

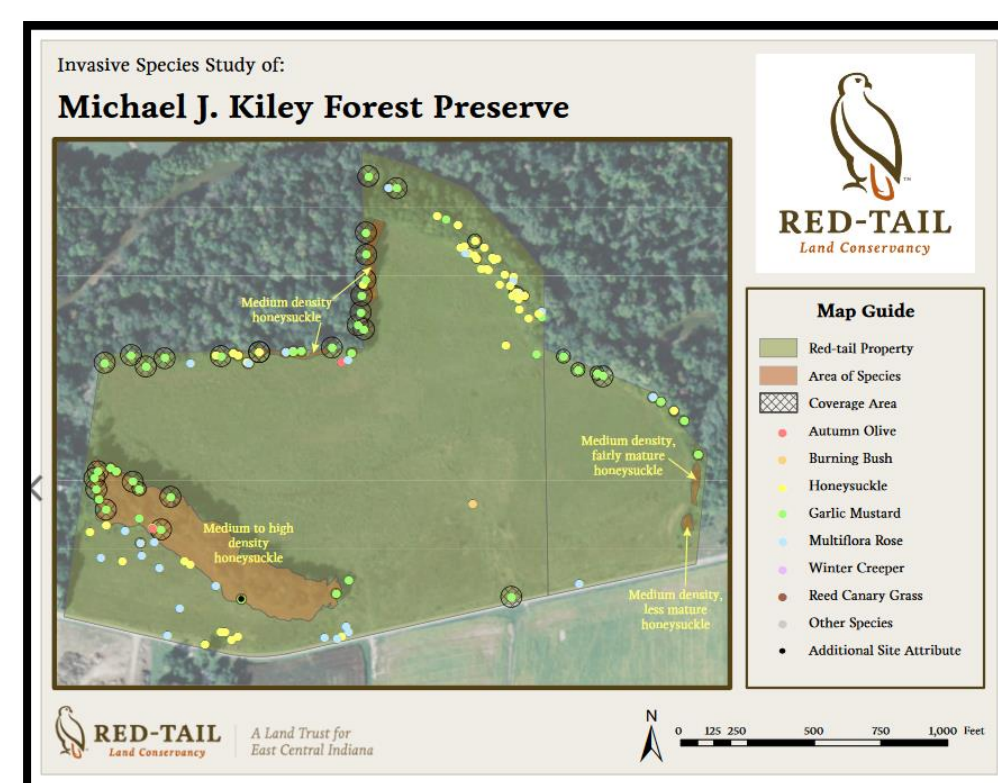
# Data Presented

## Original GIS Data

The original data obtained from Red-Tail Land Conservancy was collected in the field by Red-Tail employees and volunteers. The data was collected as a single points layer and a single polygon layer with all the data being input into one of these feature classes. Due to collection by multiple individuals, there were discrepancies in the naming conventions and other notes taken about the data being collected. The primary issues with the initial data was that all collected data was in the same feature class that did not distinguish between species and that the data collected was not consistent in format.



## Maps and Logos



The team decided to redesign the map to accommodate the new density and species maps. The maps we created are separated into three types; the Density, Species and all species property maps.

The logos were mapped, modeled and vectored to the specifics given to us on the design style-guide. Several logo color types were mapped for client options; also a Illustrator file is created with all color codes and swatches for quick usability and creation of templates and map designs. The Titles and text on each map has a conformity unless the length of the title needed a smaller font; regardless only the title fonts are adjusted with two type sizes. The overall font style is Adobe Garamond.

The logos has a uniformity also and was modeled after the style-guide per their requirements. Started by mapping the original Red Tail logo, per their style guide by using Adobe Illustrator.



## Design Elements

The Illustrator files are all using respectable layers for each map to allow for future adjustments, or recreation. All color codes can be found on both the style-guide and the Color Swatch Illustrator file.

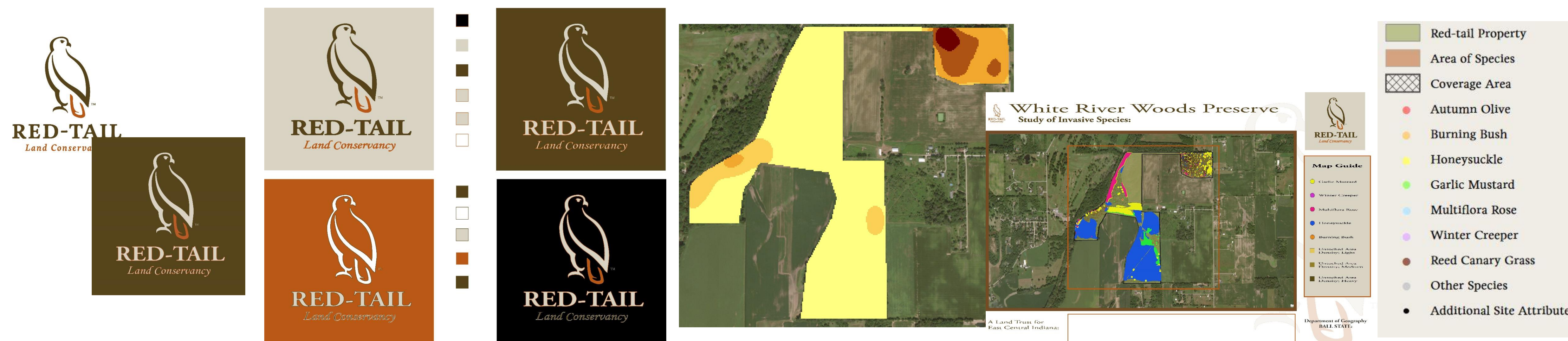
Each colored species map has uniformed map guides for the different species, and the density maps have smaller map guides due to only having three colors. All maps have several logos for Red-Tail Land Conservancy, one in the titles, one on the upper right and a faded logo at fifty percent.

The decision to use a aerial photo as a basemap was for ascetic reasons to keep the familiarity of the land known by the users of the maps at Red-Tail.



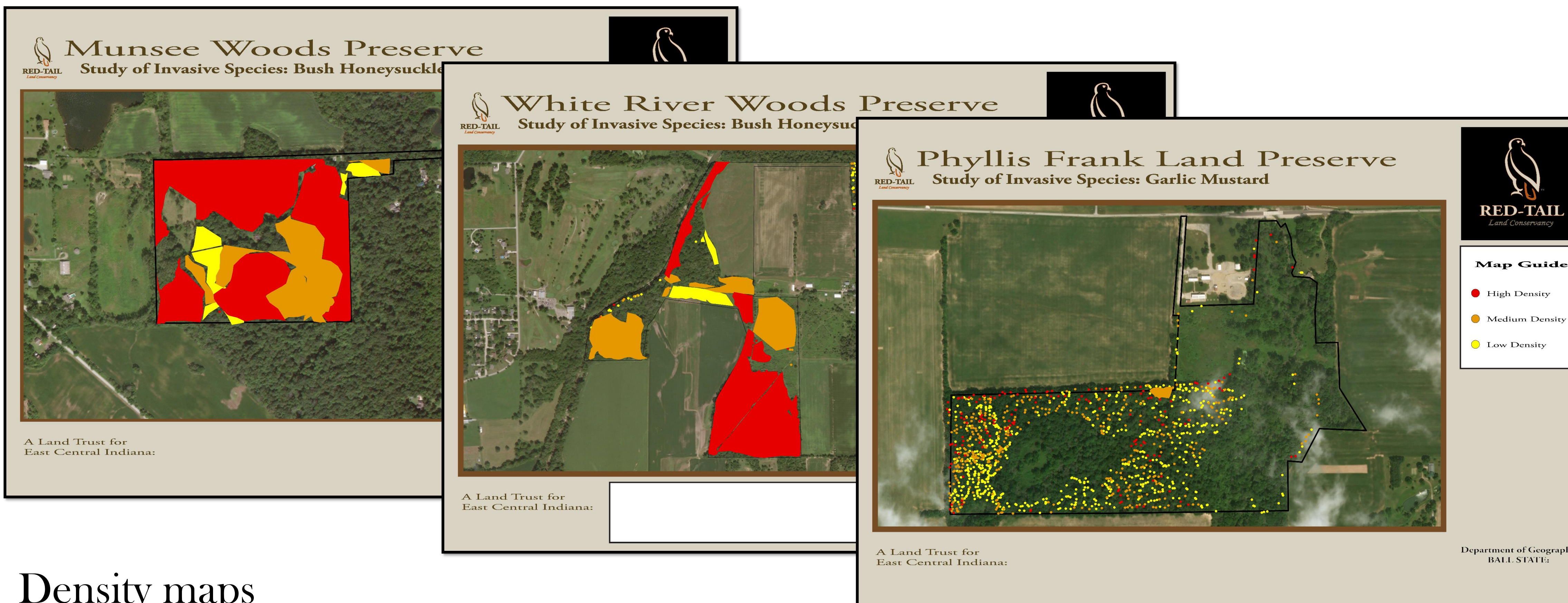
# Red-Tail Land Conservancy

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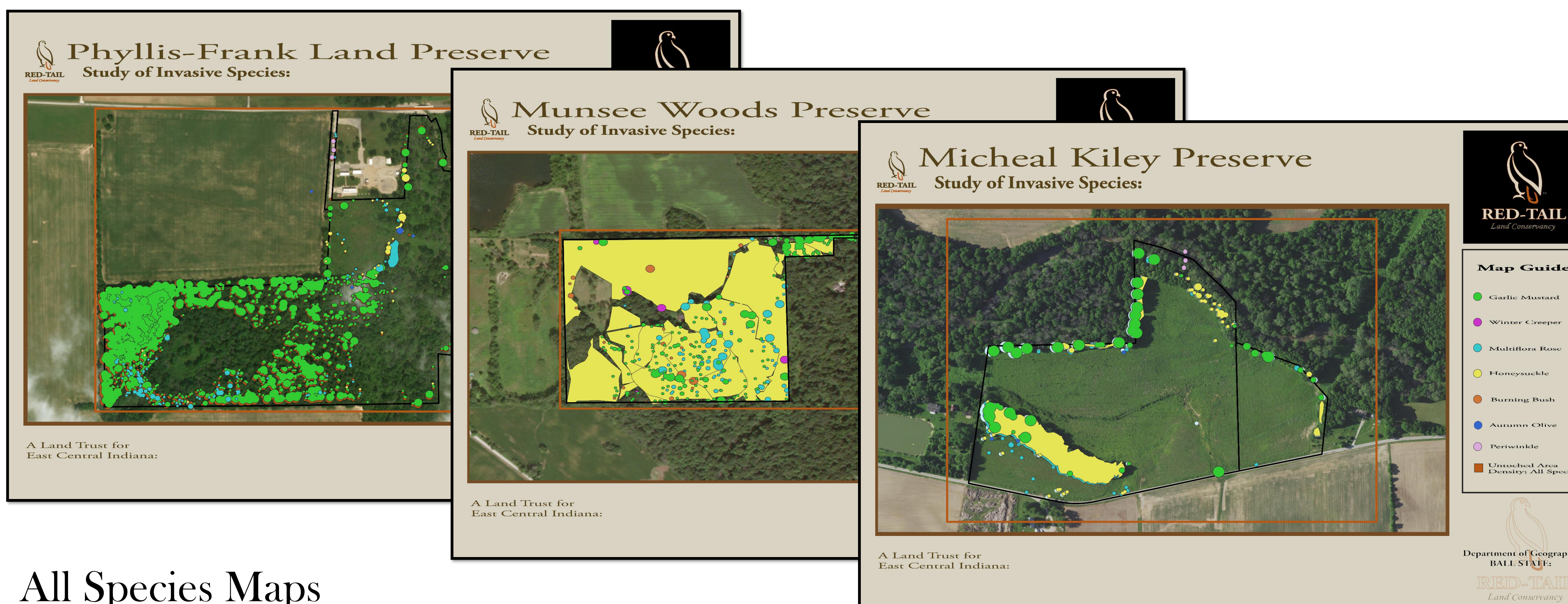
## Design Elements Recreated

To make the Red-Tail logo for Adobe Illustrator, the logo was re-modeled for a templates to create maps. These are examples of progress throughout the semester and the creation process. Elements of the different map guides, map designs and an unused heat map that didn't pan out.



## Density maps

Separate density maps were made to accompany the need to show both the species On one map and the level of area density on a property. These example show various properties with different contents. The data provided shows the difference in both points and polygons. The aerial photo added a familiar feel to those using the maps of these property and adds a good design factor.



## All Species Maps

These maps were the first idea we came up with collectively, and branched out from here. Using these maps as templates we were able to use the titles, the texts and the logos across these and density maps. The GIS guys did a outstanding job converting the GIS data to AI format; which was easily colored and layered for future use.

# Results/Findings

## Data Clean-up

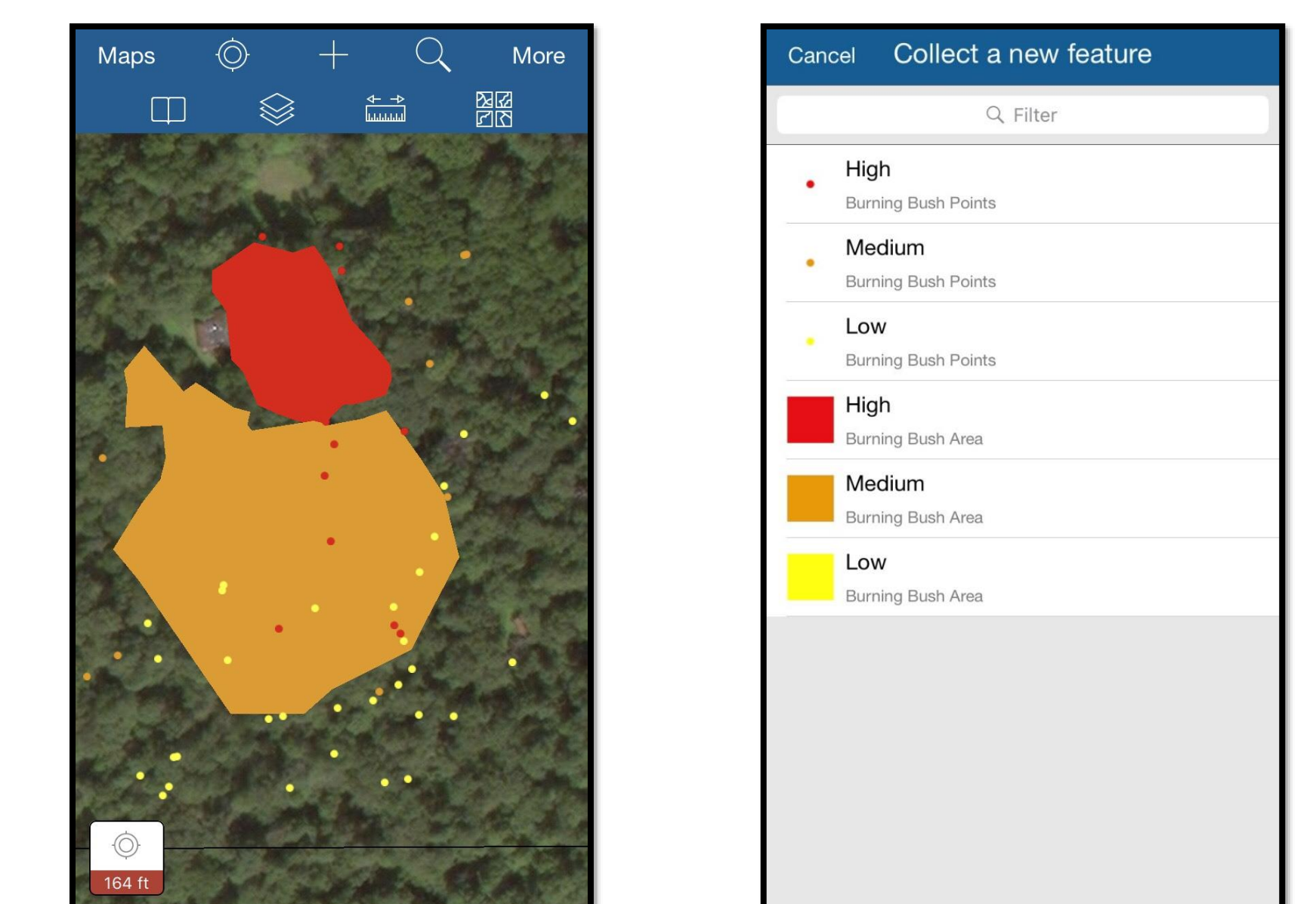
The first step in our process involved cleaning up and separating the original data received from Red-Tail. This constituted checking for spelling errors in all fields, most importantly in the species name field. After the species names were uniform, the initial point and polygon layers were separated by species. A field was added to correspond with the 'Affected Area Size' to provide a radius to run a buffer around the points. The buffers were merged with the polygons to form a single coverage feature class for each species to be used in our All Species Maps.

## Density Issues

After completing the All Species Maps, the next task was to create density maps for each individual species in a single property. The original points gathered contained an attribute field titled "density" with values of low, medium, and high. However, the polygons did not have a density field. Instead, the polygons had notes that gave insight into the densities. A density value was assigned based off the notes. After density values were assigned, symbology was applied to differentiate between low, medium, and high density.

## Mobile Collection

Mobile collection in the field is important to maintain and update the data. The primary goal is to decrease the discrepancies caused by user input. The ArcGIS Collector App will now allow workers to view or collect consistent data divided first by species and then by density. This will allow seamless data collection with improved organization.



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