

# APPALACHIAN

LANDSCAPE CONSERVATION COOPERATIVE

WINTER 2014

*The Winter 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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LANDSCAPE CONSERVATION COOPERATIVES

APPALACHIAN LANDSCAPE CONSERVATION COOPERATIVE

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## Voices from the Appalachian LCC Community

Interviews with scientists and resource managers highlight the conservation challenges facing the Appalachian region as well as how the Appalachian LCC can address these landscape issues and bring together a community to find sustainable solutions.

These video interviews include representatives from state and federal agencies, NGOs, and regional partnerships. Each gives their unique perspectives on the unique habitats and common environmental problems that stretch across the Appalachians and how the Cooperative can greatly benefit conservation by bringing together various organizations and expertise to address challenges beyond the scope of any one organization.

LEARN MORE: <http://applcc.org/the-cooperative/interviews-applcc-priority-science-needs-workshop>



Rodney Bartgis,  
The Nature Conservancy

## APPALACHIAN LCC AND PARTNER INITIATIVES

### Appalachian LCC Expertise Database Goes Live

The Appalachian Landscape Conservation Cooperative (LCC) is excited to announce the launching of its unique Member Directory, an expert database tool that is bringing together a diverse range of individuals and expertise interested in participating

in landscape conservation efforts throughout the region. This database will be an ideal tool for colleagues to seek out and communicate with others in their field of interest and identify experts to collaborate on projects.

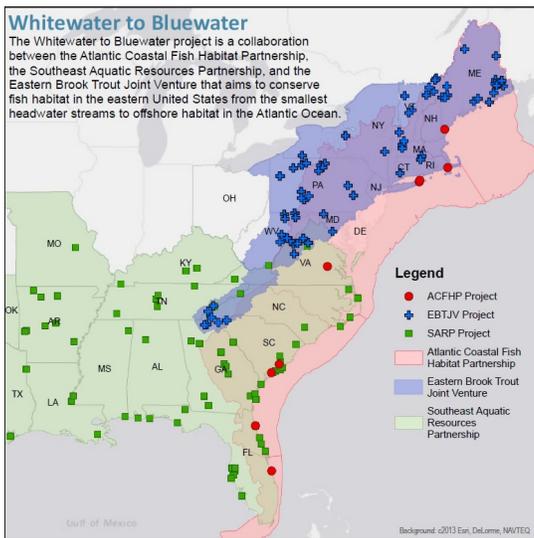
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Many individuals have already joined our Web Portal and developed a member profile to become part of a searchable database that is creating a dynamic conservation community network for the Appalachian region. Now by identifying areas of expertise and region of expertise within their profiles, users will allow Portal members and the conservation community at large to search for experts from a wide range of fields as well as Network with those of similar research, project, habitat, and funding interests.

**BECOME PART OF THE APPALACHIAN LCC NETWORK:**  
[www.applcc.org/news/become-part-of-the-appalachian-lcc-network](http://www.applcc.org/news/become-part-of-the-appalachian-lcc-network)

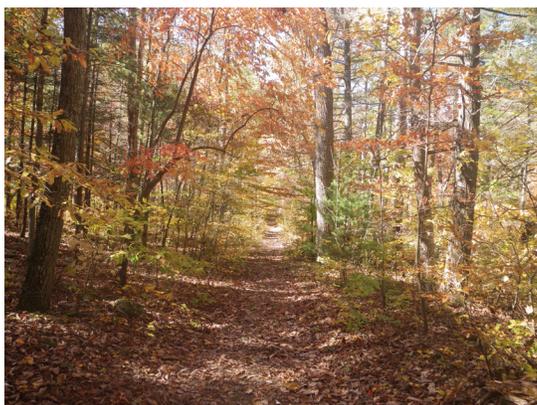


## Partners Launch Whitewater to Bluewater Site

The new Whitewater to Bluewater website offers an opportunity for three fish habitat partnerships (Eastern Brook Trout, Southeast Aquatic Resources Partnership, and the Atlantic Coast) to plan on-the-ground conservation work, streamline communication, and maximize their collaboration on assessment and restoration techniques, in addition to providing a repository for shared data. The new website, supported by and fully integrated with the Appalachian LCC and the Eastern Brook Trout Joint Venture, enhances communication to target key decision makers and the general public, creates a more unified conservation message across the region, and provides informative outreach tools on conservation and restoration of fish, other aquatic species, and habitats.

The Whitewater to Bluewater project is significant in that 27 states (ME, VT, NH, MA, CT, RI, NY, NJ, PA, OH, DE, WV, MD, VA, NC, SC, GA, FL, AL, MS, LA, AR, TN, KY, TX, OK, and MO), and their respective fish and wildlife agencies, will benefit from the enhanced coordination and assessment capabilities that are fostered and developed through the collaboration on this website.

LEARN MORE: [www.easternbrooktrout.org/groups/whitewater-to-bluewater](http://www.easternbrooktrout.org/groups/whitewater-to-bluewater)



## Identifying High Value Conservation Areas

There is a critical need to identify natural areas that could benefit from immediate special attention and consideration by managers. A Work Group led by several members of the Appalachian LCC Steering Committee working with LCC staff and partners is identifying “high value conservation areas” where there may be a general consensus about their significance and relevance inside the Cooperative’s geography. High value conservation areas are units that are thought to be important for the sustainability of valued resources, ecosystem health, and biodiversity conservation. The group has completed gathering datasets from various partners concerning portfolio ecosystems (such as high elevation spruce), resilient ecosystems (e.g. forest blocks and watersheds), and habitat restoration opportunities (e.g. avian priority areas). The compilation, review, and synthesis of these data are set to begin soon.

## Working with SAMAB on Revitalization Initiative

The Appalachian LCC Coordinator recently joined a meeting of the Southern Appalachian Man and the Biosphere (SAMAB) Executive Committee in Asheville, NC as they reviewed the organization's 25-year history and launched into a new "Revitalization Initiative." SAMAB is a consortium of state and federal natural resource agencies working across borders to advance Southern Appalachian conservation and was one of the first to address landscape-level conservation.

Over its 25-year history, SAMAB has played a key role in addressing air quality and invasive exotic species; provided forums to examine key conservation issues; and coordinated the Southern Appalachian Assessment – a landscape-level look at the Southern Appalachian environment. As part of its new "Revitalization Initiative", SAMAB would like to turn its attention on the human dimension of conservation – an area lacking in a world where conversation is typically focused solely on the natural world.

LEARN MORE: [www.applcc.org/news/working-with-samab-on-revitalization-initiative](http://www.applcc.org/news/working-with-samab-on-revitalization-initiative)



## Helping to Facilitate CASRI and SASRI Coordination

Working at a landscape scale requires close coordination with multiple partners.



In a joint effort among regional partnerships including the Appalachian LCC and the Appalachian Mountains Joint Venture, a platform has been developed on the Appalachian LCC web portal to enhance workflow and facilitate efficient sharing of ideas, draft documents, datasets, and more between the Central Appalachian Spruce Restoration Initiative (CASRI) and the Southern Appalachian Spruce Restoration Initiative (SASRI). The Appalachian LCC Web Portal will help coordinate and link information between the two initiatives as they restore this vital ecosystem across the landscape.

LEARN MORE: [www.applcc.org/news/helping-to-facilitate-casri-and-sasri-coordination](http://www.applcc.org/news/helping-to-facilitate-casri-and-sasri-coordination)

## PROJECT HIGHLIGHTS

### Classifying and Mapping Cave and Karst Resources across the Region

Developing a consistent classification system and mapping cave and karst habitats is a foundational need for these highly unique habitats that contribute to water quality and support unique biodiversity. A newly funded project by the Cooperative and conducted by researchers at American University and the USGS will assemble key location and classification data while developing maps to illustrate the habitat characteristics of these environments and rich biological resources within. The Cooperative website will provide a landing site for shared data and the maps of the physical and biological resources which will then be available to facilitate easy access and support coordinated conservation efforts.



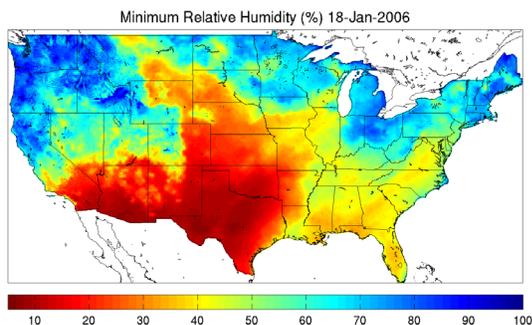
Greater information on the contributions of these systems to water quality and the unique biodiversity they support is essential for better conservation. The Appalachian LCC partnership recognized that in order to develop and deliver landscape-level planning tools, it is essential to establish a classification system and produce a region-wide map depicting where cave and karst habitats occur on the landscape. Based on a critical review of earlier and existing efforts, the project will collect and synthesize data to present cave and karst resource information. Researchers will then propose the most appropriate classification system for these habitats within Appalachia.

LEARN MORE ABOUT THIS PROJECT: [www.applcc.org/research/cave-and-karst-classification-and-mapping](http://www.applcc.org/research/cave-and-karst-classification-and-mapping)

## Evaluation and Downscaling of Climate Simulations for the Southeast and Appalachians

Many research, decision, and conservation planning activities require some representation of future climate, hydrology, and vegetation. However, the range of the Appalachian LCC is not well modeled in global climate simulations. The focus of this project by the DOI Southeast Climate Science Center is to evaluate the latest generation of climate models and generate scenarios of future change to climate, hydrology, and vegetation in the Southeastern U.S. and the entire range of the Appalachian LCC.

By using the best available models to date and discerning



likely climate scenarios within the region, deliverables from this project will provide resource managers with a greater understanding of likely future changes to climate and associated impacts in the Appalachians.

LEARN MORE: <http://applcc.org/research/evaluation-and-downscaling-of-climate-simulations-for-the-southeast-and-appalachians>

## Evaluating Effects of Climate Change on River Flows in the Clinch River Basin

The Clinch River Basin in the Central Appalachians has been identified as the number one hotspot for imperiled aquatic species in the U.S. A new project, supported in part by the U.S. Geological Survey, is evaluating the potential cascading effects to river flows and aquatic habitat from changes in climate within an ecologically important area of the Appalachian LCC.



USGS researchers are evaluating models of river flows and using downscaled climate data to develop an understanding of likely changes to river ecosystems. A greater understanding of likely flow changes within the Virginia portion of the Clinch River Basin will allow managers to better respond to alterations and degradation of physical habitat. Information and results from this study will also provide managers with methods to be applied throughout the Appalachian LCC region.

LEARN MORE: <http://applcc.org/projects/evaluating-effect-of-climate-change-on-river-flows-in-the-clinch-river-basin>

## ENHANCING VISIBILITY OF COOPERATIVE

### Cooperative Research Centers

There are 9 U.S. Geological Survey Fish and Wildlife Cooperative Research Units within the Appalachian LCC boundary that are conducting multi-scale and multi-species terrestrial and aquatic ecology research in the region, including trans-boundary projects involving multiple units and their cooperators. Current examples include Appalachian-wide research efforts seeking to understand the viability of the Allegheny woodrat, variable-density retention silviculture to improve cerulean warbler habitat, and environmental stressors to endangered freshwater mussels. The Coop Units and their personnel have taken an active role in helping the LCC develop a strong Science Needs Portfolio, including the identification of surrogate species and natural resource indicators for the region. Moreover, the LCC is helping the Coop Unit increase the effectiveness of their programs' knowledge, development, and technology transfer to a wider array of federal, state, municipal, NGO and industry clients and information user-groups.



SEE MORE AT:  
[www.applcc.org/the-cooperative/organizations/cooperative-research-units-1/cooperative-research-units-1](http://www.applcc.org/the-cooperative/organizations/cooperative-research-units-1/cooperative-research-units-1)

## Climate Science Centers

LCCs are the primary stakeholders of the Department of the Interior's Climate Science Centers (CSCs). CSCs prioritize delivery of fundamental research, data products, and decision-support tools to meet the needs of the LCCs and other resource managers within their respective regions. As one of seven LCCs in the Southeast CSC territory, the Appalachian LCC works in close collaboration with the Southeast CSC to enhance the functional capacities of both groups to



develop meaningful and effective conservation adaptation strategies for the southeastern landscape.

- **SOUTHEAST CLIMATE SCIENCE CENTER:**

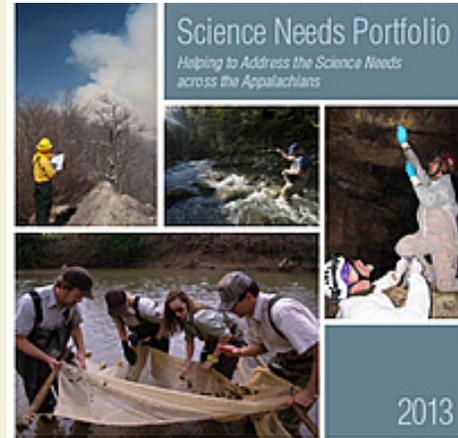
[www.applcc.org/the-cooperative/organizations/southeast-climate-science-center/southeast-climate-science-center-1](http://www.applcc.org/the-cooperative/organizations/southeast-climate-science-center/southeast-climate-science-center-1)

- **NORTHEAST CLIMATE SCIENCE CENTER:**

[www.applcc.org/the-cooperative/organizations/northeast-climate-science-center](http://www.applcc.org/the-cooperative/organizations/northeast-climate-science-center)

## Science Needs Portfolio

Our 2013 Science Needs Portfolio serves as our guiding framework, critical to helping facilitate and support conservation planning, delivery, and applied research as well as monitoring efforts.



View the entire Portfolio on our Web Portal:  
<http://applcc.org/the-cooperative/science-need-portfolio>

## IN THE NEWS

### Appalachian LCC Chair Receives Seth Gordon Award

We would like to congratulate David Whitehurst, Chair of the Appalachian LCC Steering Committee and Director of the Bureau of Wildlife Resources for the Virginia Department of Game and Inland Fisheries, for receiving the Seth Gordon Award at the Association of Fish and Wildlife Agencies' (AFWA) 103rd Annual Meeting. The Seth Gordon Award is AFWA's highest honor. Established in 1970, it is given to recognize the lifetime achievements of natural resource administrators who have worked steadfastly and effectively towards the 'best use' of North American natural resources, and to honor an individual for his/her outstanding career in fish and wildlife conservation.

Along with his work in Virginia, Whitehurst has played a leading role in conserving natural resources and wildlife across the Appalachians. He is the current Chair of the Appalachian LCC - an applied science and management partnership working to protect natural lands, valued resources and the biological diversity that provide environmental benefits and services to the human communities across the region - and the Appalachian Mountains Joint Venture - a partnership working together to ensure the long-term sustainability of native bird populations that breed in the Appalachian Mountains. In these positions, Whitehurst has helped to guide both partnerships in tackling some of the major environmental issues impacting the region that has led to considerable benefits for both people and wildlife.



## Interior Secretary Offers Vision for Conservation



Secretary of the Interior  
Sally Jewell

In October, Secretary of the Interior Sally Jewell outlined a strong agenda to strengthen the nation's economy and pass along its rich conservation legacy to the next generation – a path forward that includes balanced development and engaging and employing youth on our public lands. The agenda underscores the LCC role and commitment to landscape-scale planning and design to conserve the Nation's land, water, wildlife and cultural resources in the face of climate change.

As part of Interior's efforts to encourage balanced development and ensure landscape-level planning, Secretary Jewell issued her first Secretarial Order, which calls for a Department-wide mitigation strategy. The Order will ensure consistency and efficiency in the review and permitting of new energy and other infrastructure development projects, while also providing for the conservation, adaptation and restoration of our nation's valuable and natural and cultural resources. Central to this strategy will be the use of landscape-scale approaches to identify and facilitate investments in key regional conservation priorities, as well as early integration of mitigation considerations in project planning and design.

LEARN MORE: <http://applcc.org/news/interior-secretary-offers-vision-for-conservation>

## Executive Order – Preparing the United States for the Impacts of Climate Change

President Obama signs an executive order that will begin to prepare the Nation for the impacts of climate change by undertaking actions to enhance climate preparedness and resilience.

In the executive order, the President stated that the Federal Government must build on recent progress and pursue new strategies to improve the Nation's preparedness and resilience.

In doing so, agencies should promote: (1) engaged and strong partnerships and information sharing at all levels of government; (2) risk-informed decisionmaking and the tools to facilitate it; (3) adaptive learning, in which experiences serve as opportunities to inform and adjust future actions; and (4) preparedness planning.

MORE DETAILS : <http://applcc.org/news/executive-order-preparing-the-united-states-for-the-impacts-of-climate-change>



## EPA Releases Agency Plans for Adapting to a Changing Climate

In support of President Obama's Climate Action Plan and Executive Order on Preparing the United States for the Impacts of Climate Change, the EPA released its draft Climate Change Adaptation Implementation Plans that details information about EPA's actions to help communities adapt to a changing climate.

The impacts of a changing climate – including increased extreme weather, floods, and droughts – affect EPA's work to protect clean air and water. The draft Climate Change Adaptation Implementation Plans recognize that EPA must integrate climate adaptation planning into its programs, policies, rules, and operations to ensure that the agency's work continues to be effective even as the climate changes. EPA released its draft agency Climate Change Adaptation Plan on February 9, 2013 for public review and comment, and expects to issue the final version this Fall.



LEARN MORE: <http://applcc.org/news/epa-releases-agency-plans-for-adapting-to-a-changing-climate>

# New Items from the LCC Network

LCCs are the forum for the entire conservation community to define, design, and enable partners to deliver landscapes that can sustain natural and cultural resources at levels desired by society. Check out these new items from the LCC Network:

■ **NATIONAL LCC WEBSITE:**

[www.applcc.org/lcc-networks/national-lcc-network/national-lcc-website](http://www.applcc.org/lcc-networks/national-lcc-network/national-lcc-website)

■ **NATIONAL LCC PROJECT CATALOGUE:**

[www.applcc.org/lcc-networks/national-lcc-network/national-lcc-project-catalog](http://www.applcc.org/lcc-networks/national-lcc-network/national-lcc-project-catalog)

■ **NATIONAL LCC COUNCIL MATERIALS:**

[www.applcc.org/lcc-networks/national-lcc-council](http://www.applcc.org/lcc-networks/national-lcc-council)

