



Introduction to CoastWatch

Dale Robinson and Cara Wilson
NOAA CoastWatch West Coast Node (WCN)

NOAA CoastWatch Satellite Course
Online Version – April 2020

Versioning

- Robinson, 2020, 2017
- Tomlinson and Vogel, 2018
- Abecassis and Howell, 2018



CoastWatch is a national program funded by NESDIS¹

MISSION: PROVIDE ACCESS TO AND PROMOTE THE USE OF OCEAN SATELLITE DATA PRODUCTS

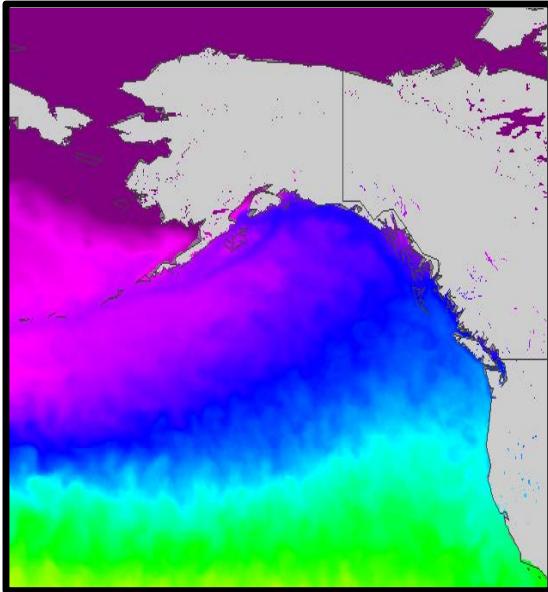


¹National Environmental Satellite, Data, and Information Service



Alaska is served by two CoastWatch nodes

WEST COAST NODE



Cara Wilson¹

Node Manager

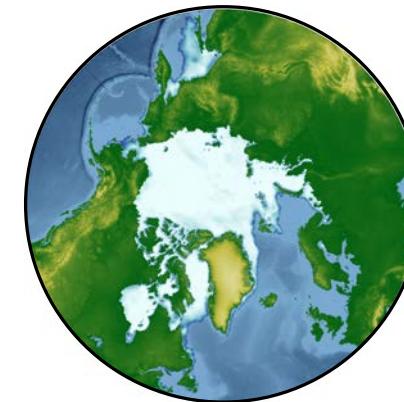
Dale Robinson^{1,2}

Operations Manager

Service Region

Alaska to California

POLARWATCH



Jennifer Sevadjian^{1,2}

Operations Manager

Cara Wilson¹

Node Manager

Dale Robinson^{1,2}

Deputy Node Manager

Service Region

Polar and Sub-Polar Regions

¹NOAA Southwest Fisheries - Environmental Research Division

²UC Santa Cruz- Cooperative Institute for Marine Ecosystems and Climate (CIMEC)



West Coast Node and PolarWatch are embedded in Southwest Fisheries Science Center locations



Cara Wilson

Environmental Research Division (ERD)
Monterey, California



Dale Robinson

Environmental Research Division (ERD)
Santa Cruz, California

Jennifer Sevadjian
ERD (SWFSC HQ)
La Jolla, California



CoastWatch shares expertise among nodes

KNOWLEDGE, CAPABILITIES, AND RESOURCES OF THE NETWORK ARE AVAILABLE TO YOU



Contact information for the nodes and central office

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Contact email

coastwatch.info@noaa.gov

Website

coastwatch.noaa.gov



Central Pacific

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Node Manager

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Node Manager

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Website

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PolarWatch

Ops Manager

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Node Manager

Cara Wilson

Node Manager

Dale Robinson

Website

polarwatch.noaa.gov



CoastWatch is a value-added data provider

WE OFFER SEVERAL LEVELS OF SERVICE TO HELP YOU USE SATELLITE DATA



Provide access to datasets with data servers

**Develop tools and tutorials to help you
interact with the server and use the data**

Provide training and hands-on assistance

Find or create products and resources for your needs

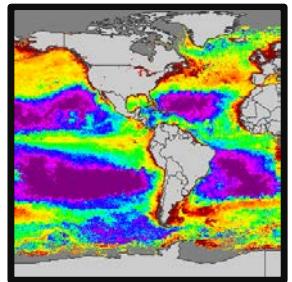
Partnering with you on projects



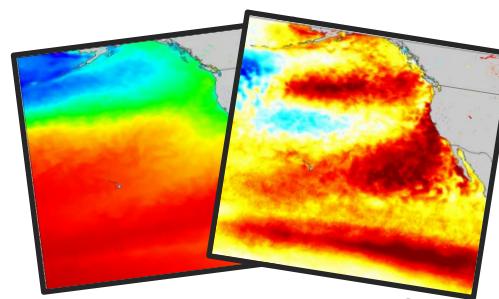
Data servers

THE ERDDAP SERVER PROVIDES A SIMPLE, CONSISTENT WAY TO DOWNLOAD DATA

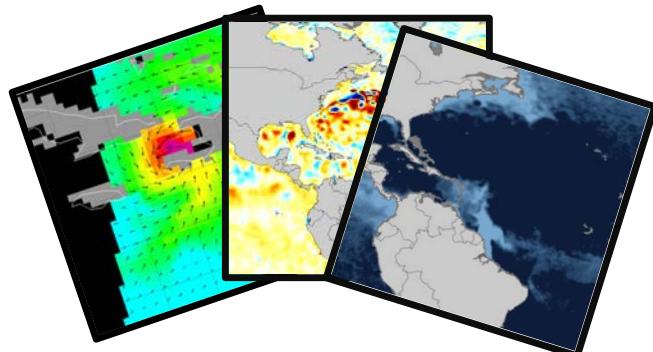
1,000+ SATELLITE DATASETS



Chlorophyll

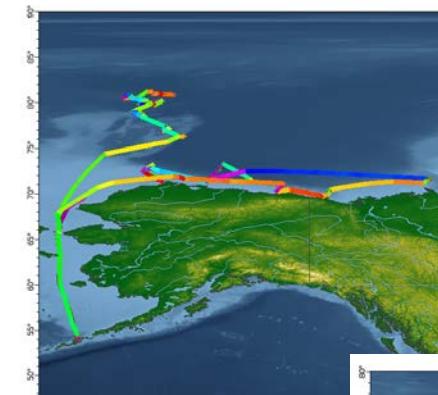


SST · SST Anomaly

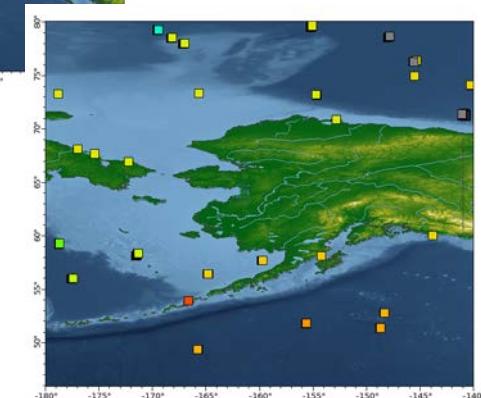


Surface Winds · Sea Surface Salinity
Sea Surface Height and Anomaly

400+ NON-SATELLITE DATASETS



Research Ship
Underway Data



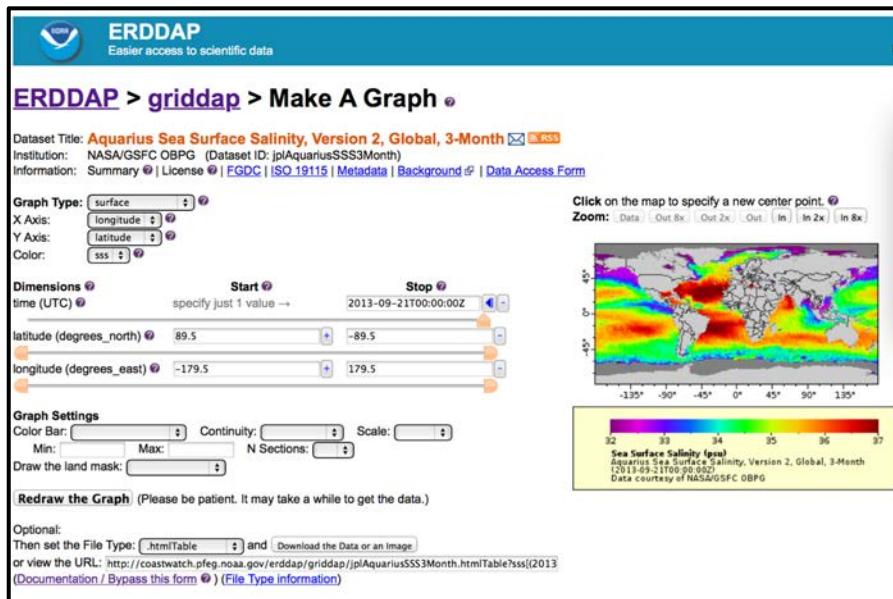
International Arctic
Buoy Program



Data servers

ERDDAP IS THE PRIMARY DATA SERVER AT WEST COAST NODE

<https://coastwatch.pfeg.noaa.gov/erddap/>



ERDDAP Servers at CoastWatch

West Coast Node

<https://coastwatch.pfeg.noaa.gov/erddap/>

Caribbean/Gulf of Mexico Node

<https://cwcgom.aoml.noaa.gov/erddap/>

Great Lakes Node

<https://coastwatch.glerl.noaa.gov/erddap/>

Pacific Node

<https://oceanwatch.pifsc.noaa.gov/erddap/>

PolarWatch

<https://polarwatch.noaa.gov/erddap/>

CoastWatch Central

<https://coastwatch.noaa.gov/erddap/>

ERDDAP PRESENTATION: TUESDAY



Tools and tutorials

FOR HELP ACCESSING AND USING DATA

Scripts and code snippets in R, Python

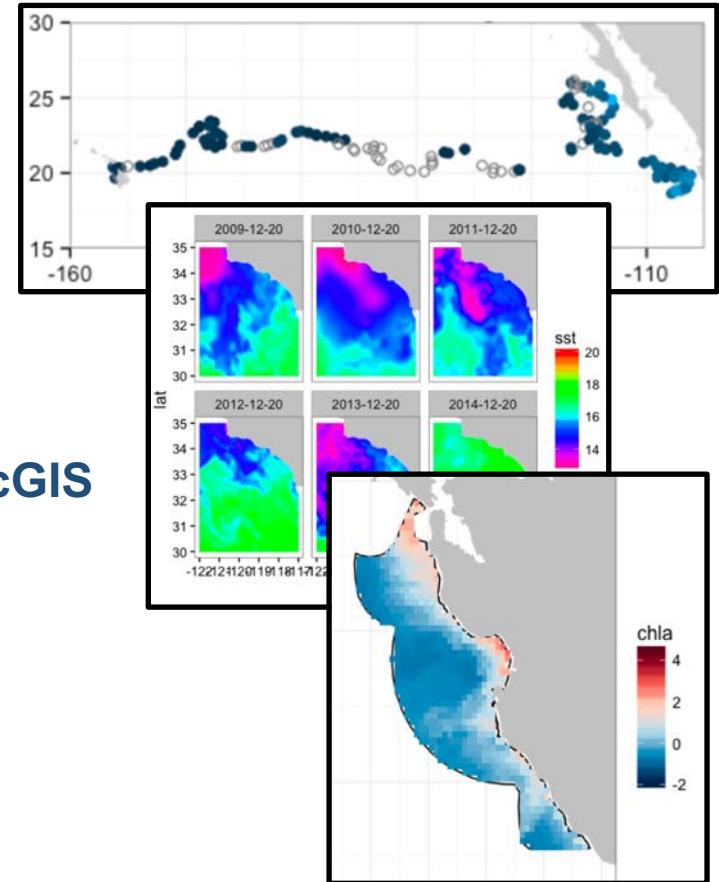
Software modules (R, Python) that do common tasks

Tutorials to complement the scripts and modules

A plug-in and techniques for getting raster satellite data into ArcGIS

R CODE AND TOOLS PRESENTATION: WEDNESDAY

ARCGIS PRESENTATION: THURSDAY



Training

YOU ARE ATTENDING FIRST ONLINE VERSION OF THE SATELLITE COURSE



West Coast Node has held an annual NOAA Satellite Course since 2006.

Starting in 2018, the course is offered by other CoastWatch Nodes and the Central Office.

LIST OF ALL UPCOMING SATELLITE COURSES

coastwatch.noaa.gov/cw/user-resources/satellite-data-training-courses.html

WEST COAST NODE COURSE INFORMATION

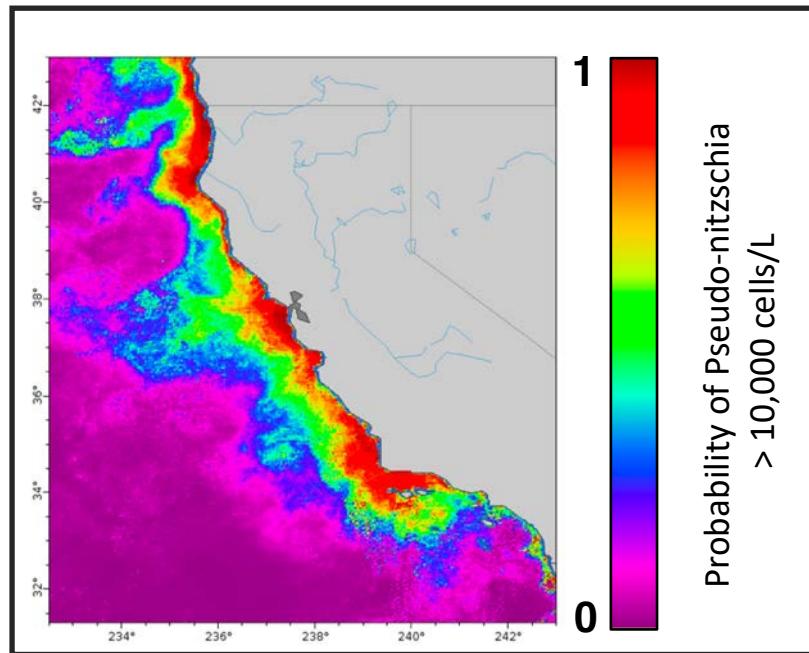
https://coastwatch.pfeg.noaa.gov/courses/satellite_course.html



Partnering with you

ENGAGEMENT WITH RESEARCH AND MANAGEMENT GROUPS

Harmful Algal Bloom Forecast



Fisheries Management Tools

A screenshot of the NOAA COASTWATCH West Coast Regional Node website. The page is titled 'Loggerhead Turtle Conservation' and features a large image of a sea turtle swimming in the ocean. The page includes sections for 'Turtle Bycatch Overview', 'Conservation Area Status', and 'Historical Data Dashboard'. It also includes links for 'View details', 'Closure Status', and 'View data'.

West Coast Node Projects Page: <https://coastwatch.pfeg.noaa.gov/projects/>



Contact us and visit the websites

Questions?

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