Extract googleVision labels for each photo, save as .rdata

Flickr\_googlecloudvision\_label.r

Clean up flickr tags, save as .rdata

Add lulc for each point CAFF Modis, save as .rdata

Sub in Arctic data

Convert to .shp

Add

* year mon yearmon
* region

Drop

* points outside 60N

Dataset of 1000 photos from each major region (North America, Russia, Norway, Finland, Marine), not overlapping developed land for validation

Figures

Interactive figures

Htmls

Flickr\_leaflet\_map.r

Flickr\_input\_exploration\_check\_Iceland.r

(Iceland region was corrupted in the furst download, this script checks the new dowload)

Raw Flickr data for arctic, and iceland

Flickr\_validation\_dataset.r

Flickr\_tidy\_flickrtags.r

Flickr\_input\_exploration.r

raw\_data\_download.r

Dataset output:

(Flickr\_Artic\_60N\_googlelabels \_userinfo\_tidy\_amap.Rdata)

Dataset output and used for analysis:

(Flickr\_Artic\_60N\_escodes\_amap.Rdata)

Flickr\_googlecloudvision\_esplots.r

Flickr\_googlecloudvision\_esmapping.r

Make nice plots of the ES rasters

Raster maps of ecosystem services, based on PUD of each ES.

Flickr\_googlecloudvision\_datasummary.r

* categorise google labels according to ES they represent and add to flickrshp.
* Make wordclouds of google labels
* Summary tables of labels by region, user and escode.

Flickr\_googlecloudvision\_postprocessing.r

* Add google labels and scores to flickrshp
* Clip flickrshp to flickr\_AMAP60N\_dissolve.shp
* add regions matching flickr\_AMAP60N\_all\_level\_one\_subdivisions\_svalbard\_simplified\_EEZ.shp
* Add info on whether users are regular or superuser, tourist or local.
* Subset flickrshp to 2004:2017 photos only.
* Drop rows without google labels
* save as Flickr\_Artic\_60N\_googlelabels\_userinfo\_tidy\_amap.Rdata