



WEST VIRGINIAVIEW 2022 - 2023

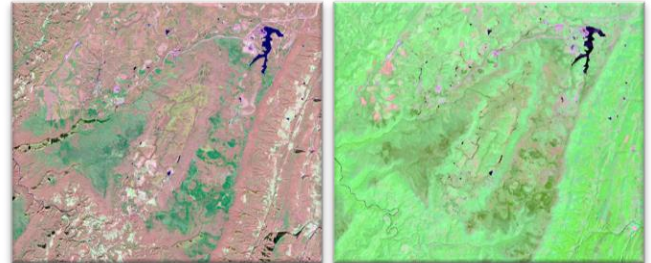
AmericaViewSM
Empowering Earth Observation Education
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WEST VIRGINIAVIEW 2022 - 2023 ACTIVITIES

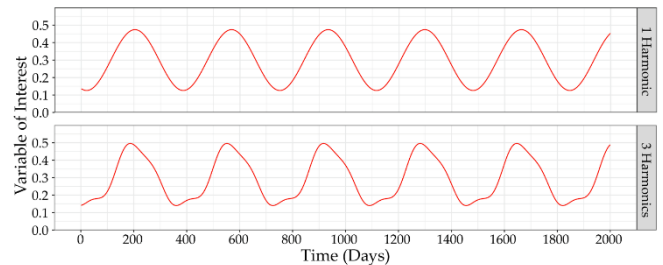
Our **HIA** this year focused on forest community type mapping using the Landsat archive and Forest Inventory and Analysis (FIA) field plots in West Virginia, Maine, and Oregon. Key findings:

- Harmonic regression coefficients generally outperform Global Land Analysis & Discovery (GLAD) phenology metrics.
- Incorporation of land surface parameters derived from 3DEP digital terrain models improves predictive performance in comparison to just using multitemporal spectral data.
- Aboveground live biomass more difficult to predict than forest community types.

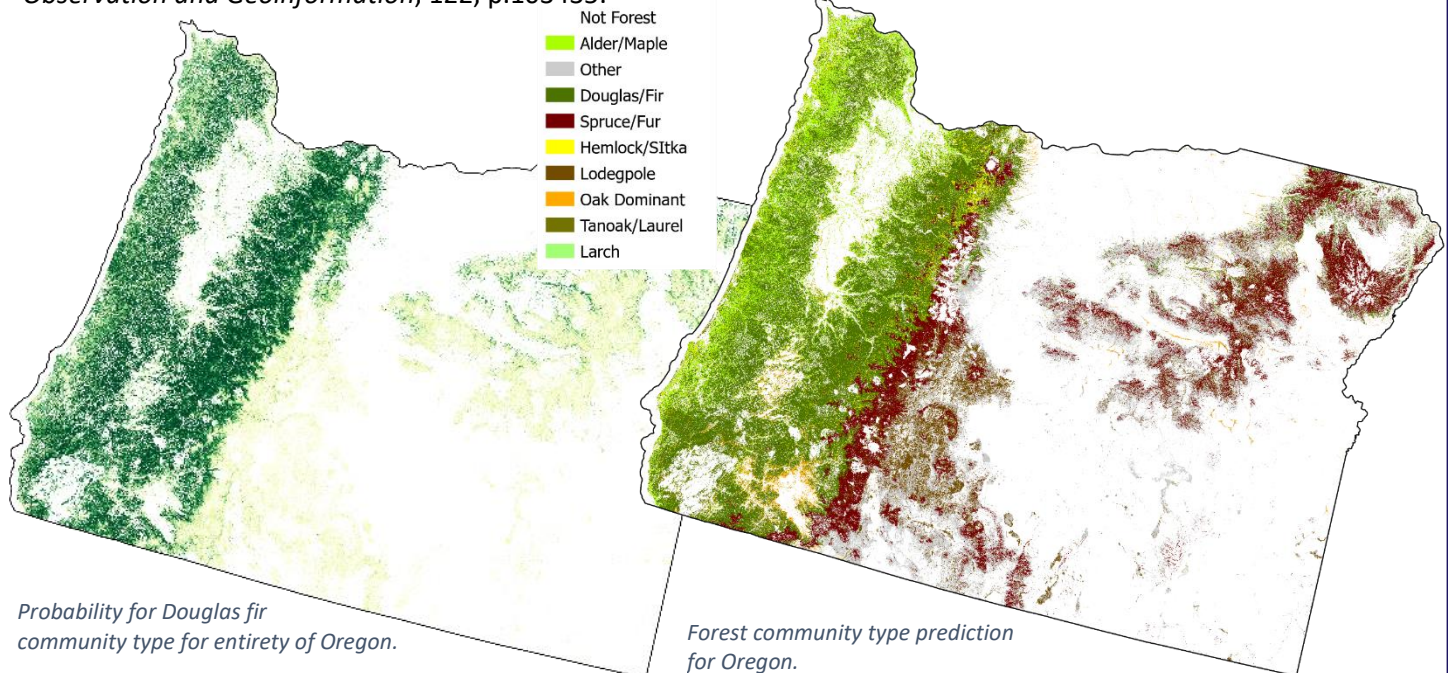
Resulting study is available in open access: Maxwell, et. al., 2023. Comparing harmonic regression and GLAD Phenology metrics for estimation of forest community types and aboveground live biomass within forest inventory and analysis plots. *International Journal of Applied Earth Observation and Geoinformation*, 122, p.103435.



Characterization of seasonality provided by Landsat data aids in forest type differentiation.



Conceptualization of harmonic regression.



Probability for Douglas fir community type for entirety of Oregon.

Forest community type prediction for Oregon.

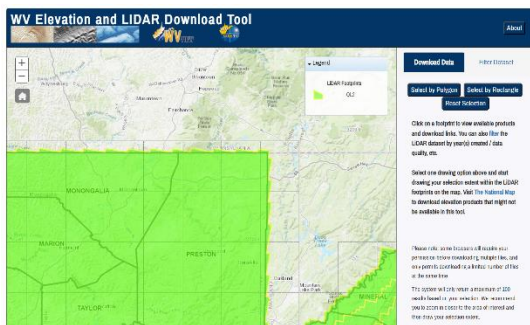
West VirginiaView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded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

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BENEFITS TO West Virginia

- Provide free educational materials for students and geospatial professionals
- Support workforce development
- Courses available:
 - *Methods in Open Science*
 - *GIScience*
 - *Digital Cartography*
 - *Client-Side Web GIS*
 - *Remote Sensing*
 - *Open-Source Spatial Analytics (R)*
 - *Geospatial Deep Learning*
- Foster remote sensing education, outreach, and research
- Provide access to LiDAR data via a web app
- Provide funding for graduate students



WV Elevation and LiDAR Download Tool.



West VirginiaView webpage.

<YOURSTATE>VIEW CONSORTIUM MEMBERSHIP



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

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