Purpose

Generative Model

Implementation and Priors

Testing

Building on (Hansen and Houle 2008),

Multilevel models

Partial pooling across clusters (regimes)

Varying intercepts model for regimes

Partial pooling across clusters (regimes) and across parameters

Varying intercepts and slopes for combined regime and direct effect model

Multilevel SIMMAPs

We can also account use multiple SIMMAP trees, using the multiphylo format. BlouchOU\_multi.stan can determine the posterior distribution of half-life, vy, and optima taking into account randomness in regime placement. It does this by using partial pooling – both across