

Forest dynamics following drought-induced mortality: a global assessment

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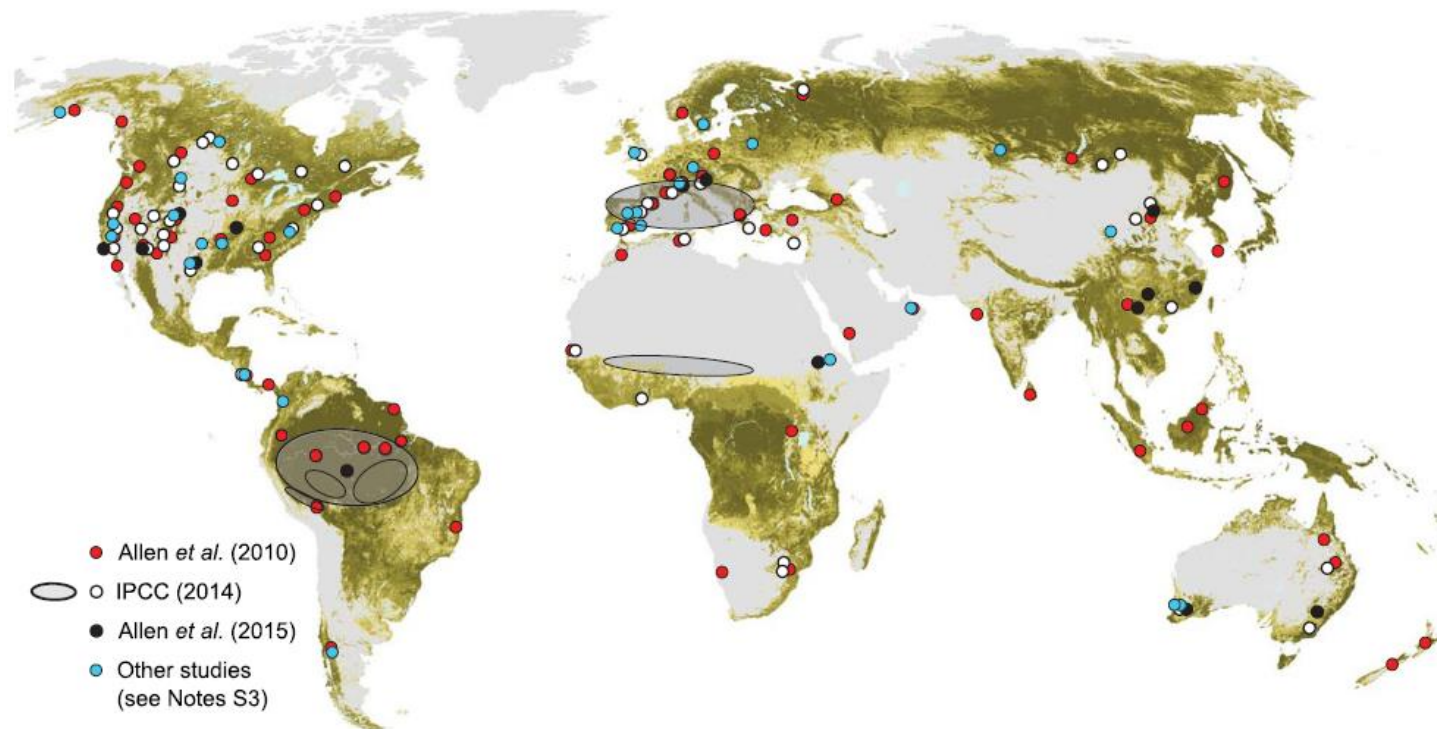
EGU General Assembly, Online 4-8 May 2020

Abstract ID EGU2020-9316



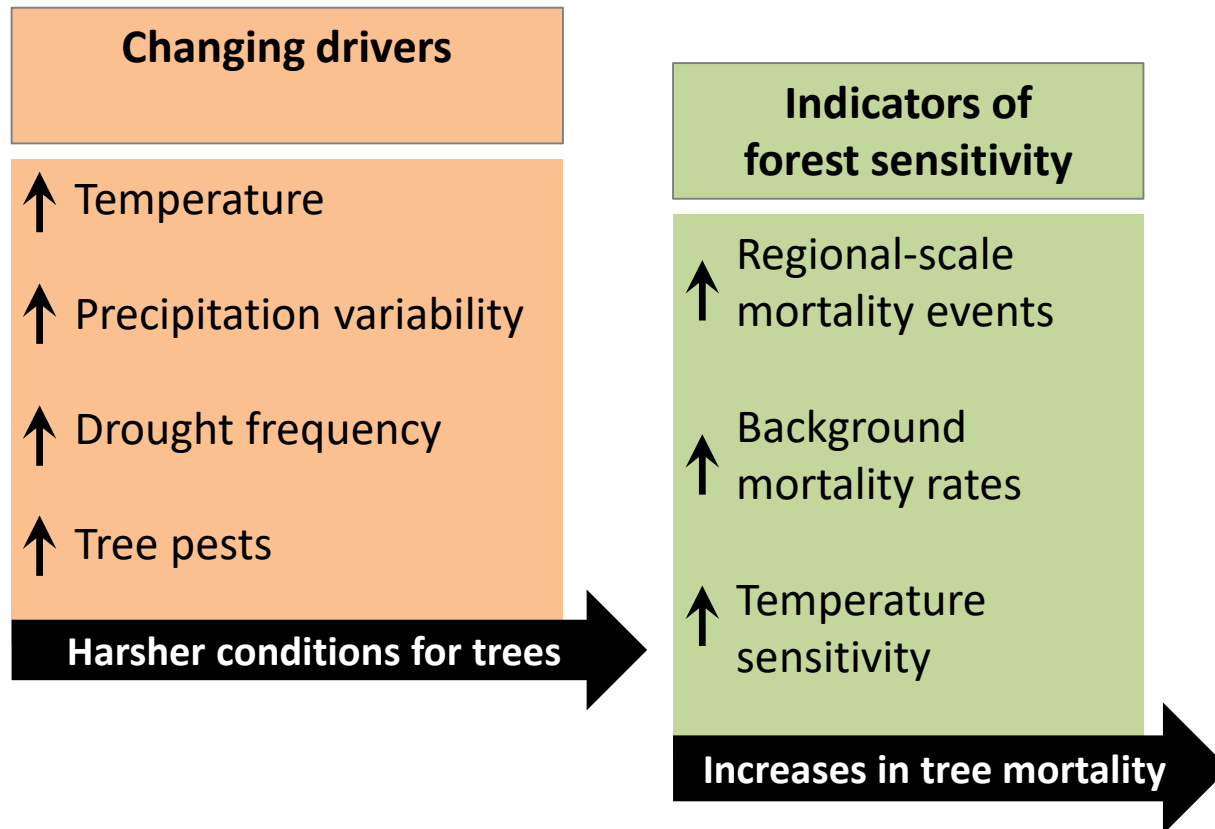
- Drought-induced tree mortality: an emerging global phenomenon

Forest mortality events since 1970



Hartmann et al. 2018 New Phytologist

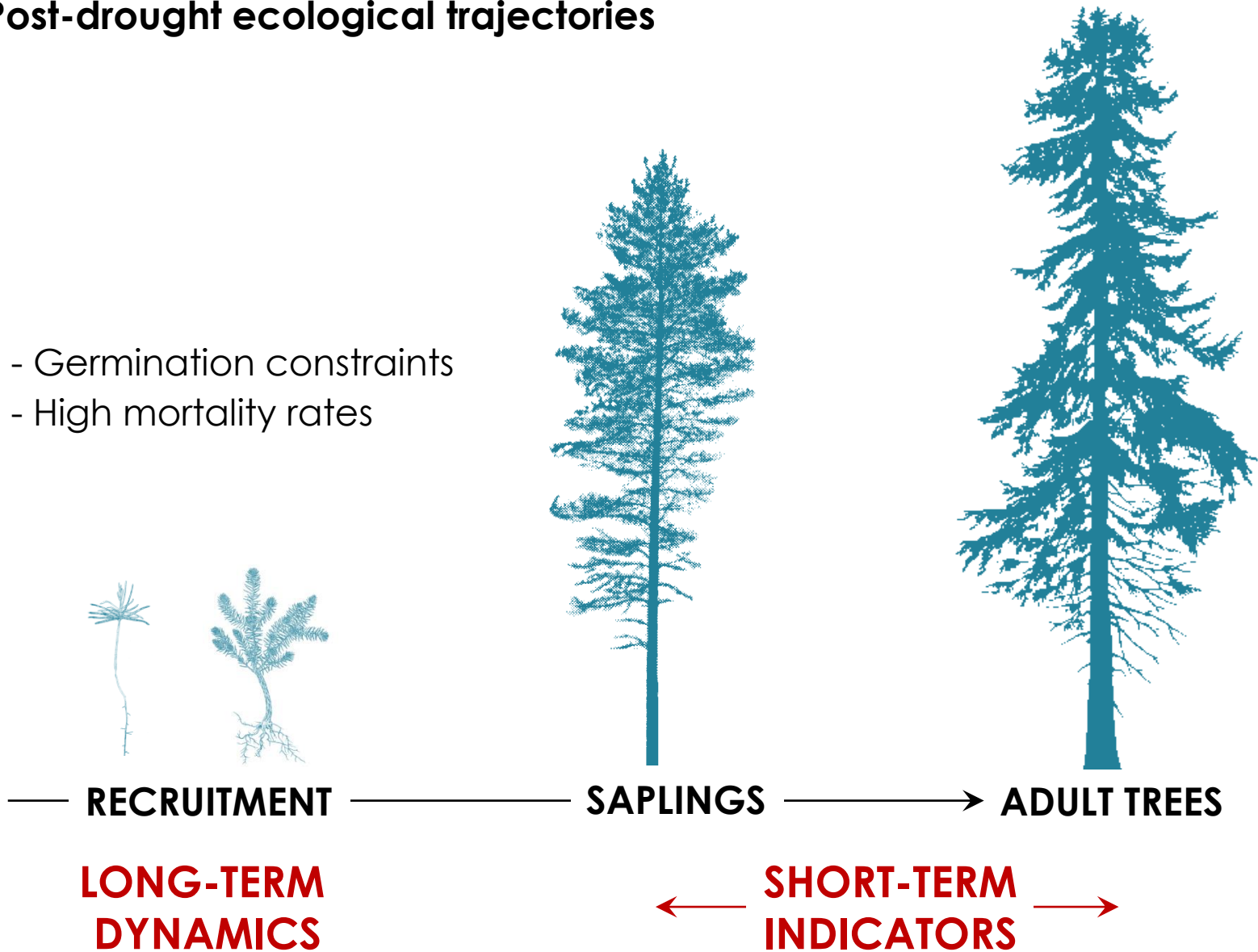
- Ecological and climatological consequences of increased tree mortality?



**Ecosystem
dynamics ?!**

- Post-drought ecological trajectories

- Germination constraints
- High mortality rates



Spatial and temporal patterns of **short-term forest replacement at the global scale** following drought-induced mortality.

131 temperate forest sites

Self-replacement

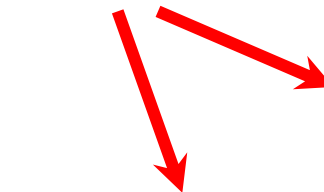


*Tree
replacement*



New Mexico. Photo credit: Francisco Lloret

Type conversion



*Results from a manuscript under review
Batllori, Lloret et al.*

I). **Drought** mortality has been a **global driver of vegetation type conversion**

- **Alternate species** replaced pre-drought dominant trees in **~70% sites**
- Short-term **loss of forest resilience** in **~45% sites**

II). Both **shifts to more xeric and more mesic communities** are occurring

III). **Species environmental preferences and ecosystem legacies govern** drought-induced species turnover and subsequent **ecological trajectories**