* Dick’s final lecture
* Genetic management of wild populations
* First slide – classic example of species that once had connected distribution – restricted to those dots – genetic isolated – after European settlement and deforestation
* Lots of genetic problems faced by wild populations – on slide
* Major issues – management of species with fragmented distribution
* Fragmentation is a problem because inadequate gene flow
* Fragmented species – 1.4m fragments with genetic problems
* 34 cases where there was proper conservation management
* Genetic management
  + Increase size t slow rate of deterioration
  + Genetic rescue – re-establishing gene flow into inbred props – outcrossing, corridors
    - Rarely been done because of fears of OD
    - Outcrossing can be beneficial or harmful – want to harness the benefits
* Outbreeding depression
  + Harmful effects on fitness
  + Similar to reproductive isolations
  + Causes – crossing different species, fixed chromosal differences eg. ploidy, inversion,…- most important is adaptation to different environment (speciation)
* 5 questions for decision tree for assessing risk of OD
* Florida panther case study – kinked tails show ID
* Choosing donor pop – depending on genetic data
* Mean kinship should be between 0 and 1 but when estimate sample by genetic marker – could get lower than 0
* Case study of Wollemi pine – thought to be extinct – found 3 pops in Wollemi National Park NSW but they are actually 1 pop genetically – 3 types of chloroplast but still 1 pop – location kept unknown but someone might have sneaked it cuz fungi introduced
* Asexual species – no sexual reproduction – no IBD or OD