



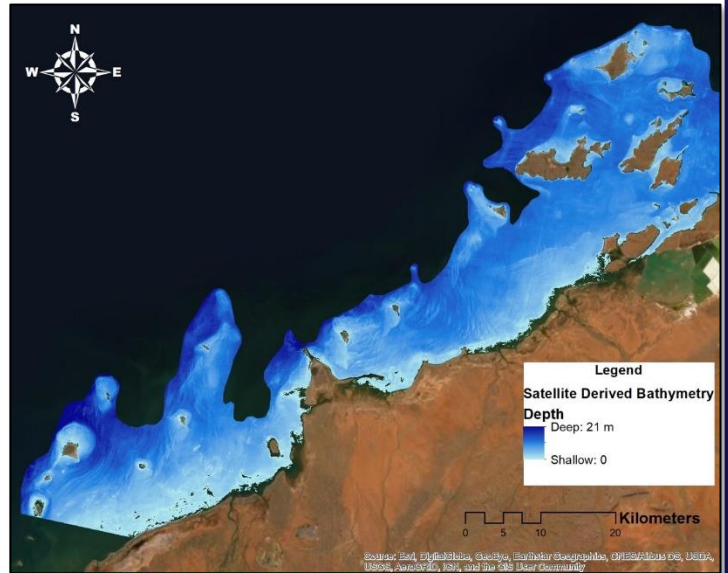
# OREGONVIEW 2020 - 2021



## OREGONVIEW 2020 - 2021 ACTIVITIES

OregonView led an initiative to document requirements, capabilities, and opportunities for **Landsat bathymetric mapping**. Many coastal regions around the world are entirely lacking in bathymetry, the underwater equivalent of topography. The lack of bathymetric data hinders analysis of coral reefs and other ecologically-sensitive nearshore habitats, as well as coastal inundation modeling, wetlands studies, and a range of related coastal science and management activities.

Landsat 8, in combination with other remote sensing data, such as green-wavelength laser altimetry from NASA's ICESat-2, can be used to generate nearshore bathymetry for many coastal regions. OregonView is helping promote and enhance this emerging use of remote sensing data.



*Satellite-derived bathymetry for Western Australia, generated by an OregonView-supported student.*



*OregonView Earth Observation Day Event 2021.*



*Earth Observation Day game board.*

OregonView PI, Chris Parrish, served as Coastal Processes Lead for the NASA Surface Topography and Vegetation (STV) Incubation Team. Leveraging the STV study results, combined with new analysis of Landsat bathymetric mapping capabilities, and the master's thesis work of OregonView-supported graduate student, Ben Babbel, OregonView has documented the current **state-of-the-art and future recommendations for bathymetric mapping with Landsat**.

Another major activity of OregonView and Oregon State University graduate student, Selina Lambert, was the development of the **Earth Observation Day game: Rivers: Our National Water Resource**. In collaboration with AmericaView and NASA partners, Selina designed the gameplay and content and created a virtual (Tabletopia) version of the game. Hundreds of copies of the game have been distributed to AmericaView members and partners to provide a fun, interactive introduction of use of remote sensing data in managing natural resources.

OregonView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.



AmericaView Website:  
[www.AmericaView.org](http://www.AmericaView.org)  
Christopher McGinty, Executive Director:  
[chris.mcginty@americaview.org](mailto:chris.mcginty@americaview.org)  
Lisa Wirth, Program Manager:  
[lisa.wirth@americaview.org](mailto:lisa.wirth@americaview.org)  
Brent Yantis, Board Chair:  
[rodney.yantis@louisiana.edu](mailto:rodney.yantis@louisiana.edu)

## BENEFITS TO OREGON

OregonView is active in education and outreach events related to natural resource management, citizen science, and benefits of remote sensing. Highlights from the past year have included presentations by OregonView State Coordinator, Peder Nelson, at the Oregon GeoFest Workshop, the ASPRS and URISA GIS-In-Action conference, and OhioView Presents: *Remote Sensing on a Shoestring Workshop*. Additionally, OregonView partnered with the ASPRS Student Chapter on a 2021 Earth Observation Day Celebration.



<https://beav.es/JLh>

# Teaching about Oregon through Earth Observations

Peder Nelson, MS

OregonView  
AMERICA VIEW

Center for Geography Education in Oregon GeoFest2021 March 6, 2021

Ground validation with GLOBE Observer  
OhioView Presents

TIME	EVENT
9:00 am – 9:10 am	Workshop Welcome and Getting In – an introduction to OhioView and overview of the workshop
9:10 am – 10:30 am	Session 1: Classification Using Google Earth Engine. Led by Dr. Umesh K. Mishra and Dr. Vahur Agarwal, University of Dayton.
10:30 am – 10:45 am	Break
10:45 am – 12:00 pm	Session 2: Ground validation using the GLOBE Observer app. Led by Dr. Kevin Crabb, University of Toledo, with special guests Dr. Brian Campbell, NOAA and Mr. Peder Nelson, OSU.
12:00 pm – 12:15 pm	Break
12:15 pm – 1:30 pm	Session 3: Estimating Evapotranspiration with Landsat using GTOSS. Led by Dr. Saem Subburayalu and Dr. Eric Debes, Central State University.

2021 workshop presentations given by OregonView State Coordinator, Peder Nelson.

Earth Observation Day Celebration.

## OREGONVIEW CONSORTIUM MEMBERSHIP

The OregonView consortium membership comprises leaders in the remote sensing and geospatial information communities within Oregon and extends across the government, commercial and academic sectors. Member organizations include: Oregon Department of Parks & Recreation (OPRD), USGS Forest & Rangeland Ecosystem Science Center, Oregon Framework Implementation Team (FIT), Oregon Geospatial Enterprise Office (GEO), Portland State University (PSU), Oregon State University (OSU) College of Engineering, College of Forestry, and College of Earth, Ocean, and Atmospheric Sciences.



Oregon State University



Federal consortium members identified above do not receive funding from AmericaView.

OregonView Principal Investigator:

Christopher Parrish

Oregon State University

541-737-5688

Christopher.Parrish@oregonstate.edu



<http://research.engr.oregonstate.edu/parrish/oregonview>