

Fall 2016 committee meeting for Peter Smits

Post-doc applications

Chapter 2: brachiopod survival

Chapter 3: mammal species pool

Finishing

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Finishing

What I've applied for

- ▶ project idea: models of both within- and across-species continuous trait evolution
- ▶ Miller Fellowship at Berkeley with Charles Marshall
- ▶ Killam Fellowship at UBC with Matt Pennell

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Revisions following rejection

- ▶ reviews considered text to be both too “paleontological” and technical
- ▶ new target is *American Naturalist*.
- ▶ conceptual figures (e.g. behaviour Weibull distribution, model structure)
- ▶ text emphasis on fitness, selection interpretations

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What I've got done already.

- ▶ model developed
 - ▶ poor fit as is, species do not persist long enough
 - ▶ TODO: preservation as function of body size
- ▶ variational Bayesian inference
 - ▶ proof of concept/approximate inference
 - ▶ fit is still slow
 - ▶ *Folk Theory of Statistical Computing?*

What's left with this project?

- ▶ full posterior inference
 - ▶ extremely slow b/c latent variables
 - ▶ *Folk Theory of Statistical Computing?*
- ▶ improve model structure
 - ▶ preservation as function of body size
 - ▶ second-order Markov process?
- ▶ write manuscript
 - ▶ no strong conclusions yet
 - ▶ journal target?

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Finishing

See “Timeline”

- ▶ Finish in the Spring or finish in the Summer.
- ▶ Idea
 - ▶ Turn in, defend at end of Spring quarter.
 - ▶ Technically finish Summer quarter.
 - ▶ Unsure of details; need to contact Chair/Carolyn.