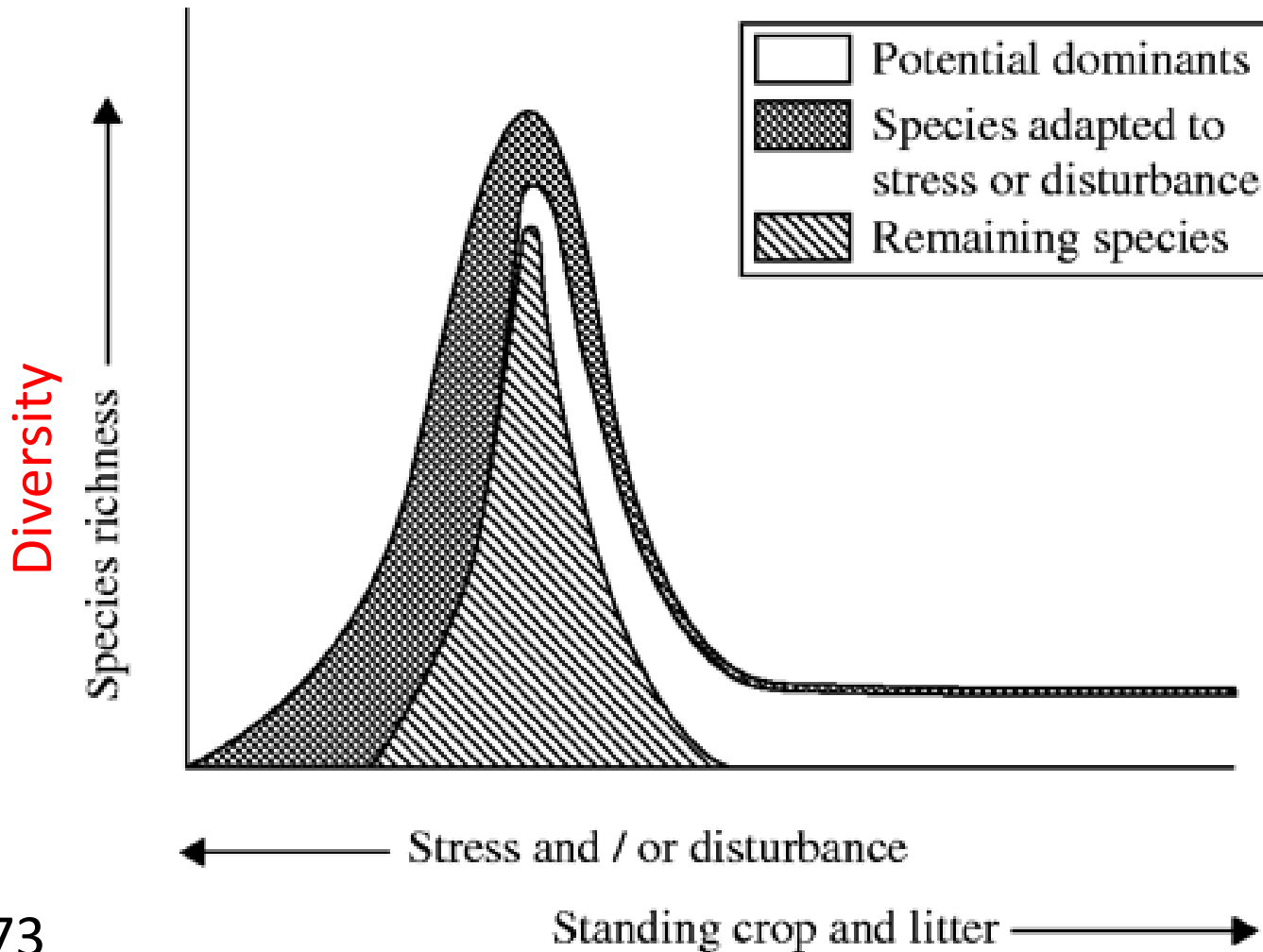


WP7 – BIODIVERSITY MODELLING

Susan Jarvis, Simon Smart, Pete Henrys, Jess
Davies and Ed Tipping

Aim:

- Link modelled changes in productivity (NPP) to changes in biodiversity

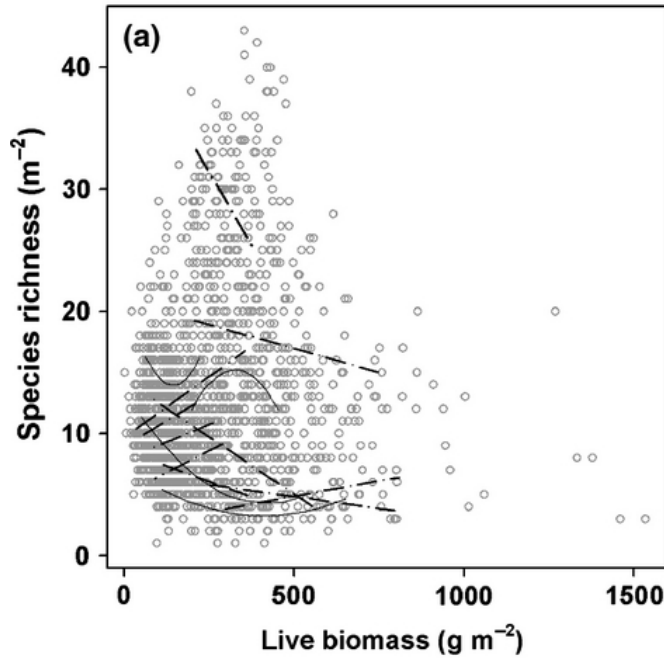


Grime 1973

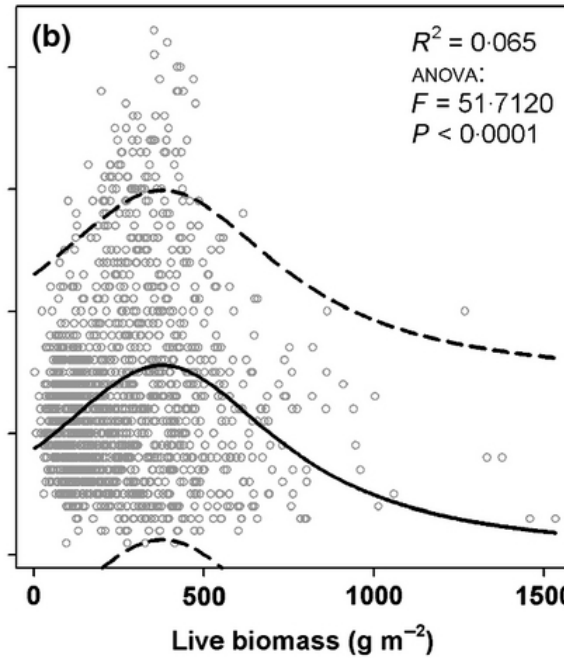
Journal of Environmental Management
Volume 1, Issue 1, pages 151-167

Parametric regressions applied within sites

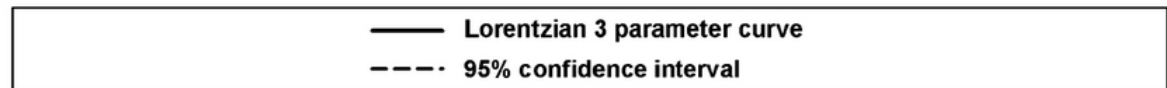
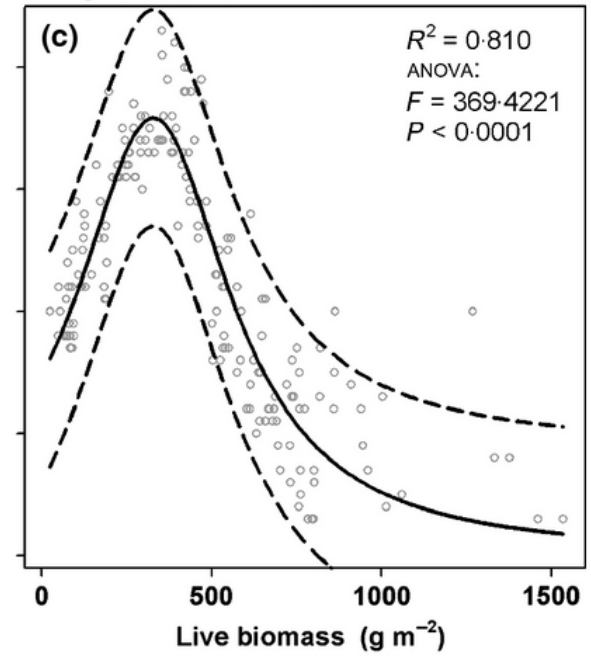
(Original analysis of Adler *et al.* (2011))



Parametric regression applied to entire dataset



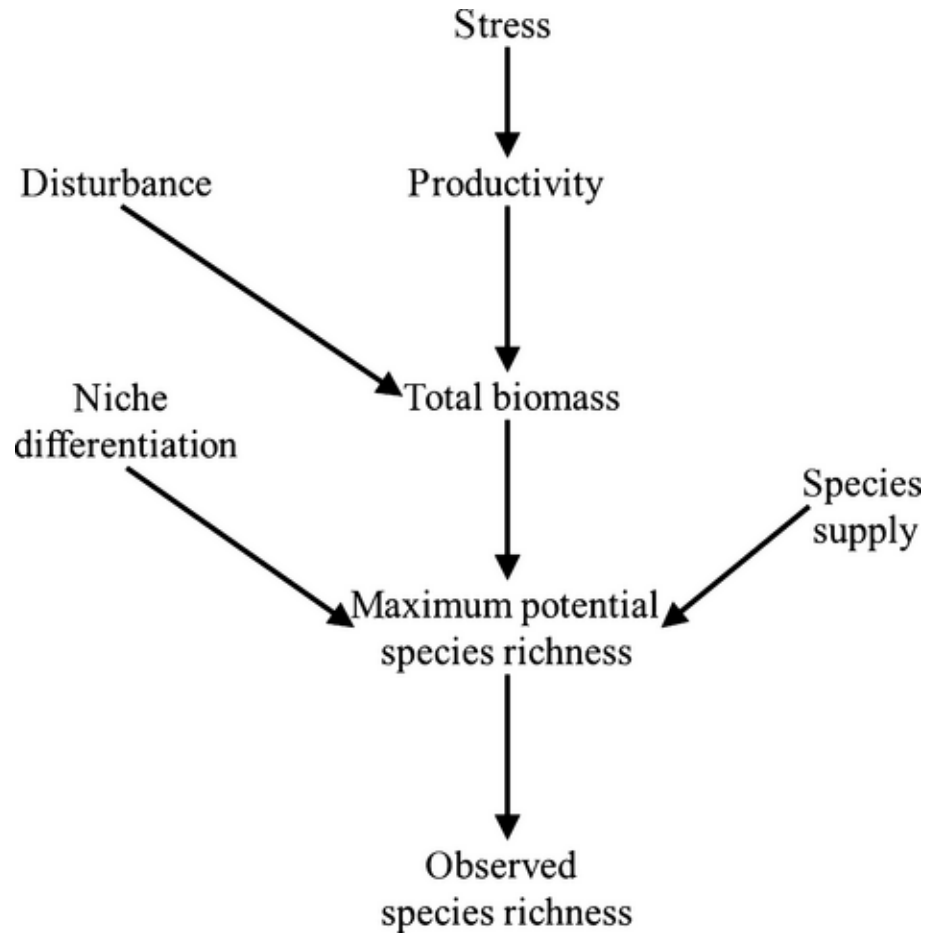
Upper boundary regression applied to top 20 points in each 100 $g m^{-2}$ interval class



Pierce 2013

Functional Ecology

Volume 28, Issue 1, pages 253-257



Grace *et al* 2014

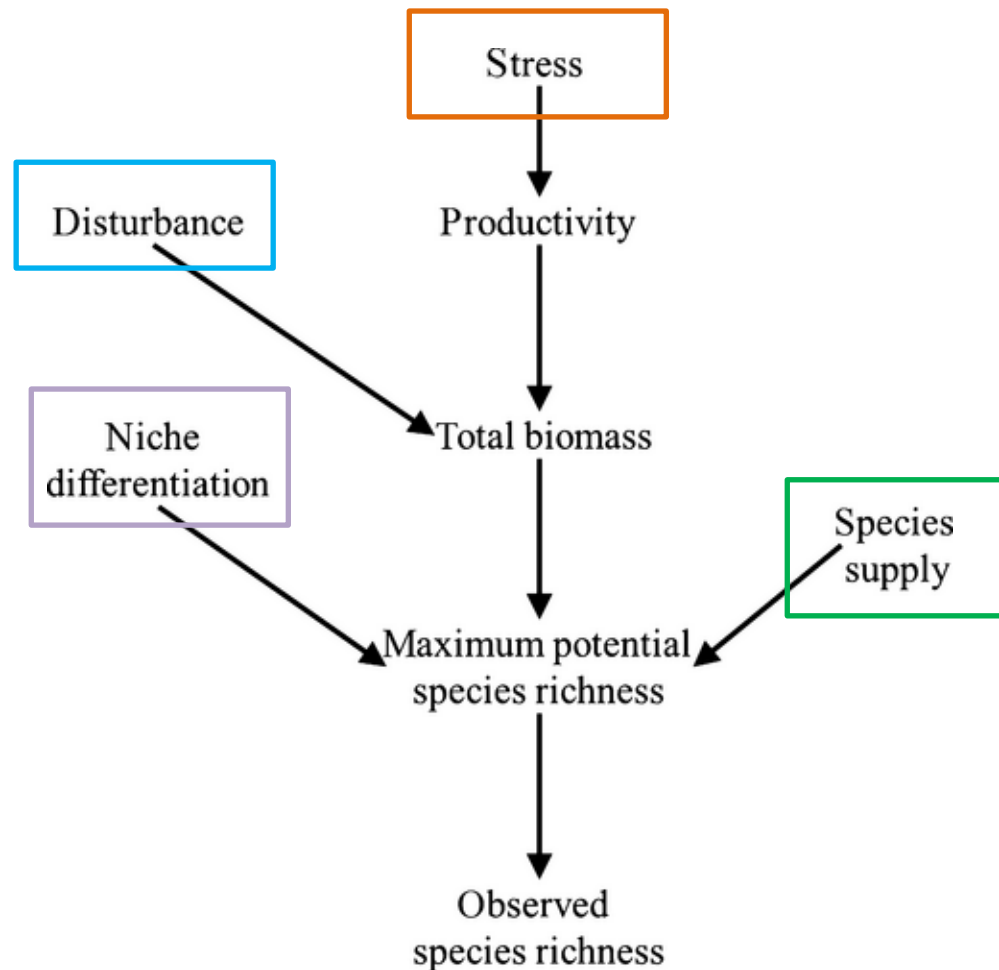
Functional Ecology

Volume 28, Issue 4, pages 787-798



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Grace *et al* 2014

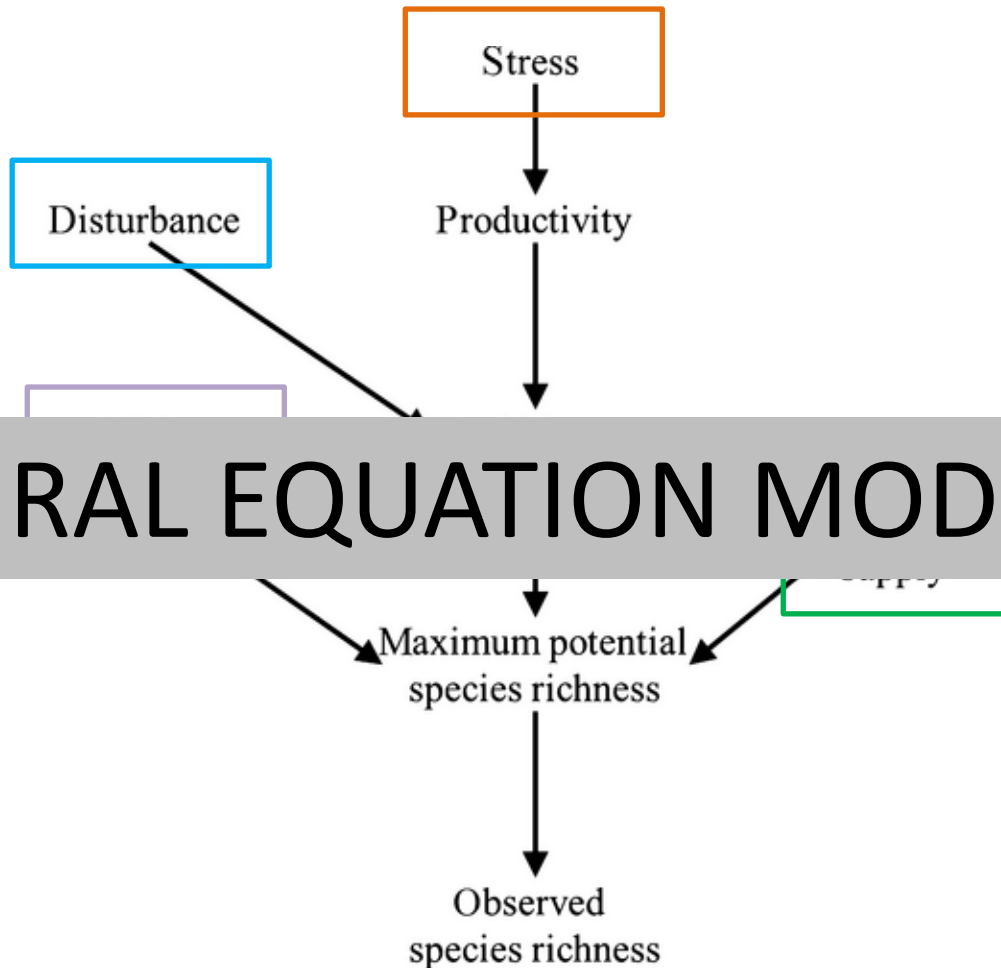
Functional Ecology

Volume 28, Issue 4, pages 787-798



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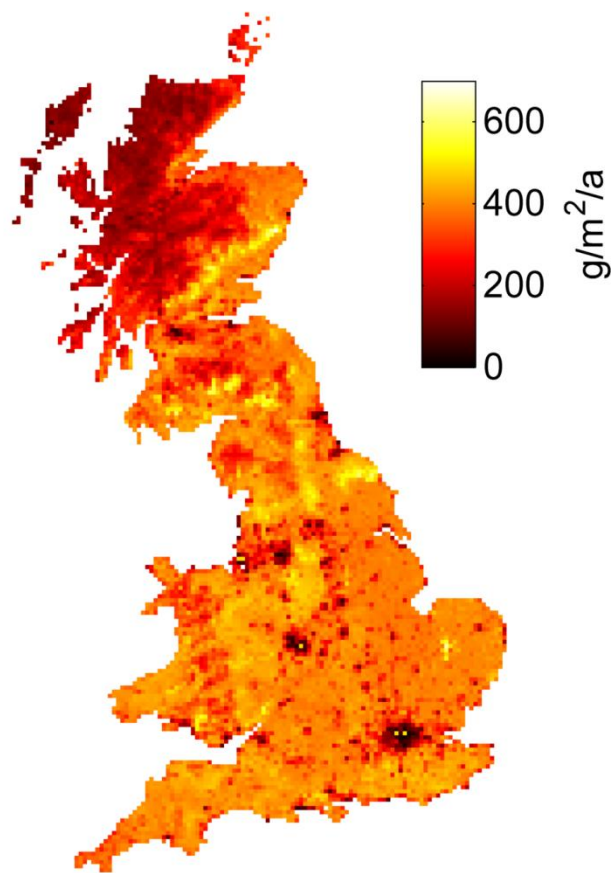
STRUCTURAL EQUATION MODELLING

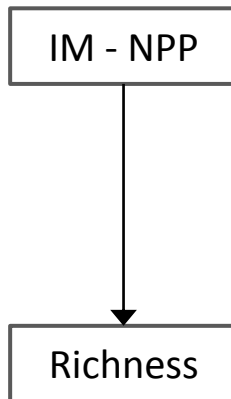
Grace *et al* 2014

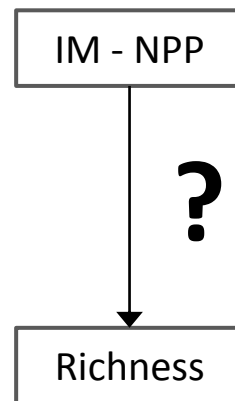
Functional Ecology

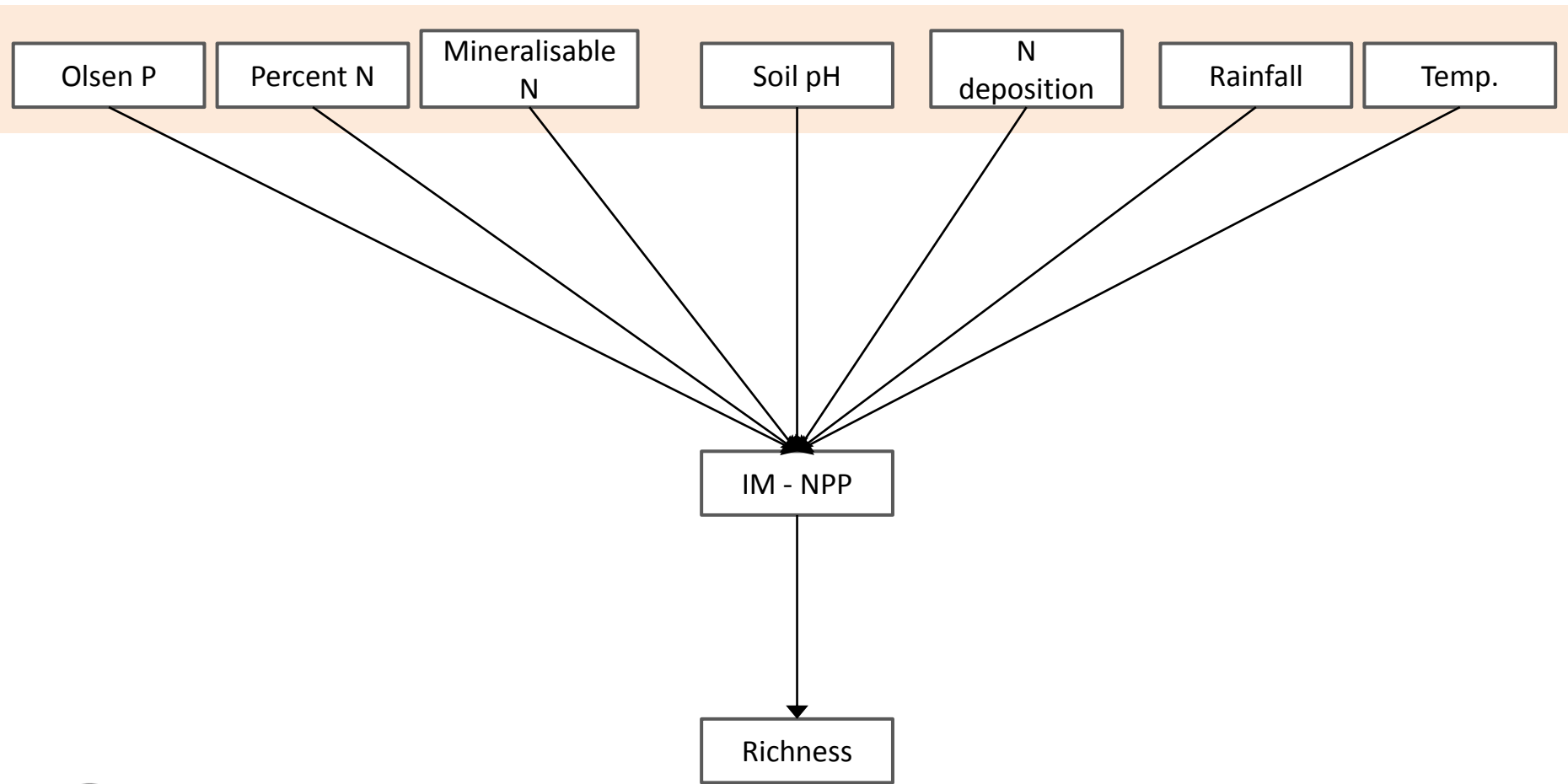
Volume 28, Issue 4, pages 787-798

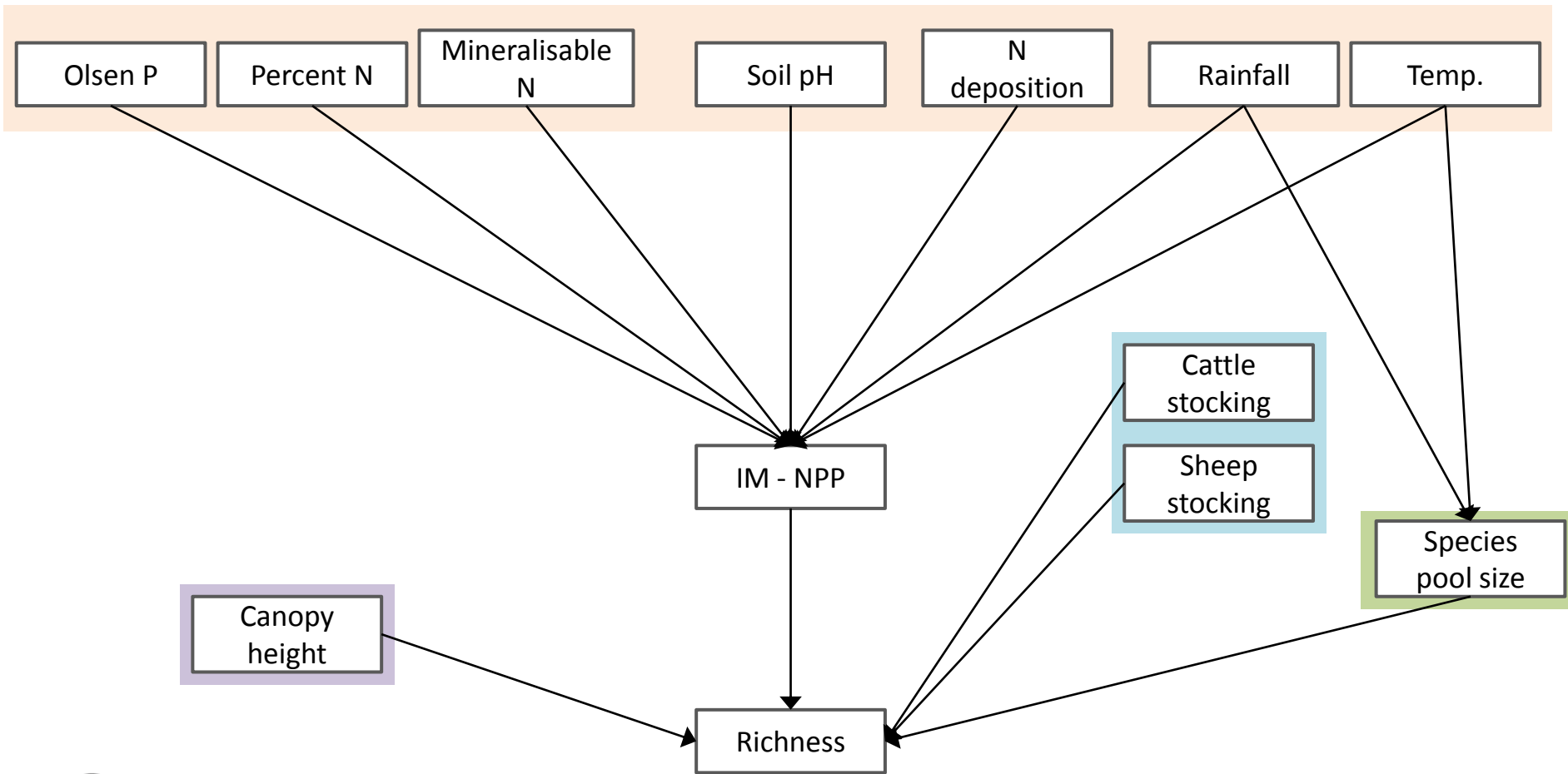
LTLS IM
Total NPP: 2007

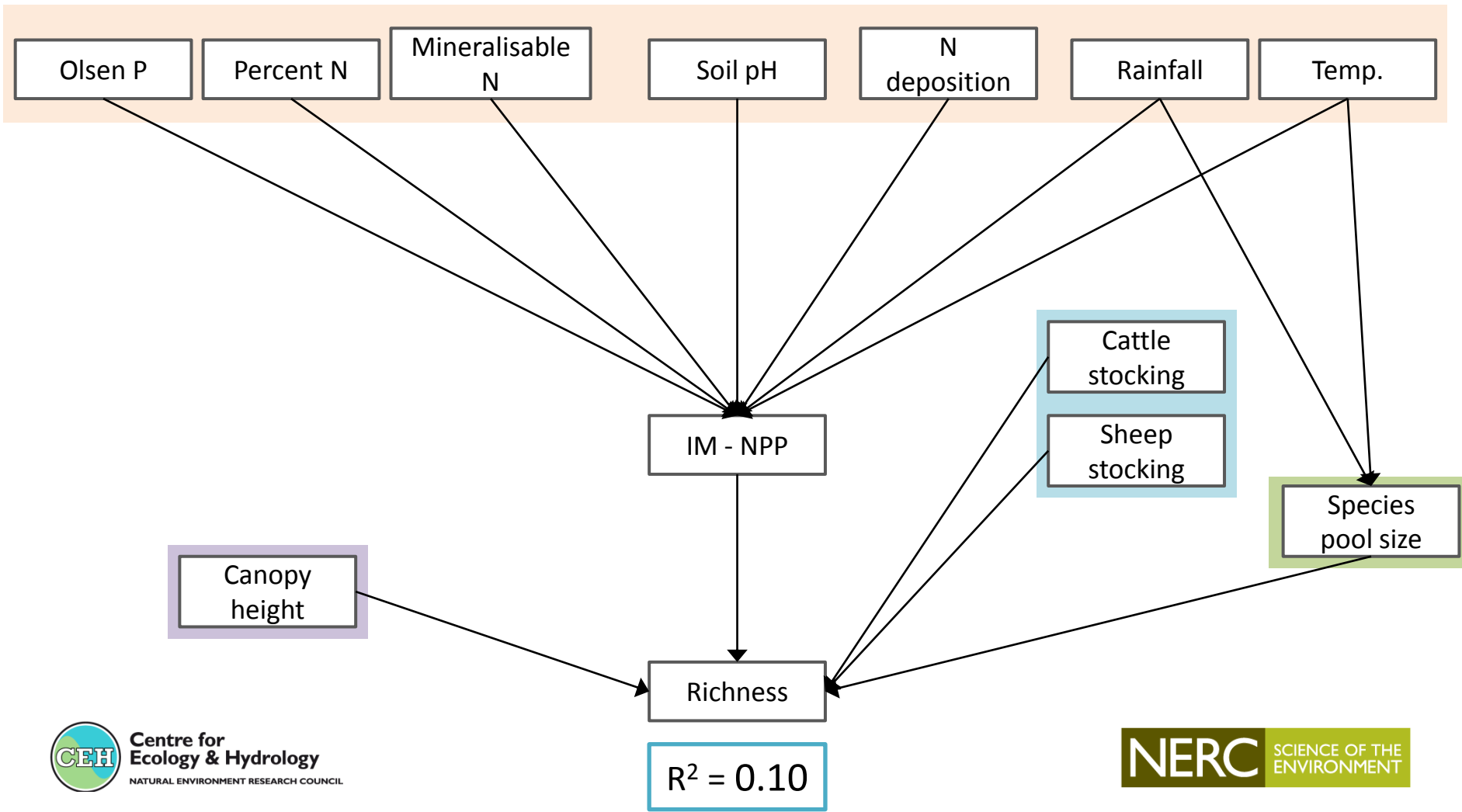


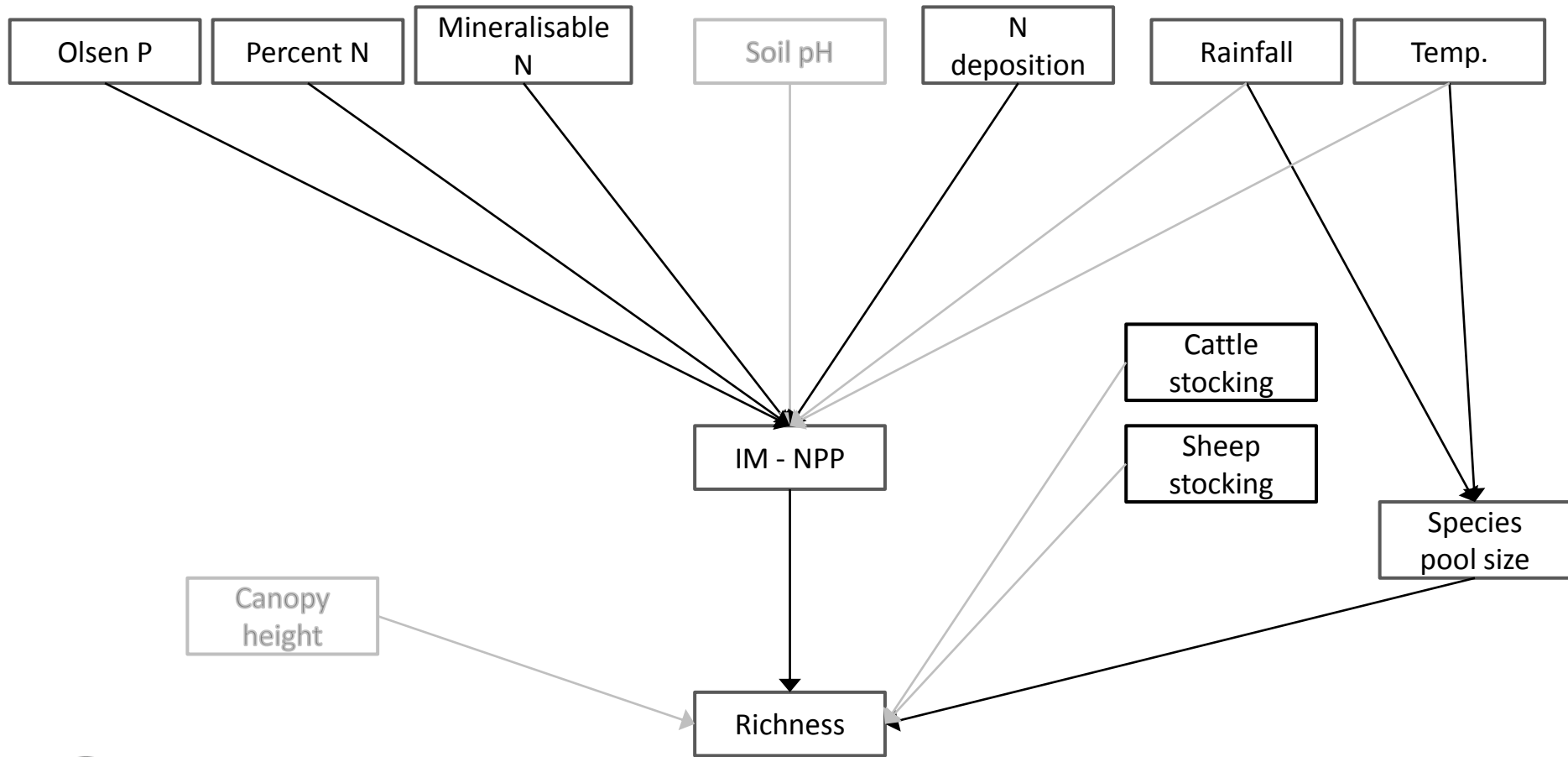


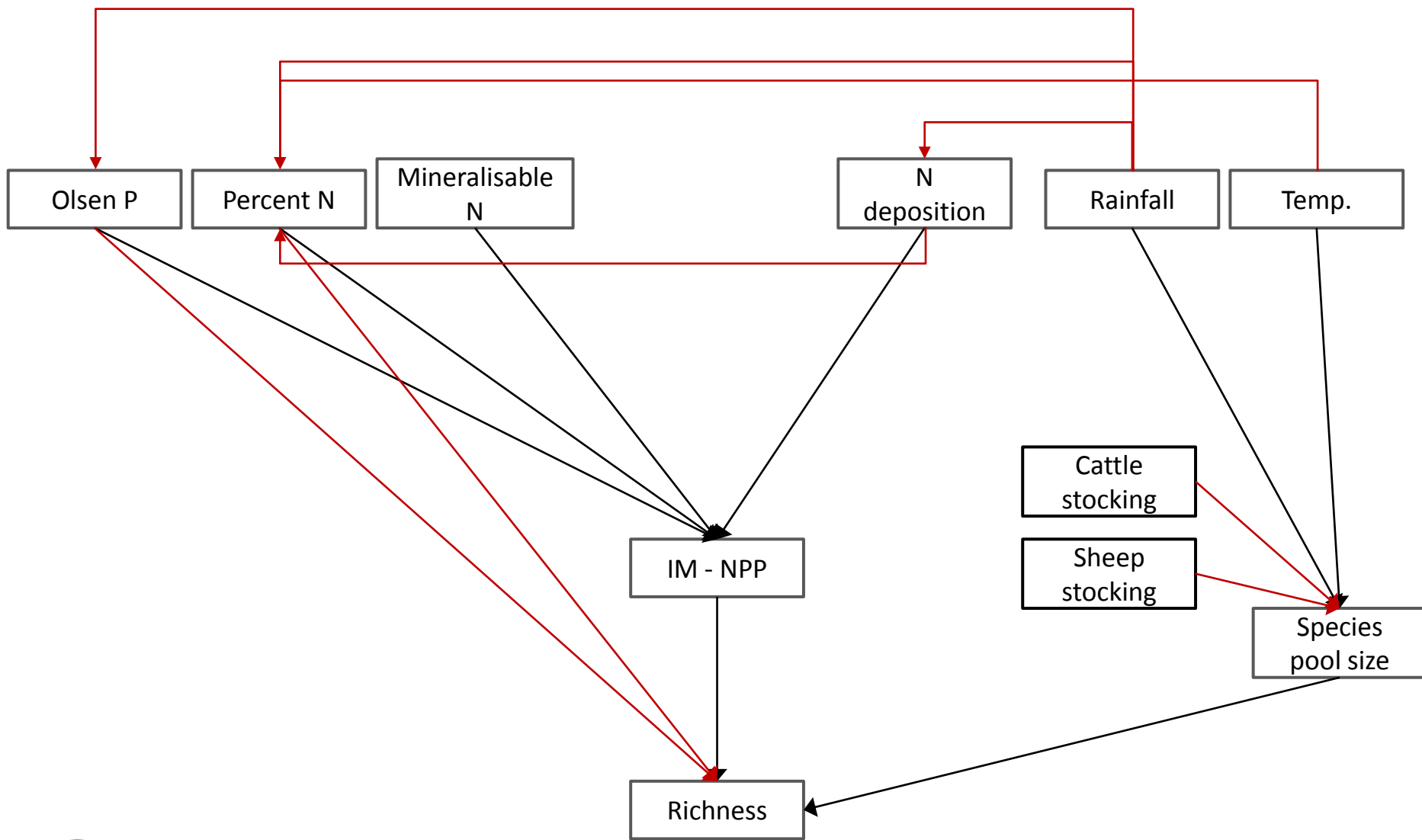


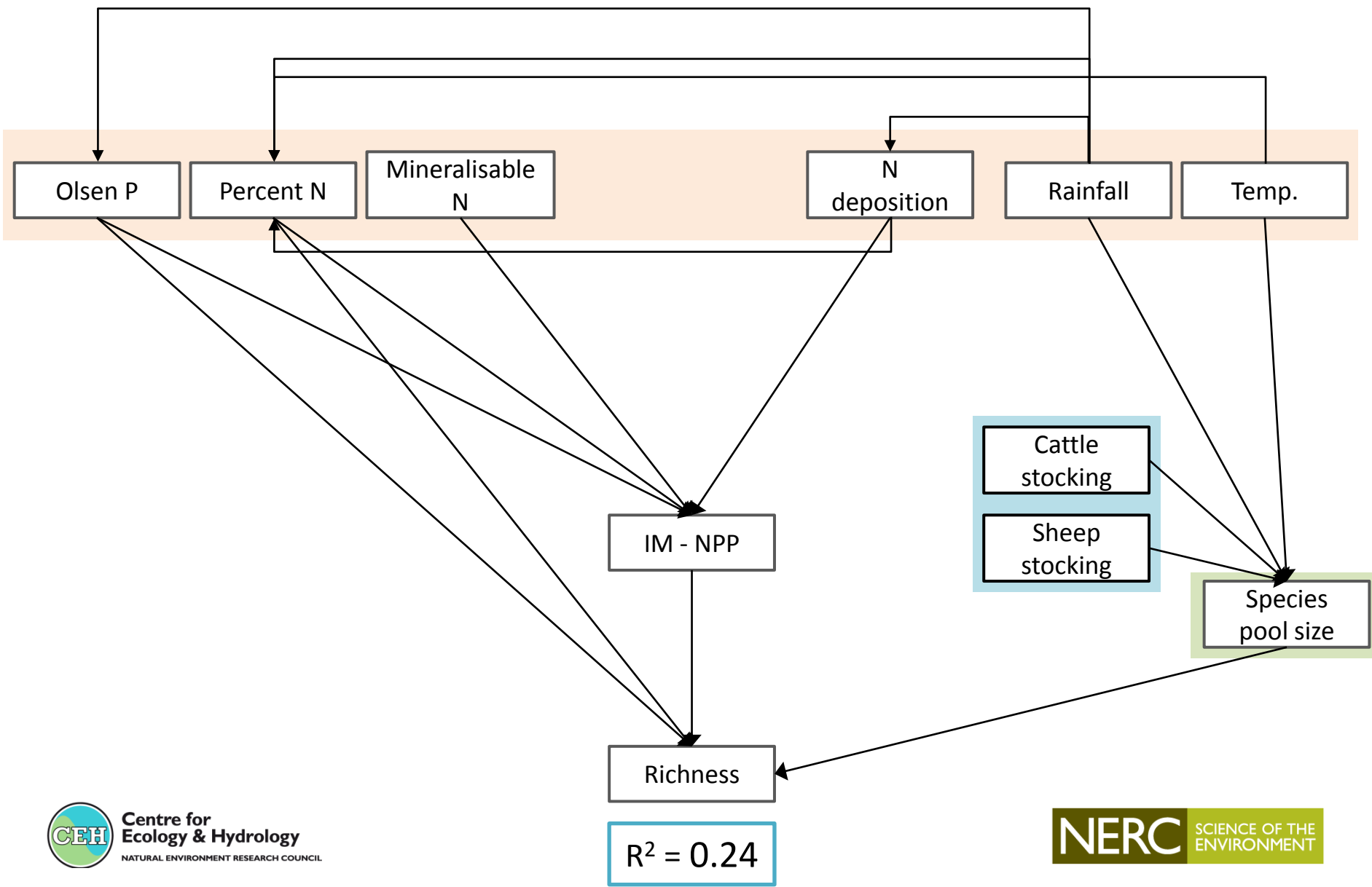


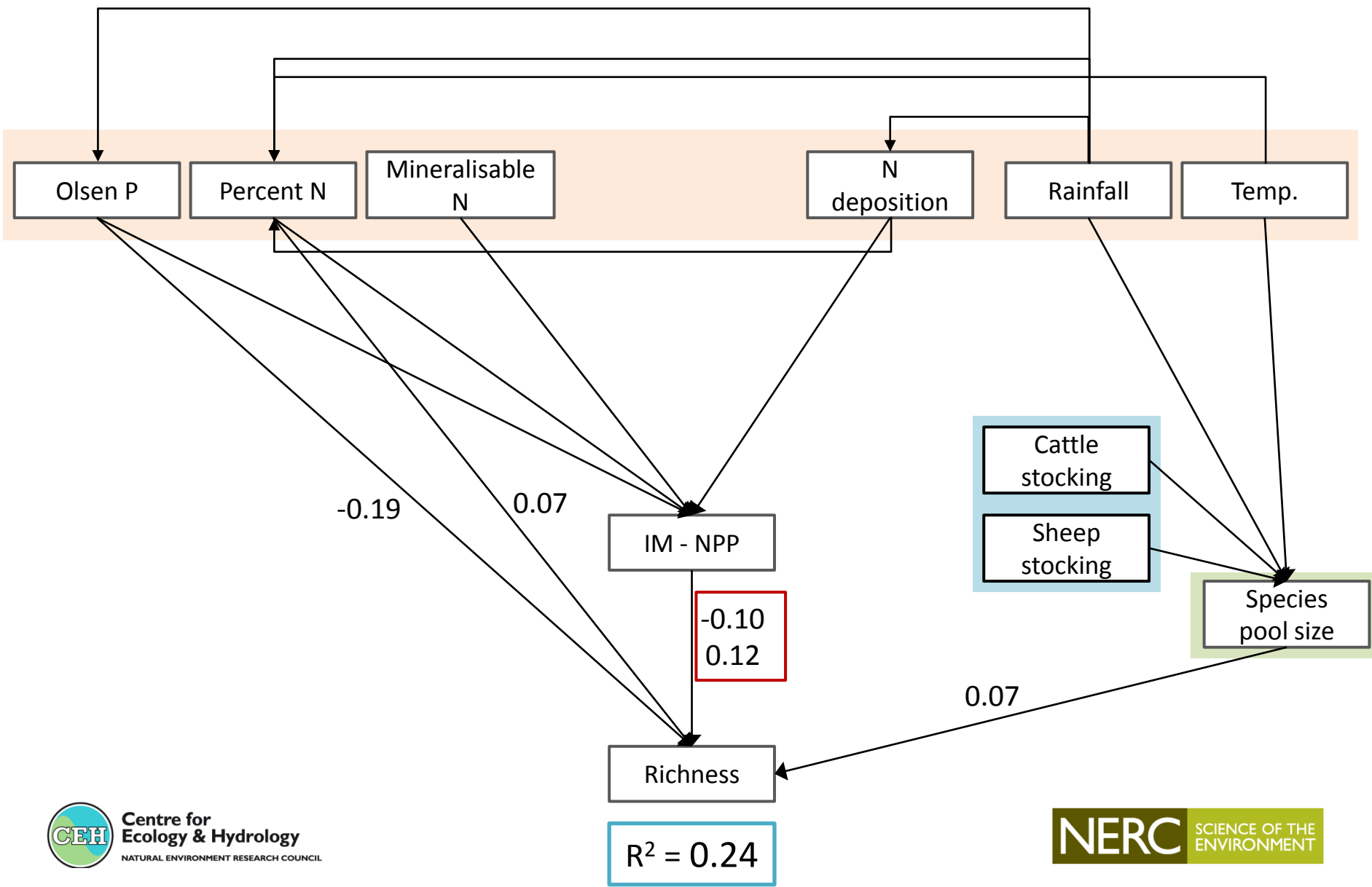




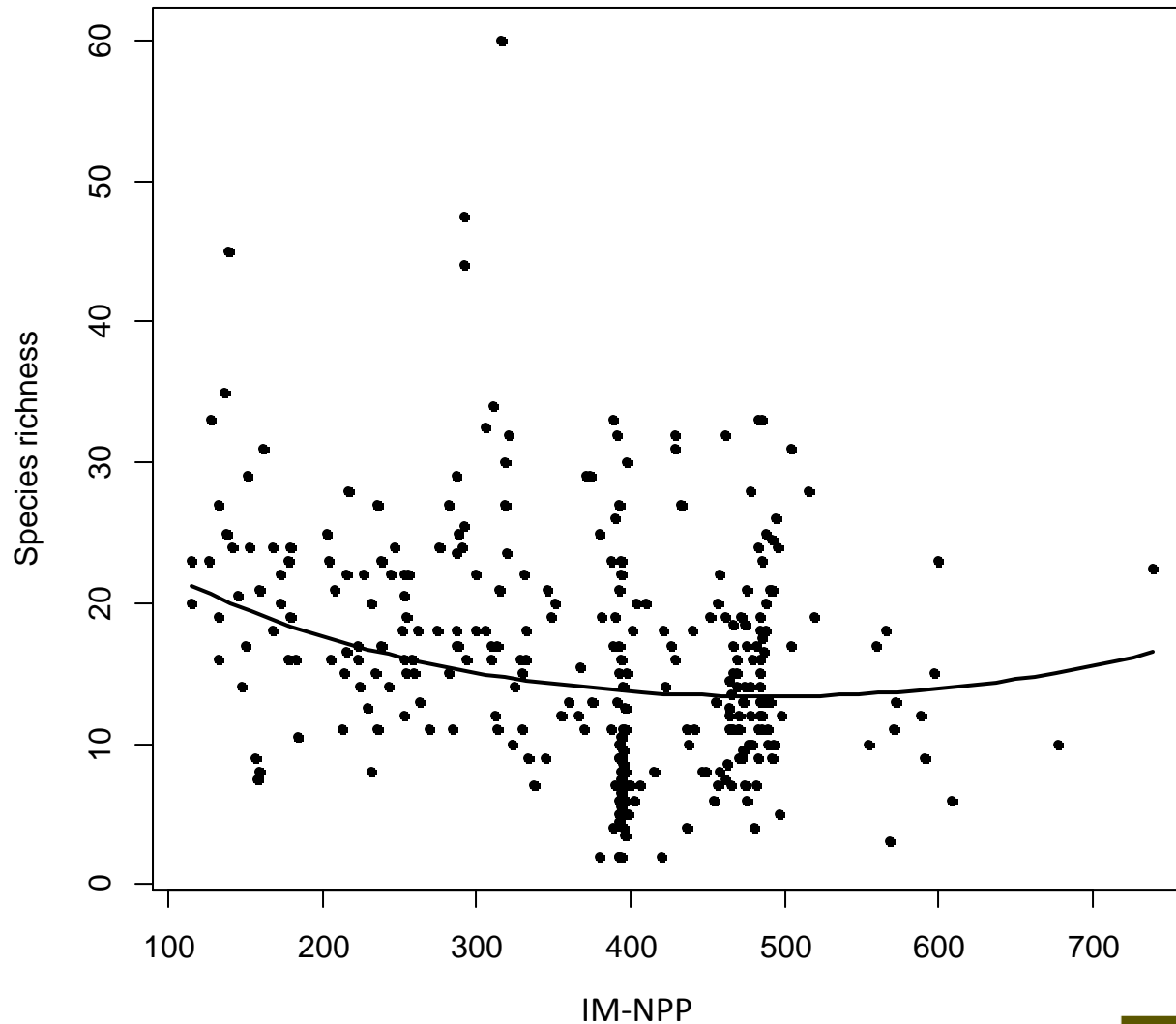








Productivity – richness relationship



- Don't assume this is the final answer!!
- Improved NPP estimates
- More data?
- Assess model consistency by testing against other years

Any questions?