

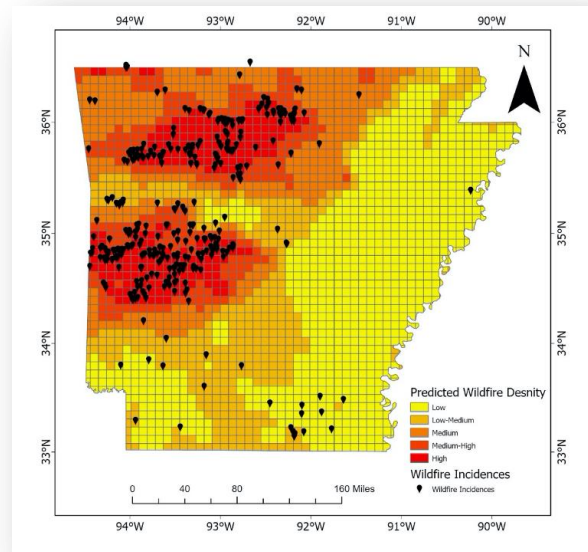


ARKANSASVIEW 2019 - 2020



ARKANSASVIEW 2019 - 2020 ACTIVITIES

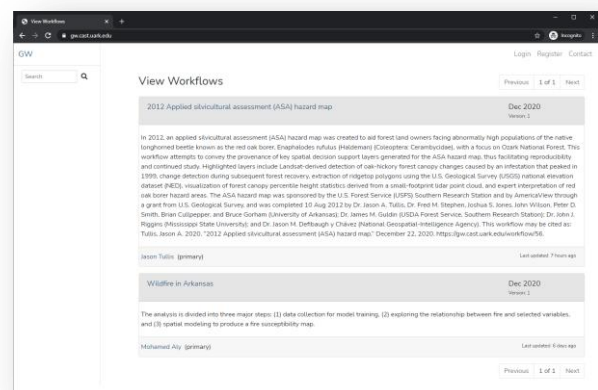
In 2019-2020, ArkansasView sponsored two graduate student interns, published a [geoprocessing and workflows \(GW or "Gigawatt"\)](#) tool, and organized a national [AmericaView GitLab](#) group with an [introductory primer](#) for new users. The "keep it simple" approach of GW allows registered users to capture streamlined workflow titles, descriptions, steps, and sources. Users can now explore, query, and reproduce the first two remote sensing workflows or "recipes" published by ArkansasView using widely available data and geoprocessing tools. The *2012 Applied Silvicultural Assessment (ASA) Hazard Map* (Dr. Jason Tullis) demonstrates the detailed reconstruction of historical forest entomology maps supported by the U.S. Forest Service and AmericaView, and *Wildfire in Arkansas* (Dr. Mohamed Aly) provides a new wildfire susceptibility map for our state. The idea of an AmericaView GitLab has been shared with UtahView, OregonView, and IowaView, with detailed demonstrations underway. While related to the simpler GW tool, the GitLab initiative can itself has generated national interest and can become a valuable independent resource for our consortium.



This wildfire susceptibility map of Arkansas, developed from random forest regression, represents the first of two first workflows published through the new GW tool and via <https://www.arkansasview.org>.



A workshop on how to get started with the AmericaView GitLab group was held with UtahView on 21 Oct 2020, and a [national version of the presentation materials](#) can be found at <https://www.arkansasview.org> together with a prominent link to this GitLab group. Ongoing demonstrations have been planned for early 2021.



The streamlined [geoprocessing and workflows \(GW or "Gigawatt"\)](#) tool launched by ArkansasView in Dec 2020. Anyone can access the detailed steps for published workflows, and registered users can publish new workflows.

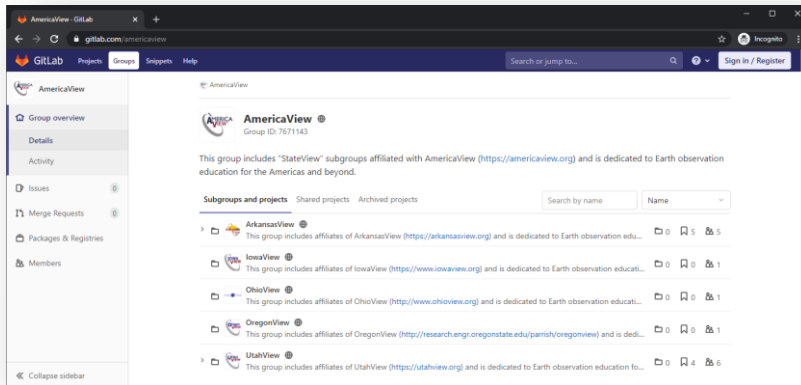
ArkansasView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS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



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BENEFITS TO ARKANSAS

- Development of the streamlined [geoprocessing and workflows \(GW or “Gigawatt”\)](#) tool was conducted by the Center for Advanced Spatial Technologies (CAST) and involved database and overall concept design (Dr. Jason Tullis), web development (Dr. Chris Angel and Hayley Hames), information technology (IT) guidance (John Wilson), and testing (Vance Green). The web development was conducted using GitLab and the data is stored in MySQL. The tool can be continually augmented as registered users join, new workflows are added, and geospatial reproducibility and replicability (R&R) lessons are learned.
- ArkansasView intern Abdullah Al Saim contributed to the [wildfire susceptibility workflow](#), led by Dr. Mohamed Aly. The dynamic of wildfire in Arkansas is very complex, thus the obtained results from the wildfire study can be useful for fire prevention and preparedness to reduce the economic loss and to save lives in the state. Results show that the Ouachita National Forest and the Ozark Forest are the most susceptible areas to wildfires in Arkansas.
- ArkansasView intern Mahud Afroz contributed to the [reconstructed 2012 applied silvicultural assessment \(ASA\) workflow](#), led by Dr. Jason Tullis. This effort underscores the value of historical investments in remote sensing, and provides a demonstration of one way to curate that work so that future efforts (e.g., those related to ongoing forest entomology in the Ozark National Forest and beyond) need not start from scratch.
- ArkansasView staff and graduate student interns received training related to the [AmericaView GitLab](#) group for source control interchange, and a [quick primer is now available](#) for a national audience. This effort places Arkansas as a pioneering leader in R&R related to remote sensing workflows, and provides public demonstrations of how to benefit from source control. Git repositories by their nature can be migrated between platforms and so there is no requirement for long-term commitment to GitLab. The draft site includes five ‘StateView’ subgroups affiliated with AmericaView and is dedicated to Earth observation education for the Americas and beyond.



[AmericaView GitLab](#) group, currently featuring five StateView subgroups: ArkansasView, IowaView, OhioView, OregonView, and UtahView. Some of these are still under development in preparation for future StateView-specific workshops. This GitLab site is not intended to only include content funded by AmericaView but rather content shared by individual AmericaView participants interested in interchanging both public and private source control (code, project files, etc. that can benefit from high quality version control).

ARKANSASVIEW CONSORTIUM MEMBERSHIP



COMMUNITIES
... Unlimited



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