



OREGONVIEW 2019 - 2020



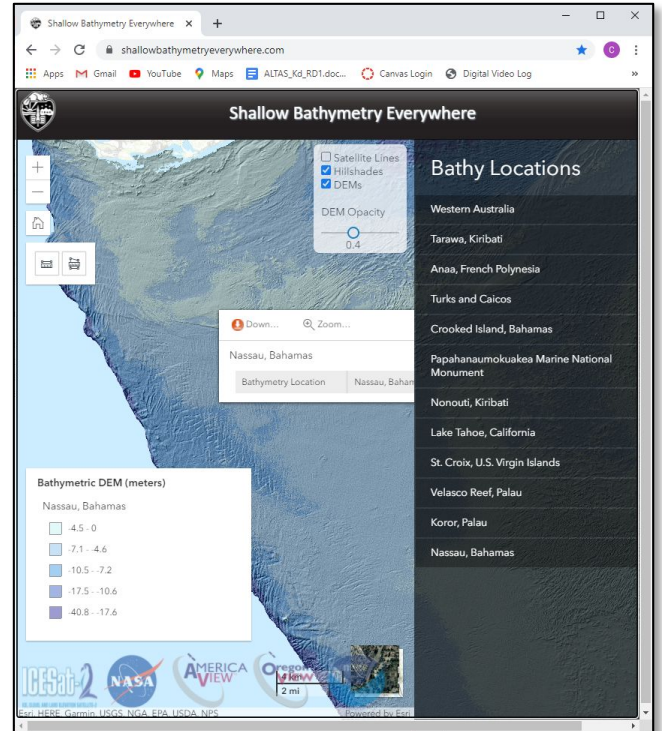
OREGONVIEW 2019 - 2020 ACTIVITIES

OregonView created a new **webGIS for disseminating bathymetric digital elevation models (DEMs)** generated from fusion of Landsat 8 and Sentinel-2 multispectral imagery with NASA ICESat-2 lidar data. Developed by OregonView-supported graduate student, Ben Babbel, the webGIS (<https://shallowbathymetryeverywhere.com/>) contains data for 11 sites with the following functionality:

- View satellite tracklines
- View bathymetric contours and hillshades
- Download bathymetric DEMs

Additionally, OregonView completed a 2019-2020 High Impact Activity (HIA): **Netarts Bay Bathymetric Data Fusion using Satellite Imagery**. Led by OSU graduate student, Selina Lambert, this project investigated the ability to create high-resolution topographic and bathymetric data from a range of remote sensing and field data. The DEMs generated in the project are anticipated to support water quality studies and erosion monitoring in Netarts Bay, a shallow-water estuary on the northern Oregon Coast. The site is of economic and ecological importance within the state and has experienced significant change in recent decades.

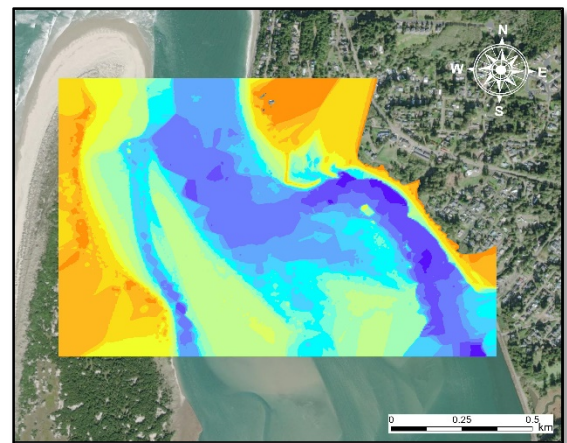
Data acquisition in the Netarts Bay project site was completed in July – September, 2020. Multiple Oregon State University graduate students participated in the fieldwork, which was coordinated with Oregon Parks and Recreation Department (OPRD) GIS Program Lead and OregonView member, Brady Callahan.



ShallowBathymetryEverywhere webGIS developed by OregonView-supported graduate student, Ben Babbel.



Field data collection in Netarts Bay, Oregon.



Netarts topobathymetric DEM.

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.



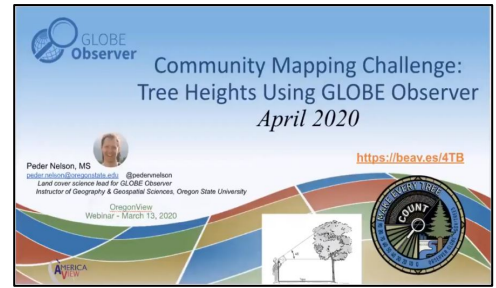
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BENEFITS TO OREGON

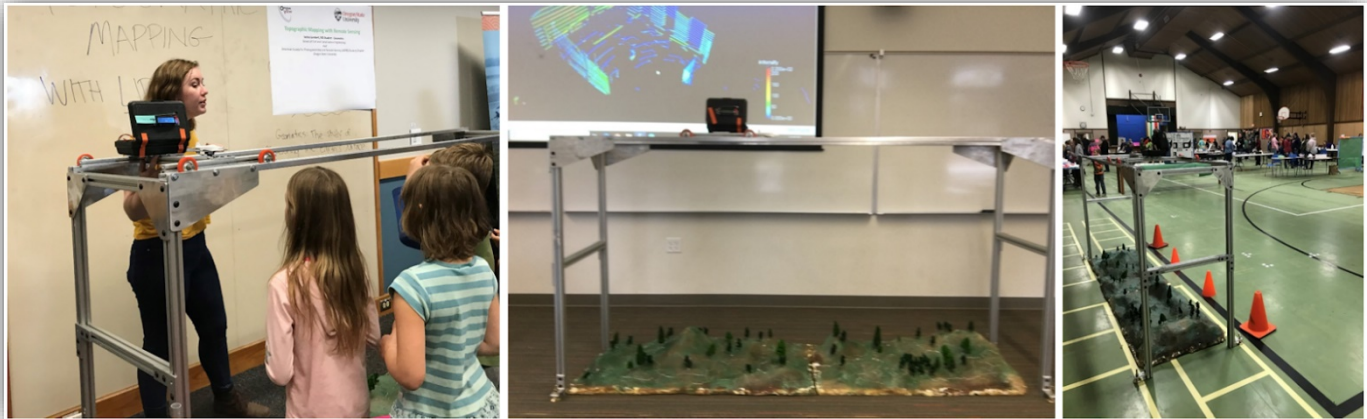
OregonView is active in K-12 STEM education activities within the state. OSU graduate student, Selina Lambert, designed and built a remote sensing demo and led OregonView K-12 outreach at two events:

- *Family Science and Engineering Night* at Monroe Grade School in Monroe, Oregon (elementary and middle school STEM event)
- *Discovering the Scientist Within* at OSU (free half-day event designed to encourage young women to pursue STEM careers)

OregonView member, Peder Nelson, has also been active in outreach, delivering multiple presentations and workshops focusing on GLOBE Observer, citizen science, and use of Landsat imagery.



OregonView presentation on GLOBE Observer, given by Peder Nelson and available on the OregonView website:
https://media.oregonstate.edu/media/t/0_h4842d0u



OregonView remote sensing demos for K-12 outreach events.

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.

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