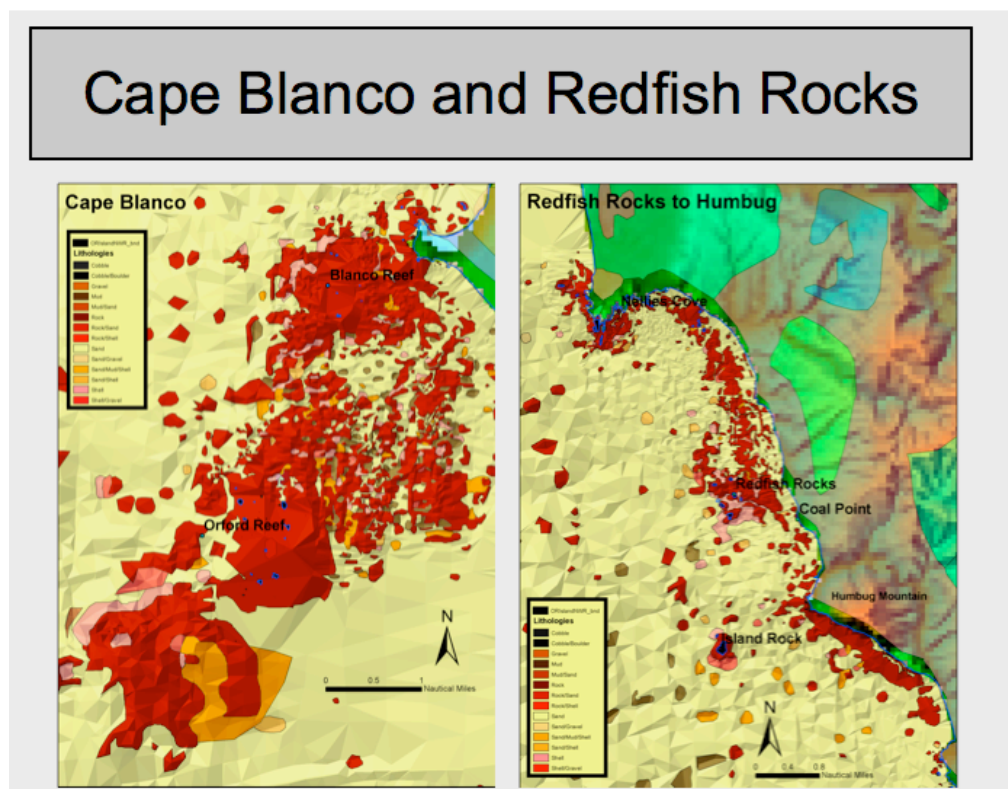


## Seafloor mapping off the Oregon coast—presentation by Chris Goldfinger, Oregon State University

Approximately 5-7 % of Oregon's territorial sea has been mapped in high resolution. The current regional maps available until now are the best maps that could be made with the very limited existing data. When the mapping team set out in September to create these maps, they came upon a gold mine of bottom sample data dating back to 1858. This data was older USCGS (now NOS) sample data that had never had never been digitized for Oregon and Washington. This included ~ 9,300 bottom samples that were digitized and combined with existing data (Figure 1). From the combined dataset, a new surficial geologic habitat map was constructed encompassing the Oregon Territorial Sea. Lithologic interpretation included rock, sand, mud, gravel, shelly and mixed sediments. Kelp mapped from aerial surveys was used as a proxy for a rocky bottom type and augmented the sample data. The density of this sampling is not likely to ever be recreated, and can be used to help ground truth future high resolution mapping efforts. While the data span 150 years, the navigation and data quality are remarkably good, typical navigational accuracy is less than 30 meters, determined by comparing the surveyed positions of offshore rocks to modern data.



**Figure 1.** Map of Cape Blanco and Redfish Rocks areas created from digitized bottom sample data from NOS archives.