Center for Sustainable Tourism

Division of Research and Graduate Studies
East Carolina University
Acknowledgement

This report is dedicated to the faculty and administration of East Carolina University who created an environment that is truly interdisciplinary and collaborative on behalf of the Center and the newly approved Master of Science in Sustainable Tourism.
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What is Sustainable Tourism?

Sustainability is a growing trend in all industries and is now rapidly finding its way into mainstream tourism. The increasing popularity of sustainability has led to different understandings of what sustainability really means and how it can be applied, so to help clarify, the Center for Sustainable Tourism at East Carolina University (ECU) has developed a working definition:

*Sustainable tourism contributes to a balanced and healthy economy by generating tourism-related jobs, revenues, and taxes while protecting and enhancing the destination’s social, cultural, historical, natural, and built resources for the enjoyment and well-being of both residents and visitors.*

Sustainable Travel International ([www.SustainableTravelInternational.org](http://www.SustainableTravelInternational.org)), one of the Center’s collaborators, has developed the following twelve categories in which tourism can incorporate sustainability into its business practices, public policy, and individual traveler behaviors. For more information on these categories, visit the Center’s website:

[www.SustainableTourism.org](http://www.SustainableTourism.org)
What is Sustainable Tourism?

Captain Albert E. Theberge, NOAA Corps

- Greenhouse gas emissions management and reduction
- Solid waste management, reduction, reuse, and recycling
- Freshwater consumption reduction
- Wastewater management
- Energy efficiency, conservation, and management
- Ecosystem and biodiversity conservation
- Land use planning and management
- Air quality protection and noise reduction
- Preserving the social norms and cultures of local and indigenous communities
- Providing economic benefits to local and indigenous communities
- Responsible purchasing
- Training and education for employees and clients
East Carolina University now offers the nation’s first interdisciplinary Master of Science in Sustainable Tourism (MS-ST) degree. A faculty committee representing the College of Business, the Thomas Harriot College of Arts and Sciences, the College of Fine Arts and Communication, the College of Human Ecology, and the College of Health and Human Performance provides direction and oversight to this degree program and the students enrolled.

Sustaining environments, businesses, and social and cultural identities requires an interdisciplinary approach and perspective. The MS-ST program draws upon emerging sustainability sciences ranging from the physical to the social to address complex sustainable tourism issues. Science and education are critical partners in the sustainable, long-term management of tourism, and this program provides the foundation for this new approach to sustainable management.

The program is anchored on four core sustainability and tourism courses—an introductory course, a science course, a business course, and a planning and policy course. In addition, students will choose from a set of electives and can opt for independent study or internship experience. Both thesis and non-thesis options are offered.

Electives for the program are drawn from disciplines across campus, utilizing the expertise of faculty at ECU and, as appropriate, from other universities. Electives are chosen to fit the career aspirations of the student and reflect the “triple bottom line” of sustainable tourism—economic, environmental, and sociocultural viability. Courses from the management, social, and biological sciences are taken to provide a broader understanding of the complexities of tourism and the challenge of sustainability.

These courses provide students the opportunity to study sustainability within a research-intensive tradition balanced with innovative planning, development, and management solutions for the growing challenges that face the future of tourism.

Student Profiles

Shannon Arnold
Shannon notes that she came to the Center to gain knowledge from some of the most experienced educators and professionals in sustainable tourism. The Center, she says, “is certainly an educational catalyst for students interested in protecting the environment and preserving our resources for future generations.” Among the projects that Shannon is working on includes “Reducing Liability: An Assessment of Agritourism Practices” and “The Entrepreneurial Climate of Eastern NC: Case Studies from Local Business Owners”. She is also utilizing social networking theory in her thesis to better understand key stakeholder roles and their affect on sustainability in tourism.

Stefanie Benjamin
Stefanie is interested in how tourism and the environment intersect. After some searching,
### Core Courses

**SUTO 6000. Principles of Tourism & Sustainability**  
Survey of concepts and theories of tourism and sustainable tourism; exposure to current literature; learn sustainable tourism practices across settings, local to global.

**SUTO 6100. Environmental Systems & Sustainability**  
Theory and survey of interrelationships between environmental systems, environmental change, and tourism; research methods for assessing and implementing environmental practices for sustainable tourism.

**SUTO 6200. Development & Management of Sustainable Tourism**  
Research, evaluate, and apply social and environmentally responsible business practices in tourism.

**SUTO 6300. Planning & Policy of Sustainable Tourism**  
Focus on public policy issues and planning strategies critical to sustainable tourism.

**SUTO 6400. Internship**

**SUTO 7000. Thesis**

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**Stefanie found the MS-ST program.** “I am so incredibly happy with my decision to work with such amazing professors,” she says. Stefanie is working on two projects for the Center: one focuses on the green ing of North Carolina’s Outer Banks, and the other involves campus initiatives on responsible behaviors for student travel.

**Whitney Knollenberg**  
Whitney was attracted to the ECU program and the Center because it offered well-known faculty members and an interesting variety of projects. Whitney’s research examines the attitudes of residents and second home owners toward sustainable tourism development. She has also led the development of a national sustainable traveler care code in partnership with Miles Media, Inc. Working at the Center has given Whitney countless opportunities to meet members of the tourism industry at both the state and national level. Of her experiences, she says, “The Center has met and surpassed my expectations.”

**Whit Winslow**  
Whit first discovered his interest in sustainable tourism after hearing Dr. Long speak at a Roanoke River Partners meeting. “As a local resident,” Whit says, “his remarks sparked very exciting ideas for me.” And since part of the Center’s focus is connecting with the local community, Dr. Long was equally excited to add Whit—who was born and raised just 40 minutes north of Greenville—to the Center’s team. Currently, Whit is developing a database of sustainable practices in tourism businesses to include estimated returns on investments as well as extend the growing list of businesses where these practices are already in effect.

**Garrett Ziegler**  
After three years working in the tourism industry in Jackson Hole, WY, Garrett realized the need for a new outlook on tourism’s impacts on the environment. The MS-ST program has given him the opportunity to pursue his interests in sustainability and tourism with a diverse group of faculty and colleagues. He is currently working on a webinar series focusing on renewable energy in lodging facilities, and also with the Center’s renewable energy in tourism initiative with a specific interest in the ski industry.
Vision Statement

The Center for Sustainable Tourism embodies innovation in graduate education, leadership development, community consultation, and collaborative research. Devoted to implementing sustainable practices in business operations, public policies, and personal travel behaviors, the Center offers solutions to challenges facing the tourism industry and destination communities as they balance economic viability with sociocultural and environmental enhancement and equity.

Center Initiatives

The three-fold mission of the Center for Sustainable Tourism is to advance research, to inform and influence decision makers, and to educate and prepare students. To accomplish this mission, the Center is engaged in a number of initiatives which meet the following four criteria:

- Develop models and tools to explain the financial, environmental, and social cost/benefits of tourism;
- Increase and update public knowledge to provide a solid basis for future research;
- Encourage collaboration and understanding of sustainability issues; and
- Create interesting learning opportunities for students.

The Center’s five current initiatives are interrelated and meet these criteria, but each has a different focus. The Climate, Weather, and Tourism Initiative examines how climate and weather affect tourism; the Community Sense of Place Initiative examines how tourism affects communities; the Sustainable Practices Initiative provides advocacy for business operators who are embracing sustainable tourism practices across North Carolina; the Renewable Energy in Tourism Initiative provides tourism businesses support in energy conservation and implementing renewable energy technologies; and finally the Center’s Engagement & Community Outreach efforts link ECU’s capacity, expertise, and technical assistance with those seeking applicable, relevant, and research-based information on sustainable tourism.

In addition to these initiatives, the Center is responsible for the management of ECU’s new interdisciplinary Master of Science in Sustainable Tourism degree, the first in the nation, designed to prepare students in a specialized manner for management or academic careers in tourism.
Tourism destinations and their individual tourism businesses are all vying for the expenditures and vitality that tourists bring to their respective locations. But, in making travel choices, these vacationers have considerations besides distance, cost, and timing. They are also considering the daily or weekly weather and other climate factors when determining both where to go and the extent to which they enjoyed their travel experience. The World Tourism Organization, in meetings addressing weather, climate, and tourism, noted that weather and climate are perhaps the most important influence on the choice of leisure travel destinations. Wind, humidity, temperature, drought, storm conditions, snow conditions, water temperature, and degree of sunshine are a few of the factors that affect visitors’ decisions, satisfaction, and spending—that important economic “bottom line” for tourism businesses and tourism destinations.

The Center and its partners sponsored a Southeast US Regional Workshop on Climate, Weather, and Tourism, which attracted approximately 100 scientists, academics, public policy officials, nonprofit leaders, and business owners to discuss how to bridge science and practice, thereby improving business practices and economic vitality. The workshop focused on developing a strategy for raising awareness of issues linking tourism, weather, and climate; on developing a framework for collaborative research on climatic risks, opportunities, and information needs for reducing impacts on our state’s tourism industry; and on identifying sources of data and potential partnerships to investigate interactions of tourism, weather, and climate in order to provide usable information for planning and management.

The Center has several publications available online for the general public and academic community, including an academic literature review; a summary report of the workshop, the “Climate, Weather, and Tourism: Bridging Science and Practice” monograph; and video streams and PowerPoint slides of many pertinent presentations.

In addition to the workshop, the Center’s activities in this initiative include a presentation at the National Weather Service and RENCI Summit on Decision Support Services and Technology and a joint research effort on recreational businesses and weather with faculty from the University of North Carolina at Wilmington.
Community Sense of Place Initiative

Researching how tourism affects communities

Sense of place is a cross-disciplinary concept that recognizes the many ways in which places take on special meaning to people. Sustainable tourism development places great emphasis on identifying, analyzing, and enhancing the characteristics and processes that give destinations a unique character. Such character can serve as the foundation for both an improved resident assessment of quality of living as well as an enhanced economy by attracting visitors and their expenditures. Factors that impact and contribute to a distinctive sense of place are varied. Here are a few examples:

- Migration, demographics, and socioeconomic dynamics;
- Transportation, housing, and workforce issues;
- Community political relations and civic culture;
- Ecosystems, climate, natural resources, and environmental planning;
- Heritage, traditions, and histories;
- Architectural design and landscape aesthetics;
- Recreational and leisure opportunities;
- Public health, recreation, and wellness;
- Fine/performing arts and place-defining literature and music;
- Marketing and promotional strategies;
- Business and entrepreneurial development; and
- Smart growth.

Communities with a distinctive sense of place often enjoy greater quality of living and attract more visitors. However, the impacts of tourism in amenity-rich destinations often dominate decisions regarding the community’s economy, environment, and culture. At the forefront of such a tourism-oriented economic structure are issues related to land use, real estate prices, cost of living, transportation, business diversification, workforce availability, water quality, and the environment. The Center is engaged in various activities that address these issues:

ECU Campus Symposia – The Center sponsors various university-wide symposia that explore the many dimensions of sense of place and the challenges and opportunities of sustaining sense of place in a tourist economy. The forums recognize the achievements of ECU and other University of North Carolina (UNC) system faculty in
Center Initiatives

bringing previously separate voices together into a joint, interdisciplinary dialogue.

Community Forums – In partnership with local communities, tourism agencies, and economic development regions, the Center sponsors community forums on issues specific to local needs and interests:

- Brian Mullis, President of Sustainable Travel International, spoke to the Outer Banks Chamber of Commerce;
- Dr. Martha Honey, Director of the Center for Responsible Tourism (Washington Office), spoke to the Tyrell County Tourism Development Authority and Chamber of Commerce; and
- Bernard Lane, Editor of the Journal of Sustainable Tourism, conducted workshops for the NE Commission tourism group in Edenton and for the Tryon Palace staff and area tourism leaders of New Bern and Carteret County.

Economic Development Assistance – The Bureau of Business Research; the ECU Office of Engagement, Innovation, and Economic Development; and the Center provide ongoing support to communities in their efforts to revitalize and stabilize local and regional economies. This is accomplished through community-based research, data tracking and analysis, training, information dissemination, and technical assistance.

Research on the Impact of Tourism on Community Life – In an effort to better understand how communities are changed by tourism development, the Center has conducted research in a number of North Carolina counties. These studies increase understanding of the perceptions of resident property owners and second home owners regarding the impacts of tourism development on land use, the economy, service provision, cultural opportunities, infrastructure, the environment, and the general quality of life. In addition, perceptions of these property owners are estimated regarding sustainable actions and the contribution of such actions to the future success of the county’s tourism economy. All of this is intended to provide information for stakeholders in their efforts to maintain their community sense of place through thoughtful discussion and planning.

We need to develop what I call an ethic of place. It is premised on a sense of place, the recognition that our species thrives on the subtle, intangible, but soul-deep mix of landscape, smells, sounds, history, neighbors, and friends that constitute a place, a homeland. An ethic of place respects equally the people of a region and the land, animals, vegetation, water, and air. It recognizes that [residents] revere their physical surroundings and that they need and deserve a stable, productive economy that is accessible to those with modest incomes. An ethic of place ought to be a shared community value and ought to manifest itself in a dogged determination to treat the environment and its people as equals, to recognize both as sacred, and to insure that all members of the community not only search for, but insist upon, solutions that fulfill that ethic.

— Professor Charles Wilkinson
Beyond The Mythic West
Sustainable Practices Initiative
Promoting sustainable businesses, public policy, and individual traveler behaviors

This initiative promotes awareness among individual travelers and public policy makers about the benefits and importance of adopting environmentally, socially, and economically responsible practices. It also provides advocacy for business operators who are embracing sustainable tourism practices across the region, state, and nation. To this end, the Center is currently building a database of tourism-related organizations that have implemented sustainable practices in our state.

The Center and its partners—ECU’s Office of Engagement, Innovation, and Economic Development; the North Carolina Division of Tourism, Film, and Sports Development; and the North Carolina Division of Pollution Prevention and Environmental Assistance—have compiled comprehensive, sector-specific checklists of sustainable tourism practices. These checklists are built around the twelve categories in which tourism can incorporate sustainability into its business practices. The checklists may also serve as a springboard for tourism organizations interested in developing formal sustainability plans.

To support the adoption of such sustainable practices, the Center and its partners have developed a series of tip sheets. These one- to two-page documents provide information on the benefits, resources, and technical explanations of implementing sustainable tourism practices. To view the checklists or tip sheets, please visit the Center’s website at www.SustainableTourism.org.

In addition, the Center and its partners also developed an online survey for tourism businesses and organizations. The aim of the survey is to catalog the adoption of sustainable practices in the tourism industry of North Carolina, from simply using energy efficient light bulbs to installing complex solar energy systems. A current set of examples of what North Carolina-based tourism businesses and organizations are doing in sustainable tourism can be found at: http://www.ecu.edu/cs-acad/sustainable-tourism/Sustainable-Tourism-Practices-2.cfm..

We thank each of our contributors for providing this information. Some of these contributors are featured here, but
you can find out more about each of these special destinations that are making a difference in North Carolina by visiting the Center’s website. The Center encourages tourism-related organizations to share their sustainable efforts with the Center so that they may be added to the inventory.

It is the mission of the North Carolina Zoological Park to encourage understanding of and commitment to the conservation of the world’s wildlife and wild places through the recognition of the interdependence of people and nature. The Zoo does this by creating a sense of enjoyment, wonder, and discovery throughout the Park and in its outreach programs.

The Proximity Hotel is the nation’s first hotel to be certified at the Platinum Level by the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, the nationally accepted benchmark for the design, construction, and operation of high performance green buildings.

Highland Lake Inn is devoted to protecting and preserving the environment. They are also passionate about sustainability and organic gardening. As a proud member of the Green Hotels Association, they adhere to the association’s guidelines, as well as their own, to institute programs that save water, save energy, and reduce solid waste.

Chimney Rock Park has a long tradition of striving to protect the natural resources that have made the park a tourism destination for generations of travelers. The Park is currently working with the adjacent villages of Chimney Rock and Lake Lure to promote recycling throughout the region.

Great Wolf Lodge, in an effort to go beyond its Green Seal Certification, has created “Project Green Wolf,” a program to establish accountability and guidelines for greener waterparks and resort amenities. Areas that have been addressed by this program include fresh water management, waste reduction, environmentally sensitive purchasing, and guest education.
Renewable Energy in Tourism Initiative
Promoting best practices in energy conservation and renewable energy use

The Renewable Energy in Tourism Initiative (RETI) facilitates the expansion of sustainable energy practices among members of the travel and tourism industry. The initiative is a joint venture of the Center, the University of Colorado Energy Initiative, the National Renewable Energy Laboratory, and Miles Media, Inc.

RETI has two key objectives:
1. Provide support for tourism businesses in the form of research, education, technical assistance, and case studies in energy conservation and application of renewable energy technologies to improve business performance.

2. Establish a permanent renewable energy and tourism university program which will host regular conferences, workshops, forums, field trips, and courses to cultivate new innovation in the field of renewable energy and communicate these opportunities to current and future members of the tourism industry.

Webinar Series – Along with corporate sponsor Miles Media, Inc., RETI hosts a webinar series for tourism businesses and support organizations. These webinars explain renewable energy options, steps every tourism organization can take to reduce energy bills, and the latest market research on green-minded travelers and sustainable tourism trends.

Best Practice Manuals – For the first stage of the project, RETI has published a set of six manuals outlining current best practices in the use of renewable energy among the tourism industry. These Best Practice Manuals feature industry leaders that have adopted cutting-edge practices in renewable energy and energy efficiency, and provide information and guidance to businesses of all sizes interested in realizing these benefits. Through the use of case studies, each manual outlines renewable energy adoption strategies that maximize energy efficiency, minimize environmental impacts, result in cost savings or increased profitability, and improve the sustainability brand within the marketplace across these six tourism sectors:

- Accommodations
- Airlines
- Cruise Lines
- Public Land Agencies
- Ski Resorts
- Tour Operators

Literature Review – A literature review of the scientific research reported on energy practices and sustainable energy technologies within the tourism industry is available on the RETI website.

Technical Assistance – RETI is establishing a technical team of graduate students who can provide cutting-edge solutions and practices in renewable energy to small and mid-size tourism businesses in a time-sensitive fashion.

Research Services – RETI encourages and supports faculty and student research on implementation and management strategies in renewable energy applications in the tourism industry.

Global Summit – A high-profile global conference will be hosted at the culmination of an extended series of online workshops.
In partnership with the Office of Engagement, Innovation, and Economic Development, the Center advocates for the many businesses, communities, and travelers already implementing sustainable tourism practices. The Center also serves as a link between East Carolina University’s capacity and expertise in providing sustainability information and technical assistance and those seeking applicable, relevant, and research-based information on sustainable tourism. Examples of tourism organizations that have taken active steps to reduce their negative environmental and social impacts are profiled on the Center’s website (www.SustainableTourism.org) where readers can learn about these real-life sustainable practices in action.

The Center also reaches out to the public directly, conducting presentations to community groups and professional or civic organizations, conducting regional workshops, responding to sustainable tourism related inquiries, conducting joint research and publishing weekly sustainability tips, business tip sheets, sector specific sustainable practices checklists, sustainability reports, and a widely distributed quarterly newsletter for the tourism industry. These resources are intended to provide the basic but necessary information industry leaders need so that they may make well-informed decisions that benefit travel destinations today without sacrificing future opportunities.

The Center’s outreach initiatives also seek to build relationships with industry partners that result in unique experiential learning opportunities for students and applied research opportunities for faculty.

Collaboration with other governmental agencies and non-profit organizations is another important aspect of this initiative. To further this effort, a joint outreach coordinator position has been created that is shared between East Carolina University and the NC Department of Commerce Division of Tourism, Film, and Sports Development, establishing the first known sustainability focused position at a state tourism office. The Center is involved in efforts to support sustainable tourism within many other entities as well, such as the NC Department of Environment and Natural Resources, the NC Cooperative Extension, and many of North Carolina’s economic development organizations, among others.

Here are just a few of the Center’s outreach efforts:

- Provided sustainability expertise to the 2009 NC Governors Conference on Hospitality and Tourism planning.
- Provided recycling coordination support for the 2009 Cycle NC program.
- Assisted NC Blue BBQ & Music Festival with improving composting and waste reduction efforts.
- Conducted sustainability and visitor-related survey research at the 2009 NC Sea Food Festival.

**Tribal Sense of Place** – Rebecca Sweet, MFA, and her research team are investigating the meaning of place within the tribal cultures of North Carolina’s Woodland Indian tribes. Through this study, participants generate self-directed photography of the interiors and exteriors of environments that are meaningful to them. These photographs will document the unique and defining charac-

**Importance of Sustainable Tourism Actions to Future Economic Success**

Many competing tourist destinations are implementing sustainable actions and rebranding themselves as socially and environmentally responsible. Given this, participants from Dare County, NC, were asked their opinions on 13 sustainable actions in relation to the future economic success of the county’s tourism industry. The survey revealed that full-time resident property owners don’t assign the same level of importance to certain actions as second home owners do. For example, full-time property owners placed more importance on economic benefits to local communities, preserving local culture, energy efficiency, reducing freshwater consumption, and managing waste and waste water. Second home owners placed more importance on protecting air quality, environmental conservation, and the use of public land for tourism.
United States Visitor Care Code
in partnership with Miles Media, Inc.

Learn About Your Destination – Enjoy a rewarding experience by learning more about the natural environment, culture and history that makes every destination unique.

Don’t Leave Your Good Habits at Home – While traveling continue to recycle, use water wisely, and turn off lights as you would at home.

Be a Fuel-Efficient Traveler – Book direct flights, rent smaller cars and keep your own vehicle operating at maximum efficiency. Once in your destination, walk or bike where possible.

Make Informed Decisions – Seek out destinations or companies that engage in energy efficiency or recycling programs and that take actions to preserve their communities and the natural environment.

Be a Good Guest – Remember that you are a guest in your destination, engage with locals but respect their privacy, traditions and local community.

Support Locals – As a visitor, the money you spend on your trip can help support the local artisans, farmers and business owners whose livelihood depends on tourism.

Dispose of Your Waste Properly – Leave a beautiful place for others to enjoy - Recycle where possible and always dispose of your waste with care.

Protect Your Natural Surroundings – Be mindful of the plants, animals and eco systems that you impact. Avoid feeding wildlife, stay on designated trails and strictly follow all fire restrictions.

Make Your Travel Zero Emissions – As an additional step, consider the option of purchasing carbon credits to fully offset your travel’s impact on climate change.

Bring Your Experiences Home – Continue practicing your sustainable habits at home and encourage friends and family to travel with the same care.

Wind Farm Impacts – Drs. Craig Landry and Tom Allen, along with colleagues from Appalachian State University, are examining the impact of coastal wind projects on recreation and tourism using survey data on beach visitation and site choices. They are applying a recreation demand model that estimates economic value of beach visits and how that value might change if wind farms were visible at the beach. Their data suggest the impact of wind farms on coastal tourism in the 16 North Carolina counties studied would be fairly low. Households are only averse to wind farms in close proximity (1 mile) to the shore, but exhibit no significant aversion to wind farms further offshore or wind farms located in the Pamlico or Albemarle Sounds.

Crisis Communication in Tourism – Dr. Donna Kain, who conducts research on risk, hazards, and crisis communication, leads a team of researchers and students in the examination of crisis communication in tourism practices for the UN World Tourism Organization (WTO). This work consists of securing and evaluating examples of crisis communication plans from destination marketing organizations, state tourism offices, and select members of the WTO to determine common practices and policies and to compare these to non-tourism crises plans in areas such as health, natural disasters, and terrorism.

Standardized Measurement of Carbon Emissions – Dr. Shaun Willson has assembled widely-accepted, standardized protocols in order to perform measurements of what he considers to be the most critical component of sustainability for the tourism industry—carbon emissions. Unlike an index or business-to-business comparison, such a measurement can be compared to a known threshold and thereby used to guide consumers and businesses toward a specific, definitive goal of sustainability. This work has resulted in an online calculator to measure carbon emissions from tourism operations.

Sustainable Rental Properties – Hunt McKinnon is leading a team of students to examine and evaluate the options for sustainable renovations of Outer Banks vacation rental properties. This team is determining the environmental, economic, and aesthetic impact of these suggested renovations in order to establish a precedent of housing that is sustainable and will establish a reputation of being a green vacation destination. In addition, the team will produce detailed drawings for the existing properties, conduct a LEED evaluation for each rental unit, suggest appropriate improvements to make the properties as sustainable as possible, and provide cost estimates for the suggested actions.

Roanoke River Development – Paige Schneider is working with the Mid-East Resource Conservation and Development District, Inc., the Roanoke River Partners Board of Directors, and the Roanoke River Mayors Association on sustainable community-based development along the Roanoke River corridor. Along with her students, Ms. Schneider is updating an economic impact assessment of tourism and providing leadership in conducting an asset inventory and in applying for grants to stimulate the development process.

This project will bring their culture to light, and allow their stories to be told in their own words and through their own eyes. Dr. Sweet and her students also provided design guidance to the First People Heritage Center directed by Dreamweaver, a member of the Haliwa-Saponi tribe and the director of the Grandpa’s Children Foundation.

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Faculty Affiliate Research

Faculty who are named as Affiliates at the Center share an interest and enthusiasm for the Center’s mission. They come from many varied disciplines and provide assistance in research and program development and management. Below are brief profiles of a few of our Affiliates:

Derek Alderman, PhD
Dr. Alderman’s interests lie in assisting communities with the development of cultural tourism resources, specifically those related to heritage or historical issues. As a cultural geographer, he also examines the relationship between the politics of place-making and tourism promotion and how tourist spaces serve as arenas for the negotiation of identity, social power, and memory. Dr. Alderman is especially interested in working with African American communities and analyzing how their experience is incorporated into the southern landscape.

Scott Curtis, PhD
Dr. Curtis is interested in the interrelationship between climate variability and tourism, specifically tropical meteorology and global precipitation. Having written extensively on predicting and describing the El Niño/Southern Oscillation, Dr. Curtis is also investigating the summertime climatology of precipitation over Central America and the Caribbean Sea. Ultimately, Dr. Curtis’s work aims to reduce the harm caused by natural and human forces to life, business, and the environment.

James Kleckley, PhD
Dr. Kleckley is the Director of the Bureau of Business Research for the College of Business and provides consultation, education, information, and contract services in economic development, including tourism, for the region and state. He also serves on the National Association for Business Economics national forecasting panel. Currently, he is working on destination studies regarding the economic impacts of tourism and is a strong advocate of the linkage between tourism and other community and regional economic development strategies.

Bill Obenour, PhD
Dr. Obenour’s interests include destination image, tourism symbolic capital, sustainable tourism development, travel constraints, tourism quality, travel narratives, and backpackers’ journeys. His research investigates the formation of symbolic capital for destination development which is derived from the destination image and the tourists’ perceptions of the journey. This work provides insight into marketing, service delivery, management of sustainable destinations and events, and the analysis of an educational foundation for tourism professionals.

Jason Oliver, PhD
Dr. Oliver provides assistance to businesses and organizations which are poised to become more environmentally friendly. His research includes diffusion of sustainable innovations, green marketing, and customer loyalty. Dr.

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Dr. David Edgell, Sr., PhD

Dr. Edgell is the founding Director of East Carolina University’s original Tourism Institute, which preceded the creation of the Center for Sustainable Tourism. He is a Professor of Tourism within the Hospitality Management Program, College of Human Ecology, and has authored numerous tourism texts including Tourism Policy and Planning: Yesterday, Today and Tomorrow, Managing Sustainable Tourism: A Legacy for the Future, and Best Practices Guidebook for International Tourism Development for Rural Communities. His interests are in providing communities with a full range of sustainable tourism services, developing strategic tourism plans and management strategies, implementing tourism marketing concepts, and introducing tourism policies. Throughout a long career in the tourism industry, he has prepared state and local strategic tourism plans, introduced communities to “Edgell’s Ten P’s for Marketing Tourism,” prepared business plans for resort developments, developed international tourism destinations, provided direction in sustainable tourism as an economic development strategy, consulted on heritage and cultural tourism projects, and served in roles such as Under Secretary of the US Department of Commerce for Travel and Tourism, Commissioner of Tourism for the US Virgin Islands, and as a Vice President of Strategic International Marketing.
Oliver focuses on non-adopters and the barriers to adopting environmentally friendly products. His goal is to design solutions that apply marketing techniques to overcome these barriers and to motivate non-adopters to change their consumption behaviors.

**Hans Vogelsong, PhD**

Dr. Vogelsong has directed projects concentrating on a diverse array of applied recreation-related subjects including user conflicts, carrying capacity, human dimensions of resource management, economic impacts, use patterns, satisfaction, user preferences for management alternatives, recreation choice behavior, minimizing depreciative behavior, and the social-psychological aspects of coastal and estuarine recreation and tourism. Working closely with his students, his clients have included the National Park Service, the State of North Carolina, the State of Delaware, the US Fish and Wildlife Service, NOAA, and several non-profit agencies.

**Mel Weber, PhD**

Using a web-based survey, Dr. Weber is working to identify which of over 200 sustainable practices are the most relevant to typical tourism businesses and also have the highest rate of environmental and financial return on investment. His goal is to assist tourism business decision makers in identifying where limited resources should be applied to maximize the reduction of environmental impact and financial return.
About the Center

Based at East Carolina University (ECU) in Greenville, North Carolina, and housed within the Division of Research and Graduate Studies, the Center for Sustainable Tourism is believed to be the only such center in the nation fully dedicated to research, to community and business engagement, and to education and training in sustainable innovations and applications in tourism. The ECU Centers and Institutes Review Committee, at its July 28, 2006, meeting voted to recommend to the Academic Council that the Center designation be approved.

In 2007, the Center was given formal approval with the first Director assuming duties on October 1, 2007. Due to its interdisciplinary and collaborative nature, the Center works closely with many academic and non-academic university units; with local, regional, state, and national governmental organizations; with business and industry; and with nonprofits and traveler-related organizations.

Please feel free to contact the Center by phone at 252-328-4969, or by emailing sustainabletourism@ecu.edu.

Center Staff

**Director**, Patrick Long  
**Director of Research**, Huili Hao  
**Administrative Associate**, Yvette Singleton  
**Associate Director of Academic Programs**, Joseph Fridgen  
(shared position with the College of Health and Human Performance)  
**Assistant Professor**, Carol Kline  
(shared position with Recreation and Leisure Studies)  
**Coordinator of Sustainable Tourism Initiatives**, Alex Naar  
(shared position with ECU’s Office of Engagement, Innovation, and Economic Development; partnered with the NC Division of Tourism, Film, and Sports Development)  
**Research Fellow, Cultural and Heritage Studies**, Derek Alderman  
(shared position with ECU’s Department of Geography)  
**Research Scholar, Planning and Policy**, David Edgell, Sr. (Hospitality Management)

Sustainable Tourism Industry Advisory Council

The Industry Advisory Council has been established to advise the Center with respect to activities and programs that emphasize tourism sustainability in communities and businesses throughout the state and nation. In addition, board members provide input and support for the academic program as well as connectedness to the tourism industry for students and faculty. Members of the board are to be able and willing to influence tourism sustainability in the business world, to advocate to the broader community the need for tourism sustainability, and to work for financial support for the Center.

**Chris Adams**, Director of Online Marketing at Miles Media, Inc.  
**Marilyn Ball**, President of 12Twelve Collaborative Solutions  
**Elan J. Blutinger**, Managing Director of ALPINE Consolidated  
**Suzanne E. Dorsey**, Executive Director of Bald Head Island Conservancy and Smith Island Land Trust  
**Mike Kelly**, Owner of Kelly’s Restaurant and Tavern  
**Dexter Koehl**, President of the Dexter Koehl Group, LLC  
**Tim Lampkin**, Director of Convention Sales and Group Services, Asheville Convention and Visitors Bureau  
**Chris Metzler**, President of Verde Evolution
“I am very proud of the work done by the Center for Sustainable Tourism at East Carolina University. The work is innovative and thought-provoking and is important for eastern North Carolina, as well as throughout the world. The Center’s new Master of Science in Sustainable Tourism degree will provide business and environment-friendly leaders for tomorrow.”

— Marian McLawhorn, NC State Representative

“I am very proud of the leadership ECU is providing our state in terms of improving the sustainability of North Carolina’s tourism product. The newly approved master’s degree program demonstrates their commitment to graduating students who will be poised to lead the sustainable tourism movement for our future. We are also proud to have Alex Naar working in our offices in Raleigh. He is helping bridge the gap between the Center’s academic work and practical application.”

— Lynn D. Minges, Assistant Secretary for Tourism, Marketing, and Global Branding, NC Dept. of Commerce

“The progress made by ECU’s Center for Sustainable Tourism in just 30 months is astounding, making it a model of endeavour and achievement that I regularly cite. It has tackled global, regional, and local issues; it offers advice and short courses; it offers a groundbreaking masters programme. It works with businesses, communities, and policy makers. Importantly, while being in touch locally, it is also in regular and fruitful contact with experts, thinkers, educators, and doers globally.”

— Bernard Lane, Editor, Journal of Sustainable Tourism; Tourism Management Consultant, UK

“The Center’s Climate, Weather, and Tourism initiative reflects an innovative, multi-disciplinary approach that combines ECU’s scientific research, policy studies, and education programs. It builds on substantial faculty expertise and ongoing projects with a commitment to nurturing the enthusiasm of students who will help governments, communities, and businesses more effectively understand, anticipate, and respond to changing climate conditions.”

— Eileen Shea, Chief, Climate Services Division, NOAA’s National Climatic Data Center
Partnerships
- Bureau of Business Research. James Kleckly, Director.
- Center for Geographic Information Science (GIS Center). Tom Crawford, Director.
- Center for Natural Hazards Research (CNHR). Craig Landry, Director.
- Coastal Resources Management (CRM) Program. Hans Vogelsong, Director.
- Institute for Coastal Science and Policy (ICSP). John Rummel, Director.
- Miles Media, Inc. Roger Miles, President.
- NC Center for Biodiversity. Jason Bond, Director.
- NC Department of Environment and Natural Resources (NCDENR). David Knight, Assistant Secretary.
- NC Division of Tourism, Film, and Sports Development. Lynn Minges, Assistant Secretary for Tourism, Marketing, and Global Branding.
- Renaissance Computing Institute (RENCI at ECU). Tom Allen, Director.
- Sustainable Travel International. Brian Mullis, President.

Distinguished Lecture Series
- Chris Adams, Director, Online Media, Miles Media, Inc.
- Martha Honey, Director, Stanford University/Washington, DC, Center for Responsible Travel.
- Mick Ireland, Mayor of Aspen, Colorado
- Bernard Lane, Editor, Journal of Sustainable Tourism.
- Nancy McGehee, Associate Professor, Virginia Tech University
- Brian Mullis, President, Sustainable Travel International.
- Stan Riggs, Distinguished Professor, Department of Geology.
- Chris Seek, President, Solimar International.

Symposium Sponsorship
- “Water, water everywhere: Or is it?” With Department of Geography GeoClub.
- “Wind and water: The science of hurricane forecasting and impacts in a changing climate.” With Department of Geography GeoClub.
- “Wind power: Alternative or distraction?” With Department of Geography and RENCI at ECU.

Faculty Research Presentation Series
- “Wind turbine placement and tourist decision-making.” Craig Landry (economics).
- “First Nations Cultural Heritage Center: Sustaining sense of place.” Rebecca Sweet (interior design and merchandising).
- “Destination management organizations and sustainable positioning.” Bill Obenour (recreation and leisure studies).
- “Invisibility of African Americans in North Carolina travel brochures.” Derek Alderman (geography).
- “Assessment of hub and spoke bus tour programs in the NE Commission Economic Development Region of North Carolina.” Jim Kleckley (Director of the Bureau of Business Research).
- “Green practices in the accommodations industry.” Jim Chandler (hospitality management), Jason Oliver (business), & Mel Weber (hospitality management).
- “Impacts of tourism and second home development on community quality of life in a coastal county.” Huili Hao, & Tetiana Lysenko (Center for Sustainable Tourism).

Funding Proposals
Climate, Weather, and Tourism Initiative
- North Carolina Sea Grant ($2,500). Support for “Climate, Weather, and Tourism Workshop.”
- National Climatic Data Center ($2,500). Support for “Climate, Weather, and Tourism Workshop.”

Community Sense of Place Initiative
- North Carolina Sea Grant ($95,000). “Tourism Impacts and Second Home Development in Coastal Communities: A Sustainable Approach.” Long, P., Hao, H., & Kleckley, J.

Renewable Energy in Tourism Initiative
Selected Research in Progress

- “North Carolina Woodland Indian tribes: Documentation and comparative analysis of tribal ‘sense of place.’” Sweet, R., & Carawan, L.
- “Climate planning for destination marketing/management organizations: Sustainability as a core competency.” Obenour, B.
- “Placement of wind turbines and recreation preferences in coastal areas.” Landry, C., & Allen, T.
- “Strategic planning for destination marketing/management organizations: Sustainability as a core competency.” Obenour, B.
- “Impacts of tourism on resident assessment of community life.” Hao, H., Long, P., Kleckley, J., & Knollenberg, W.
- “Quantification of economic impact of “Hub and Spoke” tour program in Northeast Commission.” Kleckley, J., & Arnold, S.
- “What makes a community a tourism-impacted place? A spatial and economic perspective.” Hao, H., & Long, P.

Selected Publications
