Natural Areas of America

Matt Theisen | CRP 458

All too often people are drawn to cities, movie theatres, shopping malls, but what about all the natural areas that were here first? As a natural resource steward, I am here to further our information on these amazing parks and forests, as well as show you them. The greatest thing about what I do, is that I get to facilitate learning about fascinating natural areas and the wildlife that inhabits them through leading edge software and mapping programs.

Through this project, I hope to accurately and appropriately map our countries most pristine and natural areas. I want to help others see the beauty these lands hold and to respect how much natural resource managers have done to maintain these areas. As mentioned above, I think that sometimes society forgets about these areas because their 9-5 job doesn’t lead them there. These are prairies, forests, and mountains that have been here since way before we colonized America.

I plan to use **leaflet** to display the map with natural areas on it. **GitHub** is where I will store all my data and files used to create my map. I will use **QGIS** to format shapefiles into GeoJSON files. I may also possibly use **ArcGIS Pro** to query and export data. I intend to use plugins such as **esri-leaflet** and **cluster points**. I intend to add in this ArcGIS Rest Serve from the NPS website ([link](https://services1.arcgis.com/fBc8EJBxQRMcHlei/arcgis/rest/services/NPS_Park_Boundaries/FeatureServer/0/query?outFields=*&where=1%3D1)), **online API**. I found another potential [link](https://catalog.data.gov/dataset/national-park-boundariesf0a4c/resource/8f5725ad-b390-488a-8770-11796644f941) for National Park Service unit boundaries as a ArcGIS **WMS** that I could possibly use. I plan to include, National parks, [National Forests](https://apps.fs.usda.gov/arcx/rest/services/EDW/EDW_ForestSystemBoundaries_01/MapServer), State Parks of Iowa, Cities, and a state’s layer (all from Iowa Geodata).

I may also use GeoJSON.io to create a GeoJSON file of parks that I feel are necessary to go to. I have found an awesome ArcGIS online web map that I would like to use for data ([link](https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f092c20803a047cba81fbf1e30eff0b5)), however, I am not sure how I can extract the layer file from this map and get it into a leaflet map, **ArcGIS pro layer file, brought from Online to Pro**. I think that there will be plenty of obstacles to overcome in trying to add new types of data in, adjust my map for my audience, and properly code so that it runs nicely. I think challenges I may need help with are using new plugins, getting REST Server data into my map and overlay (can you just make a var = L.esri.featureLayer ({….? And add that var to your overlay?

Overall, I feel confident in my ability to do this project and with some help, I think this can be a really neat map/reference for people to look at.