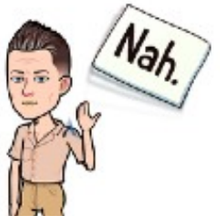
Multiple models and model selection

Practice

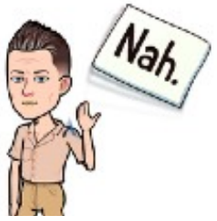


Absence of well specified a priori hypotheses: “let’s test this too!”

Inference vs. prediction, or both?

Questionable?

Practice

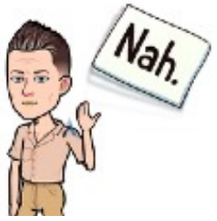


Absence of well specified a priori hypotheses: “let’s test this too!”

Inference vs. prediction, or both?

Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.

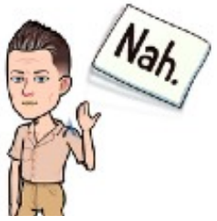
Practice



Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.

Dredging across many models but only reporting a subset	OK if put in supplementary materials.

Practice



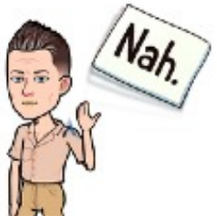
Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.
Dredging across many models but only reporting a subset	OK if put in supplementary materials.

Post-hoc change of random effects: removing extra random effects after looking at model results.

BUT, if you report that, is it still a QRP if you still remove the random effects?

If study has a nested structure, then that is your model!!

Practice

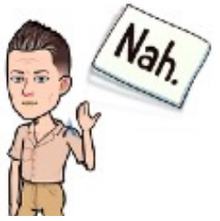


Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?	
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.	
Dredging across many models but only reporting a subset	OK if put in supplementary materials.	
Post-hoc change of random effects: removing extra random effects after looking at model results.	BUT, if you report that, is it still a QRP if you still remove the random effects?	If study has a nested structure, then that is your model!!

Post-hoc variation additions: “why not collect this too”

Is it still bad if you do it before looking at your data?

Practice

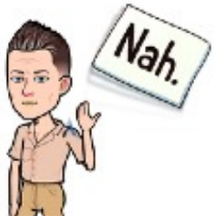


Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?	
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.	
Dredging across many models but only reporting a subset	OK if put in supplementary materials.	
Post-hoc change of random effects: removing extra random effects after looking at model results.	BUT, if you report that, is it still a QRP if you still remove the random effects?	If study has a nested structure, then that is your model!!
Post-hoc variation additions: “why not collect this too”	Is it still bad if you do it before looking at your data?	

Shape testing: univariate GAMs for variable shape

What is an alternative?

Practice

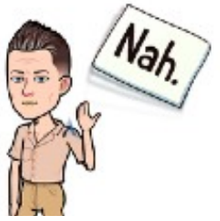


Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?	
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.	
Dredging across many models but only reporting a subset	OK if put in supplementary materials.	
Post-hoc change of random effects: removing extra random effects after looking at model results.	BUT, if you report that, is it still a QRP if you still remove the random effects?	If study has a nested structure, then that is your model!!
Post-hoc variation additions: “why not collect this too”	Is it still bad if you do it before looking at your data?	
Shape testing: univariate GAMs for variable shape	What is an alternative?	

Univariate to start: exploring single variable models to choose which rain data

Maybe necessary if computationally complex

Practice

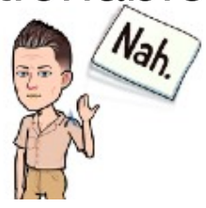


Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?	
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.	
Dredging across many models but only reporting a subset	OK if put in supplementary materials.	
Post-hoc change of random effects: removing extra random effects after looking at model results.	BUT, if you report that, is it still a QRP if you still remove the random effects?	If study has a nested structure, then that is your model!!
Post-hoc variation additions: “why not collect this too”	Is it still bad if you do it before looking at your data?	
Shape testing: univariate GAMs for variable shape	What is an alternative?	
Univariate to start: exploring single variable models to choose which rain data	Maybe necessary if computationally complex	

Species Distribution Modelling

Practice

Questionable?



Multiple models and model selection

Practice		*Questionable?*
Absence of well specified a priori hypotheses: “let’s test this too!”	Inference vs. prediction, or both?	
Combining categories of an independent variable: regrouping post collecting	Done if not enough data per category. Bad if the recategorisation is done to impose fit.	
Dredging across many models but only reporting a subset	OK if put in supplementary materials.	
Post-hoc change of random effects: removing extra random effects after looking at model results.	BUT, if you report that, is it still a QRP if you still remove the random effects?	If study has a nested structure, then that is your model!!
Post-hoc variation additions: “why not collect this too”	Is it still bad if you do it before looking at your data?	
Shape testing: univariate GAMs for variable shape	What is an alternative?	
Univariate to start: exploring single variable models to choose which rain data	Maybe necessary if computationally complex