



KANSASVIEW 2023 - 2024

AmericaViewSM
Empowering Earth Observation Education
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KANSASVIEW 2023 - 2024 ACTIVITIES

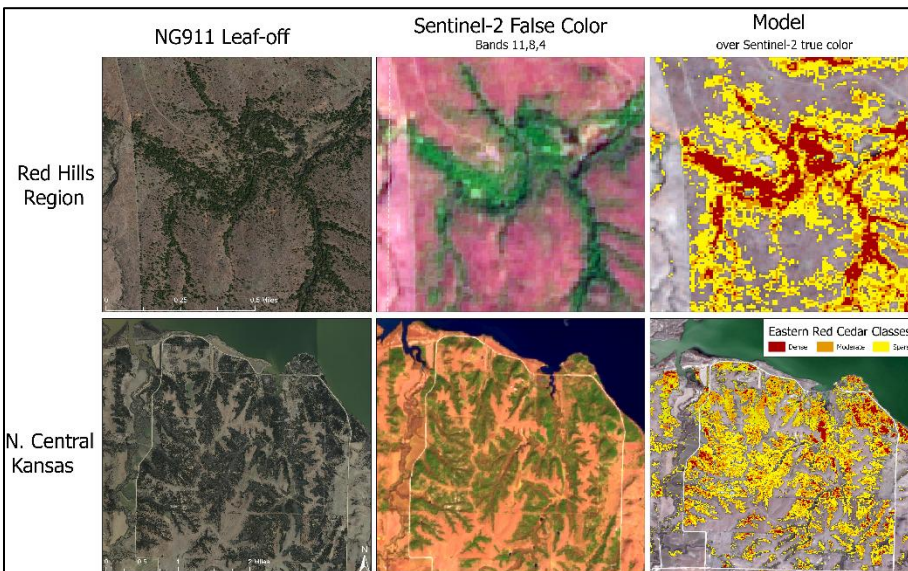
KansasView is building partnerships with state and federal agencies to identify and address threats to grassland biomes in the Great Plains region. The USDA Natural Resources Conservation Service (NRCS), and Kansas Department of Wildlife & Parks (KDWP), and other agencies/partners have active programs to help landowners mitigate Redcedar (and other opportunistic woody species) invasion through physical mechanical or chemical removal. The Kansas Great Plains Grassland Initiative (GPGI), a landowner led, science informed, and agency supported effort, identified woodland expansion by Eastern Redcedar and other opportunistic woody invasives as the greatest threat facing Kansas grasslands due to the attendant reductions in grassland biodiversity and livestock forage opportunity while increasing wildfire risks. Mapping and monitoring woodland expansion are critical for land managers operating at the field, local, state, and federal levels. KDWP and NRCS often use on the ground field assessments to determine the extent of woodland cover and expansion. KansasView developed models to map densities of Eastern Redcedar woody encroachment across Kansas using Sentinel-2 satellite imagery to help agencies identify and prioritize management areas. The interannual maps and technical report are being shared with KDWP and NRCS to help establish strategic partnerships and to expand the scope of this applied remote sensing research. The goal is to support agency and landowners local and landscape level conservation actions across Kansas grassland biome.



An example of Eastern Redcedar expansion into grasslands.



Physical removal of Eastern Redcedar is one conservation action used to protect the Kansas grassland biome.



Aerial (left) and Sentinel-2 (center) imagery showing Redcedar invasion and the modeling results of Eastern Redcedar densities (right).

The left graphic shows examples of Redcedar invasion in South Central (top) and North Central Kansas (bottom). Large patches of Eastern Redcedar are visible in the 1-foot NG911 winter aerial imagery (left; dark green) and in the late winter/early spring Sentinel-2 imagery (center; bright green). Three densities of Redcedar (right, yellow-to-red) were mapped statewide between 2019-2023. Future mapping efforts would focus on using higher spatial resolution imagery and/or developing regional rulesets to refine mapping results. Redcedar maps can be explored in a web mapping application available on the KansasView website.

KansasView 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 G23AP00683.

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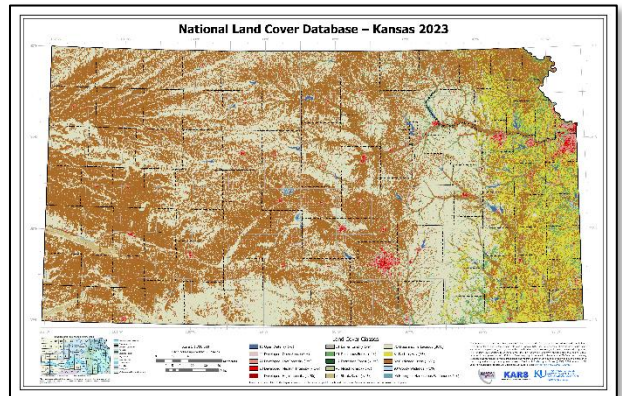
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BENEFITS TO KANSAS

- KansasView participated in the annual Ecosystems of Kansas Summer Institute to educate middle school Kansas biology and environmental science teachers on resources to integrate remote sensing and GIS into their classrooms.
- KansasView is represented at the GIS Policy Board, a consortium for promoting geospatial technology, acquiring critical geospatial datasets, and funding database development that support the mission and objectives of the Kansas Water Office.
- KansasView maintains connections with Kansas stakeholders and consortium members for potential collaborations in outreach, education, and research. Updated land cover maps are a popular educational and outreach tool.
- KansasView attends local and state focused conferences like the Kansas Natural Resource Conference and the Kansas Association of Mappers Conference.



KansasView participated in the 2024 Ecosystems of Kansas Summer Institute to work with Kansas science teachers.



Printed annual land cover maps remain a popular educational and outreach tool to distribute at events throughout the year.

KANSASVIEW CONSORTIUM MEMBERSHIP



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<https://kars.geoplatform.ku.edu/pages/KansasView>