# WEST COAST OCEAN DATA PORTAL

ITMD 2024 Annual Workshop February 13<sup>th</sup>, 2024



- Established as a regional ocean data portal to serve the needs of the west coast states, tribal, and federal government entities.

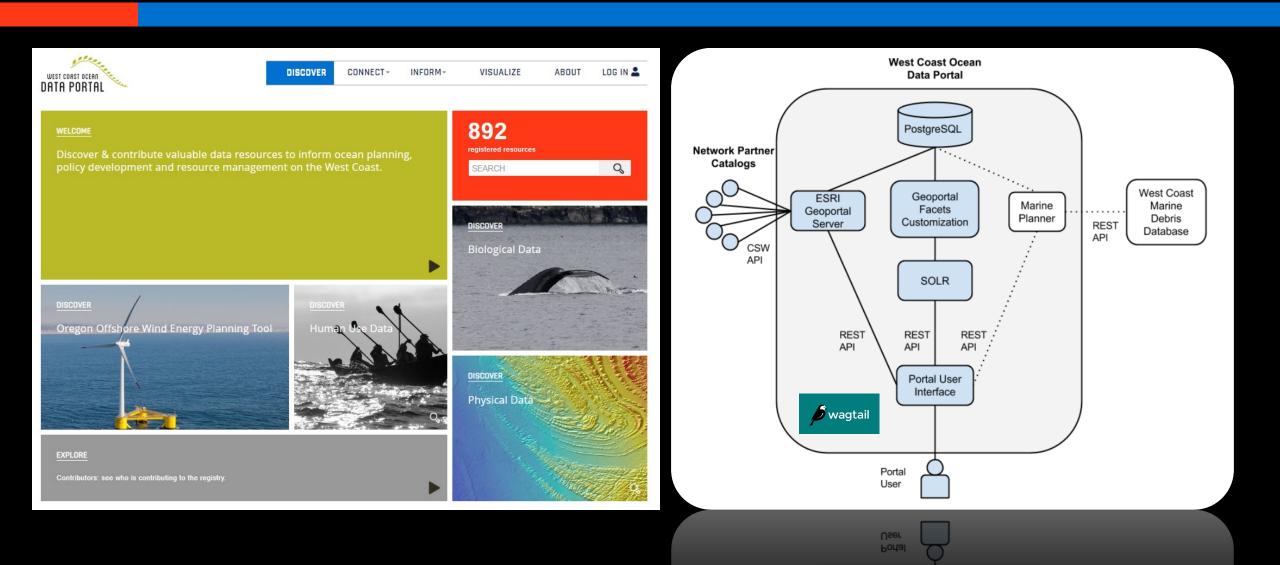
- Provides a mechanism for data coordination across multiple entities.

- Is focused on providing a catalog that is organized and searchable.

- Founded on the principle of harvesting metadata from across data source providers to catalog and enhance discovery of timely and relevant data and information products.







# Portal Technology Overview



		West Coast Ocean Data Portal
WEST CORST OCEAN DATA PORTAL	DISCOVER CONNECT~ INFORM~ VISUALIZE ABOUT LOG IN 🚨	PostgreSQL
Search the Catalog Q	892 items 🚍 By Relevance 👻	Network Partner Catalogs
> Map	2011 VESSEL DENSITY &Itp>&Itspan style='font-size:10.5pt; font-family:"Lucida Sans	ESRI Geoportal Server Customization Marine Planner
> Time Period	Unicode&:auot:.&:auot:sans-serif&:auot:: color:#4D4D4D: Links+ HTML XML JSDN	
> Date	2015 VESSEL TRANSIT COUNTS BY TYPE Automatic Identification Systems (AIS) are a navigation safety device that transmits and	Meta SOLR
> Hierarchical Category	monitors the location and characteristics of many vessels in U.S. and international waters in Links+ HTML XML JSON Download	data. xml
> Metadata Type	2016 VESSEL TRANSIT COUNTS BY TYPE Automatic Identification Systems (AIS) are a navigation safety device that transmits and	REST REST PIST API
> Keywords	monitors the location and characteristics of many vessels in U.S. and international waters in Links+ HTML XML JSON Download	Portal User Interface
> Origin Type	2017 VESSEL TRANSIT COUNTS BY TYPE	↓ wagtail
> Source of Origin	Automatic Identification Systems (AIS) are a navigation safety device that transmits and monitors the location and characteristics of many vessels in U.S. and international waters in Links+ HTML XML JSDN Download	Portal

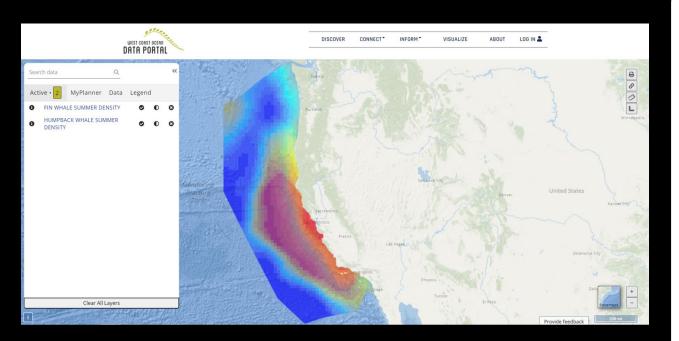
https://wcodp.readthedocs.io/

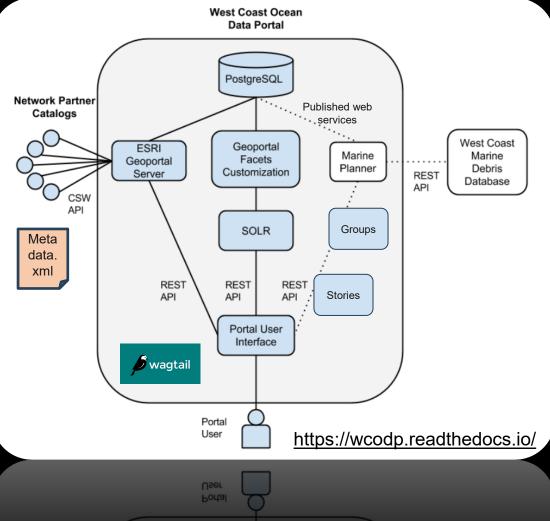
User

User Portal









### Marine Planner and Catalog Technology

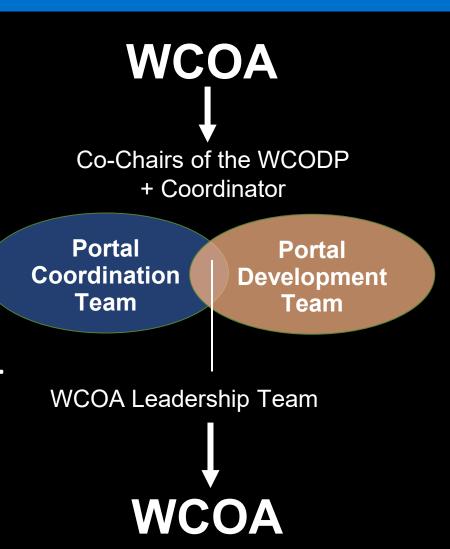


Portal website and user interface	Harvest into catalog	Search the catalog	Marine Planner
<ul> <li>Wagtail Content Management System (Python)</li> </ul>	<ul> <li>Web accessible folders</li> <li>ESRI Geoportal Server</li> </ul>	<ul> <li>JavaScript and HTML</li> <li>Geoportal Facet Customizations</li> <li>SOLR</li> <li>PostgreSQL/PostGIS</li> </ul>	<ul> <li>Open Layers</li> <li>Django data administrative database</li> </ul>

## Technical Enhancement Process



- Leadership (Co-chairs): Andy Lanier, Oregon Coastal Management Program Steve Weisberg, Southern California Coastal Water Research Project
- West Coast Ocean Data Portal Coordinator Laura Bliss
- Portal Coordination Team
   Enhancement big picture concepts and goals.
- Portal Development Team Enhancement specifics (code, software, timelines, etc.).



### **Technical Enhancement Process**



### Enhancements are tracked, organized, and prioritized using GitHub.

□ 💿 14 Open 🗸 20 Closed	Author 🗸	Label 🗸	Projects 🗸	Milestones 🗸	Assignee 🗸	Sort <del>+</del>
Landing page for WCODP data catalog like OROWindMap component->cms priority - #34 opened last week by LauraBlissEco	-> medium who	o->ecotrust				
<ul> <li>CMS coding to make West Coast Ocean Data Portal landing pages for each indicat component -&gt; dashboard component-&gt;cms priority -&gt; high who-&gt;ecotrust #33 opened last week by LauraBlissEco</li> </ul>	or in wagtail					
<ul> <li>Zoom to layer or extent like Northeast Ocean Data Portal component-&gt;mapviewer pri who-&gt;ecotrust #32 opened 2 weeks ago by LauraBlissEco</li> </ul>	ority -> medium	what->enha	ncement			
<ul> <li>Look into how Geoportal Catalog listings from Arc Feature Services are displayed</li> <li>#31 opened on Jun 22, 2022 by tchaddad</li> </ul>	component->cat	alog what->	question			
<ul> <li>Facets in hard-coded searches cannot be cleared component-&gt;catalog component-&gt;cms</li> <li>who-&gt;ecotrust</li> <li>#27 opened on Aug 27, 2021 by tchaddad</li> </ul>	what->enhanc	ement				
□ O Geoportal enhancements related to OIH component->catalog what->enhancement who #25 opened on Jun 16, 2021 by tchaddad ♀ 2023	->ecotrust who	->esri who	->odp			<b>Ç</b> 1
□ ⊙ Fix support for WMS requests to Esri ImageServers component->mapviewer priority -> #24 opened on Apr 21, 2021 by tchaddad ♀ 2022	high what->bu	g who->ecc	otrust			<b>7</b> 3
<ul> <li>Option to show more than 10 results per page component-&gt;catalog priority -&gt; medium</li> <li>who-&gt;esri</li> <li>#19 opened on Dec 11, 2020 by tchaddad \$\frac{1}{2}\$ 2021</li> </ul>	what->enhancer	<mark>nent</mark> who->	ecotrust			Ç 1

### https://github.com/WCODP





- Basemaps and their citations for publication
- Maps can be printed to pdf
- Groups and flexible permissions for sharing data or map annotations
- User-added layers with password options
- Measure area tool





 Ocean Health Dashboard landing page templates in the Wagtail content management system.



 Improving the database administration system for improving connections between the catalog and the visualization tool.





- Providing data for harvesting (catalog).
- Using the Marine Planner for map making, sharing, etc.
- Providing data to show on the Marine Planner.

### Harvesting



#### Contributors

The data and information accessible via this portal are available thanks to the contributions of many agencies and institutions up and down the West Coast. Current data harvest sources include:

#### Federal

- Bureau of Ocean Energy Management (BOEM) Bureau of Safety and Environmental Enforcement
- Federal Aviation Administration (FAA)
- Fishery Resource Analysis and Monitoring Division (FRAM)
- National Centers for Environmental Information (NCEI)
- National Oceanic and Atmospheric Administration (NOAA) CetMap (Cetacean map)
- · NOAA Fisheries Essential Fish Habitat
- NOAA National Centers for Coastal Ocean Science (NCCOS)
- NOAA National Ocean Service
- NOAA Northwest Fisheries Science Center (NWFSC)
- · NOAA Office for Coastal Management
- NOAA Office for Coastal Management Marine Cadastre
- NOAA Office of Science and Technology
- NOAA Southwest Fisheries Science Center (SWFSC)
- · Office of Coast Survey U.S. Maritime Limits & Boundaries
- U.S. Census Bureau
- U.S. Environmental Protection Agency • U.S. Geological Survey (USGS) - Earthquakes Hazard Program
- U.S. Geological Survey (USGS) ScienceBase
- U.S. Integrated Ocean Observing System (IOOS)
- U.S. National Park Service (NPS)

#### State

- · California Natural Resources Agency
- · California State Geoportal
- · Oregon Department of Land Conservation & Development (ODLCD
- Oregon Geospatial Enterprise Office (GEO)
- · Oregon Ocean Information (OAH)
- · Oregon Spatial Data Library (SDL)
- · Washington Geospatial Open Data Portal
- · Washington Sea Grant
- Washington State Department of Natural Resources

#### Regional

- Northwest Association of Networked Ocean Observing Systems (NANOOS)
- Central and Northern California Ocean Observing System (CeNCOOS)
- Southern California Coastal Ocean Observing System (SCCOOS)
- Point Blue Conservation Science

#### Non-governmental

- · Esri ArcGIS Online
- The Pacific States Marine Fisheries Commission (PMEP)

Your choice of data must be available/hosted online.



#### CASSIN'S AUKLET PREDICTED DENSITY, FALL, NCCOS, 2021

This dataset provides seasonal spatial rasters of predicted long-term (1980-2017) density of 33 individual species and 13 taxonomic groups of marine birds throughout the Pacific Outer Continental Shelf (OCS) and adjacent waters off the contiguous United States at 2-km spatial resolution. Two indications of the uncertainty associated with the model predictions are also provided: 1) seasonal spatial layers indicating areas with no survey effort and 2) seasonal spatial rasters of the precision of predicted density of each species/group characterized as its coefficient of variation (CV). Predicted density should always be considered in conjunction with these two indications of uncertainty. This dataset also includes spatial rasters of environmental



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Harvested Apr 04, 2022 from NOAA-NCCOS

#### HTML XML JSON

### Next Steps



- Continued Feedback is Welcome!
  - Laura.Bliss@WestCoastOceanAlliance.org •
  - Andy.LANIER@dlcd.oregon.gov •
- Ongoing Portal Calls
   Next call is today (Feb 13<sup>th</sup>) at 2pm
  - The next call will be focused on our HABS indicator work, Tuesday, April 16<sup>th</sup>, 2pm
- We can share the feedback form and tutorial in the chat.

