana*

200 m ASL

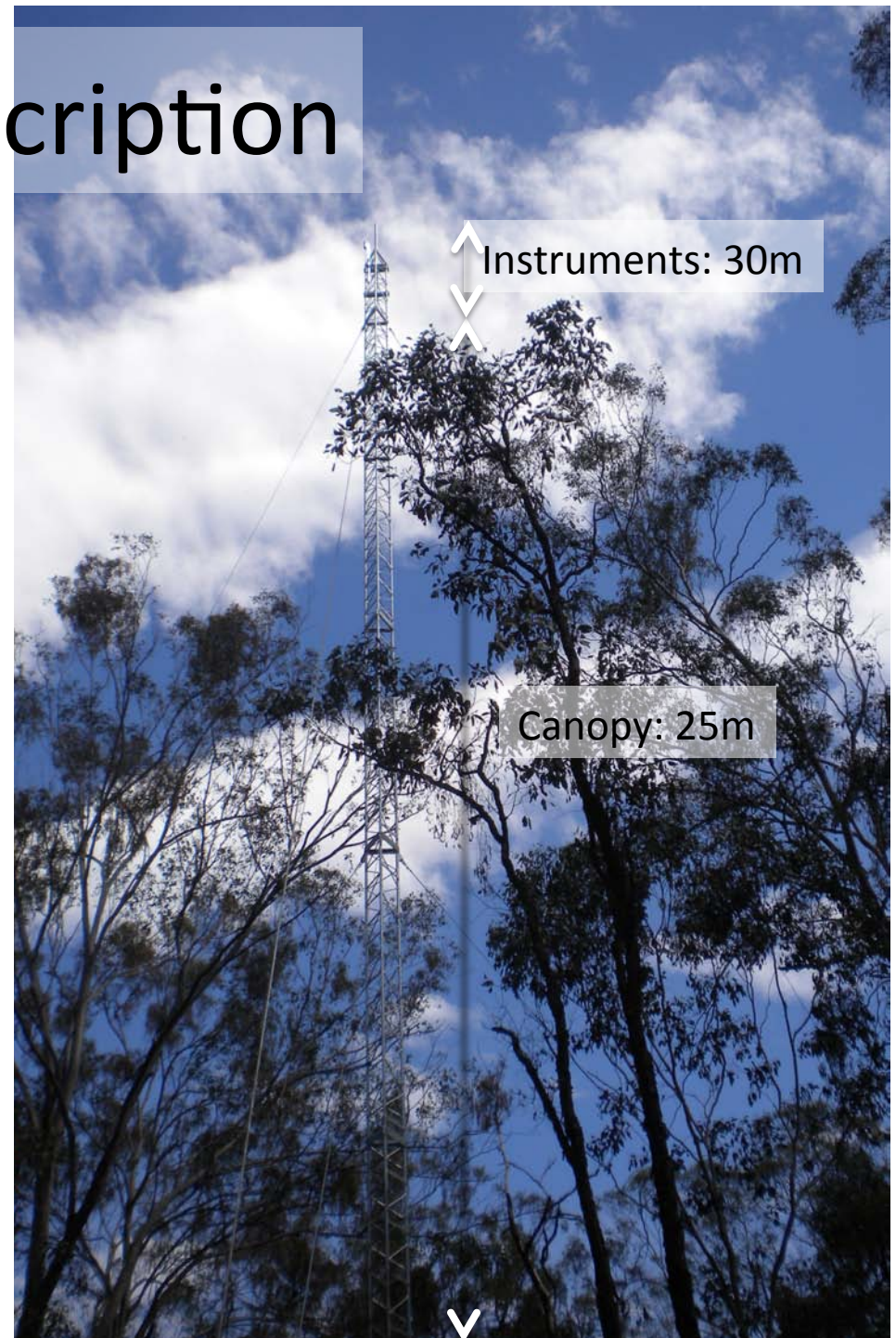
800 mm MAP

17°C MAT

Sandy loam soil

Hard pan layer 30-60 cm

Ponding



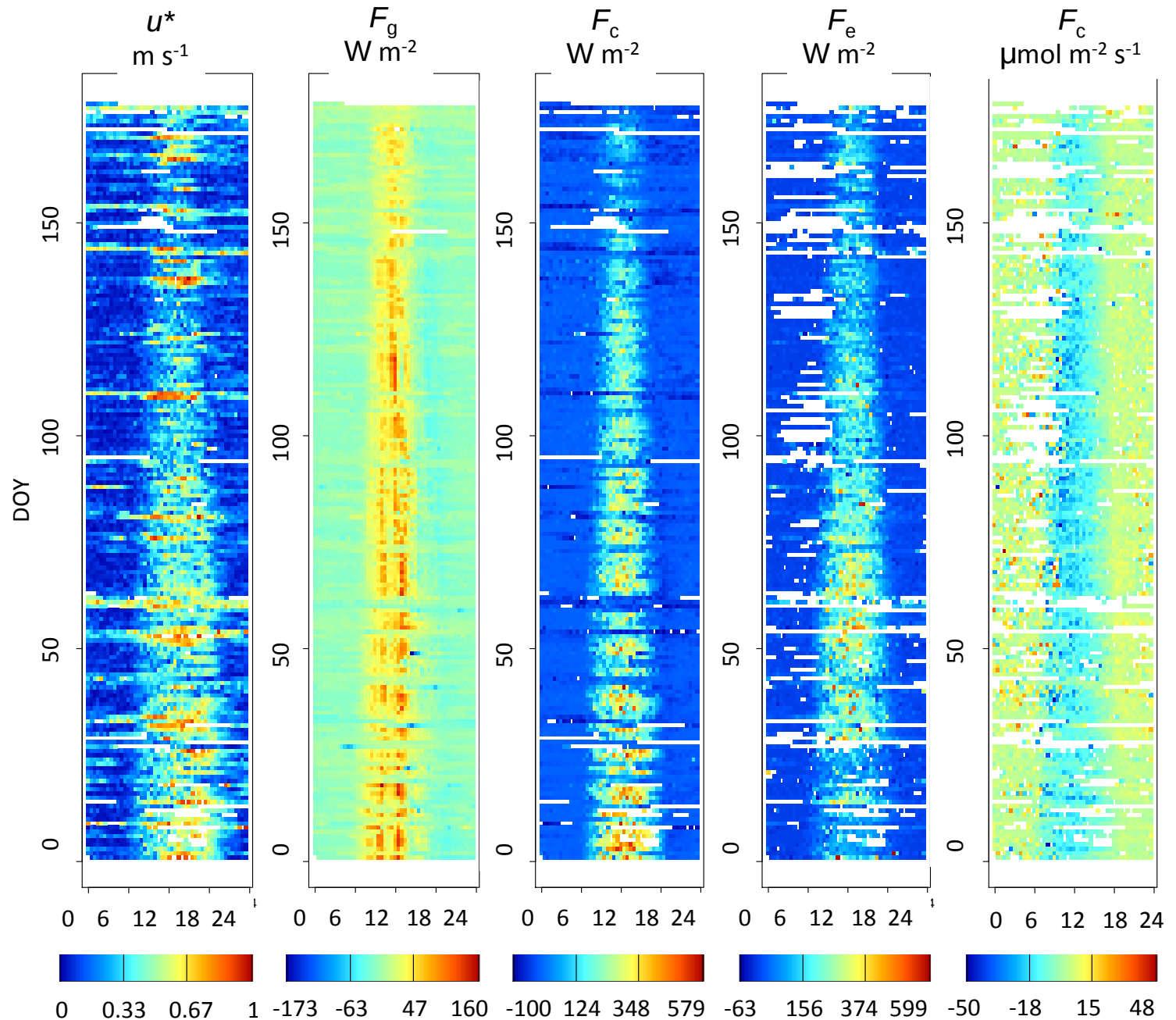
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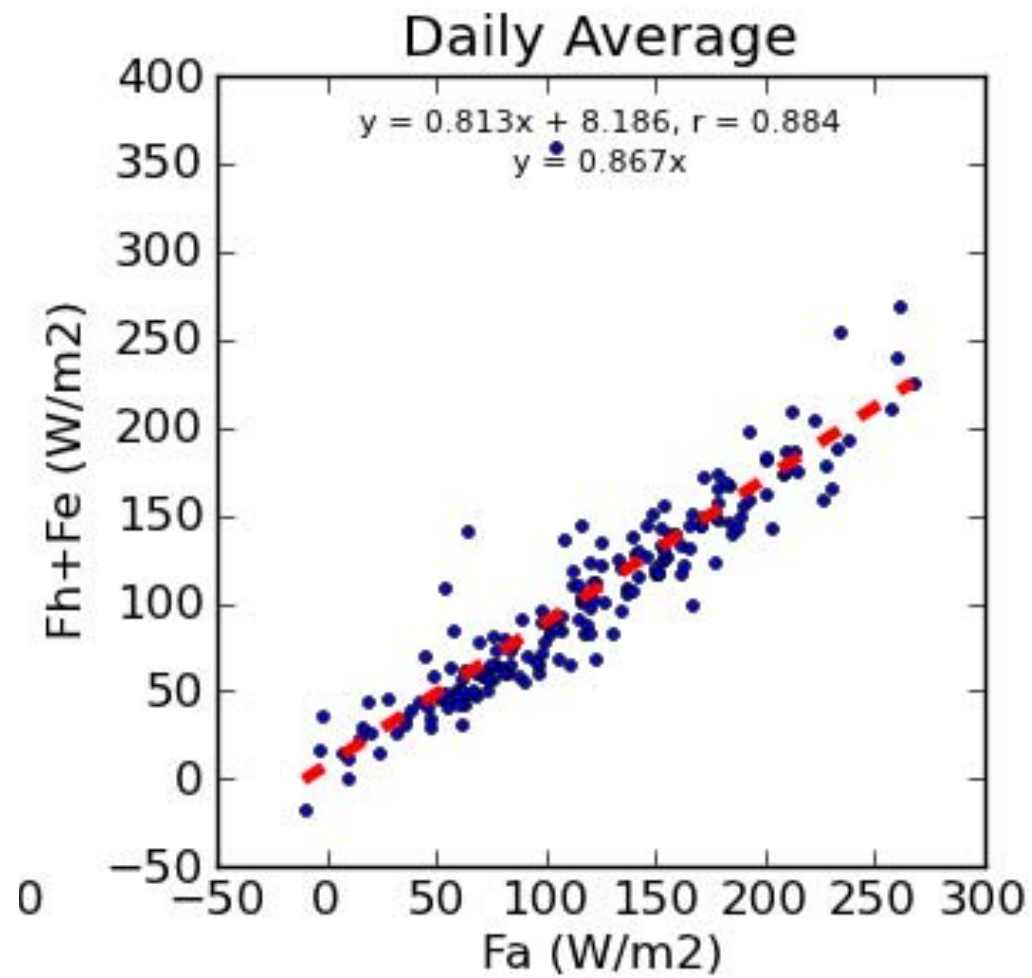
Measurements

Since mid-
October
2012

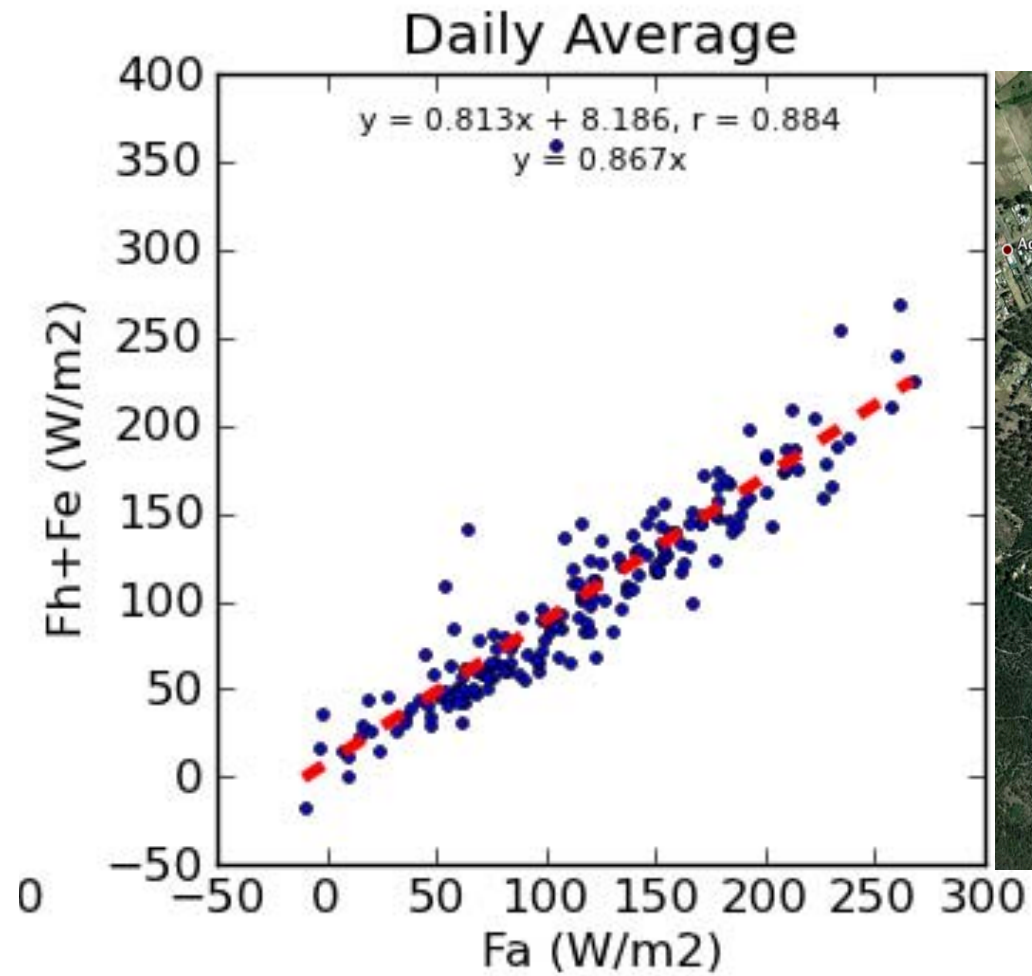
(with Isaac,
van Gorsel,
Cleverly,
Maier,
Barton,
...)



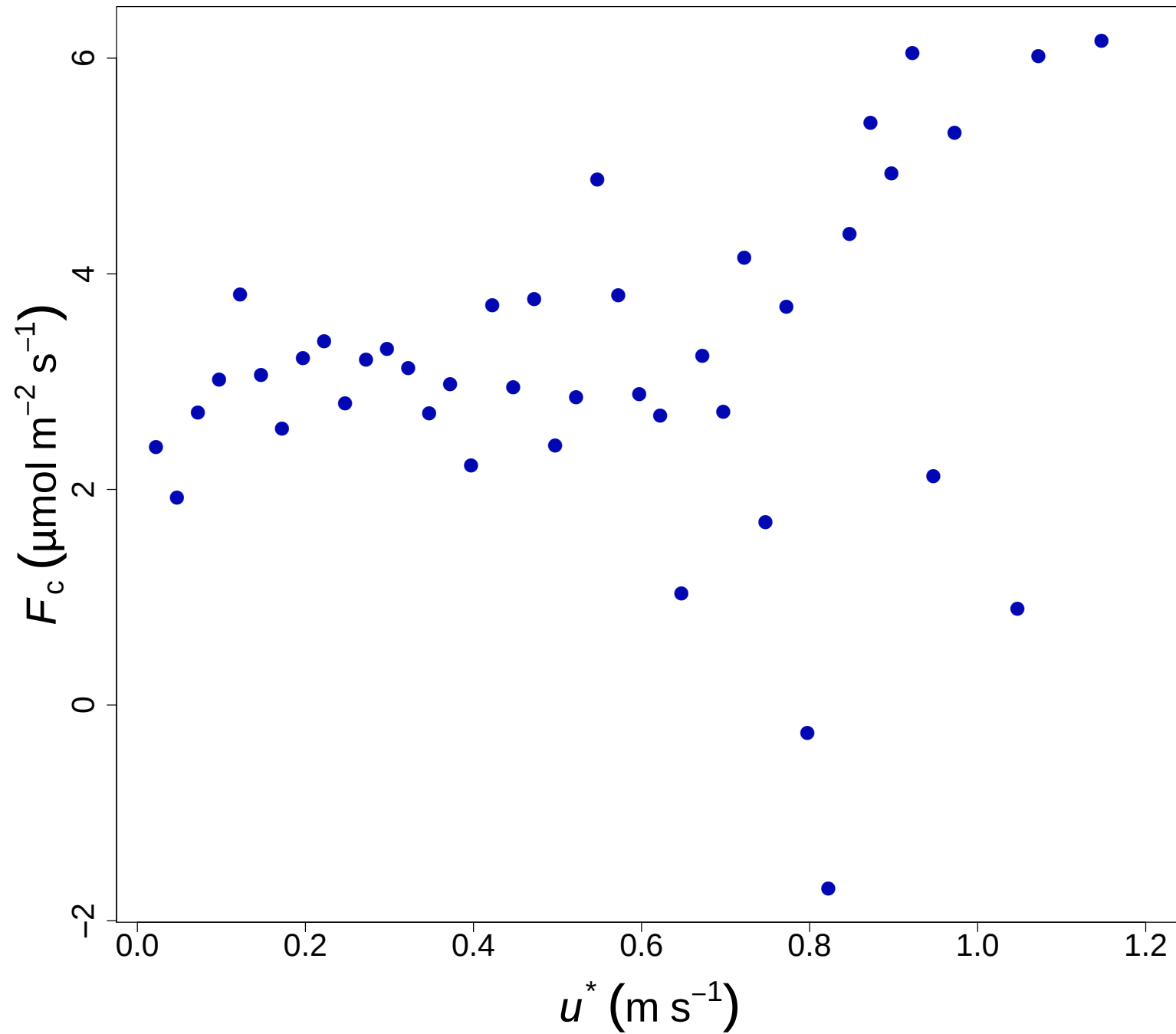
Measurements

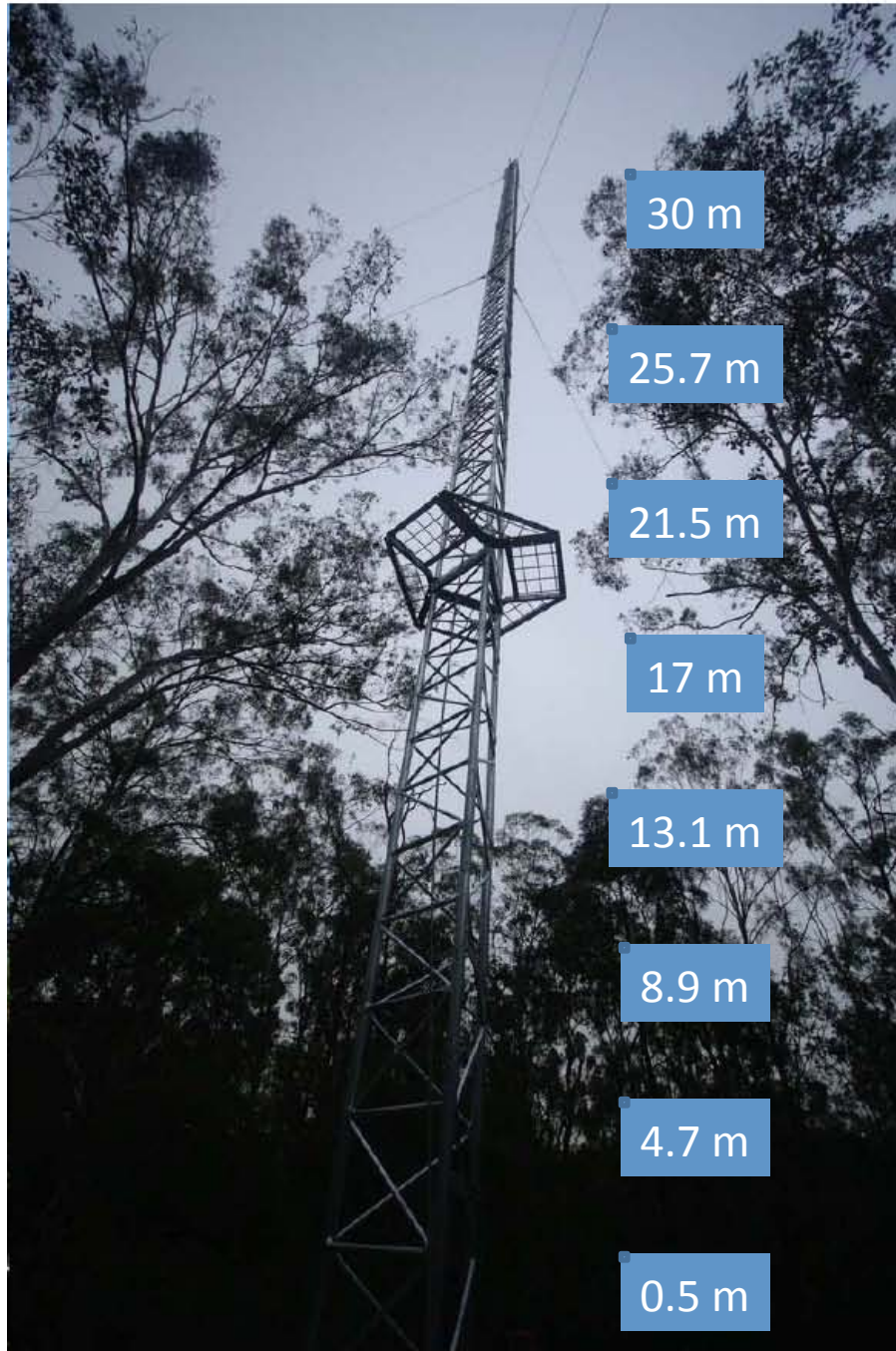


Measurements



Nighttime





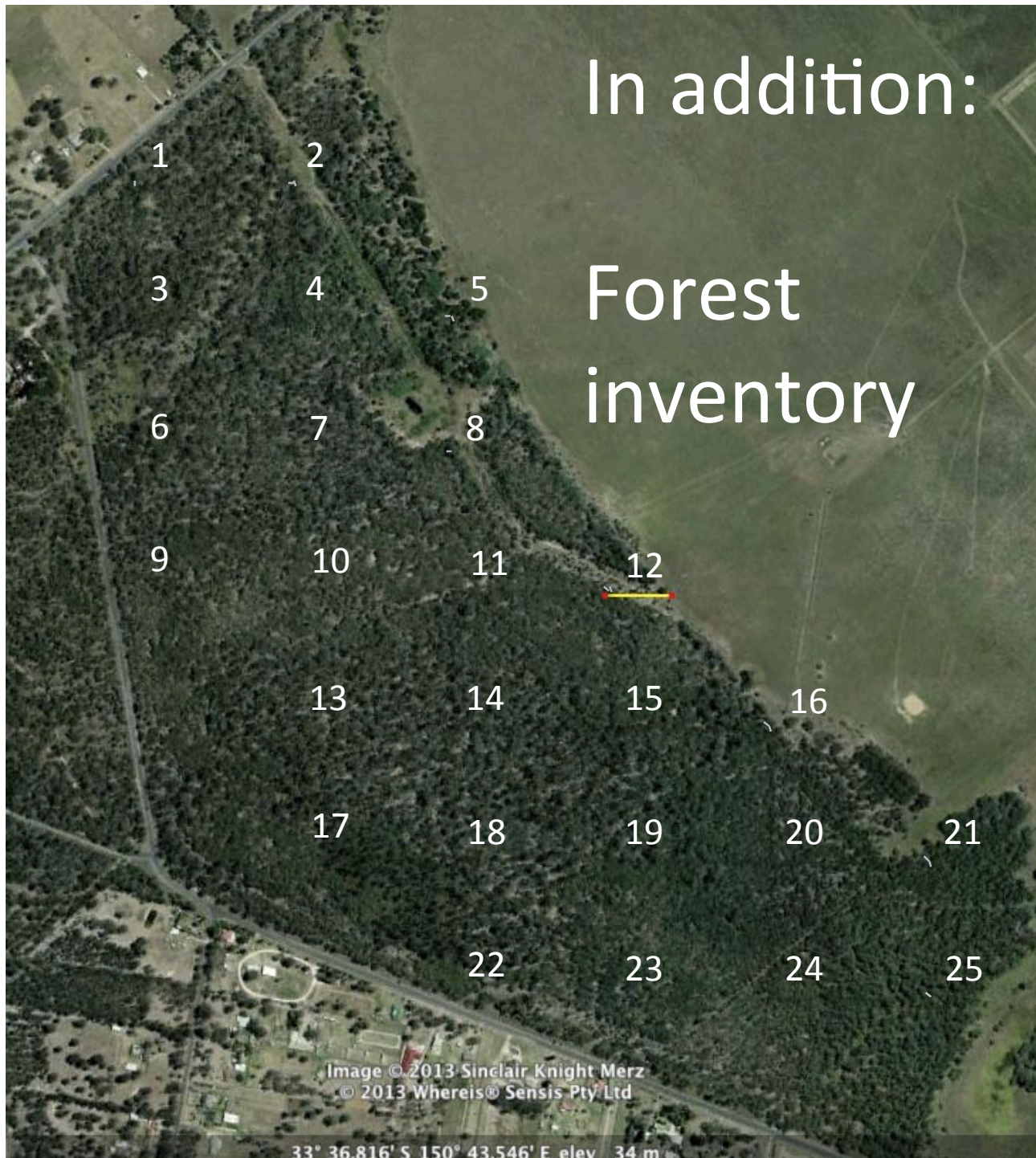
In addition:

Storage

In addition:

Forest
inventory

(with Pfautsch,
Aspinwall,
Duursma)



In addition: plant physiology

Leaf gas exchange (LI-6400)

Soil CO₂ efflux (Vaisala)

Sap flux (Granier)

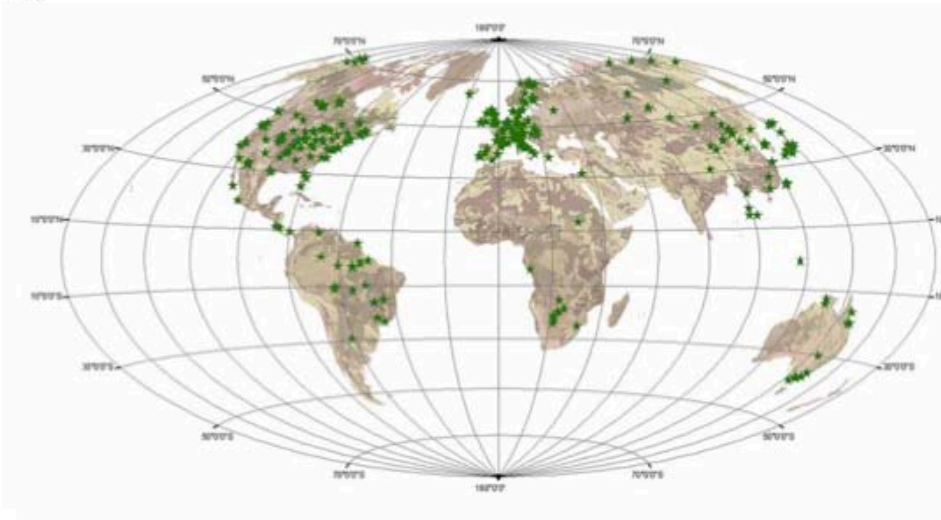
Water potentials, etc

Today

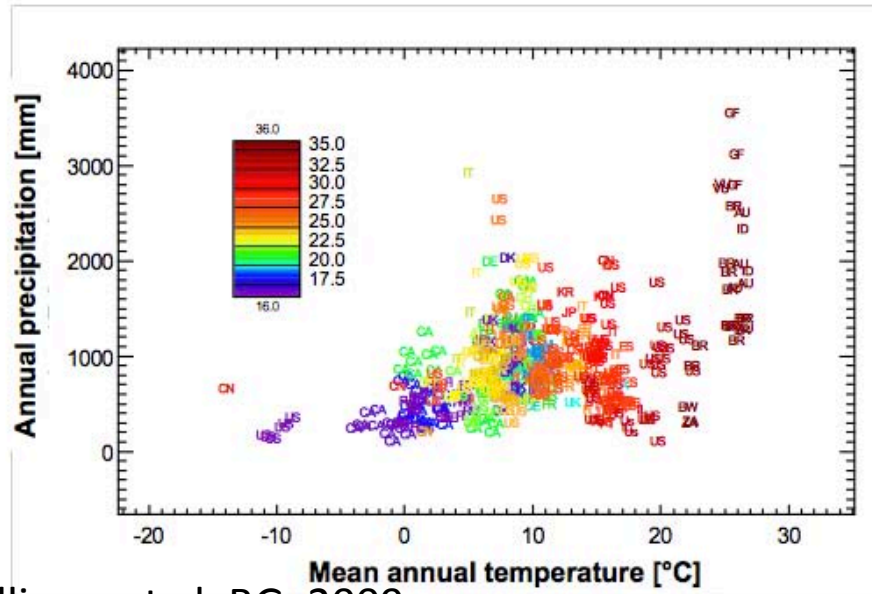
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World in 2007

(A)



(B)

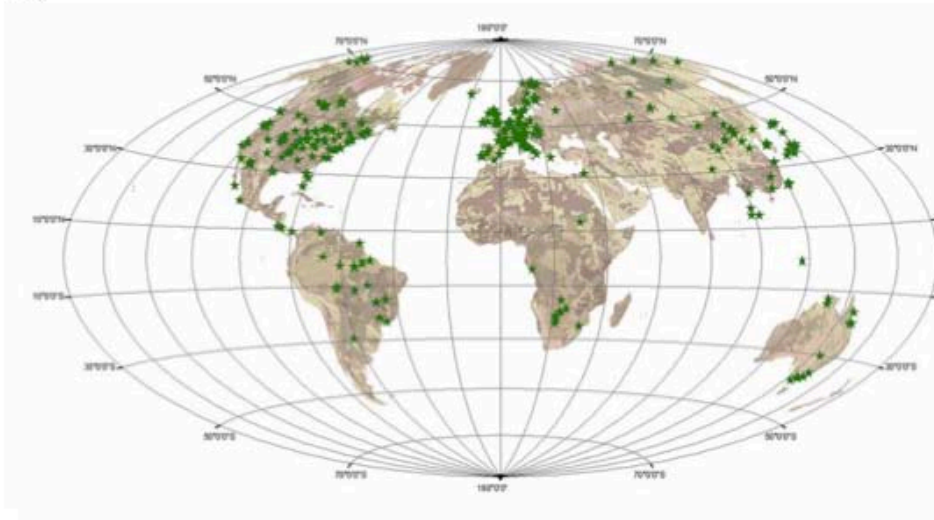


Williams et al. BG, 2009

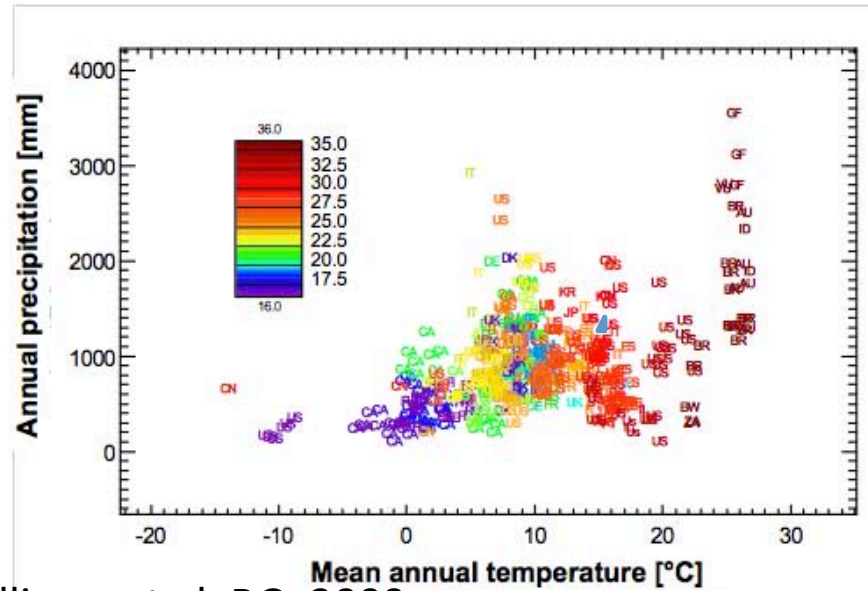
World in 2007

Australia today

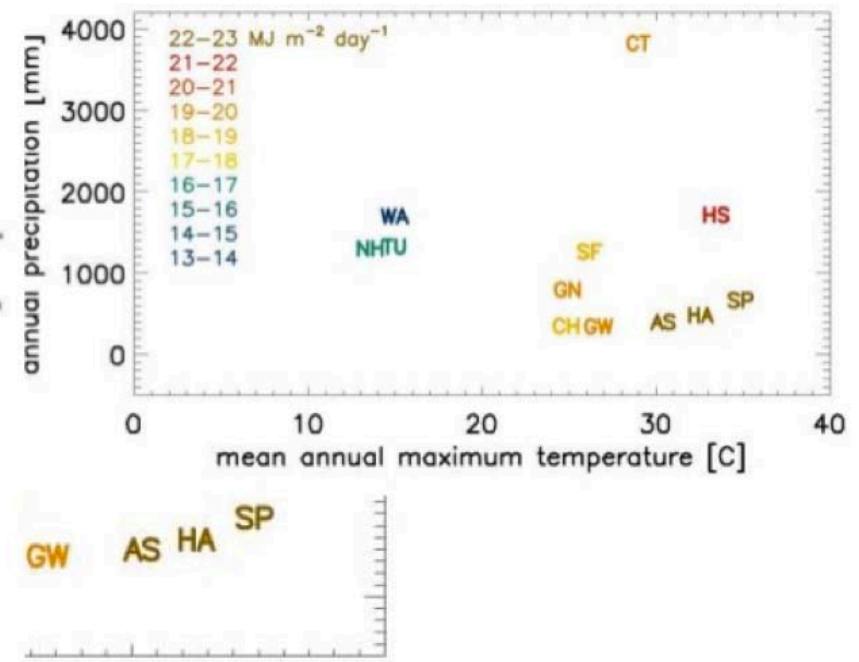
(A)



(B)

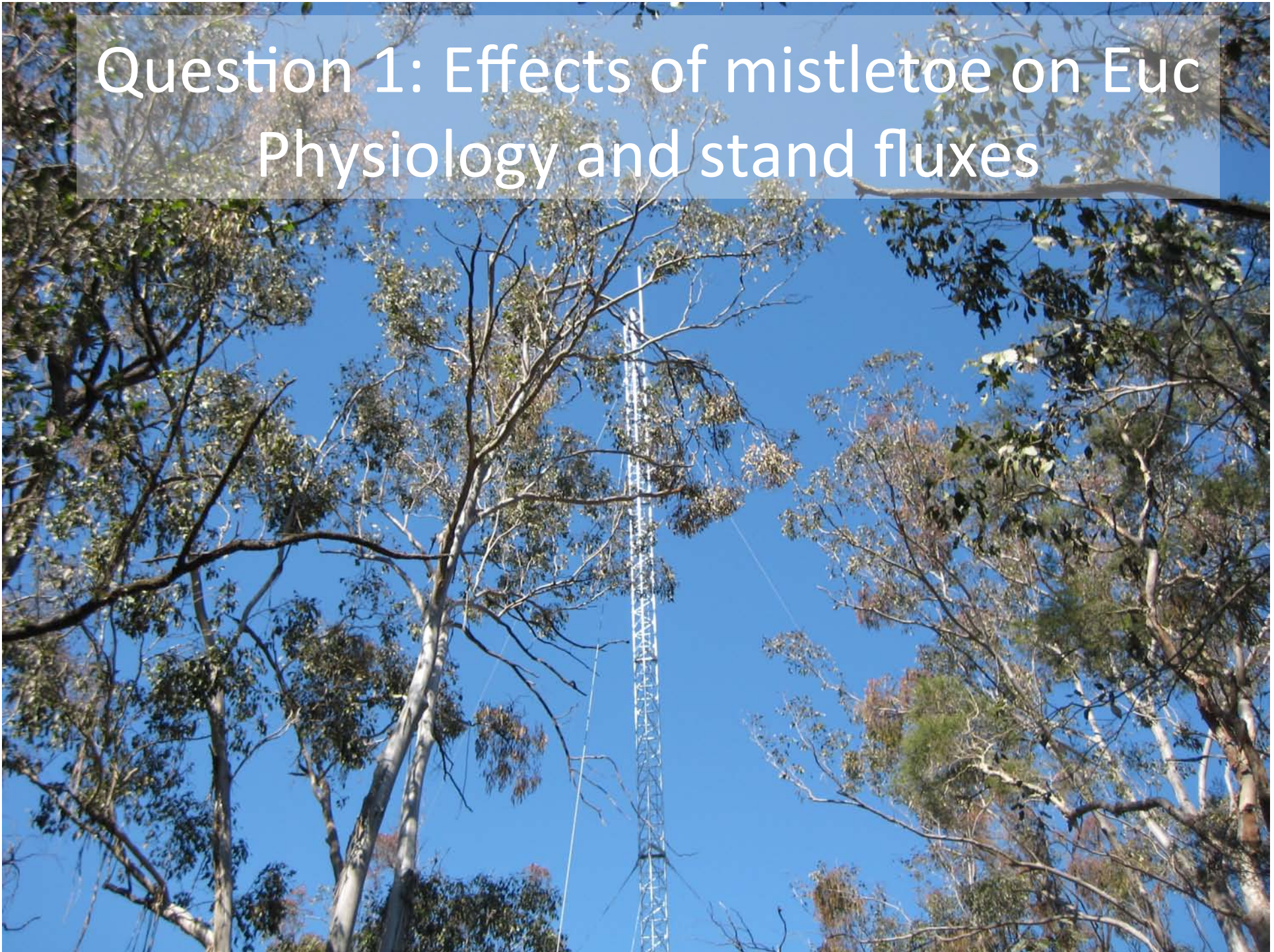


Williams et al. BG, 2009



H Cleugh

Question 1: Effects of mistletoe on Euc Physiology and stand fluxes



Some questions

How do these Eucs cope with a “leak in the pipe”?

Water balance

Resistance/resilience

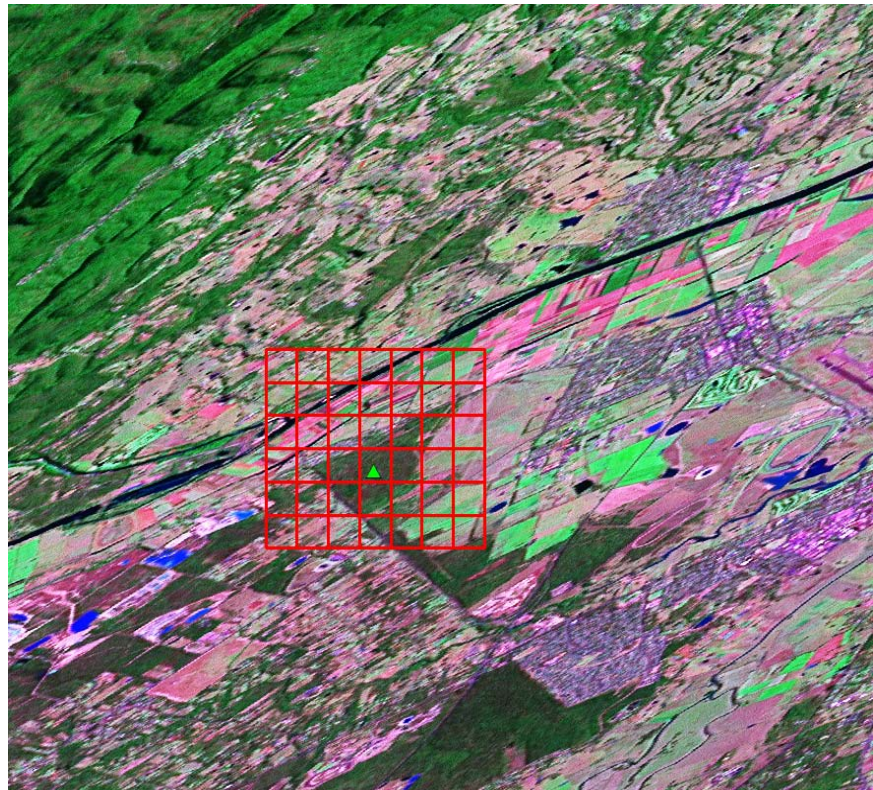
C fluxes

C allocation

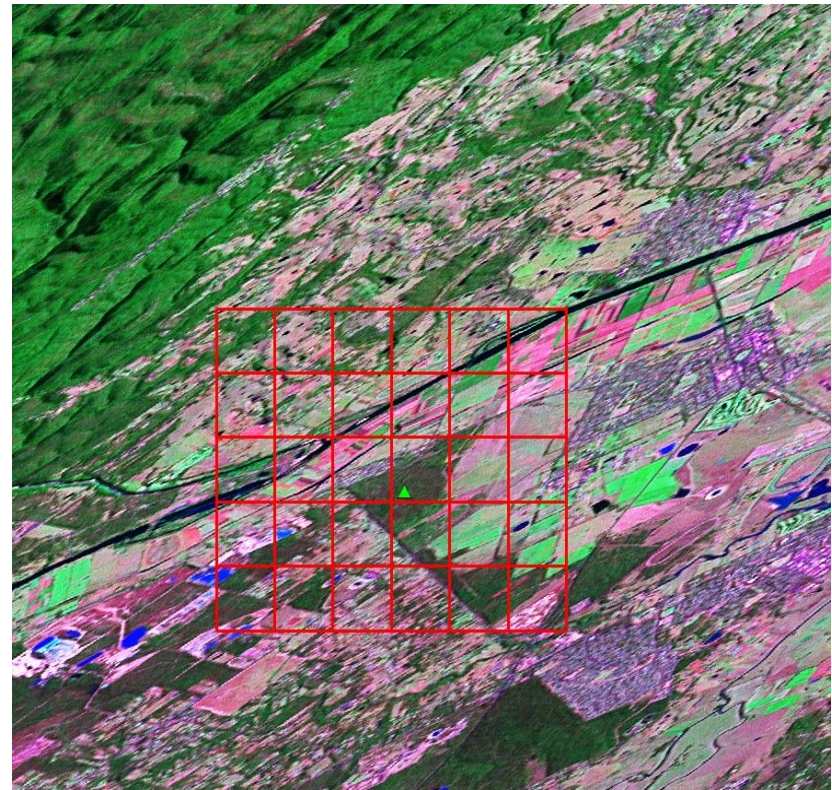
(with Tjoelker)



Question 2: Scaling and interpretation of spectral indices



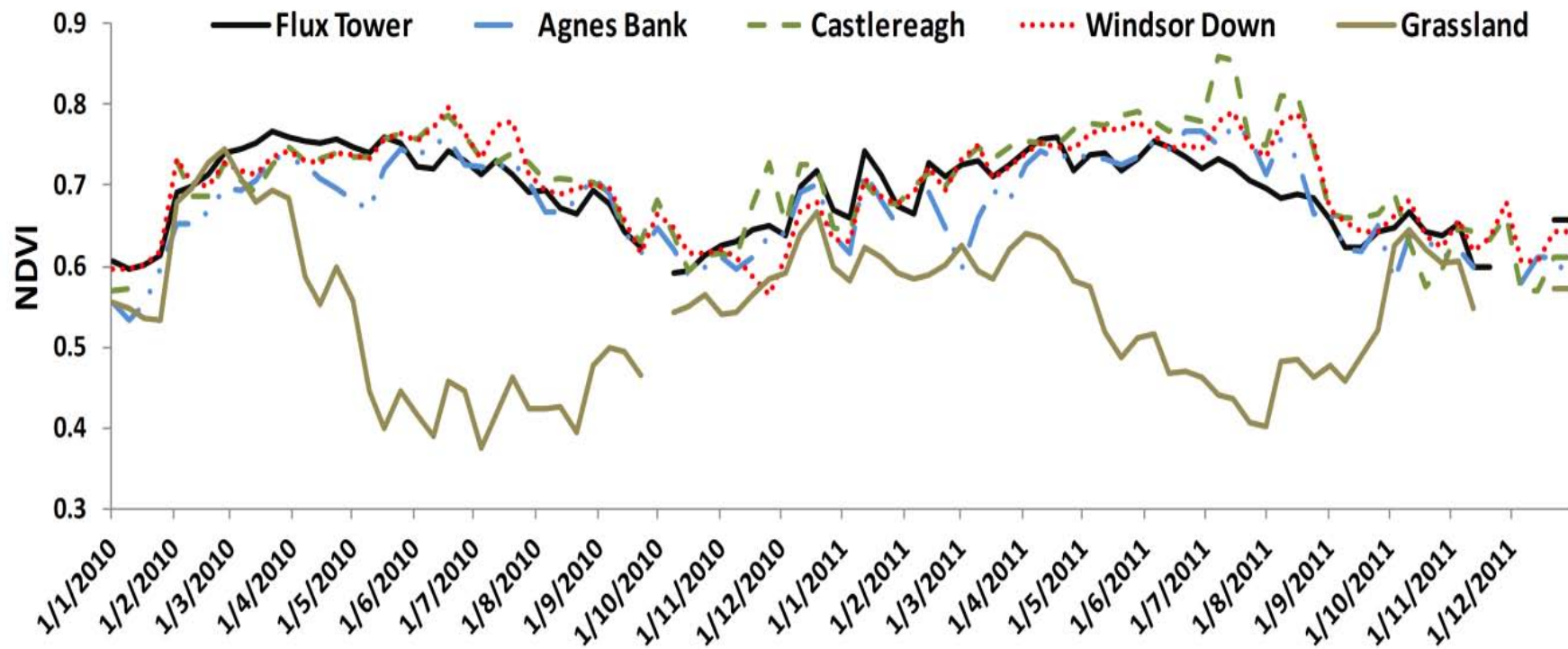
500m



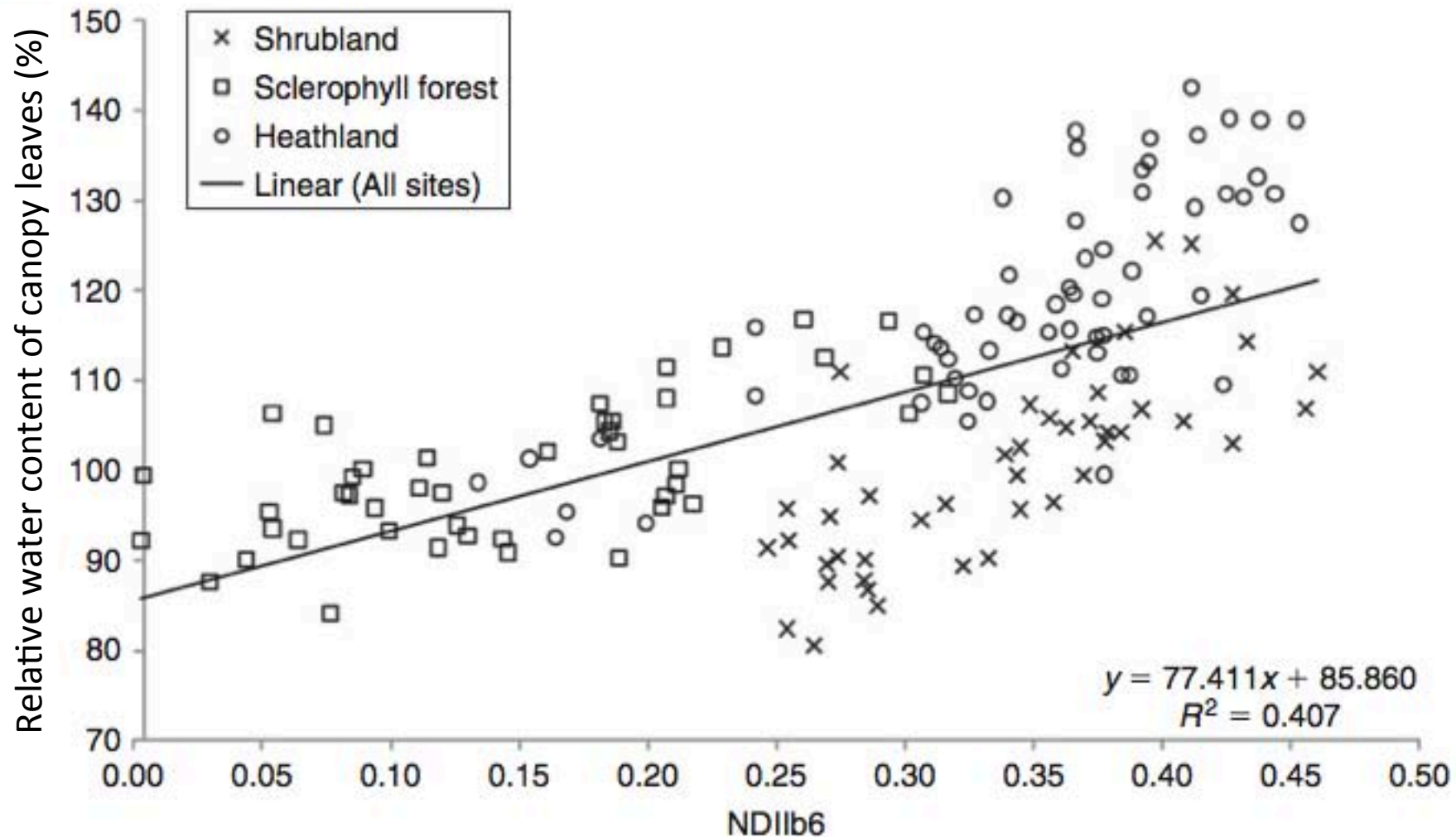
1,000m

with Caccamo, Boer, Bradstock, Gilabert, van Gorsel, Restrepo, Huete, Arndt, Najera, etc...

Question 2: Scaling and interpretation of spectral indices



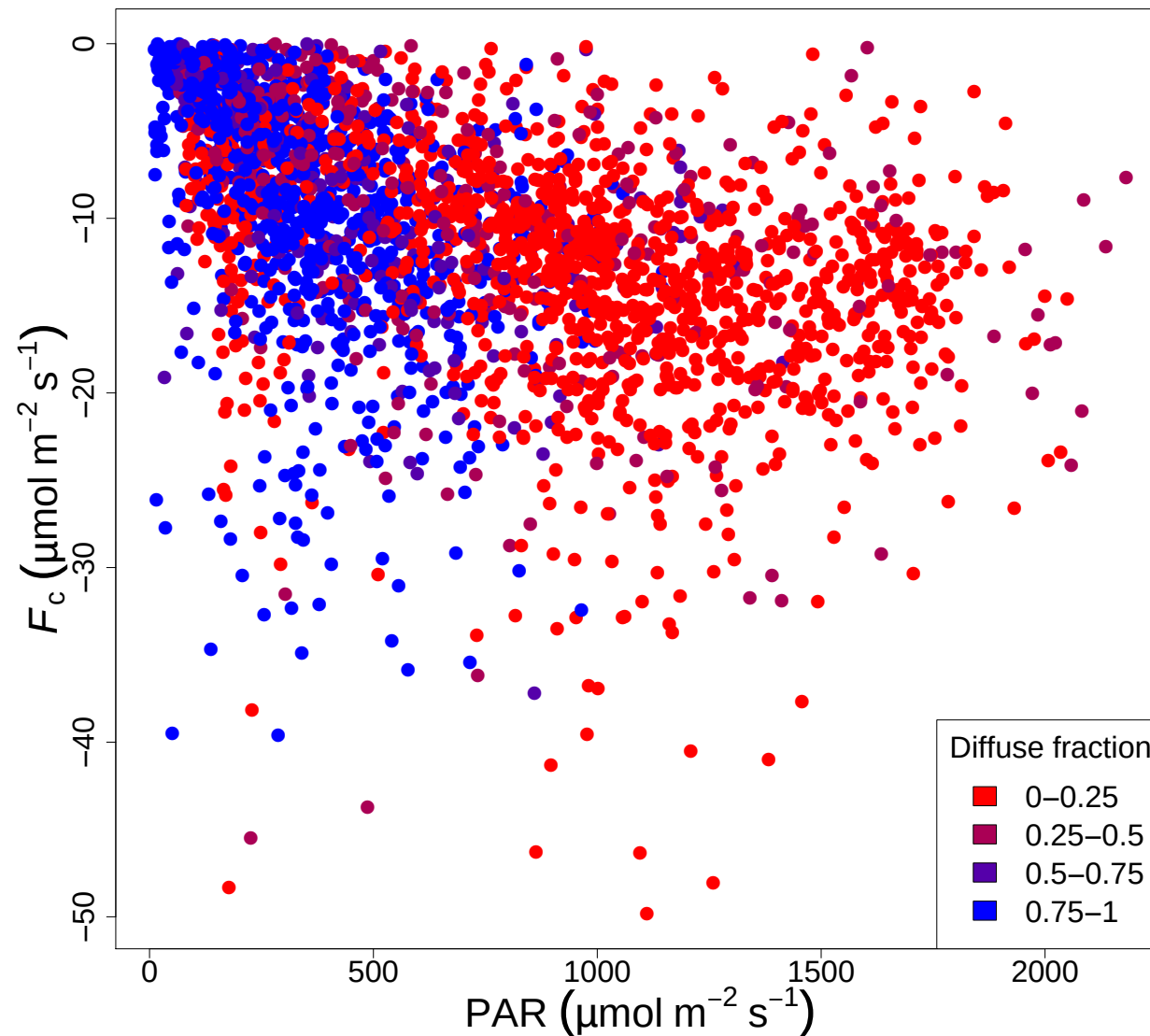
Question 2: Scaling and interpretation of spectral indices



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Question 2: Scaling and interpretation of spectral indices



Acknowledgements

- Funding from EIF, UWS, BushfireCRC
- Ozflux
- Collaborators from CMAR, UTS, UoW