* Landscape genetics
* Discussion on how social attribute influences gene flow and dispersal
* Key threatening process to populations worldwide – habitat fragmentation – effective pop size goes down – genetic drift increases – gen variation down
* Effect of habitat fragmentation can be observed at a range of scales – region, patch, deme (family unit)
  + Effect seen in all these scales
* IBD seen in all species that outbreed
* Extinction vortex – environment, demographic, and catastrophe…
* Greater adopting of spatial analytic techniques from other principles
  + Use levels of genetic similarities between individuals of different environment
* Patterns of genetic similarity vary across spatial scale – make out what the cause might be
  + Look at difference between different habitat
  + Eg. males are more dispersed
* Spatial auto correlogram
  + Impact on connectivity when there is logging
* New analyses of spatial data
  + Weight resistance of environment with respect on how they provide barriers to gene flow
  + Get accumulated predicted resistance from the model – test them against genetic data – get the best resistance model
  + Eg. how temperature affects connectivity of grasshopper
* Incorporate knowledge of environmental feature – matrix between patches of habitat – how features between those patches influence gene flow – can also be interspecific interactions in those patches
* When habitat is fragmented and the resource availability changes, cause habitat changes. Eg. when density high in chuckwalla, they become aggressive
* In fragmented habitats, female wombats coexist
* How to incorporate social behaviours into models
  + Kappler 2013 to group social system
  + Social organisation
    - Eg. brown jays
    - Likely to migrate to group with related males
    - Lower level of resistance to move into a habitat with related males
    - Cunningham’s skink – likely to be unrelated to new habitats – reduce breeding resistance
    - Southern pied babblers – when total group size is low – they accept immigrants
  + Social structure
    - Long-term monogamy in sleep lizards – increase breeding resistance
    - Acoustic pattern associated with their own group – increase entry and breeding resistance
  + Mating system – high reproductive skew increases breeding resistance
  + Dissortative mating – decrease breeding system
  + Care system
    - Long parental period increases entry resistance
* Generate resistance map for environmental features – put them into model – set up hypothesis
  + Might incorporate social behaviours
  + Arrow represents the degree to gene flow
  + Also have socio-environmental feature in addition to just environmental feature