How do you shift our K-12 schools towards becoming leaders in environmental sustainability? You act as a resource by supporting and assisting any school that wants to lower its environmental footprint and then recognize them for the great things they are doing. That is exactly what our Center for the Environment’s NC Green Schools program strives to do. Schools that apply typically develop “Green Teams” that lead their classmates, teachers, and administrators through a process aimed at creating holistic, sustainably focused systems and cultures. The NC Green Schools program emphasizes four main impact areas: Culture and Community, School Sustainability, Healthy Schools, and Curriculum Integration. Schools determine how they wish to meet the requirements set forth in these four areas. The Center for the Environment oversees NC Green Schools behind the scenes and on site to support. The Center also assists any school that wants to lower its environmental footprint and set each new student population on a path towards greater stewardship of our Earth. (Examples of these partnerships are outlined on page 6 and 7.)

National Environmental Summit: Creating Changemakers

Every summer, the Center for the Environment along with its partnering organizations holds this transformative event on the Catawba College campus. Students from across the nation come together to explore their unique interests through a wide variety of environmental topics, while learning essential skills to help them become effective leaders. Topics are presented through dynamic seminars, interactive modules, compelling speakers, and more. The Summit challenges students to tackle relevant and crucial issues in today’s world while honing their skills to become tomorrow’s environmental leaders and change-makers. (Read more about the Summit on page 8 and 9.)

“Without the Summit, I’d probably be still wondering what I wanted to do for the rest of my life,” Chance Ratcliff says. “As soon as I went to the Summit, I said, ‘This is it. This is what I’m going to do.’ I felt so connected with what we were doing there and what we were talking about.”

Ratcliff was referring to his participation in the National Environmental Summit for High School Students.

North Carolina Green Schools Making a Difference

Barnardsville Elementary School receives a NC Green School of Excellence Award, 2018.
Message from the Director

WITH YOUR HELP

By Dr. John E. Wear, Jr.

There has never been a more important time than now to educate our citizens and our students about the importance of living on our Earth in ways that do not harm the very systems that support us. With your help, we have been able to continue our work in a variety of ways.

With your help, our National Environmental Summit for High School Students continues to bring young people from all over the nation to our campus to learn how they can apply their interests and talents to solving the environmental issues our world faces today.

With your help, our North Carolina Green Schools recognition program continues to have significant impact as we provide resources needed to move K-12 schools across our state toward sustainability in their curricula and operations.

With your help, our speakers series regularly brings change-makers to campus to tell their stories, enabling our communities to hear first-hand about a wide variety of issues and explore sustainable solutions for local and global challenges.

With your help, we continue to develop and refine the Environmental Stewards Service Scholarship Program, allowing students right here on their own campus to become collaborative leaders as they actively engage in projects that make a difference.

The reason your help is so important is because the Center for the Environment is self-sustaining and relies solely on donor gifts to carry out our mission. We invite you to partner with us through a year-end gift. With your help and generous support, we will continue our leadership efforts in education, the exploration of practical solutions to environmental challenges, and the development of a clear vision for a sustainable future.

To make a donation to Center for the Environment, simply fill out the enclosed envelope or go to www.CenterForTheEnvironment.org and click on “Donate.”

John E. Wear, Jr., Ph.D
Executive Director

Cathy Green
Director of Operations

Elizabeth Howard
Sustainability Outreach Coordinator

Katie Ferrell
N.C. Green Schools Coordinator

Matt Hendricks
Preserve Keeper

Halley Brantley
Webmaster

Laura Richards
Graphic Designer

Rebecca Rider
Writer/Editor

Student Staff
Alberto Borges
Bailey Graper
Carolyn Kasper
Chance Ratliff
Holly Kuhn
Keegan Williams
Jack Terrell
Madison Kluge
Matthew Hefner
Matthew Rodriguez
Mary Stolting

PLEASE DIRECT INQUIRIES TO:
Center for the Environment
Catawba College
2300 W. Innes Street
Salisbury, NC 28144
CenterForEnv@catawba.edu
www.CenterForTheEnvironment.org
704-637-4727
A Word from Brien Lewis

Catawba College has recently started to use three key words to describe the Catawba Experience: “Transform. Inspire. Belong.” Each of these words aptly describes the work and impact of the Center for the Environment. Clearly, the aim of the Center is to help transform our understanding and stewardship of our environment. It has succeeded tremendously – some wonderful examples are captured in the stories and people featured in this newsletter. Those who participate in the activities of the Center inspire all of us by their dedication, knowledge, and creativity. As a result, we all come to recognize that we are interconnected with this planet in fascinating and unexpected ways.

The Center has evolved over the years, engaging new communities and raising new issues. What has not changed is the Center’s unyielding commitment to education and action. The College is a much better place thanks to the Center and we are all fortunate to have the opportunity to contribute in some way to supporting its work. Now more than ever, the Center’s purpose and mission must belong to each of us as well.

Brien Lewis
President of Catawba College

Saying Farewell to Good Friends

One of the strengths of the Center has always been the ability of the staff to work together as a cohesive group, dedicated to making a difference by the work that we do. So when it is time to say farewell to any members of our staff, it is difficult. Juanita Teschner and Matt Hendricks are both moving on in new directions and while we wish we could keep them with us forever, we are excited about what is ahead for them.

Juanita has worked with the Center throughout its 23-year history, first as Chief Communications Director for Catawba College and then, beginning around 2001, as the Center’s Director of Communications. She has been the creative force behind much of the written word that has helped to shape the Center. Her professionalism was apparent from the respect she received from newspaper editors across the region as she set a standard for accuracy in every article she composed or edited. She worked tirelessly on all aspects of Center communications. Juanita’s highly intelligent and deeply thoughtful approach to her writing as well as her commitment to the Center’s mission, made her an integral part of our leadership team. Juanita has now retired and plans to dedicate her time to family, travel, and meaningful community volunteer projects.

Matt was involved with the Center as a work-study student at Catawba from 2005-2007 and quickly progressed to a leadership role over the students and volunteers. Not long after his graduation, he was hired to fill the position of Preserve Keeper in 2008, helping to maintain the 189 acre Fred Stanback, Jr. Ecological Preserve and the Elizabeth Stanback gardens that surround the Center building. Working outside in the worst of weather conditions, always with a smile on his face, every ounce and detail of his work expressed his love and care for the Center and its mission. Matt recently received his Master’s degree in Conservation Biology and has now been accepted for a position as a full-time Life Sciences Laboratory Coordinator for Rowan Cabarrus Community College.

Center for the Environment Partners with Boy Scouts in Energize NC

Energize NC, now being piloted in schools in our region, is a one-of-a-kind STEM program that prepares today’s youth for tomorrow’s North Carolina jobs in renewable energy. The program is a partnership between the Center for the Environment and the Central North Carolina Council of Boy Scouts of America, with support from First Bank and United Way. The modules were developed by the Center for the Environment and cover topics such as thermodynamics, passive solar design, biofuels, conservation practices, and more. Students will explore these concepts through project- and inquiry-based activities and experiential learning opportunities such as an energy audit for their very own school.

Students kicked off their first week of Energize NC by learning about conductors, insulators, and the process of generating electricity. These basic energy concepts will serve as the foundation for a year of exploring renewable and sustainable energy.

John Wear with coordinator of Energize NC, Howard Torrence
The Center will be offering workshops that help teachers integrate sustainability and environmental concepts into their curriculum. These interactive workshops will include a broad range of topics such as environmental literacy, sustainable forestry, aquatic biodiversity, and designing school grounds for environmental education. Our Center staff, with the assistance of Catawba College students, will act as instructors and facilitators. Please contact the Center for the Environment at 704-637-4727 for more information.

Continuing this Spring:
Workshops for Teachers

The Center will be offering workshops that help teachers integrate sustainability and environmental concepts into their curriculum. These interactive workshops will include a broad range of topics such as environmental literacy, sustainable forestry, aquatic biodiversity, and designing school grounds for environmental education. Our Center staff, with the assistance of Catawba College students, will act as instructors and facilitators. Please contact the Center for the Environment at 704-637-4727 for more information.

Website to Get a New Look!

With the help of Dr. Pam Thompson, Associate Professor of Business and Information Systems, and students in her Web Development class, the Center for the Environment’s website is getting an exciting makeover. Thompson’s senior student, Matt Hefner, will be assisting us with these changes and will continue working closely with us through this process. Keep an eye out as the changes launch this upcoming Spring!
Students Involved in Center’s Sustainability Outreach

Catawba students Shane McCormick and Keegan Williams recently had the opportunity to be part of the Center’s sustainability outreach efforts when they were given the task of developing and presenting a program to Boy Scouts. The program provided Scouts at Camp Henry J. Barnhardt an opportunity to work towards their Sustainability Merit badge. By developing and presenting the program, Keegan and Shane could apply the experience towards meeting part of the requirement for the North Carolina Environmental Education certification.

Environmental Stewards Focus on Change through Service

Established in 2012, the Environmental Stewards Service Scholarship Program continues to support the ideals, values, and commitment of conservationism and environmentalism on the Catawba College campus and in the wider community. Our stewards are a dynamic and energetic group who have worked as a team over the past 6 years to impact their campus community. This year began with a retreat in New Bern, NC. We visited Duke Marine Lab, got out on the water, and put our heads together to plan out promising project initiatives for this upcoming year. These projects assist in gradually moving the campus towards improving the culture of sustainability on campus. Stay tuned for updates on their projects in the spring semester.

Value-Added Education

Elizabeth Howard, our Center for the Environment’s Sustainability Outreach Coordinator, joined our staff in January of 2018. According to Elizabeth, “the Center has played a vital role in my personal journey, both during college and afterwards as a staff member.” Prior to enrolling at Catawba, Elizabeth met with John Wear and expressed her interest in educating others about sustainability and the importance it played in the world. In response, John encouraged Elizabeth to apply for the Environmental Stewards Service Scholarship program. She was accepted into the program and ultimately became a member of its leadership team. After graduating in 2017 with a double major in Environmental Science and Biology, she joined the Center for the Environment’s staff. According to Elizabeth, “working with the Center has been extremely valuable. It has given me the opportunity to be involved with all aspects of a self-sustaining, educational outreach organization.” She further says, “Working here has also helped me understand the wide variety of skills required in making an organization run. I’m also learning what it means to actually work collaboratively as a team.” John Wear and Cathy Green have not only been great mentors but wonderful friends. 

Pictured from left to right: Shane McCormick and Keegan Williams

Elizabeth Howard

Pictured from left to right: Shane McCormick and Keegan Williams
**1. Culture and Community**

Creating a school philosophy and culture that embraces sustainability, encourages ongoing professional development and sparks the creativity and engagement of all its members.

- **Salisbury Academy**
  Students utilize outdoor learning areas.

- **Hominy Valley Elementary School**
  Students have a cafeteria buffet with local, seasonal foods.

- **Providence Day School**
  Students get to harvest vegetables out of their garden.

- **Watauga High School**
  Students take on the challenge of a river clean up.

- **Cove Creek School**
  Students raised money for an interactive beehive.

- **TC Roberson High School**
  Students participate in a community cleanup.

- **Charles D. Owen High School**
  Student green team spearheads recycling effort.

**2. Center for the Environment’s NC Green Schools**

**3. Healthy Schools**

Creating school grounds that enhance their use as learning environments, planting gardens, and promoting a healthy and fit lifestyle.

- **Queens Creek Elementary**
  Each grade planned, then planted their very own garden boxes.

- **Salisbury Academy**
  Students utilize outdoor learning areas.

- **Providence Day School**
  Students get to harvest vegetables out of their garden.

- **Watauga High School**
  Students take on the challenge of a river clean up.

- **Cove Creek School**
  Students raised money for an interactive beehive.

- **TC Roberson High School**
  Students participate in a community cleanup.

- **Charles D. Owen High School**
  Student green team spearheads recycling effort.
Recognition Program Focuses in Four Key Areas:

**Curriculum Integration**
Integrating curriculum that helps students experience and understand the natural environment and their place in it.

- Evergreen Community Charter School
  Students cook and taste new foods from their garden in Field to Feast program.

- Providence Day School
  Students learn about stream biodiversity in the field.

- The Raleigh School
  Students record their observations about nature.

- Hominy Valley Elementary School
  Students sing music with recycled instruments.

**School Sustainability**
Conserving energy and water, reducing solid waste, and increasing transportation options, with a healthy dose of student engagement.

- Carolina International School
  Student leaders pick up recycling on campus.

- Watauga High School
  Students learn about clean energy and analyze wind data after the installation of a wind turbine on campus through the Wind for Schools program.

- TC Roberson High School
  Students use their newly installed water bottle refilling stations to save plastic bottles and filter their water.
Where Are They Now?

Summit Alumnus
Savannah Spratt

In 2011, Savannah attended the Summit and joined Dr. Joe Poston’s focus group, “A Backbone for Conservation.” In this vertebrate tracking group, Savannah caught turtles in the Fred Stanback, Jr. Ecological Preserve, attached video-trackers to the turtles, and learned how to track them using GPS and radio-trackers. It was her favorite part of the Summit, and as a whole, she enjoyed the experience so much that she returned the next summer, this time joining Dr. Jay Bolin’s focus group, “Invasive Species: Friend or Foe of the Environment?” The project she did that second year helped give her a real sense of direction. She says, “We captured some native clams and some invasive clams and did filtration studies on both of them and it turns out the invasive clam was more efficient at filtrating, and I just thought that was so interesting. Savannah is currently pursuing a master’s degree in Environmental Studies from Green Mountain College and continues to work with the wolfdogs at Full Moon Farm.

Environmental Justice

Elijah Brunson and intern Victoria Rose from the Rachel Carson Council conducted a lively workshop on Environmental Justice. The two led interactive platforms to engage students in dialog about conflicting views, stakeholders, and human rights pertaining to one of North Carolina’s biggest environmental issues. As part of their workshop involvement, students participated by playing tug of war, acting out skits, and generating “fish bowl” discussions to demonstrate how media can create tension in narratives between communities and businesses.

Systems Thinking

Lauren Shwisberg, Leah Mosier, and Emily Davenport from Rocky Mountain Institute (RMI) explored systems thinking and collaboration through stimulating and thought-provoking workshops with the students. One of the most intriguing parts for many of the participants was their discussion about how well-meaning interventions into our environment often go awry creating a cascade of unintended consequences.
Leadership

Heather White, CEO of Yellowstone Forever, gave a meaningful talk about challenging the “fixed mindset” and the power of adding the word “yet” in order to achieve your goals (i.e., “I’m not a phenomenal debater...yet!”). Heather mentions that this is key to your ability to grow, learn and be the best that you can be.”

Where Are They Now?
Summit Alumnus
John Hare-Grogg

“The Summit helped to cultivate in me a sense of determination to take a leadership role on environmental issues. To think about how to work with solutions like that was really inspiring and helped me move from a place of feeling futility or just pessimism about environmental issues, toward being able to feel like I could really claim a leadership role on those issues.” John attended the NES in 2011. “For students who are exploring what their calling in life might be, it would be really helpful to attend this. You don’t have to go into a career in environmental law, environmental science, or something similar to be a person who can affect change on environmental issues.” John is currently obtaining his JD from Stanford University, and intends to practice environmental law.

Exploratory Learning

“Attend the Summit. It’ll help you explore your passions!”
Zahra Khan, NES ‘12

“The Adventures in Amphibian Research and Conservation” focus group, led by Lisa Wear, assessed amphibian habitats. Identifying these hot spots can ultimately result in protection for similar environments and provide insight into improving the ecosystem’s management to enhance the area and protect specific species.

Zahra Khan, NES ‘12

Dr. Joe Poston’s focus group, “A Backbone for Conservation”, spent early mornings banding native birds. This consisted of capturing and identifying the particular species, age, and sex of each bird, which was then recorded for research.

John Hare-Grogg
These Changemakers were Our 2018 Guest Speakers

“The Value of Native Bees”
Nancy Adamson
Pollinator Conservation Specialist with Xerces Society

Film screening of The Devil We Know followed by a discussion among panelists

“Rainforest Conservation, Climate Change, and the Search for New Jungle Medicines”
Ken Cook
CEO and co-founder of Environmental Working Group
Dr. Sue Calcagni
Associate Professor of Biology and Environmental Science at Catawba College
Dr. Maria Vandergriff-Avery
Professor of Sociology at Catawba College

Mark Plotkin
Founder of Amazon Conservation Team

“How Drones are Opening the Skies for Scientists”
Kyle Snyder
Director of the NextGen Air Transportation Consortium, North Carolina State University

“Can a Story Save the African Lion?”
Andrew Stein
National Geographic Explorer and Founder and Director of CLAWS (Co-hosted with the Department of Environment and Sustainability)

Ben Prater
Southeast Program Director, Defenders of Wildlife

“Ivan Urlaub
Executive Director of North Carolina Sustainable Energy Association

“Garbage Humanities: Environmental Thinking and the Future of the Humanities”
Stephanie Foote
Jackson and Nichols Chair and Professor of English (Co-hosted with the English Department)

Schools Saving Species? Grassroots Science, Economics, and Education as Drivers of Carnivore Conservation”
Luke Dollar
Catawba College Professor and Chair of the Environment and Sustainability Department (Co-hosted with the Department of Environment and Sustainability)

“The Wolves of Yellowstone: The First 20 Years”
Doug Smith
Project leader for the Yellowstone Wolf Project

“Solar Now and in the Future”

“Solar Now and in the Future”

Kyle Snyder
Director of the NextGen Air Transportation Consortium, North Carolina State University

Andrew Stein
National Geographic Explorer and Founder and Director of CLAWS (Co-hosted with the Department of Environment and Sustainability)

Ivan Urlaub
Executive Director of North Carolina Sustainable Energy Association

Luke Dollar
Catawba College Professor and Chair of the Environment and Sustainability Department (Co-hosted with the Department of Environment and Sustainability)
Thank You to Our Donors, Sponsors and Partners

$25,000 and above
Alice and Fred Stanback

$10,000 to $24,999
Nancy and Bill Stanback
Shelli and Brad Stanback

$1,000 to $9,999
Elizabeth and Mike Bauk
Hurley Trammell
Foundation
Marty Pickett
Jane and Mark Ritchie
Susan and Hayes Smith

$500 to $999
Rachel and Charlie Bernheim
Meg Dees

In Memory Of
Alma Brown Hudson
Clarence B. Beaver, Jr.
Dr. Alan Scott
James G. Hudson, Jr.
Lisa Boguslaw
Susie and Tom Thurston

In Honor Of
Bethany Sinnott

Center for the Environment Advisory Council
Greg Alcorn
Philip Blumenthal
Paul Bardinas
Ken Cook
Meg Dees
Bill Holman
Kacey Hoover
Margaret Lipe
Brien Lewis
Connie Lowery
Chris Magryta
Harvey Mason

Barbara and Jim Norman
Jean Owen
Carolyn and Dewey Peck
Lynn and Andy Porter
Annie Seaford
Susan Sember
Debbie and Ron Shelton
Missy Shives
Romas Shuping
Bethany Sinnott
Norman Sloop
Juanita and David Teschner
Gwen and Bill Webb
Jean West
Pam Westmoreland
Trevor Williams and
Gail Hounshell
Lyn and Alfred Wilson
Beth and Paul Woodson

In Honor Of
Dr. John Wear
Jennifer Hubbard and Steve Cobb
John Wear and Cathy Green
Johnathan M. Shuping
Lillian Gascoigne
Mr. and Mrs. Jay Whittington
Mr. and Mrs. Tom Caddell
Mr. and Mrs. Mack Lampert
Mr. and Mrs. David McCoy

North Carolina Green Schools of Excellence
Watauga High School, Boone, NC
Salisbury Academy, Salisbury, NC
Evergreen Community Charter School, Asheville, NC
Cove Creek School, Vilas, NC
Barnardsville Elementary School, Barnardsville, NC
Queens Creek Elementary, Swansboro, NC
C.T. Koontz Intermediate School, Asheville, NC
Carolina Day School, Asheville, NC
Rainbow Community School, Asheville, NC

North Carolina Green Schools of Quality
Providence Day School, Charlotte, NC
The Raleigh School, Raleigh, NC
Charles D. Owen High School, Black Mountain, NC
Fairview Elementary School, Fairview, NC
Hominy Valley Elementary School, Asheville, NC
Two Rivers Community School, Boone, NC
Carolina International School, Concord, NC
Hall Fletcher Elementary, Asheville, NC
Cane Creek Middle School, Fletcher, NC
Owen Middle School, Swannanoa, NC

North Carolina Green Schools of Promise
T.C. Roberson High School, Asheville, NC

TC Roberson receives a NC Green School of Promise Award, 2018.
Amory Lovins to Visit in Spring 2019

Physicist Amory Lovins is cofounder and Chief Scientist of Rocky Mountain Institute and is an integrative designer of super-efficient buildings, factories, and vehicles. Lovins was named by Time as one of the world’s 100 most influential people, and Foreign Policy named him one of the 100 top global thinkers. He will be one of our Center’s invited speakers in April of 2019. Be sure to keep an eye out for more details on this and other exciting events to come!

Redesigning our future

A National Environmental Summit for Students 14-17 Years Old

July 9 - 13, 2019

High School students will benefit from participating in this unique and transformative experience. To apply, visit www.CenterForTheEnvironment.org or call the Center at 704-637-4727 for more information.