**Meeting Isla on 06/02/2020**

**General**

* Possible to split accessibility database in urban centres and roads?
* Add population changes as set of research questions?
  + Could be from 3 most abundant population in each taxonomic group only
  + Mention in preregistration “if enough time”
* State research questions, hypotheses + 0, predictions very clearly in preregistration
* Come up with shape of dataset I want:
  + Timeframe in which studies must be (1980 – today?)
  + Minimum duration (5 years?)
  + Minimum time points (3?)
  + Email Isla/Gergana for screenshot of variables
* Include sensitivity analysis in preregistration
* Turnover is weird
  + 3 different ways of measuring and interpreting it

**Research questions**

* RQ1: temporal turnover
  + Include sub questions with other fixed effects (duration, possibly latitude)
* RQ 2: spatial turnover
  + Might be difficult to do conceptually based on model outputs as dataset is unsystematic; possible to compare among different communities as there are often only morphospecies?
  + Maybe leave out?
* RQ 3: taxa specific response
  + Specify what taxa group used
  + Reformulate question
* RQ 4: interaction effect A and PD
  + Split question in 2 with spatial and temporal turnover being separate
  + Specify human population density

**Models**

* Random effects
  + add to error around slope but don’t really change slope
  + account for non-independence of the data
  + to account for spatial autocorrelation: large grid cells around the world (~12) and/or biomes
* Fixed effects
  + Influence slope but not necessarily error
  + For variables that we are actually interested in
  + Leave latitude out as it adds unnecessary complexity?
  + Duration is good, add as a sub question
* General
  + Justify both random and fixed effects!
  + In preregistration: state what to drop when models don’t converge
* Interaction terms explanation
  + Convert one continuous variable (the less important one) in categories (usually 3)
  + “When PD is higher the relationship between A & TT is stronger”

**Next steps**

* Refine research questions
* Come up with needed subset of data (ask Isla, Gergana)
* Finish preregistration
* Write plan with specific tasks for the next weeks

