

WG3 - 24/06/2025

New research questions

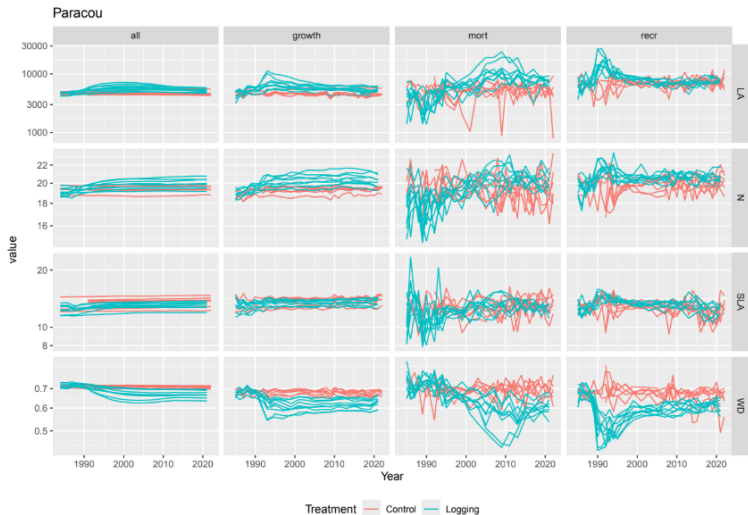
- ▶ Q1: How long does logging affect demographic fluxes?
- ▶ Q2: Relative contribution of demographic processes in the change of functional composition?
- ▶ Q3: Growth models per species (for later...)

Data explo on relative changes in BA



- ▶ Identify 8 sites that could be kept based on
 - ▶ the presence of a control
 - ▶ the reliability of %BA changes
- ▶ Clear pattern of increased productivity

Data exploration of changes in CWM of recruits, death and growth



Data exploration of changes in CWM of recruits, death and growth

- ▶ Identify 12 sites to keep based on
 - ▶ more than 2 censuses
 - ▶ absence of strange values
- ▶ Look at trends

How to quantify the contribution of demographic fluxes to functional composition?

$$\Delta CWM = \frac{\sum_{recr,t+1} BA_i \cdot trait_i}{\sum_{all,t+1} BA_i} +$$
$$\frac{\sum_{alive,t+1} BA_i \cdot trait_i}{\sum_{all,t+1} BA_i} - \frac{\sum_{alive,t} BA_i \cdot trait_i}{\sum_{all,t} BA_i} -$$
$$\frac{\sum_{dead,t} BA_i \cdot trait_i}{\sum_{all,t} BA_i}$$

obtained by decomposing ΔCWM

Standardising

$$\Delta CWM = \frac{\sum_{recr,t+1} BA_i \cdot (trait_i - CWM_t)}{\sum_{all,t+1} BA_i} +$$

$$\frac{\sum_{alive,t+1} BA_i \cdot (trait_i - CWM_t)}{\sum_{all,t+1} BA_i} - \frac{\sum_{alive,t} BA_i \cdot (trait_i - CWM_t)}{\sum_{all,t} BA_i}$$

$$\frac{\sum_{dead,t} BA_i \cdot (trait_i - CWM_t)}{\sum_{all,t} BA_i}$$

because we developping we end up with

$$\Delta CWM = \Delta CWM - CWM_t \cdot (1 - 1)$$