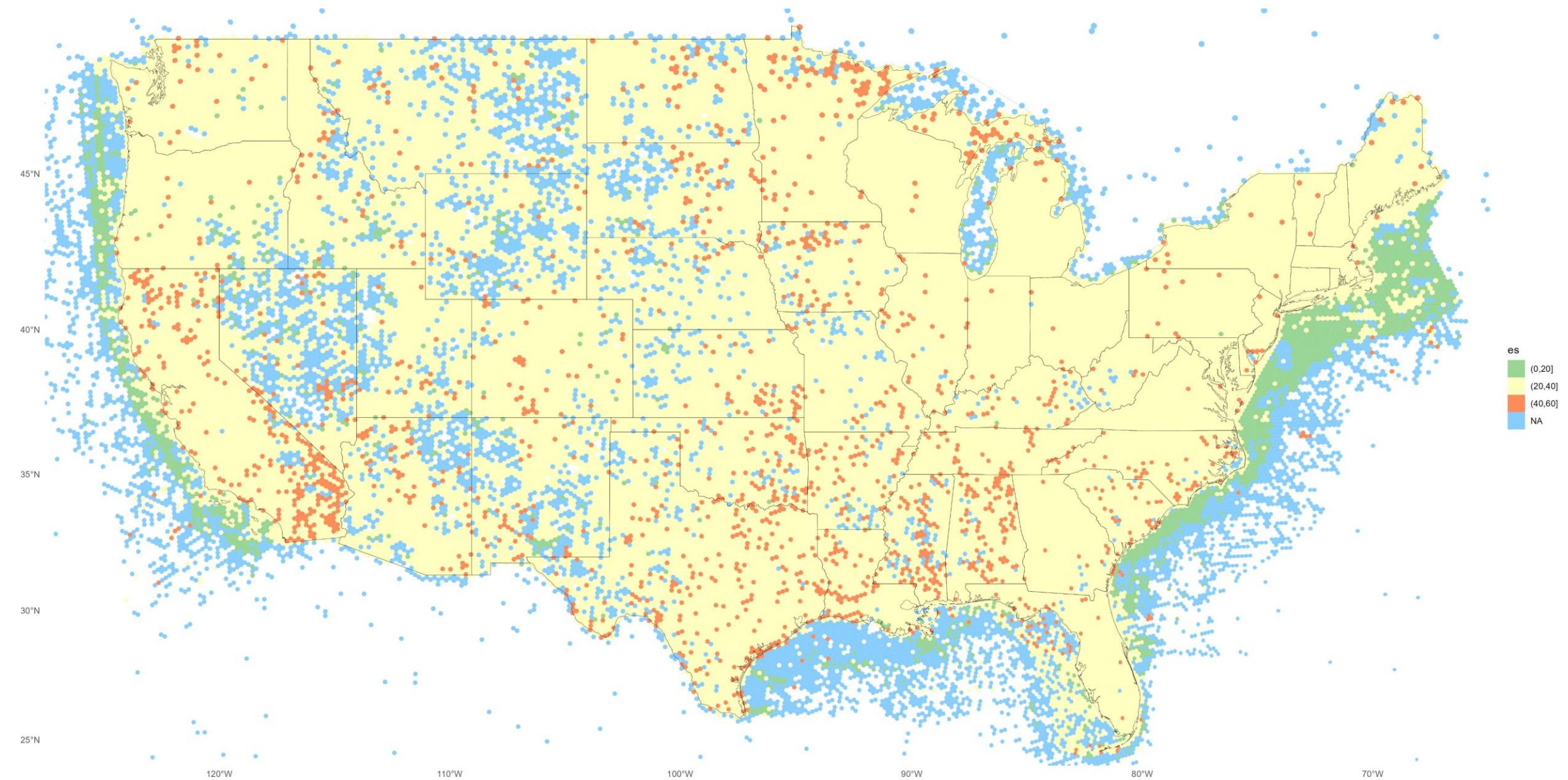


Comparison of ES50/100 CONUS Maps

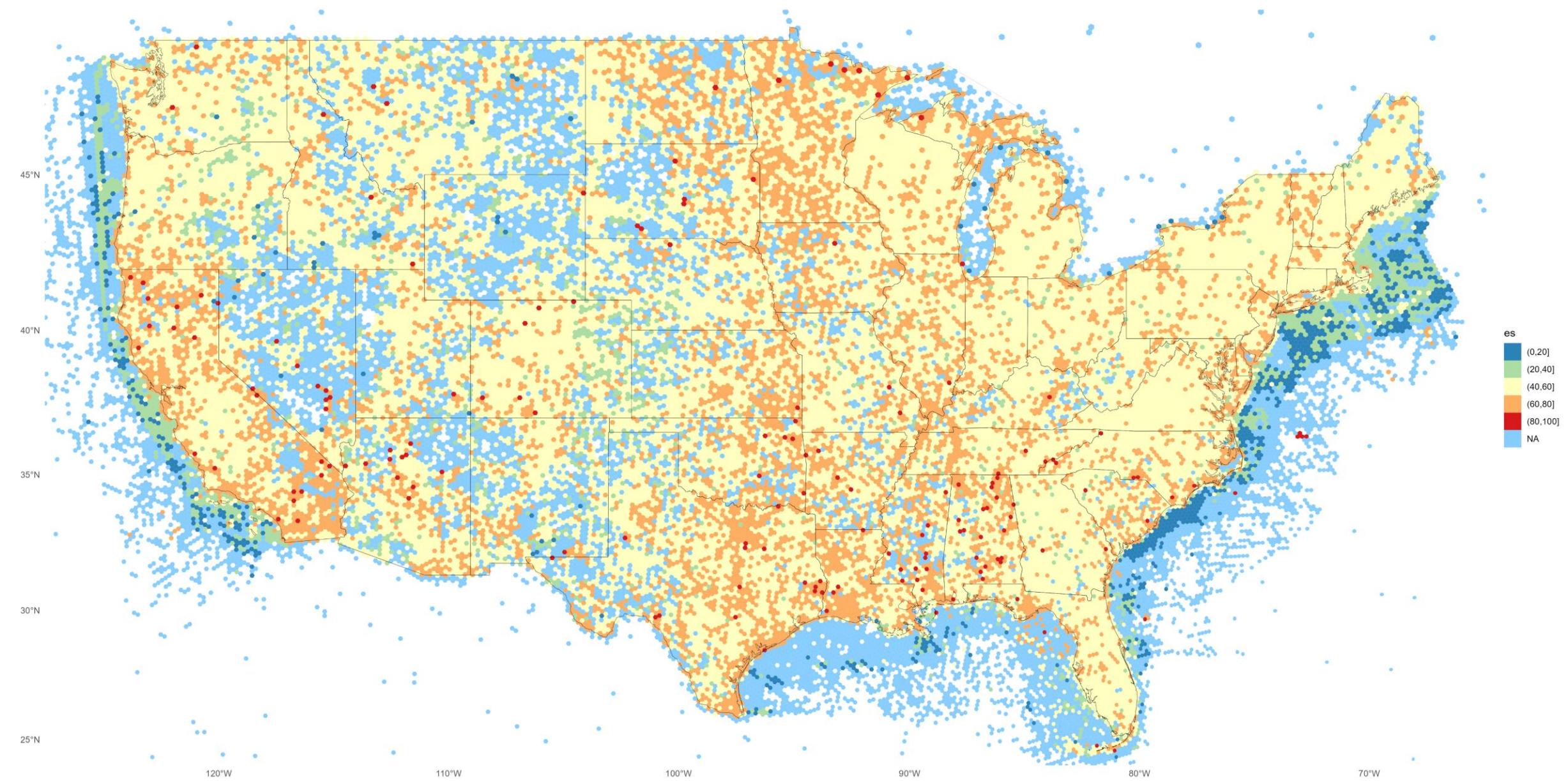
Dec 15, 2022

Questions to sformel@usgs.gov

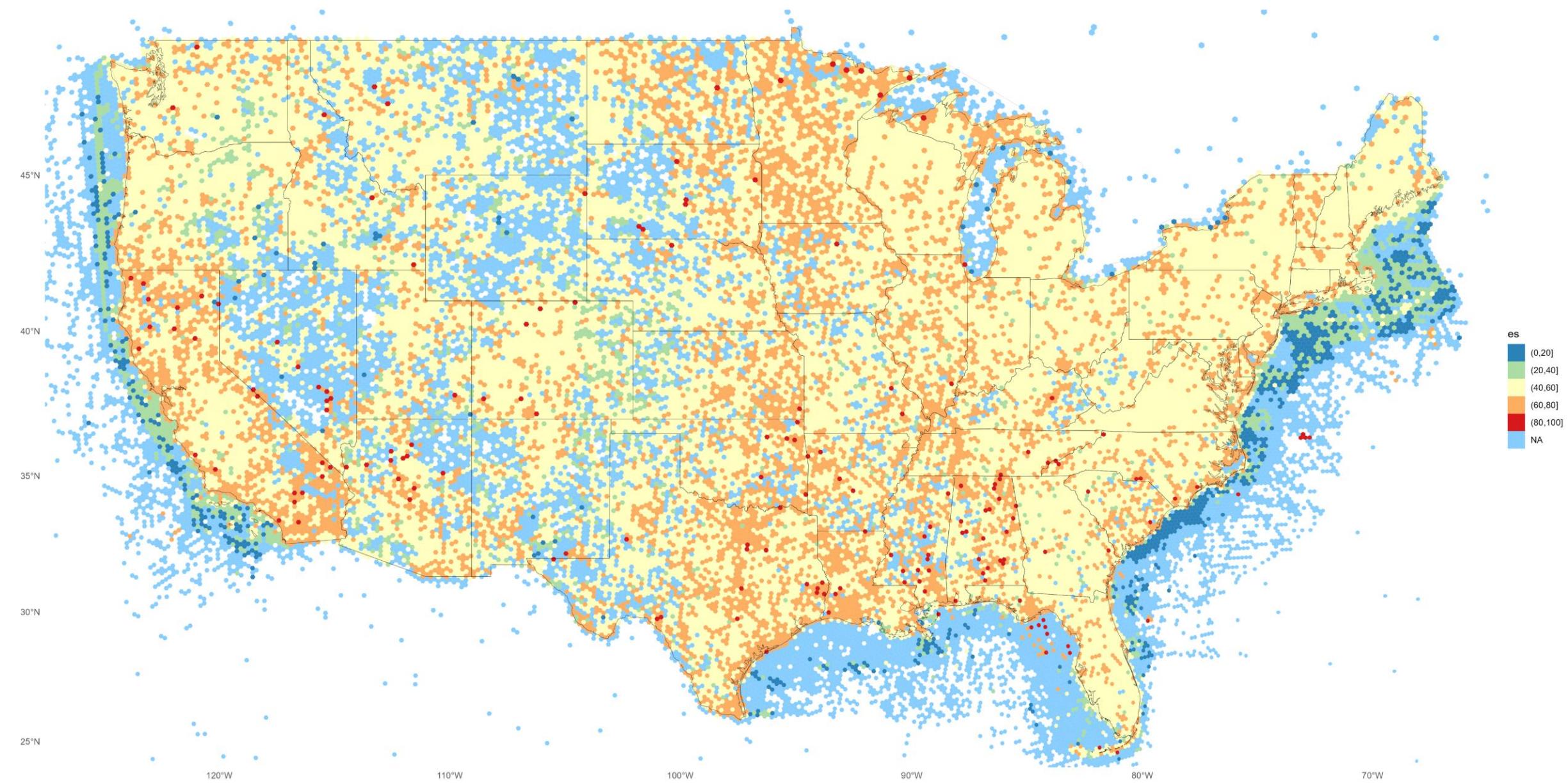
2010s, res 5. ES50 GBIF + OBIS



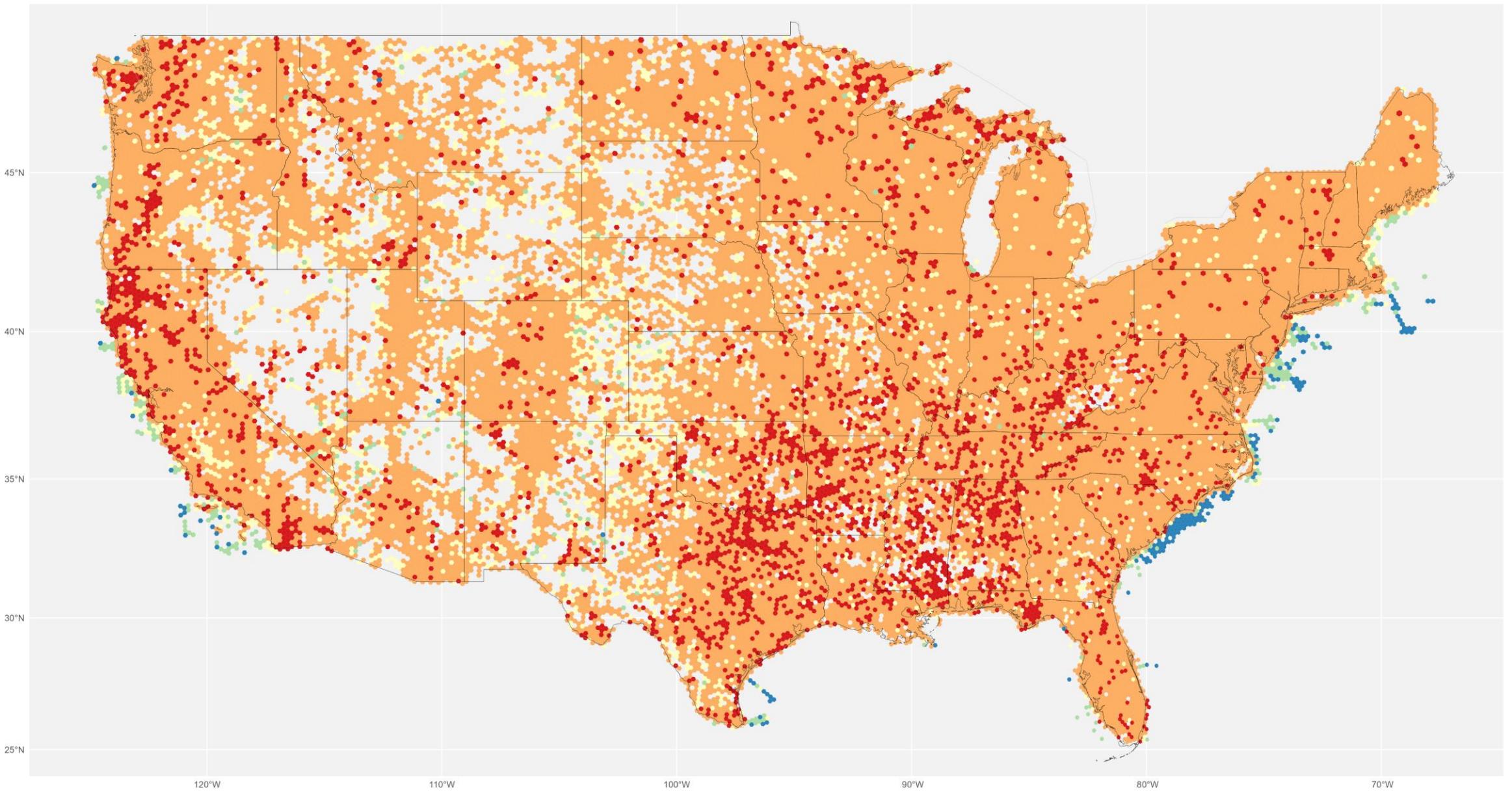
2010s, res 5. ES100 GBIF + OBIS



2010s, res 5. ES100 GBIF only



2010s, res 5. ES50 GBIF only (clipped to CONUS bounding box)

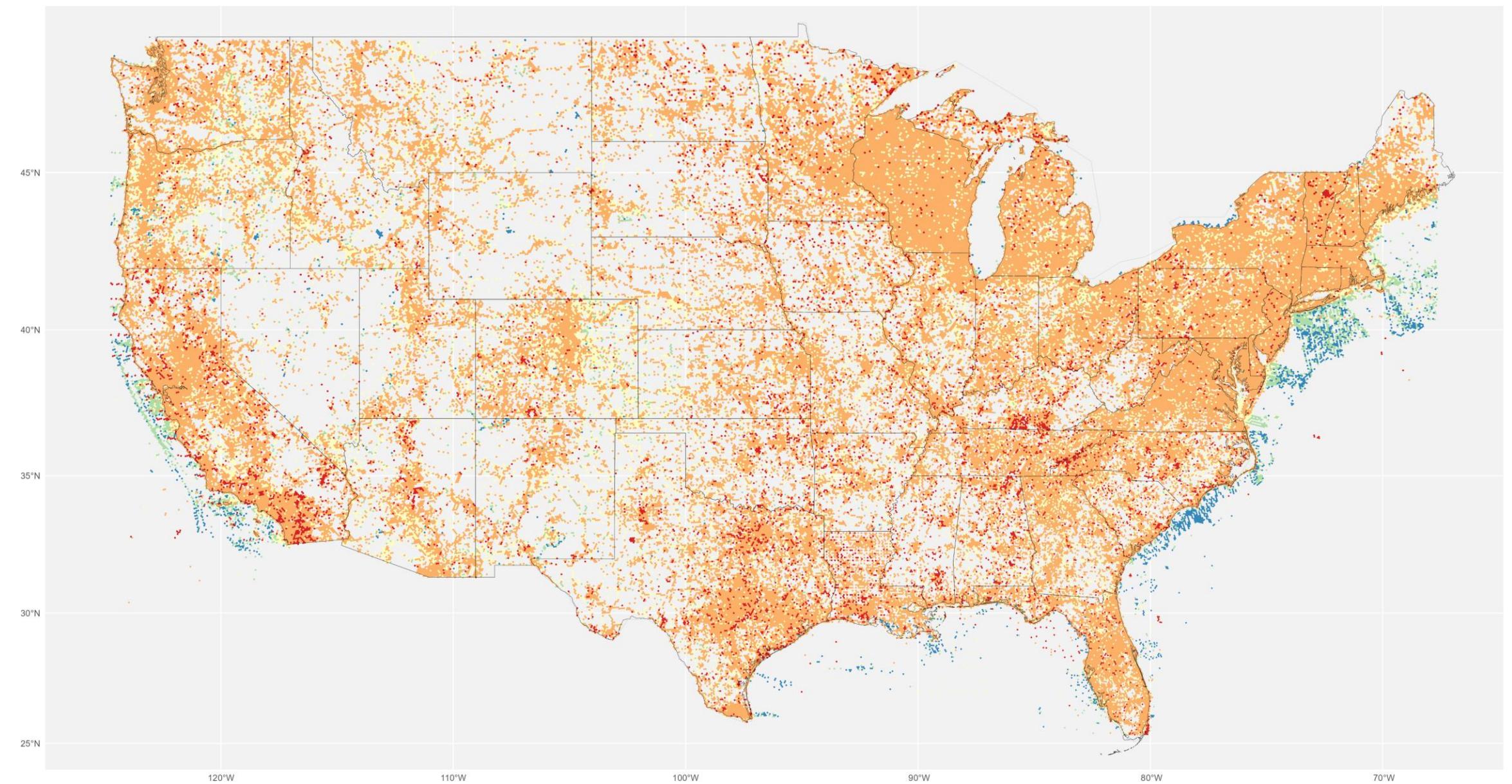


Comparison of ES50 CONUS Maps

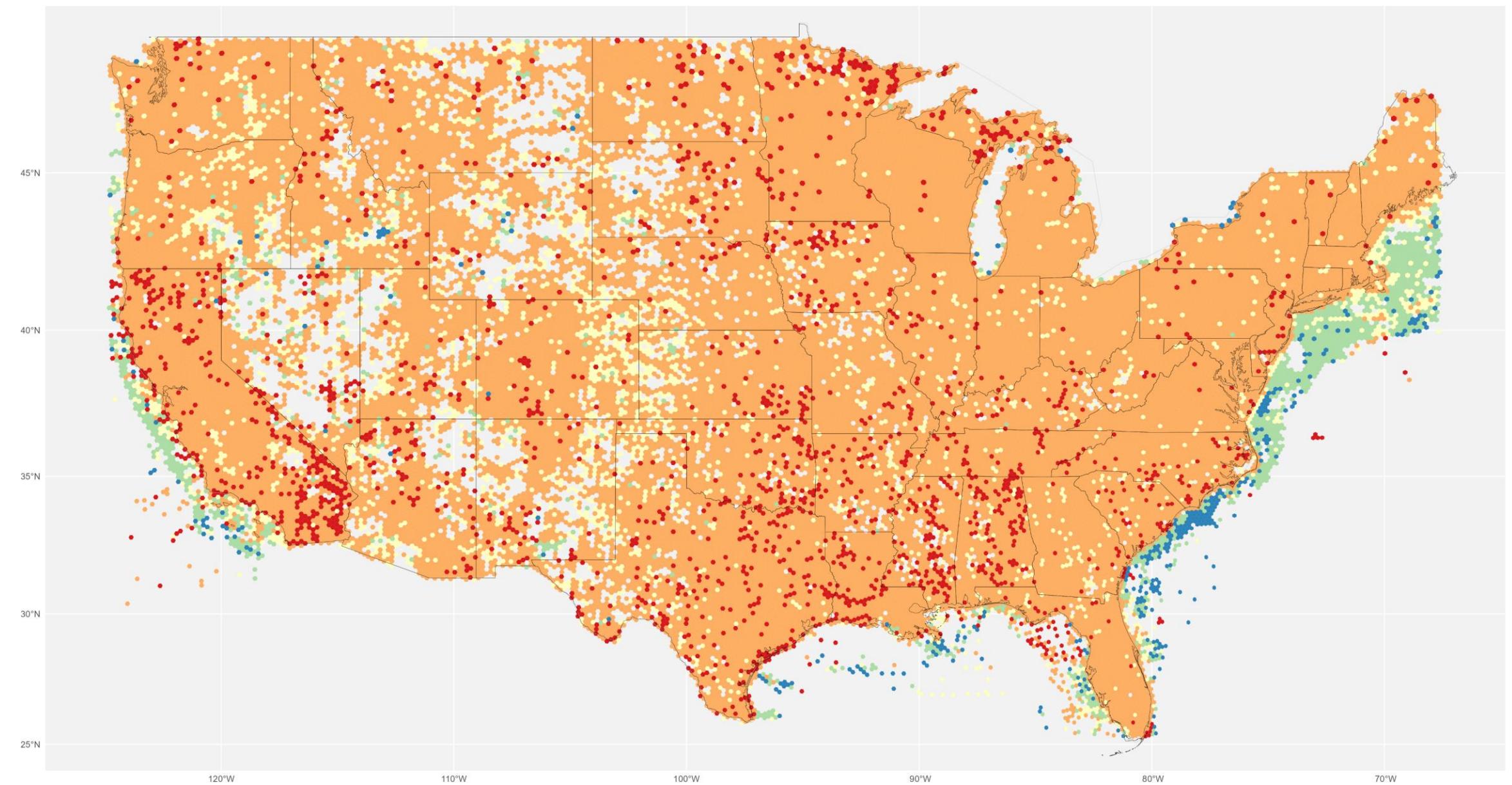
Dec 8, 2022

Questions to sformel@usgs.gov

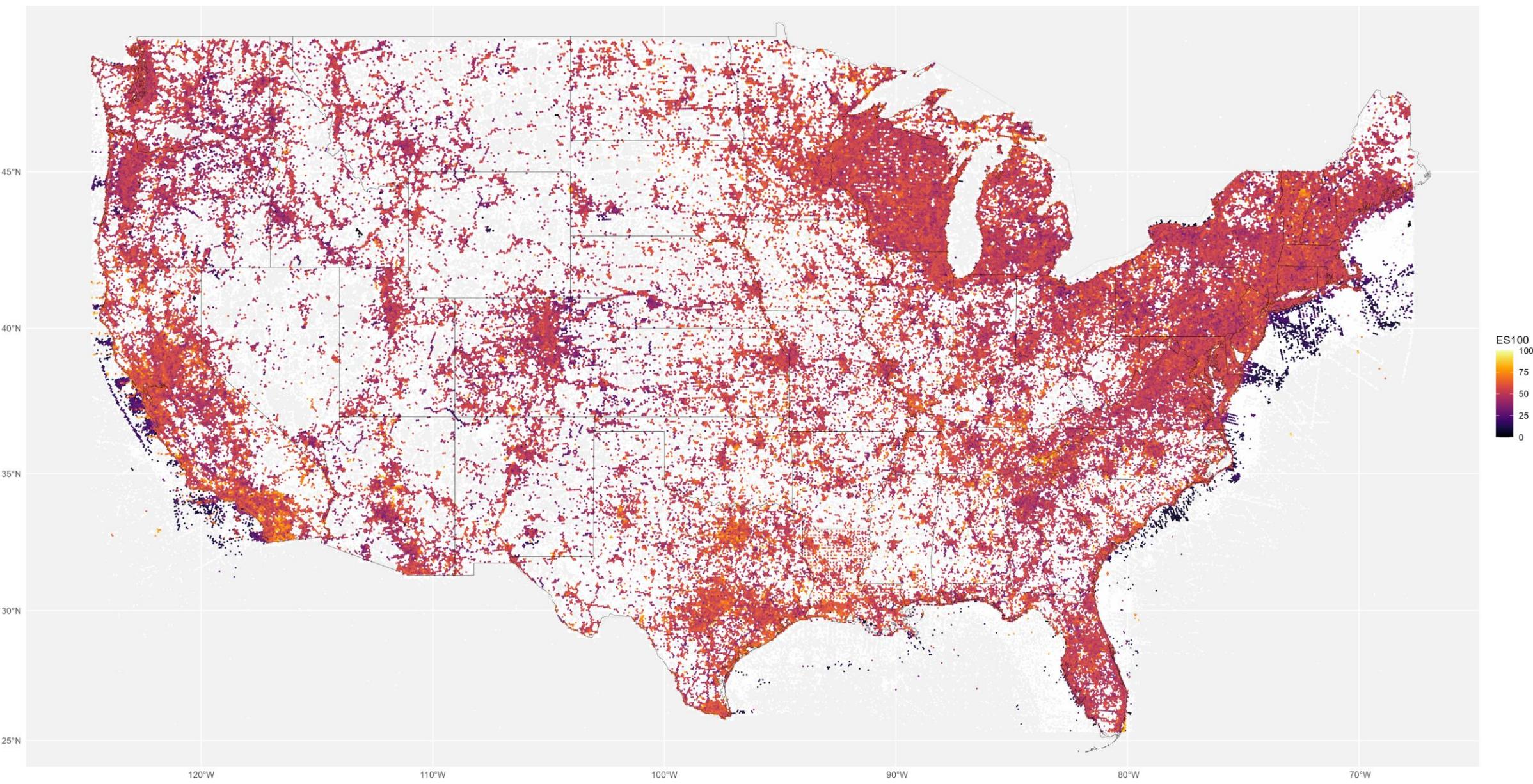
2010s, res 6. ES50



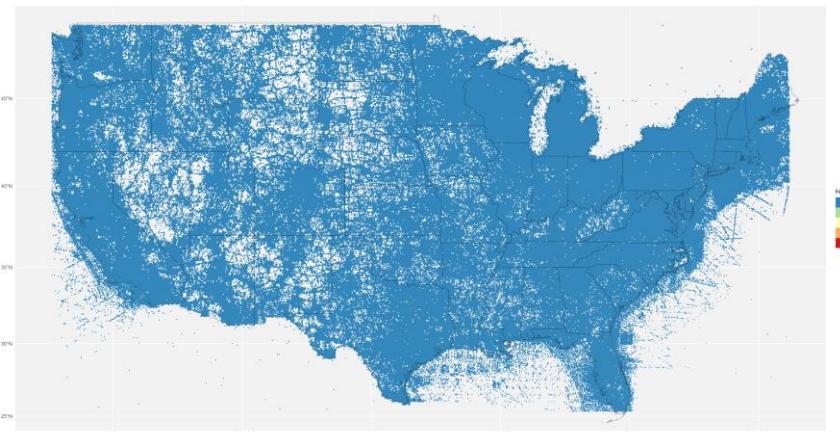
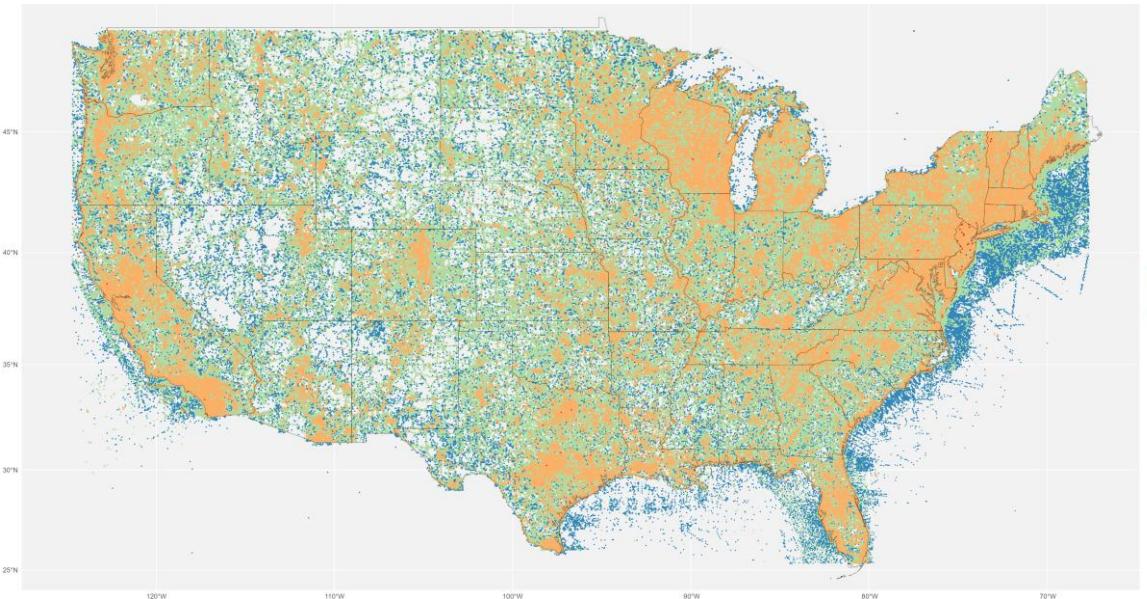
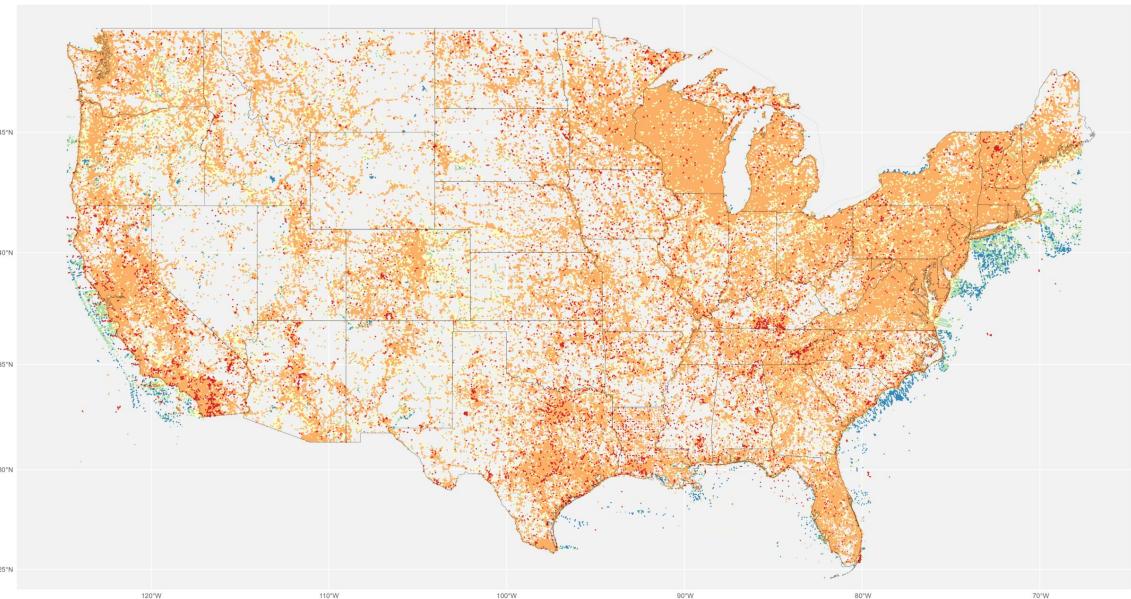
2010s, res 5. ES50



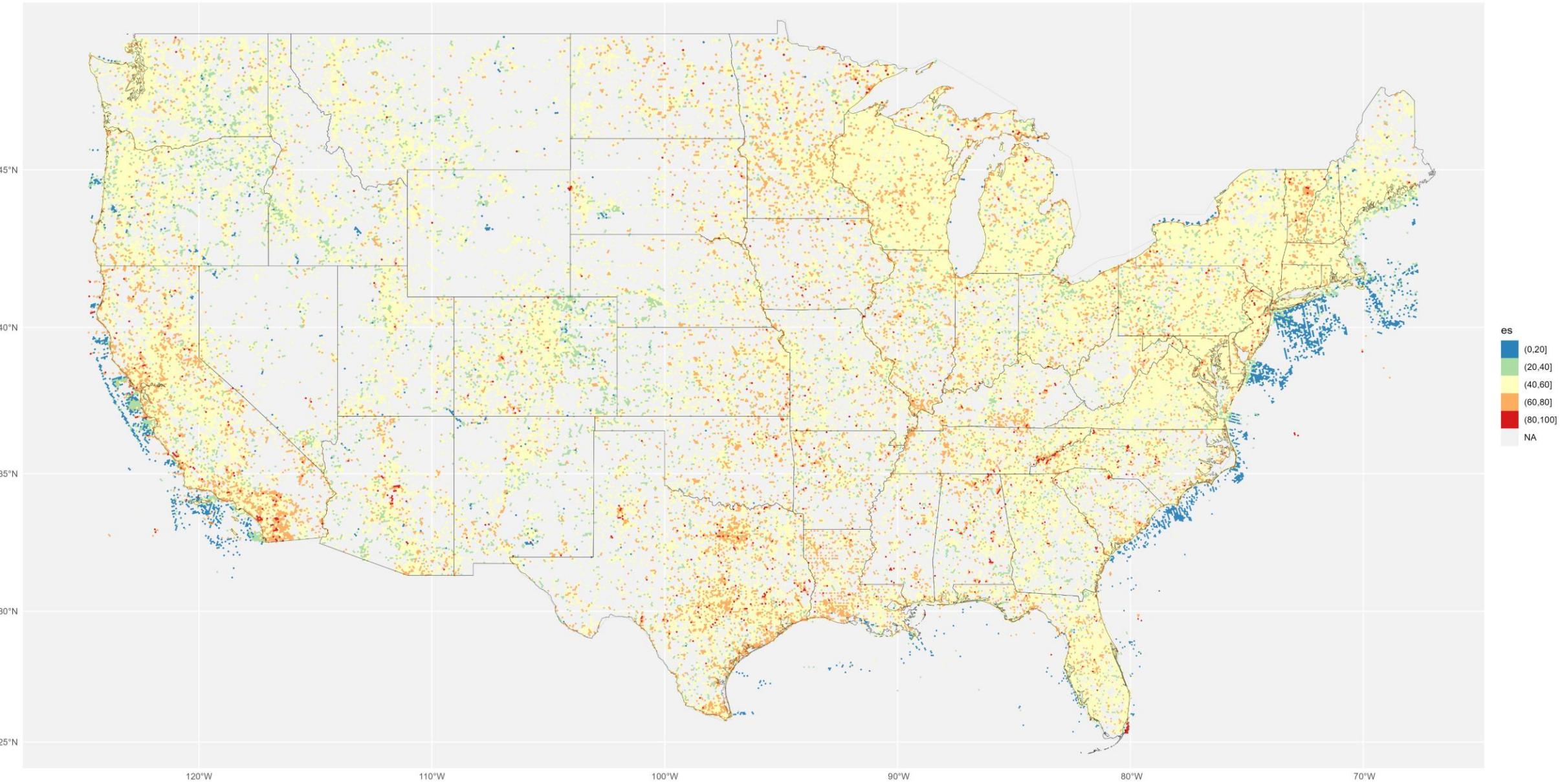
2010s, res 6. ES50 continuous color



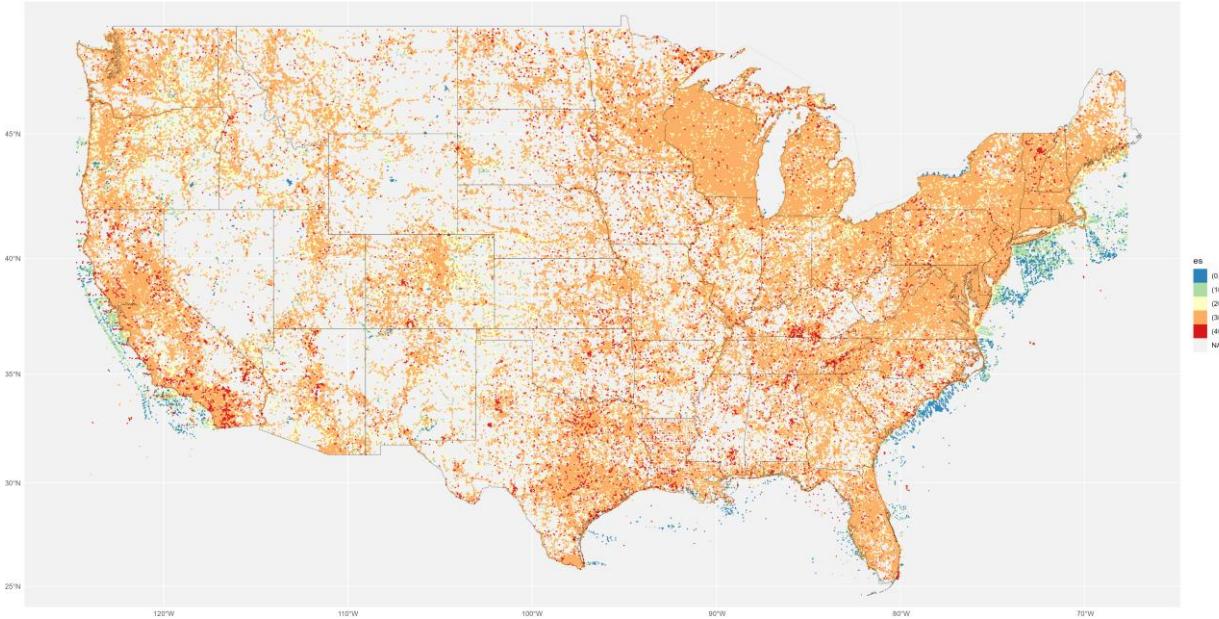
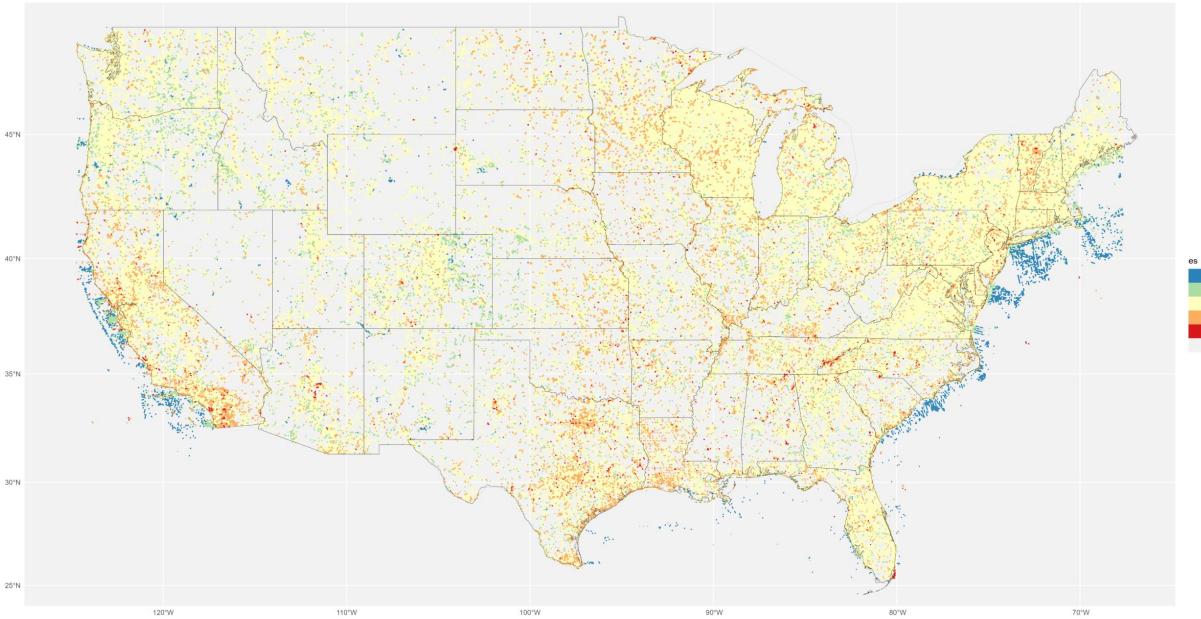
2010s, res 6. left to right: ES50, Shannon, Hill 1 (on bottom)



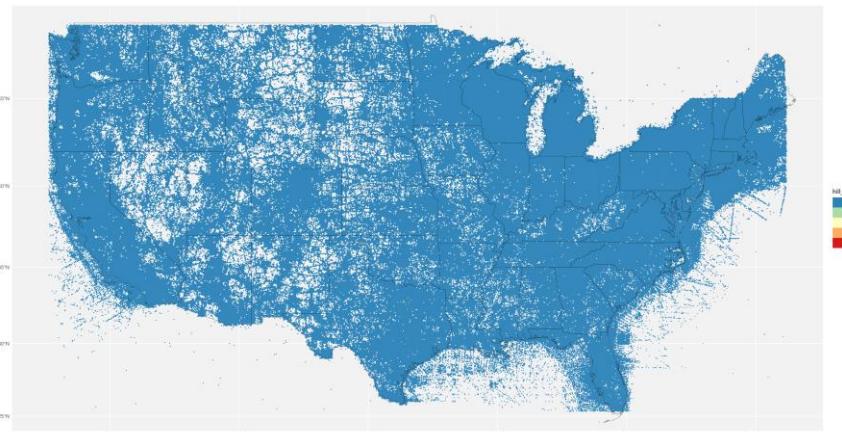
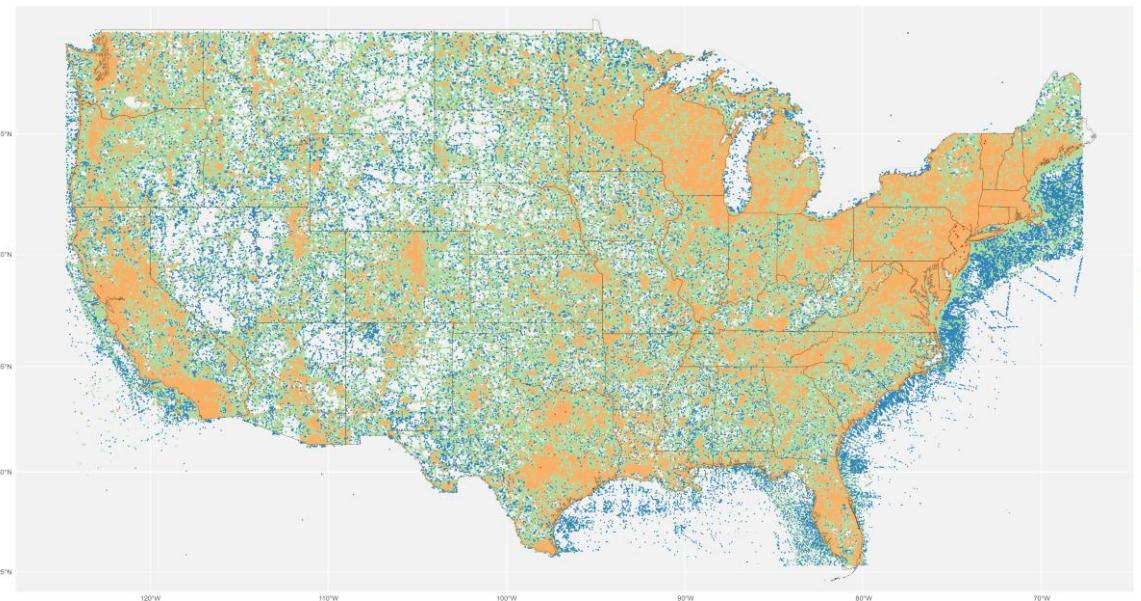
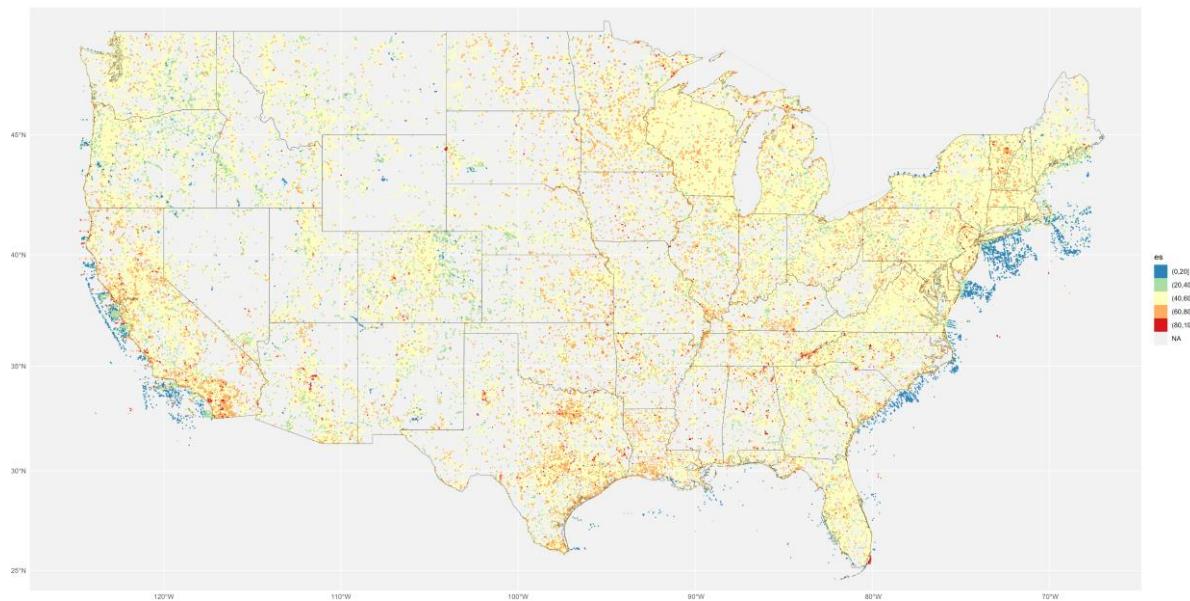
2010s, res 6. ES100



2010s, res 6. ES100 (left) vs ES50 (right)



2010s, res 6. left to right: ES100, Shannon, Hill 1 (on bottom)

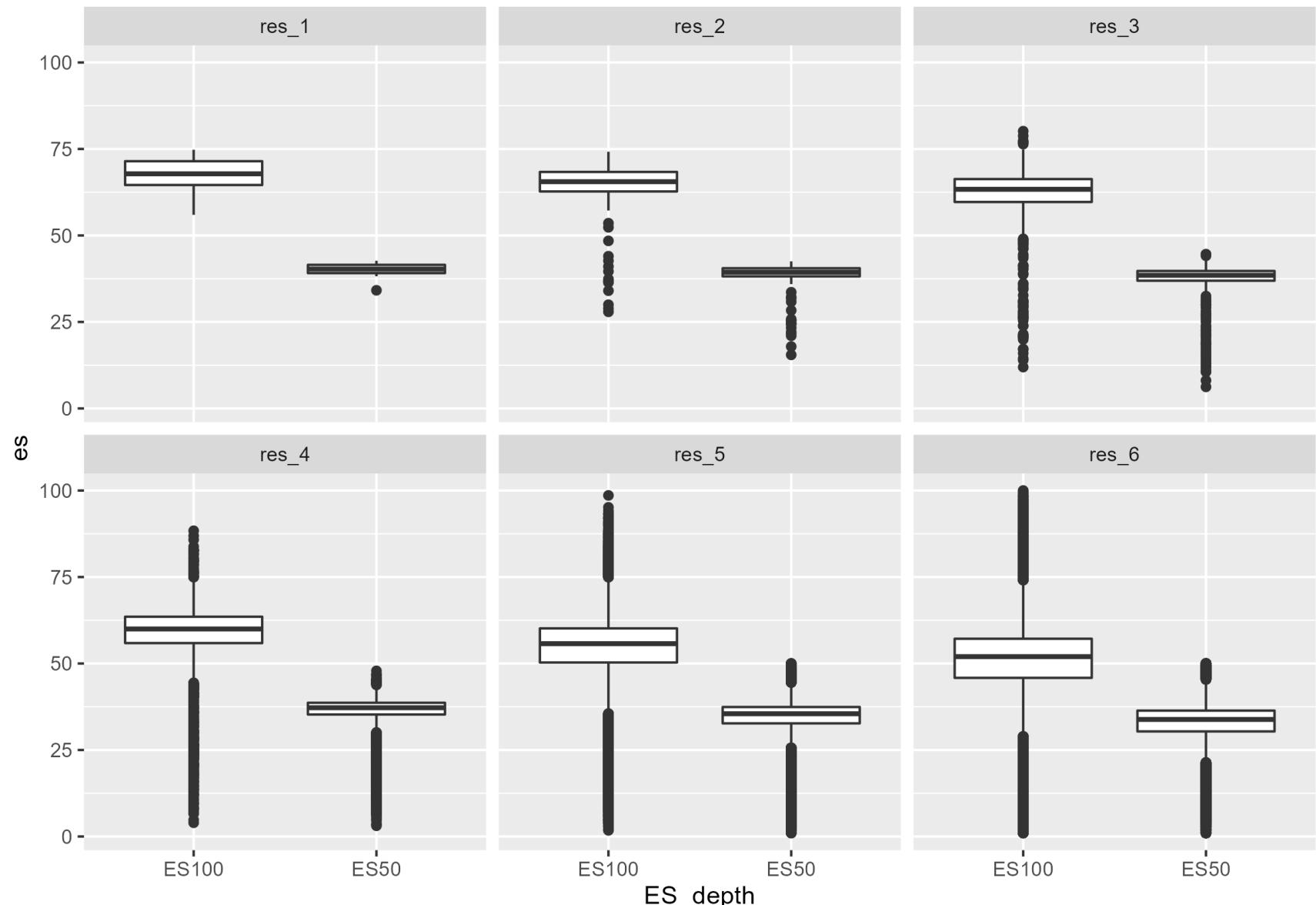


Runtime on Steve's GFE for:

- 2010s (~ 99 million records)
- resolutions 1-6
- continuous and discrete plots
- 3 diversity metrics

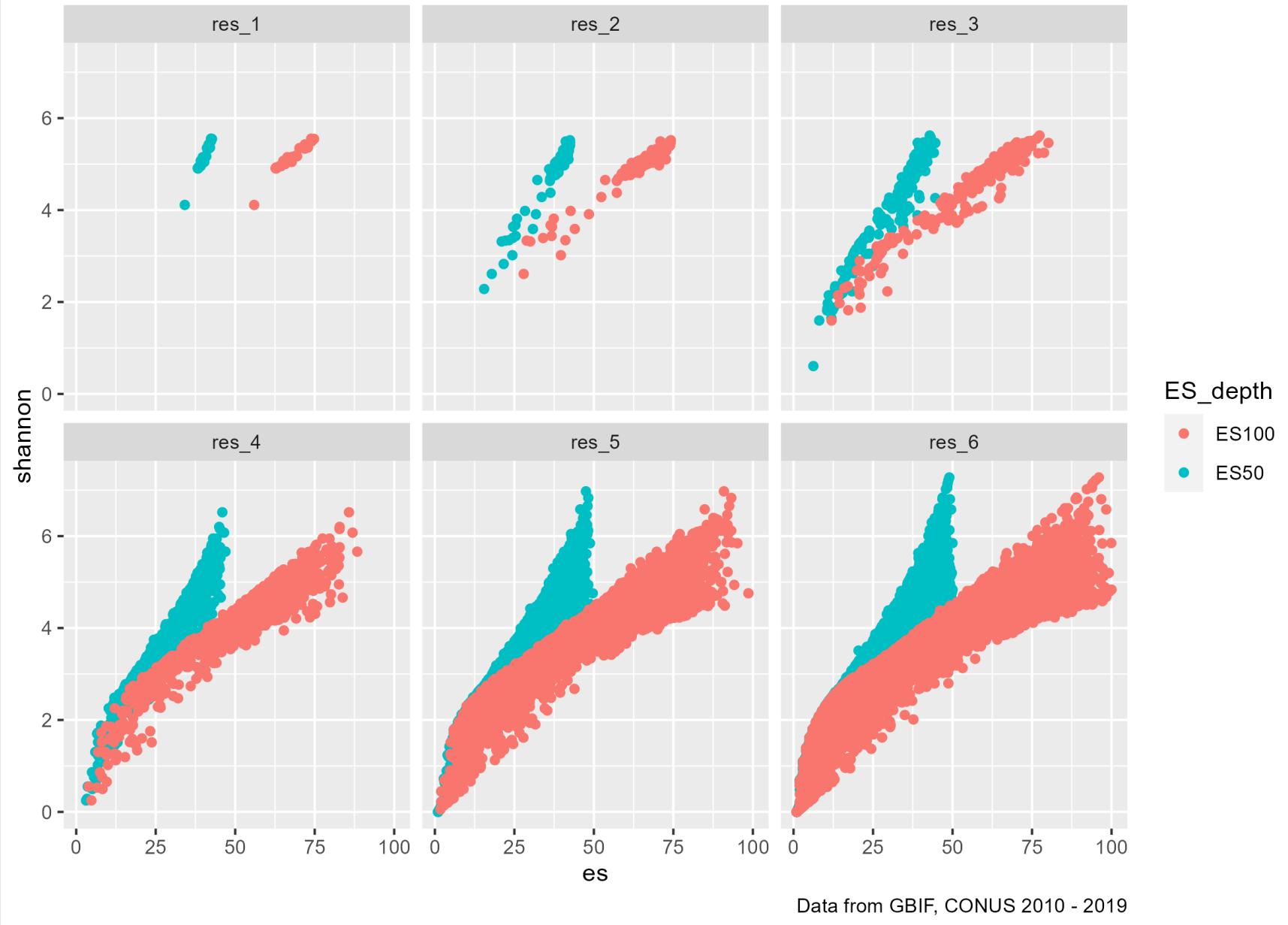
Section	Wall Minutes
setup	0.69
spatial_index_of_data	10.23
diversity_cal	6.94
plot	4.83
total_run	23.79

Expected species for CONUS, at 6 H3 resolutions

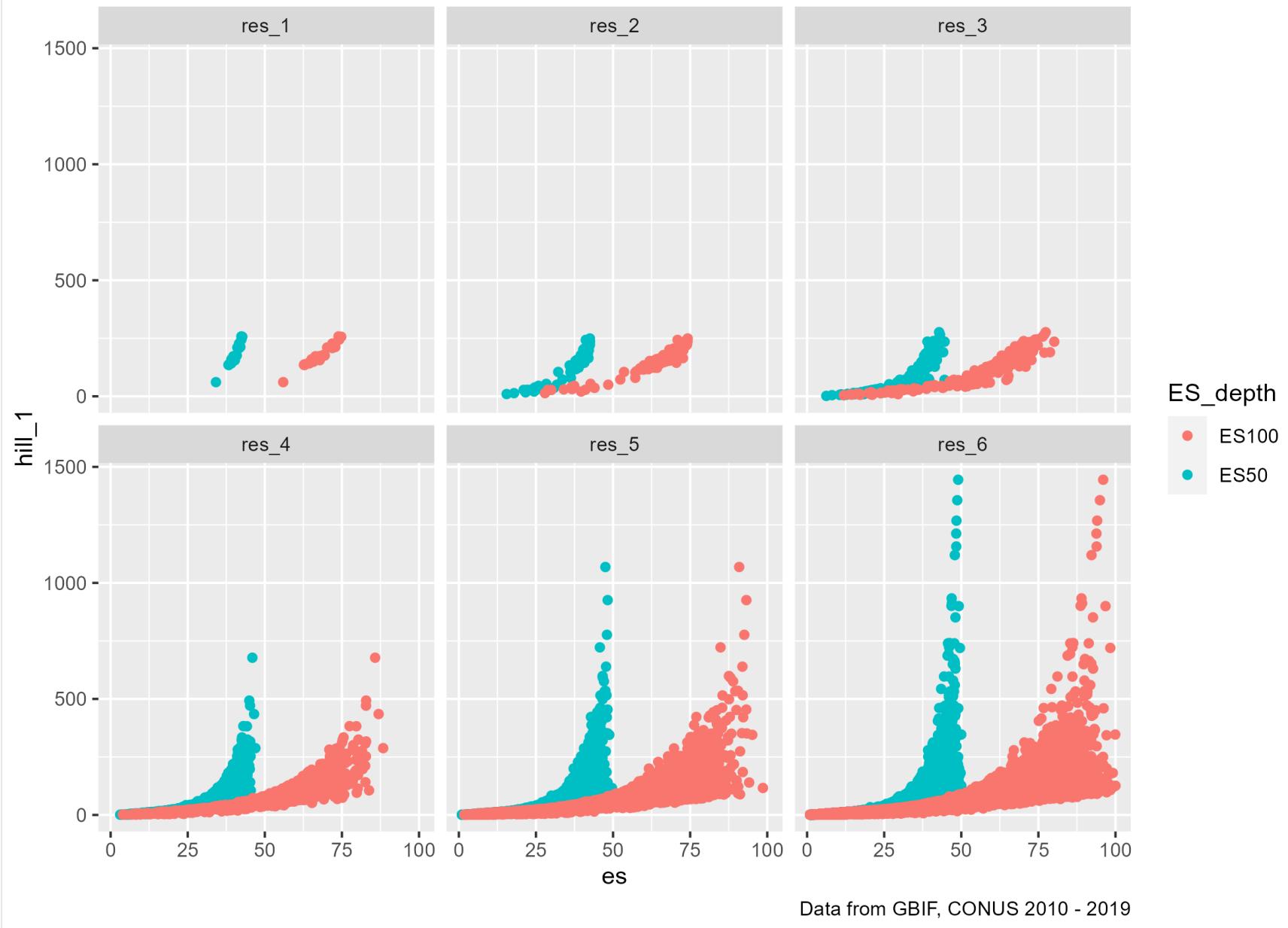


Data from GBIF 2010 - 2019

Expected Species vs Shannon at H3 resolutions 1-6



Expected Species vs Hill_1 at H3 resolutions 1-6



Number of records vs Indices at H3 resolutions 1-6

