* Data we have:
  + Point counts, transects (what is length?) lengths are not even. Some transects longer than others.
  + Questions I have about it:
    - Map or list of sites available for both? Yes, Jeremy will look for. Most sites in west, none in eastern OK.
    - Will send a missing data list (esp Randy, have NONE) later.
* Data we can get
  + eBird
  + Bioclim (current, future)
  + Landcover
  + What species of conservation concern
* Data I need to find if exists:
  + Forecast changes in landuse in OK
    - <http://tethys.dges.ou.edu/main/?cat=12>
  + What habitats are covered in our survey plots? (need map and background landcover)
* Final report
  + Methods
    - Ensemble models
      * Compares species distribution models by weighting averages of each single model prediction “with weights assigned to each modelling technique based on its discriminatory power as measured by the area under the receiver-operated characteristic curve” (Oppel et al. 2012, seabird paper). Will combine niche and other species distribution models.
      * NOT SURE IF CAN BE COMBINED WITH STEMS yet, or merely compared.
      * In Oppel paper had two regular models (linear and additive) and three machine learning. I think STEM is a type of ensemble and they had different bases, did not do the spatiotemporal adaptive aspect.
    - adaSTEM/STEM models
      * Ensemble models of decision trees
      * Compared with bagged decision trees in Fink et al paper
      * Their base models are decision trees (classification trees)
    - Simple density maps if possible (using detectability from repeated surveys and distances)
  + Objectives
    - What is current density of OK grassland birds?
    - What landcover predict species, particularly declining species?
    - With predicted changes in landuse and climate variables, what will happen?
      * Population trends
      * Distribution changes
* Things I need to do meanwhile:
  + Talk to Todd about getting more detailed landcover
  + Do an overview of machine learning <http://cs229.stanford.edu/materials.html>, review classification tree papers from multivariate class