

Van bosranden tot beekvalleien

Gebruik van gradiënten van licht en klimaat in
het bosbeheer

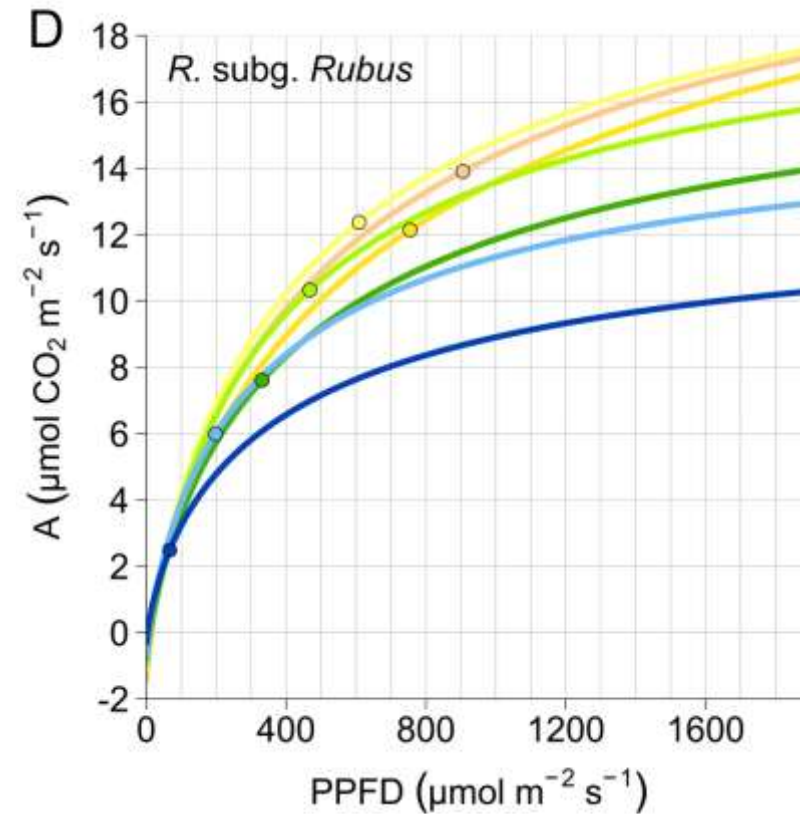
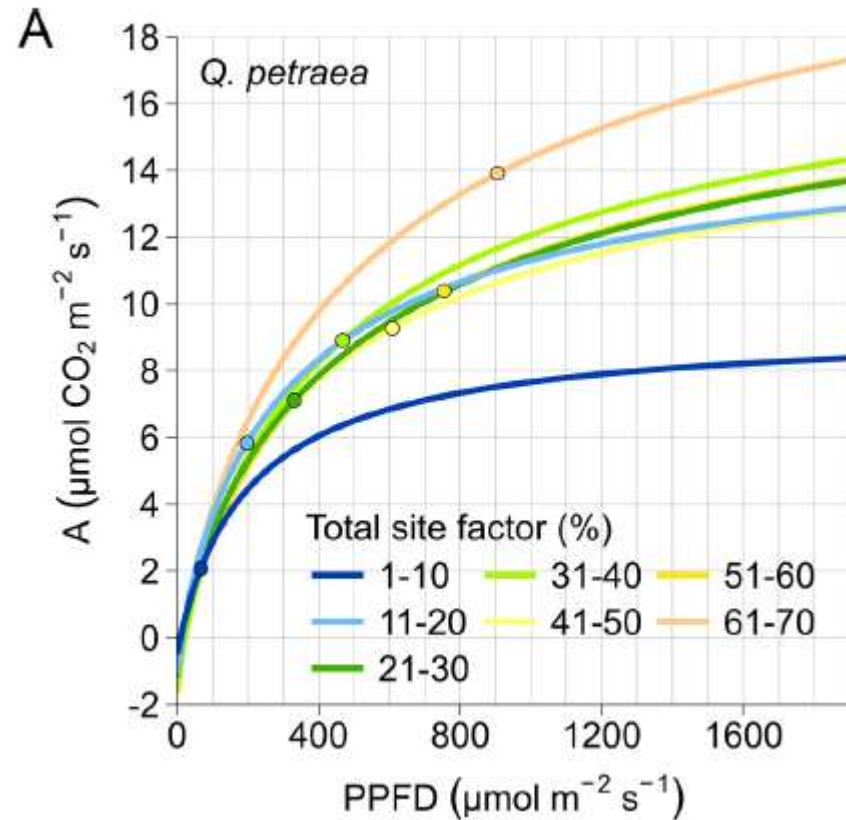
Hannes Cosyns – Bossymposium 26 juni 2026



Belgium for
Biodiversity

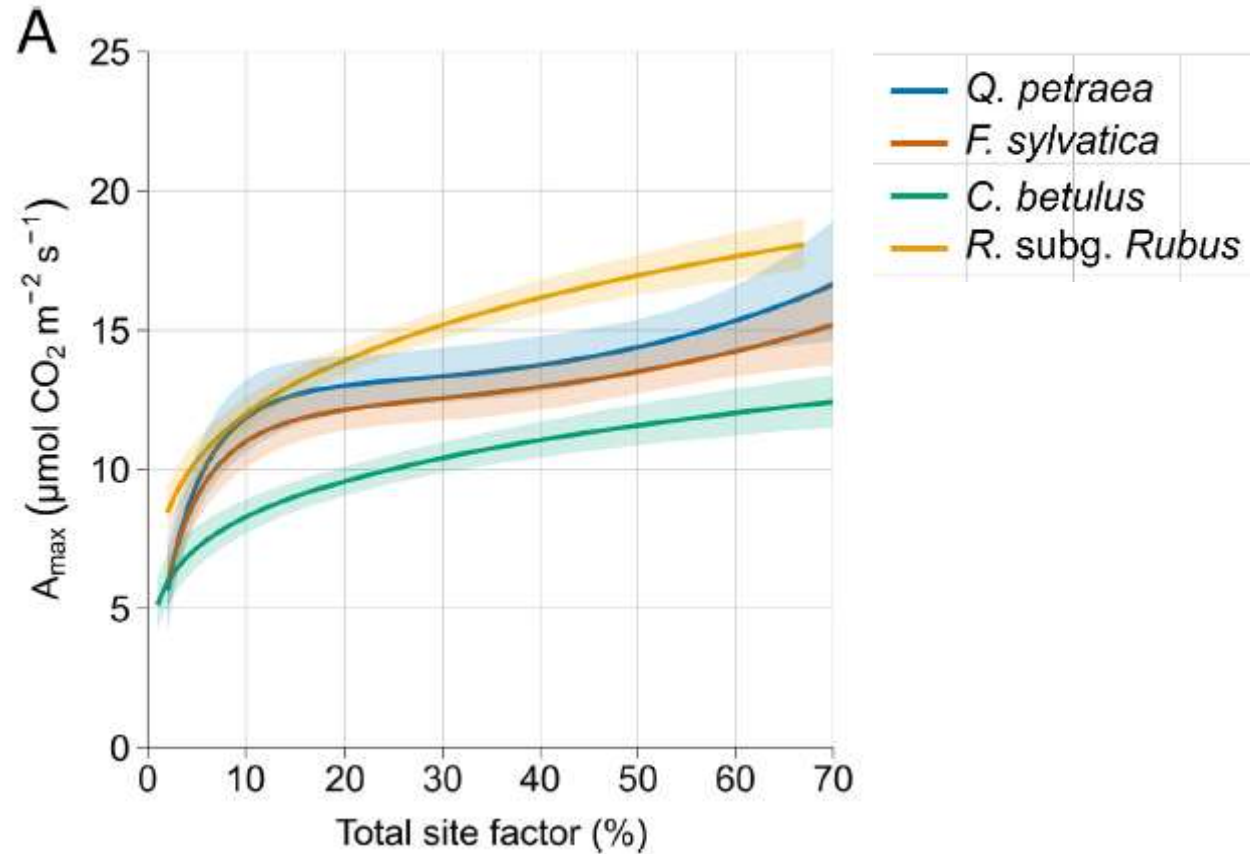


Eik heeft voldoende licht nodig



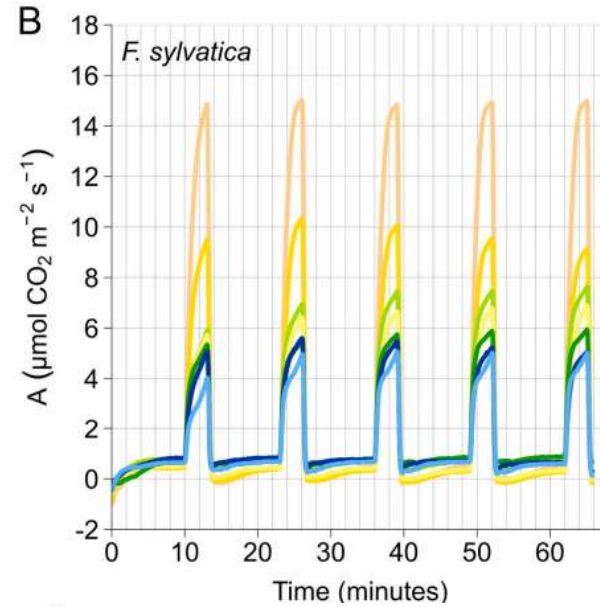
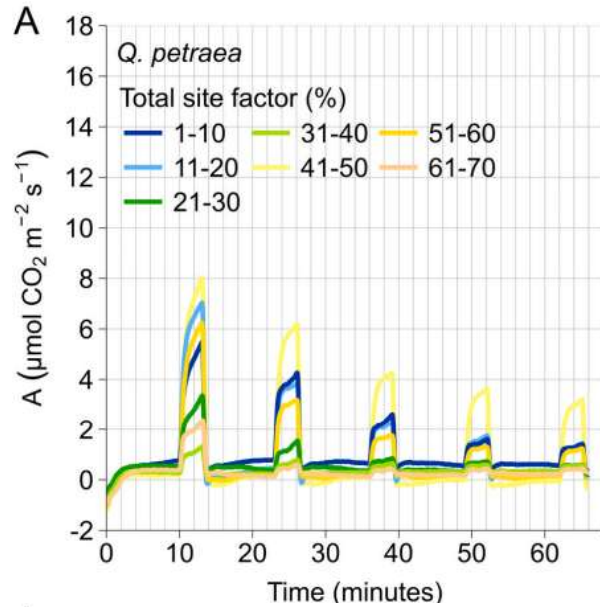
- ▶ Eik profiteert 10 -> 20% en > 60% van totale instraling

Eik heeft voldoende licht nodig



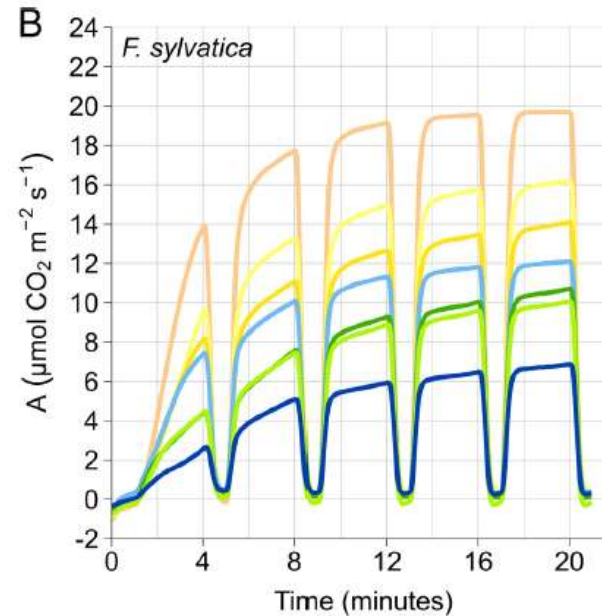
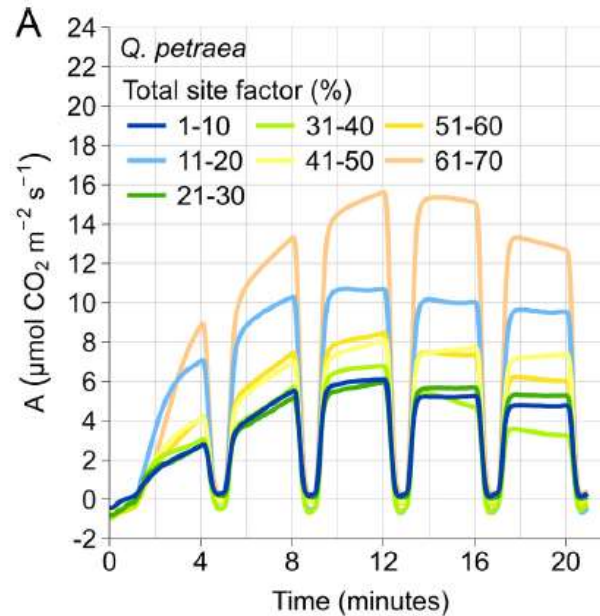
- ▶ Beuk reageert zoals eik, maar groeit sneller => beuk wint (meestal)
- ▶ Eik en braam, >20% licht => bevoordeel je braam

Eik heeft voldoende DIRECT licht nodig



Lichtvlekken van 10 min donker - 3 min licht

te weinig voor eik



Lichtvlekken van 1 min donker – 3 min licht

Eik heeft voldoende DIRECT licht nodig



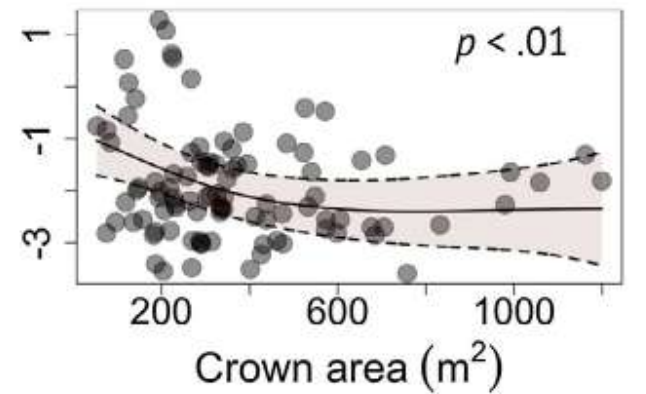
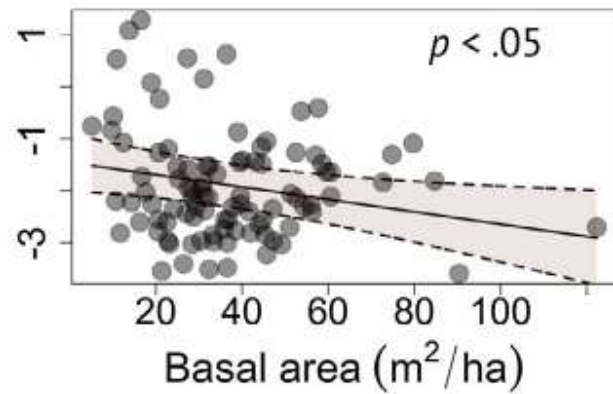
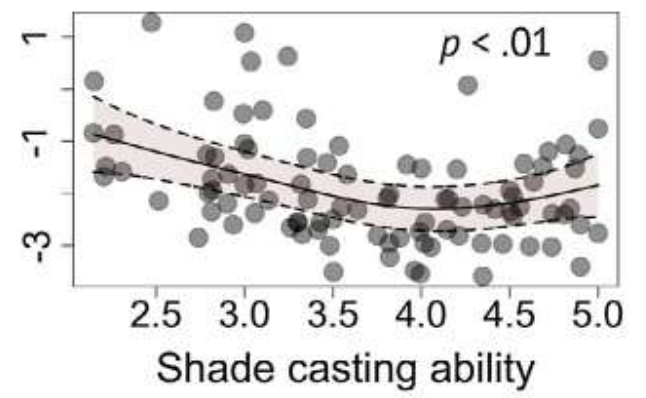
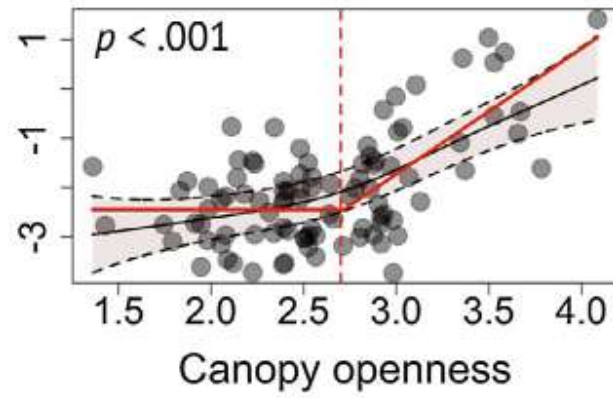
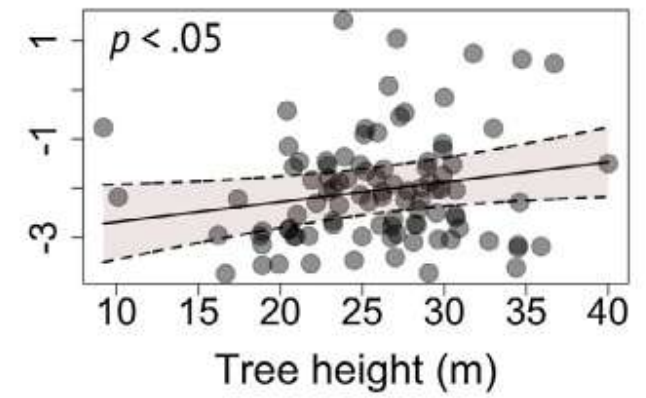
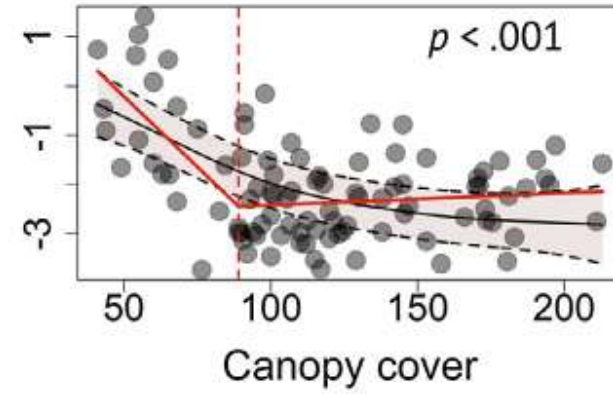
Implicaties voor beheer?







Offset of T_{\max} during summer ($^{\circ}\text{C}$)





Onze Waalse broeders

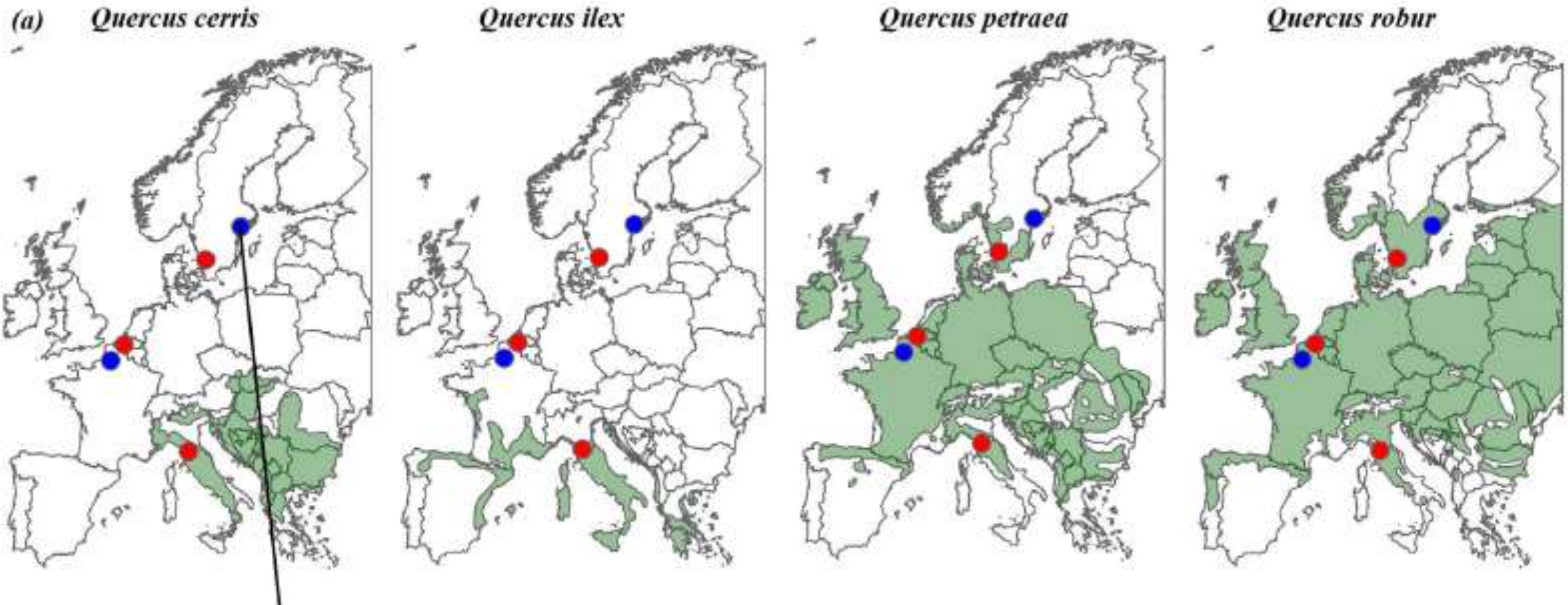


Gestion de la lumière, parcours G et
outils

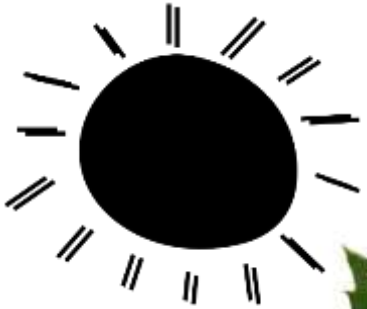
LUMG

Binnenkort ook bij Inverde, in't Vlaamsch!

“The species thus reacted differently to local and regional changes in light and temperature; **in southern regions** the temperate **Quercus robur** and **Q. petraea** performed best in plots with a **complex structure**, whereas the Mediterranean **Q. ilex** and **Q. cerris** performed better in simply structured forests with a **reduced microclimatic buffering capacity**.”



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Quercus rubra



Quercus montana



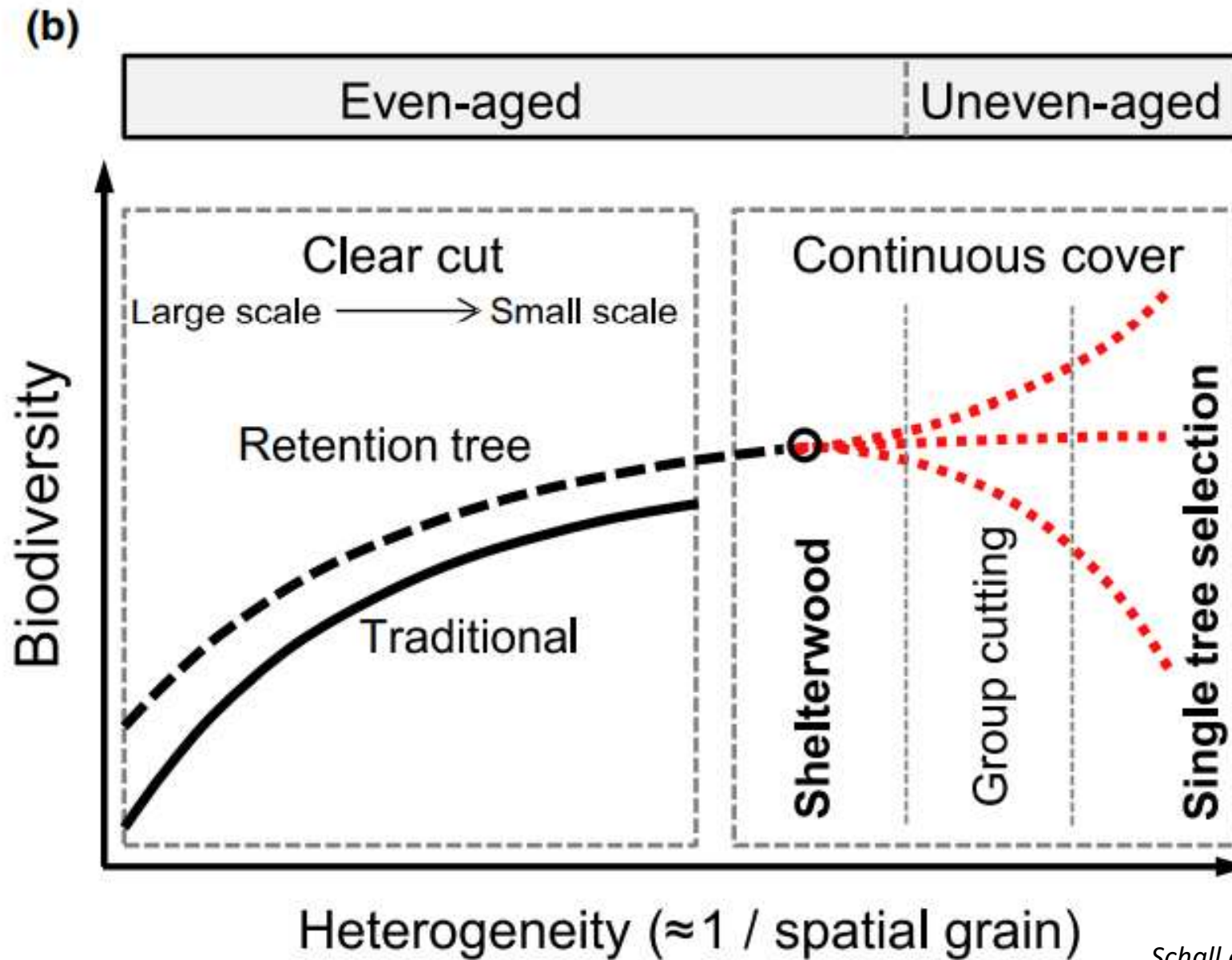
Quercus velutina



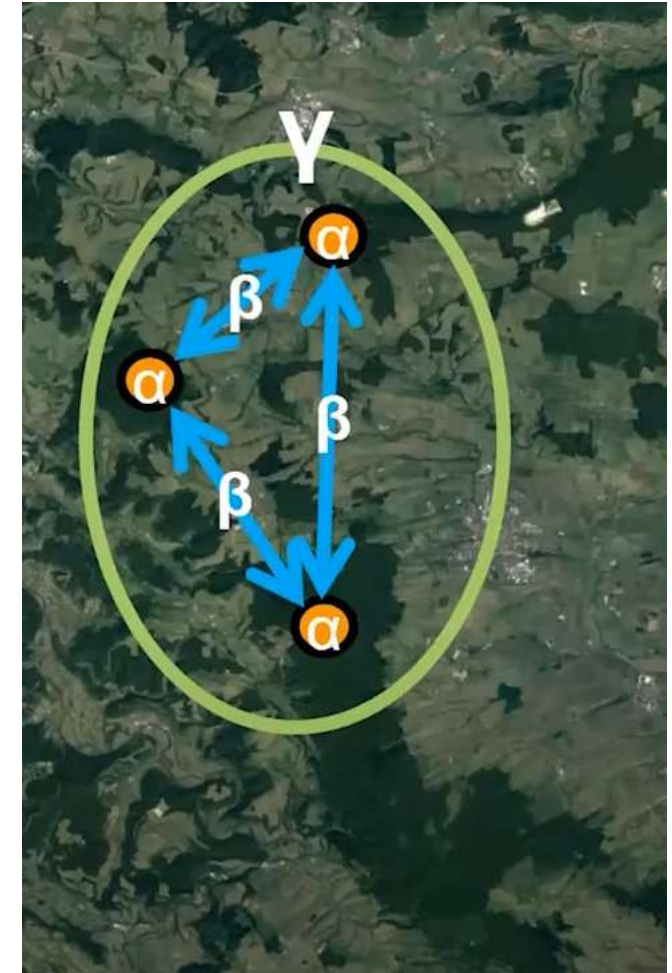
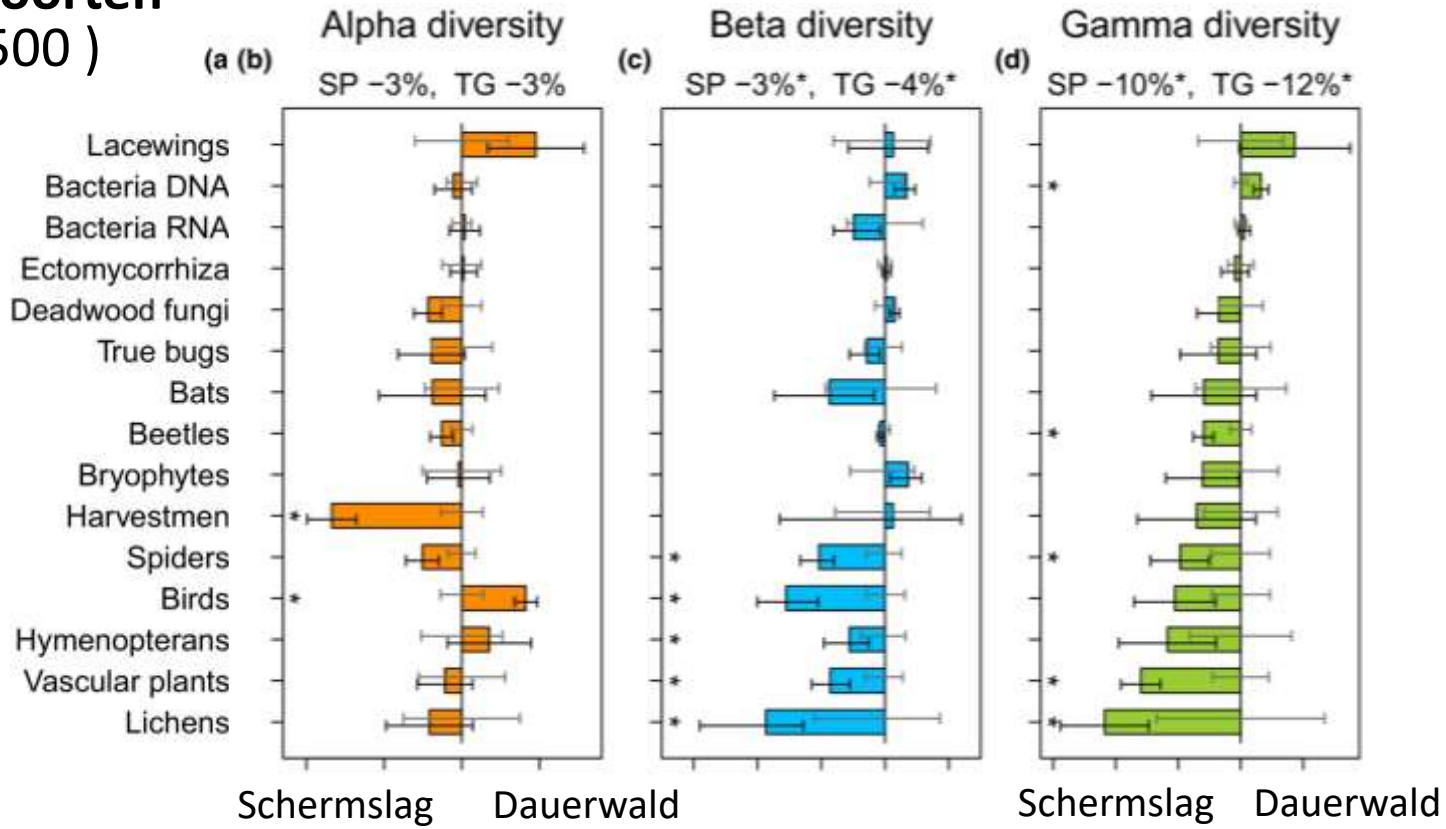
Quercus alba



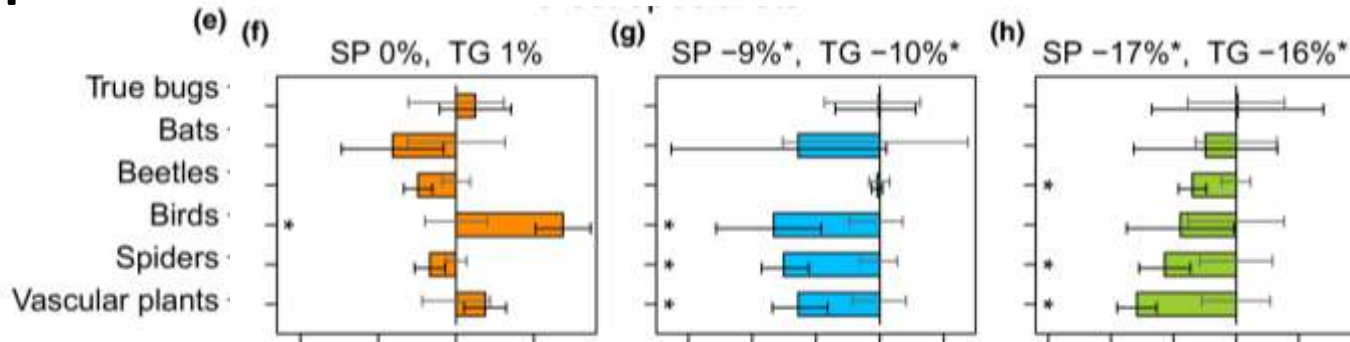


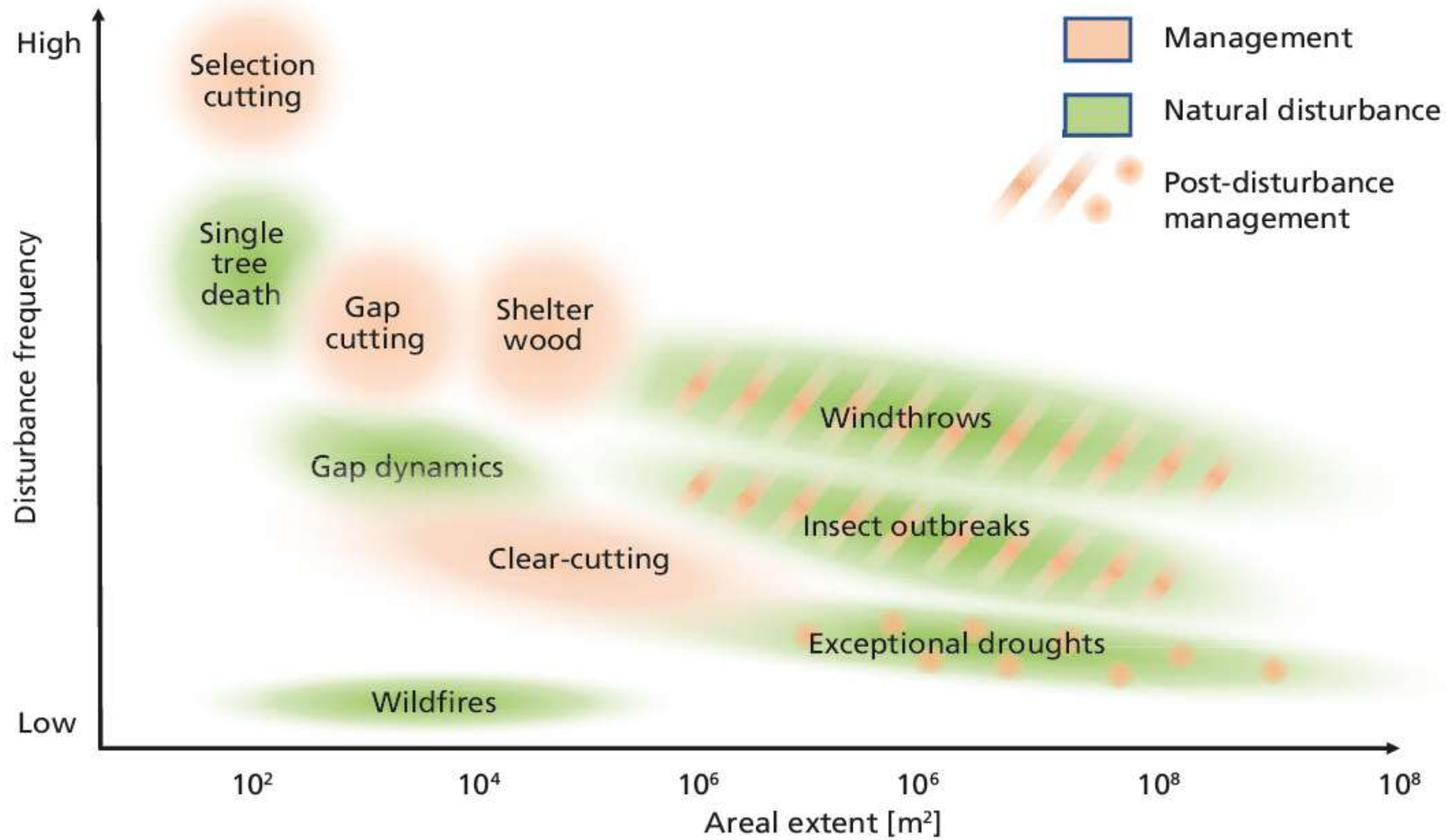


Alle soorten (ca 3500)



Bos specialisten





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Quercus rubra



Quercus montana



Quercus velutina

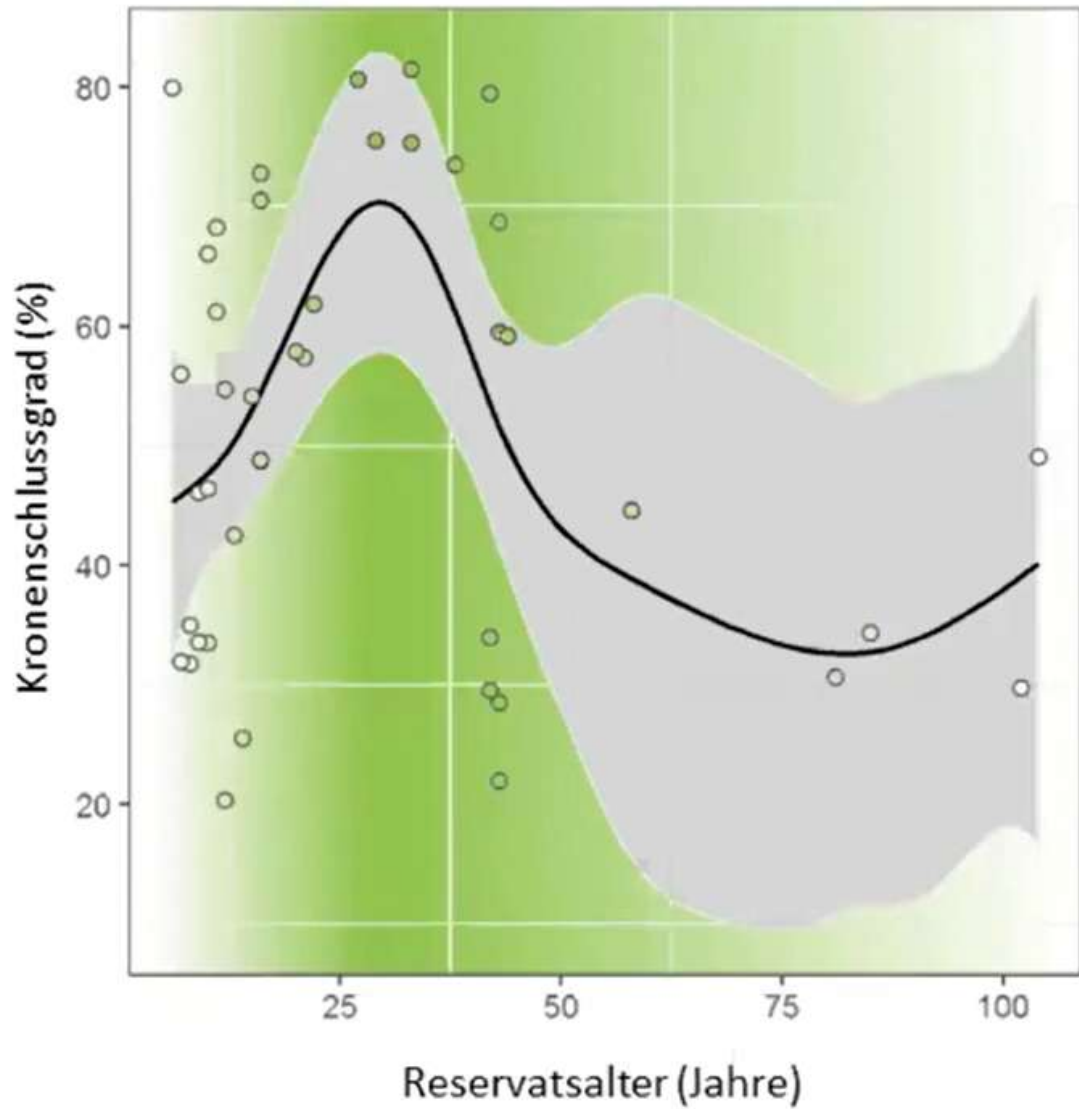


Quercus alba

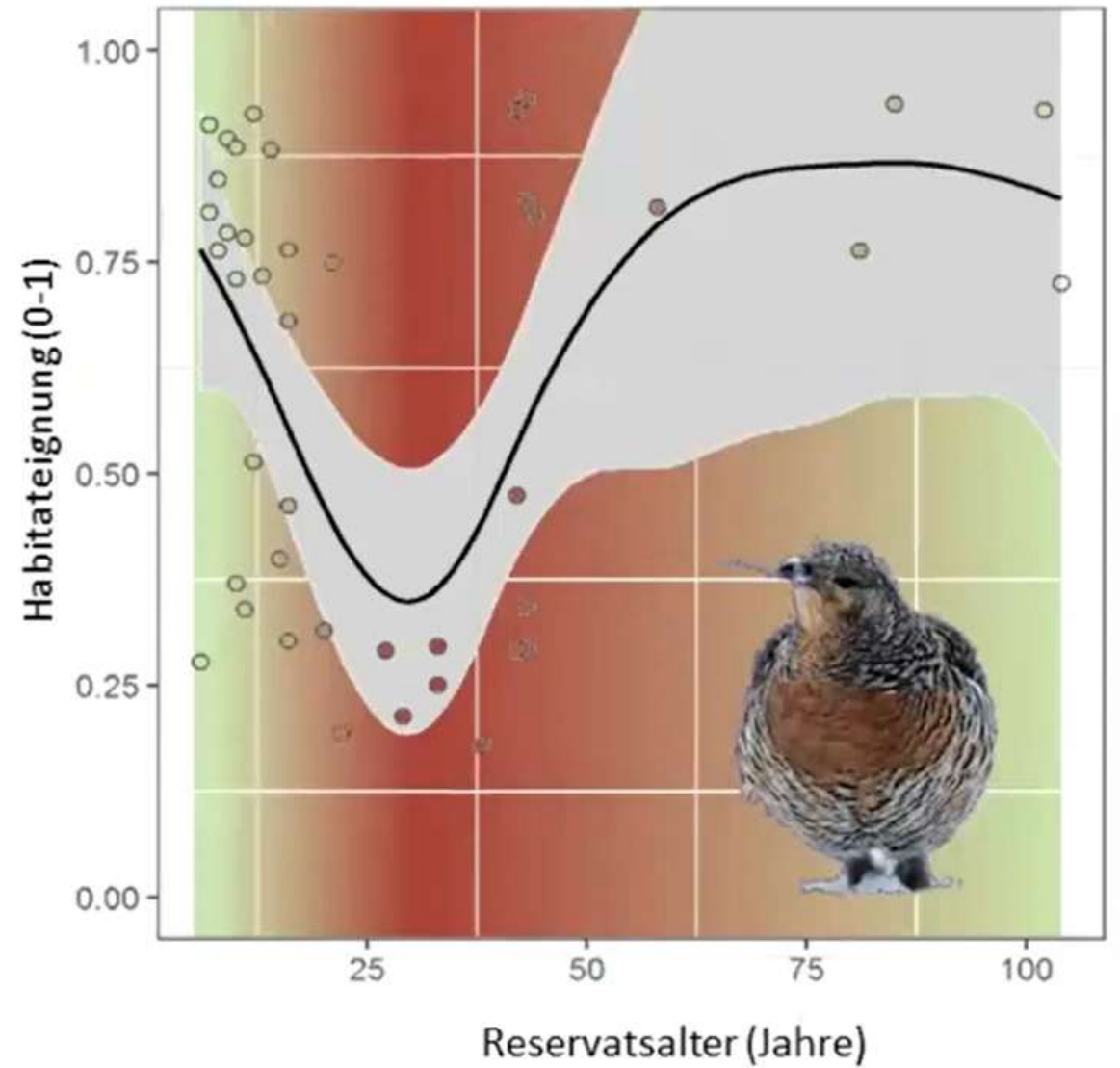


En de rol van de beheerder?





hoch  niedrig



gut  schlecht



Umwelt

Alarmierende Daten: Fünf Prozent der Waldfläche weg

21. Februar 2022, 18:32 Uhr | Lesezeit: 2 min



Das Bild zeigt eine von Borkenkäfern betroffene Region im Landkreis Sonneberg in Thüringen. Die Wälder in

En de rol van de beheerder?



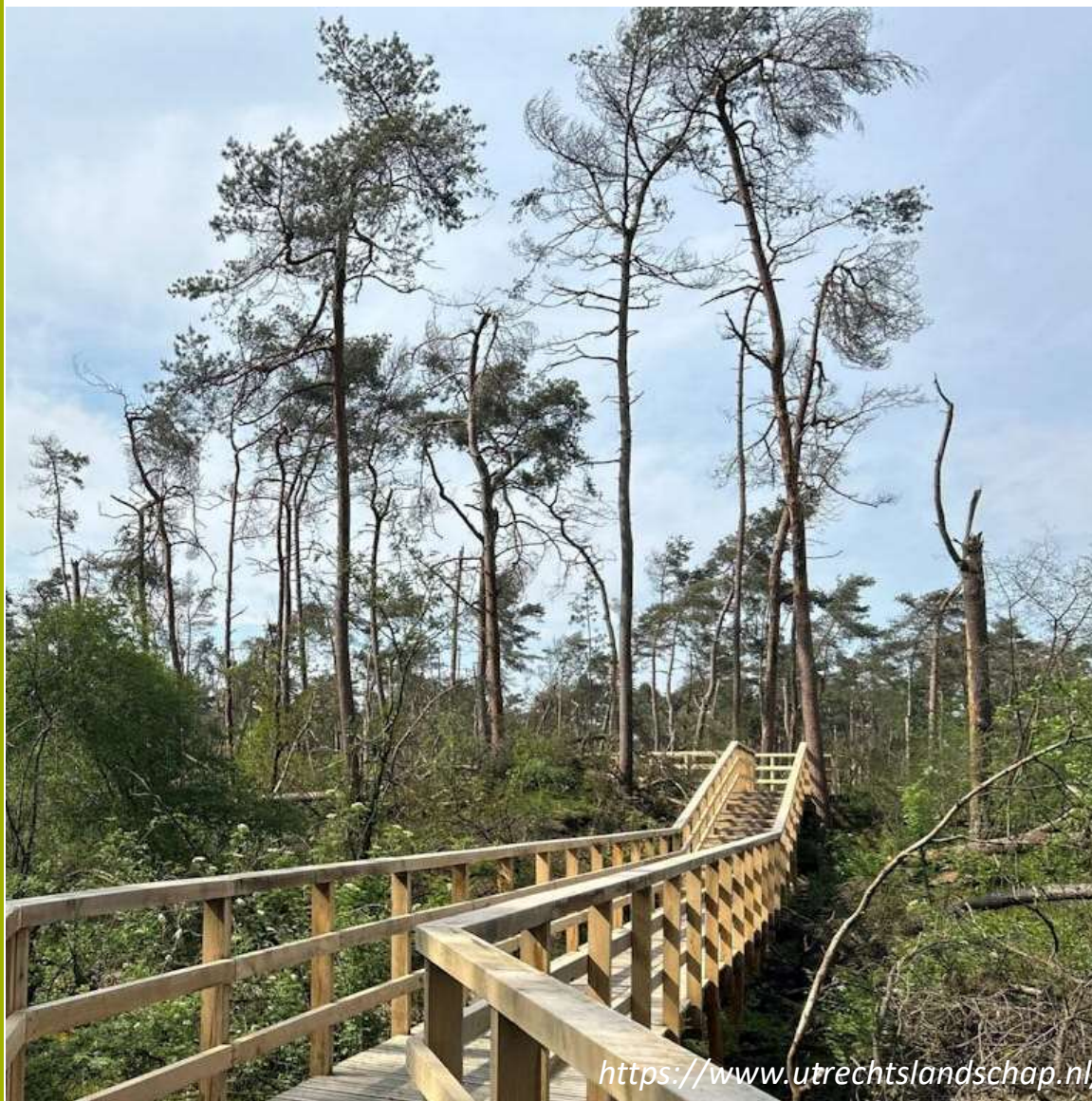
C
O
N
T
E
X
T



Licht! doe er iets (slim) mee

inverde 

“Stormreservaat” in Breeveen



“grootste kloempenaanplant” in Heiwijk



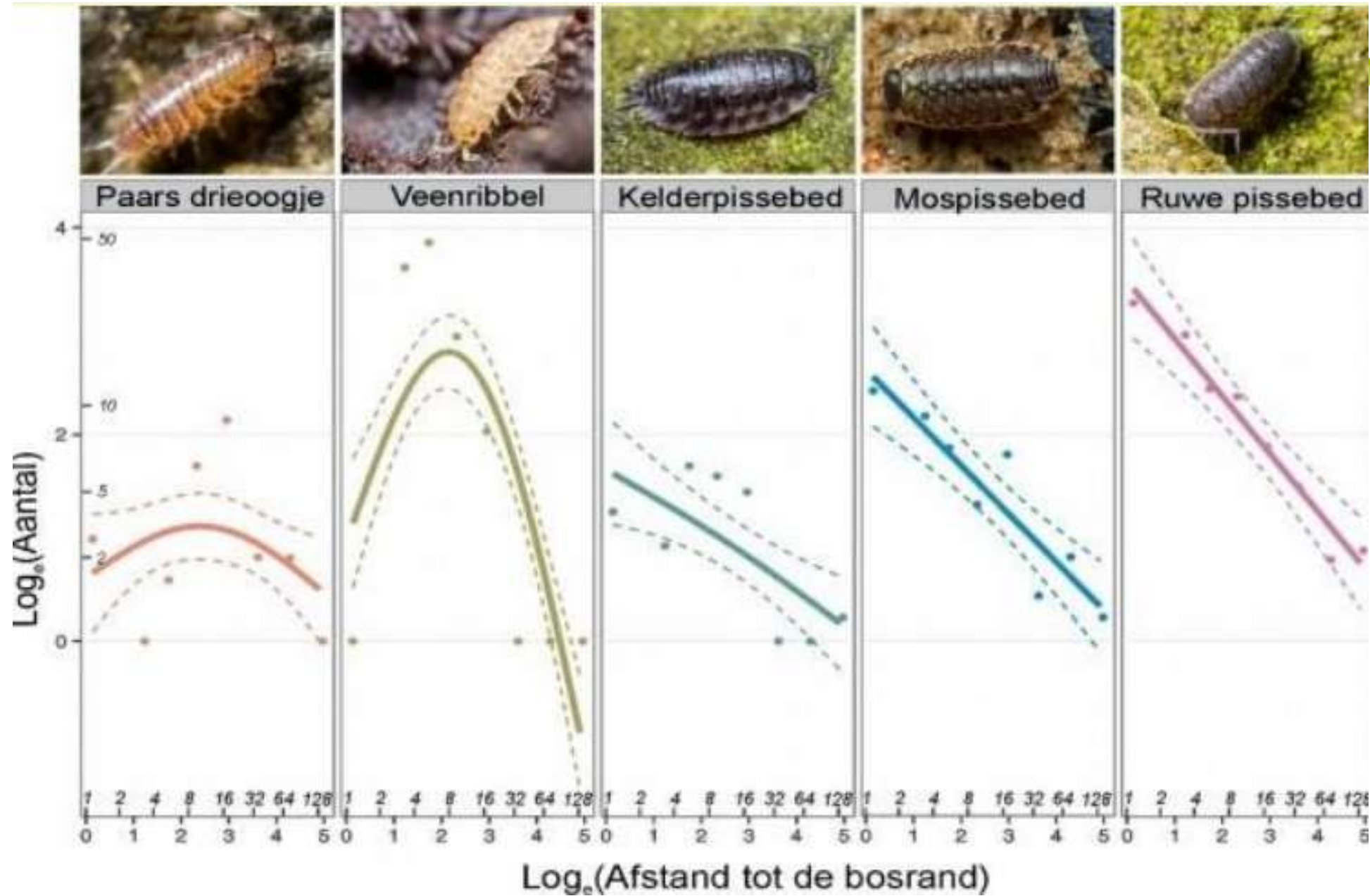
Ne contente vent!





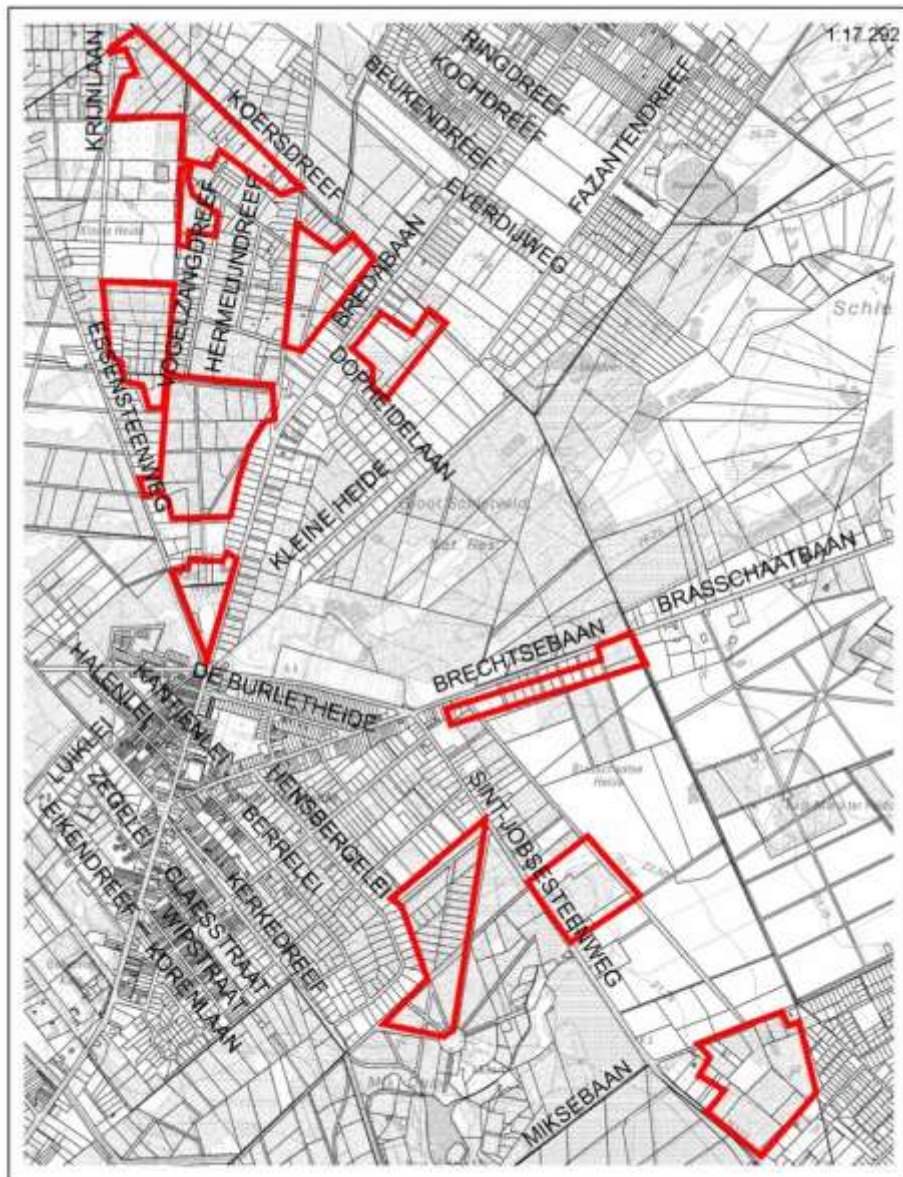
kleuroproller

foto: Gert Arijs



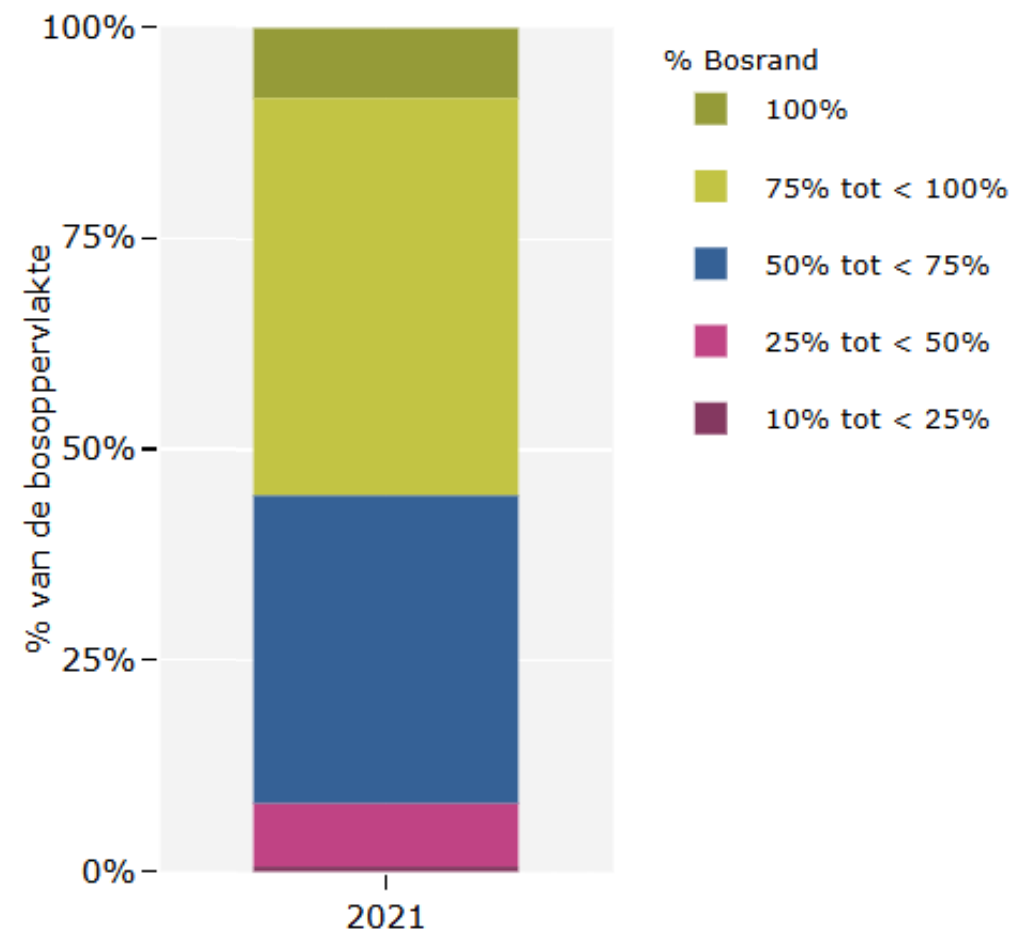
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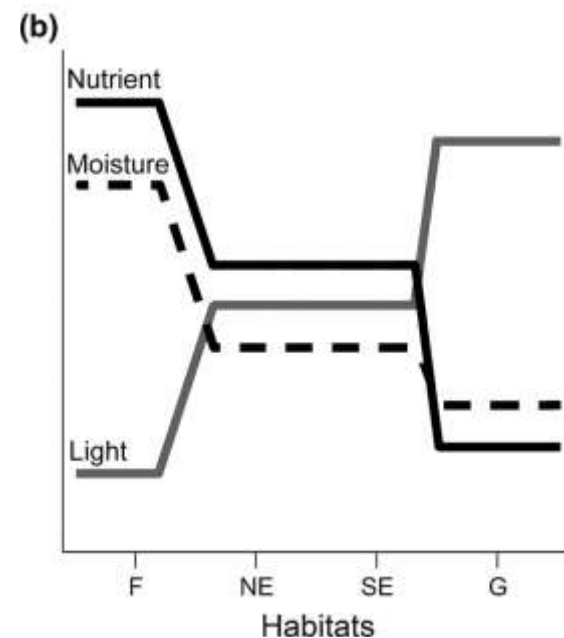
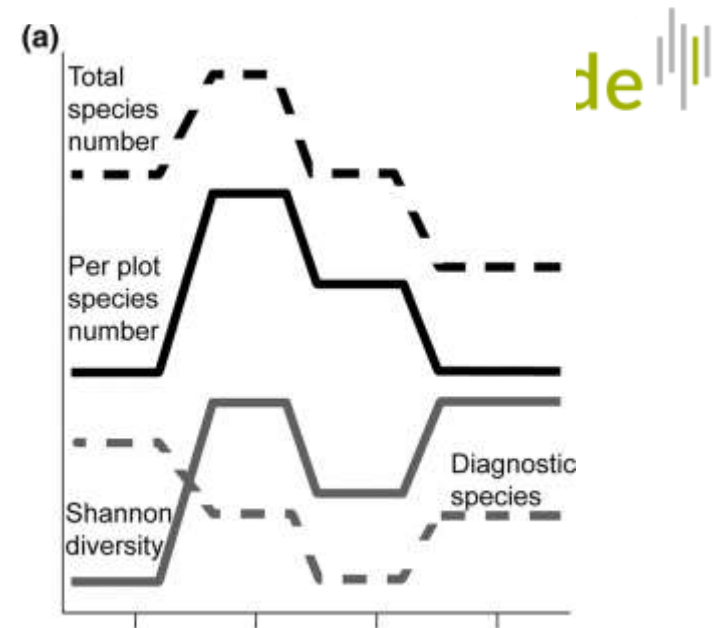
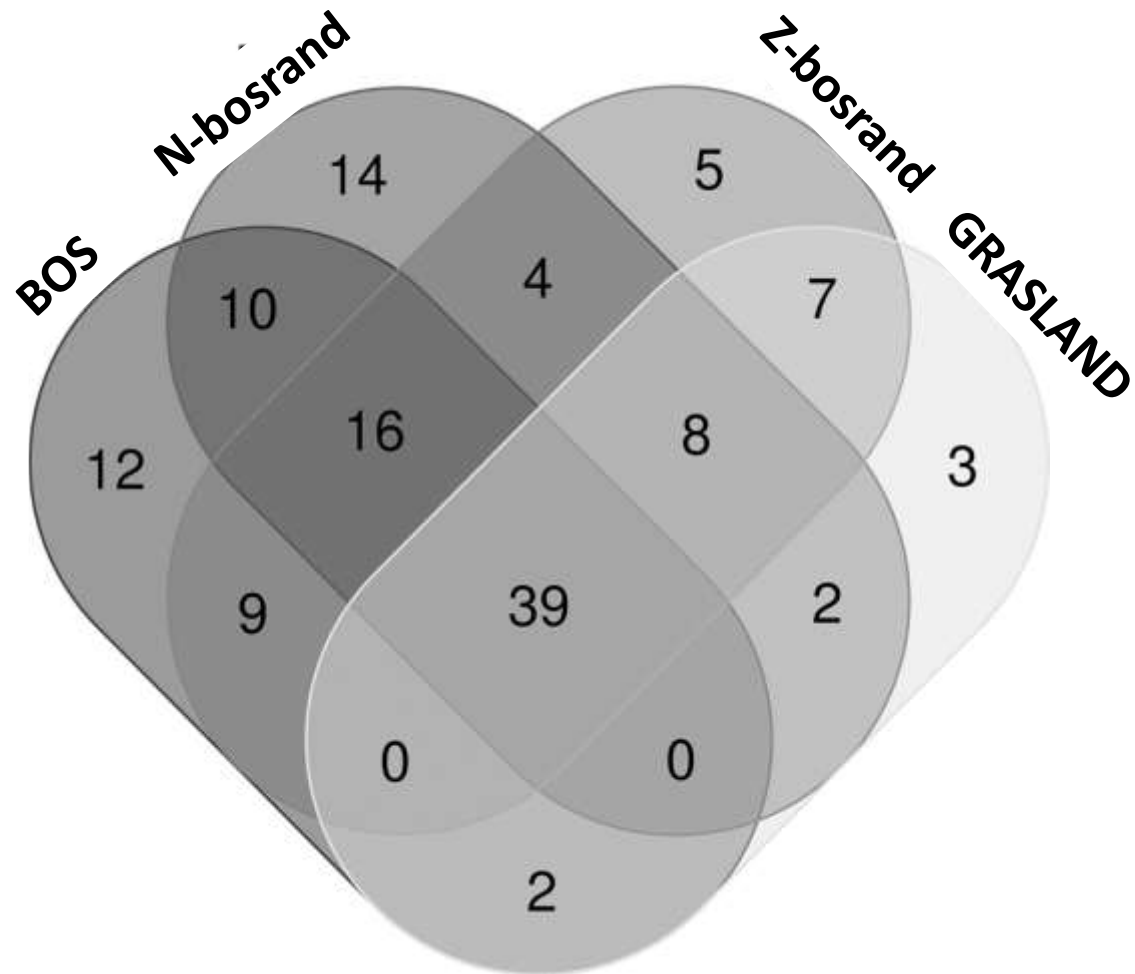


Boscomplex Noord Brasschaat

0 0.2 0.4 0.8 kilometers



Waar soorten elkaar ontmoeten





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laagland

bergen

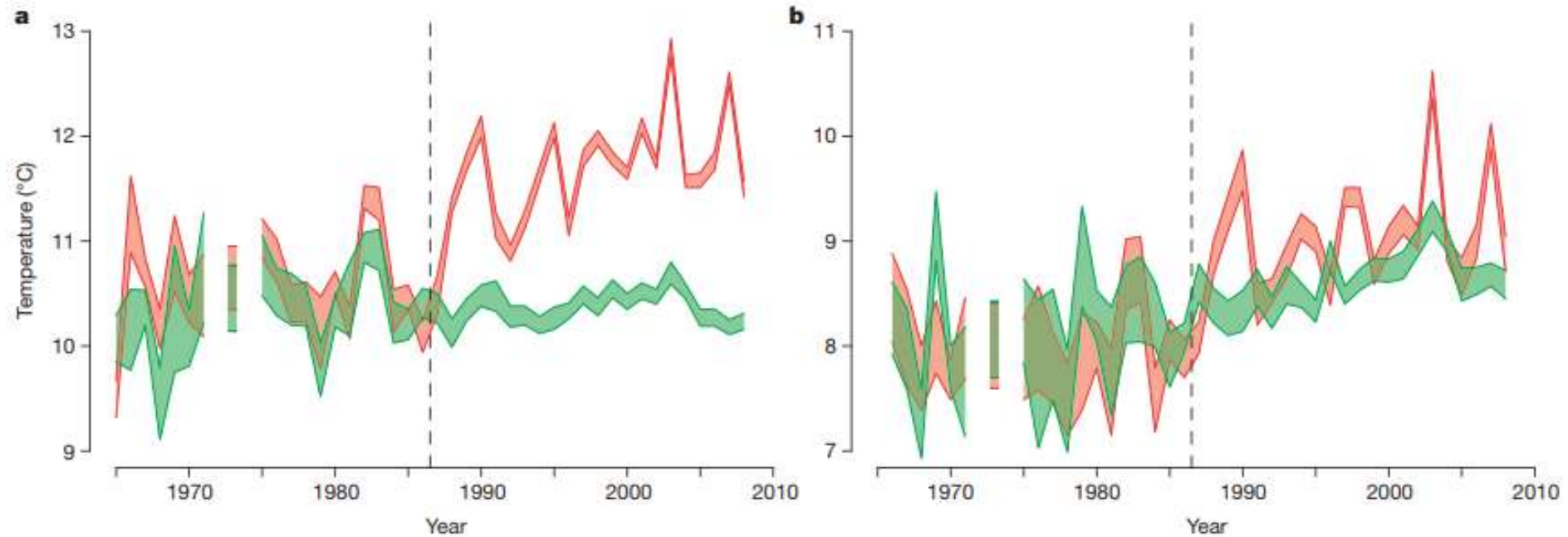


Figure 2 | Comparison of floristically (green) and climatically (red) reconstructed temperature trends between 1965 and 2008. a, Trends in lowland forest plant communities (<500 m a.s.l.). **b,** Trends in highland forest plant communities (500–2,600 m a.s.l.). The thickness of lines shows the range

of reconstructed temperature trends ($n = 1,000$ trends). Dashed lines indicate the start of the contemporary climate warming period (1987–2008). Breaks in trends are due to no sample convergence for the years 1965 (in highland areas), 1972 and 1974 (in both lowland and highland areas).

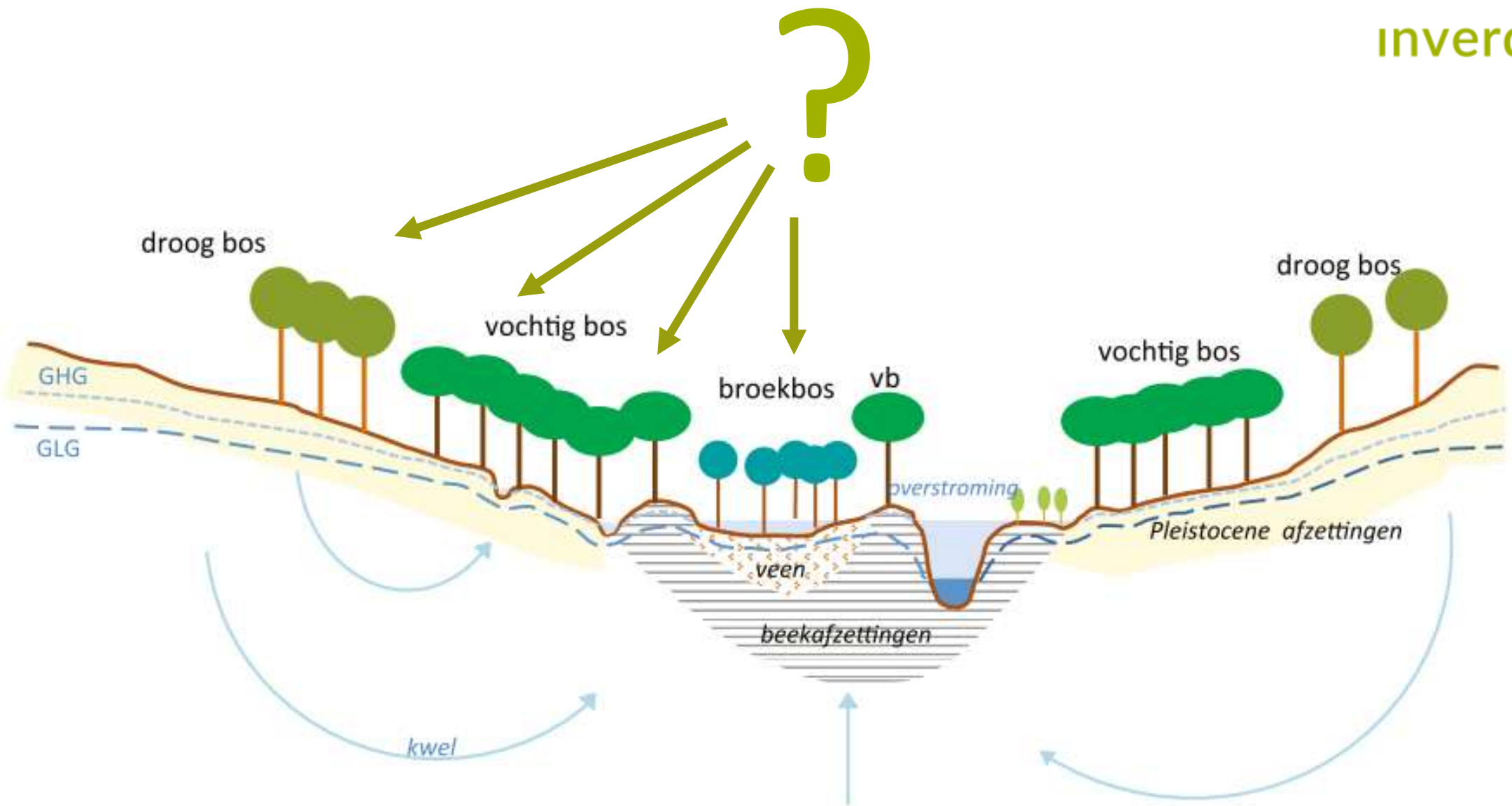


Núñez-Tobajas et al. 2023



Rafiq et al. 2023



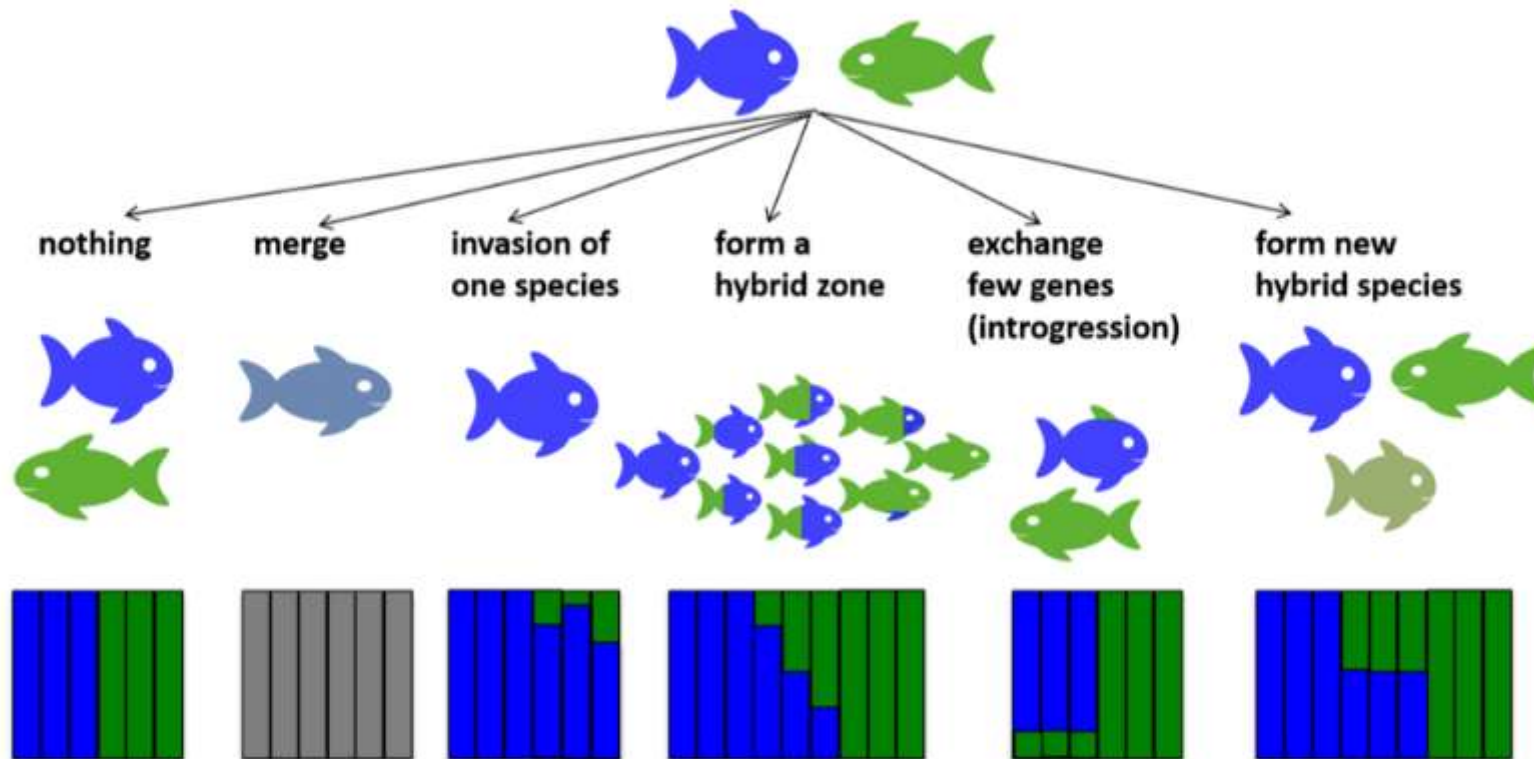


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Waar evolutie boomt

- *natural laboratories for evolutionary innovation* -



wheatoncollege.edu

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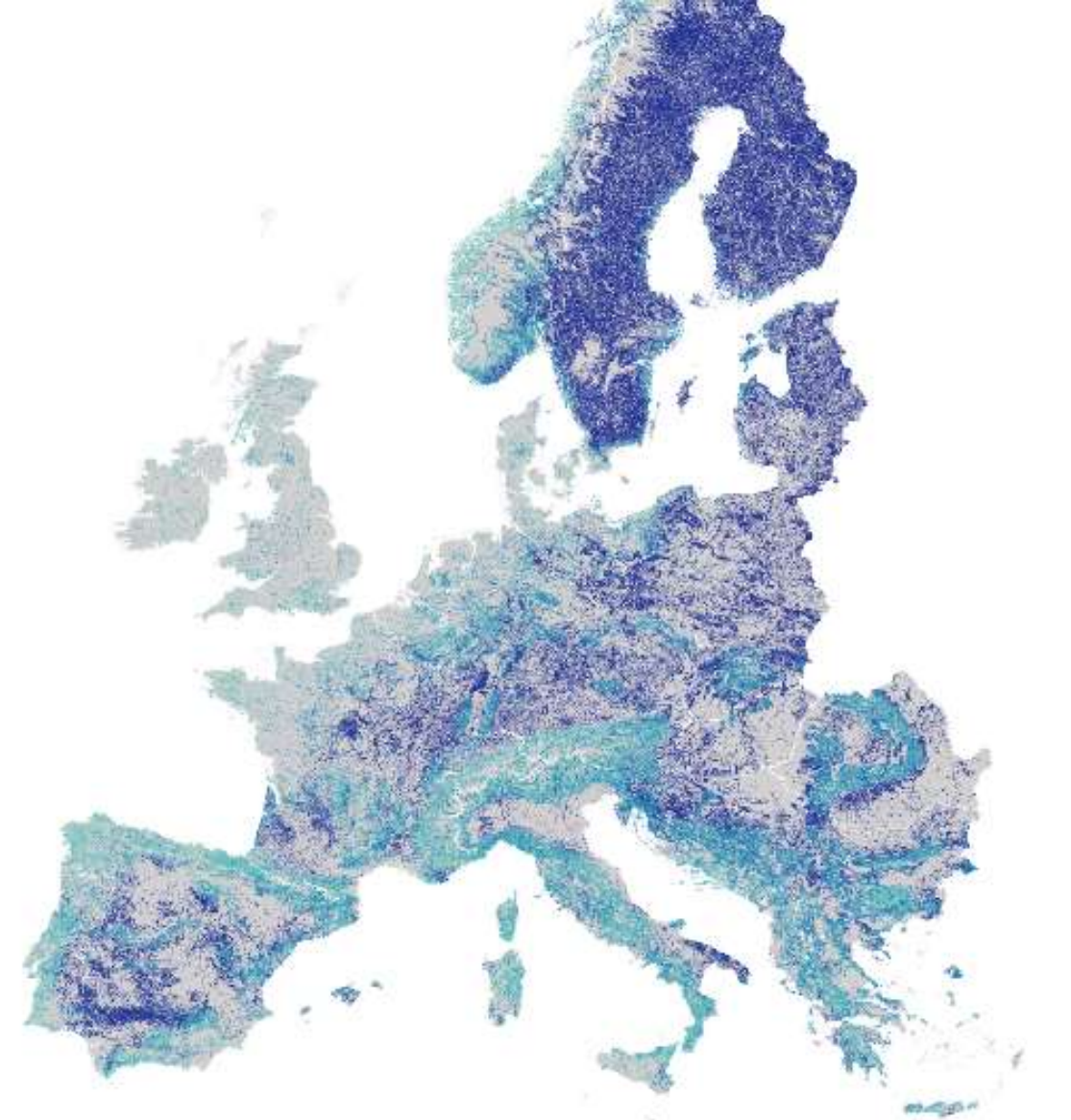




Tsjechië , ca. 26.000 tot 19.000 jaar geleden . Illustratie : Jiří Svoboda
The Refugial Debate, Willis & Whittaker, Science 2000. Zuidelijke vs. cryptische, noordelijke refugia

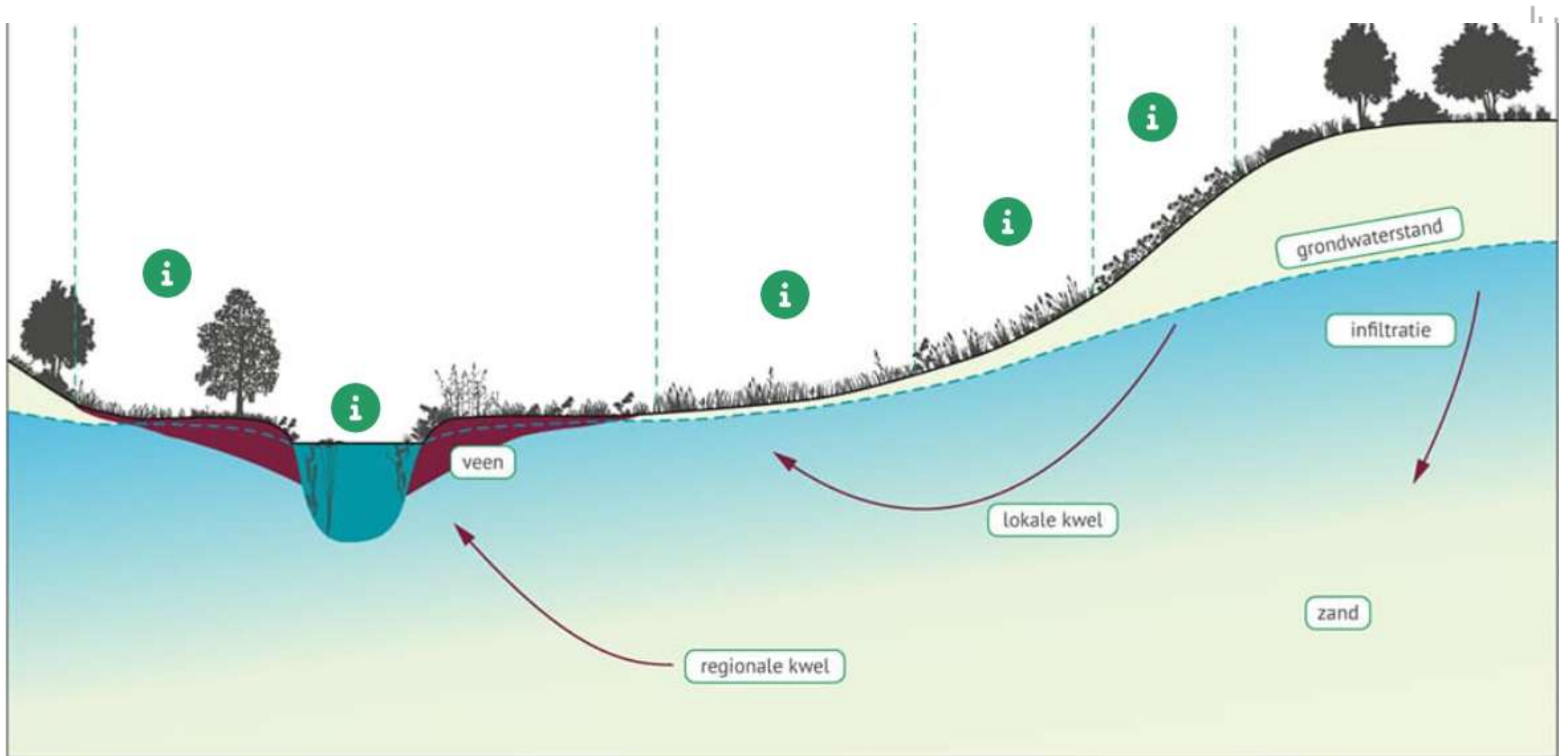
Microrefugia

- ▶ ForestClim database (25m x 25m)
- ▶ Noord-Zuid
- ▶ Bergen
- ▶ Afstand tot kust



Single-threshold multifunctionality





Dwarsdoorsnede van het Beekdallandschap met ligging van beheertypen (klik op de pointers), hydrologie en gradiënten in het landschap. © Oscar Langevoord / naar Runhaar et al. (2000)

