Tyranny of “Or”: Conservation or Development? Preservation or Utilization?

Corpus Christi, Texas USA, June 6-10, 2010
Hosted by Sam Houston State University
Schedule Overview

**Sunday June 6th**

- Registration: 1:00 pm - 5:00 pm, Credenza Foyer Area
- Student Forum: 10:00 am - 5:30 pm, Laguna Madre
- Opening Plenary & Welcome Reception: 6:00 pm - 8:30 pm, Corpus Christi Ballroom B&C

**Monday June 7th**

- Registration: 8:00 am - 5:00 pm, Credenza Foyer Area
- Concurrent Sessions: 8:00 am - 5:00 pm, Bayfront Tower
- Plenary Session: 10:30 am - 12:15 pm, Corpus Christi Ballroom B&C
- Editors’ Luncheon: 12:15 pm - 1:30 pm, Bayview
- Energy & Environment Workshop: 1:30 pm - 5:00 pm, Corpus Christi Ballroom A
- IASNR New Member Meeting: 5:00 pm - 6:00 pm, Laguna Madre
- Poster Session and Reception: 6:00 pm - 9:00 pm, Corpus Christi Ballroom B&C
- Quiz Bowl: 6:00 pm - 9:00 pm, Corpus Christi Ballroom B&C

**Tuesday June 8th**

- Registration: 8:00 am - 5:00 pm, Credenza Foyer Area
- Concurrent Sessions: 8:00 am - 5:00 pm, Bayfront Tower
- Plenary Session: 10:30 am - 12:00 pm, Corpus Christi Ballroom B&C
- Executive Council Meeting: 12:00 pm - 1:30 pm, Bayview
- ISSRM Banquet: 6:00 pm - 8:00 pm, Corpus Christi Ballroom B&C

**Wednesday June 9th**

- Registration: 8:00 am - 5:00 pm, Credenza Foyer Area
- Concurrent Sessions: 8:00 am - 5:00 pm, Bayfront Tower
- IASNR Business Meeting: 5:00 pm - 6:30 pm, Laguna Madre

**Thursday June 10th**

- Concurrent Sessions: 8:00 am - 12:00 pm, Bayfront Tower
- Adjourn the Symposium

*Picture provided by Corpus Christi Visitor’s Center*
Table of Contents

About the ISSRM .................................................................................................2
About IASNR & Symposium Hosts .................................................................3
Conference Organizers .................................................................................4
Logistics ..........................................................................................................5
Student Forum and Workshop ....................................................................6
Special Events ..............................................................................................7
Student Scholarship and Paper Competition Winners ..........................8
Keynote Speakers/Plenary Sessions .........................................................9-11
Organized Sessions ......................................................................................13-15

Schedule Details

Sunday
 Overview ........................................................................................................16
 Monday
 Overview .......................................................................................................17
 Sessions .........................................................................................................18-24
 Poster Session ............................................................................................25-26
 Tuesday
 Overview .....................................................................................................27
 Session .........................................................................................................28-34
 Wednesday
 Overview ....................................................................................................35
 Session .........................................................................................................36-44
 Thursday
 Overview ....................................................................................................45
 Session .........................................................................................................45-47
 Sponsors .......................................................................................................48-50
The International Symposium on Society and Resource Management is the official annual meeting of the International Association for Society and Natural Resources (http://www.iasnr.org), an interdisciplinary professional association whose members bring a variety of social science and natural science backgrounds to their research on environmental and natural resource issues.

Since its inception in 1986, the ISSRM has become the premier scientific meeting for academic and government researchers, students, land managers and NGO representatives who are broadly interested in the human dimensions of natural resources and the environment. Although the largest percentage of IASNR members live and work in the United States, symposia have been held in seven countries on three continents – most recently in Vienna, Austria, in 2009 and Burlington, Vermont, USA, in 2008.

The ISSRM is unique in that the meeting itself was the catalyst for the professional organization and its journal, rather than the other way around. The first symposium was held at Oregon State University in 1986. Its organizer and prime mover was Donald R. Field, then a professor of sociology and forest management and National Park Service scientist at the Corvallis campus. His idea was simple: to provide a venue for social scientists and federal and state land management agencies to exchange research knowledge on emerging environmental and natural resource issues.

Two important actions came about as a result of that 1986 meeting. First, it was clear that the information exchange was valuable enough to warrant more meetings, so the ISSRM became first a biannual conference and since 2004 an annual meeting. Second, conferees agreed that enough research was being conducted on the social science aspects of environment and natural resources that it warranted its own publication. Hence the well-known journal *Society and Natural Resources* appeared in 1988, published by Taylor & Francis. IASNR officially was established in 2002 in order to solidify the professional identity of this interdisciplinary research field, as well as to maintain the journal and ISSRM. Participating disciplines include sociology, rural sociology, psychology, anthropology, political science, economics, landscape architecture, environmental planning, outdoor recreation management, history, and the natural sciences.
IASNR is an interdisciplinary professional association open to individuals who bring a variety of social science and natural science backgrounds to bear on research pertaining to the environment and natural resource issues. Our official journal, *Society and Natural Resources*, publishes research articles and policy analyses pertaining to a broad range of topics addressing the relationships between social and biophysical systems. Our official meetings, the International Symposia on Society and Resource Management, are held annually.

### Symposium Hosts

**Future ISSRM Hosts and Locations**

| June 2011 | Universiti Malaysia Sabah in Kota Kinabalu, Sabah, Malaysia |
| June 17-21 2012 | University of Alberta, Edmonton, AB |

**Past and Present ISSRM Hosts, Locations, and Themes**

| 2010 | Sam Houston State University, Corpus Christi, Texas USA |
| 2009 | University of Natural Resources & Applied Life Sciences, Vienna Austria |
| 2008 | The University of Vermont, Burlington, Vermont USA |
| 2007 | Utah State University, Park City, Utah USA |
| 2006 | Simon Fraser University & University of British Columbia, Vancouver, British Columbia, Canada |
| 2005 | Mid Sweden University, Ostersund, Sweden |
| 2004 | Colorado State University, Keystone, Colorado USA |
| 2002 | Colorado State University & University of Sassari, Sardinia, Italy |
| 2002 | Indiana University, Bloomington, Indiana USA |
| 2000 | Western Washington University, Bellingham, Washington USA |
| 1999 | University of Queensland, Brisbane, Australia |
| 1998 | University of Missouri-Columbia, Columbia, Missouri USA |
| 1996 | Pennsylvania State University, State College, Pennsylvania USA |
| 1994 | Colorado State University, Ft. Collins, Colorado USA |
| 1992 | University of Wisconsin-Madison, Madison Wisconsin USA |
| 1990 | Texas A&M University, College Station, Texas USA |
| 1988 | University of Illinois at Urbana-Champaign, Illinois USA |
| 1986 | Oregon State University, Corvallis, Oregon USA |
Conference Organizers

ISSRM 2010 Chair
Gene Theodori

Symposium Coordinator
Cheryl Hudec

Website Development
Paulus Mau

Program Development
Ben Beardmore

Student Forum Organizers
Carena van Riper
Stephanie Malin

Student Forum Committee
Amanda Bentley
Penny Cook
Rachel Haddock
Jamilia Haider
Patrick Holladay
Jaime McEvoy
Prateep Kumar Nayak
Ryan Sharp
Mike Quartuch
Eick Ruschkowski

International Scientific Advisory Committee
John Allen Utah State University
David Burnett Global Petroleum Research Institute
Rachel Carter Mississippi State University Extension Service
Douglas Constance Sam Houston State University
Karen Douglas Sam Houston State University
Courtney Flint University of Illinois at Urbana-Champaign
Roger Hanagriff Texas A&M University-Kingsville
Richard Haut Houston Advanced Research Center
Chyrel Mayfield Texas A&M University
Naomi Krogman University of Alberta
Gerard Kyle Texas A&M University
Kim Rollins University of Nevada-Reno
Douglas Smith Western Kentucky University
Cynthia Van Der Wiele Chathman County, NC
Matthew Wagner Texas Parks and Wildlife Department

Other pictures provided by Padre Island National Seashore website. http://www.nps.gov/pais/photosmultimedia/photogallery.htm
**Registration**
Registration can be found in the Credenza Foyer Area on the third floor of the Bayfront Tower on Sunday from 1:00 pm - 5:00 pm and on Monday through Wednesday 8:00 am - 5:00 pm.

**Concurrent Sessions**
All concurrent sessions are scheduled to take place in the meeting rooms on the third floor of the Bayfront Tower. A staff member will be available to assist presenters.

**Uploading Presentations**
Presenters who have not already uploaded their presentation file to the ISSRM website should do so by 5:00 pm on the day prior to their presentation. As a backup, please bring your presentation on CD or USB memory stick to the session room 20 minutes before the start of the session.

**Breaks and Dining Options**
All breaks will be served in the foyer areas on the third floor and are included in the conference fees. Lounges include the Topsider Lounge located on the second floor of the Bayfront Tower and The Terrace located in the Marina Tower. Dining options at the Omni Corpus Christi Hotel include the Glass Pavilion located on the 2nd floor of the Bayfront Tower, the Coastline Café located on the lobby level of the Marina Tower, and the Republic of Texas Bar and Grill located on the 20th floor of the Bayfront Tower.

**Poster Session and Reception**
The Poster Session and Reception will take place in the Corpus Christi Ballroom B&C from 6:00 pm to 9:00 pm on Monday. You may set up your poster beginning at 1:00 pm that day. All posters need to be taken down immediately following the session.

**ISSRM Banquet Dinner**
The Banquet will take place Tuesday evening from 6:00 pm - 8:00 pm in Corpus Christi Ballroom B&C. Individuals who prepaid for the banquet will receive their tickets at registration. If you would like to attend this event, please check with conference staff to purchase your ticket.

**Exhibits**
Publishers and other organizations will exhibit their information materials in the foyer areas located on the third floor in the Bayfront Tower.

**Transportation and Parking**
The Omni Corpus Christi Hotel provides scheduled complimentary shuttle service to and from the Corpus Christi International Airport. Other options include car rentals through Advantage, Avis, Thrifty, Enterprise, Hertz, and Budget. Complimentary covered parking is provided for ISSRM participants. Valet parking is available for a nominal fee.

**Business**
The Omni Corpus Christi Hotel provides complimentary wireless internet service to attendee guestrooms. Services provided by the Business Center are available Monday through Friday 8:00 am to 5:00 pm.

**Recreation**
There are many educational and recreational opportunities available in Corpus Christi. Please visit the Area Education and Recreation Options page of the ISSRM 2010 website for detailed suggestions about places to see.
**ISSRM Student Forum**
Sunday June 6, 10:00 am - 5:30 pm

One of the hallmarks of ISSRM has been a strong commitment to student participation. The Student Forum was created to support this goal by providing a welcoming atmosphere for students, enhancing the student experience at ISSRM, and encouraging involvement in the International Association for Society and Natural Resources.

To honor the place in which this year’s ISSRM will be held, the theme of the 2010 Student Forum relates to society and natural resources in coastal regions. Reflecting this theme, an exciting panel discussion will be held with professional perspectives from multiple sectors associated with coastal resources management. Our goal in organizing this panel is to highlight the challenges associated with balancing conservation and development, explore the approaches taken to research and management within different sectors, and provide an opportunity for dialogue between students and panelists to explore these ideas in the context of coastal resources.

In addition to this year’s panel discussion, you can look forward to interesting and informative presentations on grant writing, involvement in professional organizations, the use of secondary data in social science research, and natural resources and visitor management at Padre Island National Seashore.

**Student Forum Speakers**

- **A.E. Luloff, Ph.D.**, IASNR Executive Director, Pennsylvania State University
- **Stewart Allen, Ph.D.**, Program Manager, Pacific Islands Fisheries Science Center, NOAA National Marine Fisheries Service
- **Jeffrey C. Hallo, Ph.D.**, Assistant Professor, Clemson University
- **Michael A. Schuett, Ph.D.**, Center for Socioeconomic Research & Education, Texas A&M University
- **Chelsea Aldrich**, Park Ranger, Division of Interpretation & Education, Padre Island National Seashore
- **Gary D. Ellis, Ph.D.**, Department Head, Department of Recreation, Park, and Tourism Sciences, Texas A&M University
- **Suzanne Russell**, NOAA Social Scientist Northwest Fisheries Science Center
- **Thomas E. Fish**, National Coordinator Cooperative Ecosystem Studies Units Network
- **Eick von Ruschowski**, University of Hannover, Germany
- **Prateep Nayak**, University of Manitoba, CA & Harvard University
- **Amanda Bentley**, Department of Recreation, Park, and Tourism Sciences, Texas A&M University
- **Ryan Sharp**, Warnell School of Forestry and Natural Resources

**Energy & Environment Workshop**
Monday June 7, 1:30 pm - 5:00 pm, Corpus Christi Ballroom A

The Environmentally Friendly Drilling Program (EFD) is sponsoring a workshop focusing on environmentally friendly energy exploration and production (E&P) practices. Leading experts will share information on environmentally friendly E&P advances such as rig technology, drilling technology, waste management, low-impact access and transport, water management, air emission, and surface disturbance. Particular attention will be paid to activities occurring in the Eagle Ford Shale. For more information on the EFD program, please visit www.efdsystems.org.
**Opening Plenary and Welcome Reception**  
Sunday June 6, 6:00 pm - 8:30 pm, Corpus Christi Ballroom B&C

"Natural Resource Use and Protection: Demographic and Socioeconomic Factors Limiting Potential Policies in the Twenty-First Century" featuring Dr. Steve Murdock, Professor of Sociology at Rice University

**Graduate Student Quiz Bowl**  
Monday June 7, 6:00 pm - 9:00 pm, Corpus Christi Ballroom B&C

ISSRM 2010 is holding the 3rd Annual Student Quiz Bowl. The objective of the Quiz Bowl is to provide a spirited competition among teams of four students and allow both the participants and the audience to have fun while enhancing their awareness of social science issues applied to the environment and natural resources. This effort is meant to bring together teams of students to foster collegiality among participants, enhance knowledge of the social and natural sciences, and highlight the strong research programs that are a traditional part of ISSRM. Each person on the winning team will receive a $50.00 gift certificate from our sponsor, Taylor and Francis Publishing Company. Participating universities include the University of Maine, Clemson University, Pennsylvania State University, and individuals making up the Wildcard University team from Cornell University, North Carolina University, Texas A&M University, and Murdoch University.

**Poster Session and Reception**  
Monday June 7, 6:00 pm - 9:00 pm, Corpus Christi Ballroom B&C

Posters have become an important way for people to communicate their research findings during scientific meetings. Nearly 50 posters will be presented during the Symposium, and a full session has been designated for this event. Refreshments and a buffet will be served and poster authors will be available to discuss their projects during this Monday evening session.

**ISSRM Banquet Dinner**  
Tuesday June 8, 6:00 pm - 8:00 pm, Corpus Christi Ballroom B&C

Keynote Address: Dr. Allen Rasmussen  
The Banquet Dinner provides an opportunity for ISSRM participants to come together to socialize over a meal. Winners of the Graduate Student Quiz Bowl and Student Paper Competition will be announced, and other awards will be presented.
Best Doctoral Student Paper

Joanna Tonge, School of Environmental Science, Murdoch University
"The Place Attachment of Visitors to Ningaloo Marine Park, North-Western Australia"

Best Master’s Student Paper

Darrick T.N. Evensen, Department of Natural Resources, Cornell University
“Natural Threats in the ‘Lymelight’: Understanding How People Perceive Risks Associated with Lyme disease”

ISSRM 2010 Student Registration Scholarship Winners

Jennifer Arnold University of Florida
Patrick Bixler Colorado State University
Matthew Brownlee Clemson University
Natalia Buta University of Florida
Yuan-Yu Chang National Taiwan University
Wan Yu Chou National Taiwan University
Melissa Clark Michigan State University
Emily Jane Davis University of British Columbia
Narayan P. Dhakal University of Minnesota
Michael Dougherty University of Wisconsin
Chia-Wei Hsu National Taiwan University
Yin Chieh Lee National Taiwan University
Ching-Shien Lee National Taiwan University
Sojna Lin University of Washington
Chen-You Liu National Taiwan University
Cynthia Longmire Pennsylvania State University
Karl Makinen Michigan Technological University
Miramanni Mishkin University of Florida
Michelle Moorman North Carolina State University
Kathryn B. Reis North Carolina State University
Ai-Tsen Su National Taiwan University
I-Chun Tang National Taiwan University
Chih Wei Wang National Taiwan University
Pei-Ju Wu National Taiwan University
Brooklynn Wynveen Clemson University
Opening Plenary and Welcome Reception:
Sunday June 6, 2010, 6:00 pm - 8:30 pm, Corpus Christi Ballroom B&C

Dr. Steve Murdock
"Natural Resource Use and Protection: Demographic and Socioeconomic Factors Limiting Potential Policies in the Twenty-First Century"

Steve H. Murdock is the Allyn R. and Gladys M. Cline Professor of Sociology at Rice University. He previously served as Director of the U.S. Bureau of the Census having been nominated for the position by President Bush and unanimously confirmed by the U.S. Senate in 2007 and served until the change in administration in January of 2009. Prior to his appointment at Rice, he was the Lutcher Brown Distinguished Chair in Demography and Organization Studies at the University of Texas at San Antonio (UTSA) and the Director of the Institute for Demographic and Socioeconomic Research. Before UTSA, Murdock was a Regents Professor and Head of the Department of Rural Sociology at Texas A&M University. He was also the official State Demographer of Texas. He was appointed to this position by Governor Rick Perry and was the first person to occupy this position. Dr. Murdock earned his Ph.D. in demography and sociology from the University of Kentucky and is the author or editor of 13 books and more than 150 articles and technical reports on the implications of current and future demographic and socioeconomic change. He is the recipient of numerous honors and awards. These include the Faculty Distinguished Achievement Award in Research from Texas A&M University, the Excellence in Research Award and the Outstanding Rural Sociologist Award from the Rural Sociological Society, The Distinguished Alumni Award from North Dakota State University and the Distinguished Alumni Award from the Department of Sociology at the University of Kentucky. He was named one of the fifty most influential Texans by Texas Business in 1997 and as one of the twenty-five most influential persons in Texas by Texas Monthly in 2005. He is a member of the Phi Beta Kappa, Phi Kappa Phi, and Phi Eta Epsilon national honor societies.

Plenary Session
Monday June 7, 2010, 10:30 am - 12:15 pm, Corpus Christi Ballroom B&C

Dr. Tom Geehan
“Environmental Compliance in the Oil & Gas Upstream Business Sector from the View Point of a Service Supplier”

Thomas Geehan is Corporate Director of Technology for the Environmental Solution Technology group within MISWACO (a joint venture company between Schlumberger and Smith International). He first joined the oilfield in late 1979 working for Dresser Magcobar; and joined Forex Neptune (a Schlumberger Company) in June 1984 in Paris. He worked in various engineering and marketing roles with Sedco Forex before transferring to Dowell Schlumberger in 1993 with the Schlumberger’s acquisition of IDF and the formation of the Dowell Schlumberger Drilling Fluids group. As part of that group he was transferred to Houston in 1993 to run the Drilling Fluids organization in North and South America. In 1994, he was cross trained in stimulation and completion technologies. He has worked in various roles in production enhancement through to hydraulic fracture specialist in Houston, West Texas, Alaska and Denver. He was then transferred as part of the joint venture to MSWACO in late 1999 to run the R&E group of Environmental Solutions business sector. He has managed that group for the last nine years with particular emphasis on the development of waste treatments and disposal technologies. His special interest is in water treatment of oilfield water, in particular recycling of frac flow back fluids. He is currently involved with Texas A&M University on the use of membrane technology for desalination of oilfield brines and the University of Michigan on the design of hydro cyclone to help facilitate the removal of oil in produced water processing. His BSc is in Industrial Chemistry and his PhD is in Chemical Engineering and Polymer Chemistry; both earned at the Queens University of Belfast, N. Ireland.
Plenary Session
Monday June 7, 2010, 10:30 am - 12:15 pm, Corpus Christi Ballroom B&C

Dr. David E. Holt
President, Consumer Energy Alliance
"Common Sense Energy Policy: Short-Term Needs, Long-Term Solutions"

The Consumer Energy Alliance was formed to help support the thoughtful utilization of all domestic energy resources to improve domestic energy security and reduce consumer prices. The mission of the Consumer Energy Alliance is to improve consumer understanding of our nation’s energy security, including the need to reduce reliance on imported oil and natural gas, maintain reasonable energy prices for consumers, and continue efforts to diversify our energy resources. Consumer Energy Alliance now has almost 120 consumer and energy organizations and more than 170,000 consumer advocates as part of its Alliance. Through its various activities, CEA works to continue to expand dialogue and develop joint messaging among the energy and consuming sectors. David is a Professor with Norway’s Bodø Graduate School of Business, Master of Science in Energy Management Program, in cooperation with the International Institute of Energy Policy & Diplomacy at the MGIMO University in Moscow, Russia. He serves as Co-Chairman of the Greater Houston Partnership’s Energy Collaborative Strategy & Assessment Subcommittee. He is a member of the Texas Bar Association and Houston Bar Association. David and his wife, Maureen, have three children.

Dr. Carey King
"The Trends of World Energy: Quantity and Quality"

Dr. Carey King studies energy systems, how they work together, how they impact the environment, and how and why humans as a society consume energy resources. He specializes in dynamic systems modeling and nonlinear optimization methods. Much of his recent work has focused on the nexus between energy and water for projecting water demand for electricity generation and alternative automobile fuels. As part of his energy-water studies, Dr. King has authored journal publications, a chapter for the Texas State Energy Conservation Office on the role of water in Texas’ energy future as well as a report for the Texas Water Development Board that projects water demand scenarios for future electricity production. Additional work in which Dr. King is engaged includes the economics of carbon capture and sequestration, the design of beneficial combinations of renewable energy and storage systems, and the creation of tools to help the public and policymakers understand the trade-offs among different electricity generation sources.

Before joining the University of Texas at Austin, Dr. King was Director of Scientific Research at UniPixel Displays, Inc., a company developing a new flat panel display technology based upon micro-electromechanical systems. Dr. King is a former National Science Foundation Graduate Fellow, and holds both a B.S. with High Honors and Ph.D. from the Department of Mechanical Engineering at the University of Texas at Austin.
Dr. Stephen R. Kellert
"Nature in Human Development: From Childhood Maturation to Design of the Built Environment"

Stephen R. Kellert is the Tweedy Ordway Professor of Social Ecology at the Yale University School of Forestry and Environmental Studies, Executive Chair of Bio-Logical Capital, and a founding Partner and now consultant in the company, Environment Capital Partners. His work focuses on understanding the connection between human and natural systems with a particular interest in the conservation of nature and sustainable design of the built environment. His awards include: the 2009 George B. Hartzog Award for Environmental Conservation, 2008 American Publishers Professional and Scholarly Best Book of Year Award in Architecture and Urban Planning for the book "Biophilic Design," the Outstanding Research Award for contributions to theory and science (2005, North American Association for Environmental Education); the National Conservation Achievement Award (1997, National Wildlife Federation); the Distinguished Individual Achievement Award (1990, Society for Conservation Biology); the Best Publication of Year Award (1985, International Foundation for Environmental Conservation); Special Achievement Award (NWF, 1983); and listed in "American Environmental Leaders: From Colonial Times to the Present." He has served on committees of the National Academy of Sciences, and has been a member of the board of directors of many organizations. He has authored more than 150 publications, including the following books: The Coming Transformation: Values to Sustainable Natural and Human Communities (edited with Gus Speth, Yale FES); Biophilic Design: The Theory, Science, and Practice of Bringing Buildings to Life (co-editors, J. Heerwagen, M. Mador, John Wiley, 2008), Building for Life: Designing and Understanding the Human-Nature Connection (Island Press 2005); Kinship to Mastery: Biophilia in Human Evolution and Development (Island Press, 1997); The Value of Life: Biological Diversity and Human Society (Island Press, 1996); The Biophilia Hypothesis (edited with E.O. Wilson, Island Press, 1993); The Good in Nature and Humanity: Connecting Science, Religion, and Spirituality with the Natural World (edited with T. Farnham, Island Press, 2002); Children and Nature: Psychological, Sociocultural, and Evolutionary Foundations (with P. Kahn, Jr., MIT Press, 2002); and Ecology, Economics, Ethics: The Broken Circle (edited with F.H. Bormann, Yale University Press, 1991).

ISSRM Banquet
Tuesday June 8, 2010, 6:00 pm - 8:00 pm, Corpus Christi Ballroom B&C

Dr. Allen Rasmussen
“Natural Resource Issues/Concerns Facing South Texas”

Allen Rasmussen grew up in New Mexico and has spent his professional time in the Southern Great Plains and the Intermountain West. He, his wife Kathleen, and his son Joshua moved to South Texas 3 years ago. Currently he is the Dean in the Dick and Mary Lewis College of Agriculture, Natural Resources, and Human Sciences at Texas A&M University-Kingsville and has a research appointment with the Caesar Kleberg Wildlife Research Institute (CKWRI). He has worked to help people understand how their management and decisions affect rangeland resources. He draws on a wide variety of experiences from consulting, having a grass seed company, to being a faculty member with extension, research, teaching and administrative roles at different times throughout his career. These experiences have allowed him to help people understand how and why their management and decisions impact rangeland resources. His extension programs have focused on helping land managers and the public understand how rangelands function and how they can be managed as a system. Often, this entailed getting people together to deal with conflicts over techniques or information so they could make acceptable resource decisions. He has taught courses ranging from prescribed burning to conflict management of natural resources.
NEPA in the Forest Service: Implications for the Agency, the Public, and the Environment

This panel session will share findings from multiple related research efforts aimed at understanding efforts to implement the National Environmental Policy Act in the U.S. Forest Service. The research included a survey of over 3,000 Forest service employees about their NEPA processes, an analysis of legal cases brought against the Forest Service ending from 2004 to 2008, two surveys of NEPA processes across the Forest Service linking process attributes to outcome measurements, and detailed case studies of 10 Forest Service NEPA processes related to travel management. Presentations and discussion will address the following questions:

1. How does the Forest Service as an agency conceptualize NEPA and perform NEPA-related tasks?
2. Why does the Forest Service “do” NEPA in the way it does?
3. What are the implications of the way the Forest Service carries out NEPA?
   a. For the agency’s mission
   b. For the public
   c. For agency personnel
   d. For environmental protection

Topics for discussion include the impacts of internal agency perceptions about NEPA upon its implementation, agency morale, mission achievement, public involvement and public response; the influence of court decisions upon NEPA implementation; and the relationships between risk averseness, the role of science and public values, and decision-making.

While the presentations will focus on the U.S. Forest Service, we believe that many of the findings and implications are highly relevant to other federal agencies.

Marc J. Stern (Department of Forest Resources and Environmental Conservation, Virginia Tech)
Dale Blahna (Pacific Northwest Research Station, U.S. Forest Service)
Clare Ryan (College of Forest Resources, University of Washington)
S. Andrew Predmore (Department of Forest Resources and Environmental Conservation, Virginia Tech)
Lee Cerveny (Pacific Northwest Research Station, U.S. Forest Service)
The Unifying Negotiation Framework: A Discourse-Based Model of Process Design

The Unifying Negotiation Framework is an innovative cognitive structure designed to facilitate the design of collaborative/negotiated approaches to making natural resource decisions. It was originally developed to support graduate education at the University of Copenhagen, and a design criteria was that it had to be applicable in the widest array of cultural, institutional, and social contexts. Initial applications of the Unifying Negotiation Framework indicate that it does facilitate the development of innovative discourse approaches to complex natural resource decision making situations.

Stephen E. Daniels (Utah State University)


Oregon is perceived as a water rich state; however, as the 2001 Klamath Basin crisis demonstrated, Oregon is not immune to water conflict. Due to its seasonal fluctuations in water availability and geographical variation, Oregon can be considered a water scarce state, with the majority of surface water already fully, or in some places, over allocated during summer months. Climate change, population growth in the Pacific Northwest, and increased demand for water are compromising water quantity and water quality for all water users, as well as limiting resources available for state fish and wildlife needs. In 2009, the 75th Legislative Assembly passed HB 3369 authorizing the Oregon Water Resources Department (in conjunction with Oregon Department of Fish and Wildlife and the Department of Environmental Quality) to develop a statewide, integrated water resources strategy, signifying the need for an assessment of water use and availability, as well as a projection of future water needs.

The Klamath Basin water crisis in 2001 illustrated the importance of adaptive, integrated management of water before water scarcity creates conflict. As such, an assessment of Oregonians’ risk perception, knowledge, values and adaptability to changing water conditions is imperative not only to avoid future water disputes, but to plan for future water needs of people and ecosystems. This panel will highlight preliminary results from surveys and interviews of Oregon residents, elected officials and agency personnel.

Erika Allen Wolters (Oregon State University)
Dr. Brent S. Steel (Oregon State University)
Monika Hubbard (Oregon State University)
Kirsten Winters (Oregon State University)
Developing and Assessing Sustainability Competencies: Building Capacity to Get Beyond the "Tyranny of 'Or'"

Getting beyond the "Tyranny of 'Or'" requires building capacity toward sustainability literacy. Despite the proliferation of sustainability programs in higher education, consensus remains lacking about the key competencies required for sustainability literacy. This session will 1) outline the theory and practice of implementing competency-based assessment in academic programs, 2) provide an update of sustainability competencies under development at the American Academy for the Advancement of Science and the American Association for Sustainability in Higher Education, 3) describe current sustainability competency efforts at Michigan State University and 4) foster discussion aimed at generating mutual understanding regarding the kind of sustainability competencies and competency assessment that enable society to move beyond the "Tyranny of 'Or.'"

Geoffrey B. Habron (Michigan State University)
## Overview: Sunday

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 am - 5:30 pm</td>
<td>Laguna Madre</td>
<td>Student Forum</td>
</tr>
<tr>
<td>1:00 pm - 5:00 pm</td>
<td>Credenza Foyer Area</td>
<td>Registration</td>
</tr>
<tr>
<td>6:00 pm - 8:30 pm</td>
<td>Corpus Christi Ballroom B/C</td>
<td>Plenary Session</td>
</tr>
</tbody>
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*Welcome Reception with Dr. Stephen Murdock*
## Overview: Monday

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>Credenza Foyer Area</td>
<td>Registration</td>
</tr>
<tr>
<td>8:00 am - 9:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Climate Change 1</em>&lt;br&gt;<em>Energy 1</em>&lt;br&gt;Matagorda Copano</td>
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<tr>
<td>8:30 am - 10:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Biodiversity and Social Impacts</em>&lt;br&gt;<em>Laguna Madre</em>&lt;br&gt;<em>Nueces A</em>&lt;br&gt;<em>Nueces B</em>&lt;br&gt;<em>Nueces B</em>&lt;br&gt;<em>Aransas</em></td>
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<tr>
<td>9:00 am - 10:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Energy 2</em>&lt;br&gt;<em>Place Attachment 1</em>&lt;br&gt;Copano Matagorda</td>
</tr>
<tr>
<td>10:30 am - 12:15 pm</td>
<td>Corpus Christi Ballroom B/C</td>
<td><em>Plenary Session</em>&lt;br&gt;<em>Plenary on Energy: Dr. Tom Geehan; Dr. David E. Holt; Dr. Carey King</em></td>
</tr>
<tr>
<td>12:15 pm - 1:30 pm</td>
<td>Bayview</td>
<td>Editors' Luncheon</td>
</tr>
<tr>
<td>1:00 pm - 6:00 pm</td>
<td>Corpus Christi Ballroom B/C</td>
<td>Poster Session Setup</td>
</tr>
<tr>
<td>1:30 pm - 5:00 pm</td>
<td>Corpus Christi Ballroom A</td>
<td>Energy &amp; Environment Workshop</td>
</tr>
<tr>
<td>1:30 pm - 3:00 pm</td>
<td>Concurrent Sessions</td>
<td><em>Conservation and Environmental Governance</em>&lt;br&gt;<em>Copano</em>&lt;br&gt;<em>Nueces A</em>&lt;br&gt;<em>Nueces B</em>&lt;br&gt;<em>Matagorda</em>&lt;br&gt;<em>Aransas</em></td>
</tr>
<tr>
<td>3:30 pm - 5:00 pm</td>
<td>Concurrent Sessions</td>
<td><em>Indigenous Communities and Environmental Knowledge</em>&lt;br&gt;<em>Nueces A</em>&lt;br&gt;<em>Laguna Madre</em>&lt;br&gt;<em>Aransas</em>&lt;br&gt;<em>Nueces B</em>&lt;br&gt;<em>Copano</em>&lt;br&gt;<em>Matagorda</em></td>
</tr>
<tr>
<td>6:00 pm - 9:00 pm</td>
<td>Corpus Christi Ballroom B/C</td>
<td>Poster Session</td>
</tr>
</tbody>
</table>
Concurrent Session Detail: Monday 8:00 am - 9:00 am

**Energy 1**

*Opportunities and Barriers to Environmentally Friendly Energy Exploration and Production Practices in the Uinta Basin*
Theodori, GL (Sam Houston State University) et al.

*A Thematic Analysis of Local Respondents’ Perceptions of Barnett Shale Energy Development*
Wynveen, BJ (Clemson University)

*The Emergence of Landowner Coalitions in the Marcellus Shale of New York State*
Jacquet, J (Cornell University) et al.

**Climate Change 1**

*Lessons from Mexico’s National Payments for Ecosystem Services Program for the Targeting of REDD+ Initiatives*
Shapiro, EN (University of California, Berkeley)

*Understanding Social Resilience to Climate Variability in Resource Dependent Enterprises and Industries*
Marshall, NA (CSIRO)

*Vulnerable Communities in the Andes: Adaptation to Climate Change in an Era of Scarcity*
Flora, CB (Iowa State University) et al.

Concurrent Session Detail: Monday 8:30 am - 10:00 am

**Program Profiles and Development**

*The Road Ahead for Regional Governance: Lessons from the Australian Experiment 2002–08*
Morrison, TH (University of Queensland)

*Finding Common Ground: A Comparative Analysis of Collective Action Integrating Environmental, Natural Resource, and Rural Economic Issues in Minnesota*
Dahmus, ME (University of Wisconsin–Madison)

*Ten Years of the National System for Protected Areas in Brazil: Did We Move Forward Enough?*
Medeiros, R (Federal Rural University of Rio de Janeiro) et al.

*Social Indicators as a Planning and Evaluation Tool for Non Point Source Projects*
Prokopy, LS (Purdue University) et al.
Concurrent Session Detail: Monday 8:30 am - 10:00 am

**Biodiversity and Social Impacts**

- An Assessment of Post Conservation Resettlement Economic Livelihood of Residents in Royal Chitwan National Park, Nepal
  Dhakal, NP (University of Minnesota) et al.

- Residential Development and the Yellowstone River: Implications for Biodiversity Conservation Efforts
  Horton, CC (Texas A&M University) et al.

- Assessment of Effects of Socio-economic Factors on the Farm Tree Diversity (Agroforestry) in Pokhare Khola Watershed, Dhading, Nepal
  Balla, MK (Tribhuvan University, Institute of Forestry) et al.

- Unintended Consequences in Conservation: How Mitigation Efforts may Raise the Level of Conflict
  Skogen, K (Norwegian Institute for Nature Research) et al.

**Landscape Management and Planning**

- The Over-Developed Hot Spring Destinations in Mainland of China - A Case Study in Conghua, China
  Li, P (School of Geography and planning, Sun Yat-sen University) et al.

- Challenging the Traditional Forestry Extension Model: Insights from a Pilot Peer Learning Program in Western Massachusetts
  Ma, Z (Utah State University) et al.

- Exploring the Relationship Between Authenticity and Typicality
  Liu, C (National Taiwan University) et al.

- Examining Ecological Aesthetics-the Relationship Between Native Landscape Planting, Ecological Knowledge, and Familiarity
  Cheng, C (National Taiwan University) et al.

**Landowner Education and Management**

- Absentee Landowners Happen: Take Advantage
  Petzelka, P (Utah State University) et al.

- Digital Storytelling and Targeted Marketing to Educate and Engage Absentee Landowners in Swan Valley, Montana
  Horner, LA (Heritage Woodlands Consulting/ National Network of Forest Practitioners (NNFP)) et al.

- Learning and Adaptive Management Among Amenity Landowners: Prospects for Sustained Engagement with the Land
  Abrams, JB (Oregon State University) et al.
**Concurrent Session Detail: Monday 9:00 am - 10:00 am**

**Energy 2**

**Minimizing the Surface Impact of Energy Development in Environmentally Sensitive Areas**
Burnett, DB (Texas A&M University)

**Exploring Texans’ Conceptualization and Adoption of Hard, Soft, and Conservation Energy Paths as Ways to End America’s Dependence on Foreign Oil**
Smith, DC (Western Kentucky University) et al.

**Electric Conservation Using Economic Incentives: BC Hydro’s Large General Service Rate Design Model**
Mau, P (BC Hydro) et al.

**Place Attachment 1**

**Nature-Based Values and Attachment to Natural Landscapes**
Kyle, G (Texas A&M University) et al.

**Examining the Effects of Place Meaning on Environmental Fittingness of Landscape Facilities**
Lee, Y (National Taiwan University) et al.

**Cultural Variations in Green-space Openness Cognition and Preference**
Ho, Y (National Taiwan University) et al.
Concurrent Session Detail: Monday 1:30 pm - 3:00 pm

Conservation and Environmental Governance

Biosphere Reserves and Environmental Governance: Examples from Mexico
Brenner, L (Universidad Autónoma Metropolitana)

Buta, N (University of Florida)

Harnessing Markets to Promote Community Based Natural Resource Conservation and Development: Eco-palms in Southern Mexico and Northern Guatemala
Current, DA (University of Minnesota) et al.

Participatory-Deliberative Environmental Governance Across Borders
Klinke, A (Eawag, Swiss Federal Institute of Aquatic Science and Technology)

Public Participation and Policy Issues in Natural Resource Management

Who Litigates and Who Collaborates? Evidence from Grassroots Groups
Burke, C (North Carolina State University) et al.

Burning Through Organizational Boundaries? Examining Inter-organizational Communication Networks in Policy-mandated Collaborative Bushfire Planning Groups in New South Wales, Australia
Brummel, RF (University of Minnesota)

"Close to you I am turning green" - Long-term Effects of Stakeholder Participation in Combined Flood Prevention and River Restoration Projects
Menzel, S (Swiss Federal Research Institute WSL) et al.

Strategic Hypocrisy in the Tyranny of Or: The Politics of Debating and VS. or in New Zealand Land Reform
Brower, AL (Lincoln University)

Natural Resources and Community Livelihood

The Concept of Sustainability and the Social Influences of Sport Hunting on the Livelihoods of Local People: A Case Study of Bénoué National Park, Cameroon
Yasuda, A (The University of Tokyo)

Transfrontier Parks and Local Communities’ Livelihoods: A Crisis of Representation
Chaderopa, C (University of Otago)

Conservation and Development Through Commercialization: An Ex-ante Economic Analysis of a Rural Livelihood Alternative in Michoacán, México
Mishkin C., MM (University of Florida)

The Importance of Forests in Sustaining Livelihoods and Poverty Alleviation: A Case Study in Belize, Central America
Wyman, MS (Utah State University) et al.
Schedule Details
Concurrent Session Detail: Monday 1:30 pm - 3:00 pm

Community Forestry 1

Is it Always Better from the Bottom-Up? Polycentric Socio-Ecological Governance and Community Forestry
Bixler, R (Colorado State University)

Going to Scale: Community-based Forestry in the "Dry Forest" Zone
Davis, E (University of British Columbia) et al.

Influence of Support Projects on Local Participation in Community-based Natural Resources Management: A Case of Ambohilero Forest, Madagascar
Rakotondramanga, SF (United Graduate School of Agriculture, Tokyo University of Agriculture and Technology) et al.

The Role of Non-timber Forest Products in Rural Development in Zambia
Richardson, RB (Michigan State University)

Outdoor Recreation: Visitor Characteristics and Uses

Protected Attractions: Tourism and Wilderness
Wall Reinius, S (Mid Sweden University)

Spatial Analysis of Travel Routes for Wanders and Planners Using GPS Tracking
Beeco, A (Clemson University) et al.

The Appalachian Trail: How Many, Who, and What's It Worth to Them
Bowker, JM (USDA Forest Service) et al.
**Water Resource Management**

**Voluntary or Regulated: The Kansas Experience with Water**  
Triplett, JR (Pittsburg State University)

**Let the River Flow: Riparian Landholders’ Understanding and Use of Water from the Murrumbidgee**  
Mazur, NA (Charles Sturt University) et al.

**You Can't Drink Ethanol: Exploring Community Water System Capacity and Biofuel Facilities**  
Gasteyer, SP (Michigan State University)

**Watershed Management Lessons from Resource Dependent Communities**  
Ward, MM (The Pennsylvania State University) et al.

**Tourism 1**

**Environmental Value Orientation and Impact Perception of Domestic Visitors to Khao Yai National Park, Thailand**  
Phumsathan, S (Texas A&M University) et al.

**Quantifying the Role of Flagship Species Viewing in Visitor Satisfaction and Awareness: Implications for Applying Experience Based Management at Denali National Park**  
Skibins, JC (Clemson University) et al.

**A Study of Visitor’s Satisfaction in the Hong Kong Disneyland**  
Lo, H (Aletheia University) et al.

**Privately-operated Nature Preserves in China: A Case Study of the Tai Hu Yuan Scenic Area**  
Lu, J (Texas A&M University) et al.

**Psychological Responses to Urban Landscapes**

**Comparing Different Image Edge Extracting for Fractal Dimension in Landscape Preference**  
Su, A (National Taiwan University) et al.

**The Effect of Different Ways to Beautify the Viaduct on Drivers’ Psycho-physiological Response**  
Hsiao, C (National Taiwan University) et al.

**The Influence of Landscape Ecological Structures on Respondent’s Psycho-physiological Responses**  
Lee, C (National Taiwan University) et al.

**Perception of Disturbance and Naturalness in a Peri-urban Landscape: A Case Study of the Oak Ridges Moraine, Ontario**  
Ferrier, EA (University of Waterloo) et al.
**Water Resources and Policy Issues**

**Michigan Upper Peninsula Wetland Mitigation: Permit Compliance, Invasive Plant Species, and "No Net Loss"**
Kozich, AT (Michigan Technological University) et al.

**The Policy Failures of Avoidance in Wetland Policy**
Krogman, NT (University of Alberta) et al.

White, DD (Arizona State University) et al.

**Managing for Social-ecological Resilience: A Case Study in the Klamath Basin**
Paulekas, RN (Oregon State University)

**Indigenous Communities and Environmental Knowledge**

**Role of Ally Organizations in Promoting the Dissemination and Diffusion of Indigenous Perspectives in Environmental Discourse and Decision-making**
Manno, JP (State University of New York College of Environmental Science and Forestry) et al.

**Identifying Conservation Education Messages and Communication Strategies for Ethnic Communities: An Example of the Hmong Community**
Bengston, DN (Northern Research Station, US Forest Service) et al.

**'Everything in the Water Column is Connected': Traditional Ecological Knowledge System of Floodplain Fishers of Bangladesh and its Link to Adaptive Wetland Management**
Deb, AK (Natural Resources Institute, University of Manitoba)

**Traditional Knowledge and Perceptions of Ecosystem and Community Well-being in Two Alaska Native Communities**
Flint, CG (University of Illinois at Urbana-Champaign)

**Natural Resource Dependent Communities 1**

**Reshape Public Opinion into Governmental Natural Resource Management: The Chance and Challenge After Disaster**
Wang, M (University of Washington) et al.

**Conflict of Resource Governance in Zambia: A Longitudinal Analysis of the Mining Community**
Ishisone, M (The University of Tokyo) et al.

**Second Home Development: Understanding Residents, Context, and Implications**
Matarrita Cascante, D (Texas A&M University) et al.

**Characterizing the Human Dimensions of Oil Spills and Spill Response**
Webler, T (SERI) et al.
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>A New Tool for Measuring Community and Agency Social Capital</td>
<td>Allen, SD (NOAA Fisheries)</td>
</tr>
<tr>
<td>Sign Comparison Study a Sign Comparison Study of Visitor Behaviors and Resource Impacts at Cadillac Mountain, Acadia National Park</td>
<td>Baldwin, ED (Clemson University) et al.</td>
</tr>
<tr>
<td>Measuring Changes in Visitation Densities across America’s National Parks: An Application of the Gini Coefficient</td>
<td>Brownlee, MT (Clemson University) et al.</td>
</tr>
<tr>
<td>The Utility of Ecotourism Certification: The Role of Sustainability Principles and Practices in Online Marketing</td>
<td>Bustam, TD (USDA) et al.</td>
</tr>
<tr>
<td>The Impact of Ambient Odors on Anxiety and Affective States in Dental Patients</td>
<td>Chou, W (National Taiwan University) et al.</td>
</tr>
<tr>
<td>Motivations for Participation in Conservation Amongst Four Communities in Central America</td>
<td>Connesero Sánchez, TL (Northern Arizona University) et al.</td>
</tr>
<tr>
<td>Applying Social Network Analysis to Identify Stakeholders for Engagement in Human Dimensions of Natural Resources Research</td>
<td>Gorczyca, EL (University of Maine) et al.</td>
</tr>
<tr>
<td>Destination Image of Nature-based Parks: LOHAS Lifestyle and Living Hood</td>
<td>Hou, J (Tung-Hai University) et al.</td>
</tr>
<tr>
<td>Natural Gas and Wind Farm Development in the Armenia Mountain Region of Northern Pennsylvania</td>
<td>Jacquet, J (Cornell University)</td>
</tr>
<tr>
<td>Recreation Partnerships on National Forests: The Influence of Geographic Location on Collaborative Capacity</td>
<td>McCreary, AE (Southern Illinois University, Carbondale) et al.</td>
</tr>
<tr>
<td>Defining Sustainable Land Use: The Lay Person’s Perspective</td>
<td>Amberg, SM (Purdue University) et al.</td>
</tr>
<tr>
<td>Alternative Approaches to Development: Developer, City Staff, and Resident Perceptions of Low-Impact and Conservation Subdivision Designs</td>
<td>Bowman, TA (Iowa State University) et al.</td>
</tr>
<tr>
<td>Drivers of Decision: A Review of Grassland Management Techniques</td>
<td>Bruton, R (Texas A&amp;M University) et al.</td>
</tr>
<tr>
<td>Water Quality Research in Landscape: The Analysis Scale</td>
<td>Chang, C (National Taiwan University) et al.</td>
</tr>
<tr>
<td>Should the Wolves of Isle Royale be Genetically Rescued? Factors Influencing Public Support for Intervention</td>
<td>Clark, MA (Michigan State University) et al.</td>
</tr>
<tr>
<td>Human – Flamingo Conflict in the Camargue: Are the Claims in Proportion to the Real Impact?</td>
<td>Ernoul, LR (Tour du Valat) et al.</td>
</tr>
<tr>
<td>Managing the Family Forest in Mississippi</td>
<td>Gordon, JS (Mississippi State University)</td>
</tr>
<tr>
<td>Residential Pharmaceutical Drug Waste In Oregon: Using Policy to Mitigate Risks</td>
<td>Hubbard, ML (Oregon State University)</td>
</tr>
<tr>
<td>Fostering Credibility and Legitimacy Among Family Forest Stakeholders and Researchers to Promote Knowledge to Action</td>
<td>Lyons, PW (University of Maine) et al.</td>
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<td>Title</td>
<td>Authors</td>
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<tr>
<td>Economic Instruments for Forest Protection in Brazil: A Study Case on the Atlantic Rainforest</td>
<td>Medeiros, R (Federal Rural University of Rio de Janeiro) et al.</td>
</tr>
<tr>
<td>Pathways to Stewardship: A Framework for Community Engagement in Urban Forestry</td>
<td>Moskell, CS (Cornell University) et al.</td>
</tr>
<tr>
<td>Applying ROS to Okinawa, Japan</td>
<td>Nakajima, Y (Japan Travel Bureau Foundation) et al.</td>
</tr>
<tr>
<td>Evaluating the Economic Feasibility of a Trout Stocking Project at Pipestem State Park</td>
<td>Pierskalla, CD (West Virginia University) et al.</td>
</tr>
<tr>
<td>U.S. Forest Service Role in Open Space Conservation in Washington State</td>
<td>Pringle, R (University of Washington)</td>
</tr>
<tr>
<td>Involving Minority Underserved Landowners in Forest Management</td>
<td>Schelhas, J (USDA Forest Service) et al.</td>
</tr>
<tr>
<td>Interventions For Conservation of Age Old Sacred Groves in Central India</td>
<td>Shrivastava, AK (State Government Madhya Pradesh India)</td>
</tr>
<tr>
<td>Nylon or Aluminum... Does it matter? A Comparison of Factors in Camping Satisfaction Between Tent and RV Users</td>
<td>Smith, BL (Clemson University) et al.</td>
</tr>
<tr>
<td>Social Worlds of Rock Climbers at Seneca Rocks, West Virginia: Implications for Recreation Planning and Management</td>
<td>Thompson, KA (West Virginia University) et al.</td>
</tr>
<tr>
<td>Conservation and Development Through Commercialization: An Ex-ante Economic Analysis of a Rural Livelihood Alternative in Michoacán, México</td>
<td>Mishkin C., MM (University of Florida)</td>
</tr>
<tr>
<td>Assessing Scenic Quality of Urban Waterways: Creating a Foundation for Developing a Comprehensive Scenic Resource Management Tool for the Mississippi National River and Recreation Area</td>
<td>Mullan, M.S., CA (University of Minnesota) et al.</td>
</tr>
<tr>
<td>Examining Prospect-Refuge Theory in an Geometrical Garden</td>
<td>Ou, S (National Chung Hsing University) et al.</td>
</tr>
<tr>
<td>An Investigation of Awe: The Antarctica Tourism Experience</td>
<td>Powell, RB (Clemson University) et al.</td>
</tr>
<tr>
<td>Public Participation in Environmental and Conservation Issues in Indiana</td>
<td>Prokopy, LS (Purdue University) et al.</td>
</tr>
<tr>
<td>Forest Use and Restorative Perception: A Case Study in Three Recreational Forests in South Korea</td>
<td>Shin, W (Chungbuk National University)</td>
</tr>
<tr>
<td>Nature Conservation in Agricultural Landscapes - What Motivates Farmers to put New Approaches into Practice?</td>
<td>Siebert, R (Leibniz-Centre for Agricultural Landscape Re-</td>
</tr>
<tr>
<td>The Green in the Growth Machine: Laissez-faire Racism, Central Place Theory, and Access to Open Space</td>
<td>Smith, JW (North Carolina State University)</td>
</tr>
<tr>
<td>The Importance of Monitoring, Extracting of None Timber Forest Products (NTFP) for the Conservation of Protected Areas: Case Study in Ritigala Strict Nature Reserve, Sri Lanka</td>
<td>Wijayawardene, NN (Rajarata University of Sri Lanka) et al.</td>
</tr>
</tbody>
</table>
## Session Overview: Tuesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>Credenza Foyer Area</td>
<td>Registration</td>
</tr>
</tbody>
</table>
| 8:00 am - 9:00 am     | Concurrent Sessions | Climate Change 2  
                        Recreational Planning  
                        Copano  
                        Matagorda |
| 8:30 am - 10:00 am    | Concurrent Sessions | Land Use Planning  
                        Social Impacts on Recreation Areas  
                        Research  
                        Watershed Management  
                        Aransas  
                        Nueces A  
                        Laguna Madre |
| 9:00 am - 10:00 am    | Concurrent Sessions | Place Attachment 2  
                        Resource Restoration  
                        Matagorda  
                        Copano |
| 10:30 am - 12:00 pm   | Corpus Christi Ballroom B/C | Plenary Session  
                          "Nature in Human Development: From Childhood Maturation to Design of the Built Environment"  
                          Dr. Stephen R. Kellert |
| 12:00 pm - 1:30 pm    | Bayview           | Executive Council Meeting                                                      |
| 1:30 pm - 3:00 pm     | Concurrent Sessions | Community Forestry  
                        Growth of Tourism  
                        Research Methods and Tools  
                        Energy  
                        Nueces A  
                        Nueces B  
                        Matagorda  
                        Copano  
                        Laguna Madre  
                        Aransas |
| 3:30 pm - 5:00 pm     | Concurrent Sessions | Fisheries  
                        Management and Planning  
                        Conflict Management and Sustainability  
                        Landowner Values and Motivations  
                        Recreation Motivations  
                        Laguna Madre  
                        Matagorda  
                        Aransas  
                        Nueces B  
                        Nueces A |
| 6:00 pm - 8:00 pm     | Corpus Christi Ballroom B/C | Banquet and Keynote  
                          ISSRM Banquet and Keynote with Dr. Allen Rasmussen |
Recreation Versus Management

Promoting Recreational Use or Protecting the Resources? A Trail System Proposal for Ecological and Archaeological Sites to Serve Both Purposes
  Sayan, S (The University of Akdeniz) et al.

Managing in Contentious Arenas: An Analysis of Stakeholder Frames of ATV Management Options in Minnesota State Administered Public Lands
  Asah, ST (University of Washington) et al.

Disappearing Duck Hunters? The Influence of Personal and Management Factors on Waterfowl Hunter Retention
  Schroeder, SA (University of Minnesota) et al.

Climate Change 2

Risk and Vulnerability to Climate Change of a Coastal City: The Case of the Nautla Watershed, Veracruz, Mexico
  Laura C, R (El Colegio de Veracruz) et al.

Awareness of Site-specific Biophysical Change and Beliefs in Global Climate Change: Understanding Lake Recreationists’ Willingness to Conserve Water
  Brownlee, MT (Clemson University) et al.

Understanding Rural Landholder Responses to Climate Change
  Curtis, AL (Charles Sturt University) et al.

Land Use Planning

The Effects of Land Uses to Water Quality in Rural Areas
  Chang, C (National Taiwan University) et al.

Water Governance Reform and Pollution: Will it make Water Distribution More Equitable?
  Ballabh, V (XLRI School of Business and Human Resources)

Does Decentralized Forest Management Improve Livelihood of the Rural Community? Comparing Joint- and Community Based Forest Management in Babati, Tanzania
  Babili, IH (Sokoine University of Agriculture (Currently at Wageningen University)
Concurrent Session Detail: Tuesday 8:30 am - 10:00 am

**Research**

Dances with Ecologists: How Can Social Scientists Contribute more Effectively to “Coupled Systems” Research?
Brunson, MW (Utah State University)

A Working Framework for Conceptualizing and Addressing the “Human Dimensions” of Environmental Problems
Bruskotter, JT (The Ohio State University) et al.

An Empirical Comparison of Two Numerical Rating Scales of an Abbreviated Version of Schwartz’s Human Values Survey
Ward, JR (CSIRO) et al.

Gaps in Research on Asian Environmentalism: An Analysis of the World Value Survey
Choi, E (Oregon State University)

**Watershed Management**

The Great Indian Political Circus – The Water Management in the Indian Himalayas
Subramanian, SV (Centre for Development Research, University of Bonn)

Regional Water Transfer or Ecosystem Based Management: Exploring Policy Options for India’s Water Future
Pasi, N (State University of New York- College of Environmental Science and Forestry) et al.

Adaptive Collaborative Management: Testing Collaborative Tools and Exploring the Role of Systems Thinking in Watershed Management
Seales, L (University of Florida)

What is the Relationship Between Local Ecological Knowledge and Perceptions of Watershed Risks?
BouFajreldin, L (University of Illinois at Urbana-Champaign) et al.

**Social Impacts on Recreation Areas**

Recreational Boaters: Who are They and Can They Help in the Campaign Against Aquatic Invasive Species?
Davenport, MA (University of Minnesota) et al.

Non-market Valuation of Coastal Environment - Uniting Political Aims, Ecological and Economical Knowledge
Håkansson, C (Environmental Strategies Research (fms)) et al.

Wet Foot, Dry Foot: Exploring the Impact of Illegal Migrants on South Florida’s National Parks
Bentley, AL (Texas A&M University - College Station) et al.

A Synthesis of US, Austrian and German Social Carrying Capacity Methods and Implications
Burns, RC (West Virginia University) et al.
Schedule Details

Concurrent Session Detail: Tuesday 9:00 am - 10:00 am

Resource Restoration

**A Profile of the Forest and Watershed Restoration Economy in Oregon**  
Moseley, C (University of Oregon) et al.

**Processes Associated with Reforestation Near Public Lands**  
Moon, ZK (University of Arkansas) et al.

**Can Cological Restoration Reverse Human-driven Changes in Fire Ant and Native Harvester Ant Numbers?**  
Meza, J (Texas A&M University) et al.

Place Attachment 2

**Your Place Reveals Your Character — Exploring the Relationship Between Personality and Place Bonding**  
Wu, P (National Taiwan University) et al.

**Examining Natural Resource Conflicts Between Resource Users and Managers- A Case Study**  
Lai, P (University of Newcastle) et al.

**Place Attachment and Constraint Negotiation**  
Jun, J (Texas A&M University) et al.
Concurrent Session Detail: Tuesday 1:30 pm - 3:00 pm

Energy 3

**Resident Attitudes Towards Community Quality of Life in Oil Extraction Areas**
Chang, C (Utah State University) et al.

**Communicating the Science Behind Carbon Sequestration: A Case Study of U.S. Department of Energy and National Energy Technology Laboratory Websites**
Feldpausch-Parker, AM (Texas A&M University)

**Socio-Political Dimensions of Low-carbon Energy Technology: A Social Network Analysis of Carbon Capture and Storage**
Ragland, CJ (Texas A&M University) et al.

**Rancher Perceptions of Energy Development in Southwest Wyoming**
Lyon, KM (Colorado State University; U.S. Geological Survey, Policy Analysis and Science Assistance Branch) et al.

Methods in Program Evaluation

**Assessing the Overall Health of Interpretation and Education in the National Park Service**
Stern, MJ (Virginia Tech) et al.

**Analyzing Social Networks to Determine the Benefits of a Community Based Environmental Monitoring Research Project (GET WET!) in Natural Resource Management**
Thornton, TE (University of Maine) et al.

**FEATs Don't Fail Me Now: Development and Application of the Fishing Ecosystem Analysis Tool**
Allen, SD (NOAA Fisheries)

**The CESU Network by the Numbers: Past Successes and Future Directions**
Fish, TE (CESU Network) et al.

Research Methods and Tools

**Marine Resource Management at the Community Level: Using Social Network Analysis to Examine the Role of Influential Actors**
Gonzalez-Dorantes, CA (University of Washington) et al.

**Measuring Ecosystem Values and Services Using Public Participation Geographic Information Systems (PPGIS)**
Brown, GG (Central Washington University) et al.

**Material Flow Analysis as a Decision Support Tool for Efficient Material Use & Waste Management in Rural Areas of the Mongolian Gobi**
Hartmann, FA (Zurich University of Applied Sciences, Institute of Natural Resource Sciences) et al.
**Community Forestry 2**

- **The Role of Analysis and Deliberation in Community Preferences for Indicators of Sustainable Forest Management**
  Rodriguez, S (Oklahoma State University) et al.

- **Defining Community-Based Forestry in Penn’s Woods: The Public’s Role in Sustaining Our (Your?) Woods**
  luloff, ae (penn state) et al.

- **Flow of Loans Through Community Forestry Funds: Do Poor Benefit?**
  Pokharel, RK (Institute of Forestry Tribhuvan University)

- **A Multi-method Assessment of the Community Context of Human Response to Forest Disturbance by Mountain Pine Beetles in Colorado**
  Qin, H (University of Illinois at Urbana-Champaign) et al.

**Growth of Tourism**

- **The Roles of NGO in Tourism Governance**
  Liu, AY (Aletheia University) et al.

- **The Miss-Lou: Natural Resource Preservation Through Utilization. A Regional Tourism Initiative**
  Rachael Carter Mississippi State University Extension Service Cynthia Pilcher, LSU AgCenter
  Carter, R (Mississippi State University Extension Service) et al.

- **Toward a Life Style City: Tourism Involvement in City Regeneration – The Example of Anping Harbor National Historical Park, Tainan**
  Huang, MC (Aletheia University on Matou Campus) et al.

**Introduction to Using Land Planning and Regulatory Policy for Resource Conservation in Growing Places**

- **William Elmendorf (Penn State University)**
Concurrent Session Detail: Tuesday 3:30 pm - 5:00 pm

**Conflict Management and Sustainability**

*The Importance of Dialog in Adaptive Management: Analyzing the Discourse of Sustainability for Riparian Management on Public Lands*
   Arnold, JS (The University of Florida) et al.

*Knowledge Prioritization Among Stakeholders in the Conflict Over Greater Sage-grouse Management*
   Essen, M (University of Montana)

*Framing Sustainable Development in the Blue Ridge Mountains: How Stakeholders in one Sustainable Development Organization Cope with Frame-based Conflicts Related to Decision-making and Sustainability*
   Gervich, CD (Virginia Tech) et al.

*“Creating Space for Change”: Strengthening Ecological Farming and Fair Trade Practices in Western Mexico*
   Gerritsen, P (University of Guadalajara)

**Fisheries**

*Fishing off the Dock and Under the Radar: Subsistence Fishing in Southern California*
   Norman, KC (National Oceanic and Atmospheric Administration) et al.

*Validating the Concepts of Vulnerability and Resiliency in Fishing Reliant Communities: The Use of Mixed Methodologies Incorporating Primary and Secondary Data*
   Blount, BG (SocioEcological Informatics) et al.

*Integration of Social Sustainability Criteria into a Reporting Framework for the Australian Aquaculture Industry*
   Brooks, KJ (KAL Analysis Pty Ltd/ Visiting Fellow Australian National University) et al.

*Describing U.S. West Coast Commercial Fishing Communities by Targeted Fish Species and Commonly Used Fishing Gears*
   Russell, SM (National Marine Fisheries Service)

**Management and Planning**

*Adaptive Management and Adaptive Governance: What is the Difference?*
   Reis, KB (North Carolina State University) et al.

*Human Population Growth and Modeling Land Cover: Scenario Building for Planning and Wildlife Management*
   Montag, JM (USGS) et al.

*Using Different Platforms for Enhancing Public Participation in Community Planning: The Evaluation of Three Cases in Taiwan*
   Chuang, Y (The University of British Columbia) et al.

*Finding a Niche: Matching Agency Capabilities to Collaborative Group Needs*
   Belton, LR (Utah State University) et al.
Schedule Details

Concurrent Session Detail: Tuesday 3:30 pm - 5:00 pm

**Recreation Motivations**

Internal Motivations, Constraints and Facilitators Related to Bass Fishing along the Lake Ontario Coast
Brincka, MP (State University of New York College of Environmental Science and Forestry) et al.

The Effect of Values, Motivation and Service Quality on Satisfaction at Huisun Forest Recreation Area
Li, C (National Chung Hsing University) et al.

Efficacy of Theory of Planned Behavior in Predicting Big Game Hunting Intentions and Behavior
Shrestha, SK (West Virginia University) et al.

**Landowner Values and Motivations**

Using Beliefs in the Reasoned Action Framework to Improve Landowner Participation in a Voluntary Incentive Program
Sorice, MG (Texas A&M University)

Working Forest Conservation Easements: The Borderland between Forest Protection and Use
Lin, S (University of Washington)

Cutting the Trees to Save the Forest? Landowner / Expert Differences in Perceptions of Early Successional Forest Habitat
Stedman, RC (Cornell University) et al.

Balancing Wildlife and Bioenergy Values on Private Forestlands
Makinen, KJ (Michigan Technological University) et al.
### Schedule Details

#### Session Overview: Wednesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Topic</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 am - 5:00 pm</td>
<td>Credenza Foyer Area</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>8:00 am - 9:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Climate Change</em> 3&lt;br&gt;<em>Place Attachment</em> 3</td>
<td><strong>Matagorda</strong>&lt;br&gt;<strong>Copano</strong></td>
</tr>
<tr>
<td>8:30 am - 10:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Conservation Initiatives and Impacts&lt;br&gt;Environmental Education Programs&lt;br&gt;Environmental and Social Impacts of Policies and Programs&lt;br&gt;Landowner Perspectives</em></td>
<td><strong>Aransas</strong>&lt;br&gt;<strong>Nueces A</strong>&lt;br&gt;<strong>Laguna Madre</strong>&lt;br&gt;<strong>Nueces B</strong></td>
</tr>
<tr>
<td>9:00 am - 10:00 am</td>
<td>Concurrent Sessions</td>
<td><em>Place Attachment</em> 4&lt;br&gt;Renewable Energy</td>
<td><strong>Matagorda</strong>&lt;br&gt;<strong>Copano</strong></td>
</tr>
<tr>
<td>10:30 am - 12:00 pm</td>
<td>Concurrent Sessions</td>
<td><em>Environmental Awareness and Values&lt;br&gt;Planning for Social and Environmental Benefits&lt;br&gt;Urban Issues&lt;br&gt;Landowner Profiles and Motivations for Conservation&lt;br&gt;Tourism 2&lt;br&gt;Wildfire</em></td>
<td><strong>Aransas</strong>&lt;br&gt;<strong>Matagorda</strong>&lt;br&gt;<strong>Nueces A</strong>&lt;br&gt;<strong>Laguna Madre</strong>&lt;br&gt;<strong>Copano</strong>&lt;br&gt;<strong>Nueces B</strong></td>
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<tr>
<td>1:30 pm - 3:00 pm</td>
<td>Concurrent Sessions</td>
<td><em>NEPA in the Forest Service: Implications for the Agency, the Public, and the Environment&lt;br&gt;Agriculture&lt;br&gt;Recreation and Development&lt;br&gt;The Unifying Negotiation Framework: A Discourse-Based Model of Process Design&lt;br&gt;Biodiversity Conservation and Natural Resource Management&lt;br&gt;Residents' Attitude Toward Tourism</em></td>
<td><strong>Aransas</strong>&lt;br&gt;<strong>Copano</strong>&lt;br&gt;<strong>Matagorda</strong>&lt;br&gt;<strong>Nueces A</strong>&lt;br&gt;<strong>Laguna Madre</strong>&lt;br&gt;<strong>Nueces B</strong></td>
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<tr>
<td>3:30 pm - 5:00 pm</td>
<td>Concurrent Sessions</td>
<td><em>Natural Resource Management and Indigenous Communities&lt;br&gt;Developing and Assessing Sustainability Competencies: Building Capacity to Get Beyond the &quot;Tyranny of Or&quot;&lt;br&gt;The Future of Oregon Water: Developing an Integrated Water Resource Management Plan&lt;br&gt;Access to Private Lands&lt;br&gt;Visitor Place Attachment</em></td>
<td><strong>Matagorda</strong>&lt;br&gt;<strong>Laguna Madre</strong>&lt;br&gt;<strong>Aransas</strong>&lt;br&gt;<strong>Nueces B</strong>&lt;br&gt;<strong>Copano</strong></td>
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<tr>
<td>5:00 pm - 6:30 pm</td>
<td>Laguna Madre</td>
<td>IASNR Business Meeting</td>
<td></td>
</tr>
</tbody>
</table>
Schedule Details

Concurrent Session Detail: Wednesday 8:00 am - 9:00 am

**Place Attachment 3**  
Copano

*From Psychological Restoration in Nature to Ecological Behavior: The Role of Connectivity with Nature*  
Tang, I (National Taiwan University) et al.

*Community Attachment as Predictors of Concern for Watershed Issues in a Low Natural Amenity Landscape*  
Brehm, JM (Illinois State University) et al.

*Sense of Place as a Motivating Factor for Volunteering in Appalachian Watershed Groups*  
Lukacs, HA (Stanford University) et al.

**Climate Change 3**  
Matagorda

*To Plan or Pray: The Impact of Climate Change on Public Green Space*  
Weber, DL (University of South Australia) et al.

*Climate Change, Natural Hazards, Public Support, and Privatization: Contemporary Challenges to Cultural Resource Management*  
Bustam, TD (USDA)

*A Call to Action for Climate Adaptation: Integrating Social and Ecological Sciences to Increase Resiliency*  
Toman, EL (Ohio State University) et al.

Concurrent Session Detail: Wednesday 8:30 am - 10:00 am

**Conservation Initiatives and Impacts**  
Aransas

*U.S. Forest Service Role in Open Space Conservation in Washington State*  
Pringle, R (University of Washington)

*The Economic Impacts of Forest and Watershed Restoration in Oregon*  
Nielsen-Pincus, M (University of Oregon) et al.

*Participating in Conservation: Impacts of Conservation Training and Experiences on Emerging Conservation Professionals*  
Powell, RB (Clemson University) et al.

*A Systematic Investigation of the Factors that Contribute to Successful Conservation Outcomes*  
Wynveen, CJ (Clemson University) et al.
Environmental and Social Impacts of Policies and Programs

Assessing the Environmental and Social Impacts of Payments for Hydrological Services Programs in Coatepec, Mexico
Scullion, JJ (University of Washington) et al.

Institutional Commitment to Partnering within U.S. Forest Service: Expanding Complexities Beyond the “Free Labor” Concept.
Seekamp, E (Southern Illinois University) et al.

The Dynamic Protection of Rural Landscape in Eco Museum of China - With Citing Two Village, in the Longji Rice Terraces Guangxi Zhuang Autonomous Region, as an Instance
Kikuchi, M (Peking University) et al.

Using a Multi-disciplinary Approach to Assess the Costs and Benefits of Fisheries Spawning Closures in the Great Barrier Reef Coral Reef Finfish Fishery
Sutton, SG (James Cook University) et al.

Environmental Education Programs

Do Children Really Influence Parent Environmental Behavior?: An Intergenerational Knowledge Transfer Study
Straub, CL (University of Maine) et al.

Teasing Out the Details: How Social Learning Affects Collective Action in the Bolivian Amazon
Biedenweg, K (University of Florida)

Youth Wildfire Education in the United States: Reinventing Our Relationship to Fire, Community, and the Environment
Ballard, HL (University of California, Davis) et al.

Promotion Of Environmentally Friendly Practices in Uganda
Kiwanuka, RN (Joint Energy & Environment Projects (JEEP))

Landowner Perspectives

Fischer, AP (USDA Forest Service Pacific, Northwest Research Station)

Private Landowner Attitudes and Perceptions Concerning Carbon Sequestration on Utah Rangelands
Coppock, D (Utah State University) et al.

Forest Landowner Perspectives on Ecosystem Services in Southern Illinois
Hendee, JT (University of Illinois at Urbana-Champaign) et al.

A Case Study of Combining Coupled Social-Ecological System Modeling with Knowledge-to-Action Research: Agent-Based Modeling of Family Forests
Leahy, JE (University of Maine) et al.
Concurrent Session Detail: Wednesday 9:00 am - 10:00 am

Renewable Energy

Balancing Climate and Biodiversity for Renewable Energy Projects in Germany and the United States
Koeppel, J (Technische Universitaet Berlin, Germany) et al.

Geothermal Exploration and Community Perception: Episodic Change and Science-based Communication in a Chilean Case
Correa, LL (University of Texas at Austin / University of Chile) et al.

Between Will to Protect and Necessity of Change: The Role of Environmental Impact Assessments
Golobic, M (University of Ljubljana, Biotechnical Faculty)

Place Attachment 4

The Social and Cultural Aspects of Paddlefish Snaggers at Lake of the Ozarks
Morgan, M (University of Missouri) et al.

Sustainability as Connectedness: Conceptualizing the Human-environment Connections in Chilika Lagoon, India
Nayak, PK (University of Manitoba)

Social Psychological Factors Influencing Recreation Demand: Evidence from Two Recreational Rivers
Smith, JW (North Carolina State University) et al.
Concurrent Session Detail: Wednesday 10:30 am - 12:00 pm

*Environmental Awareness and Values*  
Aransas

**What Values Support Recycling? Focus Groups Get Their Say**  
Weber, LS (Texas A&M University)

**Education Efforts Within the Forestry Community: Influences of the Educator’s Values and Beliefs**  
Zimmerman, JA (University of Maine) et al.

**Czech Environmental Values Since 1989: Indicators of Ecological Modernization?**  
Vail, BJ (Masaryk University) et al.

**Natural Threats in the Lymelight: Understanding How People Perceive Risks Associated with Lyme Disease**  
Evensen, DT (Cornell University)

*Tourism 2*  
Copano

**An Assessment of Visitor Perceptions of Recreation Resource Impacts in the Bear Lake Corridor of Rocky Mountain National Park**  
D'Antonio, A (Utah State University) et al.

**Linkages and Differences Between Transportation and Recreation on a National Park Scenic Road**  
Hallo, JC (Clemson University) et al.

**Monitoring Pennsylvania State Forests Visitor Experiences: Using Survey Data to Inform Comment Cards**  
Covelli, E (The Pennsylvania State University) et al.

**Making Sense out of Variability in Recreation Experiences: Reconsidering the Goals of Experience Based Setting Management**  
Backlund, EA (St. Lawrence University) et al.

*Landowner Profiles and Motivations for Conservation*  
Laguna Madre

**Pennsylvania's Forests in Balance: Subdivision or Conservation of Private Forestlands**  
Longmire, CL (The Pennsylvania State University) et al.

**Evolution of Woodlot Owners’ Profile in Quebec and the Challenges it Poses to Woodlot Organizations and Government Agencies.**  
Nadeau, S (Natural Resources Canada)

**Sell, Conserve ... or Wait? Private Forest Landowners – Life In-Between**  
Gruver, JB (The Pennsylvania State University) et al.

**Cooperation and Natural Resource Management: Community-Based Vernal Pool Conservation Planning in Maine, USA**  
Jansujwicz, JS (University of Maine) et al.
## Schedule Details

**Concurrent Session Detail: Wednesday 10:30 am - 12:00 pm**

### Planning for Social and Environmental Benefits

**Societal and Environmental Benefits Derived from Using Landsat Satellite Imagery in Natural Resources Management**  
Miller, HM (U.S. Geological Survey) et al.

**Using Social Capital to Facilitate Community Preparedness for Wildfires**  
Bihari, M (University of Massachusetts Amherst) et al.

**On the Development of a Community Resilience Index**  
Reams, M (Louisiana State University) et al.

**Big Boys Don’t Cry?: Exploring the Changing Nature of Rural Masculinity and its Relationship to the Health & Well-being of Mobile Resource Workers in the Alberta Oilsands**  
Angell, AC (University of Alberta) et al.

### Urban Issues

**Urban Ecosystems and the Role of Household Choices: Behaviors, Their Influences, and Nutrient Flux Outputs**  
Nelson, KC (University of Minnesota) et al.

**The Fort Worth Nature Center & Refuge: A Case Study of Valuation Methods for an Urban Nature Center**  
Higgins, ME (Texas A&M University)

**Newtown and Beyond: An Examination of Environmental Threats in a Southern City**  
Johnson Gaither, CY (USDA Forest Service)

**Scaling and Governance in Peri-urban Areas. Matching Operational, Observational and Interpretative Scales for Effective Governance in a Case Study in the Netherlands**  
Padt, F (Wageningen UR) et al.

### Wildfire

**To Burn or Not to Burn: Confronting Issues of Ecological Degradation, Ranch Economics, Cultural Norms, and Burning Risk**  
Toledo, D (Texas A&M University) et al.

**Evacuation or Alternatives During Wildfire Events: Case Study Comparisons from the Western U.S. and Their Implications in a Post-"Black Saturday" Era**  
Paveglio, TB (University of Montana) et al.

**Longitudinal Analysis of Public Response to Wildland Fire and Fuel Management**  
Bennett, J (The Ohio State University) et al.

**Voices from the Field: Evidence of Stability and Change in the Role of Science and Scientists in U.S. Forest Service Planning**  
Predmore, A (Virginia Tech) et al.
**Agriculture**

**Views of Agriculture: Understanding Farmers’ Attitudes to Identify Strategies for Improving Rural Landscape Planning**  
Thompson, AW (Purdue University) et al.

**Improving NRM Literacy: Addressing Knowledge Gaps Among Farmers in Western Australia.**  
Howard, PJ (Social Dimensions Research) et al.

**Taro "Colocasia esculenta": It's Utilization in Food Products**  
Darkwa, S (University of Cape Coast)

**Stairways to Heaven? Alternative Food Systems as Drivers of Sustainability in 21st Century U.S. Agriculture**  
Jackson-Smith, D (Utah State University)

---

**Biodiversity Conservation and Natural Resource Management**

**Local Communities and Biodiversity? Assessing the Social Agenda of Connectivity Conservation in North America and Australia**  
Wyborn, C (Australian National University)

**From a State-owned Protected Area to a Sustainably Managed Watershed: A Case Study of the Llancahue Watershed, Chile**  
Moorman, MC (North Carolina State University) et al.

**Motivations for Participation in Conservation Amongst Four Communities in Central America**  
Connesero Sánchez, TL (Northern Arizona University) et al.

**It's Like Herding Monkeys into a Conservation Enclosure: The Formation of the Jozani-Chwaka Bay National Park, Zanzibar**  
Saunders, FP (Södertörn University)

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**Recreation and Development**

**Cyclists’ Risk Perception and Ramp of Facility**  
Wang, C (National Taiwan University)

**Dark Park Potential: Analysis of Prevalence and Possibilities of Night Recreation Opportunities in State and National Park Unit**  
Smith, BL (Clemson University) et al.

**Spatial Analysis of Conflict Classification by Craft Type for Table Rock Lake, Missouri**  
Jones, CD (Arizona State University) et al.
Concurrent Session Detail: Wednesday 1:30 pm - 3:00 pm

The Unifying Negotiation Framework: A Discourse-Based Model of Process Design

Stephen E. Daniels (Utah State University)

NEPA in the Forest Service: Implications for the Agency, the Public, and the Environment

Marc J. Stern (Department of Forest Resources and Environmental Conservation, Virginia Tech)
Dale Blahna (Pacific Northwest Research Station, U.S. Forest Service)
Clare Ryan (College of Forest Resources, University of Washington)
S. Andrew Predmore (Department of Forest Resources and Environmental Conservation, Virginia Tech)

Residents' Attitude Toward Tourism

The Construction of Attitude Scale for Ecotourism Development: A Case Study in the Pescadores, Taiwan
Wu, HC (National Taichung University,) et al.

Resident Perceptions Toward Tourism in the Big Bend Area, Texas
Doh, M (Western Illinois University) et al.

A Shift of Residents’ Attitude Toward Ecotourism Development in Penghu Islands: A Three-year Longitudinal Study
Su, M (National TaiChung University) et al.

People-Park Relationship in the Kgalagadi Transfrontier Park, Southwestern Botswana
Moswete, NN (University of Botswana) et al.
Concurrent Session Detail: Wednesday 3:30 pm - 5:00 pm

**Visitor Place Attachment**

*The Place Attachment of Visitors to Ningaloo Marine Park, North-Western Australia*
  Tonge, JM (Murdoch University)

*Differentiating Place Attachment Dimensions Among Proximate and Distant Visitors to Two Water-based Recreation Areas*
  Budruk, M (Arizona State University) et al.

*Remember the Alamo: What's Place Got to Do With It?*
  Lin, H (I-Shou University) et al.

**Natural Resource Management and Indigenous Communities**

*The Criteria and Indicator Process and Aboriginal Communities: Are Objectives Being Met?*
  Adam, M (UQAM) et al.

*Native American Environmental Values and Natural Resource Management Practices: Quileute Tribal Perspectives*
  Cole, ZD (University of Florida) et al.

*The Victor Diamond Mine Environmental Assessment Process: a Critical First Nation Perspective*
  Whitelaw, G (Queen's University) et al.

*Informing 'Free, Prior and Informed Consent:' Resistance to Gold Mining in Guatemala*
  Dougherty, ML (University of Wisconsin-Madison)

**Access to Private Lands**

*Broadening Definitions of Access to Natural Resources on Private Property: Dimensions Beyond Right of Entry*
  Ginger, CA (University of Vermont) et al.

*Modeling the Time to Forestland Development on Small Private Forestlands in Washington State Using Individual Parcel Characteristics, Individual Forest Landowner Attributes and Landowner Attitudes Towards Development*
  Rozance, MA (University of Washington) et al.

*Taking the Behavioral Assumptions Framework to the People: Policy Preferences Among Landowners, Interest Groups and Agency Employees Toward Recreation Access Incentives*
  Willand, MC (University of Maine) et al.

*Commercial Harvesting Decisions Among Private Forest Landowners: Perceptions, Parcelization, and Predicting Supply*
  Metcalf, AL (Penn State) et al.

Brent S. Steel (Oregon State University)
Erika Allen Wolters (Oregon State University)
Monika Hubbard (Oregon State University)
Kirsten Winters (Oregon State University)

**Developing and Assessing Sustainability Competencies: Building Capacity to Get Beyond the "Tyranny of 'Or'"**

Geoffrey B. Habron (Michigan State University)
### Schedule Details

**Session Overview: Thursday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Concurrent Sessions</th>
</tr>
</thead>
</table>
| 8:00 am - 9:00 am | Biodiversity and Sustainability  
Water Resource Use and Conservation | Matagorda  
Copano |
| 8:00 am - 9:30 am | Environmental Education: Local Knowledge  
Tourism 3  
Psychological Responses to Natural Landscapes | Laguna Madre  
Aransas  
Nueces |
| 9:00 am - 10:00 am | Conflict Management: Public Interests  
Environmental Education and Biodiversity Conservation | Copano  
Matagorda |

#### Concurrent Session Detail: Thursday 8:00 am - 9:00 am

**Water Resource Use and Conservation**

- Relationship of Distance to Water Source and Its Consumption in Rural Villages of West Bengal, India: Assessing Domestic Water Usage  
  Chowdhury, T (SUNY College of Environmental Science and Forestry) et al.

- Conserving Water in a Decade of Drought: An Analysis of Household Water Conservation in Tucson, Arizona  
  Springer, AC (University of Arizona) et al.

  Levinston, Z (CSIRO) et al.

**Biodiversity and Sustainability**

- Conservation and Development at Crossroads: Civil Society Movement in Pakistan  
  Khalid, IS (SUNY College of Environmental Science and Forestry)

- Multiple Approaches to Valuation of Low-impact and Conservation Subdivision Designs: A Case Study of the Ames, Iowa Housing Market  
  Bowman, TA (Iowa State University) et al.

- Prospects for Community-Based Conservation in the Tonle Sap Biosphere Reserve of Cambodia  
  Ou, C (Texas A&M University)
Concurrent Session Detail: Thursday 9:00 am - 10:00 am

**Conflict Management: Public Interests**

**Public Opinion About New Forms of Nature Conservation in the EU Member States**
Grodzinska-Jurczak, M (Jagiellonian University) et al.

**Integrating Local Community Interests into National Park Management in Germany**
von Ruschkowski, E (Leibniz Universitaet Hannover)

**Shoreline Management at Padre Island National Seashore: An Investigation of Angler Relationships to the Beach**
Aldrich, CL (National Park Service) et al.

**Environmental Education and Biodiversity Conservation**

**How Attitudes and Knowledge Influence Visitor Support for Control of Invasive Species on Cumberland Island National Seashore**
Sharp, RL (National Park Service) et al.

**Stakeholder Constructs of Cultural Ecosystem Services within a Framework for Forest Stewardship**
Bell, IC (University of Washington) et al.

**Indicators to Evaluate the Social Insertion Process of a Brazilian Park**
Pimentel, DS (Rio de Janeiro State University) et al.
**Tourism 3**

The Relationship Between Destination Personality and the Product of Visual Culture  
Shen, L (National Taipei University of Education) et al.

"Is it a Deja vu all Over Again?"—Understanding the Influence of Similar Past Travel Experiences on Tourists’ Destination Image  
Hsu, C (National Taiwan University) et al.

Are People Ready to Travel to New Orleans After Hurricane Katrina?  
Huang, Y (National Taichung University) et al.

Benefits of Environmental Volunteer Activities: Environmental Health and Human Health  
Chou, W (National Taiwan University) et al.

**Environmental Education: Local Knowledge**

Factors Influencing Residents’ Knowledge About the Urban Wildlands and the Potential for Alternative Dissemination Strategies for Informing Residents  
Martin, L (Texas A&M University) et al.

Latino Environmental Perceptions: Community and Natural Resources in Pennsylvania  
Gordon, JS (Mississippi State University)

Knowledge and Attitudes Toward Conserving Natural Resources Through Local Land Use Decisions in Northeastern Pennsylvania  
Wolyniak, BJ (The Pennsylvania State University) et al.

Urban Connections - Latino Legacy – Creating Connections Between Culture and Nature  
Stephens Williams, P (Stephen F. Austin State University) et al.

**Psychological Responses to Natural Landscapes**

The Benefits of Outdoor Activities for Children with Autism  
Chang, Y (National Taiwan University) et al.

Restorative Effects of Viewing Natural Landscape for Psychotic Patients  
Heng-Jui, H (National Taiwan University) et al.

To Extract Waterscape Preference Region with SVM Theory via Eye Tracking Technology  
Lee, S (National Taiwan Normal University) et al.

The Exploration on the Responses of Users in Virtually Natural Environments  
Lee, M (National Chin-Yi University of Technology) et al.
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