Meeting Gergana 14/04/20

* Model
  + Simplify terms
    - Remove coi, zoi
    - Remove cell
  + TAXA
    - Taxa as fixed effect
    - Acc\*hpd\*taxa
  + Only use plants (only one with variation of acc) -> describe in methods
  + Iterations/ chains
    - Try with 4000
    - 4 chains for final model
  + Leave duration/area in
    - as potential cofounding effects
    - Graph appendix visualising lack of effect (eg colour code by duration/ facet)
  + Scale sensitivity
    - Plot predictions with models with 3 different scales used
    - Or accessibility\*scale with categorical value and all data
* Research questions
  + Based on graph facet hpd, hpd might be main driver
  + Appendix jtu ~ hpd
  + Correlation plots hpd ~ acc for each taxa or cell
* Vis
  + RQ 3: acc\*hpd
    - Facet plot show only data points which correspond to each facet
    - Specify quantiles

predictions <- ggpredict(model121, terms = c("mean\_NDVI\_121", "moss\_prop[0.25, 0.50, 0.90]"))

* + - Specify categories: Pop < 1000 people, Pop 100-5000 etc
  + RQ 2: Taxa question
    - PCA
      * Think about what I expected to see
      * Does not really make sense
    - Study\_ID random deviation for each study
      * Plot distribution, colour-code by taxa -> do they differ?
      * Estimate acc + dev study ID -> co\_eff
      * Code  
        # Extract slopes for each cell

slopes\_modis <- as.data.frame(coef(richness\_modis))

save(slopes\_modis, file = "data/output/slopes\_richness\_modis.RData")

* + Data inclusion criteria
    - Keep study with many data points, visualise them?
  + Inset for x-axis with faded square

Code Gergana

(turnover\_gain <- slopes\_forest6 %>%

data\_grid(sum\_gain\_km\_scaled = seq\_range(sum\_gain\_km\_scaled, n = 101)) %>%

add\_predicted\_draws(Jtu\_hansen\_gain\_cont, re\_formula = NULL, allow\_new\_levels = TRUE) %>%

ggplot(aes(x = sum\_gain\_km\_scaled)) +

stat\_lineribbon(aes(y = .prediction), .width = c(.95, .8, .5), colour = "#578988", alpha = 0.5) +

geom\_point(aes(y = final\_tu), data = slopes\_forest6, colour = "#578988",

alpha = 0.8, size = 2) +

scale\_fill\_manual(values = c("grey90", "grey80", "grey60")) +

labs(x = bquote(atop(' ', '\nForest cover gain' ~ (km^2))),

y = "Turnover \n", title = "GFC (2000-2016)\n") +

scale\_x\_continuous(breaks = c(-0.8993193, 0.9145646, 2.735345, 4.549229, 6.342422),

labels = paste0(c("0", "5", "10", "15", "20"))) +

scale\_y\_continuous(breaks = c(0, 0.5, 1),

labels = c("0", "0.5", "1")) +

guides(fill = F))