



Project proposal

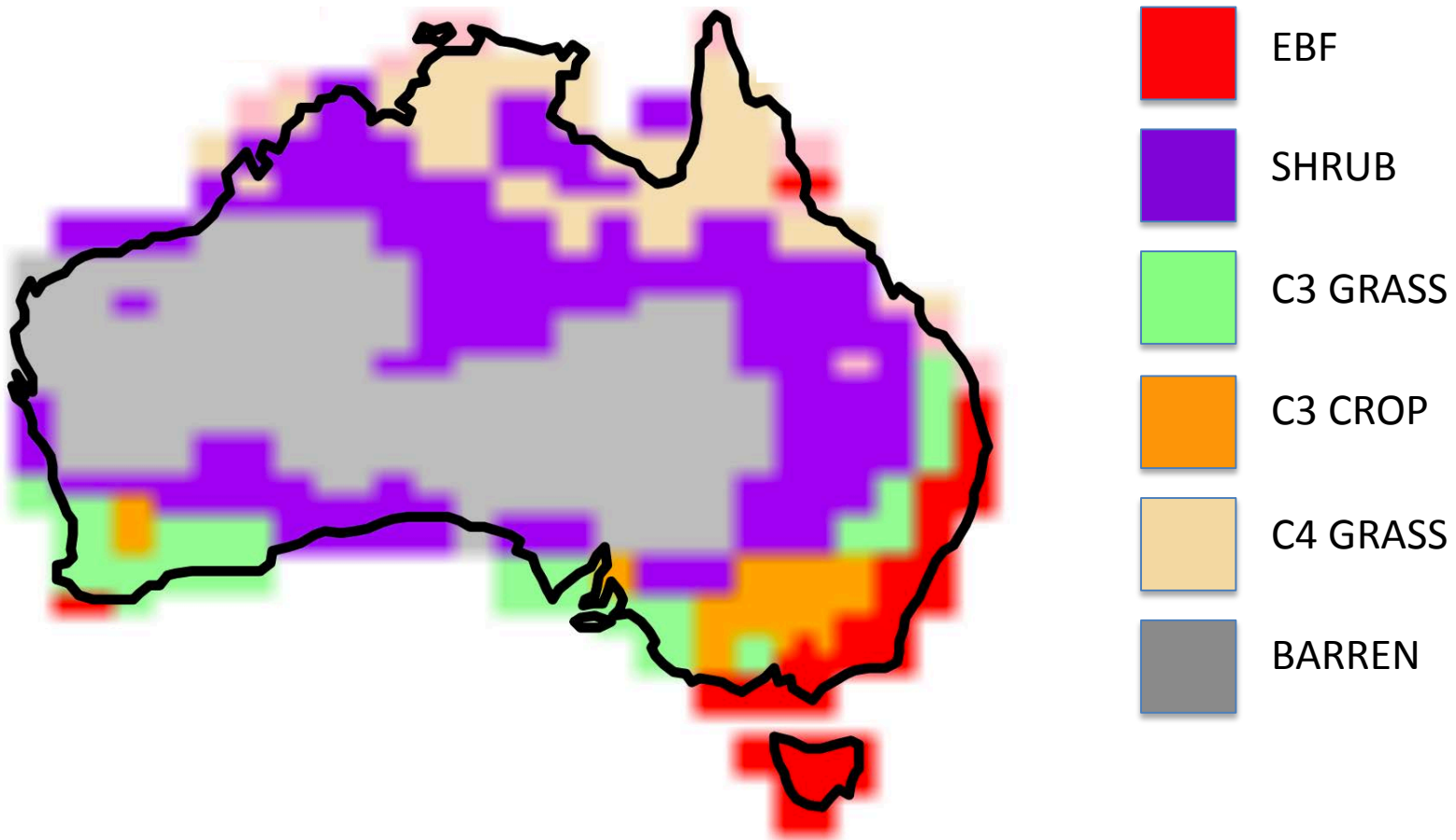
# Are Eucalypts different?

## Working Group

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# Current CABLE PFTs\*



# Do We Need Australian PFTs?

- Driest inhabited continent, high interannual variability in climate
- Long geographic isolation

Ecology

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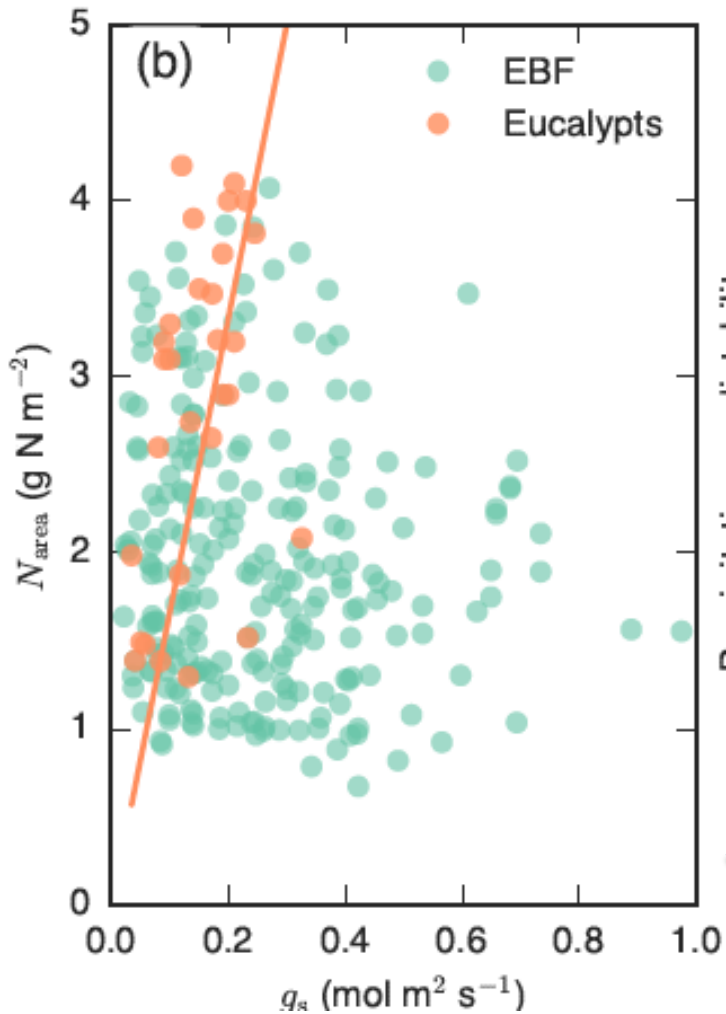
## How different are Australian ecosystems and ecologists?

*from Mark Westoby*

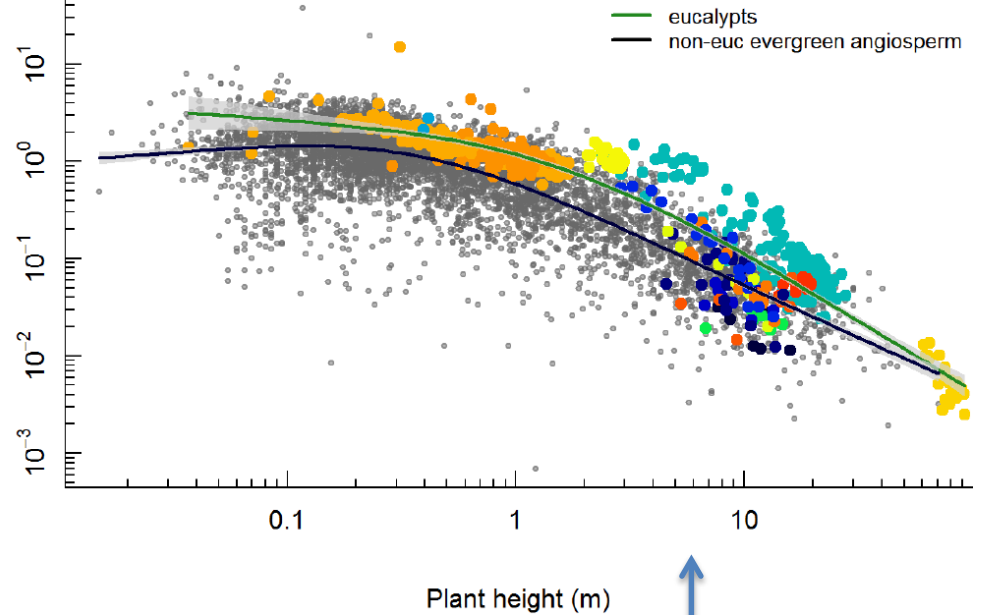
# But now we have data!

- **Physiology:** (i) photosynthetic capacity ( $A_{max}/V_{cmax}$ ) (ii) leaf respiration (Atkin et al., 2015); (iii) stomatal conductance (Lin et al., 2015); and (iv) leaf stable isotopes (Cornwell et al. in review).
- **Structural:** (i) Biomass and allometry (Falster et al., 2015; Paul et al., 2016); (ii) height; and (ii) leaf size and shape (Australis).
- **Leaf area index (LAI):** (i) ground-based (Iio et al., 2014); and (ii) satellite-derived LAI estimates (MODIS).
- **Ecosystem:** Observed exchanges of carbon, water vapour and energy fluxes (OzFlux)
- **Experimental:** (i) drought; (ii) warming; and (iii) CO<sub>2</sub> treatments (HIE)

# Early Indications



Leaf mass / above-ground stem mass (kg / kg)



BAAD Database, Falster et al. 2015

GLOPNET (+other data), Marie et al. 2015

# Project Proposal

- NCEAS-style working group
- Questions to be addressed
  - Are Eucalypts different, and if so from what?
  - What are the implications for land surface exchange?
- Funding required
  - 2 x 4-day workshops x 15 participants
  - Matching funding from ARC COE