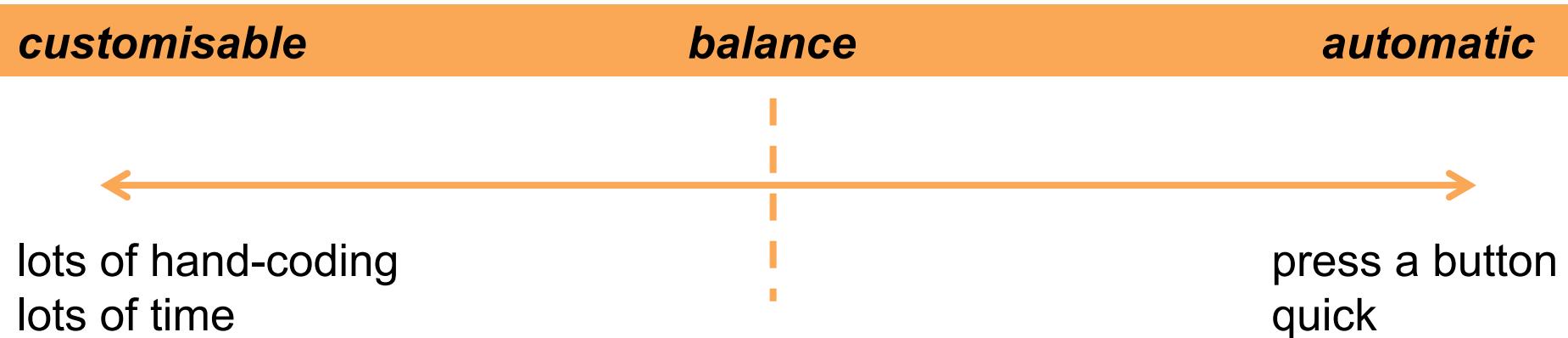


R CLUB:

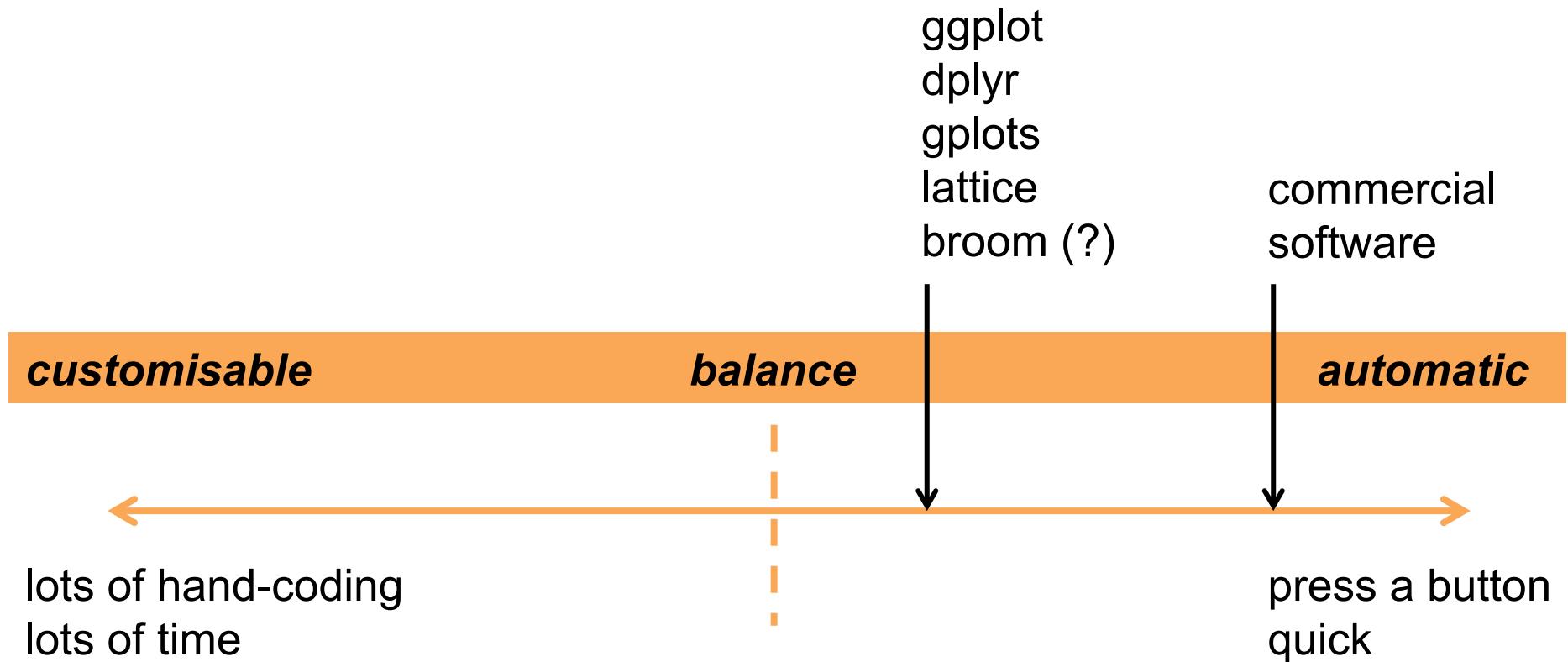
DIY automated data visualisation ...



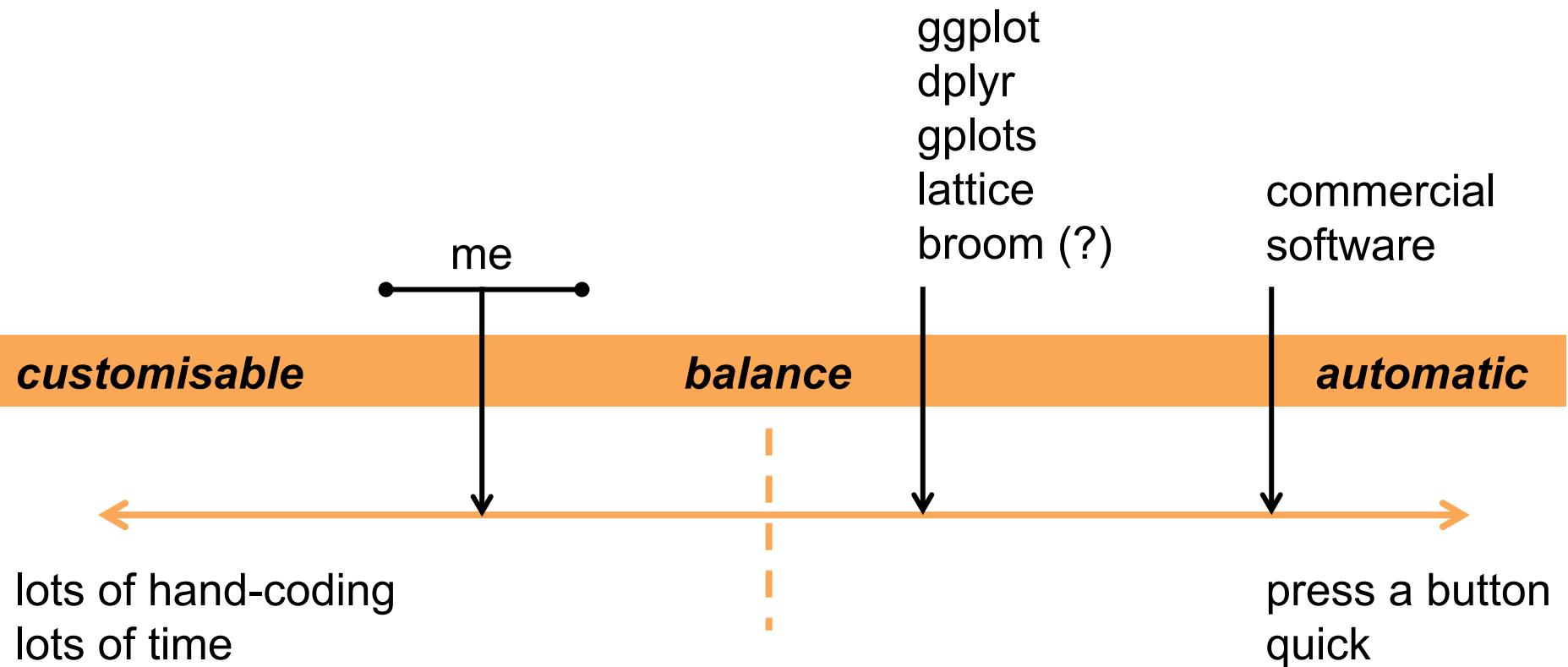
The customisation – automation trade-off



The customisation – automation trade-off



The customisation – automation trade-off



1



1



Pauline Lenancker and Jennifer Pannell liked



Devin de Zwaan @DevindeZwaan · 14h

Me: "I will make the most beautiful figures for this manuscript using ggplot in R."



Also me: 50 lines of code and 5 hours later ... adjusting axis label positions in MS paint.

#phdchat #phdlife #research

1



50



AYCC @AYCC · 29m



That's cooked!!

PROS

- more control
- specific to the research question
- re-usable for your future projects
- increases your base ‘vocabulary’

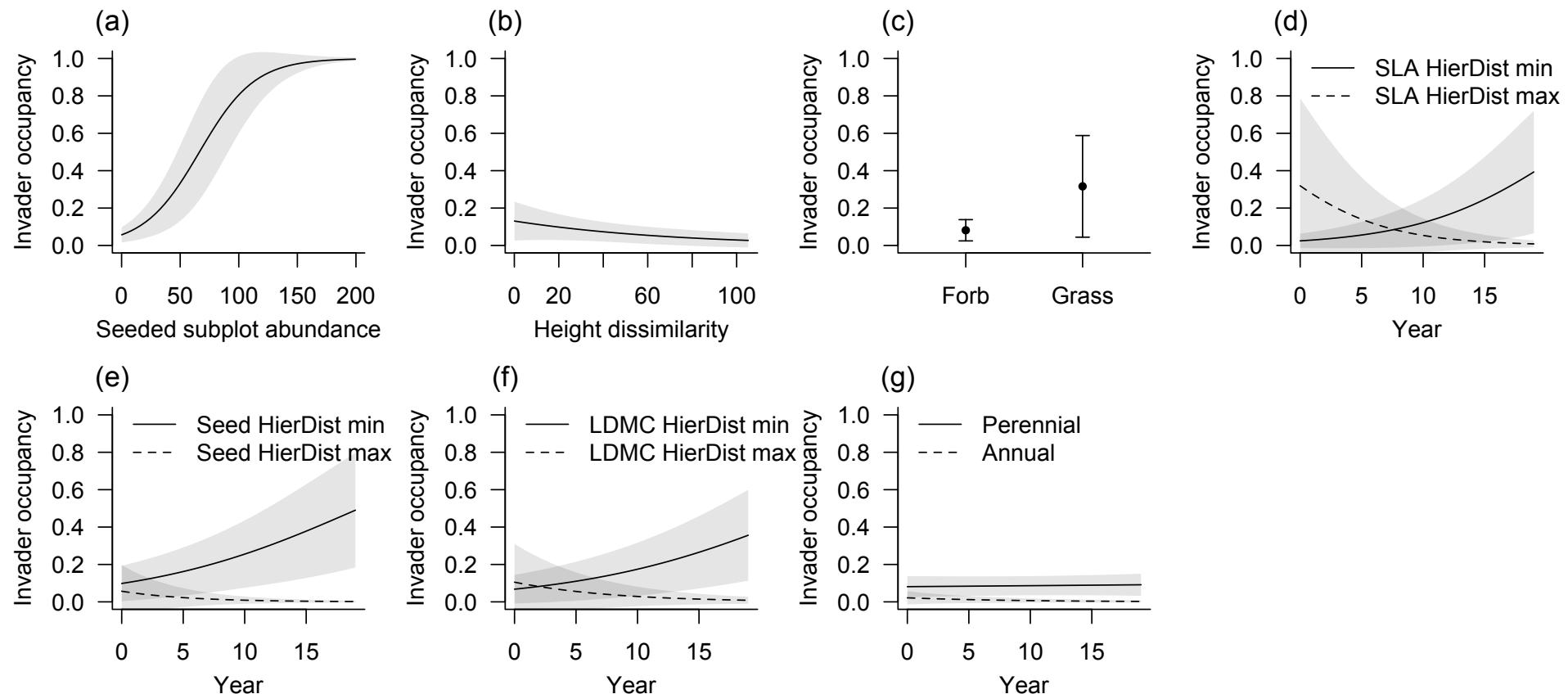
CONS

- lots of hand-coding
- more of initial time investment
- less sharable among colleagues (?)
- decreases your interest in other people’s packages

AIM

- inspire you hand-code your own automated plotting and data manipulation functions
- demonstrate the benefit of increasing your base vocabulary
- start typing!

What makes plants invasive?

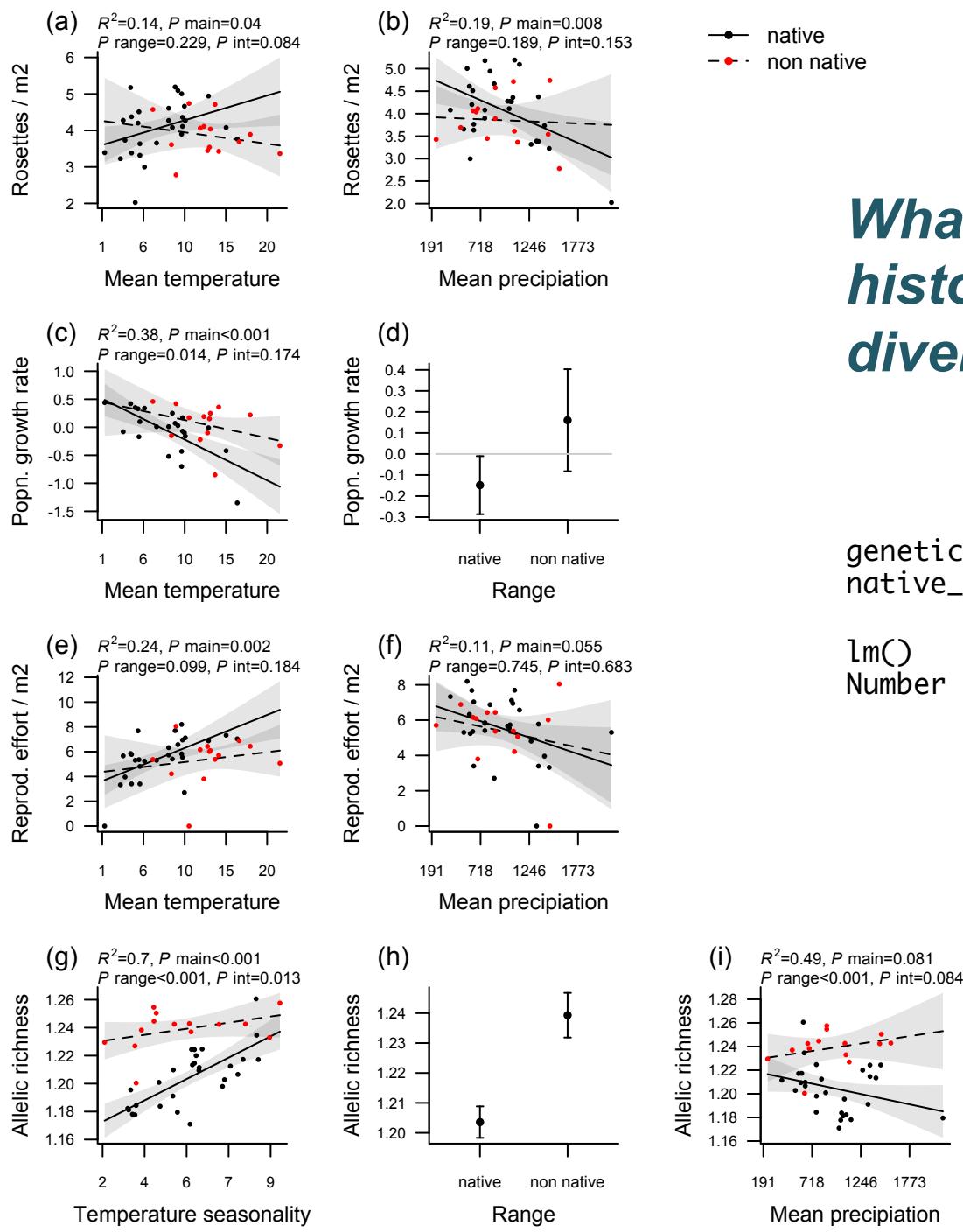


occupancy ~ yr + sdsab_abund + sla_relfD + hgt_absFD + seed_relfD + ldmr_relfD + lifespan + grass + legume + sla_relfD:yr + hgt_absFD:yr + seed_relfD:yr + ldmr_relfD:yr + lifespan:yr + grass:yr + legume:yr + (1 | sp) + (1 | plot)

Number of obs: 1683, groups: sp, 48; plot, 30

lme4 glmer()

Family: binomial (logit)



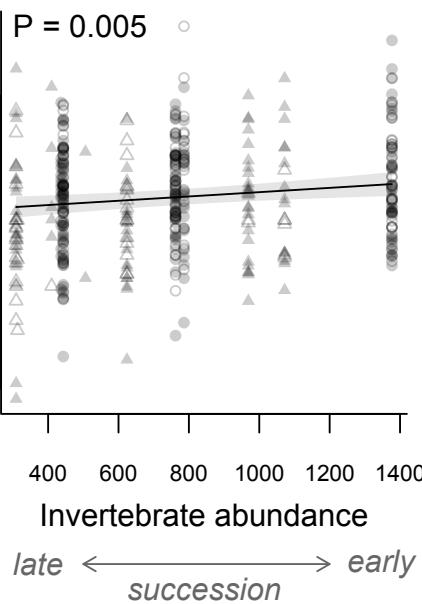
What shapes plant life history and genetic diversity globally?

genetic diversity ~ environment *
native_nonnaive

lm()
Number of obs: 42

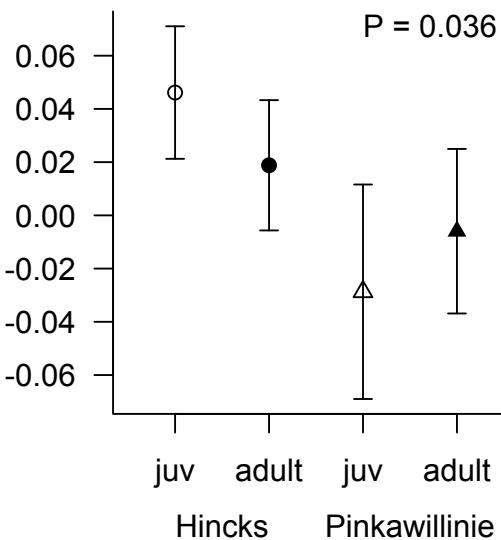
(a) all individuals

Body condition



(b) all individuals

Body condition



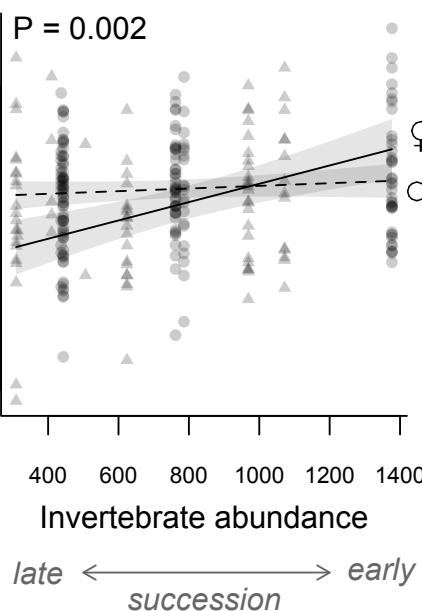
body_cond ~ invertebrate +
location * age +
(1 | as.factor(fire))

Number of obs: 431
lme4 lmer()

*What makes
lizards fat and
hungry?*

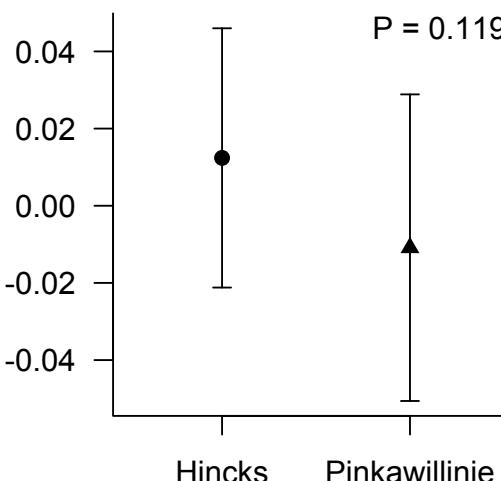
(c) adults

Body condition



(d) adults

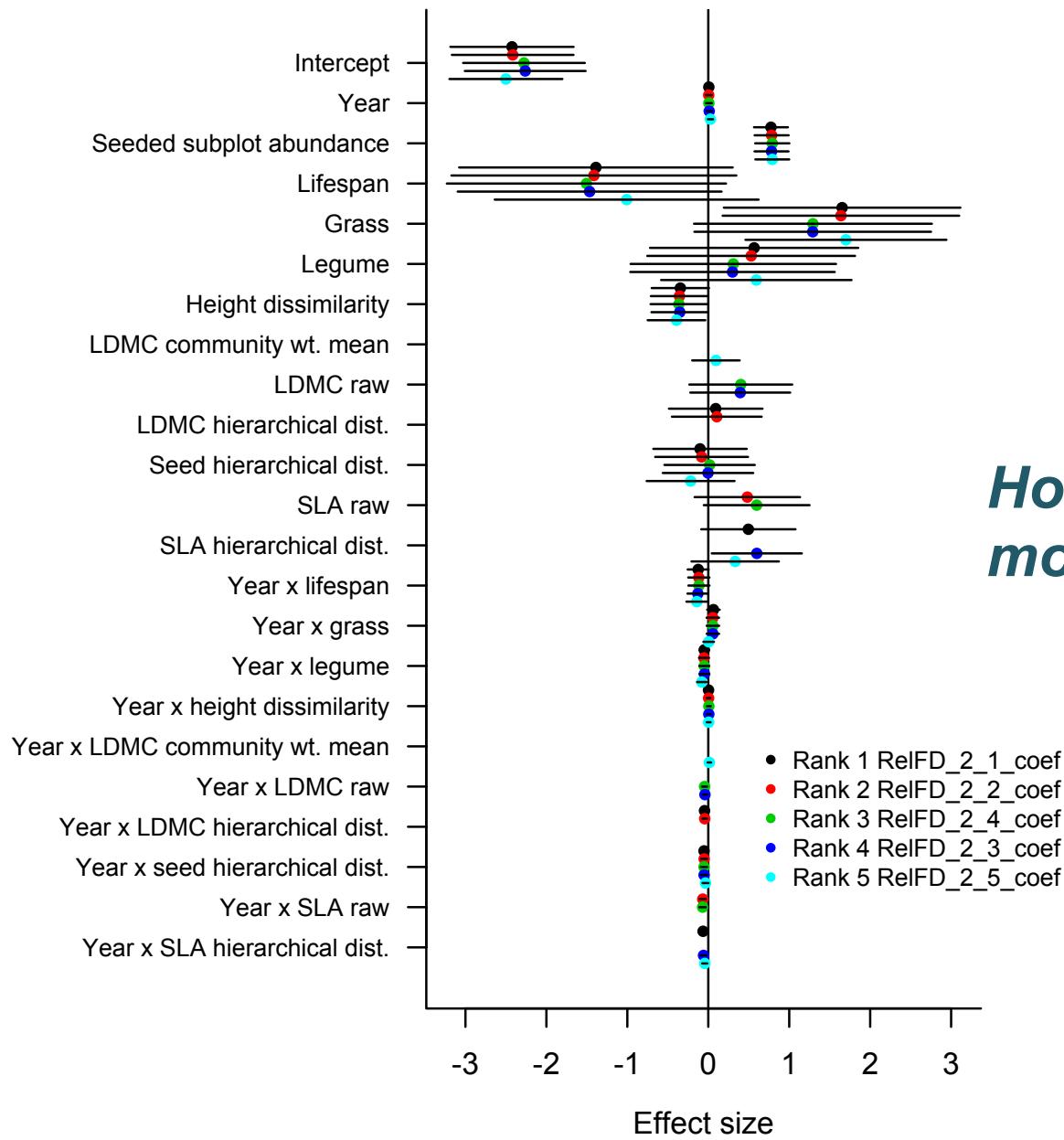
Body condition



body_cond ~ invertebrate +
location * sex +
(1 | as.factor(fire))

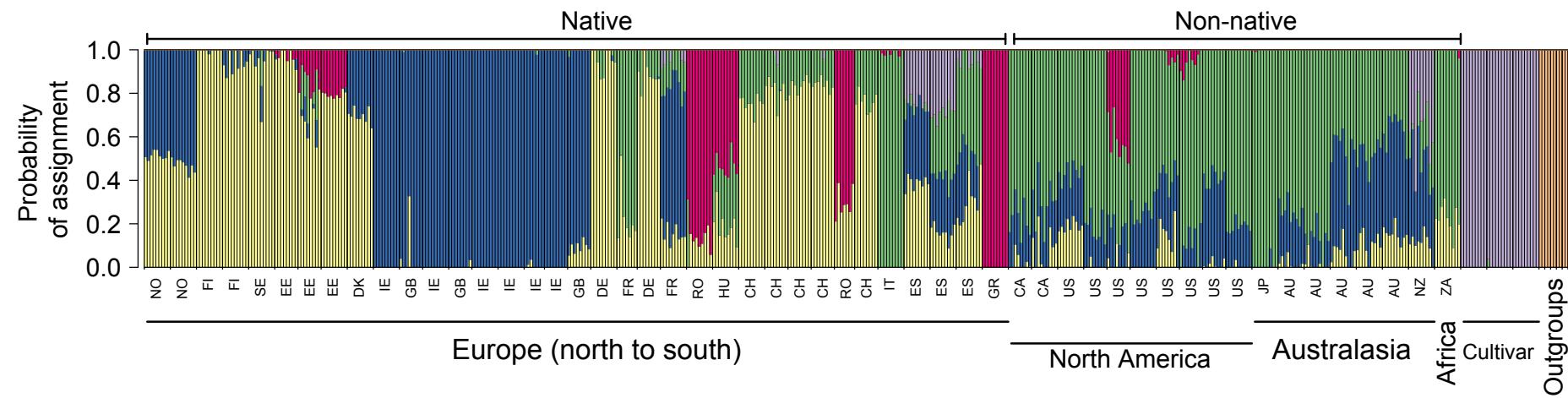
Number of obs: 259
lme4 lmer()

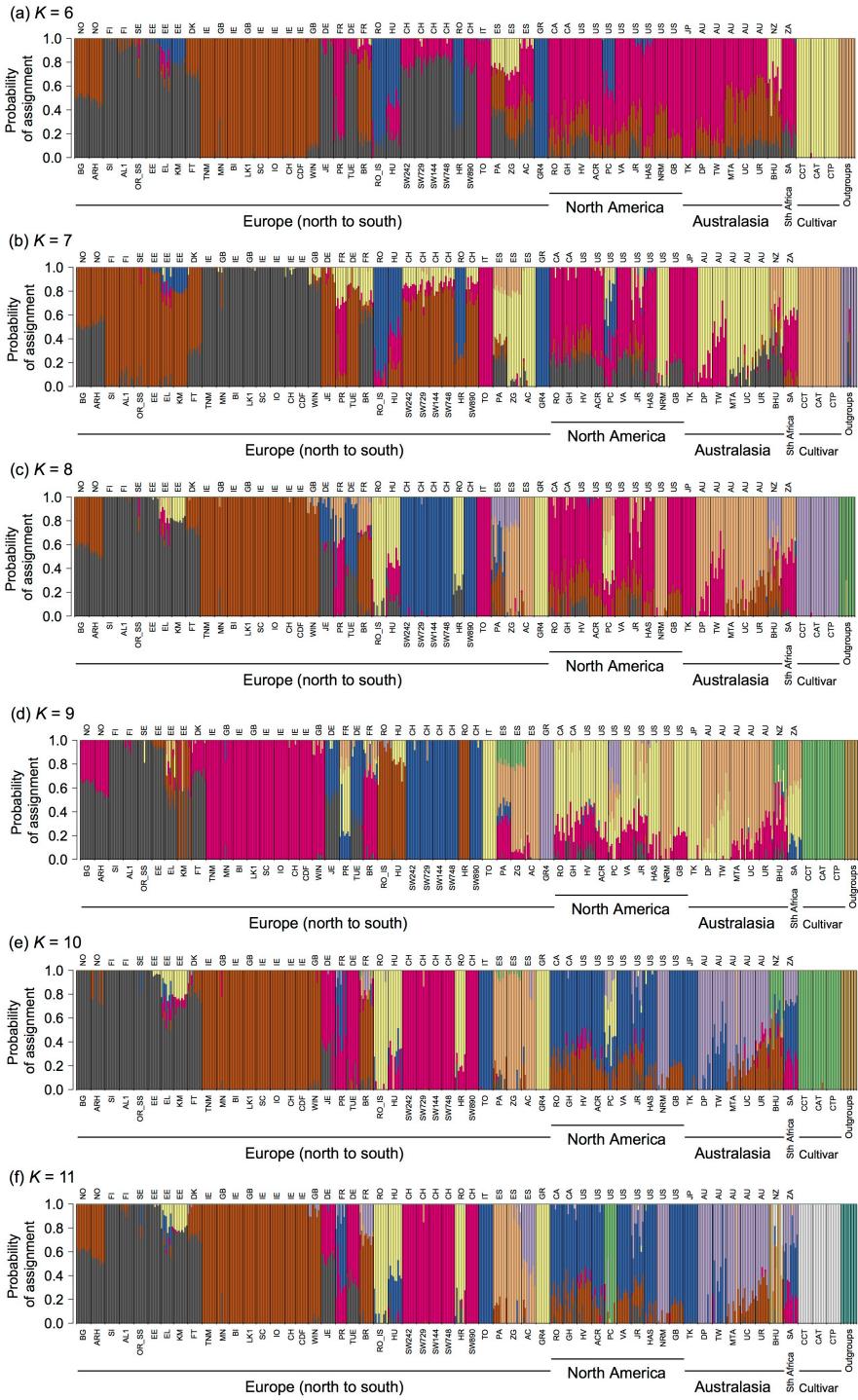
(c) Spread occupancy Δ BIC < 5



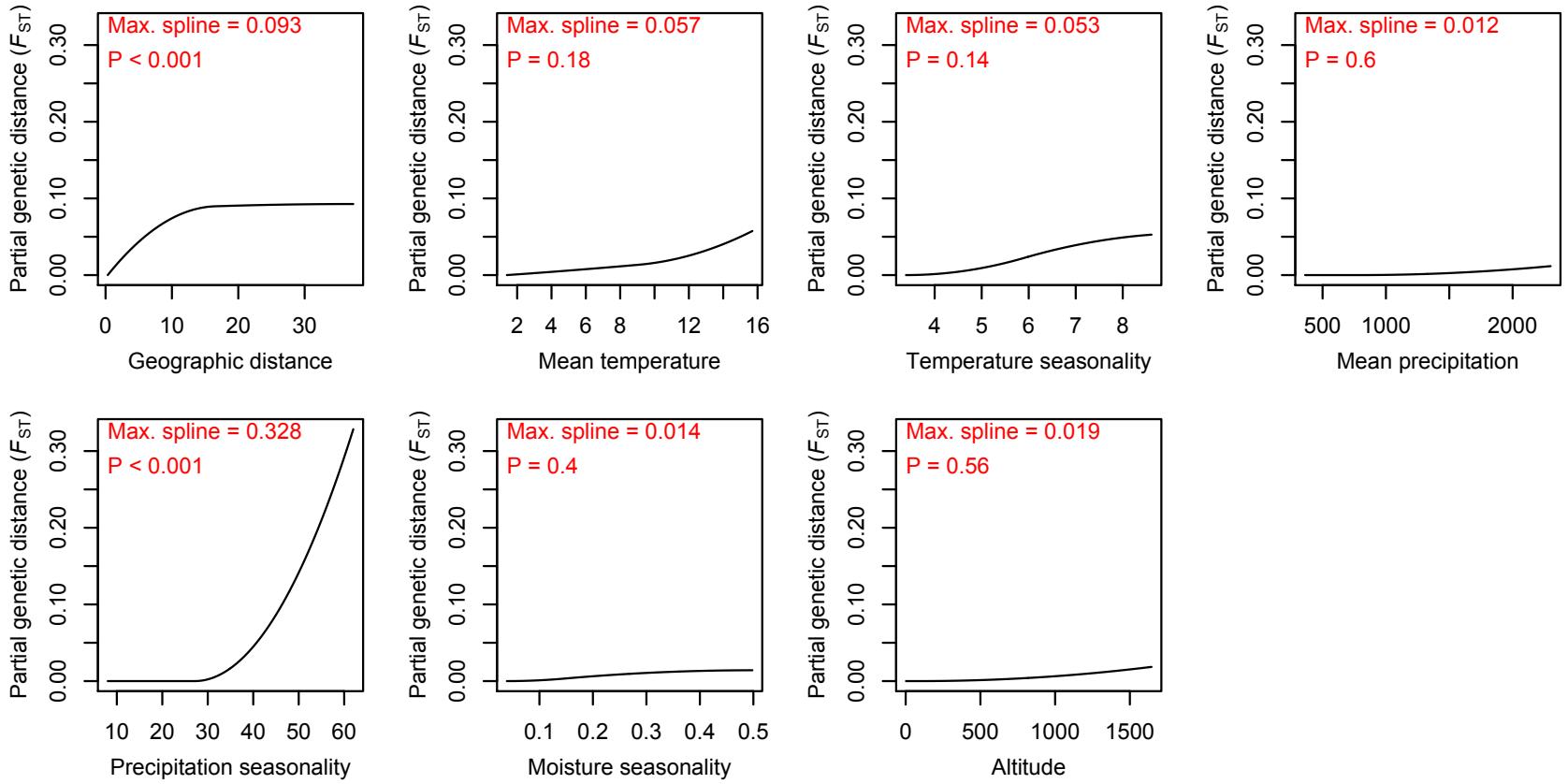
*How do competing
models measure up?*

Number of obs: 1683
lme4 glmer()
Family: binomial (logit)

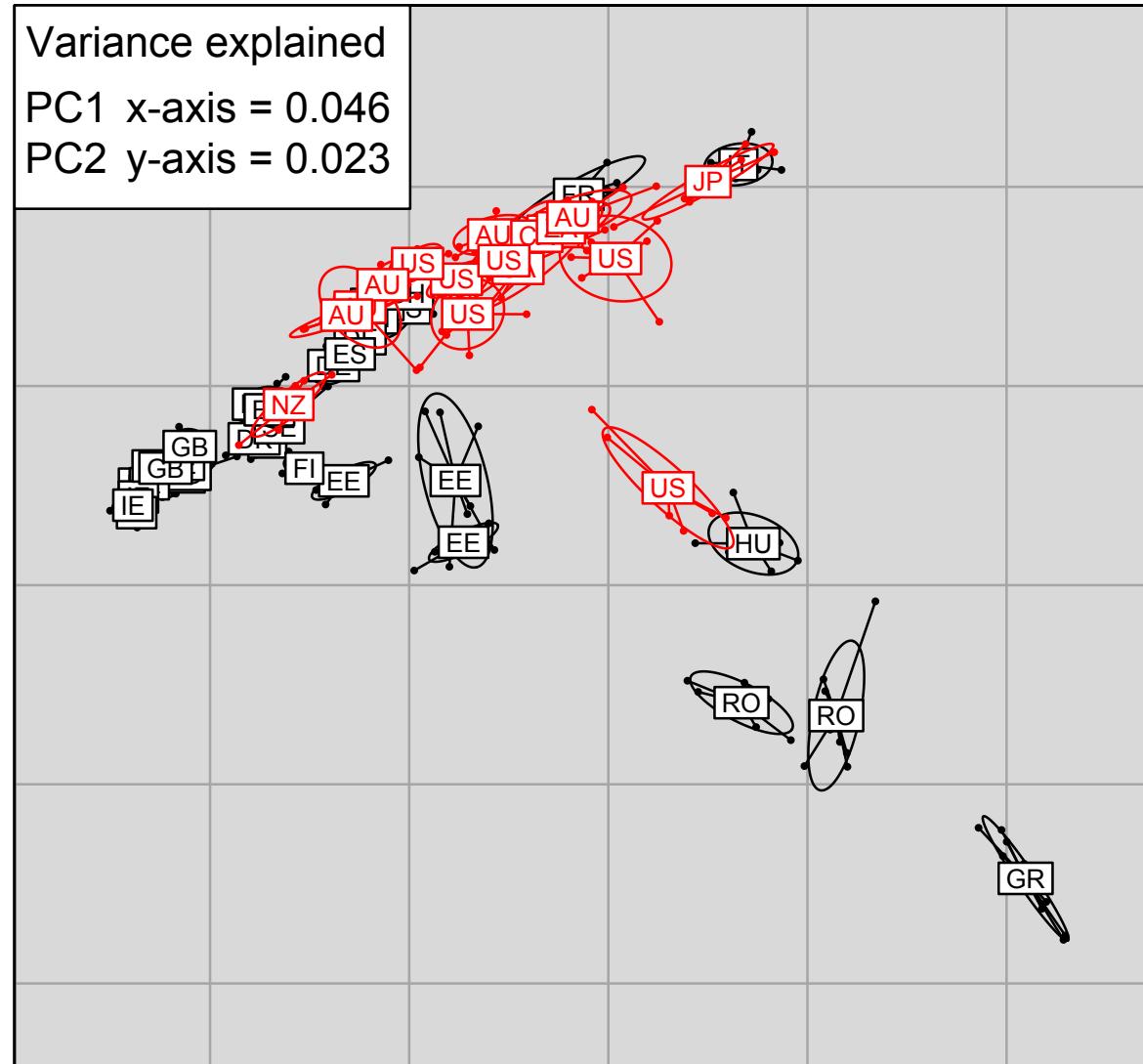




Generalised dissimilarity modelling



PCA (modified from ade4)



The workflow:

