



The Spring 2014 Newsletter highlights how the Appalachian LCC and its partners are addressing landscape issues and bringing together a community to find sustainable solutions.

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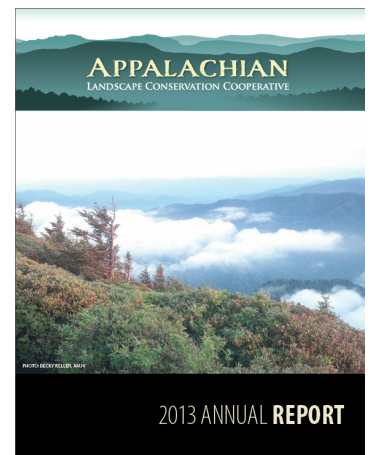
APPALACHIAN LANDSCAPE CONSERVATION COOPERATIVE

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APPALACHIAN LCC INITIATIVES:

2013 Annual Report

As an integral part of the National Landscape Conservation Cooperative (LCC) network and dedicated to integrating science information and tools with on-the-ground conservation action to address landscape-scale issues, the Appalachian LCC is transforming the landscape conservation vision into action. The Appalachian LCC has taken great strides this year in serving as the catalyst for a collaborative network, assembling foundational data and information, providing decision support tools and products, enhancing the visibility of conservation actors, and staying relevant while evaluating progress. Our Annual Report highlights these key achievements taking place across the broader Appalachian region.



LEARN MORE: <http://applcc.org/the-cooperative/our-work/appalachian-lcc-2013-annual-report/view>

LCC Coordinator Gives Keynote Address at Earth Day Celebration

Appalachian LCC Coordinator Dr. Jean Brennan was a featured speaker for the Distinguished Lecture Series at Northwest Missouri State University during its annual Earth Week Celebration. Internationally recognized for her work with the Intergovernmental Panel on Climate Change and her work on natural resource adaptation, Jean was one of this year's featured speakers for the James H. Lemon Memorial Lecture. Past speakers include Robert F. Kennedy, Maya Angelou, and Fred Haise. Jean's talk discussed the link between climate change and issues that have immediate, demonstrable impact on humans, wildlife, and ecosystems as well as how working to address this problem requires building partnerships with public and private institutions. She introduced the audience of students, faculty, and members of the community to the US Fish and Wildlife Service's efforts in promoting Landscape Conservation Cooperatives as a new and emerging conservation

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approach to address climate change impacts and land-use changes.

“Dr. Brennan brought a heightened awareness of environmental responsibility and a passion to promote the United States’ premier natural resources conservation agency, which is pertinent and infectious,” said John Jasinski, President of Northwest Missouri State University.

Along with the keynote address, Dr. Brennan participated in the University’s and State Arboretum’s 20th Anniversary tree-planting ceremony, gave TV and radio interview at the local NPR radio station, and participated as a panelist at the President’s Women in Science luncheon that provided an opportunity to discuss issues relating to helping to encourage more women into STEM (Science, Technology, Engineering, and Math) disciplines as a role model for woman applying their scientific training to exciting and non-traditional and exciting careers.



Coordinator Jean Brennan (right), with Professor Johanne Fairchild who started the University’s Arboretum, was among the honored guest at the Earth Day Celebrations and participated in the President’s Women in Science Luncheon.

PROJECT HIGHLIGHTS:

Climate Change Vulnerability Report Recommends Assessment Method

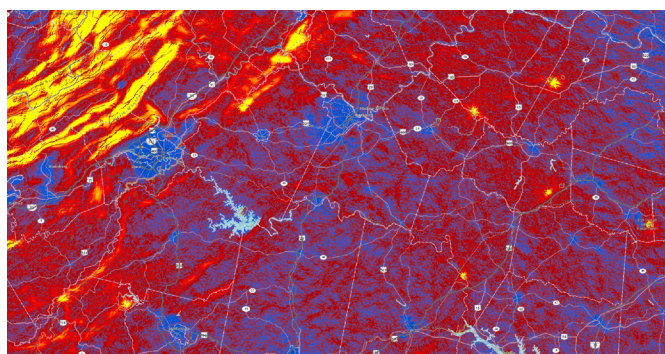
The Climate Change Vulnerability Assessment funded research project, conducted by NatureServe, completed a synthesis report that compiled and reviewed existing vulnerability assessments, compared strengths and weaknesses of methodologies used, and recommended a vulnerability assessment method for adoption by the Appalachian LCC. An assembled Panel of climate experts combed the climate change literature to assist NatureServe in discerning the most appropriate methodologies for use in the region. The recommended method will now be deployed to generate vulnerability assessments for a suite of key species and habitats selected in consultation with partners of the Cooperative. The multi-scale vulnerability assessments will incorporate species-specific physiological and other data to identify habitats and species of those selected that would be most vulnerable to climate change, especially range-limited/endemic species. Once completed, the vulnerability assessments will be housed on an easily accessible database on the Appalachian LCC Web Portal.



LEARN MORE: <http://applcc.org/research/climate-change-vulnerability-group>

Completion of Data Needs Assessment Research Project

The Data Needs Assessment funded research project, led by Dr. Rob Baldwin of Clemson University, has completed all tasks and delivered a variety of vital conservation planning products and data to the LCC. The research produced an analysis of tools, data, and processes and delivered usable, open-source data and products to support future planning and modeling

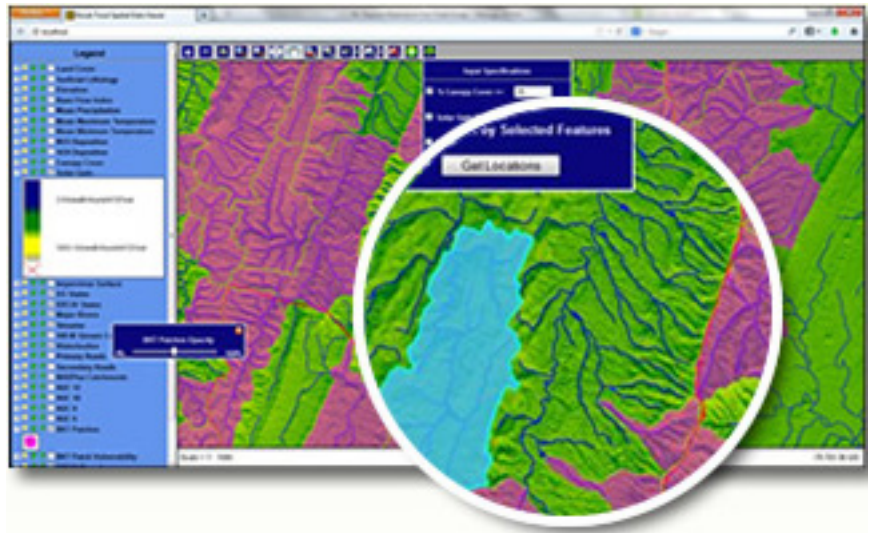


efforts. Researchers reviewed Steering Committee organization’s planning goals to help prioritize and justify science gaps needed to be filled. Finally, an analysis of existing and ongoing planning efforts took place, including State Wildlife Action Plans, to identify opportunities of integrating state and local-scale efforts into regional conservation framework.

LEARN MORE: <http://applcc.org/research/data-needs-gis-group>

Riparian Restoration to Promote Climate Change Resilience Decision Support Tool Released

An innovative riparian planting and restoration decision support tool funded by the Appalachian LCC is now available to the conservation community. This user-friendly tool allows managers and decision-makers to rapidly identify and prioritize restoration for forested communities along the banks of rivers, streams, and lakes, making these ecosystems more resilient to observed impacts and future changes in climate. It will also help the conservation community invest limited conservation dollars wisely, helping to deliver sustainable resources.



The tool works by identifying vulnerable stream and riverbanks that lack tree cover and shade in cold-water stream habitats. By locating the best spots to plant trees in riparian zones, resource managers can provide shade that limits the amount of solar radiation heating the water and reduces the impacts from climate change. This well-established management strategy will benefit high-elevation, cold-water aquatic communities.

For instructions on how to use the

tool, Jason Coombs of the University of Massachusetts provides a detailed overview in a video presentation on Vimeo (<http://vimeo.com/88252739>). Jason explains how managers can tailor the decision support tool to their own specific needs by specifying the amount of canopy cover or the location of the area on the landscape. A web viewer built in combination with the tool also allows users to visualize GIS data layers pertinent to elevation and land cover of the landscape, locations of dams and

gas wells, and data pertaining to the presence of cold-water dependent species such as Eastern Brook Trout.

Both the research and tools from this project are being linked directly with ongoing and future stream flow, temperature, and biological response monitoring and modeling efforts within the DOI Northeast and Southeast Climate Science Center and neighboring LCCs.

Learn More: <http://applcc.org/gis-planning/gis-tools/riparian-restoration-decision-support-tool>

BECOME PART OF THE APPALACHIAN LCC NETWORK:

www.applcc.org/news/become-part-of-the-appalachian-lcc-network

Video Updates of Funded Research Projects

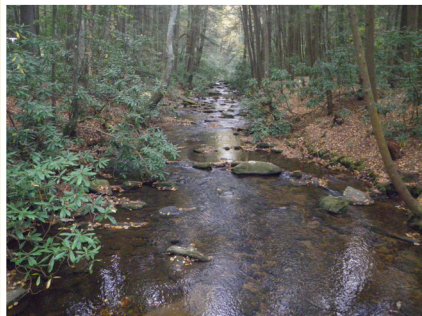
The Appalachian LCC funds research of the conservation community's top science needs to address the landscape-scale challenges within the region. Recently, the Cooperative recorded videos with principle investigators and researchers of our funded projects to provide the conservation community with news of recent progress and next steps. The two most recent videos come from PIs of the Appalachian Energy Impact Analysis and Stream Classification research.



Appalachian Energy Impact Analysis

Judy Dunscomb of The Nature Conservancy describes how the Appalachian Energy Impact Analysis is creating models of wind, shale gas, and coal development potential for the entire Appalachian range to predict potential future energy development and impacts to natural resources. Model results and a web-based map server will help inform regional and local landscape planning decisions that can effectively avoid, mitigate, or offset impacts from energy development to important natural areas and the valuable services they provide.

LEARN MORE: <https://vimeo.com/91309928>



Stream Classification System for Appalachian LCC

Mark Anderson and Arlene Olivero Sheldon of The Nature Conservancy provide an update on the development of a hierarchical classification for stream and river systems and a GIS map for aquatic ecosystems. The study will include a report describing the methods used to evaluate and develop the classification system, a literature review of existing stream classifications, and a GIS stream data set.

LEARN MORE: <https://vimeo.com/91322802>



**Central Hardwoods
Joint Venture**
partnerships for conservation

Enhancing Visibility of Partners: Central Hardwoods Joint Venture

A partnership of state and federal government agencies and non-governmental organizations, the Central Hardwoods Joint Venture (CHJV) works to ensure the long-term viability of native bird populations. The CHJV uses their own science as well as research supported by the Appalachian LCC for delivering on-the-ground conservation activities to protect a diversity of habitats to sustain migratory bird populations for the benefit of those species, other wildlife, and the public.

LEARN MORE:

<http://applcc.org/the-cooperative/organizations/central-hardwoods-joint-venture-1>

COOPERATIVE UPDATES

AppLCC Field Office Relocates to National Conservation Training Center

The USFWS National Conservation Training Center (NCTC) is a facility that trains, educates, and fosters collaboration and problem solving among diverse interests to advance conservation. It provides vast resources, expertise, and opportunities and is the new home of the Appalachian LCC field office. In the short amount of time the field office has located to NCTC, Coordinator Jean Brennan has participated in leadership classes as well as spoken on the activities of the Cooperative and the science of climate change to a wide range of audiences. In the near future, Jean will be a featured speaker for the National Association of Conservation Law Enforcement, where she will discuss the challenges and opportunities of climate change. The academy is based on the adaptive leadership model and responding to climate change is a significant adaptive challenge. Jean's presentation will provide great value in helping the Academy determine responses to climate change.

LEARN MORE: <http://training.fws.gov>



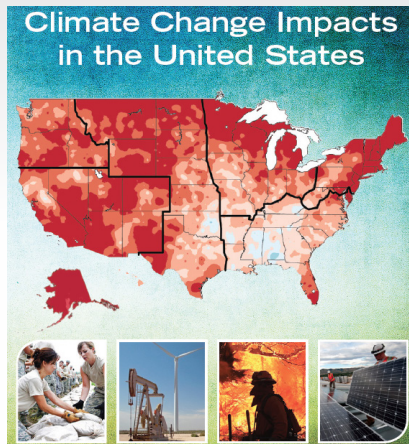
NCTC is a walking campus on a 533 acre property near Shepherdstown West Virginia. The instructional classrooms, commons, and housing are situated within the rural setting of both forest and grasslands. Outdoor patios, walkways, and break areas are situated to easily view the Mid-Atlantic area wildlife throughout the four seasons. Birds, white-tailed deer, fox, and other critters are frequently seen skittering up nearby trees or moving along a grassland culvert.



Next Steering Committee Meeting Set for September

The next Appalachian LCC Steering Committee Meeting will take place from Sept 3-5 at the National Conservation Training Center (NCTC) in Shepherdstown WV. The three-day meeting will bring together management, conservation planning, and human dimension experts to begin to identify natural resource priorities and conservation targets as well as integrate cultural and historic resources into broader landscape-level planning and modeling. The Steering Committee, composed of representatives from federal and state agencies, non-governmental organizations, a representative for the Eastern Band of Cherokee Indians, and the Chairs or appointed representatives of regional partnerships such as Joint Ventures and Fish Habitat Partnerships, meets annually to provide expertise and guidance regarding the Appalachian LCC programmatic, policy, and funding decisions.

IN THE NEWS:



Our Changing Climate – Third National Assessment Released

The Third National Climate Assessment (NCA) report, written by 240 scientists who worked in teams reflecting their expertise, concludes climate change is already happening across the United States. The report documents ways climate change is altering agriculture and forestry systems across the country and evaluates how these systems are likely to be affected in the future.

LEARN MORE: <http://applcc.org/news/our-changing-climate-2013-third-national-assessment-released>



Secretary Jewell Releases Landscape-scale Mitigation Strategy

The strategy, which will advance landscape-scale, science-based management of America's public lands and wildlife, seeks to provide clarity and consistency to more effectively avoid, minimize and compensate for impacts on public lands. The strategy strongly aligns with the mission and goals of Landscape Conservation Cooperatives.

LEARN MORE:
<http://applcc.org/news/secretary-jewell-releases-landscape-scale-mitigation-strategy>



USFWS Announces Completion of National Wetlands Database and Interactive Mapping Tool

The U.S. Fish and Wildlife Service announced the completion of the most comprehensive and detailed U.S. wetland data set ever produced, capping a 35-year effort by the Service to map the extent of the nation's wetlands. The Wetlands Inventory Mapper is an invaluable aid to landowners, developers, government planners and permitting authorities, conservation organizations and academic institutions in their collective efforts to ensure wetland conservation and inform economic development.

LEARN MORE: <http://applcc.org/news/u.s.-fish-and-wildlife-service-announces-completion-of-national-wetlands-database-and-interactive-mapping-tool>