This is a guide for preparing your GIS map before calculating the landscape metrics in R.

**Tips**

1. All ArcMap functions can be found with the search bar. You can pull up the search bar with **ctrl+F**

**Steps for prepping GIS layers for R**

1. Collect sufficient point count data of your area of interest.
2. In ArcMap pull in the data layers containing the landscape properties that you are interested in creating your landscape metrics with.
3. If not already in raster format, convert these layers to raster using the “Conversion toolbox”.
4. Import your point count survey points to GIS.
5. Create a 100m buffer and a 500m buffer around each point using “Buffer”. These buffers will be the boundaries for the small-scale and large-scale landscape metrics respectively.
6. If not already in shape file format, convert these buffers to shape files using the “Conversion toolbox”.
7. Project all layers into the same coordinate system and datum. Then check to make sure the layers are all in the same coordinate system and datum. Use “project” to project most layers except raster. Use “project raster” to project rasters.
8. Import a base map to make sure everything looks lined-up correctly

**Steps for creating a reference map**

1. Start with the map you created in the steps above
2. Use “Extract by Mask” to clip the rater layers to the size of your biggest buffer.
3. Go to the attribute table of each raster layer to get the values for each class type.