

Impact of riparian forest on EPT dispersion across European biogeographical regions

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Ephemeroptera, Plecoptera & Trichoptera



EPT life cycle



EPT life cycle



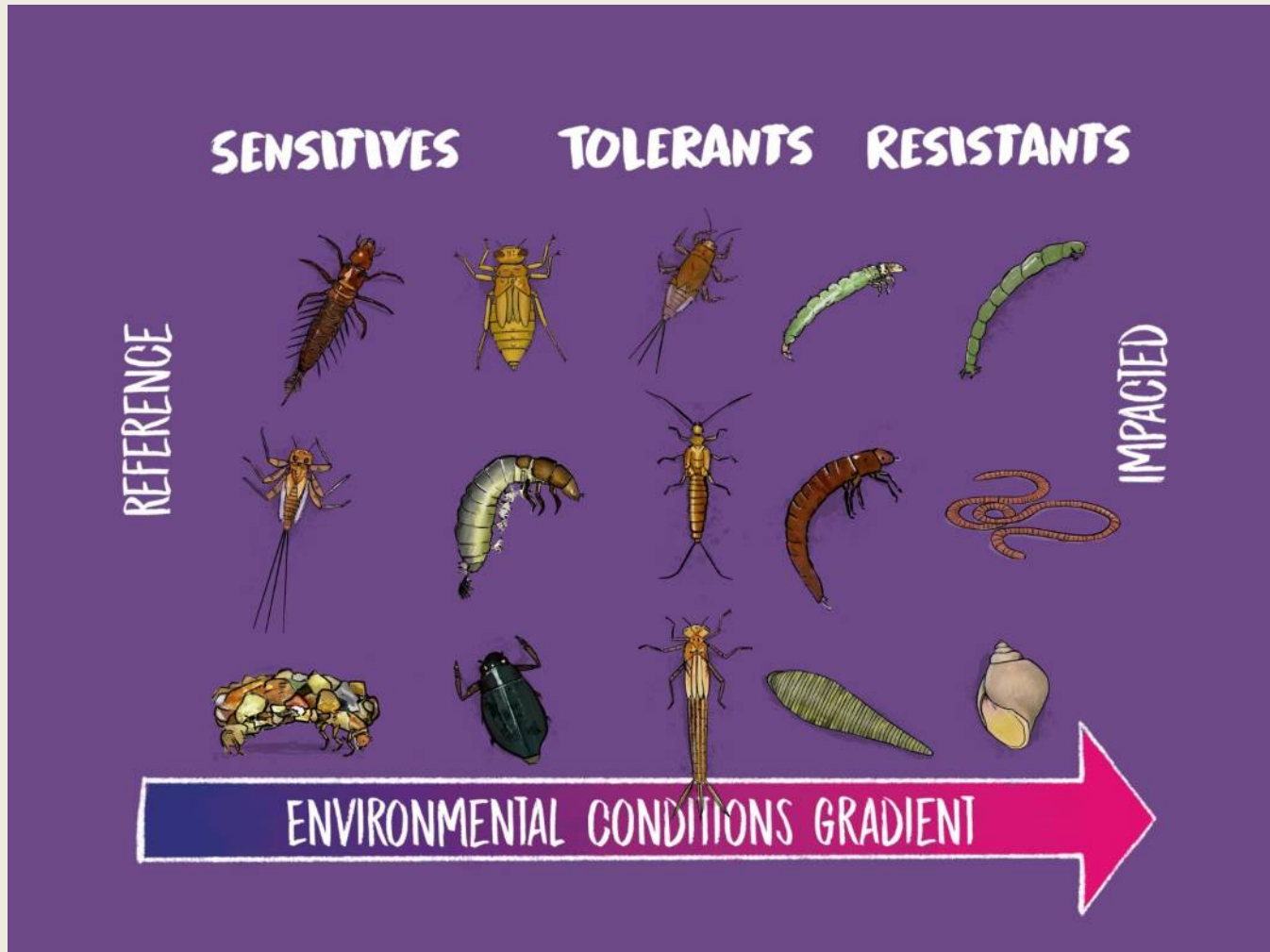
EPT aerial dispersion



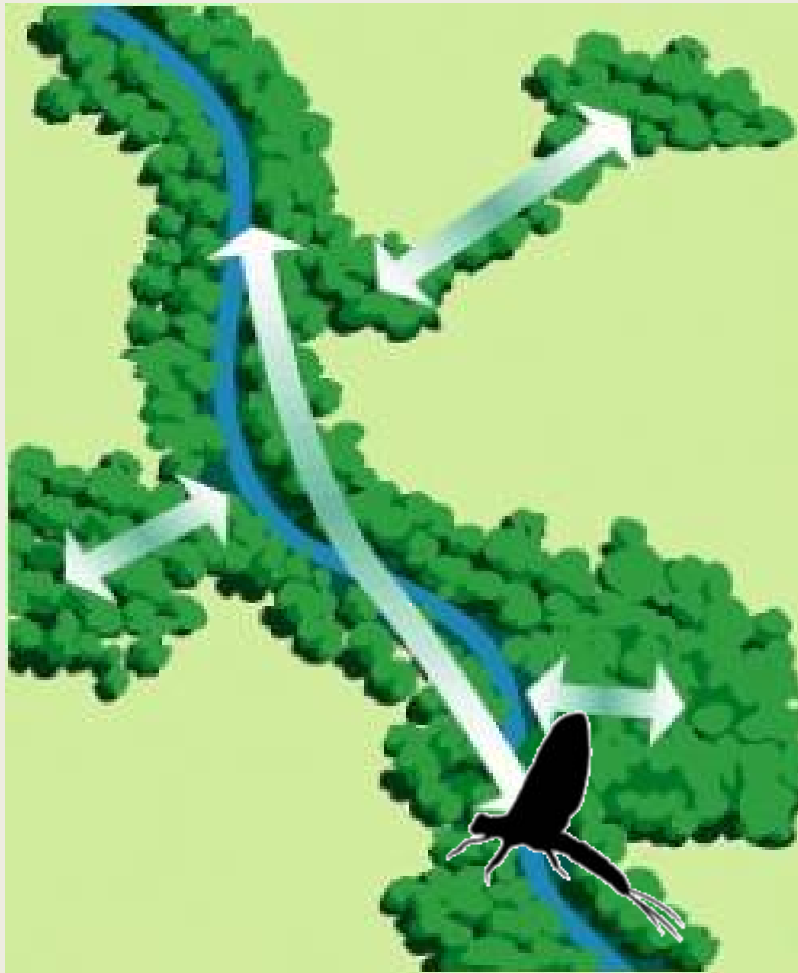
EPT diversity



EPTs as bioindicators



Functional connectivity for EPTs



**Riparian forest increases
landscape connectivity for EPTs**

(Peredo Arce et al. unpublished)

Functional connectivity for EPTs

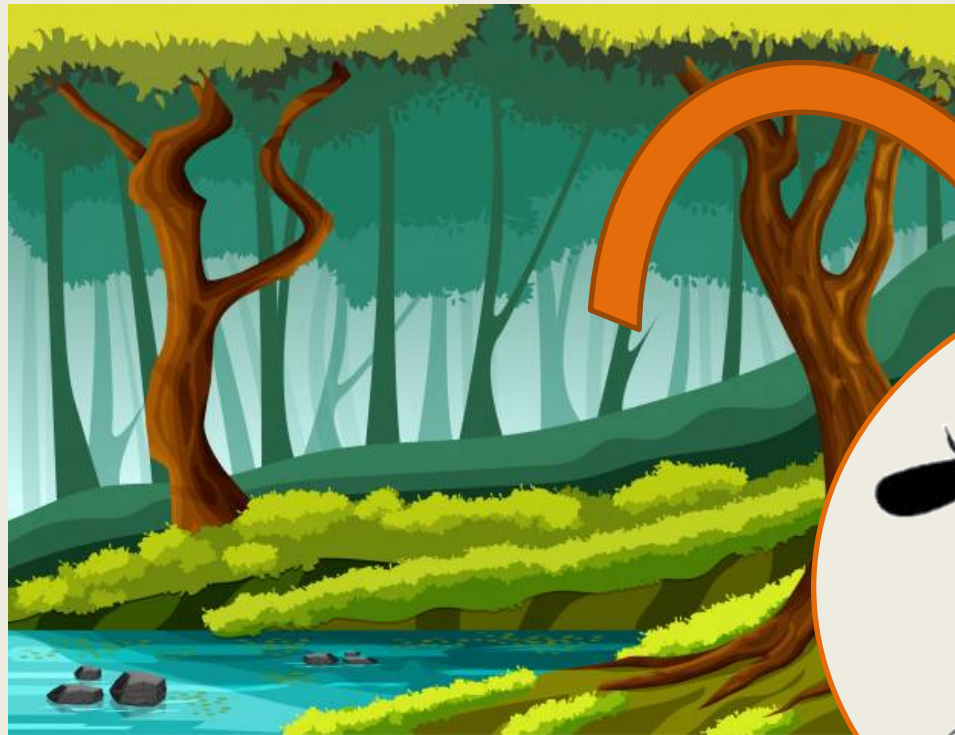


Low connectivity

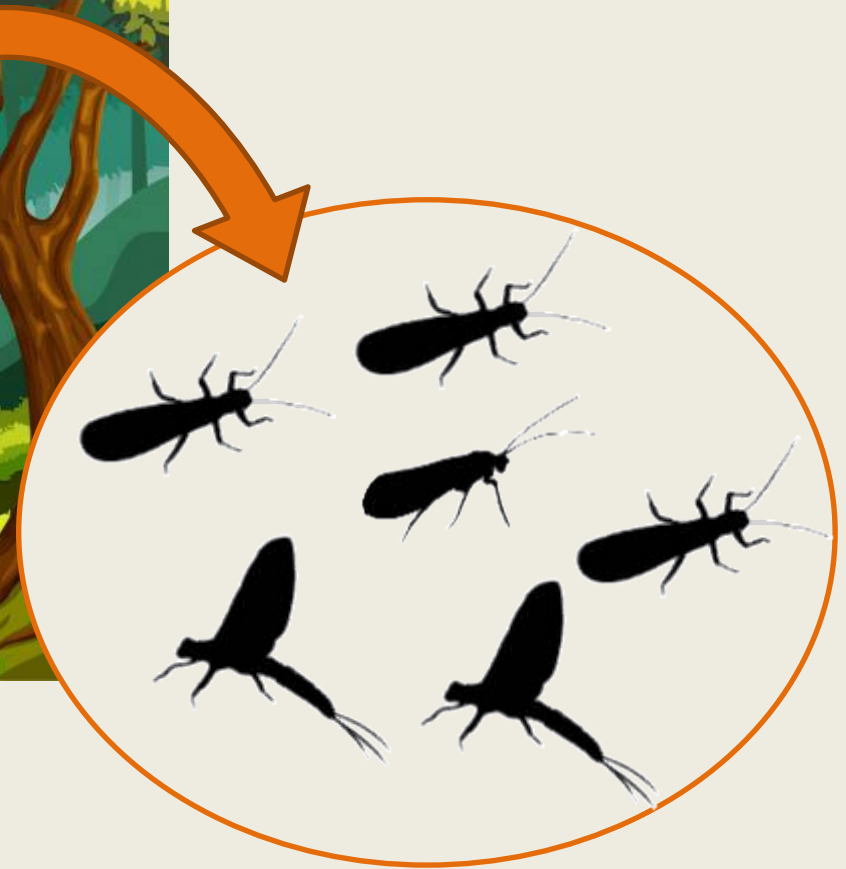


Strong dispersers

Functional connectivity for EPTs

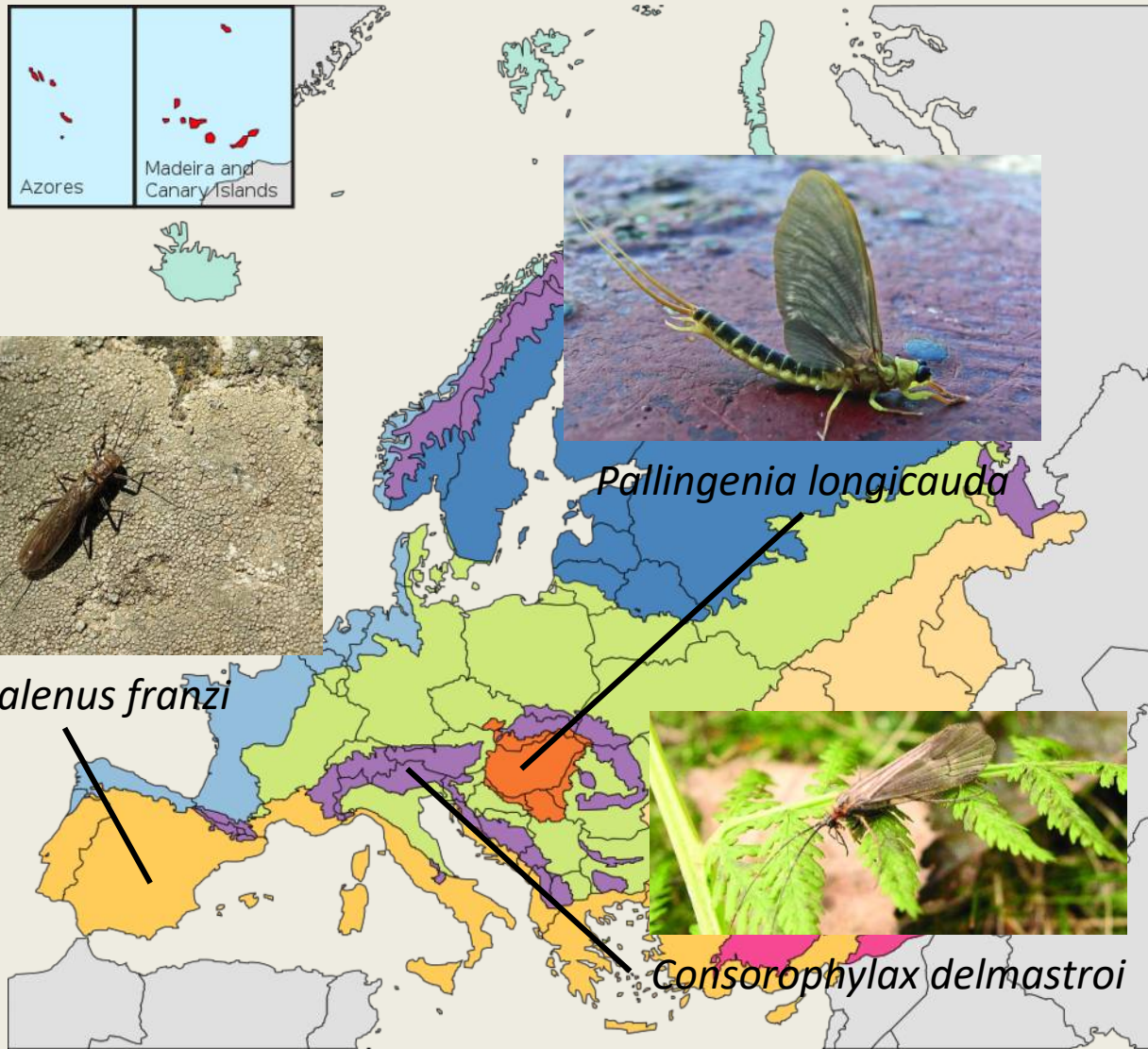


High connectivity



Weak dispersers

Geographical differences



Biogeographical regions of Europe

- Arctic
- Boreal
- Atlantic
- Continental
- Alpine
- Pannonian
- Mediterranean
- Macaronesian
- Steppic
- Black Sea
- Anatolian

After a map by the
European Environmental
Agency: www.eea.eu.int

Research question

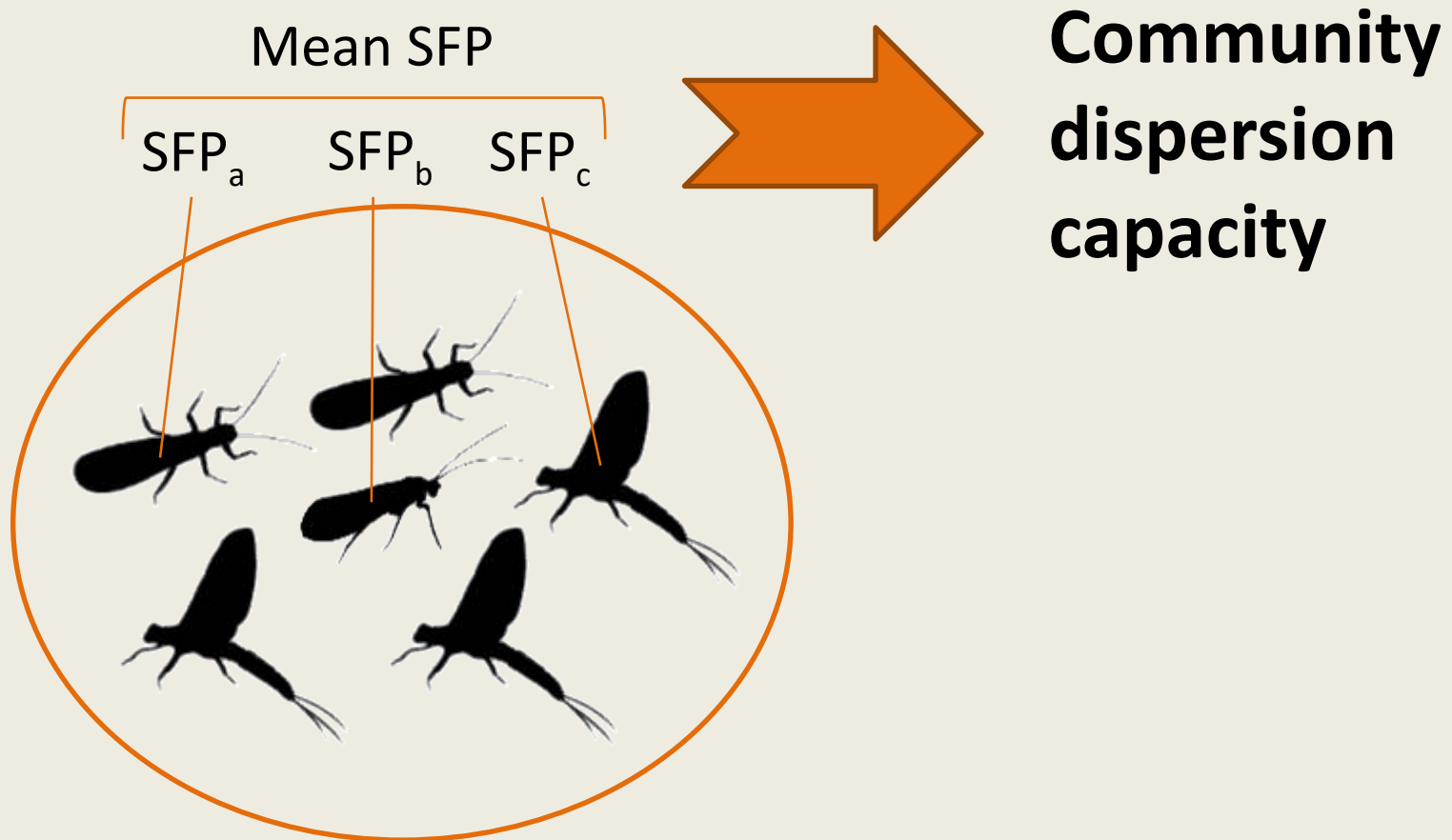
Has riparian forest the
same impact on the EPT
community across
biogeographical regions?

Study area



EPT dispersion capacity

Species Flying Propensity (Sarremejane et al. 2017)



Sampling

Sampling site

- EPT surveys (WFD)
- Environmental stressors (WFD)

Riparian vegetation

- 5 km up-downstream
- 10 m buffer
- Aerial photography

Catchment degradation

- Land use



Statistical method

Generalised linear mixed model

Dependant variable:

Community dispersion capacity

Predictors:

Riparian vegetation in the buffer

Environmental stressors:

saprobic pollution

site naturalness

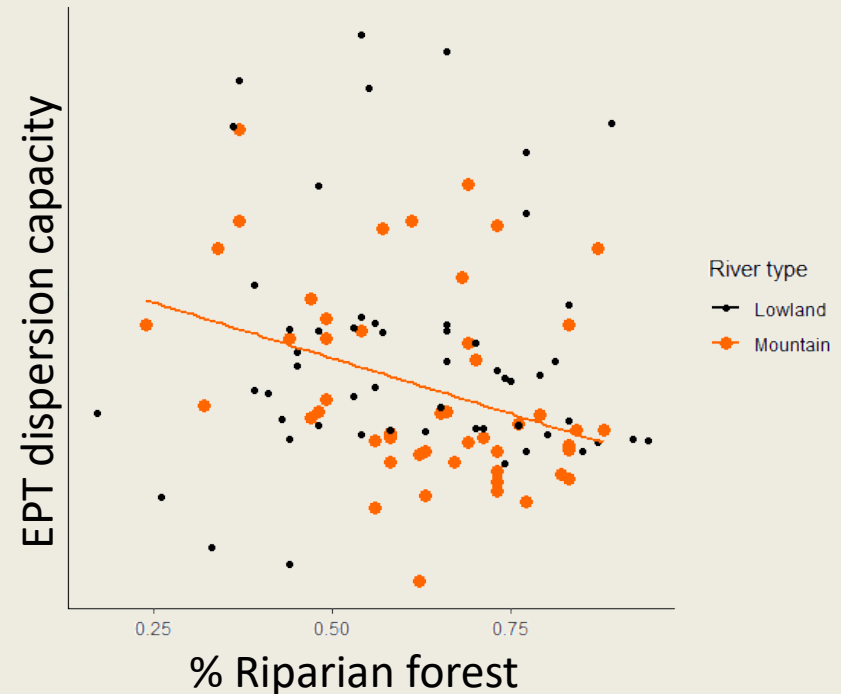
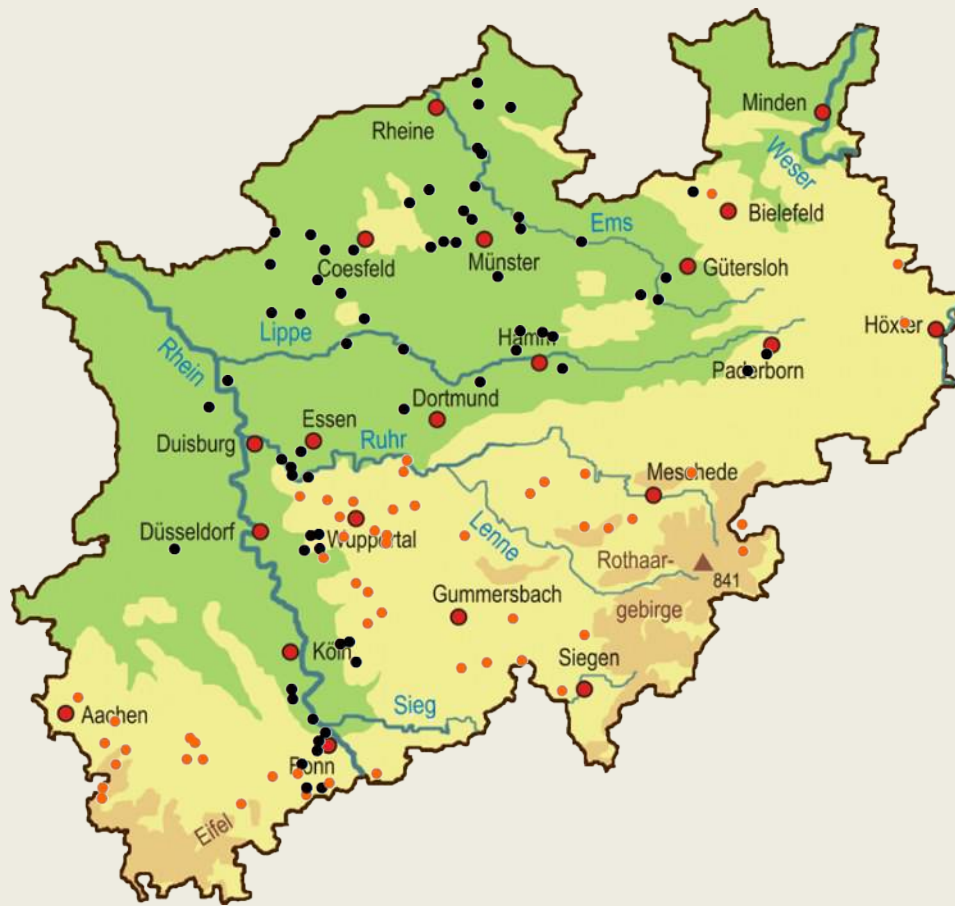
catchment degradation

...

Fixed effect:

Biogeographical region

Results (Rhineland)



Predictions!

(no more results yet)

Mondego

Riparian forest will have
a **stronger** effect on EPT
community



Tirol

Riparian forest will have
a **weaker** effect on EPT
community

Conclusion

I need to finish the study!

(so keep tuned in...)

PEACE!

