

CONNECTICUTVIEW 2018 - 2019



## **CONNECTICUTVIEW HISTORY AND SUCCESSES**

ConnecticutView was accepted as an Affiliate Member of the AmericaView Consortium in 2010 and became a Full Member in 2014. AmericaView is a nationally coordinated network of academic, agency, nonprofit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. As such, the goals of ConnecticutView are to further the awareness and promote the use of remote sensing technology, from space borne sensors to ground based systems, within the state of Connecticut. To meet these goals, ConnecticutView engages in various activities targeted at the education of K - 12 students, undergraduate students, and the general public, in addition to using remote sensing technology to develop data and information that address specific issues within Connecticut.



Educational activities provided through ConnecticutView funding include the following:

One of a few Landsat remote sensing satellite cloud free image mosaics of Connecticut available for download from the CTView website (<u>https://ctview.uconn.edu</u>). Image captured April 2016 and displaying NIR, SWIR, and RED bands.

- Classroom presentations to middle school students covering basic remote sensing principles coupled with remote sensing content focused on special topics to help reinforce geographical concepts and terminology.
- Development of remote sensing based materials that address appropriate educational standards for Connecticut K-12 education that will become accessible online for use by Connecticut educators.
- Opportunities for undergraduate students to conduct a project of their choosing utilizing remote sensing technology for a study area within Connecticut; to provide hands-on learning experiences for students and support their individualized remote sensing based research learning.
- Development of webinar presentations related to remote sensing sensors, imagery, and data usage in cooperation with the University of Connecticut's Center for Landuse Education and Research (CLEAR) webinar series (<u>http://clear.uconn.edu</u>).



In class presentation to sixth grade social studies class, Hall Memorial School, Willington, CT.

ConnecticutView 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



Undergraduate student project poster.



*Title slide from webinar presented in May 2018.* 





## CONNECTICUTVIEW 2018 - 2019 ACTIVITIES

To address the goal of providing awareness and promoting the use of remote sensing in Connecticut, ConnecticutView staff continue to identify and participate in projects that can take advantage of the technology. These relate to many of the objectives outlined in the USGS National Land Imaging (NLI) Program National Land Remote Sensing, Education, Outreach, and Research Activity (NLRSEORA) grant through the identification and communication of critical information and data requirements. These include support of remote sensing needs at the state level; fostering local and national strategic partnerships; advancing education and training, technology transfer and outreach to enhance the nation's current and future workforce; and supporting the U.S. Department of the Interior Secretarial Priorities.

A top priority activity of which ConnecticutView is undertaking is to characterize the extent and severity of forest defoliation due to gypsy moth caterpillars during the summers of 2016 and 2017. The gypsy moth caterpillar outbreaks resulted in significant defoliation of deciduous forest trees in eastern and southern Connecticut. Coupled with severe drought conditions during the same period has resulted in unprecedented ongoing forest mortality that is not fully understood by forest managers. Remote sensing technology is being utilized to provide a systematic analysis of the damage that has been inflicted on Connecticut forests. Through this project, ConnecticutView has the opportunity to influence directly management decisions in Connecticut and provide end users with a better understanding of the use of remote sensing science and technology. Results of the analysis are being provided to the general public in the form of an ESRI Story Map Journal accessible through the ConnecticutView website.

Another major endeavor of which ConnecticutView has developed is a mobile art exhibit that displays satellite based



"Our Earth Revealed" satellite imagery exhibit displayed during GIS Day, Nov. 2018 (left) and at the Connecticut Conference on Natural Resources, Mar. 2019 (right).



Analysis using Landsat 8 and Sentinel-2 remote sensing satellite imagery for the identification of gypsy moth caterpillar defoliated forest areas in Connecticut during 2016 and 2017.

remote sensing imagery. The exhibit, titled "Our Earth Revealed", contains images printed on canvas that highlight the patterns, shapes, colors, and textures of the natural and human-made landscape as well as views of forced migration, violence, and destruction triggered by autocracy, racial aggression, and ethnic tension. The intent is to prompt viewers to observe and recognize the beauty in the world and to contemplate the role humans play in its shaping. The exhibit was initially funded through a Metanoia on the Environment grant, and has been displayed at over five locations. Some samples from our collection can be viewed on the <u>ConnecticutView website</u>.

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https://ctview.uconn.edu