

Carbon pools recover more rapidly than plant biodiversity in secondary tropical forests

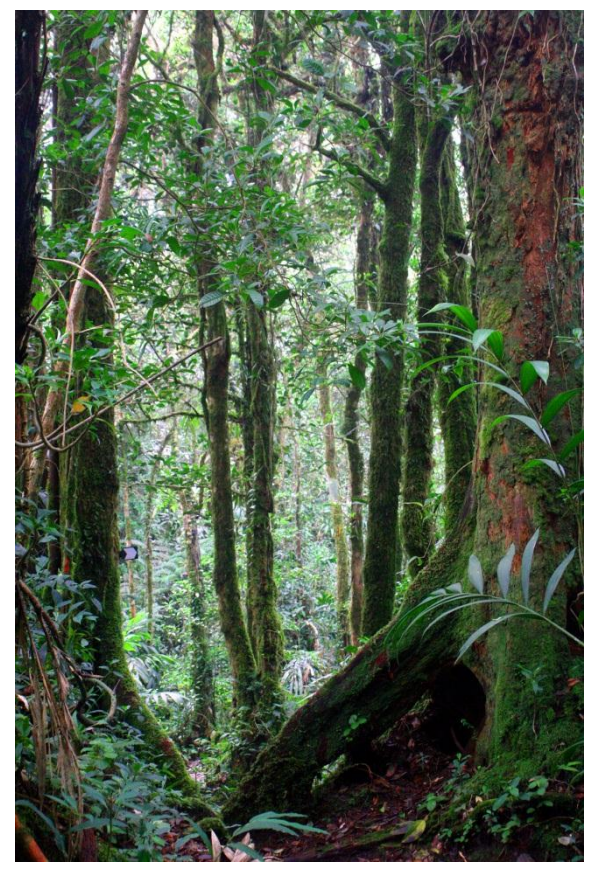


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The problem



Tropical forests:

- 1/2–2/3 of global terrestrial biodiversity
- 40% of terrestrial carbon pools



- But they are being rapidly converted for agriculture.
- Thus, forest restoration is a priority & a key CBD 2020 goal.



However, we lack evidence of how restoration affects carbon pools and plant biodiversity, particularly in the long term

Research questions

To address this knowledge gap we asked:

1. What factors influence the recovery of carbon pools in secondary forests relative to primary forest?
2. What factors influence the recovery of plant biodiversity in secondary forests

What we did

Carried out systematic review

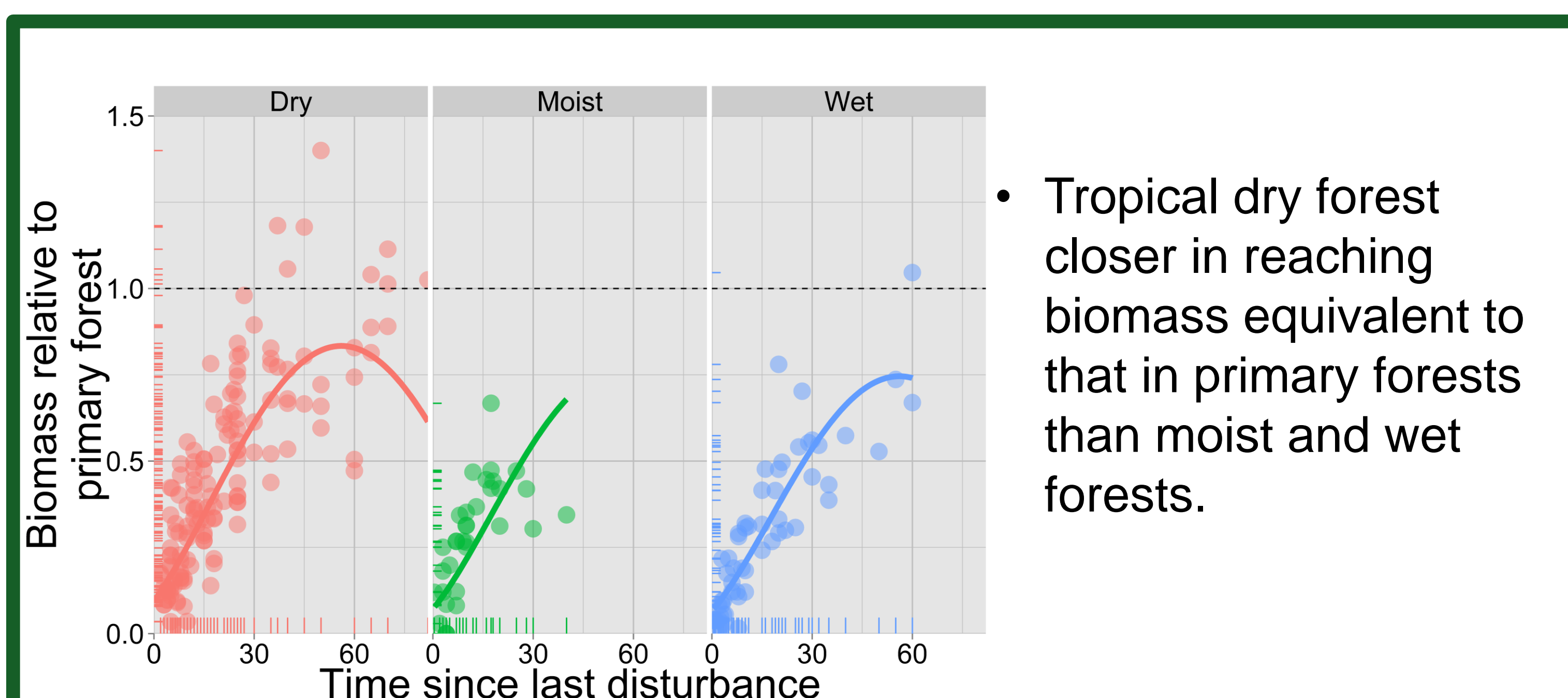
Identified studies which used primary forest as a reference

Extracted data from studies

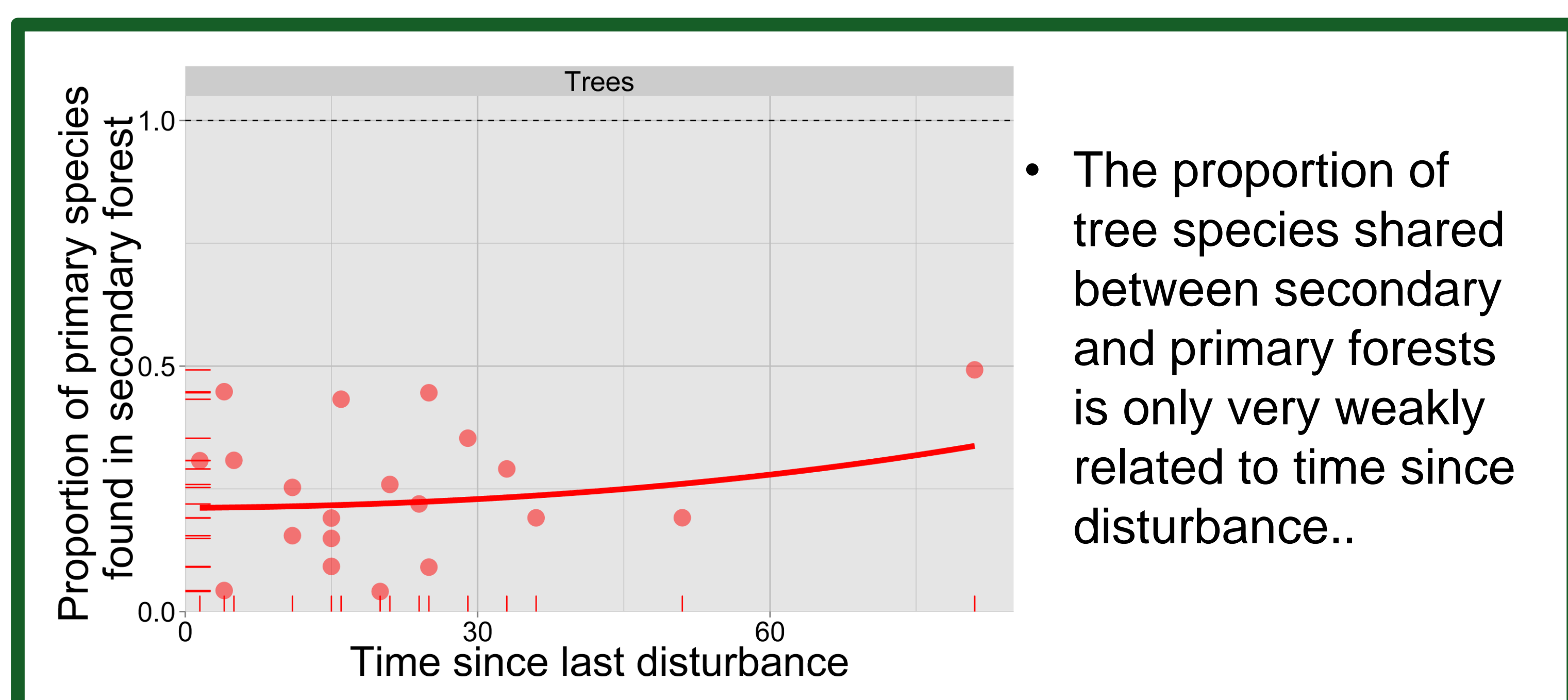
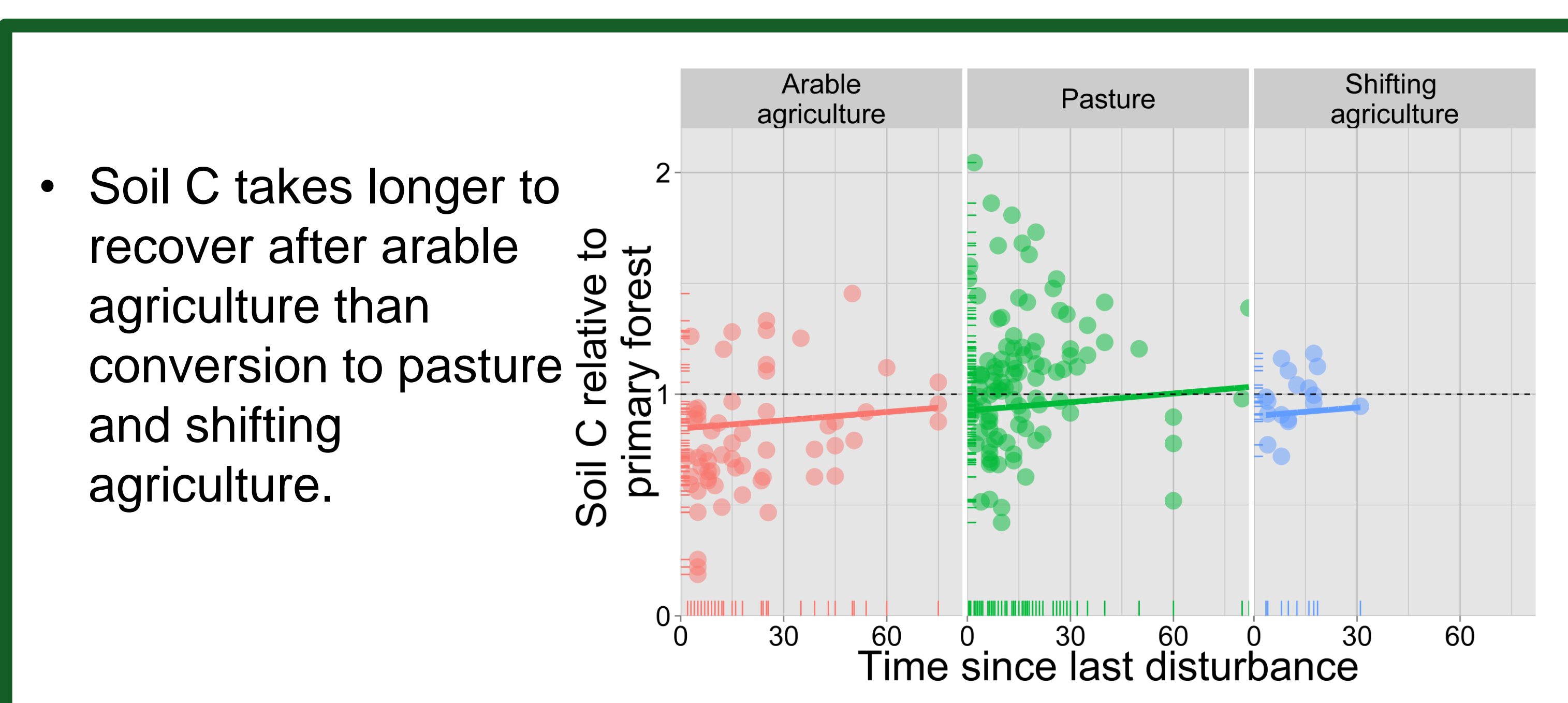
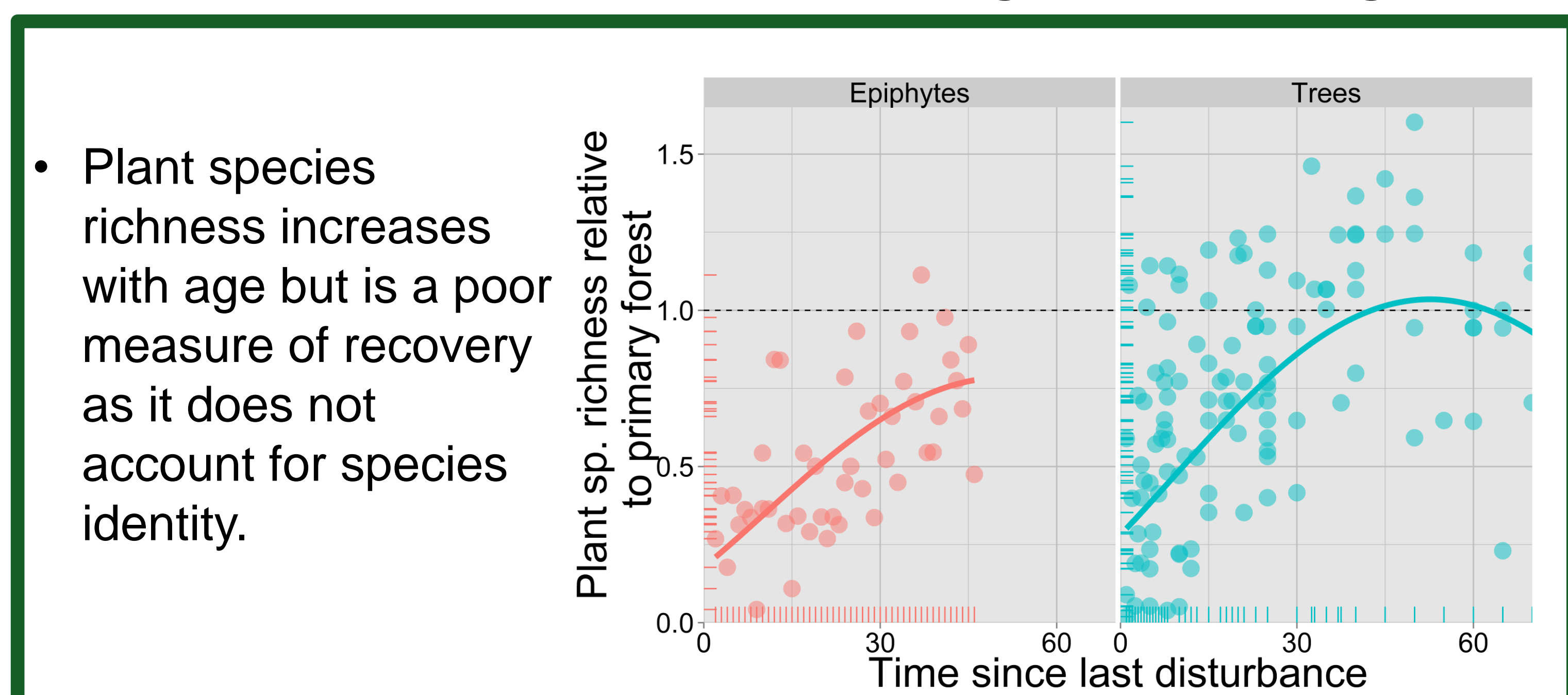
Used mixed models and model averaging to assess recovery

What we found out about...

1. ...carbon pool recovery



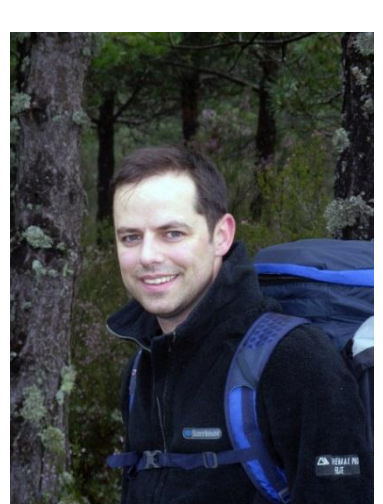
2. ...plant biodiversity recovery



Implications for restoration

- In tropical forest restoration schemes biodiversity recovery may lag behind that of carbon pools.
- As such CBD goals to enhance carbon stocks may be more easily met than improving the status of biodiversity through restoration.

More info



For more information on my project use the QR code to the right or visit my blog at ecologyforacrowdedplanet.wordpress.com or email me at pmart@ceh.ac.uk

